Draft
Environmental Impact Report
College Park Project

State Clearinghouse # 2003081156

April 12, 2004

Prepared for:

City of Upland
Community Development Department
460 N. Euclid Avenue
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Attn: Jeffrey A. Bloom

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NOTICE OF AVAILABILITY
COLLEGE PARK PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

The Draft Environmental Impact Report (EIR) for the College Park Project is now available for public review and comment. The project addressed in the Draft EIR proposes to establish a mixed-use development on a 38.69 acre site.

PROJECT LOCATION: The project site is located in the western portion of the City of Upland in San Bernardino County. The site is located southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The site is within the City of Upland, but proximate to the City of Claremont and Los Angeles County line on the west; a San Bernardino County unincorporated island to the north; Upland to the east; and the City of Montclair to the south. The Claremont Colleges lie northwest of the project site. The San Antonio Channel lies southeast of the site.

PROJECT DESCRIPTION: The proposed College Park project is a mixed-use development: commercial, and residential/recreational. The commercial element contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential/recreational element contains single-family detached and multi-family attached housing types as well as a greenbelt/recreational area.

AVAILABILITY OF THE DRAFT EIR: The Draft EIR is available for a 45-day public review period from April 13, 2004 to May 27, 2004. Written comments on the Draft EIR must be received by May 27, 2004 and should be addressed to:

Candida Neal, AICP, City Planner
City of Upland Community Development Department
460 No. Euclid Ave.
Upland, CA 91786

Copies of the Draft EIR are available for review at the following locations: City of Upland Community Development Department at 460 No. Euclid Avenue, Upland, and the City of Upland Public Library at 450 No. Euclid Avenue, Upland. For further information, please call (909) 931.4130 or visit the City Department of Community Development.

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April 12, 2004

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SECTION 1:
INTRODUCTION

1.1 - PURPOSE OF THE EIR

This Draft Environmental Impact Report (DEIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the development of the College Park Project. The City of Upland is the lead agency for the preparation of the EIR. This document is a project EIR and has been prepared in conformance with CEQA (California Public Resources Code Section 210000 *et seq*); California CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 *et seq*.); and the rules, regulations, and procedures for implementing CEQA as adopted by the City of Upland.

This draft EIR is intended to serve as an informational document for the public agency decision-makers and the general public regarding the objectives and components of the proposed project. This document will address the potentially significant adverse environmental impacts that may be associated with the planning, construction, or operation of the project, as well as identify appropriate feasible mitigation measures and alternatives that may be adopted to reduce or eliminate these impacts. This EIR considers a series of actions that are needed to achieve development of the proposed project. The actions currently being requested include approval of a specific plan, and tentative and final tract maps. Additional City approvals (i.e., site plan review, grading permits and building permits) will be needed. (A more detailed discussion of the potential project approvals is provided in Section 3.4 of this document.) In addition to the City, other public agencies (i.e., responsible and trustee agencies) may also use the information in the EIR in their decision making process as well as additional information that may be presented during the CEQA process. At this time, the Regional Water Quality Control Board (RWQCB) is identified as a potential agency that may use the information in this EIR for RWQCB approvals.

1.2 - SCOPE OF THE EIR

This EIR addresses the potential environmental effects of the proposed project. The scope of the EIR includes the issues identified in the Initial Study/Notice of Preparation (IS/NOP) prepared by the City, as well as issues raised by agencies and the general public in response to the NOP and during the scoping meeting.

Scoping Process

In compliance with the State CEQA Guidelines, the City of Upland has taken action to maximize the public's opportunity to participate in the environmental process. An NOP was distributed on August

28, 2003 via certified mail to agencies and other interested parties, soliciting comments and informing the public of the proposed project. The project was described, and the public was invited to review the NOP. Public comments on the issues discussed in the Initial Study were encouraged and solicited.

A public Scoping Meeting was held on September 3, 2003 to provide information related to the proposed College Park project and encourage early consultation with persons or organizations concerned with project environmental effects. Minutes of the Scoping Meeting are contained in Appendix A of this EIR.

The NOP and comment letters received during and after the NOP review period are contained in Appendix A. Agencies, organizations, and interested parties not previously contacted or who did not respond to the NOP currently have the opportunity to comment during the 45-day public review period on the Draft EIR.

1.3 - EIR FOCUS AND EFFECTS FOUND NOT TO BE SIGNIFICANT

Based on the findings of the IS/NOP, a determination was made that an EIR is required to address the potentially significant environmental effects of the proposed project. The scope of the EIR includes issues identified by the City of Upland during the preparation of the IS/NOP for the proposed project, as well as environmental issues raised by agencies and the general public in response to the IS/NOP and during the scoping meeting. The following are the potentially significant environmental effects identified during the preparation of the IS/NOP, which are addressed in Section 5 of this EIR.

- Land Use and Planning
- Geology and Soils
- Hydrology and Water Quality
- Traffic and Circulation
- Air Quality
- Noise
- Cultural Resources
- Hazards/Hazardous Materials
- Public Services and Utilities

The environmental issues that were determined not to be significantly affected by the proposed project and, therefore, do not require evaluation in the document, per Section 15063(c) of the State CEQA Guidelines, are as follows:

- **Aesthetics.** The project site and surrounding area has been substantially altered from its original natural condition due to former sand and gravel operations. Project implementation will not degrade the existing visual character of the site and surrounding areas. Project implementation will improve the visual character of the project site as it is transitioned from sand and gravel operations to commercial, residential, and recreational uses.

New exterior lighting is to be provided to enhance the safety and security of motorists, pedestrians, and cyclists for the commercial, residential, and recreational components. All lighting will be in compliance with the Upland Municipal lighting standards, ensuring that the height and intensity of lighting does not create substantial spillover to adjacent property. Project impacts in terms of aesthetics, visual characteristics, and light and glare are considered to be less than significant.

- **Agricultural Resources.** The project site, zoned for Light Industrial, is a former sand and gravel quarry. Since the site does not contain any agricultural resources and is not zoned for agricultural use, the project would not convert prime farmland, unique farmland, or farmland of statewide importance to non-agricultural uses and would not conflict with zoning for agricultural use. Additionally, the proposed project would not conflict with a Williamson Act contract. The proposed mixed-use project would not involve changes to the existing environment that would result in the conversion of farmland to a non-agricultural use. Project impacts on agricultural resources are considered less than significant.

- **Biological Resources.** A Biological Resources Analysis of the project site was conducted by Michael Brandman Associates (See Appendix A). A small 2-acre area of Riversidean sage scrub, contained in the northwestern corner of the property, was noted during the field survey. This area of Riversidean sage scrub is considered isolated and previously disturbed based on its monotypic vegetation coverage.

  Several sensitive species were identified in the literature review covering a 7-mile radius, including the California Gnatcatcher. However, the likelihood that sensitive species occur within the project site is extremely low due to lack of suitable habitat.
  The Biological Resources Analysis (Appendix A) notes the absence of riparian or wetland areas, indicating that there are no areas of either US Army Corps of Engineers (USACE) or California Department of Fish and Game (CDFG) jurisdiction on the site. The quarry area within the project site does not contain any connectivity to adjacent drainage features. Some drainage is currently accepted from the north, but there is no evidence of connectivity to any downstream drainage feature.

  Because no natural watercourses or bodies are contained within the project site, no impacts to fish habitat will occur. Due to the disturbed nature based on past quarry activity, the site is not considered a wildlife corridor. Development of the site for mixed use will not conflict with any local applicable policies protecting biological resources or with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan. Project impacts on biological resources are considered less than significant.

- **Population and Housing.** The proposed project includes 50 single-family and 448 multi-family dwelling units within the residential component of the proposed mixed-use development. The addition of 498 dwelling units to the existing housing stock in the City

(25,467 housing units [1]) represents an increase of 2%. Approximately 1,375 persons [2] will be introduced on the project site, although this is not viewed as substantial population growth, representing an increase of only 2% to the existing population in the City of 68,393 [3]. No new roadways will be constructed to access the project site. Further development and unplanned growth will not be facilitated as a result of project implementation. The introduction of 498 residential units is considered a less than significant impact in terms of population and housing since it will not substantially increase population and housing in the City of Upland.

- **Recreation.** The development of 498 residential units will introduce new population to the area, which will incrementally increase the demand for recreation services. The proposed project contains a recreational component, and project development will be subject to park fees, which would reduce recreational impacts to a level that is considered less than significant (Refer to Section 5.1, Land Use and Planning, for a discussion of existing recreation facilities and demand for parkland generated by the proposed project - Open Space/Conservation Element Subsections.)

1.4 - COMPONENTS OF THE EIR ANALYSIS

The analysis of each environmental category within Section 5 is organized into the following subsections: Existing Conditions, Thresholds of Significance, Project Impacts, Cumulative Impacts, Mitigation Measures, and Level of Significance After Mitigation.

- "Existing Conditions" describes the physical environmental conditions that exist at the time of publication of the notice of preparation [Guidelines 15125(a)], and which constitute the baseline physical conditions that determine whether an impact is significant.
- "Thresholds of Significance" presents criteria for establishing the significance of potential impacts (derived from Appendix G of the CEQA guidelines).
- "Project Impacts" describes potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented.
- "Cumulative Impacts" describes the potential changes in environmental conditions which result from the incremental impact of the proposed project when added to other closely related past, present and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.
- "Mitigation Measures" are those specific measures that may be required of the project by the decision maker in order to: (1) avoid an impact; (2) minimize an impact; (3) rectify an impact

[1] www.dof.ca.gov (Department of Finance, Demographics Research Unit), Report E-5, Table 2.

[2] Based on a 2.762 persons per household figure for the City of Upland obtained from Report E-5, Table 2, 498 housing units would generate approximately 1,375 persons.

[3] www.dof.da.gov, Report E-5, Table 2.

by restoration; (4) reduce or eliminate an impact over time by preservation and maintenance operations; or (5) compensate for the impact by replacing or providing substitute resources or environment.

- "Level of Significance After Mitigation" describes the remaining significant adverse impacts identified where mitigation measures are not expected to reduce the project impacts to a level of less than significant.

Consistent with requirements of CEQA Guidelines 15126.6, this EIR analyzes a reasonable range of alternatives that could feasibly attain the basic objectives of the project, and evaluates the comparative merits of the alternatives.

This EIR includes an evaluation of the following alternatives to the proposed project: (1) a No-Project/No Development alternative; (2) a No Project/Development in Accordance with Existing General Plan and Zoning Designations alternative; and (3) a Reduced Development Intensity alternative.

1.5 - PROJECT SPONSORS AND CONTACT PERSONS

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

Lead Agency:	City of Upland Community Development Department Jeffrey A. Bloom, Director 460 No. Euclid Avenue Upland, CA 91786 909.931.4130
Environmental Consultant:	Michael Brandman Associates Emilie L. Johnson, AICP, REA, Project Manager 220 Commerce, Suite 200 Irvine, CA 92602 714.508.4100
Applicant:	Hutton Development Company Savoy M. Bellavia, Vice-President 3505 Cadillac Avenue, Bldg. O-110 Costa Mesa, CA 92626-1435

1.6 - REVIEW OF THE DRAFT EIR

This Draft EIR (DEIR) was distributed to responsible and trustee agencies. The DEIR will be available for review by all interested parties in accordance with Public Resources Code 21092(b)(3) at the City of Upland Community Development Department. In addition, during the 45-day public review period, the EIR and all technical appendices are available for review at the following location:

City of Upland
Community Development Department
460 No. Euclid Avenue
Upland, CA 91786

The Notice of Completion of the DEIR was also distributed as required by CEQA. Agencies, organizations, and individuals are invited to comment on the information presented in the DEIR during the public review period. Specifically, comments are requested on the scope and adequacy of the environmental analysis. Respondents are also asked to provide additional environmental information that is relevant but they feel may not have been used in the environmental analysis.

Written comments on the Draft EIR should be addressed to Jeffrey A. Bloom, Director at the above address.

Upon completion of the 45-day public review period, written responses to all substantive environmental issues raised will be prepared and available for review at least 10 days prior to the Upland Planning Commission meeting to deliberate certification of this EIR. These comments and their responses will be included as part of the Final EIR for consideration of certification by the decision-makers.

1.7 - INCORPORATION BY REFERENCE

The City of Upland has prepared a Water Supply Assessment (WSA) for the College Park project site, as required by Sections 10910 and 10911 of the State of California Water Code. The WSA for the College Park site is hereby incorporated by reference and is available for review in the City of Upland Community Development Department. The Public Water Supplier Certification, as contained in the WSA, is contained in Appendix J of this EIR.

1.8 - MITIGATION MONITORING PROGRAM

CEQA requires public agencies to set up monitoring report programs for the purpose of ensuring compliance with those mitigation measures adopted as conditions of approval in order to mitigate or avoid significant environmental effects as identified in the EIR. A mitigation monitoring program,

incorporating the mitigation measures set forth in this document, will be adopted at the time of certification of the EIR.

SECTION 2:
EXECUTIVE SUMMARY

2.1 - PROPOSED PROJECT

The project site encompasses 38.69 acres. The proposed College Park project consists of three components: commercial, residential, and recreational. The commercial component of the project, occupying 11.39 acres, contains the following elements. Building square footage (sf) is indicated in parantheses:

- a service station/mini mart (16 fueling positions, 3,900 sf);
- a retail center (40,435 sf);
- a hotel (51,080 sf, 102 rooms);
- a garden office building (48,000 sf).

The residential component of the project, occupying 22.67 acres, contains 50 single-family detached dwelling units and 448 multi-family attached dwelling units. The recreational component, occupying 1.05 acres, contains a greenbelt/recreational area. Streets and dedications will occupy 3.58 acres. Required City approvals for the project are detailed in Table 2-1.

Table 2-1: Approval Authority Matrix

Type of Action	Administrative Review Committee	Planning Commission	City Council
Certificates of Compliance	X		
Conditional Use Permits[1]		X	
Final EIR Certification		X	X
Environmental Review	X		
Extensions of Time	X		
Lot Line Adjustments	X		
Site Plans	X		
Specific Plan Adoption			X
Specific Plan Amendments			X
Specific Plan Minor Adjustments	X		
Tentative Parcel Maps		X	
Tentative Tract Maps		X	
Variances		X	

[1] The following uses are allowed in the commercial component, subject to approval of a conditional use permit by the Planning Commission: a) Billiard and Pool Halls; b) Car Washes (except ancillary to a gas station/mini-mart); c) Establishments that serve alcoholic beverages as the primary use; d) Drive-through facilities; e) Hotels.

2.2 - AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

This EIR addresses nine primary issues: land use and planning, geology and soils, hydrology/water quality, traffic and circulation, air quality, noise, cultural resources, hazards and hazardous materials, and public services and utilities. During the scoping meeting for the proposed project, no areas of controversy were identified. There are no apparent substantial environmental issues that need to be resolved.

2.3 - SUMMARY OF ALTERNATIVES

Alternatives have been developed to avoid or substantially lessen environmental impacts of the proposed project. Section 15126.6 of the CEQA Guidelines, "states that an EIR shall include a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Section 8 provides descriptions and analysis of each alternative in adequate detail to allow the decision-maker to decide whether or not an alternative should be adopted in lieu of the proposed project. The alternatives evaluated in the following EIR are as the follows:

- No Project/No Development Alternative

- No Project/Development in Accordance with Existing General Plan and Zoning Designations Alternative
- Reduced Development Intensity Alternative

These alternatives are described as follows:

No Project/No Development Alternative

The No Project/No Development Alternative assumes that no development would occur on the 38.69-acre project site. The project site would remain vacant and undeveloped upon completion of reclamation activities, taking place under a separate permit. The Vulcan asphalt batch plant immediately south of the project site would continue operations indefinitely. While no other development would be permitted under this alternative, the underlying General Plan and zoning designations would be retained, thereby allowing development of the project site in the future.

No Project/Development In Accordance With Existing General Plan and Zoning Designations

A variety of land uses may be operated within the parameters of the designated General Plan land use and zoning. The City of Upland General Plan Land Use Element designates the project site as Commercial/Industrial-Special Use Permit (C/I-S). The City of Upland Zoning Code designation for the project site is "ML" Light Industrial. The "ML" light industrial zone is intended for the development of industrial uses and to provide locations for "Industrial Planned Unit Development" (MPUD's). MPUD's are large scale developments developed by a single owner or group of owners acting jointly involving a related group of uses, planned as an entity and having a predominant developmental feature. Under this alternative, the project site would be developed as an industrial park. Allowable uses in the "ML" light industrial zone, as specified in City Zoning Code Sections 9473.010 through 9473.150, are:

- Manufacturing industries
- Transportation facilities
- Communications facilities
- Utilities
- Wholesale trades
- Retail uses
- Finance, insurance and real estate services
- Personal services
- Business services
- Repair Services
- Contract Construction Services

Reduced Development Intensity Alternative

The Reduced Development Intensity Alternative would be a mixed use project, but would represent a reduction in overall development intensity within the project site. While similar to the proposed project, the Reduced Density Alternative would result in a 20% intensity reduction within each individual use. Building sizes within the existing development footprint would be reduced. Square footage and units by use category would be as follows:

- 35,468 commercial sf
- 82 rooms/40,864 hotel sf
- 38,400 office sf
- 40 single-family dwelling units
- 358 multi-family dwelling units

2.4 - SUMMARY OF SIGNIFICANT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table 2-2 summarizes the potential environmental effects of the proposed project, the recommended mitigation measures, and the level of significance after mitigation. After the implementation of the recommended mitigation measures, only air quality impacts remain significant. The City will be required to adopt a statement of overriding considerations in accordance with CEQA Section 21081.

Impacts of the project are classified as (1) NS, not significant (adverse effects that are not substantial according to CEQA, but may include mitigation); (2) S, significant (substantial adverse changes in the environment); (3) PS, potentially significant (potential substantial adverse changes in the environment). Project design features are listed for impacts when feasible and appropriate. The EIR also identifies other effects, which are either not considered significant or are beneficial effects of the proposed project, but these are not the focus of this summary. The reader is referred to the full text of this EIR for a description of the environmental effects of the proposed project and the feasible mitigation measures that are recommended.

Table 2-2: Summary of Environmental Impacts and Mitigation Measures

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
5.1 LAND USE AND PLANNING Land Use and Planning impacts are not significant. See Section 5.1 for evaluation of impacts.		
5.2 GEOLOGY AND SOILS **Fault Movement/Ground Shaking** A number of active faults in the nearby region have been identified. Earthquake generated groundshaking is considered the most pervasive and critical earthquake factor for project design. (PS)	**GS-1.** Prior to the issuance of grading and building permits, the applicant shall complete a geotechnical investigation for the project site to establish earthquake parameters for design and construction of project structures. This report shall be subject to review and approval by the City of Upland. **GS-2.** The project shall conform to the geotechnical criteria contained in the Geotechnical Report of Rough Grading (1998) prepared by Morhol, Inc. for foundation and pavement design, trench backfilling, and surface drainage, for incorporation into project design and construction. **GS-3.** Any undocumented fill will be removed and replaced by properly compacted fill soils, utilizing removed fill as possible. The replaced fill soils will be compacted in accordance with accepted standards and under the observation and testing of a licensed geotechnical engineer. **GS-4.** All site grading shall be observed and tested by the project geotechnical consultant. **GS-5.** Materials to be imported for placement as fill shall be sampled and approved by the Geotechnical Consultant prior to being brought on-site. **GS-6.** Precise grading and improvement plans shall be reviewed by the geotechnical consultant prior to construction. Geotechnical parameters contained in the Morhol Report for preliminary foundation design shall be verified by the geotechnical consultant after	Not Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	completion of precise grading operations.	
Surface Fault Rupture		
The potential for surface fault rupture near the property is considered to be substantial, due to the existence of the San Jose Fault near the northwest corner of the property. (PS)	Measures **GS-1** through **GS-6**, as previously stated.	Not Significant.
Seismically-Induced Settlement		
The site is being filled under a separate permit to allow for the proposed development project. The fill dirt added to the site will meet compaction requirements specified within the Morhol geotechnical evaluation. Adherence to standard construction requirements will result in a less than significant impact for seismically-induced settlement. (NS)	Measures **GS-3** through **GS-5**, as previously stated.	Not Significant.
5.3 HYDROLOGY AND WATER QUALITY		
Water Quality		
Surface Waters		
Clearing, grading, excavation and construction activities associated with the proposed project may impact water quality due to sheet erosion of exposed soils and subsequent deposition of particles and pollutants in drainage areas. The use of materials such as fuels, solvents, and paints also present a risk to surface water quality due to an increased potential for non-visible pollutants entering the storm drain system. Development of the proposed project may result in long-term impacts to the quality of storm water and urban runoff, subsequently impacting downstream water quality. New development generally alters the existing drainage course, increases the area of impervious surface, and creates potential sources for runoff contamination. (PS)	**HWQ-1.** Under the Statewide General Construction NPDES Permit (Order 92-08-DWQ), the project proponent must submit a Notice of Intent (NOI) to the State Water Resources Control Board (SWRCB) prior to commencement of construction activities. In addition, a SWPPP must be prepared and implemented at the project site, and revised as necessary as administrative or physical conditions change. The SWPPP must describe Best Management Practices (BMPs) that address pollutant source reduction and provide measures/controls necessary to mitigate potential pollutant sources. These include, but are not limited to: erosion controls, sediment controls, tracking controls, non-storm water management, materials & waste management, and good housekeeping practices. **HWQ-2.** The following measures addressing post-construction storm water management shall be implemented:	Not Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	a) In conformance with WDR Order No. R8-2002-0012, NPDES Permit No. CAS618036, the San Bernardino County NPDES Permit, the College Park project will implement various non-structural and structural Best Management Practices (BMPs) to ensure that long-term water quality is protected from the daily operations of its proposed improvements. Compliance with this standard requires that control measures be incorporated into the design of new development to reduce pollution discharges in site runoff over the life of the project. b) A Water Quality Management Plan (WQMP) shall be prepared pursuant to the County Municipal Stormwater Management Program (MSWMP) for City and County review and approval. The WQMP will outline the BMPs to be used to satisfy storm water discharge criteria for the post-construction phase of the project. c) BMPs for the post-construction operations of the proposed site, to be documented in the project WQMP, shall adhere to the following guidelines for proper design and use of these BMPs in Section XII.C. of the San Bernardino County MS4 Permit: (1) not be implemented in industrial or high vehicular traffic areas (25,000 or greater average daily traffic); (2) be located at least 100 feet from water supply wells; (3) maintain a distance of at least 10 feet from the high groundwater mark; (4) not cause a nuisance or pollution as defined in Water Code Section 13050; and (5) incorporate source control and pollution prevention BMPs to protect groundwater quality. d) The following combination of site design and source control mitigation measures shall be implemented: • For the service station, the fuel dispensing area shall be properly designed. The area	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	shall be paved with Portland cement concrete, or equivalent, with a 2 to 4 percent grade to prevent ponding. It shall also be designed to prevent run-on of storm water into the area. The dispensing area shall be canopied and the roof drainage must not enter the area. • Trash containers in the fuel dispensing area shall also be properly protected from run-on. • All trash containers located around the commercial buildings and residential areas shall have roof drainage diverted around them and should be leak proof with covers. • All proposed catch basins shall be stenciled with "No Dumping - Flows to Creek" or other equally effective message, and inlet trash racks should be considered. • Runoff from impervious areas shall be diverted to landscaped areas wherever possible (i.e. stormwater planters). • Semi-permeable pavement shall be considered for applicable hardscape areas, where feasible. • Each restaurant shall have contained areas, floor sinks, and mop sinks all connecting to the sanitary sewer for disposal of wash waters. In addition, the contained areas shall be covered to prevent storm water contact. Outdoor storage of materials should have secondary containment and shall be protected from storm waters. • Parking lots and streets shall be swept on a routine basis (i.e. monthly) • Efficient irrigation systems that minimize	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	runoff and evaporation, and maximize the water that would reach the plant roots, such as a dripline system shall be installed. • Timed irrigation systems shall be provided for water conservation in all community or public serving areas. • Mulch shall be used to the extent feasible in all landscape areas to minimize soil erosion. • The project developer and homeowners' association(s) shall adopt Integrated Pest Management (IPM) programs for use on their own public grounds to reduce pesticide and fertilizer use at the source. Use of the IPM programs shall be promoted to project residents through the homeowner association(s). • "Pooper-scooper" regulations shall be included in CC&R's to require proper disposal of animal waste and prevent additional bacteria loading into storm water. • Exposed surfaces shall be stabilized with permanent measures such as hydroseed and vegetation as soon as practical after completion of final grading. • Car wash racks shall be provided if car washing is to be allowed in the high-density multi-family areas. • Homeowner/Tenant stormwater education material shall be distributed by the homeowner association(s). • An agreement between the project applicant/developer, the homeowner association(s), and the City of Upland shall	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	be executed citing maintenance requirements for all water quality structural BMPs (catch basin inserts, storm drain inserts, landscaping areas), maintenance schedules, and funding sources. **HWQ-3.** Final engineering plans addressing project drainage improvements shall draw from the following list of recommended measures: • Drainage from the building sites shall be directed toward the street in non-erosive drainage devices. • Building pads shall have sufficient height above the curb to drain toward the street on a slope of two percent. • Slopes shall be graded so that runoff of surface water is minimized. **HWQ-4.** Permanent drainage facilities shall be constructed to the satisfaction of the City Engineer. As proposed, these facilities include: • Underground storm drains with a local sump capacity for a 25-year conveyance and combined capacity of storm drains and street right-of-ways for 100-year flood protection. • Roof runoff collected in a rain gutter and downspout system and directed to approved areas via non-erodible conductors or stormwater planters. **HWQ-5.** Proposed project shall adhere to applicable provisions of the City Engineering/Public Works Department and the County of San Bernardino Public Works Department.	
Consistency with Applicable Regulatory Requirements The proposed project is subject to the storm water discharge requirements of the General Construction Permit (GCP). The project will require National Pollutant Discharge Elimination System (NPDES) permit coverage prior to the commencement of soil	Measures **HWQ-1** through **HWQ-5**, as previously stated.	Not Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
disturbing activities. The proposed project is, therefore, subject to the requirements of the San Bernardino County MS4 Permit (issued by the Santa Ana Regional Water Quality Control Board) as it is applied to the permittee and its co-permittees. As required by County and City water quality ordinances, the proposed project must submit a Water Quality Management Plan (WQMP) to the City of Upland that outlines approved post-construction BMPs selected for the project to reduce pollutants in post-development runoff to the best available technology/best convential technology (BAT/BCT) performance standard. (NS)		
5.4 TRAFFIC AND CIRCULATION The College Park project will generate a total of approximately 11,130 daily trips with 725 vehicles per hour during the AM peak hour and 799 vehicles per hour during the PM peak hour. **Year 2006 Traffic Conditions** The project will contribute to significant impacts to the transportation network and traffic circulation at the following intersections: • Central Ave. at Foothill Blvd. (San Bernardino County) • Monte Vista Ave. at Baseline Rd. (City of Claremont) • Towne Ave. at Foothill Blvd. (City of Claremont) (S)	**TR-1.** The project applicant shall contribute its fair share toward local off-site traffic improvements to the following intersections: • Mills Avenue at Foothill Blvd. • Monte Vista Avenue at Foothill Boulevard • Central Avenue at Foothill Boulevard • Claremont Boulevard at Arrow Route • Claremont Boulevard at Arrow Highway • Monte Vista Avenue at Arrow Highway • Claremont Boulevard at Moreno Street • Monte Vista Avenue at the I-10 eastbound ramps • Monte Vista Avenue at San Bernardino Avenue • Towne Avenue at Foothill Boulevard • Monte Vista Avenue at Baseline Road A listing of off-site traffic improvements needed in 2206 and 2025 are contained in Draft EIR Tables 5.4-	Not Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	11 and 5.4-12, respectively. On-site improvements will be required in conjunction with the phasing of the proposed development to ensure adequate circulation within the project itself. The fair share contribution of all off-site improvements and timing of all onsite traffic improvements shall be incorporated into the conditions of approval for the project. Fair share contribution for intersections within the City of Upland will be collected by the City. The mechanism to collect fair share contributions for intersections outside City boundaries will be determined through discussions with the City of Upland and surrounding jurisdictions. Confirmation that the project has met it's fair share contribution for traffic improvements shall be required prior to the issuance of building or occupancy permits, as determined by the Community Development Director. **TR-2.** Cost estimates for off-site traffic improvements using the percentage of project costs shown in Draft EIR Table 5.4-13 shall be prepared and the cost of the project fair share contribution shall be submitted to the City prior to Conditional Use Permit (CUP) approval for the project. **TR-3.** Final design plans and specifications for the improvements to Arrow Route and Monte Vista Avenue adjacent to the site will be developed in accordance with City Standards and submitted to the City for review and approval **TR-4.** The project applicant shall be responsible for construction and installation of traffic signalization, related roadway and median improvements, and landscaping resulting from signalization at the intersections of Arrow Route and College Park, and Monte Vista Drive and Street "A".	
Year 2025 Traffic Conditions ***Roadway Intersections*** The 2025 intersection analysis indicates that the	Measures **TR-1** and **TR-2**, as previously stated.	Not Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
College Park project will further exacerbate predicted deficient conditions at area roadway intersections. The proposed project will contribute additional traffic to the following intersections, anticipated to be below acceptable LOS values without project traffic: • Monte Vista Ave. at Arrow Highway (City of Montclair) • Claremont Blvd. at Arrow Highway (City of Claremont) • Mills Ave. at Foothill Blvd. (City of Claremont) • Indian Hills Blvd. at Foothill Blvd. (City of Claremont) (S) ***Freeway Segments*** The proposed project will result in significant impacts to the freeway system in the following location: • I-10 Freeway Eastbound: - Towne Av-Indian Hills Blvd. - Indian Hills Blvd-Monte Vista Av • I-10 Freeway Westbound: - Towne Av-Indian Hills Blvd. - Indian Hills Blvd-Monte Vista Av. (S)	Measures **TR-1** and **TR-2**, as previously stated.	Not Significant.
5.5 AIR QUALITY **Emissions from Construction Activities** Emissions from NOx, CO, and ROG from construction activities (i.e. construction equipment, worker commuting traffic, architectural coating and asphalt offgassing) are above South Coast Air Quality Management District (SCAQMD) thresholds. (S)	**Construction Emissions** **AQ-1.** Prior to construction of the proposed project, the project proponent will provide a traffic control plan that will describe in detail safe detour routes around the project construction site and provide temporary traffic control (i.e. flag person) during construction related truck hauling activities. **AQ-2.** During construction of the proposed improvements, mobile construction equipment will be properly maintained at an offsite location, including proper tuning and timing of engines. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during	Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	construction. **AQ-3.** During construction of the proposed improvements, all contractors will be advised not to idle trucks on site for more than ten minutes. **AQ-4.** During construction of the proposed improvements, only low volatility paints and coatings as defined in SCAQMD Rule 1113 shall be used. All paints shall be applied using either high volume, low-pressure (HVLP) spray equipment or by hand application. **AQ-5.** During construction of the proposed improvements, the project applicant will provide on-site electrical hook ups for electric construction tools, such as saws, drills and compressors, to eliminate the need for diesel powered electric generators. **Dust Control** **AQ-6.** Terminate soil disturbance when winds exceed 25 mph. **AQ-7.** The Applicant shall prepare a Fugitive Dust Emission Control Plan in compliance with SCAQMD Rule 403. The plan shall identify methods to control fugitive dust through implementation of reasonable available control measures to prevent visible emissions from crossing the property line of the proposed project. In addition to termination of soil disturbance when winds exceed 25 mph, two or more of the following control measures shall be included in the Plan: • Application of chemical stabilizers to unpaved roads and vehicle parking areas; • Application of sufficient water prior to initiating any earth movement; • Sweeping and/or cleaning streets where vehicles exit construction sites; • Installation of wheel washers (Trackclean unit or equivalent) where vehicles exit disturbed surface areas onto paved roads;	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	• Paving of all roads on a construction site once final elevations have been reached or at the earliest possible time; • All stockpiles for material export shall be watered twice daily.	
Emissions from Operational Activities		
Long-term emissions of NOx, CO and ROG from the proposed project from motor vehicle traffic and stationary sources (natural gas consumption, consumer projects, and landscape maintenance) are above SCAQMD thresholds. (S)	**Long-term Emissions** **AQ-8.** The Applicant shall submit to the City of Upland project site plans that include pedestrian safety infrastructure improvements including street lighting, pedestrian paths and sidewalks that link residential land uses with commercial and office land uses within the project, and provide shade trees along sidewalks and pedestrian paths as deemed appropriate by the City of Upland Planning Department Staff. **AQ-9.** The Applicant shall contact local transit agencies to determine the feasibility of bus stops at the project site and determine the need for passenger benches, shelters, and signage at that location.	Significant.
Air Quality Management Plan (AQMP) Consistency		
The proposed project revises currently planned land uses and densities of the project site, increasing population growth from the growth expectations within the AQMP. Project short-term and long-term emissions are also above SCQAMD thresholds. The proposed project is, therefore, not consistent with the AQMP. (S)	The College Park project, as a mixed use, pedestrian/bike friendly, transit-accessible project, does include features that are considered air-quality positive, thereby promoting regional air quality goals. Regional air quality goals, as detailed in SCAG's Regional Comprehensive Plan and Guide, Growth Management Chapter, include: • encouraging the use of transit; • creating opportunities for residents to walk and bike; and • increasing development densities at strategic points along the regional commuter rail, transit systems and activity centers.	Significant.
Cumulative Impacts		
The College Park project will generate significant air	The College Park project, as a mixed use,	Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
quality impacts on an individual basis and is not in conformance with the AQMP. The project's incremental contribution to criteria pollutant emissions is cumulatively considerable. (S)	pedestrian/bike friendly, transit-accessible project, does include features that are considered air-quality positive, thereby promoting regional air quality goals. Regional air quality goals, as detailed in SCAG's Regional Comprehensive Plan and Guide, Growth Management Chapter, include: • encouraging the use of transit; • creating opportunities for residents to walk and bike; and • increasing development densities at strategic points along the regional commuter rail, transit systems and activity centers. Measures **AQ-1** through **AQ-7**, as previously stated.	
5.6 NOISE **Construction Noise** Construction activities for the proposed project, especially from heavy equipment, may create substantial short-term noise increases near the project site. Such impacts might be intrusive to nearby noise-sensitive receptors such as the existing residential use immediately west of the project site, and the Claremont Colleges, further west across Claremont Blvd. The most noise-intensive period will be when scrapers and dozers are involved in fine grading for the proposed development. If earth movement were to occur during periods of heightened residential noise sensitivity, a temporary significant impact could occur. (S)	**N-1.** Construction activities entailing use of heavy equipment shall be restricted to the following hours: Monday—Friday ..... 7 a.m. to 5 p.m. Weekends/Holidays..... Not allowed **N-2.** Construction staging areas shall be located on site to maximize the distance between staging areas and occupied residential areas. **N-3.** When construction operations occur in close proximity to occupied residential areas, appropriate additional noise reduction measures shall be implemented, including: changing the location of stationary construction equipment to maximize the distance between stationary equipment and occupied residential areas, installing muffling devices on equipment, shutting off idling equipment, notifying adjacent residences in advance of construction, and installing temporary acoustic barriers around stationary construction noise sources.	Not Significant.
Traffic Noise Impacts on Noise Sensitive Land Uses Proposed by the Project Significance thresholds for traffic noise on noise	The following measures shall be implemented to	Not Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
sensitive land uses proposed by the project will be exceeded without mitigation. Traffic noise will exceed 65 dB CNEL at ground level of the first two rows of apartment buildings along the eastern site perimeter on Monte Vista Avenue, and the north side of the hotel facing Arrow Route. Traffic noise will also exceed 70 dB CNEL at the restaurant closest to Monte Vista Avenue. Finally, traffic noise will exceed 65 dB CNEL at upstairs balconies of all multi-story buildings. (S)	ensure that exterior useable space are noise protected to achieve 65 dB CNEL or less for residential and hotel uses, and 70 dB CNEL for commercial uses: **N-4.** Perimeter walls, berms or other noise attenuation features of sufficient height to reduce exterior traffic noise to 65 dB CNEL or less will be erected on the eastern site perimeter adjacent to the apartments on Monte Vista Avenue. Perimeter walls, berms or other noise attenuation features of sufficient height to reduce exterior noise to 65 dB CNEL or less will be erected around the outdoor eating area of the restaurant closest to Monte Vista Avenue and around the hotel swimming pool area. **N-5.** An acoustical study shall be performed for all upstairs balconies within 445 feet of Monte Vista Avenue and hotel upstairs balconies within 105 feet of Arrow Route. The study shall be completed and submitted prior to final plan check approval. Partial balcony enclosures or other attenuation features as recommended in the study sufficient to reduce exterior traffic noise to 65 dB CNEL or less will be erected at the balcony locations designated in the study. If exterior building facade levels are within the 57 dB CNEL Noise Referral Zone, additional upgrades are required (dual-paned windows, etc.) to meet the City of Upland 45 dB CNEL interior standard. The following measure is required to determine whether interior standards are acceptable: **N-6.** An acoustical study shall be performed for ground level and the second stories of the office space and the hotel to verify that the structural features are adequate to meet the 45 dB CNEL interior standard. Ground level and second stories of residential units within 735 feet of Monte Vista Avenue and second stories of all other onsite buildings also require an acoustical study to verify that the structural features are adequate to meet the 45 dB CNEL interior standard. The study shall be completed and submitted	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	prior to final plan check approval. Noise attenuation features recommended in the study such as dual-paned windows, deck balcony enclosures, and/or additional insulation requirements sufficient to reduce interior noise levels to 45 dB CNEL or less interior noise levels shall be implemented.	
5.7 CULTURAL RESOURCES It is possible that remnants of the "Dinky Train" tracks still exist below the modern ground surface. (Small-gauged "Dinky Trains" originally passed through the Arrow Route Bridge underpass on rails, bringing the aggregates from the north pit to the crusher facility south of the bridge.) This historic rail line could be impacted during project development if topsoil south of the Arrow Route Bridge must be removed during the development process. (PS)	**CR-1.** Because recent research showed that historic resources might be located below the current modern ground surface level beneath and south of the Arrow Route bridge span, mitigation monitoring shall be required if and only if the topsoil at the base of the gravel pit must be removed as part of the grading process. **CR-2.** If the topsoil at the base of the gravel pit must be removed, a Lead Agency-approved archaeologist shall be retained to develop an archaeological mitigation plan and a discovery clause/treatment plan. Both of these plans shall be reviewed and approved by the Agency. The archaeological mitigation plan shall include limited monitoring for historic archaeological resources on the project site by an Agency-approved archaeologist and/or his representative. The discovery clause/treatment plan shall include recovery and subsequent treatment of any archaeological or historical remains and associated data uncovered by removal of topsoil at the base of the pit only. The treatment plan shall provide procedures for the curation of any detected cultural specimens. Any recovered cultural resources shall be identified, sites recorded, mapped and artifacts catalogued as required by standard professional archaeological practices. Examination by an archaeological specialist shall be included where necessary, dependent upon the artifacts, features, or sites that are encountered. Specialists will identify, date and/or determine significance potential. **CR-3.** If monitoring is required based on CR-2, and if	Not Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	the archaeological monitor discovers cultural deposits, earthmoving shall be diverted temporarily around the deposits until the deposits have been evaluated, recorded, excavated and/or recovered, as necessary, and in accordance with the Agency-approved recovery plan. Earthmoving shall be allowed to proceed through the area after the archaeologist determines the artifacts are recovered and/or site mitigated to the extent necessary. **CR-4.** Should a previously unknown cultural site be encountered during monitoring and is shown by the archaeologist that a significance determination is required, the site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (i.e., DPR 523 form). In this case, if the site is not determined to be significant, no measures subsequent to recording the site on appropriate forms are required. If any of the sites are determined to be significant, the Agency-approved archaeologist shall collect an adequate amount of artifacts at the specific archaeological site. The archaeologist shall determine the amount of artifacts needed to be collected. **CR-5.** Should human remains be encountered during excavations associated with this project, all work shall halt and the County Coroner shall be notified (Section 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the City-approved archaeologist, determines that the remains are prehistoric, he/she will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD) who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code. The MLD will make his/her recommendations within 24 hours of their notification by the NAHC. This recommendation may include scientific removal	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	and nondestructive analysis of human remains and items associated with Native American burials (Section 7050.5 of the Health and Safety Code). **CR-6.** Should any archaeological resources be uncovered, they shall be identified, sites recorded, mapped and artifacts catalogued as required by standard archaeological practices. Examination by an archaeological specialist should be included where necessary, dependent upon the artifacts, features or sites that are encountered. Specialists will identify, date and/or determine significance potential. **CR-7.** Should any archaeological resources be uncovered, a final report of findings will be prepared by the Project Archaeologist for submission to the Proponent, the Lead Agency, and the Archaeological Information Center of the San Bernardino County Museum. The report will describe the history of the project area, summarize field and laboratory methods used, if applicable, and include any testing or special analysis information conducted to support the resultant findings.	
5.8 HAZARDS AND HAZRDOUS MATERIALS **Short-Term Construction Impacts** In the short term, the proposed project will involve storing small quantities of petroleum products onsite during construction. The Standard Set of Conditions of Approval attached to the Conditional Use Permit, required for project implementation, will insure that the project will not create a health hazard or use, produce, or dispose of materials that pose a hazard to human, animal, or plant populations within the project area. The Phase I and Phase II Environmental Site Assessments prepared for the project site indicate a low probability of encountering contaminated soil or groundwater during construction. If contamination were to be encountered, however, construction activities would be immediately halted and remediation	**HHM-1.** If contaminated soil or groundwater is encountered during construction, construction activities will be immediately halted and remediation efforts will be initiated in compliance with existing regulations governing hazardous materials.	Not Significant.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
efforts initiated. (NS)		
5.9 PUBLIC SERVICES AND UTILITIES		
Fire Services		
Implementation of the proposed project will increase demand for fire protection and emergency medical services. However, the additional personnel and equipment would be funded through the City General Fund, resulting in a less than significant impact to fire protection services. (NS)	**PSU-1.** Prior to actual development, the project applicant shall submit an emergency access plan to the City of Upland Fire Department for review and approval. **PSU-2.** The project applicant shall pay all applicable fire facility fees required by the City of Upland Fire Department. **PSU-3.** Sufficient accessibility for fire-fighting equipment shall be provided during all phases of construction and subsequent operation. **PSU-4.** Prior to actual development, the City Fire Department shall review and approve building plans to ensure adequate access and fire protection facilities are available.	Not Significant.
Police Services		
Implementation of the proposed project will increase demand for police protection services. However, the additional personnel and equipment would be funded through the City General Fund, resulting in a less than significant impact to police protection services. (NS)	**PSU-5.** To reduce the demand for short-term police service to the project area during the construction phase, building materials stored on-site will be fenced or enclosed in locked containers. **PSU-6.** To reduce the demand for short-term police service to the project area during construction, on-site private security will be provided during periods of non-construction.	Not Significant.
Libraries		
The Upland Public Library is operating at or near capacity for storage and staff to serve the needs of the public. Implementation of the College Park project will increase demand on library resources and result in longer delays at the library. (PS)	**PSU-8.** Prior to the issuance of building permits, the project applicant shall pay any legally required library impact mitigation fees established by the City of Upland.	Not Significant.

SECTION 3:
PROJECT DESCRIPTION

3.1 - PROJECT LOCATION

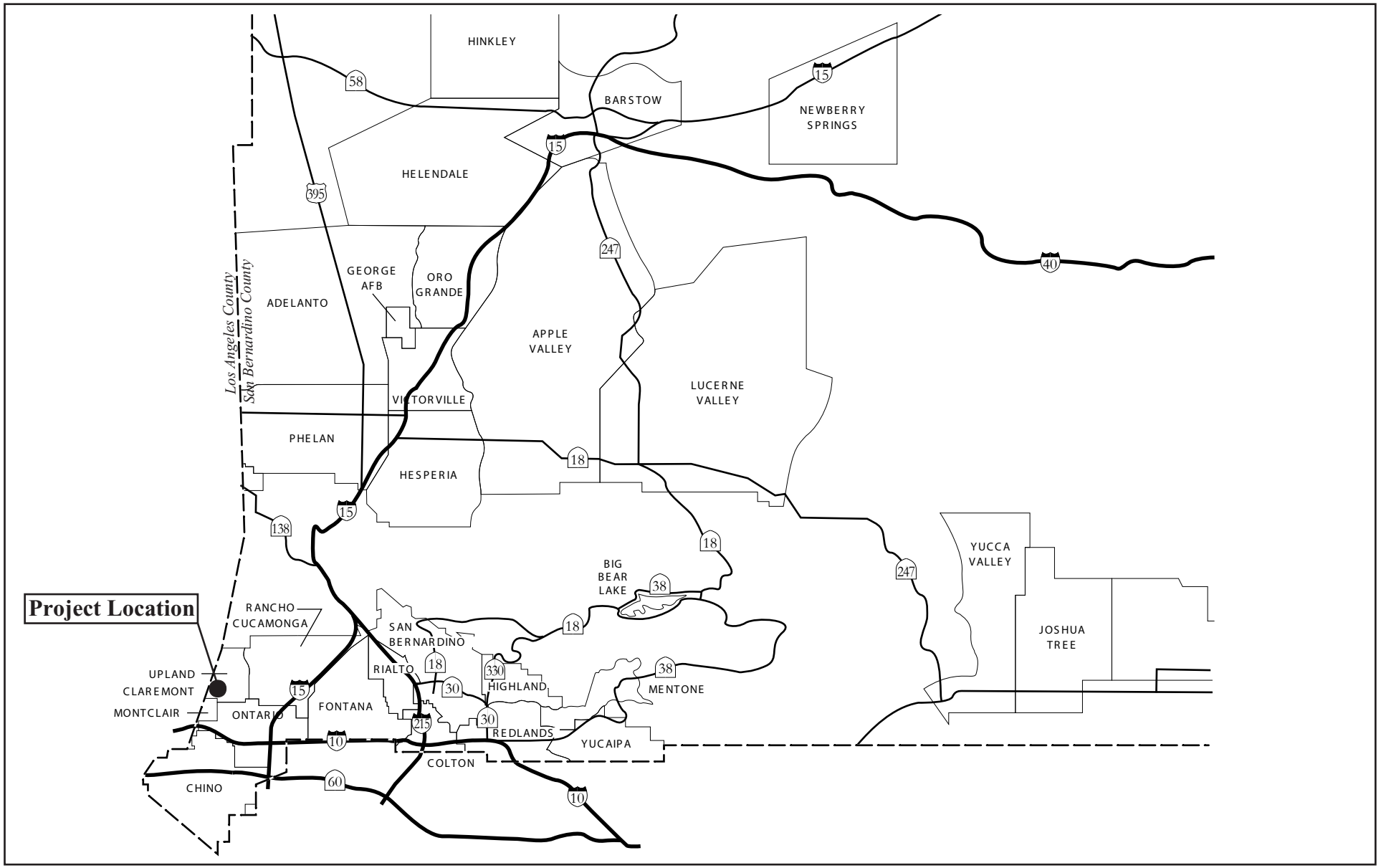
The project site encompasses 38.69 acres located in the western portion of the City of Upland in San Bernardino County. The site is located southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The site is within the City of Upland, but is bordered by the City of Claremont and Los Angeles County line on the west; a San Bernardino County unincorporated island to the north; Upland to the east; and the City of Montclair to the south. The Claremont Colleges lie northwest of the project site. The San Antonio Channel lies southeast of the site. Regional freeway access to the site is provided by the San Bernardino Freeway (I-10) and the Foothill Freeway (SR 210). Major arterial access to the site is provided by Mills Avenue, Claremont Boulevard, Foothill Boulevard (SR 66), W. Arrow Route, Arrow Highway, and Monte Vista Avenue (See Exhibit 3-1, Exhibit 3-2, Exhibit 3-3).

3.2 - PROJECT CHARACTERISTICS

The proposed College Park project is a mixed-use development planned to occupy a reclaimed sand and gravel quarry site. Filling and compaction of the site has previously commenced under a separate permit and is not part of the proposed project. At the completion of reclamation, the project site will consist of rough graded building pads. Grading requirements will be limited to fine grading.

3.2.1 - Development

The proposed project consists of three land use components: commercial, residential, and recreational (Exhibit 3-4). The commercial component of the project contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential component of the project contains single-family detached and multi-family attached housing types. The recreational component contains a greenbelt/recreational area. A summary of land use information is presented in Table 3-1 and Exhibit 3-4. The Grading Plan pursuant to the approved Reclamation Plan for the project site, showing project conditions at the completion of reclamation, is shown in Exhibit 3-5.



NORTH

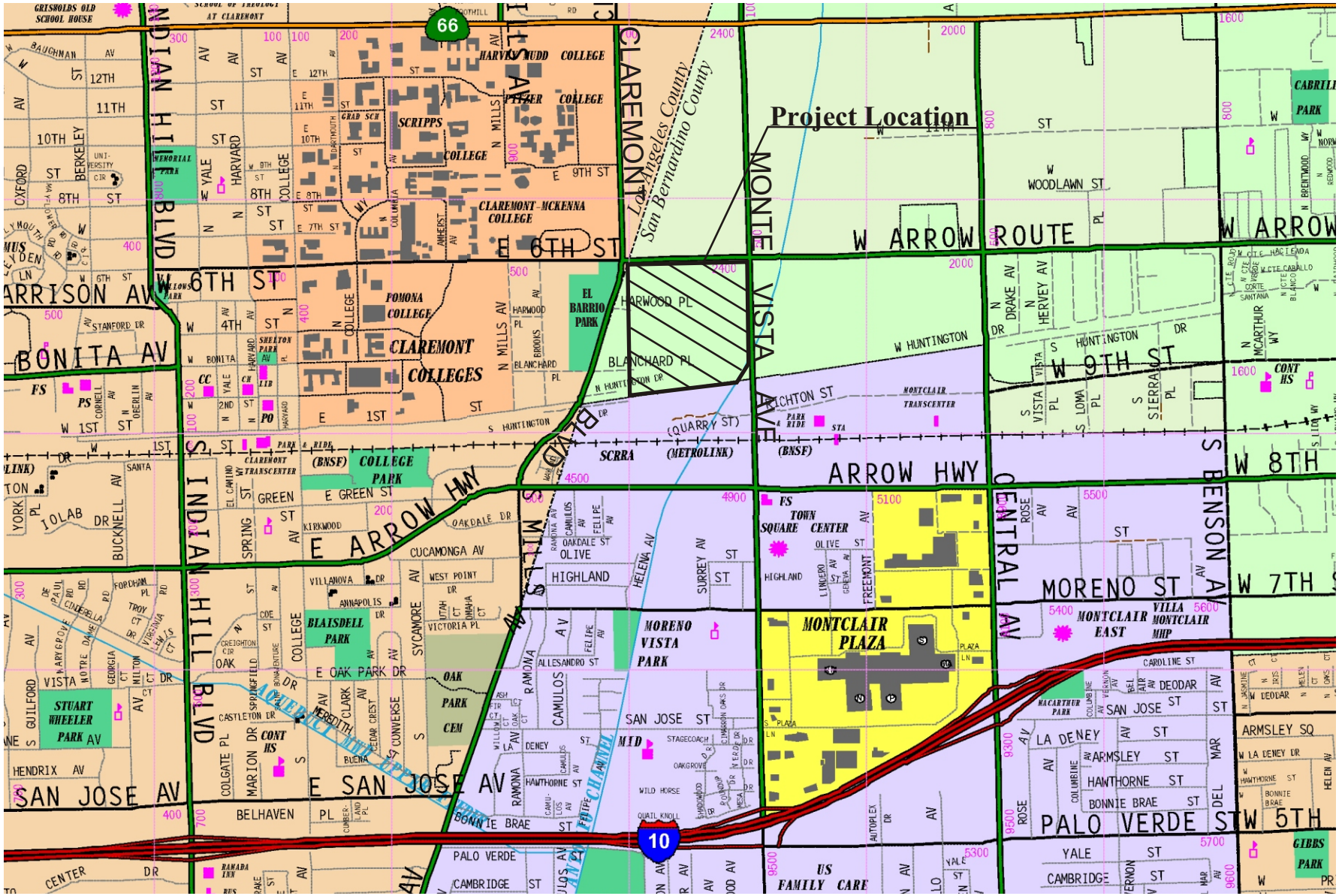
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SCALE IN MILES

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Exhibit **3-1**

Regional Location Map



Source: Thomas Guide Digital Edition, 2003.

NORTH

3,600 1,800 0 3,600

SCALE IN FEET

- City of Upland
- City of Montclair
- City of Claremont
- Unincorporated County Island

Exhibit **3-2**

Local Vicinity Map

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COLLEGE PARK • CITY OF UPLAND



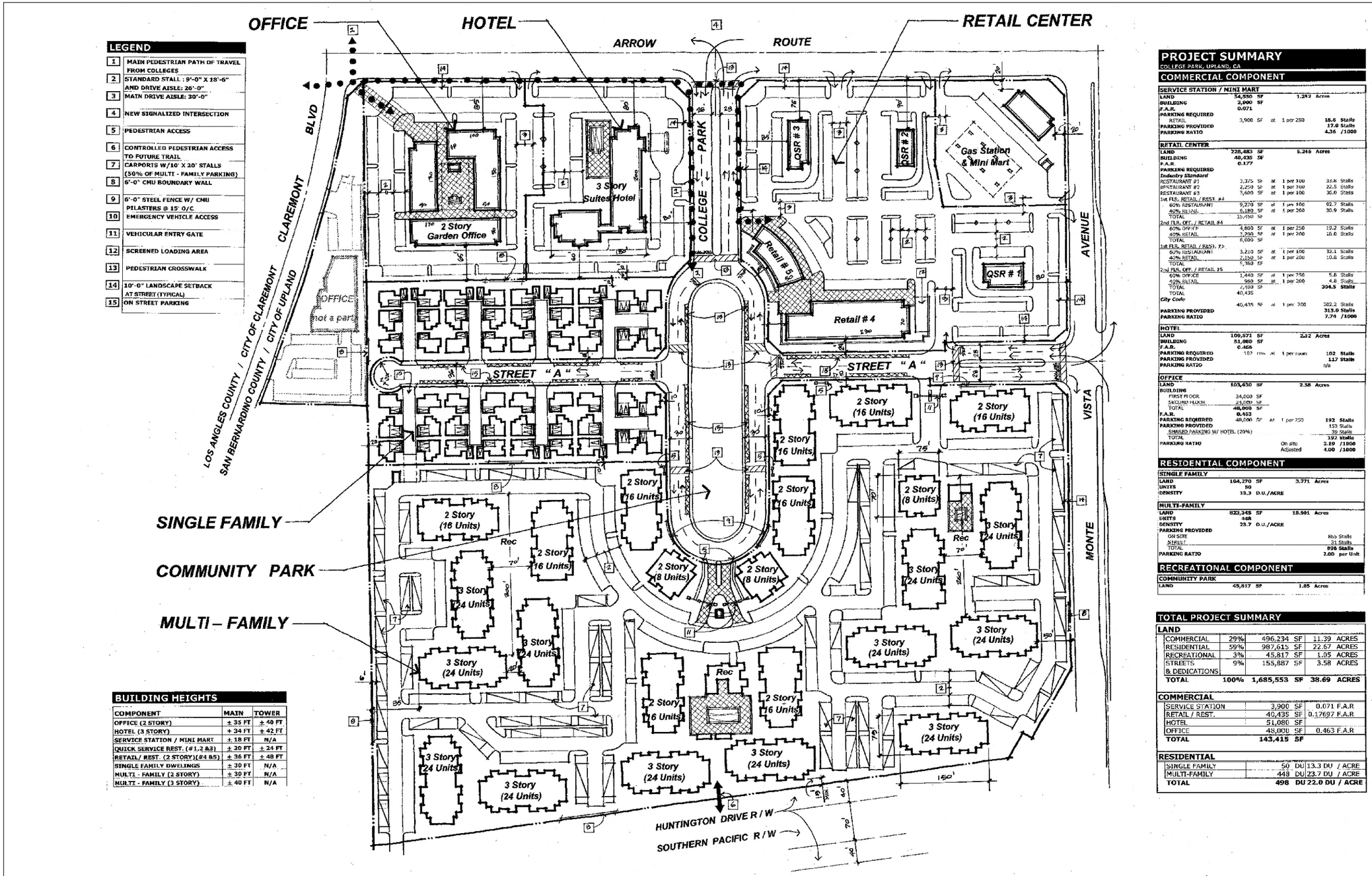
NORTH

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Exhibit **3-3**

Aerial Location Map



LEGEND

1	MAIN PEDESTRIAN PATH OF TRAVEL FROM COLLEGES
2	STANDARD STALL : 9'-0" X 18'-6" AND DRIVE AISLE: 26'-0"
3	MAIN DRIVE AISLE: 30'-0"
4	NEW SIGNALIZED INTERSECTION
5	PEDESTRIAN ACCESS
6	CONTROLLED PEDESTRIAN ACCESS TO FUTURE TRAIL
7	CARPORTS W/10' X 20' STALLS (50% OF MULTI - FAMILY PARKING)
8	6'-0" CMU BOUNDARY WALL
9	6'-0" STEEL FENCE W/ CMU PILASTERS @ 15' O/C
10	EMERGENCY VEHICLE ACCESS
11	VEHICULAR ENTRY GATE
12	SCREENED LOADING AREA
13	PEDESTRIAN CROSSWALK
14	10'-0" LANDSCAPE SETBACK AT STREET (TYPICAL)
15	ON STREET PARKING

BUILDING HEIGHTS

COMPONENT	MAIN	TOWER
OFFICE (2 STORY)	± 35 FT	± 40 FT
HOTEL (3 STORY)	± 34 FT	± 42 FT
SERVICE STATION / MINI MART	± 18 FT	N/A
QUICK SERVICE REST. (#1,2 &3)	± 20 FT	± 24 FT
RETAIL/ REST. (2 STORY)(#4 &5)	± 36 FT	± 48 FT
SINGLE FAMILY DWELINGS	± 30 FT	N/A
MULTI - FAMILY (2 STORY)	± 30 FT	N/A
MULTI - FAMILY (3 STORY)	± 40 FT	N/A

PROJECT SUMMARY

COLLEGE PARK, UPLAND, CA

COMMERCIAL COMPONENT

SERVICE STATION / MINI MART

LAND	54,550 SF			1.252	Acres
BUILDING	3,900 SF				
F.A.R.	0.071				
PARKING REQUIRED					
RETAIL	3,900 SF	at	1 per 250	15.6	Stalls
PARKING PROVIDED				17.0	Stalls
PARKING RATIO				4.36	/1000

RETAIL CENTER

LAND	228,483 SF			5.246	Acres
BUILDING	40,435 SF				
F.A.R.	0.177				
PARKING REQUIRED					
Industry Standard					
RESTAURANT #3	3,375 SF	at	1 per 100	33.8	Stalls
RESTAURANT #2	2,250 SF	at	1 per 100	22.5	Stalls
RESTAURANT #3	5,600 SF	at	1 per 100	56.0	Stalls
1st FLR. RETAIL / REST. #4					
60% RESTAURANT	9,270 SF	at	1 per 100	92.7	Stalls
40% RETAIL	6,180 SF	at	1 per 200	30.9	Stalls
TOTAL	15,450 SF				
2nd FLR. OFF. / RETAIL #4					
60% OFFICE	4,800 SF	at	1 per 250	19.2	Stalls
40% RETAIL	3,200 SF	at	1 per 200	16.0	Stalls
TOTAL	8,000 SF				
1st FLR. RETAIL / REST. #5					
60% RESTAURANT	3,210 SF	at	1 per 100	32.1	Stalls
40% RETAIL	2,140 SF	at	1 per 200	10.8	Stalls
TOTAL	5,350 SF				
2nd FLR. OFF. / RETAIL #5					
60% OFFICE	1,440 SF	at	1 per 250	5.8	Stalls
40% RETAIL	960 SF	at	1 per 200	4.8	Stalls
TOTAL	2,400 SF			304.5	Stalls
TOTAL	40,435				
City Code					
	40,435 SF	at	1 per 200	202.2	Stalls
PARKING PROVIDED				313.0	Stalls
PARKING RATIO				7.74	/1000

HOTEL

LAND	109,571 SF			2.52	Acres
BUILDING	51,080 SF				
F.A.R.	0.466				
PARKING REQUIRED	102 rms	at	1 per room	102	Stalls
PARKING PROVIDED				117	Stalls
PARKING RATIO				n/a	

OFFICE

LAND	103,650 SF			2.38	Acres
BUILDING					
FIRST FLOOR	24,000 SF				
SECOND FLOOR	24,000 SF				
TOTAL	48,000 SF				
F.A.R.	0.463				
PARKING REQUIRED	48,000 SF	at	1 per 250	192	Stalls
PARKING PROVIDED				153	Stalls
SHARED PARKING W/ HOTEL (20%)				39	Stalls
TOTAL				192	Stalls
PARKING RATIO			On site	3.19	/1000
			Adjusted	4.00	/1000

RESIDENTIAL COMPONENT

SINGLE FAMILY

LAND	164,270 SF			3.771	Acres
UNITS	50				
DENSITY	13.3 D.U./ACRE				

MULTI-FAMILY

LAND	823,345 SF			18.901	Acres
UNITS	448				
DENSITY	23.7 D.U./ACRE				
PARKING PROVIDED					
ON SITE				Nbs	Stalls
STREET				31	Stalls
TOTAL				896	Stalls
PARKING RATIO				2.00	per Unit

RECREATIONAL COMPONENT

COMMUNITY PARK

LAND	45,817 SF	1.05	Acres

TOTAL PROJECT SUMMARY

LAND				
COMMERCIAL	29%	496,234 SF	11.39	ACRES
RESIDENTIAL	59%	987,615 SF	22.67	ACRES
RECREATIONAL	3%	45,817 SF	1.05	ACRES
STREETS & DEDICATIONS	9%	155,887 SF	3.58	ACRES
TOTAL	**100%**	**1,685,553 SF**	**38.69**	**ACRES**
COMMERCIAL				
SERVICE STATION		3,900 SF	0.071	F.A.R
RETAIL / REST.		40,435 SF	0.17697	F.A.R
HOTEL		51,080 SF		
OFFICE		48,000 SF	0.463	F.A.R
TOTAL		**143,415 SF**		
RESIDENTIAL				
SINGLE FAMILY		50 DU	13.3 DU / ACRE	
MULTI-FAMILY		448 DU	23.7 DU / ACRE	
TOTAL		**498 DU**	**22.0 DU / ACRE**	

Source: Hutton Development Company; KTGY Group, Inc.; Lundstrom & Associates, June 2003.

NORTH

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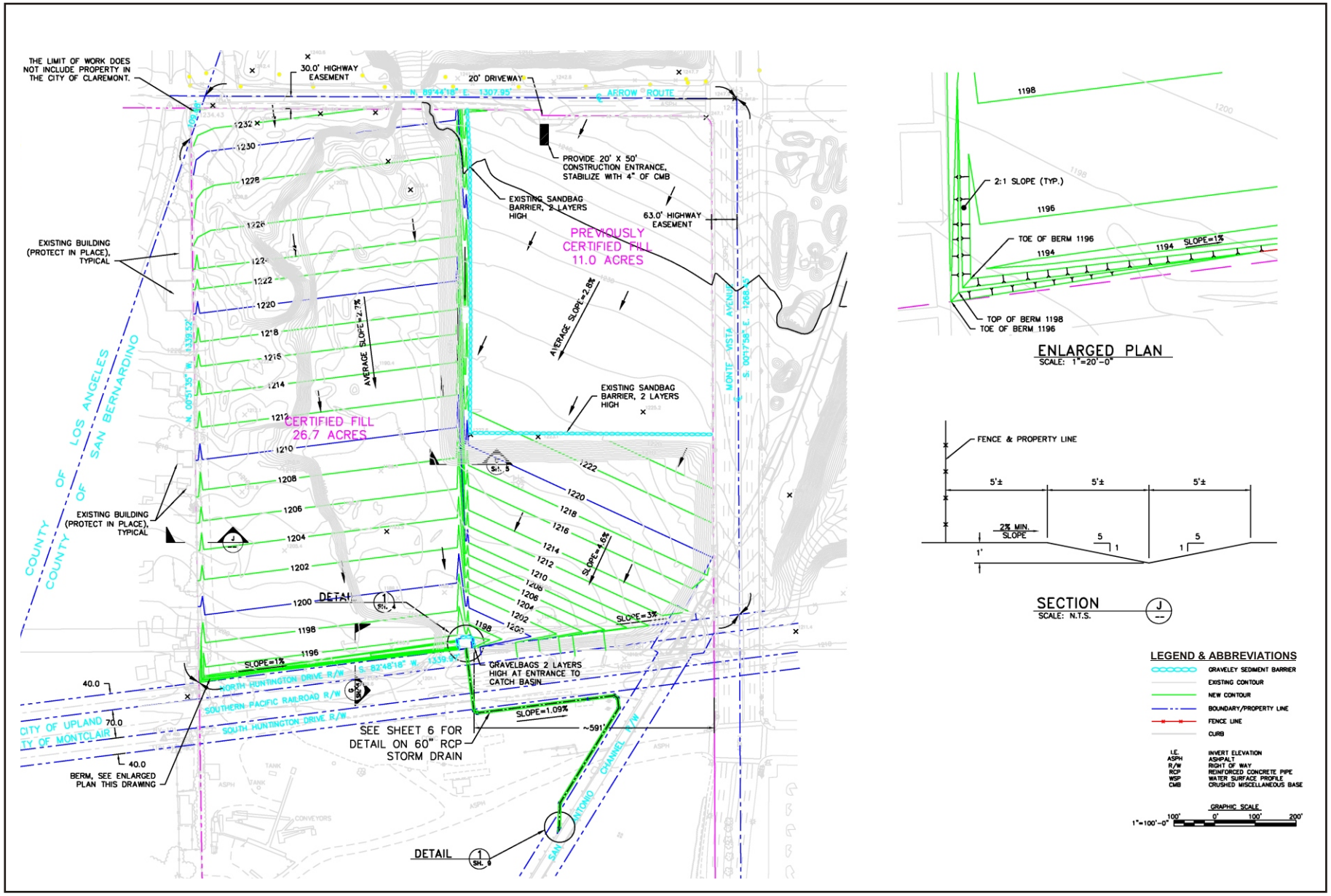
Michael Brandman Associates

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Exhibit **3-4**

Site Plan

COLLEGE PARK • CITY OF UPLAND



Source: Outten Engineering Company

NORTH

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SCALE IN FEET

Michael Brandman Associates

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Exhibit **3-5**

Grading Plan

COLLEGE PARK • CITY OF UPLAND

Table 3-1: Land Use Summary

Land	Percent of Project Site	Square Footage (SF)	Acreage
Commercial	29%	496,234 SF	11.39 Acres
Residential	59%	987,615 SF	22.67 Acres
Recreational	3%	45,817 SF	1.05 Acres
Streets & Dedications	9%	155,887 SF	3.58 Acres
Total	**100%**	**1,685,553 SF**	**38.69 Acres**

Table 3-2: Project Component Summary

Description	Units	Bldgs.	Stories	Building Sq. Feet	Acres
Commercial Component					
Service Station / Mini Mart	1	1	1	3,900	1.25
Retail Center				40,435	5.24
Quick Service Restaurants (QSR)					
QSR No. 1	1	1	1	3,375	
QSR No. 2	1	1	1	2,250	
QSR No. 3	1	1	1	3,600	
Retail Building No. 4	First floor: 1 Restaurant (60%) Retail units TBD (40%) Second Floor: Retail units TBD (40%) Office units TBD (60%)	1	2	23,450	
Retail Building No. 5	First Floor: 1 Restaurant (60%) Retail Units TBD (40%) Second Floor: Retail Units TBD (40%) Office Units TBD (60%)	1	2	7,760	
Garden Office Building	Office units TBD (100%)	3	2	48,000	2.38
Hotel	102 rooms	1	3	51,080	2.52
Residential Component					
Single-family detached	50 DUs	50	2	-NA-	3.77
Multi-family attached	448 DUs	 12 12	 2 3	-NA-	18.90

Table 3-2 (Cont.): Project Component Summary

Description	Units	Bldgs.	Stories	Building Sq. Feet	Acres
Recreation Component					
Greenbelt/Recreational Area	—	—	—	—	1.05
Source: College Park Master Plan, Hutton Development Company; June 19, 2003.					

The project contains 84 separate buildings that range from one to three stories in height. Approximate building heights are presented in Table 3-3.

Table 3-3: Approximate Building Heights

Component	Main Building	Tower*
Garden Office Building	35 feet	40 feet
Hotel	34 feet	42 feet
Service Station / Mini Mart	18 feet	-NA-
Retail/Rest. Buildings No. 4 and 5	36 feet	48 feet
Single-family detached	30 feet	-NA-
Multi-family attached 2 story	30 feet	-NA-
Multi-family attached 3 story	40 feet	-NA-

*Tower is defined as the maximum highest point of a building. Tower is the height of a unique vertical element. Tower height is not reflective of the average height of the building.
Source: College Park Master Plan, Hutton Development Company, June 19, 2003; Jon Lundstrom, Lundstrom and Associates, December 18, 2003.

The commercial component occupies the northern portion of the site along the entire W. Arrow Route frontage on the northern edge and approximately half of the Monte Vista Avenue frontage along the eastern edge (Exhibit 3-4). The single-family element of the residential component occupies the west-central portion of the site. The multi-family element of the residential component occupies the southern portion of the site and the lower half of the Monte Vista Avenue frontage. The recreational component, consisting of a greenbelt/recreational area, occupies the center portion of the site.

Access

Primary vehicular access to the site will be provided off of W. Arrow Route and Monte Vista Avenue. The project includes the signalization of the W. Arrow Route and Monte Vista Avenue access intersections. Four secondary vehicular access points are provided to the site. One secondary

vehicular access driveway is provided to the hotel and garden office building complex from W. Arrow Route. A second vehicular access driveway is provided to the retail center from W. Arrow Route. Two secondary vehicular access driveways are provided to the gas station/mini mart from W. Arrow Route and Monte Vista Avenue.

Emergency vehicular access is provided by the primary and secondary driveways. Internal emergency vehicular access is provided by the internal street and drive aisles. A dedicated emergency driveway is located between the single-family and multi-family development. A gated, controlled emergency access is being provided at the southwest corner of the project site from Huntington Drive.

The Claremont Colleges are located to the west across Claremont Blvd (See Exhibit 3-2). College-oriented pedestrian access is provided by a pedestrian path at the northwest corner of the site leading directly to the garden office building, and along the southern side of W. Arrow Route to the primary access driveway, leading to sidewalks on adjoining public streets. Additional pedestrian access is provided by the other primary and secondary driveways. A controlled pedestrian access gate, located in the southern portion of site, will provide access to a future offsite trail system. This trail system is not part of the proposed project.

The existing bridge on W. Arrow Route, at the northern edge of the property, will be removed as part of the proposed project. The current alignment of W. Arrow Route will be maintained. West Arrow Route will be constructed at grade with the surrounding properties.

Internal Circulation

Internal circulation is provided by a street and drive aisles. A dedicated right-of-way, temporarily named Street "A", extends westerly from the primary access road on Monte Vista Avenue to the internal drive aisle circling the greenbelt/recreational area. Street "B" extends through the single-family element of the proposed project. Entrance to the multi-family element will be provided through two security controlled vehicular gates (remote or key pad entry). Sidewalks and paths will accommodate pedestrian travel.

Parking

All parking is provided on-site; the project does not propose any parking on either W. Arrow Route or Monte Vista Avenue. Parking is provided by a combination of garages, covered and un-covered parking stalls, and parallel parking on Streets "A" and "B"drive aisles. Parking information is summarized in Table 3-4.

Table 3-4: Parking Summary

Component	Type	Number
Commercial Component		
Service Station / Mini Mart	Un-covered stalls	17
Retail Center	Un-covered stalls	313
Garden Office Building	Un-covered stalls	153
Hotel	Un-covered stalls	117
Residential Component		
Single-family detached	Garage (Attached) and Un-covered Stalls Parallel (On-street)	100 28
Multi-family attached	Covered stalls Un-covered stalls Parallel (On-street)	432 433 31
Recreation Component		
Greenbelt/recreational area	-NA-	-NA-
Source: College Park Master Plan, Hutton Development Company, June 19, 2003.		

Project Phasing

The project is proposed to be developed in two phases:

- **Phase 1:** Retail commercial with restaurants and service station/mini mart totaling 44,335 square feet of floor space, office buildings totaling 48,000 square feet of floor space, 50 single-family homes, 224 apartment units, 1.05-acre community park and all primary access and internal roadway improvements.
- **Phase 2:** 102-room hotel totaling 51,080 square feet of floor space, and 224 apartment units.

The time frame for buildout of the site will be dictated by market conditions, but is anticipated to take between 2 and 3 years.

3.2.2 - Project Design Features

The College Park project includes specific design features that are referred to as Project Design Features (PDFs). In several cases, environmental considerations are included in the PDF and, as a result, can have the same effect as a mitigation measure in reducing or eliminating potentially significant environmental impacts. These project design features are listed below and identified in the environmental analysis in Section 5 of this EIR.

PDF 1 Use of landscaped buffers on roadway frontages that minimize noise and visual impacts from adjacent roadways.

PDF 2 Use of a multiple-building design that contains open space between buildings.

PDF 3 Inclusion of on-site commercial uses and recreational amenities to minimize off-site vehicle trips and associated air emissions.

PDF 4 Inclusion of signalized access intersections at Arrow Route and Monte Vista Avenue that will facilitate turning movements into and out of the project.

PDF 5 Inclusion of sufficient parking to meet parking standards to be developed through preparation of a project-specific parking study.

PDF 6 Inclusion of pedestrian and bicycle linkage to the Claremont Colleges.

PDF 7 Inclusion of pedestrian access to a future regional trail system.

PDF 8 Utilization of site design and source control measures to minimize potential for urban pollutants to come into contact with storm water, and thereby limiting water quality impacts downstream. For the commercial, residential, and recreational components, these features will include the use of drought tolerant landscaping, efficient irrigation systems, and properly designed trash storage areas. Additional site design and source control measures for the commercial component will include:

- Properly designed fuel dispensing area.
- Stenciling of all catch basins with "No Dumping - Flows to Creek" or other equally effective message.
- Runoff diversion to landscaped areas whenever possible (i.e. stormwater planters).
- Use of semi-permeable pavement for applicable hardscape areas, where feasible.
- Containment areas and sanitary sewer treatment for restaurant wash waters.
- Routing sweeping of parking lots and streets (i.e. monthly).
- Erosion control and exposed-surface stabilization measures.
- Managed pesticide and fertilizer use.
- Regulations requiring proper disposal of animal waste.
- Car wash racks if car washing is to be allowed in the high-density multi-family areas.
- Homeowner/tenant stormwater education.
- Maintenance requirements and funding mechanisms for all structural and non-structural BMPs implemented throughout the project site (e.g. catch basin inserts, storm drain inserts, landscaping areas). (Additional detail on project site design and source control measures to limit water quality impacts is provided in Appendix C, Hydrology/Water Quality Assessment.

3.3 - PROJECT OBJECTIVES

The project proponent has identified the following objectives regarding the proposed mixed-use project:

- To provide a mixed-use development with a cohesive design among its individual components that incorporates high-level amenities typically found in planned developments such as a neighborhood park and extensive landscaping.
- To provide a mixed-use development with a commercial component large enough in size to function as a 'node' or activity center within an overall 'urban place' design concept, and to be functionally-viable based on location and relationship to surrounding uses.
- To provide additional housing opportunities within the City of Upland for the general population, and the faculty, staff, and students of the Claremont Colleges.
- To incorporate pedestrian and bicycle connections into the project design that will facilitate alternate methods of transportation between the College Park project and the Claremont Colleges campus.
- To further encourage alternative methods of transportation by providing opportunity for pedestrian and bicycle connections between the College Park project and the Montclair Metrolink Station and Transcenter.

3.4 - INTENDED USES OF THE EIR

This Draft EIR is intended to serve as the primary environmental document for actions associated with the College Park project. In addition, this document is the primary reference document in the formulation and subsequent implementation of a Mitigation Monitoring and Reporting Program (MMRP) for the proposed project. An MMRP will be prepared as part of the Final EIR. The intent of this Draft EIR is to provide a comprehensive environmental document that will allow permitting agencies to evaluate the potential environmental impacts from development of the project. This EIR provides a comprehensive consideration of the reasonably anticipated scope of the proposed project.

Discretionary Actions or Approvals

Required City approvals for the project are detailed in Table 3-5.

Table 3-5: Approval Authority Matrix

Type of Action	Administrative Review Committee	Planning Commission	City Council
Certificates of Compliance	X		
Conditional Use Permits[1]		X	
Final EIR Certification		X	X
Environmental Review	X		
Extensions of Time	X		
Lot Line Adjustments	X		
Site Plans	X		
Specific Plan Adoption			X
Specific Plan Amendments			X
Specific Plan Minor Adjustments	X		
Tentative Parcel Maps		X	
Tentative Tract Maps		X	
Variances		X	

[1] The following uses are allowed in the commercial component, subject to approval of a conditional use permit by the Planning Commission: a) Billiard and Pool Halls; b) Car Washes (except ancillary to a gas station/mini-mart); c) Establishments that serve alcoholic beverages as the primary use; d) Drive-through facilities; e) Hotels.

Anticipated discretionary approvals by the Regional Water Quality Control Board for complementation of the proposed project are:

- National Pollutant Discharge Elimination Systems Permit, Storm Water Pollution Prevention Plan (SWPPP), and Water Quality Management Plan.

SECTION 4:
ENVIRONMENTAL SETTING

4.1 - OVERVIEW OF ENVIRONMENTAL SETTING

The 38.69-acre project site is located in the City of Upland in the western portion of San Bernardino County. The site is located southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The site is within the City of Upland, but is bordered by the City of Claremont and the Los Angeles County line on the west; a San Bernardino County unincorporated island to the north; Upland to the east; and the City of Montclair to the south. The Claremont Colleges lie northwest of the project site. The San Antonio Channel lies southeast of the site. This channel is an improved stormwater flood control facility.

The site is a former sand and gravel quarry which is to be filled in with engineered compacted fill by others under a separate permit. When completed, the site will be comprised of rough graded building pads, at grade equivalent to the surrounding properties. To date, approximately 11 acres in the northeast area of the site have been filled.

The General Plan designation for the site is Commercial/Industrial-Special Use Permit (C/I-S). The current zoning is Light Industrial. Implementation of the proposed project will require adoption of a Specific Plan.

The City of Upland owns another former sand and gravel site directly adjacent across Monte Vista Avenue to the east, which is being excavated for a retention basin. The excavated soils will be transported to the proposed project site as fill as part of a separately permitted project. The property immediately to the north is a closed sand and gravel extraction site that is owned and controlled by the Claremont Colleges. This larger pit is hydraulically connected with the project site via a channel under W. Arrow Route.

The Vulcan asphalt batch plant, located to the south of the project site, is scheduled for relocation. Since plant relocation plans have not been finalized, however, the potential exists that the plant will continue to operate for a period of one to five years.

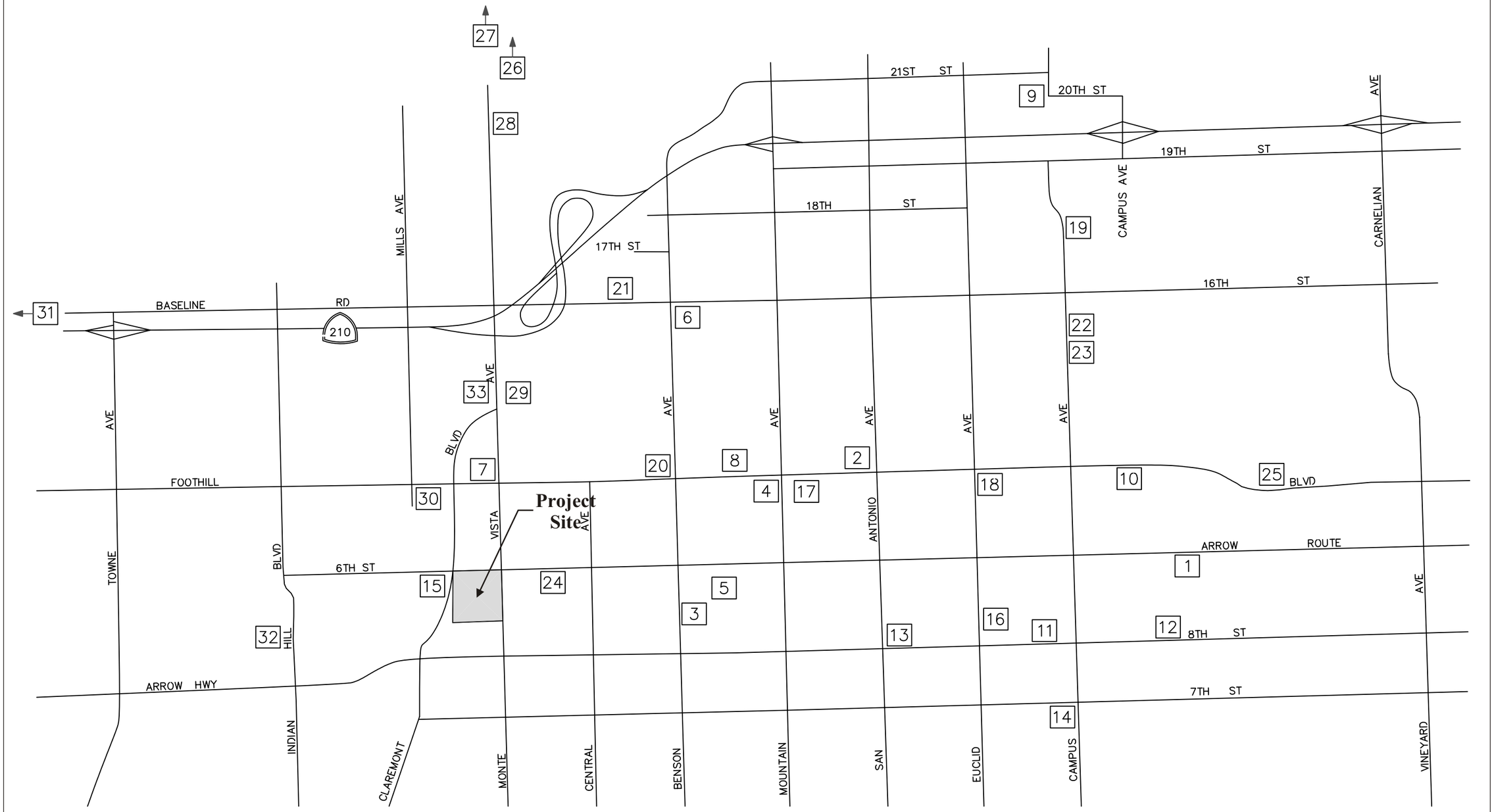
Immediately west of the project site is an older residential neighborhood with long-term established residents, and an office building, currently under construction. Some of the older residences abut the batch plant. Northwest of the site, diagonally across the intersection of Claremont Boulevard is the campus of the Claremont Colleges.

Land uses in the general vicinity (approximately one mile) of the site are a mixture of residential, commercial, institutional, and heavy industrial. Principal land uses in the vicinity of the site are sand and gravel facilities, the Claremont Colleges, the Montclair Metrolink Station and Transcenter, the Cable Airport, the BNSF/SCRRA railroad line, the San Bernardino Freeway (I-10), the San Antonio Channel, and Montclair Plaza, a regional shopping center Additional land uses within approximately 1 mile of the site are two neighborhood shopping centers, five public schools, a mobile home park, a cemetery, six parks, three municipal buildings, and portions of a botanical garden and golf course.

4.2 - RELATED PROJECTS FOR THE ASSESSMENT OF CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines requires the consideration of cumulative impacts within an EIR. Cumulative impacts are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment, which results from the project when added to other closely related projects. In identifying projects which may contribute to cumulative impacts, the CEQA Guidelines allow the use of either: (1) a specific list of past, present, and probable future projects, providing related or cumulative impacts including those outside the control of the lead agency, or (2) a summary of projections contained in the adopted General Plan or related planning document, designed to evaluate regional or area conditions. Table 4-1 provides the location and a brief description of the related projects that have been identified. Exhibit 4-1 presents the general location of the related projects with respect to the College Park project site. The cumulative analysis discussed in Sections 5.1 through 5.9 is based on the listing of related projects.

Reclamation of the project site has not been included as a related project because: (1) the reclamation is going on now, and related traffic has been included in the existing (2003) conditions; and (2) reclamation activities represent a temporary condition which will have concluded when construction of the College Park project begins.



Source: Linscott Law & Greenspan Engineers, October 2003.

NOT TO SCALE

Michael Brandman Associates

Exhibit **4-1**

Location of Related Projects

Table 4-1: Location and Description of Related Projects College Park Project

No. *	Cumulative Project	Location/Address	Description
City of Upland			
(1) SP-01-38	Planned Residential	Southwest corner of Arrow Hwy/Grove Avenue	77 Single Family Detached
(2) SP-01-44	Fast Food Restaurant With Drive-thru	Northwest corner of Foothill Blvd/San Antonio Ave	3,260 SF Fast Food Restaurant With Drive-thru
(3) SP-02-15	Multi-tenant Industrial Buildings	Southeast corner of Benson Avenue/9th Street	6,671 SF and 4,950 SF Industrial Buildings
(4) SP-02-19	A&W/KFC Fast Food w/Drive-thru	Southwest corner of Foothill Blvd/Mountain Ave	3,152 SF Fast Food Restaurant With Drive-thru
(5) SP-02-27	Warehouse Buildings	1431 West 9th Street	10,400 SF Warehouse
(6) SP-02-31	Office Buildings	Southeast corner of Benson Ave and 16th Street	15,412 SF Office
(7) SP-03-04	Jack in the Box	Northwest corner of Foothill Boulevard and Monte Vista Avenue	4,858 SF Fast Food Restaurant With Drive-thru
(8) SP-03-09	High Turnover Restaurant	1261 West Foothill Blvd	Building for three small restaurants (5,500 SF total)
(9) SP-03-10	J.E. Plount and Co.	20th Street between Euclid Ave and Campus Ave	10 Single Family Detached
(10) SP-03-04	PC Gaming Center	830 East Foothill Blvd	1,800 SF Cyber-cafe
(11) SP-01-25	ATI Windows	Northeast corner of Sultana Avenue/8th Street	75,044 SF office, warehouse and manufacturing facility
(12) SP-01-30	G and L Commercial Industrial Park	1111 East 8th Street	68,161 SF Industrial Park
(13) SP-01-31	Office/Classroom	531 West 8th Street	4,320 SF Office and Classroom for a Child Development Program
(14) SP-01-32	J.E. Plount & Co Apartment Building	South side of Richland St, east of Sultana Ave and west of Campus Ave	10-unit Apartment Building
(15) SP-03-11	Claremont McKenna College Offices	Southeast corner of Arrow Hwy/6th St & Claremont Boulevard	18,000 SF Office
(16) SP-03-15	Retail/Dental Office Building	East side of Euclid Avenue and south of 9th Street	2,219 SF Retail and 2,457 SF Medical Office
(17) SP-03-18	Farmer Boys Rest. w/drive-thru	South side of Foothill Blvd and east of Mountain Ave	3,129 Fast Food Restaurant With Drive-thru

(18) SP-03-01	McDonalds Site	100 East Foothill Boulevard	8,876 SF Of New Retail
(19) SP-01-12, SP-01-13 and SP-02-33 through SP-02-42	The Colonies at San Antonio Mixed-Use Development	South of 20th Street, north of 16th Street and generally east of Campus Avenue	350 Condominiums, 800 Single Family Homes, 900 Student Elementary School, 814,000 SF Shopping Center, 3,900 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
(20)	Upland Commercial/ Industrial Mixed-Use Master Plan	Northwest corner of Benson Avenue and Foothill Boulevard	274,900 SF Industrial Park, 240,600 SF Office Uses, 402,700 SF Commercial Retail, 163,268 SF Home Improvement Superstore
(21)	Baseline Road Master Plan	North of 16th Street and east of SR-210 Freeway	450,000 SF Retail Shopping Center on 41-acres, a 42-acre City Park and 15 acres of Open Space/Flood Control
(22) SP-01-27	Alexander Communities	Northeast corner of Campus Avenue and 15th Street	54-unit single family gated residential subdivision
(23) SP-01-10	Dry Dock Depot RV and Boat Storage Expansion	Southeast corner of Campus Avenue and 15th Street	Proposed 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
(24)	Hutton Development Company Upland East	Located south of Arrow Route, west of Central Avenue	Potential development includes a 284-unit of apartments to be developed in two phases
City of Rancho Cucamonga			
(25)	Foothill Boulevard Condominiums	North of Foothill Boulevard and east of San Bernardino Rd	219-unit Gated Residential Condominiums/Townhomes
City of Claremont			
(26)	Stone Canyon Preserve	Northeast corner of Padua Ave and Mt. Baldy Road	125 Single Family Detached
(27)	Mt. Baldy R.V. Park	Mt. Baldy Road and Glendora Ridge Road	227 R.V. Spaces
(28)	Padua Avenue Park	Padua Avenue between Mt. Baldy Road and Baseline Road	24 Acre Park
(29)	City Yard	1616 Monte Vista Avenue	42,000 SF Building
(30)	Harvey Mudd College	Southeast corner of Mills Avenue and Foothill Boulevard	80 Bed Dormitory

(31)	Shepherd Cove	Eastern Terminus of Shepherd Way	5 Single Family Detached
(32)	Olson/Village Walk	1st Street and Indian Hill Boulevard	155 Single Family Detached
(33)	Claremont Club	1717 Monte Vista Avenue	15,000 SF Addition

* Site Plan is abbreviated SP.
Source: Linscott Law & Greenspan, October 2003.

5.1 - LAND USE AND PLANNING

5.1.1 - Existing Conditions

Land Uses and Physical Conditions On-Site

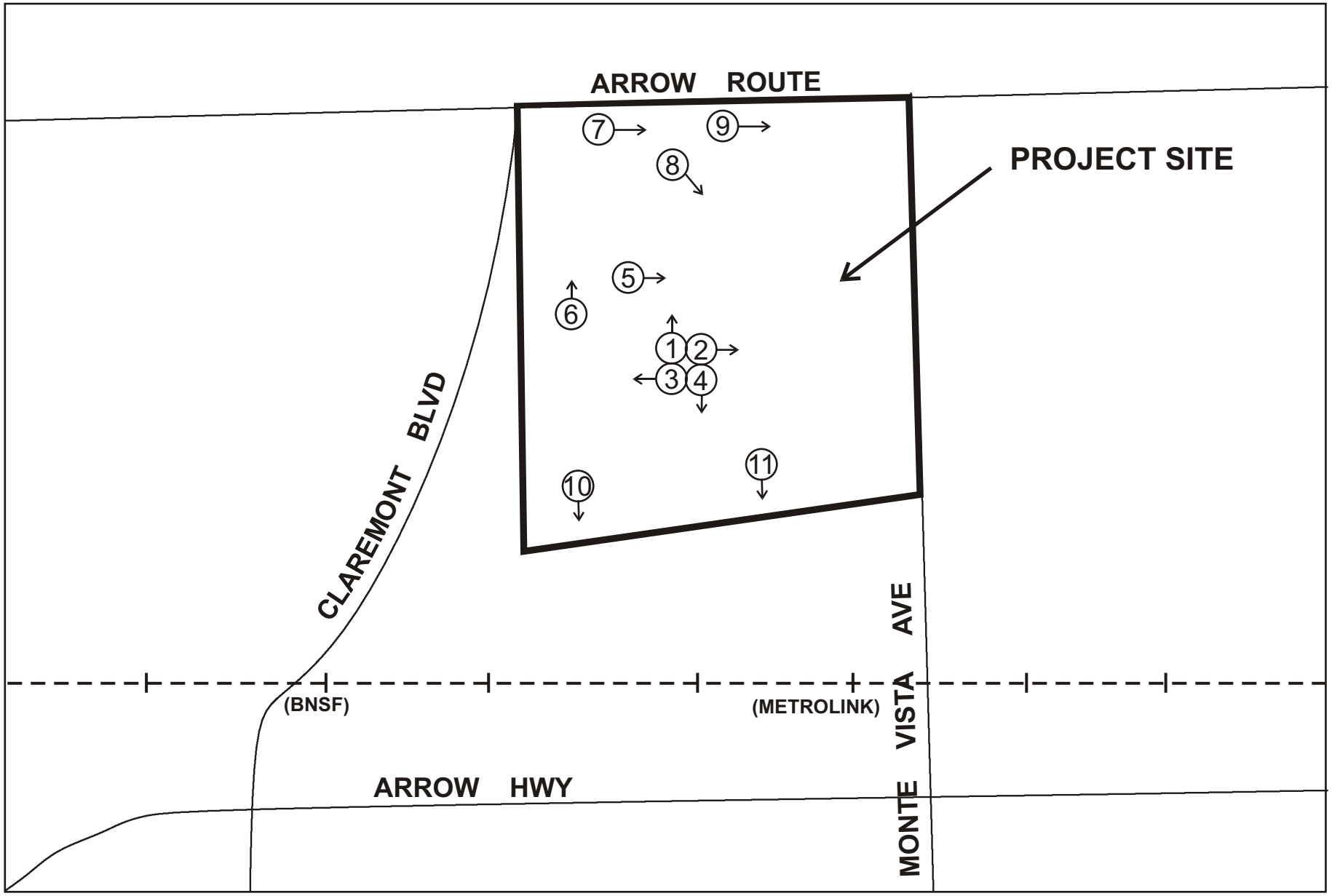
The project site, currently vacant, is a former sand and gravel quarry (See Exhibit 5.1-1 through Exhibit 5.1-7). The site is in the process of being filled in with engineered compacted fill by others under a separate permit that is not part of this project. To date, approximately 11 acres in the northeast area of the site have been filled. The remainder of the site is expected to be filled and compacted during 2004 and 2005. When completed, the site will be comprised of rough graded building pads at grade equivalent to the surrounding properties.

Remnants of an asphalt road are located on the western portion of the site. The Phase I Environmental Site Assessment (contained in Appendix H) referenced the presence of concrete refuse piles on the site. These piles are inert and believed to have emanated from road building activities in the vicinity of the site.

Surrounding Land Uses

Land uses surrounding the project site consist of the following, as identified by the aerial photograph (Exhibit 3-3) and on-site reconnaissance:

- **North:** Arrow Route is a two (2) lane roadway that represents the northerly property line and separates it from another previous quarry operation. This property is owned by the Claremont University Consortium and is planned to be developed with college-related uses. Diagonally across from the subject property to the northeast, the property is similar in nature to the subject site with the same topographic features and primarily ruderal vegetation.
- **East:** Monte Vista Avenue represents the project's easterly property line. Beyond Monte Vista Avenue is another former quarry operation. To the southeast is the Montclair Transcenter, providing commuter bus and passenger rail service (Metrolink).
- **South:** The Southern Pacific right of way and Huntington Drive right of way represent the southerly property line. An asphalt batch plant lies south of the project site.
- **West:** Land uses to the west include an office building and associated parking area currently under construction near the intersection of Arrow Route and Claremont Boulevard, and single family detached homes along Blanchard Street and Huntington Drive located in the more southerly portion of the adjacent property.



NORTH

NOT TO SCALE

Michael Brandman Associates

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Exhibit **5.1-1**

Photograph Index

COLLEGE PARK • CITY OF UPLAND



Photograph 1: North facing view of the project area from the center of the western edge of the gravel pit.



Photograph 2: East facing view of the project area from the center of the western edge of the gravel pit.

Source: Michael Brandman Associates, November 2003.

Michael Brandman Associates

Exhibit **5.1-2**

Site and Vicinity Photographs



Photograph 3: West facing view of the project area from the center of the western edge of the gravel pit.



Photograph 4: South facing view of the project area from the center of the western edge of the gravel pit.

Source: Michael Brandman Associates, November 2003.

Michael Brandman Associates

Exhibit **5.1-3**

Site and Vicinity Photographs



Photograph 5: East facing view of concrete refuse, deposited throughout the project area.



Photograph 6: North facing view of asphalt road along the western boundary.

Source: Michael Brandman Associates, November 2003.

Michael Brandman Associates

Exhibit **5.1-4**

Site and Vicinity Photographs



Photograph 7: East facing view of the project area from the northwest corner of the study area.



Photograph 8: Southeast facing view of the project area and gravel pit.

Source: Michael Brandman Associates, November 2003.

Michael Brandman Associates

Exhibit **5.1-5**

Site and Vicinity Photographs



Photograph 9: East facing view of West Arrow Route, the northern boundary of the study area.



Photograph 10: South facing view of the existing asphalt batch plant.

Source: Michael Brandman Associates, November 2003.

Michael Brandman Associates

Exhibit **5.1-6**

Site and Vicinity Photographs



Photograph 11: South facing view of quarry equipment and spoils piles south of the project site.

Source: Michael Brandman Associates, November 2003.

Michael Brandman Associates

Exhibit **5.1-7**

Site and Vicinity Photographs

Existing General Plan and Zoning

The project site is located at the westerly edge of the City of Upland in San Bernardino County (See Exhibit 3-2). The site is bordered by the cities of Montclair and Claremont, and proximate to the County line separating San Bernardino and Los Angeles Counties. The Upland General Plan and Zoning for the site is Commercial/Industrial-Special Use Permit (C/I-S) and ML (Light Industrial), respectively (See Exhibit 5.1-8 and Exhibit 5.1-9). The land use category of Commercial/Industrial-Special Use Permit (C/I-S) was applied to the project site as part of a 511-acre area through General Plan Amendment No. GPA-02-01 in January, 2003. The C/I-S land use designation, which allows development of various land use components within one comprehensive project, is defined in the amended City Land Use Element as follows:

> "This designation will accommodate a variety of industrial and regional retail uses and will support commercial activities to satisfy a range of shopping needs for residents of the community. It is also intended to encourage development of business in the City and to maximize the potential for job generation. Uses permitted under this category include commercial and industrial. Industrial uses would include: limited general industrial, manufacturing, assembly, warehousing, multi-tenant industrial, research and development, and airport-related uses. Commercial activities include: retail commercial and durable sales goods, tourist-related professional offices, commercial activities, business support services, food establishments and childcare. Other uses would include public facilities and institutional uses, as well as residential, subject to a reasonable minimum increment of land area as well as special use permit process. The Special Use Permit Overlay provision will apply to all parcels five acres and larger in size."

The amended Land Use Element also states that "the …Commercial/Industrial (S) [designation is] proposed for the western section of the City to encourage economic development activities as well as to expand the job base. The uses are designated with either a specific plan, or special use permit, overlay provision to maximize the potential for orderly commercial, industrial, residential, or mixed-use development." As stated in the City Land Use Element, the specific plan, or special use permit, overlay provision provides a mechanism for the consideration of variation from the baseline permitted uses, densities/intensities, and development standards for significant regional or community uses.

The Light Industrial (ML) Zone is intended for the development of industrial uses and to provide locations for "Industrial Planned Unit Development" (MPUD's). MPUD's are large scale developments developed by a single owner or group of owners acting jointly involving a related group of uses, planned as an entity and having a predominant developmental feature.



NOT TO SCALE

Michael Brandman Associates

Exhibit **5.1-8**

General Plan Land Use Designations



NORTH

NOT TO SCALE

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Exhibit **5.1-9**
Zoning Designations

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COLLEGE PARK • CITY OF UPLAND

The General Plan and zoning designations for the properties surrounding the subject site are presented in Table 5.1-1 in tabular format and graphically depicted in Exhibit 5.1-8 and Exhibit 5.1-9.

Table 5.1-1: Surrounding Property General Plan and Zoning Designations

Direction	Jurisdiction	General Plan	Zoning
North	San Bernardino County (Unincorporated area)	Planned Development (PD)	Planned Development (PD)
East	City of Upland	Commercial/Industrial - Special Use Permit (C-I/S)	ML (Light Industrial)
South	City of Montclair	Business Park	M-1 (Limited Manufacturing)
West (within the City of Upland)	City of Upland	Commercial/Industrial Special Use Permit (C-I/S) and Open Space	ML (Light Industrial)
West (within the City of Claremont)	City of Claremont	Medium Density Residential (6-15 du/ac) and Open Space	Arbol Verde (AV)-1 (6,000 sq. ft. lots) and AV-2 (7,500 sq. ft. lots)

City of Upland Planning Programs

The criteria upon which the City of Upland evaluates development plans are contained primarily within the City's General Plan and Planning and Zoning Ordinance. State law requires Cities to adopt General Plans consistent with the provisions in state law. State law requires the adoption of seven (7) mandatory elements and allows other optional elements deemed appropriate by the local jurisdiction. The City's General Plan contains the following elements, with the date of the most recently adopted version in parenthesis: Land Use (1996); Housing (1998); Scenic Highways (1982); Circulation (1996); Seismic Safety (1982), Hazardous Waste and Management Plan (1990); Open Space/Conservation (1982); and Supplements to the Open Space/Conservation Element: Recreation (1985), and Mineral Resources (1982). The City's Planning and Zoning Ordinance is an implementing tool of the General Plan, regulating the use of buildings, structures, and land. Other plans, policies, and regulations relevant to the development of the site include a number of regional, state, and federal plans. A brief summary of these documents is contained in the following paragraphs.

City General Plan Land Use Element and Planning and Zoning Code

The Land Use Element is a mandatory State element that requires an identification of the proposed general distribution, location, and extent of land uses for housing, business, industry, open space, and other uses of public and private land use. The City's Land Use Element describes the current land uses in the City and proposed development pattern. The Land Use Element contains a number of goals and strategies to provide additional housing opportunities; protect the City's historical resources; provide a variety of land uses for commercial/industrial mixed use, office, and industrial

businesses; and provide for the revitalization of commercial areas. The Land Use Element is divided into a number of components identified by issues formed as questions. As part of the discussion of those issues, the General Plan provides subsections identifying Goals and Strategies. The primary finding of the study performed for the Land Use Element is that residential land uses will continue to remain the dominant land use within the City. The goals and strategies applicable to the proposed project and/or project site are listed as follows:

Goal 1C: ***Create cohesive neighborhoods with compatible land use patterns.***

Strategies:

- Allocate medium-density land use designations to areas currently characterized by predominately multi-family housing.
- Establish guidelines for low and medium-density development in selected mixed use neighborhoods.
- Designate appropriate areas to meet the demand for diverse types of housing, with properly related amenities and facilities.
- Multi-family residential projects should, through the application of state-of-the-art site planning techniques, provide an efficient, desirable residential environment for inhabitants of the project and enrich the visual quality of the City.

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.***

Strategies

- Redesign industrial/commercial sites, or allow for adaptive reuse of industrial areas through redesignation of land use to regional commercial or industrial/commercial mixed use designation.

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 provision of appropriate utilities and public infrastructure.

Goal 6: ***Develop and maintain a development strategy for underutilized and declining industrial areas.***

Strategies

- Develop alternative development scenarios for industrial revitalization.

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 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.

Specific Plans

The Land Use Element (p. IV-55) contains a section on Specific Plans and their function under California Government Code Section 65450. The Land Use Element suggests that "…specific plans be considered for the following applications:

- Provide a mechanism for large scale multiple-parcel development projects within the densities and heights prescribed by land use policy, whose objective is to achieve a special purpose or character. Such may include plans for the Town Center, Ninth Street Historical District, and use of the industrial properties located along Ninth Street and in unincorporated areas.
- Provide a mechanism for the consideration of variation from the baseline permitted uses, densities/intensities, and development standards for "significant" regional or community uses.
- Provide a mechanism for the consolidation of adjoining commercially- and residentially-designated parcels into a single site wherein commercial and residential buildings are located in a unified development project, without regard for the designated commercial-residential boundary (similar to a "planned development") in locations specified by land use policy.
- Provide a mechanism for determining the appropriate type, character, density/intensity, and standards of development for the reuse of sites currently used for public or private institutions."

Planning and Zoning Code

The current zoning designation on the project site, ML (Light Industrial), is intended for the development of industrial uses and to provide locations for large scale "Industrial Planned Unit Development" (MPUD's). Allowable uses in the "ML" light industrial zone are presented in this Draft EIR Section 8.3.1 (as extracted from City Zoning and Planning Code Sections 9473.010 through 9473.150).

Housing Element

The Housing Element is a mandatory State element that is required to include an analysis of existing and projected housing needs in the City. Also required is the preparation of programs for the preservation, improvement, and development of housing, including the identification of adequate sites for housing. The City's Housing Element contains a number of goals, strategies, and actions to protect and rehabilitate existing housing, provide additional future housing to meet the needs of the region, ensure equal housing opportunities for all, assist persons in need of housing assistance, and encourage energy conservation. The goals, strategies, and actions applicable to the proposed project and/or site are listed below.

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.

Action: *Specific plans allow large areas to be planned in a manner that encourages the efficient use of infrastructure and other resources and maximizes the compatibility between different land uses. Planning for the major underdeveloped area of the city (The Colonies) is being done through the specific plan process. Any new large-scale development will be encouraged to utilize the specific plan concept.*

Circulation Element

The Circulation Element is a mandatory State element that is required to include an identification of the location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities. The City's Circulation Element identifies the various methods of providing for and accommodating movement of persons and materials through the City. The Circulation Element further provides for a balanced, multi-modal transportation system. The goals and strategies applicable to the proposed project and/or site are listed below.

Goal 1: ***To develop transportation planning, services and facilities that are coordinated with and support the Land Use Plan.***

Strategies

- Approval of all new development shall be correlated with roadway improvements that would be necessary to either: maintain an acceptable level of service; or reduce the impact of the development below the established minimum level of service. Development should not be authorized until appropriate funding mechanisms are in place to fund associated roadway improvements.
- Development shall be regulated by intensity, type, location and phasing to ensure the provision of minimum acceptable peak hour level of service operation.

Goal 2: ***To minimize the impact of existing and future roadways on adjacent land uses, particularly residential, and ensure compatibility between land uses and roadway facilities to the greatest extent possible.***

Strategies

- Direct access of new residential developments onto major arterial streets shall be discouraged.

Goal 4: ***To achieve a balance between parking supply and demand so that an adequate supply of parking is provided to meet the demands generated by the Land Use Element.***

Strategies

- All new development shall be required to provide adequate parking to meet their parking demands on-site or in consolidated parking facilities in close proximity to their site.

Goal 5: ***To promote the aesthetic qualities of the street system.***

Strategies

- All new development shall be encouraged to provide landscaped parkways, appropriate pedestrian amenities, and other streetscape improvements that improve the aesthetics of the roadway to both vehicular and pedestrian traffic.

Scenic Highways Element

The Scenic Highways Element was intended to implement the State and County designated Scenic Highways, as well as identify methods to visually enhance resources seen from the roadway. The Scenic Highways Element is no longer a mandatory State element. No State or County Scenic Highways exist within the City. City designated scenic and historical routes within the City are Euclid Avenue, Mountain Avenue, Foothill Avenue, and Benson Avenue.

Seismic Safety/Safety Element

The Seismic Safety/Safety Element is a mandatory State element that requires identification and implementation of programs to protect a community from unreasonable risks associated with a variety of seismic hazards, fires, and flooding. The City's Seismic Safety/Safety Element principally deals with fire and geologic hazards. The primary finding of the study performed for the Seismic Safety/Safety Element is that City is located within a region that has been affected by seismic activity, principally ground shaking due to the area's fault system. In addition, the Seismic Safety/Safety Element noted that the City is affected by other hazards, including wildland and urban fires, presence of hazardous materials, flooding, and airport operations. The policies contained within the Seismic Safety/Safety Element which relate to the proposed project are as follows:

- The City of Upland should identify and further investigate seismic and geologic conditions affecting the community (inclusion or removal of this policy to be determined based on details obtained from project geotechnical consultant on risk posed by nearby San Jose Fault).
- 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.
- Further research should be conducted on inundation potential of San Antonio Dam.
- All new developments within the City of Upland should be required to comply with established seismic safety standards.

The Seismic Safety/Safety Element also contains information on issues that could potentially affect development of the project area, including the following:

- **Ground Failure:** Some portions of Upland may have the possibility for liquefaction due to soil conditions. Lurching was also noted as a potential problem in those areas where liquefaction is identified as a potential problem.
- **Inundation from a dam failure:** This is identified as a possible occurrence, although considered only a remote possibility.

Hazardous Waste Management Plan

This Element of the General Plan is an optional element and provides information, policies, and criteria on the siting of hazardous waste facilities. Because the proposed project will not contain hazardous waste facilities, this Element is not applicable to the proposed project.

Open Space/Conservation Element

The Open Space/Conservation Element of the General Plan is a combination of two mandatory State elements that identify and plan for the conservation, development, and utilization of natural resources, and the identification of open space areas for recreation uses and public safety. The major finding of the study performed for the Open Space/Conservation Element was that inadequate outdoor recreation is available for existing and future residents. In addition, water and mineral resources were identified as the greatest opportunities for natural resource utilization.

The Open Space/Conservation Element indicates that "…various mining pits will become settling basins for groundwater recharge once the minerals have been removed." The project site is not designated in the General Plan as a groundwater recharge basin.

The goals and objectives of the Open Space/Conservation Element applicable to the proposed project and/or site are listed below:

Goal: ***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.***

Objectives

- To halt further pollution and depletion of water resources and to provide for an adequate future supply of high quality.
- 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.

Additional Objectives contained in the Mineral Resources Supplement to the Open Space/Conservation Element include:

- To reserve open areas for groundwater recharge.
- Implement regulations which will buffer land-use categories permitting mineral extraction from uses incompatible with mining.

Existing Recreational Opportunities

Table 5.1-2 outlines and describes public park facilities located near the project site within the City of Upland. The parks are maintained by the City of Upland. El Barrio Park within the City of Claremont is also near to the project site (See Exhibit 3.2).

Table 5.1-2: Public Parks

Facility	Location	Size	Park Amenities
Citrus Park	8th Street between San Antonio Avenue and Mountain Avenue.	6 acres	One (1) lighted baseball field (American Little League), restrooms, play area, and individual picnic areas.
Greenbelt	15th Street between Mountain Avenue and Benson Avenue.	10 acres	Three (3) lighted softball fields, restrooms, group and individual picnic areas, and play areas.
Cabrillo Park	11th Street between Mountain Avenue and Benson Avenue.	20 acres	Six (6) lighted soccer fields, two (2) basketball courts, restrooms, group and individual picnic areas, and play areas.
Source: City of Upland Parks and Recreation Department.			

Noise Element

The Noise Element of the General Plan is a mandatory State element that requires a jurisdiction to identify and appraise noise problems in the City, including those related to roadways, railroad operations, aviation, industrial plants, and other stationary noise sources. The City's Noise Element contains the following goals and objectives:

Goals:

- To provide a quiet environment for current and future residents of Upland.
- To implement a program for the reduction of noise in the City.
- To reduce the noise impacts to the people that live and work in Upland.

Objectives

- To maintain or reduce existing noise levels in sensitive areas found in the City.
- To reduce the areas involved within the CNEL = 70 noise contours.
- To increase the amount of noise attenuation and protective devices used in the City.
- To establish standards for residential and non-residential noise levels.

The items identified above are general in nature and do not relate specifically to the project or project site. The Noise Element does require the preparation of an acoustical design report/study for residential development areas to demonstrate that interior noise limits can be satisfied.

Other Relevant Programs and Plans

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is responsible for the maintenance of a comprehensive and coordinated planning process involving the preparation of demographic projections, integrated plans involving land use, housing, employment, and transportation, and the implementation of air quality plans. SCAG reports on these issues include the *Regional Transportation Plan (2001 RTP)* that provides an evaluation of growth and economic trends from 2001 to 2005, the *Regional Transportation Improvement Program (2001 RTIP)*, which lists transportation projects proposed over a six (6) year time frame, and the *Regional Comprehensive Plan Guide (RCPG)*, containing policies to guide future growth in the SCAG region. Sections 5.4 Traffic and Circulation and 5.5 Air Quality of this Draft EIR address project compliance with applicable regional plans.

San Bernardino Association of Governments

San Bernardino Association of Governments (SANBAG) is a Sub-Council of Government (Sub-COG) under SCAG that implements the Congestion Management Plan (CMP) within San Bernardino County. The CMP is a State of California mandated program as a result of Proposition 111. The purpose of the CMP is to provide comprehensive long-range traffic planning in subregional areas such as the County of San Bernardino. Section 5.4 Traffic and Circulation of this Draft EIR addresses County and City requirements and project conformity with those requirements. Project conformity with Los Angeles County Congestion Management Program requirements is also evaluated in Section 5.4 due to the project site's proximity to Los Angeles County.

South Coast Air Quality Management District

The South Coast Air Quality Management District has prepared a number of air quality plans designed to reduce air emissions and comply with the federal Clean Air Act. The most recent air quality plan adopted by the District is the *South Coast Air Quality Management Plan (1997 AQMP)* that provides methods to reduce air emissions utilizing short and long-term measures. These measures rely upon known technologies and other actions to achieve their goals. Section 5.5 Air Quality of this Draft EIR addresses AQMP requirements and project compliance with those requirements.

State Planning Law - Specific Plans

Section 65450 of the *California Government Code* provides for the preparation of specific plans. This section requires Specific plans to include the following components:

(1) The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.

(2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land used described in the plan.

(3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.

(4) A program of implementing measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3)

Federal Regulatory Programs

- **Clean Air Act.** The Federal Clean Air Act was adopted to protect and improve air quality. The U.S. Environmental Protection Agency is responsible for setting air quality standards for various pollutants, which are to be achieved by state and local agencies.

- **Clean Water Act (Section 404).** This section of the Federal Clean Water Act was established to preserve water quality and discourage the alteration or destruction of wetland areas. Under this Act, the U. S. Army Corps of Engineers will evaluate the potential effects of discharged, dredged or fill materials into waters of the U.S.

- **National Pollutant Discharge Elimination System Permit Program.** Under this program, industrial and municipal operators are required to obtain permits from Regional Water Quality Control Boards to evaluate the effect of pollutants upon water resources. Point source dischargers must obtain a National Pollutant Discharge Elimination System (NPDES) permit.

- **Federal Endangered Species Act.** This Act identifies a process for listing species as either endangered or threatened, and establishes requirements for their protection. The Endangered Species Act is administered by the U.S. Fish and Wildlife Service.

5.1.2 - Thresholds of Significance

The following criteria for establishing the significance of potential impacts on land use and planning were derived from Appendix G of the CEQA Guidelines. A significant impact would occur if the proposed project would:

- Physically divide an established community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- Conflict with any applicable habitat conservation plan or natural communities conservation plan.

Recreation thresholds from Appendix G of the CEQA Guidelines have also been included. The project will, at a minimum, be considered to have a significant effect related to recreation if it would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical impact on the environment.

5.1.3 - Project Impacts

Proposed Project Design Features

The proposed project is a mixed use development with commercial land uses located in the northerly portion of the site, obtaining access from both Arrow Route to the north and Monte Vista Avenue to the east (See Exhibit 3-4). The balance of the property is proposed for single- and multi-family residential development. The recreational portion of the proposed project will be centrally located within the site.

The project is unique due to its proximity to multiple jurisdictions: the cities of Montclair and Claremont, and the unincorporated area of the County of San Bernardino. The site is also proximate to the County line separating San Bernardino and Los Angeles Counties. The project will provide for

housing and commercial uses in close proximity to the Claremont Colleges, located in the City of Claremont, and accessibility to the existing Montclair Transcenter, in the City of Montclair.

The proposed project will be developed in two (2) phases, as detailed in Section 3.2.1 of this Draft EIR, with all but half of the multi-family and entire hotel portion constructed in the first phase. Project components and approximate building heights are detailed in Tables 3.2-2 and 3.2-3, respectively. Project objectives are identified in Section 3.3.

The primary internal roadways allowing ingress/egress for the project site will be located at approximately the mid-point of the project along the northern and eastern edges (See Exhibit 3-4). The entry road identified as College Park will allow access to and from Arrow Route. The entry road identified as Street "A" will allow access to and from Monte Vista Avenue. These roadways will be private streets built to City standards, extending to a circular internal drive aisle that surrounds the greenbelt/recreational area. The intersections of College Park and Arrow Route, and Street "A" and Monte Vista Avenue, will be signalized. The intersection of will not be signalized. Three (3) driveways will be located along Arrow Route and one (1) along Monte Vista Avenue to allow access to various parts of the commercial area.

Pedestrian access to the site will be provided toward the Claremont Colleges at the northwest corner of the site extending from the Garden Office Building and parallel with the southerly side of Arrow Route, extending from the northwesterly corner easterly to the primary internal access road. A controlled pedestrian access gate is planned along the southerly property line to provide access to a future off-site trail system.

Parking for the proposed project will be provided on-site utilizing a combination of garages and covered and uncovered parking stalls. Parking will also be allowed on Streets "A" and "B" and the circular drive aisle.

Consistency Analysis

City of Upland General Plan Land Use Element and Planning and Zoning Code

City General Plan Land Use Element

The City's Land Use Element designates the project site as Commercial/Industrial-Special Use Permit (C/I-S). The C/I-S designation allows development of various land use components within one comprehensive project, as proposed by the College Park project. In keeping with the C/I-S designation defined in Section 5.1.1, Existing General Plan and Zoning subsection of this Draft EIR, the proposed project will:

- Combine commercial and residential uses, as permitted under this designation.

- Support commercial activities to satisfy a range of shopping needs for residents of the community.
- Encourage development of business in the City.
- • Maximize the potential for job generation.

The City will process the proposed project utilizing a number of discretionary actions or approvals, including a Specific Plan, and Tentative and Final Tract Maps. These applications will allow the City to evaluate the proposed project for compliance with applicable General Plan and zoning requirements and impose appropriate conditions of approval.

A Specific Plan prepared by the applicant (College Park Specific Plan, April 2004) will maximize the potential for orderly mixed-use development and achieve a special purpose and character within the project site, directly relating to surrounding land uses (e.g. the Claremont Colleges, the transportation center, and commercial uses within Claremont Village southwest of the Colleges). The College Park Specific Plan provides regulations/standards for land use, project design, infrastructure, utilities, and public services. The College Park project meets the criteria outlined in this Draft EIR Section 5.1.1 Land Use Element, Specific Plans subsection (drawn from the City Land Use Element) for utilization of specific plans. The criteria most applicable to the College Park project is to "provide a mechanism for the consideration of variation from the baseline, permitted uses, densities/intensities, and development standards for 'significant' regional or community uses".

The current density limit imposed in the City's Land Use Element is 20 dwelling units (du)/acre. A total of 498 residential units are proposed to occupy 25.8 net acres of land, yielding an overall density of 19.3 du/net acre. For the purposes of density calculations, the net acreage of the residential component (25.8 acres) includes all internal streets and driveways as well as the recreational component.

The Land Use Element contains goals and policies to attempt to ensure that multi-family residential projects provide efficient and desirable living environments. The proposed project meets this strategy through the grouping of multi-family units in a variety of structure styles with up to 24 dwelling units in individual structures. The structures provide appropriate setback distances to ensure adequate land area is available to provide sufficient light and air, landscaping, and pedestrian areas. Several active recreation areas in addition to the project's 1.05-acre passive recreational component are located within the multi-family portion of the project.

Government Code Section 65451 governing specific plans requires that a specific plan be consistent with the applicable general plan. Based upon large-scale project size and proposed combination of

uses, the College Park project is considered to be consistent with the C/I-S designation, meeting the Land Use Element criteria for this designation by encouraging a combination of uses, providing City resident shopping opportunities, encouraging business development, and maximizing potential for job generation. Further, the proposed project will not divide an established community, nor will it conflict with any applicable habitat conservation plan or natural communities conservation plan. The proposed mixed-use project will be consistent with the General Plan and will not result in an adverse affect on the planning programs identified within the Land Use Element.

City Planning and Zoning Code

A Specific Plan is being adopted for the College Park project which will allow the mix of proposed uses. Permitted proposed uses include: retail center, hotel, offices, service station/mini-mart, single- and multi-family residential, and recreational component. Any situations not specifically addressed by the College Park Specific Plan, including any subsequent amendments to the Plan, will be subject to the City Planning and Zoning Code, as long as such regulations are not in conflict with the intent and the objectives of the Specific Plan.

Current City parking standards do not account for a mixed-use situation. The parking allocation for the College Park project, consequently, does not meet current parking requirements. A specific study is being prepared in conjunction with the Specific Plan to determine parking needs for this project, resulting in a specific standard for parking within the College Park project being developed. Adequate parking will thereby be provided.

The proposed mixed-use project will not result in an adverse affect on the City's Planning and Zoning Code or its implementation.

Remaining City of Upland General Plan Elements

Housing Element

Most portions of the Housing Element do not relate to new, privately-funded development. The proposed project nevertheless meets the intent of the City's Housing Element: to provide housing for all economic segments of the population through the combination of both single and multi-family housing. An identified strategy within the Housing Element is to utilize specific plans and mixed-use development to achieve this goal. Therefore, the proposed project will help to achieve the goal of the Housing Element and will not result in an adverse impact upon the programs identified within the Housing Element.

Circulation Element

The proposed project is adjacent to Arrow Route and Monte Vista Avenue. Consistent with the strategies contained in the General Plan, the proposed project will undertake improvements along

adjoining streets, including the installation of a traffic signal on Arrow Route at the proposed College Park entry road and at Monte Vista Avenue and "A" Street. The proposed project will also include adequate on-site parking to meet the demands of the proposed uses, and provide landscape improvements, as required by strategies contained in the General Plan. The proposed internal street system will preclude direct access onto adjoining roadways, consistent with the Circulation Element.

The proposed circulation improvements are consistent with the goals and strategies of the Circulation Element and will not result in an adverse impact upon the provisions contained in the Circulation Element. (Refer to Section 5.4, Traffic and Circulation for additional information on traffic impacts, based upon the project traffic analysis contained in Appendix D.).

Scenic Highways Element

The proposed project is not located adjacent to or in close proximity to a designated scenic highway. Therefore, the provisions of the Scenic Highway Element do not apply to the proposed project.

Seismic Safety/Safety Element

The project area is located in a seismically active region. In close proximity to the project site are several faults, including the San Jose Fault, which traverses the local area in a southwest-northeast direction approximately 250' off the northwest corner of the project site, and the Indian Hill Fault, traversing east to west and located approximately ¾-mile directly north. Secondary affects due to proximity to earthquake faults will affect the property, such as ground shaking. Due to the fact most of the site has been excavated through past quarry operations, significant amounts of fill dirt will be required. (Placement of fill is occurring under a separate permit and is not considered part of the proposed project.) Grading and recompaction occurring as part of the reclamation effort must meet specific criteria, thereby reducing the potential for liquefaction and subsidence. As stated in Mitigation Measure GS-1 in Section 5.2.4, a geotechnical investigation for the project site will be completed to establish earthquake parameters for design and construction of project structures.

The area is not located within an area susceptible to wildfires nor is it within the City's Special Fire Zone, which is located north of 19th Street. The project site is within a dam inundation area, although inundation is considered a remote possibility, as stated in the Seismic Safety/Safety Element. (Refer to Section 5.3, Hydrology and Water Quality for further information on site drainage and flooding potential.) The project site is not within the flight pattern of Cable Airport. Based upon these findings, the proposed project is consistent with the provisions of the Seismic Safety/Safety Element, and the proposed project will not result in an adverse impact upon this component of the General Plan.

Hazardous Waste Management Plan

The proposed project does not involve the establishment of a hazardous waste facility. As such, the provisions of this Element are not applicable to the proposed project. (Refer to Section 5.8, Hazards and Hazardous for additional information on hazardous materials.)

Open Space/Conservation Element

The Open Space/Conservation of the General Plan requires that the City provide an adequate range of recreational opportunities to meet the needs of all individuals. The proposed project will provide on-site passive open space for project residents and patrons of project commercial uses, and active recreational areas for residents within the multi-family portion of the project. These improvements will assist the City in providing a sufficient range of recreational opportunities for the proposed project.

The Open Space and Conservation Element identifies a desired standard for park acreage of 10 acres per 1000 population, as developed by the National Recreation and Parks Association (NRPA). The State of California Quimby Act employs a lower standard of 3 acres of parkland per 1000 population. Based on a predicted population of 1,375 persons for the proposed project [1], the project parkland requirement could range from 4.125 acres (using the Quimby Act standard) to 13.75 acres (using the NRPA standard). The proposed project contains a recreational component of 1.05 acres. The remaining requirement as determined by the City will need to be met through the payment of park impact fees.

The proposed project contains a controlled pedestrian access gate, to be located in the southern portion of the site, to provide access to future trails. The Cities of Upland, Montclair, Ontario, and Rancho Cucamonga are cooperating in the establishment of a bike trail within the vacated Huntington Drive right-of-way, immediately south of the project site. Project residents and commercial patrons will be able to access the City of Claremont bicycle trail network via Claremont's 6th St and/or S. Mills Ave./Claremont Boulevard bike trails.

The College Park project will not include recreational facilities which might have an adverse physical effect on the environment, nor will the project require the construction or expansion of recreational facilities which might have a similar adverse physical effect on the environment. Also, the proposed project will not increase the use of existing recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Project impacts on recreation are less-than-significant.

[1] Based on a 2.762 persons per household figure for the City of Upland obtained from Report E-5, Table 2, State Department of Finance, Demographic Research Unit, 498 housing units would generate approximately 1,375 persons.

The objectives of the Open Space/Conservation Element of the General Plan - Mineral Resources Supplement, as listed in this Draft EIR in Section 5.1.1, Open Space/Conservation Element subsection, indicate the City's desire to reserve open areas for groundwater recharge and to buffer mineral extraction operations. The proposed project is not designated as either a retention basin for flood control purposes or a groundwater recharge basin. Property located to the east of the project site, which is providing fill dirt for reclamation of the subject property under a separate permit, will be used by the City as a groundwater recharge facility to help replenish the groundwater basin. Extraction of all minerals has been completed within and surrounding the project site, so the reservation of land to serve as a buffer for mineral extraction operations is not needed.

An asphalt batch plant does exist immediately south of the project site. The proposed multi-family residential units along the southern project boundary would have the closest proximity to the asphalt plant. Representatives of the Vulcan Asphalt Batch Plant have indicated that they intend to relocate the plant to a site that is more proximate to sand and gravel mining operations where necessary materials are available and limited transport to import materials is required. Since plant relocation plans have not been finalized, the potential exists that the plant will continue to operate for a period of one to five years. Given the short-term nature of continuing plant operations, the planned 500-foot residential unit setback from the existing batch plant facility, general adherence of plant operations to normal weekday business hours of 7 am to 6 pm, and opportunities for screening if the plant remains in place longer than anticipated, the proposed project will support planning efforts to buffer mineral extraction activities and associated operations under the Open Space/Conservation Element.

Prior to gaining approval for site grading, the applicant will be required to prepare and obtain approval of a Storm Water Pollution Prevention Plan (SWPPP) to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES). The SWPPP will identify methods of preventing erosion and the off-site discharge of pollution during grading activities and the ultimate development and use of the site. This process will help to reduce further pollution of the area's groundwater basin, consistent with the General Plan. Based upon these findings, the proposed project is consistent with the Open Space/Conservation Element and no adverse impact will result to the Open Space/Conservation Element through approval and development of the project. (Refer to Section 5.5, Air Quality, and Section 5.6, Noise, for additional discussion of compatibility of the batch plant facility with the proposed project.)

Noise Element

The proposed project is located north of an existing railroad line that is used by the regional commuter service. Distance to the railroad tracks and sound attenuation measures to mitigate traffic noise will combine to mask train noise. Section 5.6 Noise contains a complete discussion of the existing and proposed noise environment. Utilizing the mitigation measures contained in Section 5.6, the proposed project will not adversely affect the provisions contained in the Noise Element.

Based on project conformity with all elements of the City General Plan, no impacts on the City of Upland General Plan are anticipated.

Other Relevant Programs and Plans

The federal programs that potentially affect the proposed project include the Clean Air Act (CAA), Clean Water Act, and National Pollutant Discharge Elimination System (NPDES) program, and the Federal Endangered Species Act.. The proposed project will not directly impact the CAA, but will be required to comply with local requirements established to implement it by the South Coast Air Quality Management District. (An evaluation of air quality impacts and associated mitigation measures are provided in Section 5.5 Air Quality.) The proposed project does not require a Section 404 permit under the Clean Water Act due to the lack of a recognized drainage course or blueline stream through the project site, based upon a review of the USGS Ontario Quadrangle Map. No endangered species are located on the subject property due to the lack of suitable habitat.

The proposed project will be required to comply with NPDES requirements due to the size of the site. This will require the preparation of a Storm Water Pollution Prevention Plan (SWPPP) to identify how the potential off-site flow of pollutants will be controlled during construction and operation of the proposed project. Based upon these findings the proposed project will be consistent with applicable federal programs. No impact on these federal programs is anticipated.

Land Use Compatibility

Surrounding Land Uses

The proposed project is surrounded by a variety of land uses. Properties to the north, northeast, and east are separated from the site by adjoining streets. Master planned land uses to the north and east include Planned Development (PD) in the unincorporated area of the County, and Commercial/Industrial-Special Use Permit (C/I-S) in the City of Upland (See Exhibit 5.1-8). The PD designation in the unincorporated area of San Bernardino County allows for a variety of residential, commercial and industrial uses. These planned uses are either compatible with the proposed project, as is the case with land north of the site, or sufficiently separated from the site to buffer potentially incompatible uses, such as potential industrial uses to the east.

Land to the southeast consists of a parking lot for the Metrolink Station. The existing commercial and single family residential uses along the westerly property line represent the land uses in closest proximity to the project site. The property containing the commercial land use consists of a single office building that has gated parking and faces onto Claremont Boulevard. The office building will be located across from the proposed two- (2) story Garden Office Building and the single family residences at the westerly end of Street “B”. The office building will not have significant vehicular

trips or truck activity associated with its operation and, thus, will not be incompatible with the proposed land uses.

Existing older residential properties lie to the west, to the south of the commercial office structure referenced above. These single family homes exist along Blanchard Street and Huntington Drive. These streets will not be extended through the site, thereby not increasing traffic flow for either area. The proposed multi-family structures closest to the westerly property line are two (2) and three (3) stories in height. However, these structures are estimated to be approximately 90 feet from the westerly property line and separated on-site by covered parking and associated access drives.

The subject property is located north of the Vulcan asphalt batch plant. The plant is separated from the project site by rights of way for Huntington Drive and the Southern Pacific Railroad. As discussed previously in Section 5.1.3, Project Impacts (under the Open Space/Conservation Element subheading), representatives of the Vulcan Asphalt Batch Plant have indicated that they intend to relocate the plant. Given the short-term nature of continuing plant operations, the planned 500-foot residential unit setback from the existing batch plant facility, general adherence of plant operations to normal weekday business hours of 7 am to 6 pm, and opportunities for screening if the plant remains in place longer than anticipated, short-term land use compatibility between the proposed project and the existing plant can be achieved. (Refer to Sections 5.5, Air Quality and 5.6, Noise for further information regarding air emissions and noise associated with the asphalt batch plant.) Land use compatibility impacts are considered to be less than significant.

Proximity to Other Land Uses

The proposed project provides commercial and residential land uses in proximity to both the multi-modal transportation facility at the Montclair Transcenter and the Claremont Colleges. Direct bicycle access will be established from the project site to the Transcenter once the planned bike trail within the vacated Huntington Dr. right-of-way is constructed within the Cities of Upland and Montclair. Opportunities for improved pedestrian access to the Transcenter also exist. The proposed multi-family housing also allows the opportunity for affordable student housing in close proximity to the Colleges. In addition, the on-site arrangement of land uses places residential and commercial uses in close proximity to one another, allowing for extensive interaction between uses, yet providing adequate separation to ensure land use compatibility. It is anticipated that the existing residential land uses west of the project site will probably be revitalized over time as the proposed project is implemented. The proposed mixed-use project is considered compatible with other proximate land uses, and is, therefore, considered to have a less-than-significant impact on these land uses.

5.1.4 - Cumulative Impacts

Related projects considered in the assessment of cumulative impacts for land use and all other issue areas are addressed in Section 4.2.

The proposed project represents the conversion of a former sand and gravel extraction and processing site to residential and commercial use that is more compatible with existing surrounding uses. This transition will result in urban development of the site and the loss of vacant land. However, the property has been designated for commercial and industrial development. Utilization of a portion of the site for commercial businesses will provide additional employment opportunities that will increase the number of jobs available to local residents. The close proximity of the proposed project to the Claremont Colleges will also afford students and faculty additional housing opportunities not currently available.

The project's contribution to cumulative land use and planning impacts is considered beneficial with the managed transition from sand and gravel extraction and processing to commercial and residential uses that are more compatible with the surrounding land uses. Due to the factors described above and the on-site proximity of the proposed land uses to one another and their location to off-site transportation facilities, businesses, and schools, the proposed project will substantially reduce potential impacts by allowing the use of alternative transportation modes, such as walking, bus, and rail service. Therefore, the project's contribution to cumulative impacts is considered less than cumulatively significant.

5.1.5 - Mitigation Measures

No mitigation measures required.

5.1.6 - Level of Significance After Mitigation

Project land use impacts are less-than-significant.

5.2 - GEOLOGY AND SOILS

This section of the Draft EIR utilizes a geotechnical report prepared by Morhol, Inc. in December 1998 for the 11 acres at the northeast corner of the project site. The Morhol Geotechnical Report was prepared for the portion of the site that has been reconstructed and rough graded. This report also documents the continuation of previous grading within the balance of the site. Also utilized for the Draft EIR were the City's Seismic Safety/Safety General Plan Element; the California State Department of Conservation, Division of Mines and Geology (DMG) Seismic Hazard Evaluation of the Ontario 7.5-Minute Quadrangle (2000); the Chino Basin Water Conservation District's (CBWCD) Fault Investigations for CBWCD's College Heights Property (July 2003); and The Claremont Colleges North Campus Master Plan Draft EIR (March 1999).

5.2.1 - Existing Conditions

Geology and Soils

Regional/Local Characteristics

The project area is part of a broad alluvial fan deriving from the San Gabriel Mountains and Cucamonga Canyon located to the north of the City. According to the DMG Seismic Hazard Evaluation, the soils in this portion of the plain are dominated by gravel, cobble, and boulder-rich deposits, with interbeds of sand, silt, and clay. This deposit (categorized as Qyf3b) is characterized as young alluvial material from the Holocene period. The sediments that comprise the alluvial fan are estimated to be approximately 1,000 feet thick.

Faulting and Seismicity

The project area is located in a seismically active region. Information on regional and local seismicity contained in The Claremont Colleges North Campus Master Plan Draft EIR (NCMP DEIR) identifies the following earthquake faults as having potential to generate the highest site accelerations for the property evaluated in the NCMP DEIR (located approximately ¾-mile northwesterly from the College Park project site) when considering the maximum expected earthquake for each fault. Approximate distance of the College Park project site to the identified fault is shown in parentheses:

- Cucamonga fault (2 miles)
- Chino fault (5 miles)
- Sierra Madre-San Fernando fault (5 miles)
- Whittier-North Elsinore fault (14 miles)
- San Andreas fault (18 miles)
- Raymond fault (18 miles)

In closer proximity to the College Park project site are the San Jose Fault, which traverses the local area in a southwest-northeast direction approximately 250' off the northwest corner of the project site, and the Indian Hill Fault, traversing east to west and located approximately 3/4-mile directly north.

Historical information on the San Jose fault is limited. The fault is noted in the DMG Seismic Hazard Evaluation, referenced previously, and studied in the CBWCD Fault Investigation for the College Heights Property. CBWCD's College Heights property lies northeast of the College Park site, bordering the San Antonio Creek Channel depicted in Exhibit 5.3-1 of this Draft EIR between Arrow Route and Foothill Boulevard.

The San Jose Fault is considered a potentially active local fault. This fault is not within an Alquist-Priolo Special Studies Zone which prohibits construction, and requires a minimum setback of 50 feet from faults within such zones unless approved by a registered geologist. The CBWCD report locates the San Jose fault at the cited distance of approximately 250' off the northwest corner of the project site.

Information on the Indian Hill fault, obtained from The Claremont Colleges North Campus Master Plan Draft EIR indicates that: (1) this fault is considered potentially active, indicating that it has had some amount of offset within the past 1.6 million years; and (2) fault movement could be in the range of zero to about 3-4 feet of vertical movement if the Indian Hill fault were to serve as the source for a 5.5 to 6.5 magnitude earthquake. This fault is not contained within an Alquist-Priolo Special Studies Zone.

Groundwater

Groundwater depths can vary significantly in the area due to the potential affect of either area faults, perched water or artesian conditions. Initial evaluations referenced within the DMG Seismic Hazard Evaluation noted the San Jose Fault restricts the flow of groundwater flows on the north or west side of the San Jose Fault, thereby causing shallow groundwater depths. Depths on the south or east side of the fault are quite deep and are estimated to reach upward of 600 feet, as noted in Plate 1.2 of the DMG Seismic Hazard Evaluation. Subsequent geotechnical drilling that was undertaken in the Claremont area to confirm the basis for the high groundwater level found water within 11 feet and again at 45 feet and determined it was perched groundwater.

Site Characteristics

The project site consists of an inactive open pit quarry that was mined for aggregate material to a depth of 50 feet below the adjacent ground surface. The pit is to be reclaimed by filling it to its original ground level, in accordance with the approved reclamation plan. Twenty-six (26) acres are to be compacted to at least 90 percent for structural fill, with the balance to a level suitable for non-

structural loads. Among the findings of the Morhol Geotechnical Report (1998) is that the near-surface soils for the 11 acres at the northeast corner of the site have low sulfate content, and post-grading settlement within the compacted area is anticipated to be negligible after six to nine months.

Geologic Hazards

Groundshaking

The City's General Plan indicates "the primary seismic threat facing Upland is that associated with ground shaking." The City's General Plan also notes that the existence of thick alluvium underlying the site tends to amplify seismic waves, which can intensive their effect.

Slope Stability

The Upland General Plan indicates slope stability, including mudslides and landslides, is a minor problem in the City. The only area of the community that is specifically identified as being susceptible to landslides is the San Antonio Heights area, which has slopes ranging from 15 to 20 percent. The DMG Seismic Hazard Evaluation does not identify the subject property as having the potential for landslides.

Ground Failure and Liquefaction

Liquefaction is a phenomenon in which earthquake-induced ground motion creates excess pore pressure in relatively cohesionless soils, causing the material to behave like a liquid. Liquefaction can lead to lateral movement, landsliding, differential settlement, and sand boils. If the water table is shallow, overlying soils may undergo liquefaction as they become saturated by pore waters as they dissipate from below. Generally, liquefaction has a low potential where the groundwater depth is deeper than 40 feet. Estimated depth to groundwater at the project site of 600 feet (Seismic Hazard Evaluation) would indicate that potential for liquefaction at the project site is extremely low.

Inundation Due to Dam Inundation, Seiche or Tsunami

The Seismic Safety/Safety Element of the Upland General Plan indicates that inundation from dam failure is remote. However, the General Plan also notes that the potential for a dam failure due to a seismic event is possible, due to the proximity of the Cucamonga Fault to the San Antonio Dam. (The San Antonio Dam is approximately 4.5 miles upstream along San Antonio Channel from the project site). The General Plan indicates that such an event would need to coincide with an unusually high precipitation level and associated runoff that would fill the dam and a concurrent seismic event along the Cucamonga Fault. The San Bernardino County Official Land Use Plan, Hazards Overlay Exhibit, has identified the subject property as being within a dam inundation area.

Seiches are standing wave oscillations that can develop in lakes, reservoirs or other confined bodies of water during seismic ground shaking. The potential for a tsunami or seiche are non-existent due to the lack of sizable water bodies.

5.2.2 - Thresholds of Significance

Pursuant to Appendix G of the California Environmental Quality Act Guidelines (CEQA), a project would typically have a potentially significant impact for geologic, seismic and soil conditions if it would expose people or structures to major geologic or seismic hazards. For purposes of this analysis, if urban land uses and development are proposed within areas directly associated with one or more major hazards, then the impact is judged to be potentially significant.

A project would also be considered to have a potentially significant impact if it would result in one or more of the following:

- Trigger or accelerate processes such as landslides or erosion;
- Disturb or adversely affect significant mineral resources, or unique geologic features of unusual scientific value for study or interpretation;
- Include project grading or construction that would cause displacements, compaction, or over-covering of soil such that project development poses a reasonable probability of damage, endangerment, or other hazard to on- or offsite buildings or structures by ground or soil failure;
- Development of habitable structures in an Alquist-Priolo Earthquake Fault Zone; or
- Expose people to unacceptable risks due to the presence of geologic (including soil and groundwater) or seismic hazards.

5.2.3 - Project Impacts

Geology and Soils

Expansive Soils

The geotechnical report conducted for the northeast portion of the site (Morhol, 1998) found that the near-surface soils had an expansion index of 6 to 16. Soils within a range of 0 to 20 are categorized in the Morhol report as having a very low expansion potential. Therefore, the potential for expansive soils is less than significant.

Mineral Resources

The project site was previously mined and resources were extracted at that time. Mining operations concluded in the mid-1970s. On-site related sand and gravel operations ended approximately 20 years ago. The site is designated MRZ-2 on the City of Upland Mineral Resource Zone Map, Open

Space/Conservation Element of the City's General Plan. This designation refers to areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. The site is not designated as a resource conservation area in the City's General Plan, probably due to the previous extraction of minerals from the site. As a result of the previous extraction of minerals, the proposed project will result in a less than significant impact upon the ability to extract mineral resources in the future.

Faulting and Seismicity

Fault Movement/Ground Shaking

A number of active faults in the nearby region have been identified. The Ground Shaking Evaluation Report contained within the DMG Seismic Hazard Evaluation estimates the ground shaking hazard for peak horizontal ground acceleration at 10% probability of exceedance in 50 years. Earthquake generated groundshaking, considered the most pervasive and critical earthquake factor for project design, is therefore considered a potentially significant impact.

Current Uniform Building Code (UBC) standards require consideration of site-specific conditions and the proximity to local faults to establish earthquake parameters for design and construction of important structures and facilities. Additional earthquake engineering studies using state-of-the-practice earthquake response assessment techniques will need to be employed to lower the impact from strong groundshaking to a less than significant level.

Surface Fault Rupture

The potential for surface fault rupture near the property is considered to be substantial, due to the existence of the San Jose Fault near the northwest corner of the property. To verify potential on-site seismic conditions and the potential for fault hazards, a geologic investigation will need to be completed to ascertain the risk posed by the proximity of the San Jose Fault and the necessary design considerations to minimize potential impacts from the fault on the project site. Adherence to the findings and requirements of this evaluation should reduce the potential impact to less than significant.

Seismically-Induced Landslides or Rockfall

According to the City's General Plan, the potential for mudslides or landslides in the City is minor. The DMG Seismic Hazard Evaluation found that the potential hazard from earthquake-induced landslides is very low for slopes up to 39 percent for the types of alluvial materials found within the general project vicinity.

Reclamation of the project site, resulting in flat topography suitable for building, is occurring under a separate permit. Landslides or rockfall will not be an issue at the project site due to the resultant flat

topography and the flat topography of the surrounding properties. Therefore, no significant seismically-induced landslide or rockslide impact is anticipated.

Seismically-Induced Settlement

As noted previously, the site will require fill dirt to raise the elevation of the site to allow for the proposed development project. The fill dirt added to the site must meet compaction requirements specified within the Morhol geotechnical evaluation. Adherence to standard construction requirements will result in a less than significant impact for seismically-induced settlement.

Seismically-Induced Flooding

The site could potentially experience seismically-induced flooding in the event of failure of the San Antonio dam. However, the potential for such a failure is considered a remote possibility, as stated in the City of Upland Seismic Safety/Safety General Plan Element. The low risk is based upon the need for high amounts of precipitation, approaching those designated by the category "100-year flood", and a concurrent seismic event sufficient in magnitude to result in dam failure. In addition, the number and capacity of settling basins south of the San Antonio Dam are designed to accommodate flood conditions above a 100-year storm event. All factors considered, dam failure of the San Antonio Dan is highly improbable, rendering the potential impact of inundation on the proposed project to be less than significant.

Geologic Hazards

Slope Stability

The topography around the project site is relatively flat without significant slopes. The existing on-site slopes occurred as part of previous excavation activities and will be eliminated with the importation of fill dirt to the site. As such, no slope stability issues will exist on-site as part of the proposed project. Impact is less than significant.

Liquefaction

The DMG Seismic Hazard Evaluation noted that the site consists of young alluvial materials that are typically comprised of boulders, cobbles, gravel, sand, minor silt and clay. These materials generally exhibit loose to moderate density and are susceptible to liquefaction when saturated. Information contained within the Seismic Hazard Evaluation noted that the groundwater elevation was estimated to be approximately 600 feet. Groundwater depths exceeding 40 feet generally do not represent a hazardous condition. Due to the significant depth of groundwater at the site, the potential for liquefaction is less than significant.

5.2.4 - Mitigation Measures

The project will adhere to local and State building codes designed to mitigate potential hazards associated with geologic and soil conditions. Project mitigation measures for geology and soils impacts are as follows:

GS-1 Prior to the issuance of grading and building permits, the applicant shall complete a geotechnical investigation for the project site to establish earthquake parameters for design and construction of project structures. This report shall be subject to review and approval by the City of Upland.

GS-2 The project shall conform to the geotechnical criteria contained in the Geotechnical Report of Rough Grading (1998) prepared by Morhol, Inc. for foundation and pavement design, trench backfilling, and surface drainage, for incorporation into project design and construction.

GS-3 Any undocumented fill will be removed and replaced by properly compacted fill soils, utilizing removed fill as possible. The replaced fill soils will be compacted in accordance with accepted standards and under the observation and testing of a licensed geotechnical engineer.

GS-4 All site grading shall be observed and tested by the project geotechnical consultant.

GS-5 Materials to be imported for placement as fill shall be sampled and approved by the Geotechnical Consultant prior to being brought on-site.

GS-6 Precise grading and improvement plans shall be reviewed by the geotechnical consultant prior to construction. Geotechnical parameters contained in the Morhol Report for preliminary foundation design shall be verified by the geotechnical consultant after completion of precise grading operations.

5.2.5 - Cumulative Impacts

Development of the proposed project and other approved, pending and probable future projects may expose future populations to regional seismic hazards. However, compliance with seismic safety standards for new construction, recommendations of existing and future project geotechnical engineering reports, and ongoing provisions for emergency preparedness and response are anticipated to reduce such risks to acceptable, less than significant levels. Other geologic and soils influences are largely site specific, and there is little if any cumulative relationship between proposed project development and development of cumulative projects identified in Section 4.2.

5.2.6 - Level of Significance After Mitigation

Adherence to local and State building codes and specific site development requirements as outlined in the preceding mitigation measures will reduce potential impacts from geologic and soil conditions at the project site to a less than significant level.

5.3 - HYDROLOGY AND WATER QUALITY

This section of the EIR utilizes information contained in the Hydrology and Water Quality Assessment for the College Park Project prepared by Fuscoe Engineering Inc. (December 2003, contained in Appendix C). Hydrology deals with the properties, distribution and circulation of water. Water quality deals with the quality of surface water, groundwater, and runoff.

5.3.1 - Existing Conditions

Existing Site Conditions

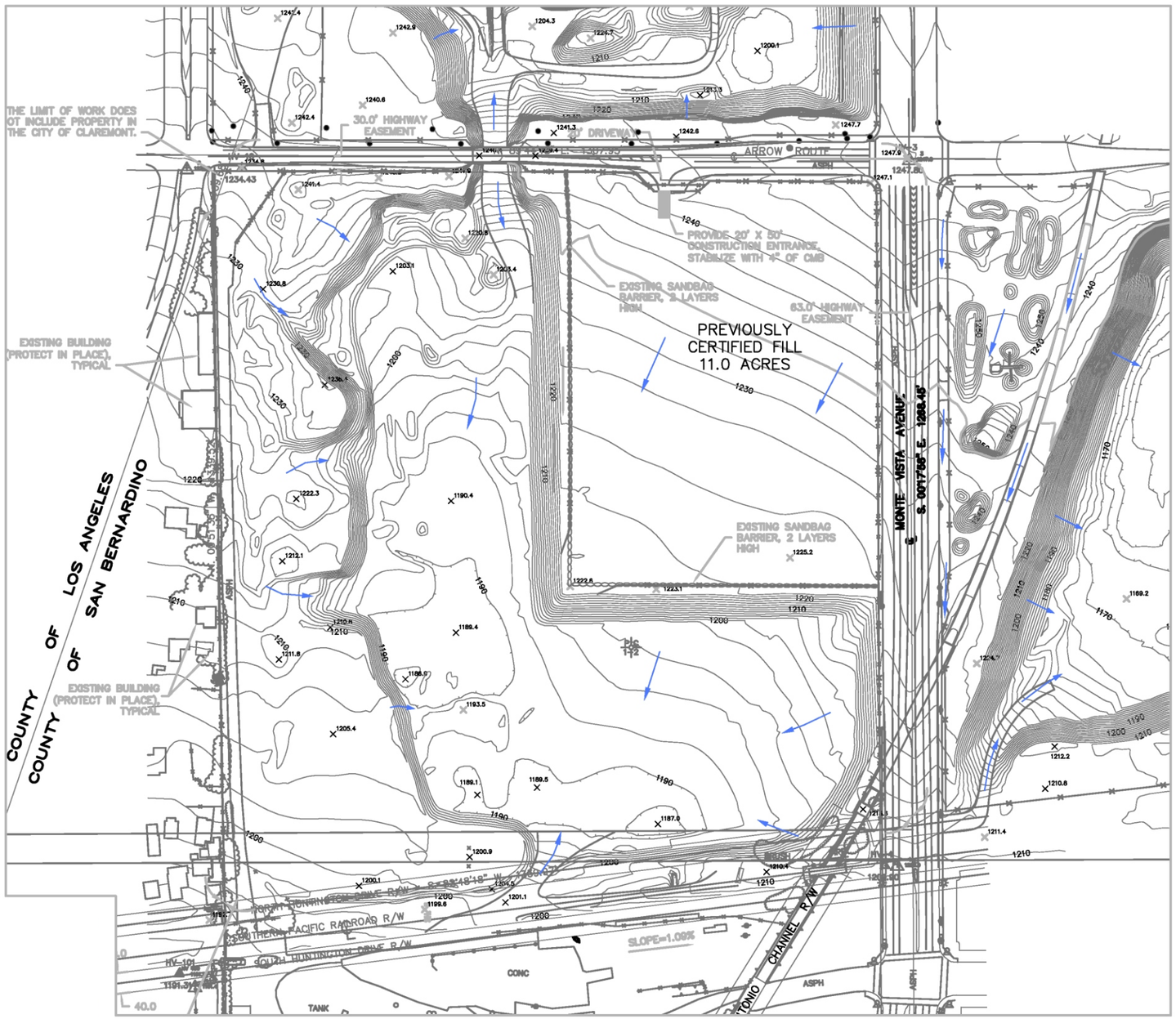
The existing site is a former sand and gravel quarry that has been partially filled with artificial wash tailings from past processing operations associated with the sand and gravel facility. Quarry operations encompassed most of the site, with varied pit bottom elevations. The quarry was originally mined to a depth of approximately 40 feet below the existing adjacent ground. The native alluvial deposits consisted of sand and gravel. Following completion of the mining operations, the site was used to dispose of wash tailings from adjacent mining operations, and as a dumpsite for concrete and asphaltic concrete rubble.

The northeast corner of the site (approximately 11 acres) has been filled and graded to match the adjacent grades at the north and east sides of the property. The area was graded to drain to the southwest to match the general flow direction of the surrounding area grades (See Exhibit 5.3-1). Sediment control measures in the form of double sand bag layers were implemented along the west and south borders of the 11-acre fill site to minimize the amount of sediment discharging from the filled area to the remaining quarry pit. The fill used in the northeast corner was excavated from the existing wash tailings at the site. The new fill was constructed as engineered, compacted fill.

Existing Hydrology Conditions

Under the existing conditions, the quarry pit serves as a large reservoir during storm events and does not discharge any runoff into the City's Municipal Separate Storm Sewer System (MS4 system). The sand and gravel soil characteristics provide high infiltration capabilities and the depth of the pit (up to 40 feet) provides sufficient storage capacity so that no spill over conditions occur. As such, there is a net zero discharge of surface water runoff from the project site into the public storm drain system.

The project receives minimal off-site surface runoff. An existing pit north of Arrow Route stores runoff but currently does not contribute any runoff to the project site. However, alterations to the project site currently in progress under a separate permit will modify historic surface flows. An existing pit adjacent to Monte Vista Avenue prevents off-site runoff from entering the site from the east.



LEGEND & ABBREVIATIONS

- GRAVELEY SEDIMENT BARRIER
- EXISTING CONTOUR
- BOUNDARY/PROPERTY LINE
- FENCE LINE
- CURB

I.E.	INVERT ELEVATION
ASPH	ASHPALT
R/W	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
WSP	WATER SURFACE PROFILE
CMB	CRUSHED MISCELLANEOUS BASE

Source: Fuscoe Engineering, Inc.

NORTH

250 125 0 250

SCALE IN FEET

Michael Brandman Associates

Exhibit **5.3-1**

Existing Drainage Map

Existing Drainage

Under the existing conditions, the existing drainage facility is the sand and gravel pit. Adjacent to the project site is the San Antonio Channel that conveys flows northeast (upstream) of the site to the southwest (downstream). The channel is operated and maintained by the US Army Corps of Engineers (USACOE). The channel does not receive any runoff from the proposed site under the existing conditions but does receive runoff from the surrounding streets.

Existing FEMA Flood Boundary/Dam Inundation Boundary

The National Flood Insurance Act established the National Flood Insurance Program, which is based on the minimal requirements for flood plain management and is designed to minimize flood damage within Special Flood Hazard Areas. According to the Flood Insurance Rate Map (FIRM) Panel 8605 F (unprinted) dated March 18, 1996 from the Federal Emergency Management Agency (FEMA), the project site lies within Zone X. Zone X is referred to as an area outside the 100-year flood plain where flood insurance is not required.

The project site is located downstream of the San Antonio Dam, which is owned and operated by the US Army Corps of Engineers (USACOE). The dam is situated on San Antonio Creek about 10.5 miles upstream from its confluence with Chino Creek, which is a tributary to the Santa Ana River. According to the San Bernardino County Official Land Use Plan, General Plan Hazard Overlay, the project site is located within the downstream inundation area. The dam is designed to retain floodwaters up to the 2,238 ft elevation (9,350 ac-ft) and release regulated discharges up to 8,000 cfs. [1] Since the completion of the dam in 1951, the capacity of the dam has never been breached.

5.3.2 - Existing Regulatory Requirements

NPDES Storm Water Regulatory Requirements

The proposed College Park Project and its facilities must comply with surface water quality regulations promulgated by a multitude of public agencies – federal, state, and local – to control polluted runoff. They include: 1) the U.S. Environmental Protection Agency (US EPA); 2) the California State Water Resources Control Board (SWRCB); 3) the California Regional Water Quality Control Board, Santa Ana Region (SARWQCB); 4) the County of San Bernardino, and; 5) the City of Upland.

Federal EPA

In 1990, the US EPA initiated the National Pollutant Discharge Elimination System (NPDES) Storm Water Program, in accordance with Section 402(p) of the CWA, to control polluted runoff from

[1] http://www.spl.usace.army.mil/resreg/htdocs/snto.html, US Army Corps of Engineers, Reservoir Regulation Section, retrieved December 4, 2003.

sources that had the greatest potential to negatively impact water quality to the waters of the United States. As a result, this permitting program requires operators of municipal separate storm sewer systems (MS4s), industrial facilities, and construction sites to obtain coverage for the storm water discharges generated from these operations. These NPDES permits thus provide a mechanism for monitoring and regulating the discharge of pollutants from these non-point sources. In essence, the NPDES permits effectively prohibit non-storm water discharges from MS4s, industrial activities, and construction activities, unless otherwise permitted under a separate NPDES permit.

The implementation of the NPDES Storm Water Program was carried out in two phases. Phase I, which began in 1990, required NPDES permit coverage from Large and Medium MS4s serving populations of 100,000 or more (i.e. cities and counties). Eleven categories of industrial activities (classified by SIC code) were also required to have NPDES permit coverage. [2] One of those eleven activities included construction activities disturbing five acres or more of soil. Phase II of the NPDES Storm Water Program, implemented in 1999, tightened non-point source regulations by adding Small MS4s (those serving less than 100,000 population), public facilities (i.e. military bases, school districts, hospitals, etc.), as well as construction activities disturbing between one and five acres of land, to the regulated community.

State Water Resources Control Board

In the State of California, the SWRCB and local RWQCBs have assumed the responsibility of implementing US EPA's NPDES Storm Water Program. Under the State's water quality control law, better known as the Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.), the SWRCB is granted control over California's water rights and water quality policy. As a result, the SWRCB issues NPDES Storm Water permits in the form of Waste Discharge Requirements (WDRs) to Phase I and II permittees in California. More specifically, the SWRCB is the regulating authority for industrial and construction activities, while local RWQCBs issue and enforce MS4 storm water permits.

General Industrial Storm Water Permit

The General Industrial Storm Water Permit (GISP), WDRs Order 97-03-DWQ, (NPDES Permit No. CAS000001), regulates storm water discharges from 10 categories of industrial activities. Construction activities are regulated under a separate permit issued by the SWRCB. Industrial facilities that qualify must submit a Notice of Intent (NOI) to file for permit coverage or otherwise be in violation of the CWA.

[2] (i) Facilities with effluent limitations, (ii) Manufacturing, (iii) Mineral, Metal, Oil and Gas, (iv) Hazardous Waste, Treatment, or Disposal Facilities, (v) Landfills, (vi) Recycling Facilities, (vii) Steam Electric Plants, (viii) Transportation Facilities, (ix) Treatment Works, (x) Construction Activity, (xi) Light Industrial Activity.

The SARWQCB, under the guidance of the SWRCB, administers and oversees the GISP program within the Santa Ana River Watershed. The College Park Project does not have any of the regulated industrial activities planned for the project site and therefore coverage under the Industrial Permit is not required.

General Construction Permit

According to US EPA, construction sites without proper sediment and erosion controls can discharge 10 to 20 times the sediment load than agricultural lands and 1000 to 2000 times the rate from forest lands. [3] The General Construction Permit (GCP), WDRs Order 99-08-DWQ, NPDES Permit No. CAS000002, regulates storm water discharges associated with construction activities disturbing 1 acre or greater of soil. Construction sites that qualify must submit a Notice of Intent (NOI) to file for permit coverage or otherwise be in violation of the CWA.

The GCP "requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) [that will achieve BCT and BAT performance standards] the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP." [4]

Santa Ana Regional Water Quality Control Board (SARWQCB) Municipal Separate Storm Sewer (MS4) Permits

The SARWQCB issued a MS4 storm water permit, WDR Order No. R8-2002-0012, NPDES Permit No. CAS618036, to the County of San Bernardino, and its 16 co-permittees within the Santa Ana region, which includes the City of Upland.

Whereas the GISP and GCP are issued statewide, MS4 permits are issued by local Regional Boards in order to provide the permits with the means to address storm water quality issues specific to the local watershed or region. As a result, MS4 permits are a more prescriptive level of regulation, requiring permittees to develop and implement a storm water management program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). The MEP standard is a more

[3] Storm Water Phase II Proposed Rule Fact Sheet Series, Fact Sheet 3.0 (EPA, April 1999).

[4] Website: http://www.swrcb.ca.gov/stormwtr/construction.html.

stringent performance standard than BCT/ BAT established for both the GISP and GCP. The storm water management program or Municipal Storm Water Management Program (MSWMP), as it is referred to in the Santa Ana region, must specify SARWQCB approved BMPs to address the following program areas: public education and outreach, illicit discharge detection and elimination, construction and post-construction, and good housekeeping for municipal operations. [5]

Local Agencies

The current MSWMP established by the County of San Bernardino and the City of Upland, pursuant to the MS4 Permit (currently in its third term), was submitted to the SARWQCB in September 2000. [6] The MSWMP approved by the SARWQCB includes, among other programs, guidelines for "new development and redevelopment". More specifically, the program describes the range of source control, pollution prevention, and/ or structural treatment BMPs available to new developments to address storm runoff water quality. New development projects, such as the proposed project, must consider these SARWQCB approved BMPs to address post-construction management of storm runoff water quality and subsequently prepare a Water Quality Management Plan (WQMP) describing the menu of BMPs chosen for the project site. The WQMP must then be submitted to the City of Upland for approval prior to the City issuing any building or grading permits.

Existing Water Quality Standards

The ultimate goal of the Clean Water Act is to protect the physical, chemical, and biological integrity of the waters of the United States. Along with regulatory programs for storm water and non-storm water discharges generated from pollutant sources, the CWA also required States to adopt water quality standards for receiving waterways and water bodies to achieve this goal. Water quality standards are based on a water body's designated beneficial use, along with its water quality criteria based upon these uses. To further elaborate, beneficial uses of water bodies describe the appropriate uses of a particular water body based on current and historical use of it, such as contact recreation or drinking water uses. Its associated water quality criteria are expressed either as numeric concentrations, levels of constituents, or as narrative summaries that represent the quality of water that support the designated beneficial use.

303(d) List of Limited Water Quality Segments

Under Section 303(d) of the CWA, States are required to identify water bodies that do not meet their water quality standards. Once a water body has been listed as impaired, a Total Maximum Daily Load (TMDL) for the constituent of concern (pollutant) must be developed for that water body. A TMDL is an estimate of the daily load of pollutants that a water body may receive from point sources, non-point sources, and natural background conditions (including an appropriate margin of safety),

[5] http://www.swrcb.ca.gov/stormwtr/municipal.html

[6] Also referred to as: County of San Bernardino, Santa Ana Basin Area, Report of Waste Discharge – Application for Renewal of the Municipal NPDES Stormwater Permit, 2001-2006 (September 1, 2000).

without exceeding its water quality standard. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL.

As opposed to the NPDES programs, which focus on reducing or eliminating non-storm water discharges and reducing the discharge of pollutants to the maximum extent practicable, TMDLs provide an analytical basis for planning and implementing pollution controls, land management practices, and restoration projects needed to protect water quality. According to the 2002 CWA Section 303(d) List of Water Quality Limited Segments, there are no impaired receiving water bodies within the vicinity of the College Park Project. The project site is adjacent to the San Antonio Channel, which is not on the 303(d) list.

Existing Water Quality Objectives

In 1995, the SARWQCB revised its Santa Ana River Basin Water Quality Control Plan (Basin Plan), which establishes water quality objectives for surface and ground waters in the Santa Ana Region.

Surface Waters

The designated beneficial uses of the San Antonio Creek, which is the receiving water body for the proposed project, are:

- MUN - municipal and domestic supply;
- AGR – agricultural supply;
- IND – industrial service supply;
- PROC – industrial process supply;
- GWR – groundwater recharge;
- POW – hydropower generation;
- REC1 – water contact recreation;
- REC2 – non-contact water recreation;
- COLD – cold freshwater habitat; and
- WILD – wildlife habitat.

San Antonio Creek water quality objectives to maintain these beneficial uses are:

- Total Dissolved Solids (TDS) – 225 mg/L;
- Hardness (CaCO3) – 150 mg/L;
- Sodium (Na) – 20 mg/L;
- Chloride (Cl)– 6 mg/L;
- Total Inorganic Nitrogen (TIN) – 4 mg/L;
- Sulfate (SO4) – 25 mg/L; and

- Chemical Oxygen Demand (COD) – 5 mg/L.

Groundwater

Groundwater is a valuable water resource in inland areas of the Santa Ana Region. A significant portion of San Bernardino County relies upon groundwater as a source of municipal water supply. As a result, water quality objectives were established by the SARWQCB in its Basin Plan for the region's groundwater basins and subbasins. The proposed project resides in the Cucamonga subbasin of the Chino Groundwater Basin. In 1978, the Chino Groundwater Basin was adjudicated by the California Superior Court. It serves as the primary source of water for the basin's cities, industry, and remaining agriculture. Since 1975, several significant studies of the basin have indicated that groundwater quality has been seriously degraded over the years. Two particular concerns brought up in the 2002 Watershed Management Initiative for the Santa Ana Region are: 1) quality and quantity of the groundwater supply and 2) storm water runoff and related water quality impacts.

The Cucamonga subbasin has beneficial use designations of: MUN, AGR, IND, and PROC. The water quality objectives to support these beneficial uses for the subbasin are listed in the table below.

Table 5.3-1: Cucamonga Subbasin water Quality Objectives

Subbasin	Water Quality Objectives (mg/L)						Hydrologic Unit	
	TDS	Hard.	Na	Cl	NO3-N	SO4	Primary	Secondary
Cucamonga	220	170	15	15	5	20	801.24	801.21
Chino I	220	170	15	15	5	20	801.21	481.23, 418.22, 801.27

As a source of municipal and domestic water supply, the Cucamonga subbasin is also regulated for numerous other water quality objectives such as heavy metals, total coliforms, barium and boron among others.

5.3.3 - Thresholds of Significance

CEQA Section 15064 provides guidance on the determination of the significance of environmental effects caused by a project. CEQA directs that the EIR should define the thresholds of significance and explain the criteria used to judge whether an impact is above or below that threshold. The tools used to make significance determinations include CEQA's mandatory Findings of Significance, Appendix G of the CEQA Guidelines, agency regulatory standards, consultation with other agencies, and the Lead Agency's specific thresholds of significance.

The project will, at a minimum, be considered to have a significant effect related to hydrology and water quality if it would result in:

- Violation of any water quality or waste discharge requirements; or
- Substantial depletion of groundwater supplies or substantially interfere 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); or
- Substantial alteration of the existing drainage pattern in a manner which would result in substantial erosion or siltation on or off-site; or
- Substantial alteration of the existing drainage pattern or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off-site; or
- Creation of or contribution of runoff water which would exceed the capacity of existing or planned stormwater drainage systems; or
- Otherwise substantial degradation of water quality; or
- Placement of housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or FIRM map or other flood hazard delineation map; or
- Placement of structures within a 100-year flood hazard area, which would impede or redirect flood flows; or
- Exposure of 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.

In addition, the San Bernardino County Area-Wide Urban Storm Water Runoff Permit (NPDES No. CAS618036) requires the following issues to be addressed with respect to hydrology and water quality:

- Potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm; and
-
- Potential for significant increases in erosion of the project site or surrounding areas

The San Bernardino County NPDES Area MS4 Permit requires the following questions be analyzed for potential impacts:

- Potential impacts of project construction on storm water runoff; and
- Potential impact of project's post-construction activity on storm water runoff; and
- Potential for discharge of storm water pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.

5.3.4 - Project Impacts

Design Methodology

The proposed project will result in the conversion of a 39-acre former sand and gravel operation into a mixed development use consisting of primarily impervious surface conditons. The creation of impervious surfaces decreases the amount of infiltration and increases the volume and rate at which runoff discharges from the site.

In calculating the hydrological effects of the proposed project, Fuscoe Engineering, Inc. employed the rational method to compute the estimated peak discharge of runoff from the proposed site, following the procedures set forth in the San Bernardino (SB) County Hydrology Manual. For the purposes of this study, the future development was assumed to be 100% impervious for the 39-acre site. This is considered a conservative approach since the fully developed site will incorporate some pervious areas, such as the recreational component and landscaping areas, that will ultimately reduce the peak discharge.

Peak discharges were calculated based on a 100-year return frequency flood using the required isohyetal maps, soils maps and intensity duration curves found in the SB hydrology manual. Peak runoff from the entire area is predicted to discharge 143 cubic feet per second (cfs). This represents an increase of 143 cfs to the San Antonio Channel for a 100-year storm event in comparison to the zero net discharge of surface runoff under the existing condition.

Certified fill will be added to the remaining 26 acres and graded to drain in the general flow direction of the surrounding area grades (See Exhibit 5.3-2). Runoff from the graded area will be conveyed to a 60-inch buried pipe, which will route the flow to the San Antonio Channel. USACOE hydraulic design requirements for discharging into the channel were used for the design of the connection point into the channel.

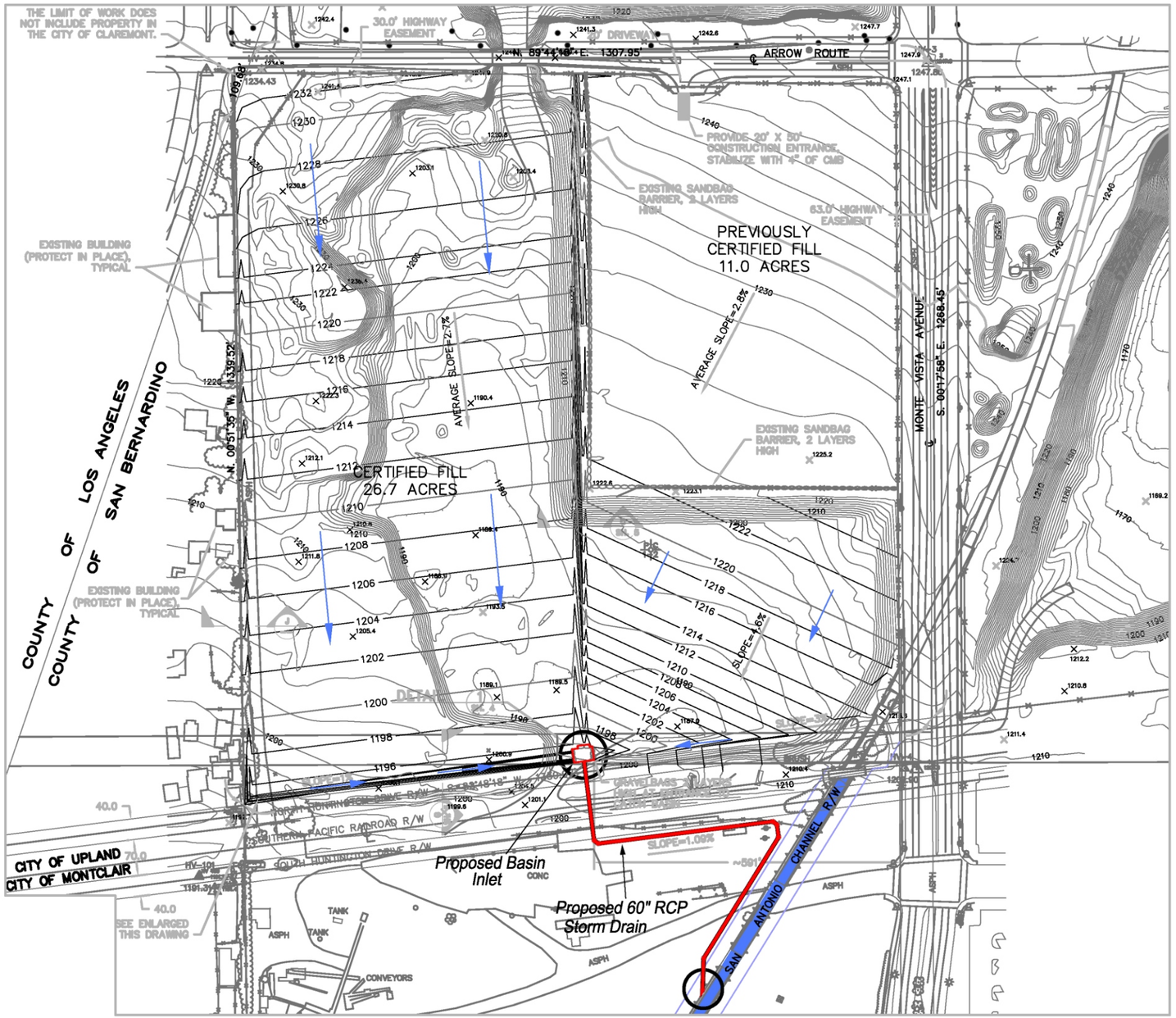
Flow pass-through calculations were based on routing an inflow hydrograph through the basin to the San Antonio Channel. The rational method was used in the program to compute runoff for the site. Reach and basin routing was performed using the storage-indication method.

In order to design and construct a storm drain connection into a USACOE maintained and operated channel, an approval and permit is required from the Corps' Engineering Branch. Based on an earlier hydrology report prepared by Outten Engineering [7], permission has been granted by the Corps to drain runoff from the site into the channel. The Corps has also approved construction details for a 48-inch pipe connection into the channel. The proposed 60-inch connection that is currently being designed will be submitted to the Corps for reapproval. It is anticipated that the Corps will approve the drainage design, since the anticipated peak discharge to the San Antonio Channel has not changed with the larger diameter pipe design.

pipe connection into the channel. The proposed 60-inch connection that is currently being designed will be submitted to the Corps for reapproval. It is anticipated that the Corps will approve the drainage design, since the anticipated peak discharge to the San Antonio Channel has not changed with the larger diameter pipe design.

The proposed project will not require any FEMA clearances or adjustments to the existing FIRM map since the site is located outside the 100-year flood plain.

[7] Drainage Design Report for Vulcan Materials Landfill Development, Outten Engineering Company for the City of Upland, California, January 28, 2003, revised April 30, 2003.



LEGEND & ABBREVIATIONS

- GRAVELEY SEDIMENT BARRIER
- EXISTING CONTOUR
- NEW CONTOUR
- BOUNDARY/PROPERTY LINE
- FENCE LINE
- CURB

I.E.	INVERT ELEVATION
ASPH	ASHPALT
R/W	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
WSP	WATER SURFACE PROFILE
CMB	CRUSHED MISCELLANEOUS BASE

Source: Fuscoe Engineering, Inc.

NORTH

250 125 0 250

SCALE IN FEET

Michael Brandman Associates

Exhibit **5.3-2**

Proposed Drainage Map

Potential Hydrology Impacts

The filling of the project site and the subsequent increase in discharge from the project site into the San Antonio Channel represents a substantial alteration to the existing drainage pattern resulting in potential impacts. Potential impacts could include downstream flooding and erosion of receiving water bodies, exceedence of downstream flood control capacities, flood inundation by upstream dam failure and cumulative flooding impacts related to the development and future developments.

Project Design Features

On-site Hydrology and Drainage

On-site storm drainage improvements associated with project implementation will be designed to convey storm water runoff safely from the project area without increasing flood or erosion hazards or exceeding capacity within the project site. The proposed storm drainage improvements for the project include several major elements. A series of storm drains and laterals would be constructed within the internal street system to pick up flows from the development areas. Streets, curbs and gutters would direct street flows into collection points, where flows would enter the storm drain. The storm drains would be strategically placed to pick up flows from the development areas in accordance with City design standards to minimize the threat of on-site flooding. The flows would be delivered to a basin at the downstream end and then discharged into the proposed main storm drain line that connects into the San Antonio Channel. The proposed on-site storm drain system is designed to safely convey peak flows through the site. The on-site hydrologic impacts associated with the project are considered less-than-significant.

Off-site Hydrology and Drainage

As the designer and operator of the channel, USACOE is responsible for identifying capacity and flooding issues at the point of connection and downstream. The peak discharge capacity associated with the proposed 60-inch connection to San Antonio Channel has not changed from the discharge associated with the 48-inch connection previously approved by USACOE. This approval by the USACOE's Engineering Branch indicates that the San Antonio Channel has the capacity to accept the proposed discharge from the site without increasing potential for downstream flooding. Impacts on capacity and downstream flooding potential are therefore considered less-than-significant. Downstream erosion impacts are also less-than-significant as the downstream channel is concrete lined.

Flood Boundaries and Dam Inundation

The proposed project would not place any housing within a designated 100-year flood hazard area as indicated by the FEMA Flood Maps and impacts are considered less-than-significant. The project is subject to flooding in the event of a catastrophic failure of the San Antonio Dam. The inundation area covers the majority of the city and development of the proposed project within this area is considered a potential impact.

As stated in the City of Upland Seismic Safety/Safety General Plan Element, inundation due to dam failure of the San Antonio Dam is a remote possibility in the event of a severe winter season having extremely high amounts of precipitation, approaching those designated by the category "100 year flood". Remoteness of this potential is enhanced by the number and capacity of "settling basins" located south of the dam, which are designed to accommodate conditions well above a 100-year flood category. In addition to the aforementioned factor, dam failure of the San Antonio Dam is highly improbable without a concurrent seismic incident (refer to discussion of dam failure in Section 5.2 Geology and Soils), rendering the potential impact of inundation on the proposed project to be less than significant.

There are no upstream bodies of water that are subject to seiches or mudflows and the project site is not located near the ocean. Therefore, the project would not expose people or structures to a significant risk of loss, injury or death involving seiches, mudflows, or tsunami's. There are no impacts associated with these conditions.

Water Quality Impacts

Surface Waters

Clearing, grading, excavation and construction activities associated with the proposed project may impact water quality due to sheet erosion of exposed soils and subsequent deposition of particles and pollutants in drainage areas. Grading activities, in particular, lead to exposed areas of loose soil, as well as sediment stockpiles, that are susceptible to uncontrolled sheet flow. The use of materials such as fuels, solvents, and paints also present a risk to surface water quality due to an increased potential for non-visible pollutants entering the storm drain system. If uncontrolled, these materials could lead to water quality problems including sediment-laden runoff, prohibited non-storm water discharges, and ultimately the degradation of downstream receiving water bodies, such as the San Antonio Creek adjacent to the project site.

Development of the proposed project may result in long-term impacts to the quality of storm water and urban runoff, subsequently impacting downstream water quality. New developments, similar to the proposed project, generally alter the existing drainage course, increase the area of impervious surface, and create potential sources for runoff contamination. As a consequence, the proposed project has the potential to increase the post-construction pollutant loadings of certain constituent pollutants associated with 11.39 acres of commercial buildings, 22.67 acres of residential housing, 1.05 acres of recreational area, and 3.58 acres of streets and dedications. These constituents are summarized in Table 5.3-2:

Table 5.3-2: Anticipated and Potential Pollutants Generated By Land Use Type

Priority Project Categories and/or Project Features	General Pollutant Categories								
	Bacteria/ Virus	Heavy Metals	Nutrients	Pesticides	Organic Compounds	Sediments	Trash & Debris	Oxygen Demanding Sub-stances	Oil & Grease
Detached Residential Development	X		X	X		X	X	X	X
Attached Residential Development	P		X	X		X	X	P(1)	P (2)
Commercial/ Industrial Development >100,000 ft2	P (3)	P	P (1)	P (1)	P (5)	P (1)	X	P (1)	X
Service Station		P	X		X (4, 5)		X		X
Restaurants	X						X	X	X
Parking Lots			P (1)	P (1)	X (4)	P (1)	X	P (1)	X
Streets		X	P (1)	P (1)	X (4)	X	X	P (1)	X

X = anticipated. P = potential
(1) A potential pollutant if landscaping or open area exist on-site.
(2) A potential pollutant if the project includes uncovered parking areas.
(3) A potential pollutant if land use involves food or animal waste products.
(4) Including petroleum hydrocarbons.
(5) Including solvents.

Based on the proposed drainage plan, the proposed project will indirectly discharge into the San Antonio Creek via the MS4 owned and operated by the City of Upland. Under the current San Bernardino County MS4 Permit, no numeric effluent limitations are required for storm water discharges and no sampling or monitoring programs are required by the owner/developer. However, the activities associated with the proposed project necessitates the implementation of construction BMPs, with the best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT), and post-construction BMPs to the maximum extent practicable (MEP) to mitigate and abate pollutants that may compromise the Creek's beneficial uses and water quality objectives.

Groundwater

The proposed project will result in the construction/installation of impervious structures and materials. This will reduce the amount of groundwater recharge that could occur at the subject property. The County of San Bernardino instituted a program in the early 1970's to recharge ground water aquifers. The City's General Plan indicates this action should alleviate problems associated with ground water subsidence. The City of Upland is also establishing a ground water recharge facility at an old quarry site on the property immediately across Monte Vista Avenue to the east to ensure the groundwater basin will continue to be replenished.

Based on the proposed site plan, the project does not include any significant infiltration zones where the bottom of the infiltration structural BMP is within ten feet of the historic high groundwater mark. In addition, any proposed infiltration BMP's such as stormwater planters will be designed with sufficient vegetation, permeable soil to provide adequate treatment and removal of typical stormwater pollutants, and underdrain pipes prior to discharging into the MS4 system. No significant groundwater impact is anticipated.

Consistency with Applicable Regulatory Requirements

Compliance with General Industrial Storm Water Permit

The SARWQCB, under the guidance of the SWRCB, administers and oversees the GISP program within the Santa Ana River Watershed. The proposed project does not have any of the regulated industrial activities planned for the project site and, therefore, coverage under the Industrial Permit is not required.

Compliance with General Construction Permit

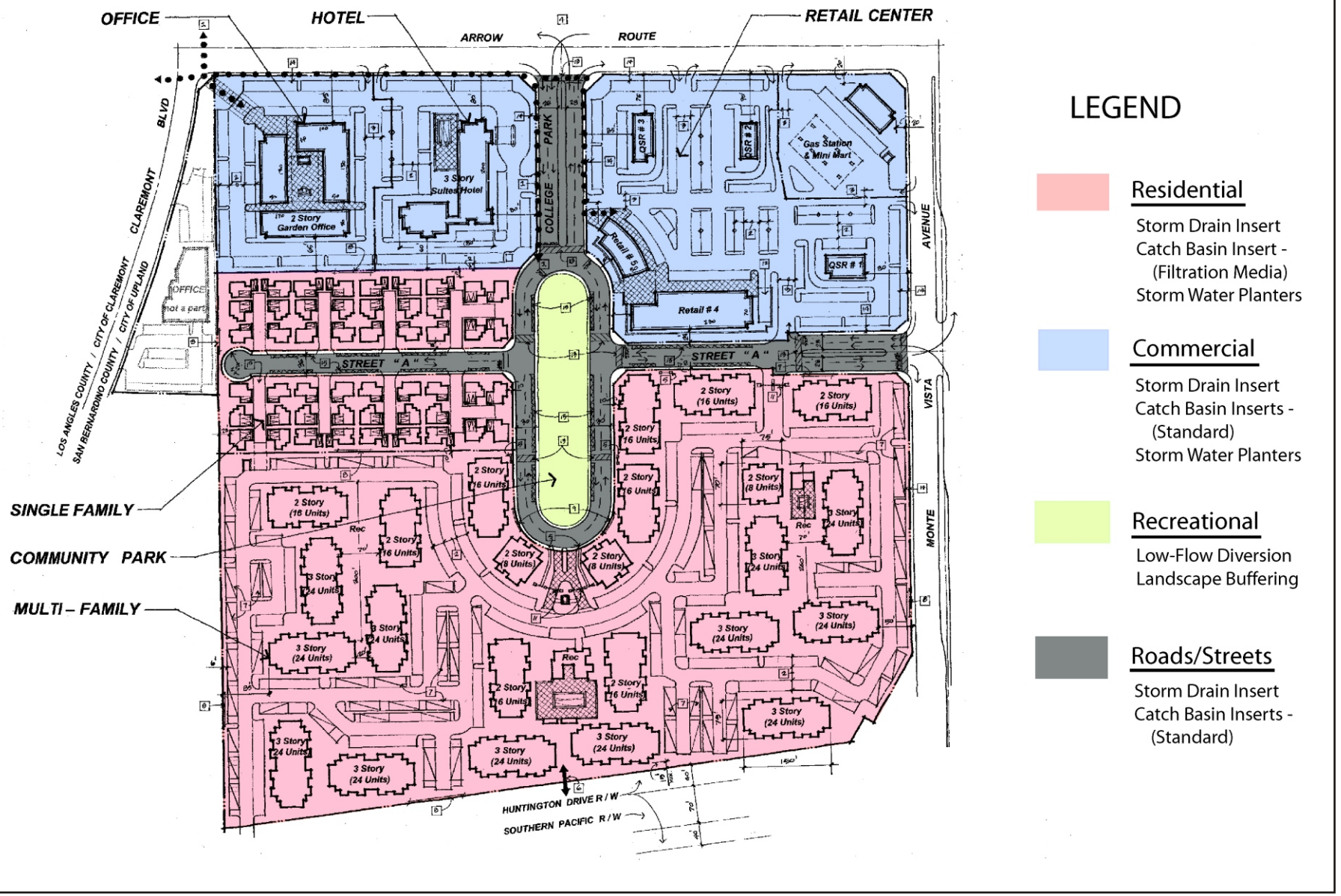
The proposed project encompasses 38.69 acres in the City of Upland, and is, therefore, subject to the storm water discharge requirements of the General Construction Permit (GCP). The project will require NPDES permit coverage prior to the commencement of soil disturbing activities. In the Santa Ana Region, where this project resides, the SWRCB is the permitting authority, while the SARWQCB provides local oversight and enforcement of the GCP.

Compliance with SARWQCB MS4 Permits

The proposed project and its facilities will discharge into the MS4 within the jurisdiction of the City of Upland and the County of San Bernardino. Pursuant to the San Bernardino County MS4 Permit, the City and County are responsible for controlling or limiting urban pollutants generated by construction and post-construction activities from reaching their MS4s. The proposed project is, therefore, subject to the requirements of the San Bernardino County MS4 Permit as it is applied to the permittee and its co-permittees.

Compliance with Local Agency Requirements

As required by County and City water quality ordinances, the proposed project must submit a Water Quality Management Plan (WQMP) to the City of Upland that outlines approved post-construction BMPs selected for the project to reduce pollutants in post-development runoff to the BAT/ BCT performance standard. Fuscoe Engineering, Inc. has prepared a conceptual WQMP for the College Park Project (See Exhibit 5.3-3).



Source: Hutton Development Co.; KTGY Group, Inc.; Lundstrom & Associates; Fuscoe Engineering, Inc.

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Exhibit **5.3-3**

Water Quality Management Plan

Michael Brandman Associates

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Site design and source control measures comprise the first component of a water quality management program. Site design measures include minimization of impervious surfaces, minimization of erosion and sedimentation from susceptible areas and minimization of directly connected impervious areas by utilizing landscaped areas for roof drainage. Source control measures effectively minimize the potential for typical urban pollutants to come into contact with storm water, thereby limiting water quality impacts downstream. These features include use of drought tolerant landscaping, efficient irrigation systems and properly designed trash storage areas among others.

SARWQCB-approved non-structural and structural BMPs designed to achieve the described water quality goals can be found in the "Guidelines for New Development and Redevelopment" (June 2000), developed for use by the permittees of the San Bernardino County Storm Water Program to assist with the preparation of WQMP's. The following tables provide a summary of the required BMPs and their areas of application for the proposed development plan. Additional details on the BMPs to be included in the final Water Quality Management Plan are provided in the aforementioned "Guidelines for New Development and Redevelopment" and in the College Park project Hydrology and Water Quality Assessment contained in Appendix C.

Table 5.3-3: Non-Structural BMPS

Appropriate Non-Structural BMPs	Residential	Retail/ Office Center	Restaurants Warehouse/ Grocery	Fuel Dispensing
Homeowner/ Tenant Education (N1)	X	X		
Activity Restrictions (N2)	X	X	X	
Common Area Landscape Management (N3)	X	X	X	
Catch Basin Inspection (N4)	X	X	X	X
Common Area Litter Control (N5)	X	X	X	X
Private Street/ Lot Sweeping (N6)	X	X	X	
Underground Storage Tank Compliance (N7)			X	X
Spill Contingency Plan (N8)				X
Haz-Mat Disclosure Compliance (N9)				X
Uniform Fire Code Implementation (N10)				X
Title 22 CFR Compliance (N11)				X
Housekeeping of Loading Docks (N12)			X	
Employee Training (N13)		X	X	X
BMP Maintenance (N14)	X	X	X	X

Table 5.3-4: Routine Structural BMPS

Appropriate Routine Structural BMPs	Residential	Retail/Office Center	Restaurants Warehouse/ Grocery	Fuel Dispensing
Control of Impervious Runoff (S1)	X	X	X	
Common Area Efficient Irrigation (S2)	X	X	X	X
Common Area Runoff Minimizing Landscape (S3)	X	X	X	X
Community Car Wash Racks(S4)	X			
Wash Water Controls For Food Preparation Areas (S5)			X	
Trash Container (Dumpster) Areas (S6)	X	X	X	X
Self Contained Areas For Washing/ Steam Cleaning/ Repair/ Mat. Processing (S7)			X	X
Outdoor Storage (S8)			X	X
Motor Fuel Concrete Dispensing Area (S9)				X
Motor Fuel Dispensing Area Canopy (S10)				X
Air/Water Supply Area Drainage (S11)				X
Energy Dissipaters (S12)	X	X		
Catch Basin Stenciling (S13)	X	X		
Inlet Trash Racks (S14)	X	X		

The College Park project will comply with all applicable regulatory requirements. No significant water quality impacts are anticipated.

5.3.5 - Cumulative Impacts

Development of the proposed project in conjunction with future build out of adjacent projects would cumulatively increase the amount of impervious surface area, runoff, landform, and drainage pattern alteration in the Upland and surrounding areas tributary to the San Antonio Channel. The proposed project has been calculated into the master drainage plan for the San Antonio Channel as a fully developed site. Cumulative downstream impacts from project implementation are therefore considered less-than-significant.

In order to minimize cumulative impacts in the future, all development projects draining into the channel will have to undergo the same approval process through the US Army Corps of Engineers to determine if the channel has sufficient capacity. If the capacity is ever deemed insufficient, those future development projects will have to implement mitigation measures such as detention/retention basins prior to discharging into the channel.

In consideration of the preceding factors related to hydrology and water quality, cumulative hydrological and water quality impacts would be rendered less than considerable, and therefore less than cumulatively significant.

5.3.6 - Mitigation Measures

HWQ-1Under the Statewide General Construction NPDES Permit (Order 92-08-DWQ), the project proponent must submit a Notice of Intent (NOI) to the State Water Resources Control Board (SWRCB) prior to commencement of construction activities. In addition, a SWPPP must be prepared and implemented at the project site, and revised as necessary as administrative or physical conditions change. The SWPPP must describe Best Management Practices (BMPs) that address pollutant source reduction and provide measures/controls necessary to mitigate potential pollutant sources. These include, but are not limited to: erosion controls, sediment controls, tracking controls, non-storm water management, materials & waste management, and good housekeeping practices.

HWQ-2 The following measures addressing post-construction storm water management shall be implemented:

a) In conformance with WDR Order No. R8-2002-0012, NPDES Permit No. CAS618036, the San Bernardino County NPDES Permit, the College Park Project will implement various non-structural and structural Best Management Practices (BMPs) to ensure that long-term water quality is protected from the daily operations of its proposed improvements. Compliance with this standard requires that control measures be incorporated into the design of new development to reduce pollution discharges in site runoff over the life of the project.

b) A Water Quality Management Plan (WQMP) shall be prepared pursuant to the County Municipal Stormwater Management Program (MSWMP) for City and County review and approval. The WQMP will outline the BMPs to be used to satisfy storm water discharge criteria for the post-construction phase of the project.

c) BMPs for the post-construction operations of the proposed site, to be documented in the project WQMP, shall adhere to the following guidelines for proper design and use of these BMPs in Section XII.C. of the San Bernardino County MS4 Permit: (1) not be implemented in industrial or high vehicular traffic areas (25,000 or greater average daily traffic); (2) be located at least 100 feet from water supply wells; (3) maintain a distance of at least 10 feet from the high groundwater mark; (4) not cause a nuisance or pollution as defined in Water Code Section 13050; and (5) incorporate source control and pollution prevention BMPs to protect groundwater quality.

d) The following combination of site design and source control mitigation measures shall be implemented:

- For the service station, the fuel dispensing area shall be properly designed. The area shall be paved with Portland cement concrete, or equivalent, with a 2 to 4 percent grade to prevent ponding. It shall also be designed to prevent run-on of storm water into the area. The

dispensing area shall be canopied and the roof drainage must not enter the area.

- Trash containers in the fuel dispensing area shall also be properly protected from run-on.
- All trash containers located around the commercial buildings and residential areas shall have roof drainage diverted around them and should be leak proof with covers.
- All proposed catch basins shall be stenciled with "No Dumping – Flows to Creek" or other equally effective message, and inlet trash racks should be considered.
- Runoff from impervious areas shall be diverted to landscaped areas wherever possible (i.e. stormwater planters).
- Semi-permeable pavement shall be considered for applicable hardscape areas, where feasible.
- Each restaurant shall have contained areas, floor sinks, and mop sinks all connecting to the sanitary sewer for disposal of wash waters. In addition, the contained areas shall be covered to prevent storm water contact. Outdoor storage of materials should have secondary containment and shall be protected from storm waters.
- Parking lots and streets shall be swept on a routine basis (i.e. monthly)
- Efficient irrigation systems that minimize runoff and evaporation, and maximize the water that would reach the plant roots, such as a dripline system shall be installed.
- Timed irrigation systems shall be provided for water conservation in all community or public serving areas.
- Mulch shall be used to the extent feasible in all landscape areas to minimize soil erosion.
- The project developer and homeowners' association(s) shall adopt Integrated Pest Management (IPM) programs for use on their own public grounds to reduce pesticide and fertilizer use at the source. Use of the IPM programs shall be promoted to project residents through the homeowner association(s).
- "Pooper-scooper" regulations shall be included in CC&R's to require proper disposal of animal waste and prevent additional bacteria loading into storm water.
- Exposed surfaces shall be stabilized with permanent measures such as hydroseed and vegetation as soon as practical after completion of final grading.
- Car wash racks shall be provided if car washing is to be allowed in the high-density multi-family areas.
- Homeowner/Tenant stormwater education material shall be distributed by the homeowner association(s).
- An agreement between the project applicant/developer, the homeowner association(s), and the City of Upland shall be executed citing maintenance requirements for all water quality structural BMPs (catch basin inserts, storm drain inserts, landscaping areas), maintenance schedules, and funding sources.

HWQ-3 Final engineering plans addressing project drainage improvements shall draw from the following list of recommended measures:

- Drainage from the building sites shall be directed toward the street in non-erosive drainage devices.
- Building pads shall have sufficient height above the curb to drain toward the street on a slope of two percent.
- Slopes shall be graded so that runoff of surface water is minimized.

HWQ-4 Permanent drainage facilities shall be constructed to the satisfaction of the City Engineer. As proposed, these facilities include:

- Underground storm drains with a local sump capacity for a 25-year conveyance and combined capacity of storm drains and street right-of-ways for 100-year flood protection.
- Roof runoff collected in a rain gutter and downspout system and directed to approved areas via non-erodible conductors or stormwater planters.

HWQ-5 Proposed project shall adhere to applicable provisions of the City Engineering/Public Works Department and the County of San Bernardino Public Works Department.

5.3.7 - Level of Significance After Mitigation

During construction, compliance with the General Construction Permit through the use of the SWPPP and on-site BMPs would result in less-than-significant impacts on water quality during the short-term phases of the project. Implementation of the post-construction mitigation measures as identified by the site design, source control and treatment control measures would ensure the proposed project's water quality impacts would be less-than-significant for the long-term operations of the project.

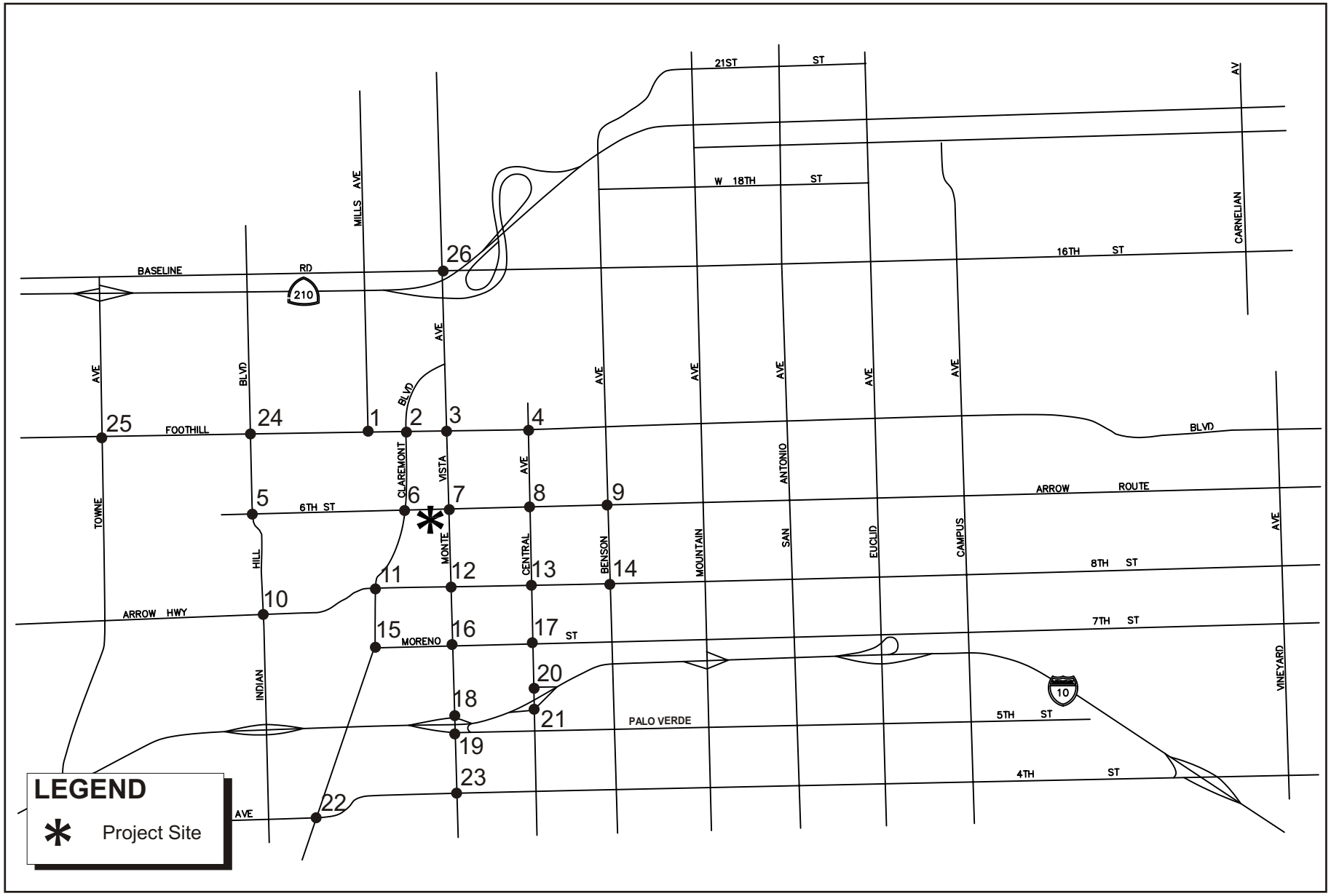
5.4 - TRAFFIC AND CIRCULATION

The focus of the following discussion is the potential impacts associated with the project traffic in relation to the circulation system. This discussion summarizes the traffic impact study for the project, prepared by Linscott, Law & Greenspan Engineers (December 2003). The Traffic Analysis, contained in Appendix D and summarized in this section of the EIR, examines existing traffic conditions and evaluates traffic impacts resulting from the addition of traffic generated by the proposed project at intersections in the vicinity of the site. Future traffic forecasts were developed for both short-range project buildout (2006) and long-range area buildout (2025) time frames.

Potential impacts related to parking capacity, alternative transportation programs, emergency access, and increased hazards due to design features were all found to be less than significant in the Initial Study prepared for this project (Appendix D). A discussion of potential impacts related to air traffic patterns can be found in Section 5.8, titled Hazards and Hazardous Materials, of this EIR.

Traffic Study Area

The traffic study area was defined to include all intersections that could potentially be impacted by the project. Traffic study area intersections are shown in Exhibit 5.4-1. A total of twenty-six (26) intersections were analyzed – five in the City of Upland, seven in the City of Claremont, nine in the City of Montclair, one within both the City of Upland and Claremont, one within both the City of Upland and Montclair, one within both the City of Claremont and Montclair, one within both the City of Claremont and Pomona, and one in both the City of Montclair and Pomona. These intersections were analyzed based on potential impact from the project according to the criteria outlined in the "Performance Criteria" discussion that follows. Service levels of studied intersections were analyzed under several scenarios, including existing conditions, "future-without project" (2006 and 2025), and "future-with project" (2006 and 2025). Traffic forecasts were prepared for the study area intersections, and a peak hour intersection analysis carried out for each of the 26 intersections. Also evaluated are a total of two (2) freeway segments that will be affected by project traffic. The long-range analysis (2025), in addition to defining project impacts, also satisfies the requirement of the county-wide congestion management program (CMP). CMP impact studies require a 2025 horizon year for analysis purposes.



Source: Linscott Law & Greenspan Engineers, October 2003.

NORTH

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Exhibit **5.4-1**

Study Area Intersection Locations

Michael Brandman Associates

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Performance Criteria

The ease at which intersections within the study area handle traffic largely controls the operation of the roadway system as a whole. Therefore, analysis of traffic at study area intersections was used to evaluate the traffic impacts of the project. This analysis uses the Level of Service (LOS) system of categorization to evaluate the project area roadway intersections. Traffic engineers use this LOS system of categorization to describe how well an intersection or roadway is functioning. The LOS measures several factors including operating speeds, freedom to maneuver, traffic interruptions, and average vehicle delay at intersections. The LOS approach uses a ranking system, similar to education, with level 'A' being best and level 'F' being worst. Table 5.4-1, Level of Service (LOS) Standards, describes LOS levels in terms the average driver can understand. LOS evaluations were done for project area roadway intersections during peak hour traffic conditions. Peak hour traffic conditions refer to the amount of traffic that travels during the morning rush hour (AM Peak Hour) and evening rush hour (PM Peak Hour).

Table 5.4-1: Level of Service (LOS) Standards Using the Time Delay Method

Level of Service (LOS)	Signalized Intersections: Stopped Delay (seconds/vehicle)	Unsignalized Intersections: Stopped Delay (seconds/vehicle)	Qualitative LOS Description
A	< 10	< 10	Free flow: Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.
B	> 10 and < 20	> 10 and < 15	Stable flow: Operating speeds beginning to be affected by other traffic; between 1% and 10% of the signal cycles have one or more vehicles waiting through more than one signal cycle.
C	> 20 and < 35	> 15 and < 25	Stable Flow, Increased Density: Operating speeds and maneuverability closely controlled by other traffic; between 11% and 30% of the signal cycles have one or more vehicles waiting through more than one signal cycle; recommended ideal design standards.
D	> 35 and < 55	> 25 and < 35	Stable Flow, High Density: Tolerable operating speeds; 31% to 70% of the signal cycles have one or more vehicles waiting through more than one signal cycle; often used as design standards in urban areas.
E	>55 and < 80	> 35 and < 50	Flow at or Near Capacity: maximum traffic volume an intersection can accommodate; restricted speeds; 71% to 100% of the signal cycles have one or more vehicles waiting through more than one signal cycle.
F	> 80	> 50	Forced or Breakdown Flow: Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can drop to zero; traffic volume will be less than the volume occurring at LOS 'E' due to decreased speeds.
Source: Highway Capacity Manual," Highway Research Board Special Report 87, National Academy of Sciences, Washington D.C.			

The Congestion Management Plan (CMP) is a State of California mandated program implemented in the project area by the San Bernardino Associated Governments (SANBAG). The purpose of the CMP is to provide comprehensive long-range traffic planning on a regional basis. As part of the CMP, a travel demand model known as the Comprehensive Transportation Plan (CTP) model has been developed for San Bernardino County, including the project area. The CTP model is currently the only approved travel demand forecasting tool within the project study area because this model is the only one to receive the necessary "Finding of Consistency" from SANBAG and the Southern California Association of Governments (SCAG).

Pursuant to San Bernardino County CMP and City requirements, the 2000 Highway Capacity Manual (HCM; Operations Analysis method - Chapter 16) was used to analyze the level of service at intersections within San Bernardino County. The 2000 HCM evaluates level of service at signalized intersections based upon the average control delay (in seconds per vehicle) for various movements within the intersection. As defined by the 2000 HCM, the level of service for unsignalized intersections is based upon the worst-case delay by turning movement at the intersection (in seconds per vehicle). Table 5.4-1, Level of Service (LOS) Standards, shows the criteria used to determine the level of service at intersections. Existing conditions (2003), future (2006) plus background traffic without project, future (2006) plus background traffic plus project, and horizon year 2025 with and without the project were analyzed using this methodology.

The project area and intersections within the City of Claremont and Pomona are within the jurisdiction of the Los Angeles County Metropolitan Transportation Authority (LACMTA). A total of 164 intersections within Los Angeles County are identified by LACMTA for monitoring. The 11 study intersections located within the City of Claremont and/or Pomona were analyzed based on the LACMTA CMP requirements using the ICU method. Table 5.4-2, Level of Service (LOS) Criteria Using the ICU Method of Analysis, describes LOS levels using the ICU method in terms the average driver can understand.

The LACMTA CMP considers projects that increase traffic demand on an intersection within their jurisdiction by two percent of the intersection capacity ($V/C \geq 0.02$), causing or worsening LOS F to require mitigation. Since the City of Claremont and Pomona both consider LOS D to be the minimum acceptable LOS, for the purposes of this analysis, a significant impact will occur if the project increases traffic demand on an intersection within the City of Claremont and Pomona by two percent of the intersection capacity ($V/C \geq 0.02$), causing or worsening LOS E or F ($ICU > 0.9000$).

Table 5.4-2: Level of Service (LOS) Using the ICU Method of Analysis

Level of Service (LOS)	Volume to Capacity (V/C) Ratio or Intersection Capacity Utilization	Qualitative LOS Description
A	0.000 - 0.600	Free flow: Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.
B	0.601 - 0.700	Stable flow: Operating speeds beginning to be affected by other traffic; between 1% and 10% of the signal cycles have one or more vehicles waiting through more than one signal cycle.
C	0.701 - 0.800	Stable Flow, Increased Density: Operating speeds and maneuverability closely controlled by other traffic; between 11% and 30% of the signal cycles have one or more vehicles waiting through more than one signal cycle; recommended ideal design standards.
D	0.801 - 0.900	Stable Flow, High Density: Tolerable operating speeds; 31% to 70% of the signal cycles have one or more vehicles waiting through more than one signal cycle; often used as design standards in urban areas.
E	0.901 - 1.000	Flow at or Near Capacity: maximum traffic volume an intersection can accommodate; restricted speeds; 71% to 100% of the signal cycles have one or more vehicles waiting through more than one signal cycle.
F	> 1.000	Forced or Breakdown Flow: Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can drop to zero; traffic volume will be less than the volume occurring at LOS 'E' due to decreased speeds.

Please note that three intersections—Claremont Boulevard at Arrow Route/6th Street, Claremont Boulevard/Mills Avenue at Moreno Street, and Claremont Boulevard/Mills Avenue at San Bernardino Avenue—are within both the jurisdiction of the San Bernardino CMP and the LACMTA CMP and are therefore analyzed using both the HCM and ICU methods of analysis.

5.4.1 - Existing Conditions

Existing Circulation System

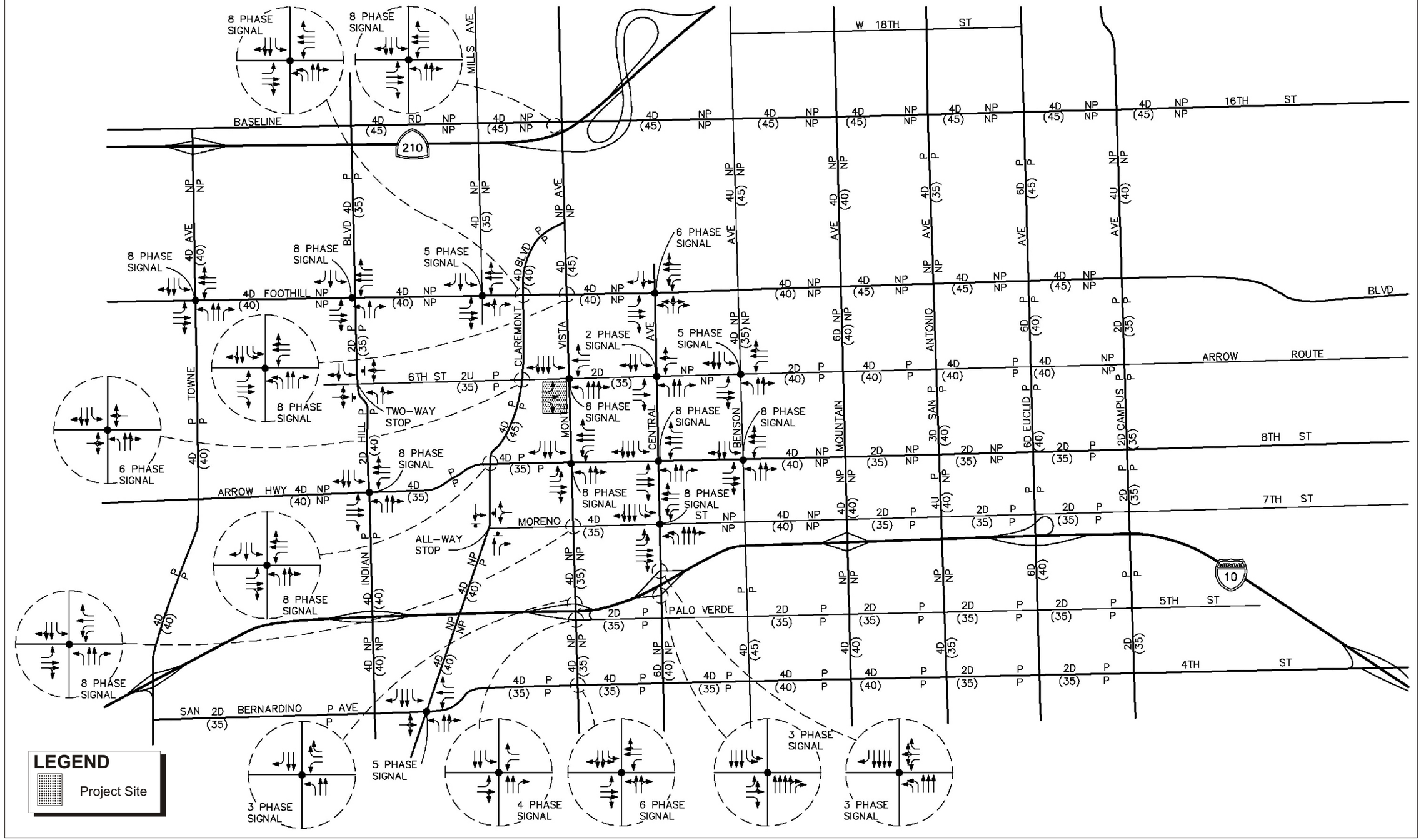
Regional access to the project site is provided by the Interstate 10 Freeway (I-10) via an interchange at Monte Vista Avenue and Central Avenue, and by the State Route 210 Freeway (SR-210) via interchanges at Towne Avenue and Baseline Road/16th Street. The principal arterial roadways in the study area are Baseline Road/16th Street, Foothill Boulevard, 6th Street/Arrow Route, Arrow Highway, Claremont Boulevard, Monte Vista Avenue and Benson Avenue. Exhibit 5.4-2 identifies the existing roadways in the study area. The following discussion provides brief descriptions of these key roadways based on existing conditions.

Interstate 10 - Interstate 10 is an east-west freeway approximately 1 mile south of the project site that totals ten-lanes, providing five lanes of travel in each direction including high occupancy vehicle (HOV) lanes in the median. This freeway connects the project area with the greater Los Angeles area to the west and the cities of Ontario, Rancho Cucamonga, Fontana, San Bernardino, Redlands and the desert areas to the east. This freeway also provides access to the SR-57 and SR-71 freeway interchanges to the west, and the Interstate-15 freeway interchange to the east. The I-10 freeway currently carries approximately 251,000 to 259,000 vehicles per day in the project area.

State Route 210 - State Route 210 is an east-west freeway approximately 1½ miles north of the project site. This freeway has ten-lanes which currently provides five lanes of travel in each direction, including high occupancy vehicle (HOV) lanes in the median. SR-210 also connects the project area with the greater Los Angeles area to the west and the Inland Empire and desert areas to the east, and carries approximately 177,000 to 182,000 vehicles per day in the project area.

Baseline Road/16th Street - Baseline Road/16th Street is a four-lane, divided roadway located approximately 1½ miles north of the project site. This roadway is oriented in the east-west direction, which currently provides two lanes of travel in each direction. The posted speed limit is 45 mph, and parking is prohibited along all sections of this roadway within the study area. This roadway is named Baseline Road in the City of Claremont and 16th Street in the City of Upland. Baseline Road/16th Street is designated as a Secondary Arterial (four-lane undivided) in the City of Upland Circulation Element with a maximum buildout capacity of 38,300 vehicles per day. Currently this roadway carries approximately 23,270 vehicles per day or 61% of General Plan Buildout capacity.

Foothill Boulevard - Foothill Boulevard, also known as historic state route 66, is a four-lane east-west arterial located approximately a ½ mile north of the project site and provides two lanes of travel per direction (with frontage roads and increased right-of-way in some locations), separated by a raised median. Parking is not permitted on either side of this roadway and the posted speed limit is 40 mph west of Mountain Avenue and 45 mph east of Mountain Avenue. Foothill Boulevard is designated as a Major Arterial (four travel lanes and a frontage road within a right-of-way that varies between 170 feet to 240 feet) in the City of Upland Circulation Element with a maximum buildout capacity of 38,300 vehicles per day. This roadway is also designated as a State Route and is therefore under the authority of the California Department of Transportation. Currently this roadway carries approximately 20,850 vehicles per day or 54% of General Plan Buildout capacity.



Source: Linscott Law & Greenspan Engineers, October 2003.

NOT TO SCALE

Michael Brandman Associates

Exhibit **5.4-2**

Existing Roadway Conditions and Intersections

6th Street/Arrow Route - 6th Street/Arrow Route is an east-west roadway that forms the north project boundary and is the primary access for the project site. This roadway has a western terminus at Indian Hill Boulevard and is named 6th Street in the City of Claremont between Indian Hill Boulevard and Claremont Boulevard, is named Arrow Route in the City of Upland between Claremont Boulevard and Benson Avenue, and becomes Arrow Highway east of Benson Avenue. 6th Street/Arrow Route is a two lane, undivided roadway between Indian Hill and Monte Vista Avenue, a two-lane, divided roadway along the project site between Monte Vista Avenue and Mountain Avenue, and a four-lane, divided roadway east of Mountain Avenue were it becomes Arrow Highway. Parking is not permitted on either side of this roadway within the vicinity of the project. The posted speed limit is 35 mph west of Benson Avenue and 40 mph east of Benson Avenue. Arrow Route is designated as a Collector Street (two-lanes divided) with a maximum buildout capacity of 14,400 in the City of Upland Circulation Element. Currently this roadway carries approximately 6,790 vehicles per day or 47% of General Plan Buildout capacity.

Arrow Highway - Arrow Highway is a four-lane, divided roadway west of Mountain Avenue and a two-lane, divided roadway east of Mountain Avenue oriented in the east-west direction. Please note that the Arrow Highway alignment in the city of Upland continues along the same alignment as Arrow Route only it is east of Benson (also see discussion of Arrow Route above); whereas, in the cities of Claremont and Montclair, the alignment for Arrow Highway is ½ mile south of the Arrow Route alignment. This roadway is located approximately ½ mile south of the project site at its southerly alignment in the cities of Claremont and Montclair and 1 mile east of the project site in the City of Upland. Parking is permitted on either side of this roadway in the City of Upland. The posted speed limit is 35 mph west of Monte Vista Avenue and east of Mountain Avenue, and 40 mph between Monte Vista Avenue and Mountain Avenue. The City of Upland Circulation Element has designated Arrow Highway as a Secondary Arterial (two-lanes divided) with a maximum buildout capacity of 28,800 west of 3rd Street and a Collector Street (two-lanes undivided) with a maximum buildout capacity of 14,400 east of 3rd Street. Currently this roadway carries approximately 17,280 vehicles per day or 60% of General Plan Buildout capacity west of 3rd Street and approximately 10,150 vehicles per day or 70% of General Plan Buildout capacity east of 3rd Street.

Claremont Boulevard - Claremont Boulevard is a four-lane, divided roadway oriented in the north-south direction immediately west of the project site. It provides two lanes per direction, separated by a raised median, and the posted speed limit is 40 mph north of Foothill Boulevard and south of Arrow Highway, and 45 mph between Foothill Boulevard and Arrow Highway. Current traffic on this roadway is approximately 7,720 vehicles per day.

Monte Vista Avenue - Monte Vista Avenue is a four-lane, divided roadway north of Foothill Boulevard and south of Arrow Highway, and a six-lane, divided roadway between Foothill Boulevard and Arrow Highway. This roadway forms the eastern project boundary and is the secondary access to

the project site. Parking is not permitted on either side of this roadway and the posted speed limit is 40 mph north of the southern alignment of Arrow Highway and 35 mph south of the southern alignment of Arrow Highway. Current traffic on this roadway is approximately 15,770 vehicles per day in the vicinity of the project site. The City of Upland General Plan Circulation Element does not list the buildout widths or capacity of this roadway.

Central Avenue - Central Avenue is a north-south four-lane, divided roadway approximately ½ mile east of the project site. It provides two lanes per direction, separated by a painted median, and the posted speed limit is generally 40 mph in the vicinity of the project. Parking is not permitted on this roadway in either direction in the project area. Central Avenue is designated as a Major Arterial (four-lane divided) with a maximum buildout capacity of 38,300 in the City of Upland Circulation Element. Currently this roadway carries approximately 21,850 vehicles per day or 57% of General Plan Buildout capacity.

Benson Avenue - Benson Avenue is a four-lane, divided roadway oriented in the north-south direction approximately one mile east of the project site. It provides two lanes per direction, separated by a painted median, and the posted speed limit is 40 mph. Parking is not permitted on either side of this roadway in the vicinity of the project. The posted speed limit on Benson Avenue is 45 mph north of Foothill Boulevard and 35 mph south of Foothill Boulevard. Benson Avenue is designated as a Secondary Arterial (four-lane divided) with a maximum buildout capacity of 28,800 in the City of Upland Circulation Element. Currently this roadway carries approximately 16,250 vehicles per day or 56% of General Plan Buildout capacity.

The existing daily traffic volumes for each of the streets listed above were estimated using traffic counts at intersections in the PM peak hour and taken in October 2003. These estimates assumed that the PM peak hour volumes were approximately ten percent of the daily traffic volumes.

Existing Traffic Volumes and Level of Service

As shown in Table 5.4-3, using the time delay method of analysis, the existing levels of service (2003) at the intersections of Central Avenue at Foothill Boulevard, Central Avenue at Moreno Street, Monte Vista Avenue at I-10 eastbound ramps, Monte Vista Avenue at San Bernardino Avenue, Indian Hill Boulevard at Arrow Highway, Indian Hill Boulevard at Foothill Boulevard, and Town Avenue at Foothill Boulevard all operate at LOS "D" in the AM and/or PM peak hours. The intersection of Monte Vista Avenue at Baseline Road operates at LOS "D" in the AM peak hour and LOS "E" in the PM peak hour. All other study intersections operate at LOS "C" or better in the AM and PM peak hours using the time delay method of analysis.

Table 5.4-4 shows the existing levels of service (2003) using the ICU method of analysis for intersections under the jurisdiction of the LACMTA. Using the ICU method, the intersections of Towne Avenue at Foothill Boulevard and Monte Vista Avenue at Baseline Road operate at an LOS D in the AM and PM peak hours. All other study intersections operate at an LOS "C" or better in the AM and PM peak hour.

Table 5.4-3: Existing Levels of Service (2003) Using the Time Delay Method

Intersection	Traffic Control Status	AM Peak Hour Delay (seconds/ vehicle)	AM Peak Hour LOS	PM Peak Hour Delay (seconds/ vehicle)	PM Peak Hour LOS
Monte Vista Av at Foothill Blvd.	Signal	30.2	C	30.4	C
Central Av at Foothill Blvd.	Signal	37.2	D	39.2	D
Claremont Blvd at Arrow Route	Signal	28.5	C	28.8	C
Monte Vista Av at Arrow Route	Signal	28.6	C	27.9	C
Central Av at Arrow Route	Signal	15.7	B	15.8	B
Benson Avenue at Arrow Route	Signal	22.8	C	23.3	C
Monte Vista Av at Arrow Hwy.	Signal	29.1	C	33.3	C
Central Av at Arrow Hwy.	Signal	29.0	C	33.3	C
Benson Av at Arrow Hwy.	Signal	28.0	C	32.9	C
Claremont Blvd at Moreno St.	4-way stop	10.69	B	11.47	B
Monte Vista Av at Moreno St.	Signal	25.0	C	27.3	C
Central Av at Moreno St.	Signal	28.4	C	37.0	D
Monte Vista Av at I-10 WB ramps	Signal	22.9	C	21.1	C
Monte Vista Av at I-10 EB ramps	Signal	32.8	C	43.1	D
Central Av at I-10 WB ramps	Signal	21.9	C	23.7	C
Central Av at I-10 EB ramps	Signal	21.8	C	26.6	C
Mills Av at San Bernardino Av.	Signal	22.6	C	23.2	C
Monte Vista Av at San Bernardino Av.	Signal	39.7	D	35.7	D
Mills Av at Foothill Blvd	Signal	30.7	C	27.0	C
Claremont Blvd at Foothill Blvd	Signal	27.6	C	30.2	C
Indian Hill Blvd at 6th Street	Two-way Stop	0.67	A	0.48	A
Claremont Blvd/Arrow Hwy	Signal	27.9	C	28.6	C
Indian Hill Blvd at Arrow Hwy.	Signal	30.0	C	35.2	D

Table 5.4-3 (Cont.): Level of Service (LOS) Standards Using the Time Delay Method

Intersection	Traffic Control Status	AM Peak Hour Delay (seconds/ vehicle)	AM Peak Hour LOS	PM Peak Hour Delay (seconds/ vehicle)	PM Peak Hour LOS
Indian Hill at Foothill Blvd.	Signal	35.3	D	37.5	D
Towne Av at Foothill Blvd.	Signal	48.1	D	48.5	D
Monte Vista at Baseline Rd	Signal	51.7	D	57.4	E

Note that traffic counts and the physical conditions of the roadway as they were in 2003 are the basis for the existing conditions analysis. The year 2003 was chosen because it was the time that the Notice of Preparation (NOP) was published and documents the environmental setting at that time. CEQA Guidelines Section 15125 requires that EIRs include a description of the physical environmental conditions in the vicinity of the project as it existed at the time that the NOP was published. These environmental conditions constitute the baseline physical conditions by which environmental impacts are determined.

Table 5.4-4: Existing Levels of Service (2003) Using the ICU Method

Intersection	Traffic Control Status	AM Peak Hour V/C Ratio	AM Peak Hour LOS	PM Peak Hour V/C Ratio	PM Peak Hour LOS
Mills Av at Foothill Blvd.	Signal	0.761	C	0.666	B
Claremont Blvd. at Foothill Blvd.	Signal	0.604	B	0.604	B
Indian Hill Blvd at 6th St.	2-way stop	0.432	A	0.536	A
Claremont Blvd at Arrow Route	Signal	0.471	A	0.581	A
Indian Hill Blvd at Arrow Hwy.	Signal	0.583	A	0.746	C
Claremont Blvd at Arrow Hwy.	Signal	0.526	A	0.586	A
Claremont Blvd at Moreno St.	4-way stop	0.373	A	0.414	A
Mills Av at San Bernardino Av.	Signal	0.361	A	0.482	A
Indian Hill Blvd at Foothill Blvd.	Signal	0.699	B	0.787	C
Towne Av at Foothill Blvd.	Signal	0.878	D	0.866	D
Monte Vista Av at Baseline Rd.	Signal	0.866	D	0.900	D

5.4.2 - Thresholds of Significance

Definition of impact criteria must occur in order to determine if a proposed project will cause a significant impact. In relation to traffic and circulation, these criteria include "performance standards" and "thresholds of significance", both of which are used for identifying project impacts.

An LOS and V/C ratio analysis of the local intersections is needed to determine the level of significance this project, in combination with existing and future traffic volumes, will have on the local intersections and the roadway network.

The Cities of Upland and Montclair set a threshold of LOS "D" as the minimum acceptable level of service for all intersections within their jurisdiction. Therefore, congestion at any of the study intersections within these cities is considered a significant impact to the transportation network and traffic circulation if any of the intersections operate at LOS E or F.

For study intersections in the unincorporated portions of the County of San Bernardino, LOS "C" is the minimum acceptable condition. Therefore, congestion at the intersections of Monte Vista Avenue at Foothill Boulevard, Central Avenue at Foothill Boulevard, Claremont Avenue at Arrow Route, Monte Vista Avenue at Arrow Route, Central Avenue at Arrow Route and Benson Avenue at Arrow Route is considered a significant impact if any of these intersections operate at LOS D, E, or F.

The LACMTA CMP considers projects that increase traffic demand on an intersection within their jurisdiction by 2% of the intersection capacity, causing or worsening LOS F to require mitigation. Since the cities of Claremont and Pomona both consider LOS D to be the minimum acceptable LOS, for the purposes of this analysis a significant impact will occur if the project increases traffic demand on an intersection within the cities of Claremont and Pomona by 2% of the intersection capacity, causing or worsening LOS E or LOS F. When there is an intersection within the jurisdiction of the cities of Claremont and Pomona and project traffic increases traffic demand at that intersection by 2 % and causes or worsens operation of that intersection to LOS E or LOS F, mitigation measures must mitigate to pre-project operations at the intersection to be found less than significant.

5.4.3 - Project Impacts

Project Trip Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation factors used in the traffic analysis are primarily from the Sixth Edition of the Trip Generation Manual, published by the Institute of Transportation Engineers (ITE).

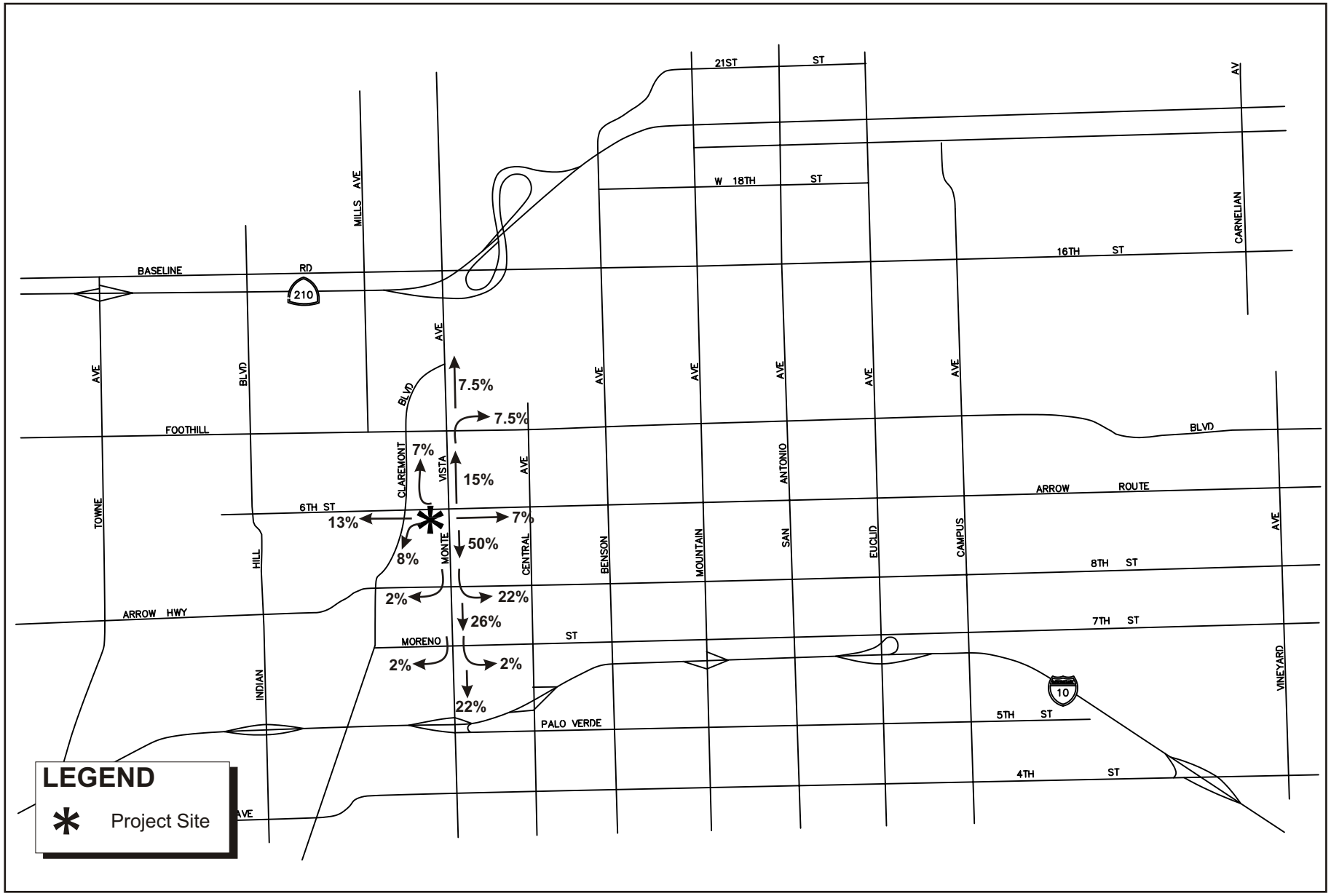
Table 5.4-5 summarizes the trip generation for the project, based on trip generation rates specified in Appendix D. Trips generated by the proposed project were estimated using ITE Land Use 210 (Single Family Detached Housing) for the single-family residential units, Land Use 220 (Low-Rise Apartments) for the multi-family attached residential units, Land Use 312 (Business Hotel) for the hotel, Land Use 710 (General Office) for the office suites, Land Use 814 (Specialty Retail Center) for the retail commercial, Land Use Category 832 (High-Turnover Sit Down Restaurant) for the high-

turnover restaurant, Land Use 834 (Fast-Food Restaurant with Drive-Through Window) for the fast-food restaurant, and Land Use 845 (Gasoline/Station with Convenience Market) for the gas station/mini mart.

The project is estimated to generate 14,430 daily trips, with 1,198 trips (573 inbound, 625 outbound) in the AM peak hour and 1,304 trips (661 inbound, 643 outbound) in the PM peak hour. These project-generated trips do not take into account trip reduction factors. Existing vehicle trips that currently pass by the project site are expected to take advantage of the commercial component of the project. These trips are referred to as pass-by trips. A reduction of trips was used to account for pass-by trips and internal capture—vehicle trips that stay within the project. The trip reduction used in this analysis was based on information published in the Trip Generation Manual published by ITE. Table 5.4-5 summarizes project trip generation after reduction factors discussed above are applied.

Project Trip Distribution

The distribution pattern is based on the site's proximity to major roadways and surrounding land uses. Overall, approximately 50% of the traffic generated by the proposed project is expected to travel south from the project site to gain access to the I-10 freeway and metro-link commuter train terminal stop at the Montclair Plaza, and travel to various employment centers south of the project site (See Exhibit 5.4-3). Approximately 28% of the traffic generated by the proposed project is expected to travel west, with 13% entering the Claremont Colleges, and 15% traveling to other destinations within surrounding cities. Project traffic expected to enter the Claremont Colleges does not necessarily represent all new trips entering the Colleges. Persons currently living and shopping elsewhere and accessing the Colleges could establish residence within the proposed project, thereby merely representing a change in trip origination. Approximately 15% of traffic generated by the proposed project is expected to travel north from the project site to gain access to the SR-210 freeway, and the remainder of traffic generated by the project is expected to travel east within the city of Upland. The trip distribution pattern for the project is presented in Exhibit 5.4-3.



Source: Linscott Law & Greenspan Engineers, October 2003.

NORTH

NOT TO SCALE

Michael Brandman Associates

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Exhibit **5.4-3**

Project Trip Distribution

COLLEGE PARK • CITY OF UPLAND

Table 5.4-5: Project Trips

Land Use	Size of Land Use	Trip Generation Factor	Trip Reduction Factor	A.M. Peak Hour Trips	P.M. Peak Hour Trips	Daily Trips
Single-Family Residential	50du	9.57 trips/day/du 0.75 trips/am/du 1.01 trips/pm/du	177 trips/day 0 trips am 21 trips pm	38	30	303
Multi-Family Residential	448du	6.63 trips/day/du 0.51 trips/am/du 0.62 trips/pm/du	918 trips/day 0 trips am 72 trips pm	229	206	2,052
Business Hotel	102 rooms	7.27 trips/day/rm 0.58 trips/am/rm 0.62 trips/pm/rm	0 trips/day 0 trips am 0 trips pm	59	64	740
General Office Building	48 thousand sq.ft. (tsf)	0.768Ln +3.654 day 0.797Ln +1.558 am 1.121 +79.295 pm	152 trips/day 0 trips am 13 trips pm	104	120	608
Office Suites	6.24 thousand sq.ft. (tsf)	0.768Ln +3.654 day 0.797Ln +1.558 am 1.121 +79.295 pm	32 trips/day 0 trips am 9 trips pm	20	78	128
Retail Commercial	12.49 thousand sq.ft. (tsf)	40.67 trips/day/tsf 1.03 trips/am/tsf 2.59 trips/pm/tsf	110 trips/day 1 trip am 8 trips pm	12	24	400
High Turnover Restaurants	12.48 thousand sq.ft. (tsf)	130.34 trips/day/tsf 9.27 trips/am/tsf 10.86 trips/pm/tsf	354 trips/day 12 trips am 70 trips pm	104	66	1,276
Fast-Food Restaurants	9.225 thousand sq.ft. (tsf)	496.12 trips/day/tsf 49.86 trips/am/tsf 33.48 trips/pm/tsf	993 trips/day 225 trips am 178 trips pm	235	131	3,587
Gas Station Mini Mart	16 vehicle fueling position (vfp)	162.78 trips/day/vfp 10.06 trips/am/vfp 13.38 trips/pm/vfp	564 trips/day 100 trips am 134 trips pm	60	80	2,036
			Total	**860**	**799**	**11,130**

Project Impact Analysis

As currently proposed, the proposed project is expected to be developed and at full occupancy by year 2006. The intersection levels of service were evaluated for year 2006 without and with the project.

Traffic Impacts Without Project

The analysis results shown in Table 5.4-6 indicates that in the future 2006 without the project conditions, the intersection of Central Avenue at Foothill Boulevard within unincorporated San Bernardino County is projected to operate at LOS "D" in the AM and PM peak hours, while the intersections of Towne Avenue at Foothill Boulevard and Monte Vista Avenue at Baseline Road are

projected to operate at LOS E and/or F during the AM and PM peak hours. Traffic congestion at these intersections need to be addressed to improve the LOS without the project.

Based upon the ICU method of analysis in the future 2006 without the project conditions, the intersections of Monte Vista Avenue at Baseline Road and Towne Avenue at Foothill Boulevard within the City of Claremont operates at LOS D in the existing conditions and degrades to LOS "E" or worse in the AM and PM peak hours by Year 2006. Traffic congestion at these intersections needs to be addressed to improve the LOS without the project. The LOS values using the ICU method of analysis are shown in Table 5.4-4 (existing 2003 conditions) and Table 5.4-7 (Year 2006 without project).

Traffic Impacts With Project

As shown in Tables 5.4-6 and 5.4-7, the intersections of Central Avenue at Foothill Boulevard, Monte Vista Avenue at Baseline Road and Towne Avenue at Foothill Boulevard are further impacted by implementation of the project. The intersection of Central Avenue at Foothill Boulevard in unincorporated San Bernardino County operates at an LOS "D" triggering the threshold set for intersections within that jurisdiction. Although this intersection continues to operate at identical LOS values with or without the project, the project will contribute to impacts by lengthening the time delay at that intersection. For the intersections of Towne Avenue at Foothill Boulevard and Monte Vista Avenue at Baseline Road, the implementation of the project will results in further delay, worsening project LOS E or F conditions

Based on the ICU method of analysis, the intersections of Towne Avenue at Foothill Boulevard and Monte Vista Avenue at Baseline Road operate at LOS E or worse with a project contribution of over 2% triggering the City of Claremont and LACMTA CMP thresholds.

Project impacts further exacerbate the deficient conditions by adding traffic to intersections already below acceptable LOS values. Therefore, without mitigation, the project will contribute to significant impacts to the transportation network and traffic circulation at the following intersections:

- Central Ave. at Foothill Blvd. (San Bernardino County/City of Upland)
- Monte Vista Ave. at Baseline Rd. (City of Claremont)
- Towne Ave. at Foothill Blvd. (City of Claremont/City of Pomona)

Table 5.4-6: Year 2006 Level of Service Using the Time Delay Method

Location	Traffic Control	2006 Without Project				2006 With Project			
		AM Peak Hour Delay (seconds)	AM Peak Hour LOS	PM Peak Hour Delay (seconds	PM Peak Hour LOS	AM Peak Hour Delay (seconds)	AM Peak Hour LOS	PM Peak Hour Delay (seconds)	PM Peak Hour LOS
Monte Vista Av at Foothill Blvd.	Signal	33.3	C	34.1	C	34.8	C	34.8	C
Central Av at Foothill Blvd.	Signal	42.5	D	53.2	D	42.9	D	54.2	D
Claremont Blvd at Arrow Route	Signal	28.9	C	29.7	C	31.7	C	34.8	C
Monte Vista Av at Arrow Route	Signal	29.4	C	29.0	C	34.0	C	30.7	C
Central Av at Arrow Route	Signal	16.0	B	16.3	B	16.1	B	16.4	B
Benson Avenue at Arrow Route	Signal	23.1	C	24.1	C	23.2	C	24.2	C
Monte Vista Av at Arrow Hwy.	Signal	29.9	C	36.8	D	31.7	C	41.1	D
Central Av at Arrow Hwy.	Signal	30.2	C	35.7	D	30.6	C	36.9	D
Benson Av at Arrow Hwy.	Signal	28.3	C	34.8	C	28.5	C	35.3	D
Claremont Blvd at Moreno St.	4-way stop	11.36	B	13.12	B	11.67	B	14.27	B
Monte Vista Av at Moreno St.	Signal	25.6	C	29.2	C	26.9	C	31.1	C
Central Av at Moreno St.	Signal	28.9	C	39.7	D	29.2	C	40.4	D
Monte Vista Av at I-10 WB ramps	Signal	23.4	C	21.9	C	23.6	C	22.2	C
Monte Vista Av at I-10 EB ramps	Signal	34.6	C	50.4	D	36.2	D	54.8	D
Central Av at I-10 WB ramps	Signal	22.2	C	24.5	C	22.2	C	24.6	C
Central Av at I-10 EB ramps	Signal	22.1	C	28.1	C	22.2	C	28.7	C
Mills Av at San Bernardino Av.	Signal	22.8	C	23.5	C	22.8	C	23.6	C
Monte Vista Av at San Bernardino Av.	Signal	44.4	D	39.7	D	49.5	D	41.7	D
Mills Av at Foothill Blvd	Signal	35.4	D	30.0	C	35.8	D	30.8	C
Claremont Blvd at Foothill Blvd	Signal	28.4	C	32.8	C	28.7	C	34.3	C
Indian Hill Blvd at 6th Street	Two-way Stop	0.69	A	0.63	A	2.32	A	2.58	A

Table 5.4-6 (Cont.): Year 2006 Level of Service Using the Time Delay Method

Location	Traffic Control	2006 Without Project				2006 With Project			
		AM Peak Hour Delay (seconds)	AM Peak Hour LOS	PM Peak Hour Delay (seconds	PM Peak Hour LOS	AM Peak Hour Delay (seconds)	AM Peak Hour LOS	PM Peak Hour Delay (seconds)	PM Peak Hour LOS
Claremont Blvd/Arrow Hwy	Signal	28.5	C	29.9	C	28.5	C	30.8	C
Indian Hill Blvd at Arrow Hwy.	Signal	31.1	C	38.8	D	31.2	C	39.2	D
Indian Hill at Foothill Blvd.	Signal	39.6	D	47.3	D	41.8	D	51.4	D
Towne Av at Foothill Blvd.	Signal	55.1	E	59.6	E	57.4	E	63.6	E
Monte Vista at Baseline Rd	Signal	69.5	E	106.5	F	75.1	E	113.5	F

Source: Linscott Law & Greenspan, Engineers December 2003.

Table 5.4-7: Year 2006 Levels of Service Using the ICU Method

Location	Traffic Control	2006 Without Project				Project Volumes		2006 With Project				V/C Project Contribution	
		AM V/C	AM LOS	PM V/C	PM LOS	AM	PM	AM V/C	AM LOS	PM V/C	PM LOS	AM	PM
Mills Av at Foothill Blvd.	Signal	0.815	D	0.737	C	58	57	0.821	D	0.748	C	0.006	0.011
Claremont Blvd at Foothill Blvd.	Signal	0.648	B	0.677	B	58	57	0.655	B	0.683	B	0.007	0.006
Indian Hill Blvd at 6th St.	2-way stop	0.469	A	0.595	A	138	97	0.528	A	0.657	B	0.059	0.062
Claremont Blvd at Arrow Route	Signal	0.496	A	0.631	B	209	246	0.600	A	0.767	C	0.104	0.136
Indian Hill Blvd at Arrow Hwy.	Signal	0.629	B	0.808	D	35	52	0.635	B	0.819	D	0.006	0.011
Claremont Blvd at Arrow Hwy.	Signal	0.564	A	0.641	B	58	104	0.574	A	0.661	B	0.010	0.020
Claremont Blvd at Moreno St.	4-way stop	0.395	A	0.451	A	23	53	0.401	A	0.469	A	0.006	0.018
Mills Av at San Bernardino Av.	Signal	0.373	A	0.508	A	22	54	0.377	A	0.511	A	0.004	0.003
Indian Hill Blvd at Foothill Blvd.	Signal	0.769	C	0.875	D	127	108	0.810	D	0.898	D	0.041	0.023
Towne Av at Foothill Blvd.	Signal	0.928	E	0.940	E	84	70	0.941	E	0.964	E	0.013	0.024
Monte Vista Av at Baseline Rd.	Signal	0.998	E	1.103	F	61	55	1.025	F	1.126	F	0.027	0.023

Source: Linscott Law & Greenspan, Engineers December 2003.

Since the College Park project is forecast to impact a State Highway (I-10 Freeway) and also impact intersections within the jurisdictions of the Cities of Claremont, Montclair, Pomona, and County of San Bernardino, the City of Upland is required to notify the Congestion Management Agency (SANBAG), Caltrans, and the adjacent jurisdictions in accordance with Congestion Management Plan (CMP) requirements. Each of these agencies has been provided with a copy of the CMP Traffic Impact Analysis as part of the complete Draft EIR for review and confirmation of project impact within their jurisdiction.

Site Access Evaluation

Access to the proposed College Park Project will be provided via four driveways located along Arrow Route and two driveways located along Monte Vista Avenue for a total of six project driveways. The four driveways along Arrow Route will consist of one "full access" driveway and three "right-turn in/out only" driveways. The two driveways along Monte Vista Avenue will consist of one "full access" driveway and one "right-turn in/out only" driveway.

The six project driveways are forecast to operate at acceptable service levels during the AM and PM peak hours for near-term traffic conditions (Year 2006). Although the levels of service are acceptable at Driveways #2 (College Park at Arrow Route) and #6 (Street "A" at Monte Vista Drive), vehicles exiting the project site are forecast to experience excessive delays and thus traffic signals are recommended at these two locations to ensure adequate ingress and egress to the project site is provided. The installation of traffic signals at Driveways #2 (College Park at Arrow Route) and #6 (Street "A" at Monte Vista Drive) will result in acceptable service levels during the AM and PM peak hours and ensure the delay motorists experience while exiting the project site is kept to a minimum.

All project driveways are forecast to operate at acceptable service levels during the AM and PM peak hours for long-term traffic conditions (Year 2025), with the exception of Driveways #2 (College Park at Arrow Route) and #6 (Street "A" at Monte Vista Drive). Driveway #2 is forecast to operate at LOS E during the PM peak hour as a "full access" unsignalized driveway while Driveway #6 is forecast to operate at LOS F during the AM and PM peak hours as a "full access" unsignalized driveway. The installation of traffic signals at both Driveways #2 and #6 will result in acceptable service levels during the AM and PM peak hours at these two project access points.

As described, project improvements will include signalization of the Arrow Route access intersection. Arrow Route adjacent to the project site will also be widened, improved, signed and striped according to applicable City street standards. Signalization, signing and striping of Monte Vista Avenue at Street "A" (Driveway #6) will also occur as part of project implementation. These improvements to Arrow Route and Monte Vista Avenue, scheduled to occur as part of project implementation, will ensure adequate access and egress to the project site. No adverse site access impacts will occur.

Feasibility of First Street/Huntington Drive Extension

The City of Claremont responded to the Initial Study/Notice of Preparation (IS/NOP), requesting that the feasibility be explored of extending First Street/Huntington Drive into the project site from both Claremont Boulevard and Monte Vista Drive.

The extension of Huntington Drive from its current terminus at Claremont Boulevard along the South Pacific Railroad right-of-way and City of Upland/Montclair boundary lines to Monte Vista Drive is not a part of the proposed project and is not required to accommodate access to the project site. The results of the site access evaluation prepared for the College Park project indicate that site access is adequate as proposed, with project driveways on Arrow Route and Monte Vista Drive forecast to operate at acceptable service levels.

The two primary access points, Arrow Route at College Park and Street A at Monte Vista, are proposed to be signalized and are forecast to operate at LOS C or better during the AM and PM peak hours upon opening of the project in the Year 2006 and buildout of the area in the Year 2025. The project's secondary "right-turn only" driveways are projected to operate at LOS A. Further, the extension of Huntington Drive from Claremont Boulevard to Monte Vista Drive is not required to facilitate circulation and traffic flow in the area. The results of the Traffic Analysis, which essentially analyzed the "without Huntington Drive Extension" condition, indicate that acceptable service levels can be maintained within the project study area without extending Huntington Drive.

A review of the existing circulation system in the immediate area indicates that study intersections most likely to be impacted by the potential extension of Huntington Drive include Claremont Boulevard at Foothill Boulevard, Claremont Boulevard at 6th/Arrow Route, Claremont Boulevard at Arrow Highway, Monte Vista Drive at Foothill Boulevard, Monte Vista Drive at Arrow Route, and Monte Vista Drive at Arrow Highway. Review of the level of service calculations provided in the Traffic Analysis and summarized in this section of the Draft EIR reveals that these six study intersections are projected to operate at LOS D or better upon completion of the project in the Year 2006 (no mitigation required at any of these six study intersections).

In addition, review of the Year 2025 level of service calculations indicates that acceptable LOS can be achieved at Claremont Boulevard at Foothill Boulevard, Claremont Boulevard at 6th/Arrow Route, Claremont Boulevard at Arrow Highway, Monte Vista Drive at Foothill Boulevard, Monte Vista Drive at Arrow Route, and Monte Vista Drive at Arrow Highway with implementation of recommended long-term mitigation measures.

Lastly, the extension of Huntington is not likely to be a benefit to the circulation system in the immediate area as turning movements from Huntington Drive at Monte Vista Drive would likely be restricted to "right-turn only" movements. The proximity of the Richton Street and Monte Vista Avenue signalized intersection to the potential Huntington Drive extension in all likelihood would prevent the installation of a traffic signal at the Huntington Drive/Monte Vista Drive intersection. These intersections would be within 200 feet of each other. Further more, a raised median currently exists on Monte Vista Drive.

Given the above, it can be concluded that the extension of Huntington Drive from its current terminus at Claremont Boulevard to Monte Vista Drive is not required to accommodate access to the project site or facilitate circulation and traffic flow in the area and is not recommended.

5.4.4 - Cumulative Impacts

The cumulative analysis is based on the traffic projections for buildout of the project area and includes both intersection analysis and analysis of the regional freeway network. These traffic projections assume buildout in the project area in the year 2025.

Cumulative Traffic Impacts at Roadway Intersections

A summary of the 2025 intersection analysis is provided in Table 5.4-8 and Table 5.4-9. As shown in Table 5.4-8 and Table 5.4-9, the proposed project further exacerbates deficient conditions. The proposed project contributes to cumulatively significant impacts to the transportation network by adding traffic to the intersections that are below acceptable LOS values. These intersections are:

- Mills Avenue at Foothill Boulevard (City of Claremont)
- Monte Vista Avenue at Foothill Boulevard (San Bernardino County/City of Upland)
- Central Avenue at Foothill Boulevard (San Bernardino County/City of Upland)
- Claremont Boulevard at 6th Street/Arrow Route (City of Claremont San Bernardino County/City of Upland)
- Claremont Blvd. at Arrow Highway (City of Claremont)
- Monte Vista Avenue at Arrow Highway (City of Claremont/City of Montclair)
- Claremont Boulevard at Moreno Street (City of Montclair)
- Monte Vista Avenue at I-10 EB Ramp (City of Montclair)
- Monte Vista Avenue at San Bernardino Boulevard (City of Montclair)
- Indian Hill Boulevard at Foothill Boulevard (City of Claremont)
- Towne Avenue at Foothill Boulevard (City of Claremont/City of Pomona)
- Monte Vista Avenue at Baseline Road (City of Claremont)

Cumulative Traffic Impacts at Freeway Segments

The San Bernardino County CMP requires that all freeway segments within five miles of the project site be evaluated where over 100 project-generated trips are added to existing and/or future conditions. Based upon this criterion, two freeway segments—I-10 between Towne Avenue and Indian Hill Boulevard, and I-10 between Indian Hill Boulevard and Monte Vista Avenue—in the AM peak hour and none in the PM Peak hour will require evaluation. Freeway segments requiring evaluation must be analyzed using the 2000 HCM basic freeway segment analysis methodology. The freeway peak hour traffic forecasts were developed based on the peak period CTP model data for autos and trucks. This incremental growth was added to existing freeway volumes obtained from Caltrans to develop Year 2025 background traffic volumes. College Park project traffic volumes, as assigned by the CTP model, were added to these volumes to develop Year 2025 with project conditions.

LACMTA sets the threshold of significance as a project related increase of 0.02 or more in the volume to capacity (v/c) ratio with a resulting LOS "F" at the freeway segment. The San Bernardino County CMP considers projects that result in or worsen an LOS F condition on freeway segments to require mitigation regardless of how small the project increase in v/c ratio. Therefore, significant impacts will occur if the project generated traffic results in or worsens an LOS F condition on any of the freeway segments evaluated.

Table 5.4-10 summarizes the 2025 LOS evaluation of the freeway segments. The information in this table reveals that all the freeway segments evaluated result in LOS F conditions with or without the project. Therefore, without mitigation, the proposed project will contribute to cumulatively significant impacts to the freeway system.

Table 5.4-8: Year 2025 Level of Service Using the Time Delay Method

Location	Traffic Control	2025 Without Project				2025 With Project			
		AM Peak Hour Delay (seconds)	AM Peak Hour LOS	PM Peak Hour Delay (seconds	PM Peak Hour LOS	AM Peak Hour Delay (seconds)	AM Peak Hour LOS	PM Peak Hour Delay (seconds)	PM Peak Hour LOS
Monte Vista Av at Foothill Blvd.	Signal	90.3	F	153.9	F	97.8	F	163.7	F
Central Av at Foothill Blvd.	Signal	170.9	F	74.4	E	173.6	F	77.4	E
Claremont Blvd at Arrow Route	Signal	30.2	C	35.6	D	31.4	C	49.3	D
Monte Vista Av at Arrow Route	Signal	31.6	C	32.3	C	33.2	C	34.8	C
Central Av at Arrow Route	Signal	16.1	B	17.2	B	16.2	B	17.5	B
Benson Avenue at Arrow Route	Signal	24.9	C	24.5	C	25.0	C	24.6	C
Monte Vista Av at Arrow Hwy.	Signal	43.9	D	165.7	F	73.6	E	200.2	F
Central Av at Arrow Hwy.	Signal	39.7	D	47.0	D	44.1	D	53.1	D
Benson Av at Arrow Hwy.	Signal	33.5	C	47.5	D	33.7	C	49.8	D
Claremont Blvd at Moreno St.	4-way stop	24.33	C	192.41	F	26.45	C	211.23	F
Monte Vista Av at Moreno St.	Signal	25.4	C	31.7	C	26.5	C	34.3	C
Central Av at Moreno St.	Signal	34.3	C	48.8	D	34.8	C	49.9	D
Monte Vista Av at I-10 WB ramps	Signal	42.8	D	40.7	D	45.1	D	42.6	D
Monte Vista Av at I-10 EB ramps	Signal	92.6	F	127.1	F	92.4	F	127.0	F
Central Av at I-10 WB ramps	Signal	22.2	C	22.9	C	22.4	C	23.0	C
Central Av at I-10 EB ramps	Signal	21.8	C	23.3	C	21.9	C	23.5	C
Mills Av at Foothill Blvd.	Signal	20.7	C	28.6	C	20.6	C	29.5	C
Monte Vista Av at San Bernardino Av.	Signal	189.2	F	182.1	F	202.0	F	189.6	F
Mills Av at Foothill Blvd	Signal	90.0	F	52.6	D	91.0 s/v	F	54.3 s/v	D
Claremont Blvd at Foothill Blvd	Signal	30.8	C	29.7 s/v	C	31.8	C	31.8	C
Indian Hill Blvd at 6th Street	Two-way Stop	0.67	A	0.48	A	2.13	A	1.94	A

Table 5.4-8 (Cont.): Level of Service (LOS) Standards Using the Time Delay Method

Location	Traffic Control	2025 Without Project				2025 With Project			
		AM Peak Hour Delay (seconds)	AM Peak Hour LOS	PM Peak Hour Delay (seconds	PM Peak Hour LOS	AM Peak Hour Delay (seconds)	AM Peak Hour LOS	PM Peak Hour Delay (seconds)	PM Peak Hour LOS
Claremont Blvd/Arrow Hwy	Signal	31.2	C	57.1	E	31.4	C	61.0	E
Indian Hill Blvd at Arrow Hwy.	Signal	33.5	C	42.4	D	33.6	C	43.1	D
Indian Hill at Foothill Blvd.	Signal	52.0	D	42.8	D	54.3	D	45.6	D
Towne Av at Foothill Blvd.	Signal	133.5	F	183.5	F	139.4	F	191.7	F
Monte Vista at Baseline Rd	Signal	87.4	F	162.1	F	91.6	E	167.3	F

Source: Linscott Law & Greenspan, Engineers December 2003.

Table 5.4-9: Year 2025 Levels of Service Using the ICU Method

Location	Traffic Control	2025 Without Project				Project Volumes		2025 With Project				V/C Project Contribution	
		AM V/C	AM LOS	PM V/C	PM LOS	AM	PM	AM V/C	AM LOS	PM V/C	PM LOS	AM	PM
Mills Av at Foothill Blvd.	Signal	1.214	F	1.089	F	58	57	1.220	F	1.100	F	0.006	0.011
Claremont Blvd at Foothill Blvd.	Signal	0.810	D	0.773	C	58	57	0.829	D	0.780	C	0.019	0.007
Indian Hill Blvd at 6th St.	2-way stop	0.415	A	0.539	A	138	97	0.485	A	0.600	A	0.070	0.061
Claremont Blvd at Arrow Route	Signal	0.507	A	0.802	D	209	246	0.611	B	0.938	E	0.104	0.136
Indian Hill Blvd at Arrow Hwy.	Signal	0.665	B	0.872	D	35	52	0.671	B	0.882	D	0.006	0.010
Claremont Blvd at Arrow Hwy.	Signal	0.618	B	0.984	E	58	104	0.628	B	1.004	F	0.010	0.020
Claremont Blvd at Moreno St.	4-way stop	0.605	B	0.827	D	23	53	0.614	B	0.845	D	0.009	0.018
Mills Av at San Bernardino Av.	Signal	0.371	A	0.789	C	22	54	0.375	A	0.804	D	0.004	0.015
Indian Hill Blvd at Foothill Blvd.	Signal	0.809	D	0.889	D	127	108	0.835	D	0.913	E	0.026	0.024
Towne Av at Foothill Blvd.	Signal	1.201	F	1.340	F	84	70	1.236	F	1.365	F	0.035	0.025
Monte Vista Av at Baseline Rd.	Signal	1.071	F	1.289	F	61	55	1.099	F	1.312	F	0.028	0.023

Source: Linscott Law & Greenspan, Engineers December 2003.

Table 5.4-10: Year 2025 Freeway Segment Analysis Using the ICU Method

Freeway Segment	Capacity	2025 Without Project			Project Volumes	2025 With Project			V/C Project Contribution
		AM Peak Volumes	AM Peak LOS	AM Peak V/C		AM Peak Volumes	AM Peak LOS	AM Peak V/C	
I-10 Freeway Eastbound:									
Towne Av-Indian Hill Blvd	10,800	11,891	F	1.199	43	11,934	F	1.203	0.004
Indian Hill Blvd-Monte Vista Av	10,800	11,972	F	1.207	65	12,037	F	1.213	0.006
I-10 Freeway Westbound:									
Towne Av-Indian Hill Blvd	10,800	13,959	F	1.407	44	14,003	F	1.411	0.004
Indian Hill Blvd-Monte Vista Av	10,800	14,054	F	1.417	67	14,121	F	1.423	0.006
Source: Linscott Law & Greenspan, November 2003.									

5.4.5 - Mitigation Measures

For those intersections where future traffic volumes are expected to result in deficiencies, improvement measures that change the intersection geometry to increase capacity are recommended. These capacity improvements involve roadway widening and/or restriping to reconfigure or add lanes to specific approaches of an intersection.

The intersections impacted by project traffic requiring mitigation in the Year 2006 are Central Avenue at Foothill Boulevard, Monte Vista Avenue at Baseline Road and Towne Avenue at Foothill Boulevard. An additional eight intersections and two freeway segments were identified as being impacted under 2025 conditions. The project will pay a fair share of improvements needed to mitigate these impacts, as addressed in Mitigation Measures TR-1 and TR-2 at the end of this section.

The following improvements listed in Table 5.4-11 have been identified to mitigate Year 2006 intersection deficiencies for intersections where the project contributes a portion of the traffic congestion impacts.

Table 5.4-11: Offsite Project Area Intersection Improvements Needed in 2006

Intersection/Segment	Improvement
Central Ave. at Foothill Blvd.	Restripe Central Ave. to provide northbound left-turn lane, through lane, and right-turn lane Modify the existing traffic signal accordingly and remove north-south split-phase operation.
Towne Ave. at Foothill Blvd.	Widen and/or restripe Towne Ave. to provide a second southbound left-turn lane.
Monte Vista Ave. at Baseline Rd.	Widen and/or restripe Monte Vista Ave. to provide an exclusive northbound right-turn lane. Widen and/or restripe Baseline Rd. to provide a second westbound left-turn lane. Modify the existing traffic signal accordingly and install a northbound right-turn overlap with the westbound left turn phase.
Source: Linscott Law & Greenspan, December 2003.	

In addition to the roadway improvements listed in Table 5.4-11 needed by 2006, the following improvements listed in Table 5.4-12 have been identified to mitigate Year 2025 intersection deficiencies for intersections and freeway segments where the project contributes a portion of the cumulative traffic congestion impacts.

Table 5.4-12: Offsite Project Area Intersection Improvements Needed in 2025

Intersection/Segment	Improvement
Mills Ave. at Foothill Blvd.	Widen and/or restripe Foothill Blvd. to provide an exclusive westbound right-turn lane. Restripe southbound Mills Ave. to provide two left-turn lanes and a shared through/right-turn lane. Modify existing traffic signal accordingly and install a split phase operation on Mills Ave.
Monte Vista Ave. at Foothill Blvd.	Widen and/or restripe Monte Vista Ave. to provide three through lanes in each direction. Widen and/or restripe Foothill Blvd. to provide three through lanes in each direction and provide two westbound left-turn lanes. Modify existing traffic signal accordingly and install an eastbound right-turn overlap phase with the northbound left-turn phase.
Central Ave. at Foothill Blvd.	Restripe southbound right-turn lane on Central Ave. to provide shared through/right-turn lane.
Claremont Blvd. at Arrow Route	Add separate left-turn lanes to the eastbound and westbound approaches of Arrow Route Modify existing traffic signal accordingly and remove east-west split-phase operation.
Claremont Blvd at Arrow Hwy.	Widen and/or restripe Arrow Highway to provide an exclusive eastbound right-turn lane. Modify existing traffic signal accordingly.
Monte Vista Av. at Arrow Hwy.	Widen and/or restripe Monte Vista Ave. to provide three through lanes in each direction, and two left turn lanes on the southbound approach. Modify existing traffic signal accordingly and install a westbound right-turn overlap phase with the southbound left-turn lanes.
Claremont Blvd at Moreno St.	Widen and/or restripe Claremont Blvd. to provide a southbound left-turn lane. Widen and/or restripe Moreno St. to provide westbound left-turn lane. Install a traffic signal
Monte Vista Ave. at 1-10 EB ramps	Widen and/or restripe the I-10 EB exit ramp to provide an exclusive right-turn lane. Add second southbound left-turn lane on Monte Vista Av. Modify existing traffic signal and install a northbound right-turn overlap phase with the westbound left-turn phase.
Indian Hill Blvd. at Foothill Blvd.	Widen and/or restripe Indian Hill Boulevard to provide a second southbound left-turn lane. Modify existing traffic signal.
Monte Vista Ave. at San Bernardino Ave.	Add a second eastbound left-turn lane on San Bernardino Ave. Add a second northbound left-turn lane on Monte Vista Ave. Restripe Monte Vista Ave. southbound approach to provide a single left-turn lane, tow through lanes, and a right-turn lane. Modify existing traffic signal to operate as an eight-phase traffic signal.

Table 5.4-12 (Cont.): Level of Service (LOS) Standards Using the Time Delay Method

Intersection/Segment	Improvement
Towne Ave. at Foothill Blvd.	Widen and/or restripe Foothill Blvd. to provide an exclusive westbound right-turn lane. Modify existing traffic signal accordingly and install a westbound right-turn overlap phase with the southbound left-turn phase.
I-10 Freeway between Towne Av and Monte Vista Ave.	Add one additional EB lane and two additional WB lanes.

In conformance with CMP requirements, project fair share contributions have been calculated for CMP Horizon Year (2025) improvement locations. The intersection fair share calculations are based on the peak hour traffic volumes for year 2025 since this is when most (and the most severe) intersection deficiencies occur. Table 5.4-13 presents a summary of improvements and project fair share contribution for each of the intersection improvements required to meet the needs of projected year 2025 traffic.

Table 5.4-13: Project Fair Share Contribution to Offsite Intersection Improvements

Intersection/Segment	Impacted Time Period	Existing Traffic	Year 2025 Background traffic	Year 2025 w/Project Traffic	Project % of Increase	Project's Fair Share Cost
Mills Ave. at Foothill Blvd.	AM	2,682	4,126	4,184	3.9%	3.9%
Monte Vista Av at Foothill Blvd	AM PM	2,683 3,307	5,054 5,654	5,180 5,769	5.0% 4.7%	5.0%
Central Ave. at Foothill Blvd.	PM	2,908	3,282	3,345	14.4%	14.4%
Claremont Blvd. at Arrow Route	PM	1,279	1,692	1,938	37.3%	37.3%
Claremont Blvd. at Arrow Hwy.	PM	2,423	3,001	3,105	15.2%	15.2%
Monte Vista Ave. at Arrow Hwy.	AM PM	2,331 3,333	3,854 5,546	4,319 5,915	23.4% 14.3%	23.4%
Claremont Blvd. at Moreno St.	PM	858	2,001	2,054	4.4%	4.4%
Monte Vista Ave. at I-10 EB ramps	AM PM	2,634 2,755	4,093 4,113	4,228 4,200	8.5% 6.0%	8.5%
Monte Vista Ave. at San Bernardino Ave.	AM PM	2,558 2,376	3,785 3,932	3,868 3,985	6.3% 3.3%	6.3%

Table 5.4-13 (Cont.): Level of Service (LOS) Standards Using the Time Delay Method

Intersection/Segment	Impacted Time Period	Existing Traffic	Year 2025 Background traffic	Year 2025 w/Project Traffic	Project % of Increase	Project's Fair Share Cost
Indian Hill Blvd at Foothill Blvd	PM	3,105	3,683	3,790	15.6%	15.6%
Towne Ave. at Foothill Blvd.	AM PM	4,018 3,892	4,994 4,662	5,078 4,732	7.9% 8.3%	8.3%
Monte Vista Ave. at Baseline Rd.	AM PM	2,856 2,921	3,656 4,374	3,717 4,429	7.1% 3.6%	7.1%
I-10 EB Freeway Towne Av-Indian Hill	AM	7,785	11,891	11,934	1.04%	1.04%
I-10 EB Freeway Indian Hill-Monte Vista	AM	7,650	11,972	12,037	1.48%	1.48%
I-10 WB Freeway Towne Av-Indian Hill	AM	9,515	13,959	14,003	0.98%	0.98%
I-10 WB Freeway Indian Hill-Monte Vista	AM	9,350	14,054	14,121	1.40%	1.40%

Source: Linscott Law & Greenspan, December 2003.

Project-specific mitigation measures have been developed to reduce potential impacts to the transportation network and traffic circulation associated with the project. The following summarizes the improvements and associated costs required to meet City and CMP level of service and volume to capacity requirements at the study intersections. The project fair share contribution for the improvements at each location is also identified.

TR-1 The project applicant shall contribute its fair share toward local off-site traffic improvements to the following intersections as shown in Table 5.4-11 and 5.4-12:

- Mills Avenue at Foothill Avenue
- Monte Vista Avenue at Foothill Boulevard
- Central Avenue at Foothill Boulevard
- Claremont Boulevard at Arrow Route
- Claremont Boulevard at Arrow Highway
- Monte Vista Avenue at Arrow Highway
- Claremont Boulevard at Moreno Street
- Monte Vista Avenue at the I-10 eastbound ramps
- Monte Vista Avenue at San Bernardino Avenue
- Indian Hill Blvd. at Foothill Blvd.
- Towne Avenue at Foothill Boulevard
- Monte Vista Avenue at Baseline Road

On-site improvements will be required in conjunction with the phasing of the proposed development to ensure adequate circulation within the project itself. The fair share

contribution of all off-site improvements and timing of all onsite traffic improvements shall be incorporated into the conditions of approval for the project.

TR-2 Cost estimates for off-site traffic improvements using the percentage of project costs shown in Draft EIR Table 5.4-13 shall be prepared and the cost of the project fair share contribution shall be submitted to the City prior to approval of the project.

TR-3 Final design plans and specifications for the improvements to Arrow Route and Monte Vista Avenue adjacent to the site will be developed in accordance with City Standards and submitted to the City for review and approval.

TR-4 The project applicant shall be responsible for construction and installation of traffic signalization, related roadway and median improvements, and landscaping resulting from signalization at the intersections of Arrow Route and College Park, and Monte Vista Drive and Street "A".

5.4.6 - Level of Significance After Mitigation

As shown in Tables 5.4-14, 5.4-15, and 5.4-16, with implementation of the mitigation measures discussed above, all project related impacts are addressed. Project generated impacts to the transportation network and traffic circulation system related to traffic congestion are less than significant once mitigation measures are implemented. Since these improvements are designed to address project generated traffic generated impacts through the year 2025, cumulative impacts to the transportation network are also mitigated.

Table 5.4-14: Mitigated Levels of Service (2025) Using the Time Delay Method

Intersection	Traffic Control Status	AM Peak Hour Delay (seconds)	AM Peak Hour LOS	PM Peak Hour Delay (seconds)	PM Peak Hour LOS
Mills Av at Foothill Blvd.	Signal	54.0	D	49.2	C
Monte Vista Av at Foothill Blvd.	Signal	34.2	C	34.6	C
Central Av at Foothill Blvd.	Signal	33.6	C	27.2	C
Claremont Blvd at Arrow Route	Signal	22.4	C	19.9	B
Claremont Blvd at Arrow Hwy	Signal	31.1	C	48.4	D
Monte Vista Av at Arrow Hwy.	Signal	28.0	C	49.7	D
Claremont Blvd at Moreno St.	Signal	20.5	C	28.7	C
Monte Vista Av at I-10 EB ramps	Signal	32.9	C	40.5	D
Monte Vista Av at San Bernardino Av.	Signal	41.3	D	34.3	C
Towne Avenue at Foothill Blvd.	Signal	53.1	D	52.2	D
Monte Vista Avenue at Baseline Road	Signal	49.1	D	54.8	D

Table 5.4-15: Mitigated Levels of Service (2025) Using The ICU Method

Intersection	Traffic Control Status	AM Peak Hour V/C Ratio	AM Peak Hour LOS	PM Peak Hour V/C Ratio	PM Peak Hour LOS
Mills Av at Foothill Blvd.	Signal	1.038	F	0.862	D
Claremont Blvd at Arrow Route	Signal	0.495	A	0.690	B
Claremont Blvd at Arrow Hwy.	Signal	0.628	B	0.931	E
Claremont Blvd at Moreno St.	Signal	0.473	A	0.790	C
Indian Hill Blvd at Foothill Blvd.	Signal	0.749	C	0.865	D
Towne Av at Foothill Blvd.	Signal	0.970	E	0.975	E
Monte Vista Av at Baseline Rd.	Signal	0.777	C	1.145	F

Note that the intersections within the cities of Claremont and Pomona and the freeway segments within the jurisdiction of LACMTA require that projects mitigate to pre-project operations at the intersection or freeway segment in order to be found less than significant. Since all of the intersection and freeway segment LOS values and v/c ratios are at or better than pre-project conditions (as shown in `Table 5.4-14 to 5.14-16), project-related impacts are found to be less than significant.

Table 5.4-16: Mitigated Freeway Segment Analysis for 2025 Using the ICU Method

Intersection	Capacity	Future with Project Volume	AM Peak Hour V/C Ratio	AM Peak Hour LOS
I-10 EB: Towne Av- Blvd	13,100	11,934	0.992	E
I-10 EB: Indian Hill Blvd-Monte Vista	13,100	12,037	1.000	E
I-10 WB: Towne Av-Indian Hill Blvd	15,400	14,003	0.990	E
I-10 WB: Indian Hill Blvd-Monte Vista	15,400	14,121	0.998	E

5.5 - AIR QUALITY

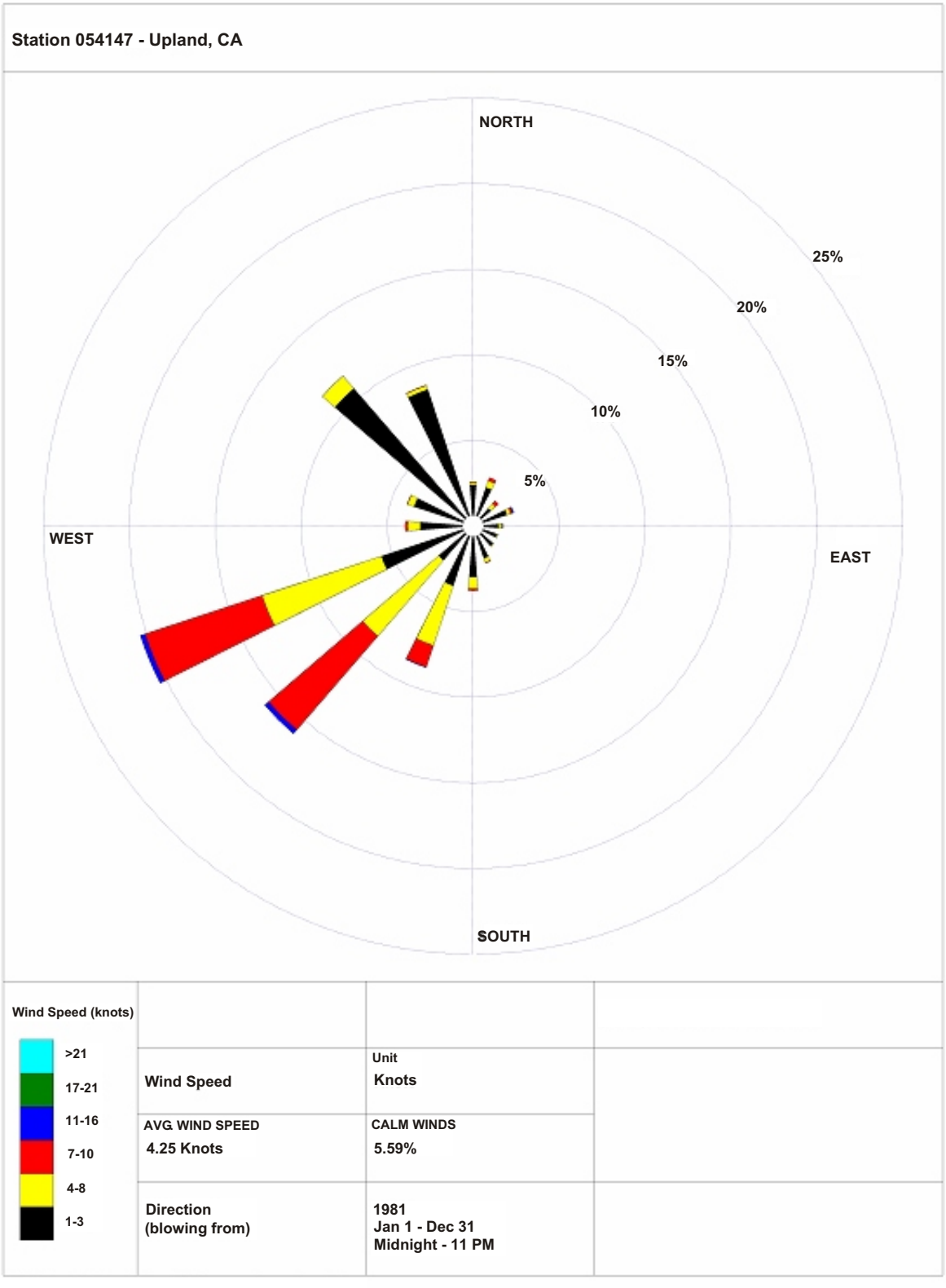
Air quality modeling was conducted in November 2003 by Michael Brandman Associates to address short-term air-quality impacts during construction and long-term impacts associated with additional traffic and stationary emission sources in the project area. The air quality analysis presented in this section of the Draft EIR is based on the computer model runs prepared for the proposed project. The output reports are provided in Appendix E. The air quality analysis contained in this section includes a discussion of existing climate conditions, criteria air pollutants, ambient air quality standards and air quality regulations.

5.5.1 - Existing Conditions

Atmospheric Setting

The project site is located in the City of Upland within the South Coast Air Basin (SCAB). The SCAB consists of Orange County, together with the coastal and mountain portions of Los Angeles, Riverside and San Bernardino counties. Regional and local air quality within the SCAB is affected by topography, atmospheric inversions, and dominant onshore flows. Topographic features such as the San Gabriel and San Bernardino Mountains form natural barriers to the dispersion of air contaminants. The presence of atmospheric inversions limits the vertical dispersion of air pollutants. Subsidence inversions primarily occur in the summer when coastal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high-pressure cell over the ocean to the west. This subsidence inversion allows for good horizontal dispersion of pollutants where the temperature initially follows a normal pattern of decreasing temperature with increasing altitude; however, at some elevation, the trend reverses and temperature begins to increase as altitude increases. This transition to increasing temperature establishes the effective mixing height of the atmosphere and acts as a barrier to vertical dispersion of pollutants. Dominant onshore flow provides the driving mechanism for both air pollution transport and pollutant dispersion. Locally, the dominant winds blow from west to east (See Exhibit 5.5-1: Wind Rose).

Air pollution generated in coastal areas is transported east to inland receptors by the onshore flow during the daytime until natural barriers (the mountains) are confronted, limiting the horizontal dispersion of pollutants. The result is a gradual degradation of air quality from coastal areas to inland areas, which is most evident with the photochemical pollutants such as ozone. The greatest ozone problems are recorded at those South Coast Air Quality Management District (SCAQMD) monitoring stations located at the base of the San Gabriel and San Bernardino mountains ranging from the City of Santa Clarita, east to the City of San Bernardino.



Note: US Environmental Protection Agency (EPA) protocol requires meteorological data from 1981 to be used in air quality dispersion modeling.

Source: SCAQMD

Michael Brandman Associates

Exhibit **5.5-1**
Wind Rose

A second inversion type forms on clear, winter nights when cold air off the mountains sinks to the surface while the air aloft remains warm. This process forms radiation inversions that, in conjunction with calm winds, trap pollutants such as automobile exhaust near their source. During the long nocturnal drainage flow from land to sea, the exhaust pollutants continually accumulate within the shallow, cool layer of air near the ground.

The City of Upland thus may experience elevated levels of carbon monoxide and nitrogen oxides during winter inversion conditions. Both types of inversions occur throughout the year to some extent, but the subsidence inversions are very dominant during the day in summer, and radiation inversions are much stronger on winter nights when nights are long and air is cool. The governing role of these inversions in atmospheric dispersion leads to a substantially different air quality environment in summer in and around the project area than in winter.

Ambient Air Quality Standards

Ambient Air Quality Standards (AAQS) are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations above these minimum standards before adverse effects are observed. It has been demonstrated, however, that chronic exposure to ozone, even at concentrations equal to the one hour federal AAQS, may have adverse long term health implications. A new federal ozone standard for chronic exposure (8 hours) was adopted in 1997 to deal with unhealthful longer term exposure.

National AAQS were established in 1971 for six pollutants with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended to 1987 for national AAQS. Ambient air quality was still far from attainment by the end of 1987 in air quality problem areas like Southern California. Subsequent amendments to clean air compliance regulations extended the attainment deadline to 2010 for extreme non attainment airsheds such as the SCAB. Because California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between State and national clean air standards. Those standards currently in effect in California are shown in Table 5.5-1.

The entries in Table 5.5-1 include the federal standards for chronic (8 hour) ozone exposure or for ultra small diameter particulate matter of 2.5 microns or less in diameter (called "PM-2.5") adopted in 1997. Compliance with these new national standards will be addressed during the next update of the regional Clean Air Plan (ozone), or must wait for several years of data collection to determine

baseline levels (PM-2.5). Manufacturing and trucking associations challenged EPA's authority to promulgate standards without specific congressional authority as violating sovereign state's rights.

The absence of any cost-benefit analysis was also challenged. These associations prevailed at the circuit and appellate court levels, but the U.S. Supreme Court overturned the stay in February 2001. The Court's decision did note inconsistency in the implementation dates of ozone standards, and halted full adoption of the new standards for PM-2.5 and the 8-hour ozone standard until attainment schedules are coordinated. As noted in Table 5.5-1 there is currently both federal and state standards for PM-2.5. California adopted an annual standard for PM-2.5 in June of 2003. Data collection is continuing for PM-2.5 and 8-hour ozone, but no enforcement or attainment actions are currently ongoing for these standards.

Table 5.5-1: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone (O3)	1 Hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	0.12 ppm (235 µg/m3)	Same as Primary Standard	Ethylene Chemiluminescence
	8 Hour	—		0.08 ppm (157 µg/m3)		
Respirable Particulate Matter (PM10)	Annual Geo-metric Mean	30 µg/m3	Gravimetric or Beta Attenuation	—	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	24 Hour	50 µg/m3		150 µg/m3		
	Annual Arithmetic Mean	—		50 µg/m3		
Fine Particulate Matter (PM2.5)	24 Hour	—	Gravimetric or Beta Attenuation	65 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	Annual Arithmetic Mean	12 µg/m3		15 µg/m3		
Nitrogen Dioxide (NO2)	Annual Arithmetic Mean	—	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.25 ppm (470 µg/m3)		—		

Table 5.5-1 (Cont.): Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Carbon Monoxide (CO)	8 hour	9.0 ppm (10 mg/m3)	Non-dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m3)	None	Non-dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m3)		—		
Lead	30 Days average	1.5 µg/m3	AIHL Method 54 (12/74) Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m3	Same as Primary Standard	
Sulfur Dioxide (SO2)	Annual Arithmetic Mean	—	Fluorescence	0.030 ppm (80 µg/m3)	—	Pararosoaniline
	24 Hour	0.04 ppm (105 µg/m3)		0.14 ppm (365 µg/m3)	—	
	3 Hour	—		—	0.5 ppm (1300 µg/m3)	
	1 Hour	0.25 ppm (655 µg/m3)		—	—	
Visibility Reducing Particles	8 Hour (10 am to 6 pm PST)	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07 – 30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70 percent. Method: ARB Method V (8/18/89).		No Federal Standards		
Sulfates	24 Hour	25 µg/m3	Turbidimetric Barium Sulfate (AIHL Method 61 (2/76)			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m3)	Cadmium Hydroxide STRactan			
Source: California Air Resources Board (7/09/03)						

Baseline Air Quality

Existing levels of ambient air quality and historical trends and projections in the project area are best documented from measurements made near the project site. The South Coast Air Quality Management District (SCAQMD) has divided up the SCAB into 37 Source Receptor Areas (SRA) for evaluation purposes and operates monitoring stations within each one.

The project site is within SCAQMD Source Receptor Area (SRA) 32. The monitoring station for SRA 32 is in the City of Upland.

The most recent published data for SRA 32 is presented in Table 5.5-2**Error! Reference source not found.**, Air Quality Monitoring Summary 1992-2002. This data shows that the baseline air quality conditions in the project area include occasional events of very unhealthful air. Even so, the frequency of smog alerts has dropped significantly in the last decade. The greatest recognized air quality problem in the SCAB is ozone.

The yearly monitoring records document that prior to 1995, approximately one-third or more of the days each year experienced a violation of the state hourly ozone standard, with around ten days annually reaching stage 1 health advisory alert levels of 0.20 parts per million (ppm) for one hour. It is encouraging to note that ozone levels have dropped significantly in the last few years with less than one-eighth of the days each year experiencing a violation of the state hourly ozone standard in 2002. Locally, no stage 1 health advisory alert (0.20 ppm/hour) has been called by SCAQMD in over two years, and no stage 2 health advisory alert (0.35 ppm/hour) has been called by SCAQMD in the last ten years.

Although the overall air quality is improving, one exception is the ambient concentrations of particulate matter smaller than 10 microns in diameter (PM10 and PM2.5). Over the last decade, the State air quality standard for PM10 has been consistently exceeded in the area. The 1997 Federal standards for PM2.5 (annual arithmetic mean of 15 µg/m3 and 24-hour average of 65 µg/m3) were upheld by the U.S. Supreme Court in February 2001. SCAQMD monitoring data shows that ambient air concentrations in the area are exceeding the federal annual and 24-hour standards for PM-2.5 since SCAQMD began monitoring this pollutant in 1999. Final adoption of State standards for PM-2.5 occurred in June of 2003 and a comparison of the air quality in the project area with the state standards is not yet available.

Table 5.5-2: Air Quality Monitoring Summary 1992-2002
(Days Standards Were Exceeded and Maximum Observed Concentrations)

	Pollutant/Standard Source: CARB	Monitoring Year										
		1992	1993	1994	1995	1996	1997	1998	1999	2002	2001	2002
No. Days Exceeded	**Ozone:**											
	California Standard:											
	1-Hour - 0.09 ppm [a]	136	124	116	110	87	69	60	29	43	53	36
	Federal Primary Standards:											
	1-Hour - 0.12 ppm [a]	81	55	79	67	35	12	30	4	10	14	5
	8-Hour - 0.08 ppm [b]						30	40	17	19	33	19
	Max 1-Hour Conc. (ppm) [a]	0.28	0.24	0.25	0.24	0.22	0.19	0.21	0.15	0.18	0.174	0.139
	Max 8-Hour Conc. (ppm) [b]						0.13	0.17	0.12	0.159	0.138	0.118
No. Days Exceeded	**Carbon Monoxide :**											
	California Standard:											
	1-Hour - 20 ppm [c]	0	0	0	0	0	0	0	0	0a	0a	0a
	8-Hour - 9.0 ppm [c]	0	0	0	0	0	0	0	0	0a	0a	0a
	Federal Primary Standards:											
	1-Hour - 35 ppm [c]	0	0	0	0	0	0	0	0	0a	0a	0a
	8-Hour - 9.5 ppm [c]	0	0	0	0	0	0	0	0	0[a]	0[a]	0[a]
	Max 1-Hour Conc. (ppm) [c]	7.0	7.0	9.0	6.3	6.0	8.0	6.0	5.0	4.0[a]	3.0[a]	4.0[a]
	Max 8-Hour Conc. (ppm) [c]	5.9	6.0	6.5	5.9	4.6	6.0	4.6	4.0	2.6 [a]	1.75 [a]	1.6[a]
No. Days Exceeded	**Nitrogen Dioxide :**											
	California Standard:											
	1-Hour - 0.25 ppm [a]	0	0	0	0	0	0	0	0	0	0	0
	Federal Standard:											
	Annual Standard - 0.053ppm	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]
	Max. 1-Hour Conc. (ppm) [a]	0.14	0.16	0.17	0.20	0.15	0.15	0.14	0.13	0.15	0.13	0.12
No. Days Exceeded	**Sulfur Dioxide :**											
	California Standards:											
	1-Hour – 0.25 ppm [d]	0	0	0	0	0	0	0	0	0	0	0
	24-Hour – 0.04 ppm [d]	0	0	0	0	0	0	0	0	0	0	0
	Federal Primary Standards:											
	24-Hour – 0.14 ppm [d]	0	0	0	0	0	0	0	0	0	0	0
	Annual Standard – 0.03 ppm	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	No[e]	0
	Max. 1-Hour Conc. (ppm) [d]	0.02	0.01	0.03	0.02	0.01	0.01	0.02	0.01	0.02	0.01	0.03

Table 5.2-2 (Cont.): Air Quality Monitoring Summary 1992-2002
(Days Standards Were Exceeded and Maximum Observed Concentrations)

	Pollutant/Standard Source: CARB	Monitoring Year										
		1992	1993	1994	1995	1996	1997	1998	1999	2002	2001	2002
No. Days Exceeded	**Inhalable Particulates (PM-10):**											
	California Standards:											
	24-Hour - 50 μg/m^3	31[d]	34[d]	38[d]	35[d]	35[d]	29[d]	28[d]	36[d]	31[d]	34[d]	32[d]
	Annual Geometric Mean (μg/m^3) [d]	48.9	46.3	52.7	50.6	48.2	47.6	41.3	54.3	47.1	43.8	45.9
Days Exceed	Federal Primary Standards:											
	24-Hour – 150 μg/m^3	0[d]	0[d]	0[d]	2[d]	0[d]	0[d]	0[d]	0[d]	0[d]	0[d]	0[d]
	Annual Arithmetic Mean (μg/m^3) [d] /m^3)	56.1	57.1	60.0	61.0	55.1	53.7	50.2	60.2	52.6	50.5	50.4
	Max. 24-Hour Conc. (μg/m^3) [d]	105	143	147	178	130	122	101	116	108	106	102
No Days Exceeded	**Inhalable Particulates (PM-2.5):**											
	Federal Primary Standards:											
	Annual Standard – 15μg/m^3								Yes[f]	Yes[f]	Yes[f]	Yes[f]
	24-Hour – 65 μg/m^3								3[e]	2[e]	4[e]	1[e]
	Annual Arithmetic Mean (μg/m^3) [e]								25.9	24.2	24.8	24.3
	Max. 24-Hour Conc. (μg/m^3) [e]								98.0	72.9	74.8	66.6

Note: [a] Upland air monitoring station (SRA 32) data summaries for ozone and NO_2.for all years and CO during years 2000-2002.
[b] 1997 is first year of SCAQMD records for federal 8-hour Ozone standard.
[c] San Bernardino monitoring station (SRA 34) data summaries for CO during years 1992-1999.
[d] Fontana air monitoring station (SRA 34) data summaries for SO_2 , and PM-10 during all years.
[e] 1999 is first year of SCAQMD records for federal 24-hour PM-2.5 standard and is measured at Fontana air monitoring station.
[f] Exceedance of the Annual Standards are expressed as either Yes or No indicating if standard has been exceeded for that year.

Air Quality Management Plan

The Federal Clean Air Act (1977 Amendments) stated that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards by December 31, 1987. The SCAB could not meet the deadline for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the South Coast Air Basin, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first

adopted an Air Quality Management Plan (AQMP) in 1979 and revised it in 1982 to project attainment of the standards in 2000.

In 1988, because of uncertainty in federal Clean Air Act reauthorization, the California Legislature enacted the California Clean Air Act (CCAA). The CCAA requires that regional emissions be reduced by 5 percent per year, averaged over 3 year periods, until attainment can be demonstrated. In July 1991, the SCAQMD adopted a revised AQMP that was designed to meet the CCAA requirements. The 1991 AQMP deferred the attainment date to 2010, consistent with the 1990 federal Clean Air Act.

The 1990 federal Clean Air Act Amendments required that all states with airsheds with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). The 1991 AQMP was modified/adapted and submitted as the SCAB portion of the SIP. The 1991 SIP submittal estimated that an 85% basinwide reduction in volatile organic compound (VOC) emissions and a 59% reduction in oxides of nitrogen (NOx) between 1990 to 2010 were needed to meet federal clean air standards.

A 1997 AQMP was locally adopted. The California Air Resources Board (ARB) forwarded this plan on to EPA for its consideration and recommended approval. The 1997 AQMP was designed to meet both federal (EPA) and State (ARB) air quality planning guidelines. Components of the 1997 plan included:

- Demonstration of attainment for ozone, CO, and PM 10;
- Updated emissions inventories (1993 base year) of VOC, NOx, CO, SOx and PM 10;
- Emissions budgets for future years of the inventoried compounds;
- An updated pollution control strategy; and
- Contingency measures if the plan as presently proposed fails to meet stated timetables.

The proposed 1997 plan was further revised to accelerate the adoption/implementation of 13 control measures. The 1999 SIP Revisions met all legal requirements and were approved by EPA in 2000 as the adopted SIP for the South Coast Air Basin.

Additional research and photochemical computer modeling, as well as improved emissions estimates, now suggest that formerly predicted emissions reductions required to meet standards need not be quite as severe as thought earlier. Table 5.5-3 summarizes the currently proposed regional attainment planning for ozone (VOC and NOx) and for carbon monoxide (CO). Emissions reductions of around 66 percent for VOC, 52 percent for NOx, and 66 percent for CO are anticipated from the currently proposed AQMP update.

Table 5.5-3: South Coast Air Quality Management Plan (Emissions in tons/day)

	VOC*	NOx*	CO**
Current Inventory(a)			
Stationary + Areawide	410	144	363
On-Road Mobile	562	761	5,826
Off-Road Mobile	119	304	1,009
Total	1,092	1,208	7,197
2010 Forecast(b)			
Stationary + Areawide	448	121	412
On-Road Mobile	262	416	2,580
Off-Road Mobile	83	235	934
Total	794	771	3,926
Short-term + Intermediate			
Reductions	<221>	<120>	<1,468>
Long-term Reductions	<204>	<77>	<0>
2010 Remaining(c)	369	574	2,458

(a) 1995 Base Year
(b) With current emissions reduction programs and adopted growth forecasts.
(c) Levels at which all federal air quality standards will be met.
Source: SCAQMD, Draft Final 1997 AQMP (October 1996), and California ARB, "The 2001 California Almanac of Emissions & Air Quality."
* summer ozone precursors
** winter CO "hot spot" precursors

5.5.2 - Thresholds of Significance

Project Compliance with Existing Regulations

The Air Quality Management Plan (AQMP) for the South Coast Air Basin (SCAB) establishes a program of rules and regulations administered by SCAQMD and directed at attainment of the state and national air quality standards.

SCAQMD rules and regulations that apply to this project include SCAQMD Rule 403, which governs emissions of fugitive dust. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. Rule 403 also requires projects that disturb over 100 acres of soil or moves 10,000 yds3/day of materials/day to submit to SCAQMD a Fugitive Dust Control Plan.

SCAQMD Rule 1108 governs the sale, use and manufacturing of asphalt and limits the VOC content in asphalt used in the South Coast Air Basin. Although this rule does not directly apply to the project, it does dictate the VOC content of asphalt available for use during the construction.

SCAQMD Rule 1113 governs the sale, use and manufacturing of architectural coatings and limits the VOC contents in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the VOC content of paints available for use during the construction of the buildings.

Thresholds of Significance

The State CEQA Guidelines define a significant effect on the environment as "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." In order to determine whether or not the proposed project would cause a significant effect on the environment, the impact of the project must be determined by examining the types and levels of emissions generated and their impacts on factors that affect air quality. To accomplish this determination of significance, the SCAQMD has established air pollution thresholds against which a proposed project can be evaluated and assist lead agencies in determining whether or not the proposed project is potentially significant.

While the final determination of whether or not a project is significant is within the purview of the lead agency pursuant to § 15064(b) of the State CEQA Guidelines, the SCAQMD recommends that the following air pollution thresholds be used by the lead agencies in determining whether the proposed project could result in a significant impact. If the lead agency finds that the proposed project has the potential to exceed these air pollution thresholds, the project should be considered significant. These thresholds have been defined by SCAQMD for the South Coast Air Basin based on scientific data the SCAQMD has obtained and factual data within the federal and state Clean Air Acts. Since the project is located within the South Coast Air Basin and current air quality in the project area is typical of the air basin as a whole, these thresholds are considered valid and reasonable.

Thresholds for Emissions Related to Construction Activities

The following significance thresholds for project generated emissions during construction activities have been established by SCAQMD. Projects in the South Coast Air Basin with construction-related emissions that exceed any of these thresholds should be considered significant:

- 100 pounds per day or 2.5 tons per quarter-year of NOx;
- 75 pounds per day or 2.5 tons per quarter-year of ROG;
- 550 pounds per day or 24.75 tons per quarter-year of CO; and
- 150 pounds per day or 6.75 tons per quarter-year of SOx or PM10.

Thresholds for Emissions Related to Operation of the Project

Specific criteria for determining whether the potential air quality impacts of a project are significant are set forth in the SCAQMD Handbook. The criteria for these emissions thresholds include, compliance with the State and National air quality standards and conformity with the existing Air Quality Management Plan (AQMP) for the South Coast Air Basin. The daily operational emissions "significance" thresholds are:

- 55 pounds per day of NOx;
- 55 pounds per day of ROG;
- 550 pounds per day of CO; and
- 150 pounds per day of SOx or PM10.

Emissions resulting from the operation of the proposed project may also be considered significant if a CO hotspot analysis determines that project-generated emissions cause a localized violation of the state CO 1-hour standard of 20 parts per million (ppm), state CO 8-hour standard of 9 ppm, federal CO 1-hour standard of 35 ppm, or federal CO 8-hour standard of 9.5 ppm.

5.5.3 - Project Impacts

Emissions that can adversely affect air quality originate from various activities. A project generates emissions both during the period of its construction and through ongoing daily operations. During construction of the proposed project, emissions will be generated by onsite construction equipment, offsite vehicles used to deliver supplies, and by construction workers commuting to and from the construction site. Once residential units and commercial buildings are occupied, emissions are generated by ongoing daily operations of the commercial buildings and the daily activities within the residential land uses of the proposed project. Long-term daily operations and activities of the proposed project include air quality emissions resulting from the use of natural gas within the commercial buildings and residential units, gasoline driven landscape equipment, offsite vehicles used for delivery of supplies, and commuting traffic.

Emissions from Construction Activities

Construction-related emissions can be distinguished as either onsite or offsite. Onsite emissions generated during construction principally consist of exhaust emissions (NOX, SOX, CO, VOC, and PM10) from heavy-duty construction equipment operation and fugitive dust (PM10) from disturbed soil. Offsite emissions during the construction phase normally consist of exhaust emissions and entrained paved road dust (PM10) from worker commute trips, and material delivery trips to and from the construction site.

Construction-related activities at the project site are anticipated to include the following major activities:

- Grading/clearing for the construction of the building pads, and installation of underground utilities;
- Building construction; and
- Paving of access roads, and construction of concrete curbs, gutters, and sidewalks.

The proposed project is expected to be developed in the following two phases with full occupancy expected by year 2006:

- Phase 1: Retail commercial with restaurants and service station/mini mart totaling 44,335 square feet of floor space, office buildings totaling 48,000 square feet of floor space, 50 single-family homes, 224 apartment units, 1.05-acre community park and all primary access and internal roadway improvements.
- Phase 2: 102-room hotel totaling 51,080 square feet of floor space, and 224 apartment units.

Occupancy of phase 1 is anticipated to occur concurrently with construction of phase 2.

To estimate the "worst-case" peak daily emissions associated with the construction activities, the anticipated schedule and the types and number of construction equipment were estimated for each major construction activity. Additionally, estimates were made of the number of peak daily worker commuting trips and material delivery and removal trips for each of the construction activities. Finally, construction emissions of phase 2 of the project were estimated and combined with operational emissions from phase 1 to assess the combined air quality emissions during this interim period of simultaneous operation and construction of the proposed project.

The specific assumptions for construction of the each phase of the project are as follows:

Phase 1:

- Grading/Clearing: the entire 38.69-acre site will be fine graded during the initial phase of development. Please note that the filling and compaction of the former sand and gravel quarry site is ongoing under a separate permit, evaluated in a previous CEQA document, and therefore, is not evaluated in this analysis. The total amount of time expected for clearing/grading and excavation operations is 6 weeks.

- Building Construction: Phase 1 of the project will entail construction of 50 single-family homes, 224 apartment units, retail commercial with restaurants and service station/mini mart totaling 44,335 square feet of floor space, and office buildings totaling 48,000 square feet of floor space. The total amount of time expected for building construction is 46 weeks.
- Paving: access roadways and construction of curbs, gutters, and sidewalks will take approximately 3 weeks to accomplish and will involve the paving of approximately 6.3 acres. Both paving and building construction will take place concurrently.

Phase 2:

- Grading/Clearing: None
- Building Construction: Phase 2 of the project will entail construction of 224 apartment units, and a 102-room hotel totaling 51,080 square feet of floor space.
- Paving: None.
- Operation of Project Phase 1: assumes a worst-case scenario of 100 percent occupancy of phase 1 including natural gas and electricity usage, operation of landscape equipment, and traffic associated with 50 single-family homes, 224 apartment units, retail commercial with restaurants and service station/mini mart totaling 44,335 square feet of floor space, and office buildings totaling 48,000 square feet of floor space.

The maximum daily estimate of emissions related to construction of phase 1 of the proposed project is provided in Table 5.5-4. Table 5.5-5 provides the project interim period when operational emissions of phase 1 are anticipated to be concurrent with phase 2 construction activities.

Table 5.5-4: Estimated Phase 1 Construction Emissions (Emissions in pounds/day and tons/quarter-year)

Pollution Source	NOx	CO	ROG	SOx	PM_{10}
Fugitive Dust From Grading	NG[1]	NG[1]	NG[1]	NG[1]	96.70
Construction Equipment	715.20	537.63	60.28	0.10	34.37
Commuting Traffic	1.93	20.49	2.09	NG[1]	0.08
Architectural Coatings Offgassing	NG[1]	NG[1]	262.35	NG[1]	NG[1]
Asphalt Offgassing	NG[1]	NG[1]	2.31	NG[1]	NG[1]
Emissions Totals (lbs/day) [2]	717.13	558.12	327.03	0.15	131.15

Table 5.5-4 (continued) Estimated Phase 1 Construction Emissions (Emissions in pounds/day and tons/quarter-year)

Pollution Source	NOx	CO	ROG	SOx	PM_{10}
Emissions Totals (tons/quarter)[2]	17.61	14.44	10.63	>0.01	2.11
SCAQMD Thresholds	100 lbs/day 2.50 tons/qtr	550 lbs/day 24.75 tons/qtr	75 lbs/day 2.50 tons/qtr	150 lbs/day 6.75 tons/qtr	150 lbs/day 6.75 tons/qtr
Exceed Thresholds?	YES	YES	YES	NO	NO

Notes: [1] Criteria pollutants that have estimated negligible values are designated NG (negligible emissions).
[2] Daily emissions and Quarterly emission totals reflect highest estimated emissions for each criteria pollutant. NOx, CO and PM-10 reflect grading activities (26 workdays) with the remainder of the quarter (39 workdays) reflecting building construction activity. SOx emissions reflect paving activities during the building construction period, and ROG emissions reflect painting applications during building construction period (65 workdays per quarter).
Bold type indicates emission estimates that are above the SCAQMD significance thresholds.
See Appendix E for model output report.

Table 5.5-5: Estimated Phase 2 Combined Emissions (Emissions in pounds/day and tons/quarter-year)

Pollution Source	NOx	CO	ROG	SOx	PM_{10}
Construction Equipment	260.77	226.86	32.17	0.02	12.00
Commuting Traffic	3.93	45.89	2.54	NG[1]	0.27
Architectural Coatings Offgassing	NG[1]	NG[1]	172.69	NG[1]	NG[1]
Phase 1 Operations	134.84	1,420.76	117.46	1.25	111.23
Emissions Totals (lbs/day)	399.54	1,693.51	324.86	1.27	123.50
Emissions Totals[2] (tons/quarter)	12.98	55.04	10.56	0.04	4.01
SCAQMD Construction Thresholds	100 lbs/day 2.5 tons/qtr	550 lbs/day 24.75 tons/qtr	75 lbs/day 2.5 tons/qtr	150 lbs/day 6.75 tons/qtr	150 lbs/day 6.75 tons/qtr
SCAQMD Operational Thresholds	55 lbs/day	550 lbs/day	55 lbs/day	150 lbs/day	150 lbs/day
Exceed Thresholds?	YES	YES	YES	NO	NO

Notes: [1] NG designates criteria pollutants that have estimated negligible values.
[2] Quarterly emission totals for all criteria pollutants reflect building construction at 65 days per quarter.
Bold type indicates emission estimates that are above the SCAQMD significance thresholds.
See Appendix E for model output report.

Since emissions of NOx, CO and ROG are above the SCAQMD Thresholds during construction of both phase 1 and phase 2 of the proposed project, construction related impacts to air quality are significant without mitigation.

Emissions from Operational Activities

Long-term operational emissions for the proposed development are considered for project build-out. Emission sources consist of mobile emissions and stationary emissions. Mobile emissions estimates are derived from motor vehicle traffic. Stationary emissions estimates are derived from the consumption of natural gas and consumer products, as well as emissions resulting from landscape maintenance. Long-term emissions were evaluated with the URBEMIS 2002 for Windows computer program. Table 5.5-6, Composite Long-term Emissions, presents the estimated daily total emissions at project build out.

Table 5.5-6: Composite Long-term Emissions

Pollution Source	NOx (Lbs/Day)	CO (Lbs/Day)	ROG (Lbs/Day)	SOx (Lbs/Day)	PM-10 (Lbs/Day)
Mobile Emissions	146.48	1,579.02	121.74	1.45	132.67
Natural Gas Consumption	5.20	2.18	0.40	NG	0.01
Landscape Emissions	0.05	4.35	0.58	0.02	0.01
Consumer Products	NG	NG	24.36	NG	NG
Emissions Totals (pounds/day)	151.73	1,585.55	147.08	1.47	132.69
SCAQMD Thresholds	55 lbs/day	550 lbs/day	55 lbs/day	150 lbs/day	150 lbs/day
Exceed Threshold?	YES	YES	YES	NO	NO

Note: NG designates criteria pollutants that have estimated negligible values.
Bold type indicates emission estimates that are above the SCAQMD significance thresholds.
See Appendix E for model output report.

When emissions projections are compared with the SCAQMD suggested thresholds for significance, it is shown that long-term emissions for CO, NOx, and ROG are above the applicable thresholds. Therefore, long-term operational emissions are considered a significant air quality impact without mitigation.

In addition to a comparison with SCAQMD daily thresholds that address the project contribution to regional impacts, micro-scale air quality adjacent to site access roadways could adversely impact sensitive receptors. Projects with sensitive receptors or projects that could negatively impact levels of service (LOS) of existing roads need to use the California Department of Transportation Carbon Monoxide Protocol (hereafter referred to as the CO protocol) to determine the potential to create a CO hotspot. CO was chosen for micro-scale analysis because CO is produced in the greatest quantities from vehicle combustion and does not readily disperse into the atmosphere. A CO hotspot is a localized concentration of CO that is above the State or Federal 1-hour or 8-hour ambient air

standards. Localized high concentrations of CO are associated with traffic congestion and idling or slow-moving vehicles. Typically, the level of service (LOS) at an intersection producing a hot spot is at D or worse during the peak hour. Intersections that meet this criterion are:

- Mills Avenue at Foothill Boulevard
- Monte Vista Avenue at Foothill Boulevard
- Central Avenue at Foothill Boulevard
- Claremont Boulevard at Arrow Route
- Indian Hill Boulevard at Arrow Highway
- Claremont Boulevard at Arrow Highway
- Monte Vista Avenue at Arrow Highway
- Central Avenue at Arrow Highway

The CO protocol recommends using CALINE4, the fourth generation California Line Source Roadway Dispersion Model developed by the California Department of Transportation (Caltrans), to estimate 1 hour CO concentrations from roadway traffic. Input data for this model includes meteorology, street network geometrics, traffic information, and emissions generation rates. Meteorological data required includes average temperatures, wind direction, sigma theta (standard deviation of wind direction), and wind speed. Street network geometrics require the use of an x,y coordinate system onto which the modeled roadways can be overlain in order to identify the relative location of traffic lanes to nearby receptors. Required traffic information was taken from the project specific traffic study and includes peak hour traffic volumes and levels of service. Emission factors were calculated in grams/mile/vehicle using the EMFAC2002 computer model.

According to the CO protocol, the CALINE4 model should simulate intersections by using a reduced speed to represent intersection speeds and waits. Therefore, the slowing speed approaching an intersection was calculated at an average speed of 5 miles per hour (mph) within 249 feet. This value was derived by calculating the time it would take for a vehicle to slow from 28 mph at a rate of 4.6 mph/second and doubling this distance to account for any vehicles which have already stopped at the intersection. Vehicles outside of the 249-foot intersection approaches were assumed to be at a cruise speed of 28 mph as directed by the CO protocol for suburban traffic. The PM peak hour traffic volumes were used in this analysis because they represent the highest traffic volumes for both the project area and the proposed project.

The model procedure that was followed combined the results of the traffic analysis assuming very restrictive dispersion conditions in order to generate a worst-case impact assessment. Output from the CALINE4 model is in 1-hour CO concentrations in parts per million (ppm) at the selected receptor locations. The predicted 1-hour CO concentrations were determined by adding the ambient background 1-hour CO concentrations to the model projected 1-hour CO concentration. The 8-hour

CO concentration was estimated by multiplying the 1-hour model estimate by the persistence factor for the project area (0.6) and adding the ambient background 8-hour CO concentration. The results from this screening procedure are presented in Table 5.5-7.

Table 5.5-7: Estimated CO Concentrations (ppm)
(at 25 feet from edge of each named intersection)

Intersection	Existing Background CO Conc.[1]	2006		2025		State Standard	Federal Standard	Significant Impact?
		w/o Project[2]	with Project[2]	w/o Project[2]	with Project[2]			
Worst Case 1-hour Average CO Concentrations								
Mills Ave. at Foothill Blvd.	4.00	9.00	9.10	7.30	7.30	20 ppm	35 ppm	NO
Monte Vista Ave. at Foothill Blvd.	4.00	10.70	10.90	7.40	7.50	20 ppm	35 ppm	NO
Central Ave. at Foothill Blvd.	4.00	11.40	11.40	6.20	6.30	20 ppm	35 ppm	NO
Claremont Blvd. at Arrow Route	4.00	6.90	7.40	5.70	6.00	20 ppm	35 ppm	NO
Indian Hill Blvd. at Arrow Hwy.	4.00	10.20	10.30	6.50	6.60	20 ppm	35 ppm	NO
Claremont Blvd. at Arrow Hwy.	4.00	7.70	7.70	6.60	6.70	20 ppm	35 ppm	NO
Monte Vista Ave. at Arrow Hwy.	4.00	10.40	10.70	7.30	7.50	20 ppm	35 ppm	NO
Central Ave. at. at Arrow Hwy.	4.00	10.30	10.50	6.80	6.90	20 ppm	35 ppm	NO
Worst Case 8-hour Average CO Concentrations[3]								
Mills Ave. at Foothill Blvd.	1.60	4.60	4.66	3.58	3.58	9 ppm	9.5 ppm	NO
Monte Vista Ave. at. Foothill Blvd.	1.60	5.62	5.74	3.64	3.70	9 ppm	9.5 ppm	NO
Central Ave. at. Foothill Blvd.	1.60	6.04	6.04	2.92	2.98	9 ppm	9.5 ppm	NO
Claremont Blvd. at Arrow Route	1.60	3.34	3.64	2.62	2.80	9 ppm	9.5 ppm	NO
Indian Hill Blvd. at Arrow Hwy.	1.60	5.32	5.38	3.10	3.16	9 ppm	9.5 ppm	NO
Claremont Blvd. at Arrow Hwy.	1.60	3.82	3.82	3.16	3.22	9 ppm	9.5 ppm	NO
Monte Vista Ave. at Arrow Hwy.	1.60	5.44	5.62	3.58	3.70	9 ppm	9.5 ppm	NO
Central Ave. at. at Arrow Hwy.	1.60	5.38	5.50	3.28	3.34	9 ppm	9.5 ppm	NO

Notes: [1] Maximum CO 1-hour and 8-hour average concentrations in Upland for 2002.
[2] Estimated traffic generated CO emissions + background CO concentrations.
[3] 8-hour traffic generated CO emissions per CO Hotspot Analysis Protocol are estimated by multiplying 1-hour traffic generated CO emissions by a persistence factor of 0.60. and adding 8-hour background concentrations.

Please note that for each of the intersections, Table 5.5-7 shows the receptor with the highest concentration. Readings on all 4 receptor locations at each intersection can be found in Appendix E.

Assuming worst-case conditions, the project related impacts would increase the local concentrations by less than 1.0 ppm, and would remain well below the one-hour and eight-hour standards. This

project would not expose persons within the project area or pedestrians walking/standing at the various intersection approaches to significant air pollution levels. Therefore, microscale air quality impacts are thus individually and cumulatively less than significant.

Existing Vulcan Asphalt Batch Plant Operations

The asphalt batch plant to the south of the project site is an existing operation that generates emissions from plant operations and truck exhaust. This existing facility is scheduled for relocation within five years. In the near term, project implementation will result in new populations being temporarily exposed to air quality impacts as a result of the dispersion of the emissions from the asphalt plant. In the longer term, the asphalt plant is scheduled to close. The proposed multi-family residential units along the southern project boundary have the closest proximity to the existing asphalt plant. Approximate distance between the asphalt plant and closest proposed residential unit is approximately 500 feet. Since plant relocation plans have not been finalized, the potential exists that the plant will continue to operate for a period of one to five years. The asphalt plant is a SCAQMD-permitted source. The AQMD may not issue a permit to a source if the source causes a violation of air quality standards. Given the distance between proposed residential uses and the asphalt plant, short-term nature of the emissions, and SCAQMD oversight to insure that plant equipment operates within the framework of the SCAQMD permits, short-term exposure to asphalt plant emissions are considered less than significant.

AQMP Consistency

One final criteria in determining the significance of the proposed project is to determine if the project is in compliance with the Air Quality Management Plan for the SCAB. The Air Quality Management Plan (AQMP) for the SCAB sets forth a comprehensive program that will lead the SCAB into compliance with all federal and state air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with Southern California Association of Governments (SCAG). The SCAQMD has developed two criteria to evaluate a project's consistency with the Air Quality Management Plan (AQMP): a project is deemed consistent with the AQMP if 1) the project results in population and/or employment growth within the growth estimates defined by the SCAG for the project area, and 2) project generated emissions do not exceed the SCAQMD recommended thresholds.

The proposed project is a revision of land uses and density of the project site. The current land use designation and zoning for the project site is Light Manufacturing. Implementation of the proposed project requires a zone change from Light Manufacturing to Highway Commercial in order to permit the proposed mixed-use development and increase the population growth for the project from the growth expectations within the AQMP.

The project specific analysis indicates that both short-term and long-term emissions are above the SCAQMD thresholds. Therefore, the proposed project fails the two criteria for consistency and it is appropriate to conclude that the proposed project is not consistent with the AQMP. Project inconsistency with the AQMP is a significant air quality impact.

Notwithstanding the above finding of inconsistency with the AQMP based on exceedance of SCAQMD thresholds, the College Park Project, as a mixed use, pedestrian/bike friendly, transit-accessible project, does include features that are considered air-quality positive, thereby promoting regional air quality goals. Regional air quality goals, as detailed in SCAG's Regional Comprehensive Plan and Guide, Growth Management Chapter, include:

- encouraging the use of transit;
- creating opportunities for residents to walk and bike; and
- increasing development densities at strategic points along the regional commuter rail, transit systems and activity centers.

5.5.4 - Cumulative Impacts

CEQA Section 21100 (e) addresses evaluation of cumulative effects allowing the use of approved land use documents in a cumulative impact analysis. CEQA Guidelines Section 15064 (i)(3) further stipulates that for an impact involving a resource that is addressed by an approved plan or mitigation program, the lead agency may determine that a project's incremental contribution is not cumulatively considerable if the project complies with the adopted plan or program. In addressing cumulative effects for air quality, the AQMP is the most appropriate document to use because the AQMP sets forth a comprehensive program that will lead the air basin, including the project area, into compliance with all federal and state air quality standards and utilizes control measures and related emission reduction estimates based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments.

Since the proposed project is not in conformance with the AQMP and the project is significant on an individual basis, it is appropriate to conclude that the project's incremental contribution to criteria pollutant emissions is cumulatively considerable as well.

5.5.5 - Mitigation Measures

Construction Emissions

AQ-1 Prior to construction of the proposed project, the project proponent will provide a traffic control plan that will describe in detail safe detour routes around the project construction

site and provide temporary traffic control (i.e. flag person) during construction related truck hauling activities.

AQ-2 During construction of the proposed improvements, mobile construction equipment will be properly maintained at an offsite location, including proper tuning and timing of engines. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction.

AQ-3 During construction of the proposed improvements, all contractors will be advised not to idle trucks on site for more than ten minutes.

AQ-4 During construction of the proposed improvements, only low volatility paints and coatings as defined in SCAQMD Rule 1113 shall be used. All paints shall be applied using either high volume, low-pressure (HVLP) spray equipment or by hand application.

AQ-5 During construction of the proposed improvements, the project applicant will provide on-site electrical hook ups for electric construction tools, such as saws, drills and compressors, to eliminate the need for diesel powered electric generators.

Dust Control

AQ-6 Terminate soil disturbance when winds exceed 25 mph.

AQ-7 The Applicant shall prepare a Fugitive Dust Emission Control Plan in compliance with SCAQMD Rule 403. The plan shall identify methods to control fugitive dust through implementation of reasonable available control measures to prevent visible emissions from crossing the property line of the proposed project. In addition to termination of soil disturbance when winds exceed 25 mph, two or more of the following control measures shall be included in the Plan:

- Application of chemical stabilizers to unpaved roads and vehicle parking areas;
- Application of sufficient water prior to initiating any earth movement;
- Sweeping and/or cleaning streets where vehicles exit construction sites;
- Installation of wheel washers (Trackclean unit or equivalent) where vehicles exit disturbed surface areas onto paved roads;
- Paving of all roads on a construction site once final elevations have been reached or at the earliest possible time;
- All stockpiles for material export shall be watered twice daily.

Long-term Emissions

AQ-8 The Applicant shall submit to the City of Upland project site plans that include pedestrian safety infrastructure improvements including street lighting, pedestrian paths and sidewalks that link residential land uses with commercial and office land uses within the project, and provide shade trees along sidewalks and pedestrian paths as deemed appropriate by the City of Upland Planning Department Staff.

AQ-9 The Applicant shall contact local transit agencies to determine the feasibility of bus stops at the project site and determine the need for passenger benches, shelters, and signage at that location.

5.5.6 - Level of Significance After Mitigation

In an effort to reduce estimated CO, NOx, and ROG emissions, a range of conditions imposed upon the project were considered. The primary source of these emissions is construction equipment and paint applications for short-term construction emissions, and mobile emissions from vehicle traffic for long-term emissions. Effective emission reduction measures are described in Section 5.5.5, Mitigation Measures. Table 5.5-8, Table 5.5-9,and Table 5.5-10 show the estimated total short-term and long-term emissions with the mitigation measures imposed upon the proposed project.

Table 5.5-8: Mitigated Phase 1 Construction Emissions (Emissions in pounds/day and tons/quarter-year)

Pollution Source	NOx	CO	ROG	SOx	PM_{10}
Fugitive Dust From Grading	NG[1]	NG[1]	NG[1]	NG[1]	20.00
Construction Equipment	558.39	419.75	35.04	0.15	26.83
Commuting Traffic	1.83	19.47	2.04	NG[1]	0.08
Architectural Coatings Offgassing	NG[1]	NG[1]	104.94	NG[1]	NG[1]
Asphalt Offgassing	NG[1]	NG[1]	2.30	NG[1]	NG[1]
Emissions Totals (lbs/day) [2]	560.23	439.22	144.32	0.15	46.91
Emissions Totals (tons/quarter)[2]	12.54	11.30	4.69	>0.01	0.85
SCAQMD Thresholds	100 lbs/day 2.50 tons/qtr	550 lbs/day 24.75 tons/qtr	75 lbs/day 2.50 tons/qtr	150 lbs/day 6.75 tons/qtr	150 lbs/day 6.75 tons/qtr
Exceed Thresholds?	YES	NO	YES	NO	NO

Notes: [1] Criteria pollutants that have estimated negligible values are designated NG (negligible emissions).

[2] Daily emissions and Quarterly emission totals reflect highest estimated emissions for each criteria pollutant. NOx, CO and PM-10 reflect grading activities (26 workdays) with the remainder of the quarter (39 workdays) reflecting building construction activity. SOx emissions reflect paving activities during the building construction period, and ROG emissions reflect painting applications during building construction period (65 workdays per quarter).

Bold type indicates emission estimates that are above the SCAQMD significance thresholds.

See Appendix E for model output report.

Table 5.5-9: Mitigated Phase 2 Combined Emissions (Emissions in pounds/day and tons/quarter-year)

Pollution Source	NOx	CO	ROG	SOx	PM_{10}
Construction Equipment	128.67	118.75	16.39	0.02	5.84
Commuting Traffic	3.91	45.50	2.51	NG[1]	0.27
Architectural Coatings Offgassing	NG[1]	NG[1]	69.08	NG[1]	NG[1]
Phase 1 Operations	105.25	1,103.89	106.60	0.97	86.23
Emissions Totals (lbs/day)	237.83	1,268.14	192.07	0.99	92.34
Emissions Totals[2] (tons/quarter)	7.73	41.21	6.24	0.03	3.00
SCAQMD Construction Thresholds	100 lbs/day 2.5 tons/qtr	550 lbs/day 24.75 tons/qtr	75 lbs/day 2.5 tons/qtr	150 lbs/day 6.75 tons/qtr	150 lbs/day 6.75 tons/qtr
SCAQMD Operational Thresholds	55 lbs/day	550 lbs/day	55 lbs/day	150 lbs/day	150 lbs/day
Exceed Thresholds?	YES	YES	YES	NO	NO

Notes: [1] NG designates criteria pollutants that have estimated negligible values.
[2] Quarterly emission totals for all criteria pollutants reflect building construction at 65 days per quarter.
Bold type indicates emission estimates that are above the SCAQMD significance thresholds.
See Appendix E for model output report.

Table 5.5-10: Mitigated Long-term Emissions

Pollution Source	NOx (Lbs/Day)	CO (Lbs/Day)	ROG (Lbs/Day)	SOx (Lbs/Day)	PM-10 (Lbs/Day)
Mobile Emissions	114.24	1,232.23	97.79	1.13	103.40
Natural Gas Consumption	5.20	2.18	0.40	NG	0.01
Landscape Emissions	0.05	4.35	0.58	0.02	0.01
Consumer Products	NG	NG	24.36	NG	NG
Emissions Totals (pounds/day)	119.49	1,238.76	123.13	1.15	103.42
SCAQMD Thresholds	55 lbs/day	550 lbs/day	55 lbs/day	150 lbs/day	150 lbs/day
Exceed Threshold?	YES	YES	YES	NO	NO

Note: NG designates criteria pollutants that have estimated negligible values.
Bold type indicates emission estimates that are above the SCAQMD significance thresholds.
See Appendix E for model output report.

As shown in Tables 5.5-8 through 5.5-10, both short-term construction and long-term project related emissions of NOx, CO, and ROG remain above the applicable SCAQMD thresholds after mitigation measures are incorporated into the project. Therefore, the proposed project would result in significant and unavoidable air quality impacts after implementation of mitigation measures.

5.6 - NOISE

This section incorporates information contained in the Noise Impact Study for the proposed project prepared by Giroux and Associates in December 2003 (contained in Appendix F of this EIR). The Noise Impact Study includes monitoring based on an ambient baseline addressing current uses, taking into account the different noise receptors proposed by the project.

5.6.1 - Existing Conditions

Acoustical Fundamentals

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally defined as unwanted sound. Sound is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound wave. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level.

The unit of sound pressure compared to the faintest sound detectable by a young person with good auditory acuity is called a decibel (dB). The decibel scale for sound is a logarithmic scale similar to the Richter Scale used for earthquake intensity. A 10 dB increase represents a 10-fold increase in sound intensity, a 20 dB change is a 100-fold difference, 30 dB is a 1,000-fold increase, etc. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity are factored more heavily into sound descriptions in a process called "A-weighting", written as dB (A).

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called LEQ), or, alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. Finally, because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law requires that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL). CNEL is a weighted 24 hour level where nocturnal events are penalized heavily to account for greater noise sensitivity at night.

State of California Noise Guidelines

An interior CNEL of 45 dB is mandated by the State of California Noise Insulation Standards (CCR, Title 24, Part 6, Section T25-28) for multiple family dwellings and hotel and motel rooms. A 45 dB(A) CNEL is also typically considered a desirable noise exposure for single-family dwelling

units. Since normal noise attenuation within residential structures with closed windows is about 20-25 dB, an exterior noise exposure of 65 dB(A) CNEL is generally the noise land use compatibility guideline for noise sensitive receiver sites in California.

City of Upland Noise Guidelines

In the Noise Element of the City of Upland General Plan, an exterior noise exposure in the range of up to 65 dB(A) CNEL is considered normally acceptable for noise-sensitive single-family and multi-family residential uses. Noise levels up to 70 dB(A) CNEL are considered "conditionally acceptable" for residential and transient lodging (hotels and motels) but the City of Upland, as a matter of policy, requires exterior noise reduction to achieve a 65 dB(A) CNEL maximum if at all possible.

The City General Plan Noise Element includes a 45 dB(A) CNEL interior noise standard for single-family residential uses. Because exterior noise levels of 65 dB(A) CNEL require some form of enhanced acoustical protection to allow the 45 dB CNEL interior noise standard to be met, the Noise Element recommends that a "noise referral zone" threshold be established that requires acoustical verification of interior standards based upon exterior noise loading. The Noise Element suggests that 57 dB(A) CNEL is an appropriate dividing line between negligible potential impact versus a need for additional analysis.

Ambient Noise Levels

Current site conditions include several noise sources. Dominant among the noise sources is traffic noise along Monte Vista Avenue and Arrow Route. Other potential noise sources include the Vulcan Asphalt Batch Plant along the southern boundary of the site, Metro-link commuter trains on the Burlington Northern Santa Fe (BNSF) Rail line over 1,000 feet south of the project site, and aircraft noise from aircraft over flights associated with the Cable Airport, approximately ¾ mile northeast of the project site.

Existing noise levels near the proposed project derive mainly from vehicular sources on Monte Vista Avenue. Current noise levels close to Monte Vista Avenue are well in excess of City standards. Noise from non-traffic sources did not appreciably affect any part of the project site. There was no discernable noise signature from the Vulcan Asphalt Batch Plant, commuter trains or aircraft noises when noise measurements were taken.

On-site measurements were taken approximately 50-65 feet from the centerlines of the roadways bordering the site (Monte Vista Avenue and Arrow Route) and along the southern site boundary near the Vulcan Asphalt Batch Plant operations. Noise monitoring onsite was conducted for 24+ hours on November 18-19, 2003 by Giroux & Associates. Noise sensitive uses identified in proximity to the project site are the residential dwellings and the Claremont Colleges, both to the west.

The reported noise levels were as follows:

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The reported noise levels were as follows:

Eastern project boundary 50-feet from Monte Vista Ave. centerline	73 dB(A) CNEL
Northern project boundary 65-feet from Arrow Route centerline	65 dB(A) CNEL
Southern project boundary closest to the Vulcan Asphalt Batch Plant.....	62 dB(A) CNEL

5.6.2 - Thresholds of Significance

For use in this EIR, thresholds of significance have been derived to determine the level of the impact upon the existing noise environment. These thresholds are drawn from the CEQA Appendix G Checklist and the City of Upland Noise Element policies. The proposed project would be considered to have significant noise impacts if it resulted in any of the following:

- If predicted noise levels as a result of the proposed project increase noise in the project area by a clearly detectible amount (+3 dB) where noise levels do not currently exceed the City of Upland noise standards for noise sensitive land uses (i.e. 65 dB CNEL for residential and transient lodging uses and 70 dB CNEL for office and commercial uses).

- If predicted noise levels as a result of the proposed project were to increase in the project area by a measurable amount (+1 dB) where noise levels already exceed standards for noise sensitive land uses.
- If construction activities associated with the project were to occur outside of allowable times in the City Noise Ordinance, or were to audibly intrude into adjacent residential areas during periods of heightened noise sensitivity.
- If development of proposed project land uses would occur within an area predicted to be in violation of the City of Upland noise standards for that land use.

5.6.3 - Project Impacts

Construction Noise Impacts

Fill operations are occurring under the current Reclamation Plan for the project site. At the completion of reclamation, the project site will be left relatively flat for future building pads. Grading requirements will be limited to fine grading, resulting in reduced equipment use. Future construction activities for the proposed project, however, especially from heavy equipment, may create substantial short-term noise increases near the project site. Such impacts might be intrusive to nearby noise-sensitive receptors such as the existing residential use immediately west of the project site, and the Claremont Colleges, further west across Claremont Blvd. Construction periods will be of short duration, and with limited physical improvements planned for the site, the intensity of construction activities will be no more severe than historic heavy equipment operations on the project site.

The most noise-intensive period will be when scrapers and dozers are involved in fine grading for the proposed development. Equipment noise could reach 90 dB at 50 feet from such equipment when operating under full load. Under normal atmospheric spreading losses, peak levels up to 65 dB may be heard as far as 1,000 feet from the operating equipment. A level of 65 dB is considered intrusive in normal conversation. Construction activity impacts during the noisiest activities could thus extend as far as approximately 1,000 feet from the activity.

If earth movement were to occur during periods of heightened residential noise sensitivity, a temporary significant impact could occur. Construction activities are limited to daytime hours from 7 a.m. to 6 p.m. weekdays by the City of Upland Noise Ordinance (Municipal Code § 5400.1000.130). However, if heavy equipment operations are audible at the nearest homes on a warm evening when residents may be using their patios, they could be annoyed. Therefore, construction related noise impacts are considered significant without mitigation.

Project Related Traffic Noise Impacts on the Surrounding Community

Traffic noise is preempted from (not regulated by) local City of Upland control. Noise impacts from traffic are, therefore, evaluated relative to the noise exposure of the receiving property rather than the noise generator itself. The applicable noise standard is CNEL as discussed previously under Existing Conditions (Section 5.6-1).

Traffic noise was calculated based upon the results of the project traffic study. CNEL levels were calculated at 50 feet from the centerline of thirty-six (36) roadway links within the project vicinity. Noise levels were calculated using the federal highway traffic noise prediction model (FHWA RD 77 108) modified with California vehicle noise (CALVENO) curves. The results of the noise analysis for all five traffic scenarios analyzed (Existing Conditions; No Project and With Project at 2006; No Project and With Project at 2025) may be referenced in Appendix F of this EIR. Thirty-four (34) out of thirty-six (36) roadway segments within the analysis grid have existing noise levels that exceed 65 dB CNEL at 50 feet from the centerline, and are, therefore, considered already "noisy." However, of the 36 segments analyzed, the difference between the "with project" versus "no project" noise exposure is a maximum of 1.1 dB, with 35 of the 36 segments experiencing no discernable increase (less than 1 dB CNEL) as summarized in Table 5.6-1.

As identified in the thresholds of significance, a traffic noise impact would be significant if it increases noise levels by +3.0 dB CNEL along roadways that do not currently violate the noise standard and +1.0 dB CNEL along roadways that do currently violate the noise standard. None of the 36 roadway segments analyzed exceeded the thresholds, since baseline traffic noise levels are sufficiently elevated masking much of the project increment.

Table 5.6-1: Predicted Noise Levels and Project Impacts

Roadway Segment	Existing Noise Levels dB CNEL	2006		Project Related Increase dB CNEL	Significant Impact?
		No Project dB CNEL	With Project dB CNEL		
Foothill Blvd west of Mills Av.	71.3	71.8	71.9	0.1	NO
Foothill Blvd: Mills Av-Claremont Blvd.	70.8	71.4	71.5	0.1	NO
Foothill Blvd: Claremont Blvd-Monte Vista	70.6	71.2	71.2	0.0	NO
Foothill Blvd: Monte Vista-Central Av.	71.0	71.7	71.8	0.1	NO
Foothill Blvd. east of Central	71.6	72.5	72.5	0.0	NO
Arrow Route west of Claremont Blvd.	64.4	64.6	65.4	0.8	NO
Arrow Route: Claremont Blvd-Monte Vista	65.5	66.1	67.2	1.1	NO

Table 5.6-1: (Cont.) Predicted Noise Levels and Project Impacts

Roadway Segment	Existing Noise Levels dB CNEL	2006		Project Related Increase dB CNEL	Significant Impact?
		No Project dB CNEL	With Project dB CNEL		
Arrow Route: Monte Vista-Central Av.	66.1	67.1	67.4	0.3	NO
Arrow Route: east of Benson	67.9	68.4	68.6	0.2	NO
Arrow Hwy west of Claremont Blvd.	70.3	70.7	70.8	0.1	NO
Arrow Hwy Claremont Blvd-Monte Vista	70.2	70.5	70.5	0.0	NO
Arrow Hwy: Monte Vista-Central Av.	69.2	69.6	70.0	0.4	NO
Arrow Hwy: Central Av-Benson Av.	69.0	69.4	69.6	0.2	NO
Arrow Hwy: east of Benson	68.7	69.1	69.3	0.2	NO
Moreno St: Claremont Blvd-Monte Vista	63.7	63.8	63.9	0.1	NO
Moreno St: Monte Vista-Central Av.	68.2	68.3	68.3	0.0	NO
Moreno St. east of Central Av.	68.9	69.0	69.0	0.0	NO
Mills Av. north of Foothill Blvd.	66.2	66.7	66.7	0.0	NO
Claremont Blvd north of Foothill Blvd.	66.6	67.0	67.0	0.0	NO
Claremont Blvd: Foothill Blvd-Arrow Rt.	66.5	66.9	67.5	0.6	NO
Claremont Blvd: Arrow Rt-Arrow Hwy.	66.7	67.5	67.9	0.4	NO
Claremont Blvd: Arrow Hwy-Moreno St.	65.9	66.5	66.8	0.3	NO
Claremont Blvd south of Moreno St.	66.4	67.0	67.3	0.3	NO
Monte Vista north of Foothill Blvd.	68.7	69.9	70.0	0.1	NO
Monte Vista: Foothill Blvd-Arrow Rt.	69.4	70.2	70.5	0.3	NO
Monte Vista: Arrow Rt-Arrow Hwy.	70.0	70.8	71.4	0.6	NO
Monte Vista: Arrow Hwy-Moreno St.	70.5	71.1	71.5	0.4	NO
Monte Vista south of Moreno St.	71.0	71.6	71.8	0.2	NO
Central Av: Foothill Blvd-Arrow Rt.	69.5	70.1	70.1	0.0	NO
Central Av: Arrow Rt-Arrow Hwy.	70.5	71.1	71.1	0.0	NO
Central Av: Arrow Hwy-Moreno St.	71.6	72.1	72.2	0.1	NO
Central Av. south of Moreno St.	73.1	73.4	73.5	0.1	NO
Benson Av. North of Arrow Rt.	69.9	70.6	70.6	0.0	NO
Benson Av: Arrow Rt-8th St.	69.7	70.3	70.3	0.0	NO
Benson Av. south of 8th St.	69.1	69.6	69.6	0.0	NO

Project related traffic noise will not expose noise-sensitive land uses to noise levels exceeding the City of Upland standards where the standard is currently met and will not substantially increase noise levels in areas already exposed to excessive noise. Project related noise impacts on the surrounding community are less than significant.

Noise Impacts on Noise Sensitive Land Uses Proposed by the Project

The project site, particularly along Monte Vista Avenue frontage, will have traffic noise constraints for proposed development in close proximity to the roadway. Potential uses that may require noise attenuation (by barriers or by setback) to keep noise levels below the City standards for outdoor uses include the hotel swimming pool, the outdoor eating areas at quick-serve restaurants, and patios, decks, and balconies of the apartments immediately adjacent to Monte Vista. Recreation areas for the apartments are expected to have exterior noise levels below the City standard because they are planned to be located within the site interior farther away from the roadways and shielded by project perimeter buildings.

Because exterior noise levels at or above 65 dB CNEL require some form of enhanced acoustical protection to insure that the 45 dB CNEL interior noise standard is met, the Noise Element recommends a "noise referral zone" threshold that requires acoustical verification of interior standards based upon exterior noise loading of 57 dB CNEL. Table 5.6-2 summarizes the distance from roadways onsite required to meet the City noise standards. On-site proposed land uses closer to the roadways than the distances shown in Table 5.6-2 will require noise attenuation to meet the City noise standards.

Table 5.6-2: Distance from Roadways Required Onsite to Meet Noise Standards

Standard	Distance from Monte Vista Ave. Needed to Achieve Standard		Distance from Arrow Route Needed to Achieve Standard		Affected Uses Not at Distance Needed to Achieve Standard		Significant Impact?
	Ground Level	Upstairs	Ground Level	Upstairs	Ground Level	Upstairs	
Noise Referral Zone (57 dB CNEL)	735 ft.	2,820 ft.	285 ft.	675 ft.	All Office, Hotel, Commercial. Apartments east of College Prk.	Entire Site	YES
Residential/Hotel Outdoor Uses (65 dB CNEL)	215 ft.	445	85	105	Hotel pool and Apartments adjacent to Monte Vista Ave.	Balconies of first two rows of Apartment buildings west of Monte Vista	YES
Commercial Outdoor Uses (70 dB CNEL)	105 ft.	NA	<50 ft.	NA	Outdoor eating areas next to Monte Vista Ave.	None	YES

Noise propagation at ground level is characterized by acoustically "soft" conditions where ground absorption occurs and various obstacles scatter sound waves. For upstairs portions of the apartments, hotel, and other buildings, minimal ground absorption or scattering of sound waves occur and therefore, the potential noise constraint for meeting indoor standards extends farther from the roadways. For build-out conditions, the distance from Monte Vista Avenue within the 57 dB CNEL "Noise Referral Zone" requiring interior noise analysis is 2,820 feet for upstairs portions of the buildings. This distance effectively covers the entire project site. As such, interior acoustical analysis and noise attenuation is required for upstairs portions of all buildings onsite to insure that the 45 dB CNEL interior noise standard is met.

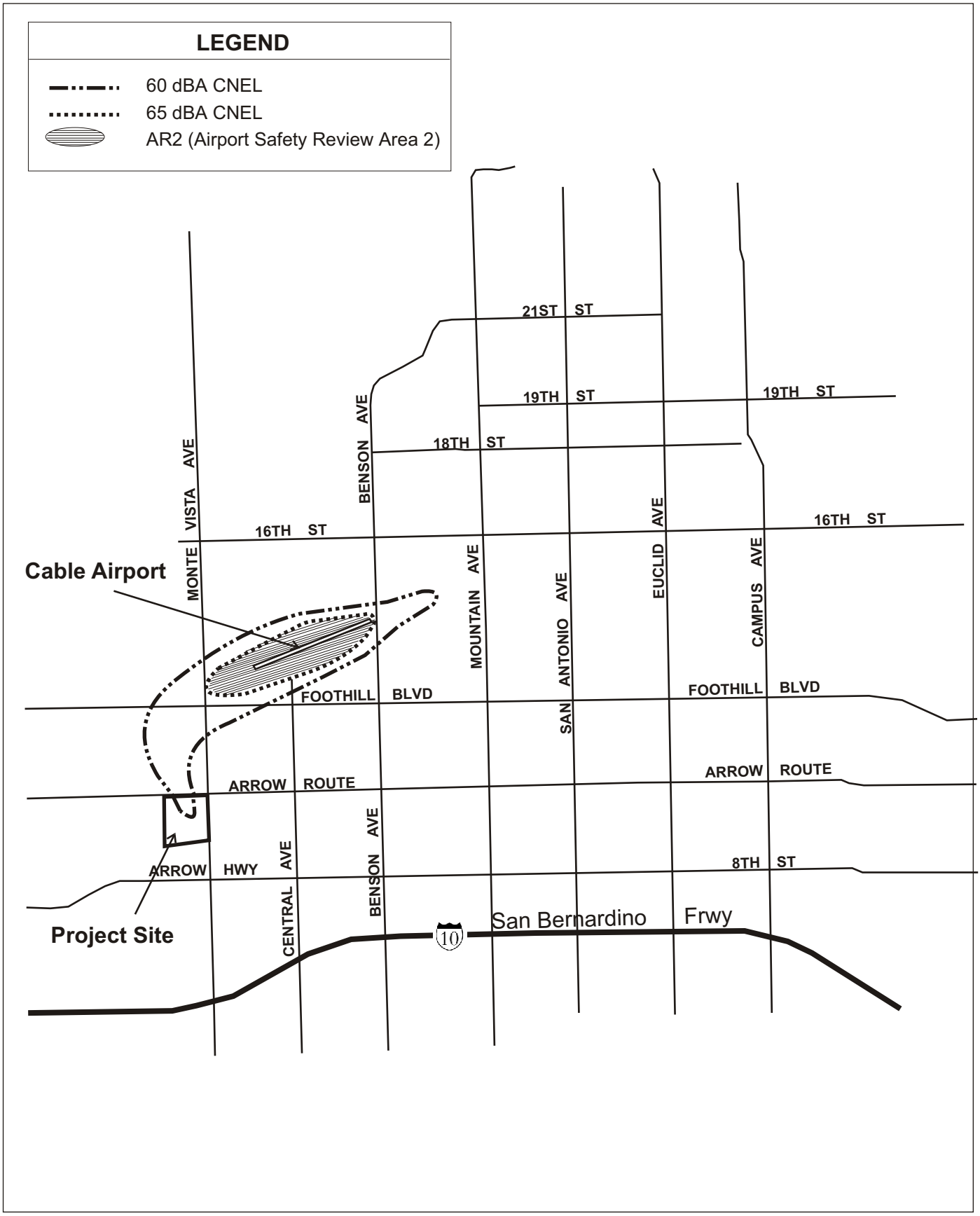
A noise monitoring location was selected in the southern portion of the project site to observe both single-event noise from Metrolink trains on tracks located approximately 1,100 feet south of the project site, as well as asphalt batch plant noise. The train noise, if audible, would be seen in individual "spikes" associated with peak usage hours. The asphalt batch plant noise would be reflected in an elevated background noise.

The lack of Metrolink audibility on the project site is reflected in the fact that the quietest hours (lowest value spikes) were from 6:00 a.m. to 10:00 a.m. and 5:00 p.m. to 7:00 p.m. when there was considerable track activity. Peak noise levels during these time periods were in the mid- to upper-60 dB range. From 10:00 a.m. to 5:00 p.m., single-event maximums were in the low- to mid 70 dB range.

The lack of clear train noise audibility is not unexpected given the character of train noise and the degree of noise drop-off between the source and the receiver. The peak noise level from a Metrolink train is around 88 dBA at 50 feet from the tracks according to federal rail environmental guidelines. The drop-off in noise level from 50 to 1,100 feet is -27 dBA. The expected peak train noise on the project site is, therefore, 61 dBA. This level is much lower than the single-event maximums observed from other existing peak noise sources on the project site. Peak train noise is expected to be masked by louder existing non-train activity sources.

The aggregate operations were similarly almost inaudible at the southern property line noise monitor. The background noise levels from 6:00 a.m. to 8:00 a.m. during plant operations were 2 dB higher than in the evening without plant operations. The maximum plausible plant noise level was near 50 dB at the southern boundary. This is well below the existing background level. Plant operations noise will, therefore, be substantially masked by non-plant background levels.

The 60 dB CNEL contour associated with the Cable Airport flight activity noise extends slightly into the northwestern project boundary in the area of retail commercial land uses (See Exhibit 5.6-1).



Source: San Bernardino County Official Land Use Plan, General Plan Hazard Overlays

NORTH

NOT TO SCALE

Michael Brandman Associates

Exhibit **5.6-1**

Cable Airport Noise Contour

The contribution of airport noise signature superimposed upon traffic noise impacts is predicted to add approximately 1 dB CNEL or less to the onsite noise levels in the area of the proposed retail commercial land uses. Superposition of the airport noise upon traffic noise impacts will not perceptibly increase the total noise and is not a constraint to site development.

Since predicted levels of short-term construction and traffic noise onsite will violate the city standards for the proposed land uses as described previously, noise impacts to the proposed onsite land uses are significant without mitigation.

5.6.4 - Cumulative Impacts

Cumulative noise impacts would involve noise sources related to the proposed project and other past, present, and probable future projects.

Cumulative Construction Noise Impacts

Construction of the proposed project in combination with other project approvals in the vicinity of the proposed project would produce short-term, temporary noise impacts from the operation of heavy equipment. As indicated in Section 4.6.2, construction noise impacts resulting from the proposed project without mitigation would be significant. Construction period noise affecting existing sensitive receptors (i.e. residential uses) in the project vicinity would be increased if there were overlapping construction phases associated with the proposed project and other development in the project area. Regardless of potential construction period overlap, other projects would be subject to the same weekday and hourly restrictions designed to minimize impacts on existing residential uses. With mitigation, cumulative noise impacts related to construction would be less than significant.

Cumulative Noise Impacts on Noise Sensitive Land Uses Proposed by the Project

As shown in Table 5.6-2, significant operational noise impacts would result affecting the proposed uses on the project site. Operational noise associated with other projects would incrementally increase ambient day time and evening noise levels generated by typical noise sources found in such neighborhoods. Thus, without mitigation, significant cumulative noise impacts are anticipated.

Cumulative Traffic Noise Impacts on the Surrounding Community

Long-term noise impacts associated with vehicle trips related to the proposed project would be less than significant. Acoustical modeling of long-term vehicle traffic noise associated with traffic generated by the project was conducted as part of this evaluation (Appendix F). As shown in Table 5.6-1 modeling determined that traffic from the proposed project will produce less than significant traffic noise impacts.

The acoustical modeling also evaluated cumulative long-term traffic noise levels along the study area roadway segments, based on traffic projections for area-wide growth through the year 2025 (traffic forecasts are presented in Appendix F. Through this modeling, it was determined that the project's incremental contribution to noise impacts on roadway segments, examined in the context of past, current and probable future projects would not be cumulatively considerable. Table 5.6-3shows the results of the cumulative traffic noise impacts.

Table 5.6-3: Predicted Cumulative Noise Levels and Project Impacts

Roadway Segment	2025		Project Related Increase dB CNEL	Significant Impact?
	No Project dB CNEL	With Project dB CNEL		
Foothill Blvd west of Mills Av.	72.2	72.3	0.1	NO
Foothill Blvd: Mills Av-Claremont Blvd.	72.3	72.4	0.1	NO
Foothill Blvd: Claremont Blvd-Monte Vista	71.7	71.7	0.0	NO
Foothill Blvd: Monte Vista-Central Av.	70.5	70.7	0.2	NO
Foothill Blvd. east of Central	70.7	70.8	0.1	NO
Arrow Route west of Claremont Blvd.	64.4	65.3	0.9	NO
Arrow Route: Claremont Blvd-Monte Vista	67.4	68.0	0.6	NO
Arrow Route: Monte Vista-Central Av.	68.2	68.4	0.2	NO
Arrow Route: Central Av-Benson Av.	69.6	69.8	0.2	NO
Arrow Route: east of Benson	69.3	69.5	0.2	NO
Arrow Hwy west of Claremont Blvd.	70.8	70.9	0.1	NO
Arrow Hwy Claremont Blvd-Monte Vista	69.7	69.7	0.0	NO
Arrow Hwy: Monte Vista-Central Av.	71.3	71.6	0.3	NO
Arrow Hwy: Central Av-Benson Av.	70.3	70.5	0.2	NO
Arrow Hwy: east of Benson	71.4	71.5	0.1	NO
Moreno St: Claremont Blvd-Monte Vista	66.5	66.5	0.0	NO
Moreno St: Monte Vista-Central Av.	69.5	69.5	0.0	NO
Moreno St. east of Central Av.	69.4	69.5	0.1	NO
Mills Av. north of Foothill Blvd.	69.8	69.8	0.0	NO
Claremont Blvd north of Foothill Blvd.	65.8	65.8	0.0	NO
Claremont Blvd: Foothill Blvd-Arrow Rt.	68.0	68.4	0.4	NO
Claremont Blvd: Arrow Rt-Arrow Hwy.	67.7	68.1	0.4	NO
Claremont Blvd: Arrow Hwy-Moreno St.	70.1	70.3	0.2	NO
Claremont Blvd south of Moreno St.	69.6	69.8	0.2	NO

Table 5.6-3: (Cont.) Predicted Cumulative Noise Levels and Project Impacts

Roadway Segment	2025		Project Related Increase dB CNEL	Significant Impact?
Monte Vista north of Foothill Blvd.	72.0	72.1	0.1	NO
Monte Vista: Foothill Blvd-Arrow Rt.	74.4	74.5	0.1	NO
Monte Vista: Arrow Rt-Arrow Hwy.	74.2	74.5	0.3	NO
Monte Vista: Arrow Hwy-Moreno St.	72.4	72.7	0.3	NO
Monte Vista south of Moreno St.	72.4	72.7	0.3	NO
Central Av: Foothill Blvd-Arrow Rt.	69.8	69.8	0.0	NO
Central Av: Arrow Rt-Arrow Hwy.	70.7	70.7	0.0	NO
Central Av: Arrow Hwy-Moreno St.	72.7	72.8	0.1	NO
Central Av. south of Moreno St.	74.3	74.4	0.1	NO
Benson Av. north of Arrow Rt.	70.4	70.4	0.0	NO
Benson Av: Arrow Rt-8th St.	71.0	71.0	0.0	NO
Benson Av. south of 8th St.	70.4	70.4	0.0	NO

5.6.5 - Mitigation Measures

The following mitigation measures are recommended to reduce noise impacts:

Construction Noise

N-1 Construction activities entailing use of heavy equipment shall be restricted to the following hours:

Monday—Friday ..... 7 a.m. to 5 p.m.

Weekends/Holidays..... Not allowed

N-2 Construction staging areas shall be located on site to maximize the distance between staging areas and occupied residential areas.

N-3 When construction operations occur in close proximity to occupied residential areas, appropriate additional noise reduction measures shall be implemented, including: changing the location of stationary construction equipment to maximize the distance between stationary equipment and occupied residential areas, installing muffling devices on equipment, shutting off idling equipment, notifying adjacent residences in advance of construction, and installing temporary acoustic barriers around stationary construction noise sources.

Traffic Noise

Traffic noise will exceed 65 dB CNEL at ground level of the first two rows of apartment buildings along the eastern site perimeter on Monte Vista Avenue, and the north side of the hotel facing Arrow Route. Traffic noise will also exceed 70 dB CNEL at the restaurant closest to Monte Vista Avenue. Finally, traffic noise will exceed 65 dB CNEL at upstairs balconies of all multi-story buildings. The following measures shall be implemented to ensure that exterior useable space are noise protected to achieve 65 dB CNEL or less for residential and hotel uses, and 70 dB CNEL for commercial uses:

N-4 Perimeter walls, berms or other noise attenuation features of sufficient height to reduce exterior traffic noise to 65 dB CNEL or less will be erected on the eastern site perimeter adjacent to the apartments on Monte Vista Avenue. Perimeter walls, berms or other noise attenuation features of sufficient height to reduce exterior noise to 65 dB CNEL or less will be erected around the outdoor eating area of the restaurant closest to Monte Vista Avenue and around the hotel swimming pool area.

N-5 An acoustical study shall be performed for all upstairs balconies within 445 feet of Monte Vista Avenue and hotel upstairs balconies within 105 feet of Arrow Route. The study shall be completed and submitted prior to final plan check approval. Partial balcony enclosures or other attenuation features as recommended in the study sufficient to reduce exterior traffic noise to 65 dB CNEL or less will be erected at the balcony locations designated in the study.

If exterior building facade levels are within the 57 dB CNEL Noise Referral Zone, additional upgrades are required (dual-paned windows, etc.) to meet the City of Upland 45 dB CNEL interior standard. The following measure is required to determine whether interior standards are acceptable:

N-6 An acoustical study shall be performed for ground level and the second stories of the office space and the hotel to verify that the structural features are adequate to meet the 45 dB CNEL interior standard. Ground level and second stories of residential units within 735 feet of Monte Vista Avenue and second stories of all other onsite buildings also require an acoustical study to verify that the structural features are adequate to meet the 45 dB CNEL interior standard. The study shall be completed and submitted prior to final plan check approval. Noise attenuation features recommended in the study such as dual-paned windows, deck balcony enclosures, and/or additional insulation requirements sufficient to reduce interior noise levels to 45 dB CNEL or less interior noise levels shall be implemented.

5.6.6 - Level Of Significance After Mitigation

With the implementation of the mitigation measures, noise-related impacts would be less than significant.

5.7 - CULTURAL RESOURCES

This section evaluates potential impacts to cultural resources resulting from development of the proposed College Park project. Cultural resources are paleontologic, archaeologic, and historic features generally considered to be limited, nonrenewable, scientific and educational resources, some of which are afforded protection under federal and state environmental legislation. Paleontologic resources are also known as "fossils," the remains or indications of plants and animals that existed more than 10,000 years ago. Archaeologic resources are evidence of human civilization in the form of artifacts, ecofacts, and skeletal remains.

Michael Brandman Associates (MBA) completed a cultural resources assessment in February 2004 for the College Park project, which included a cultural resource records search, field survey, paleontological review, and bridge evaluation for Caltrans Bridge #54C0468 located along Arrow Route between Claremont Blvd. and Monte Vista Ave. (included as an attachment to the Cultural/Scientific Resources Report, which is contained in Appendix G of this Draft EIR). The cultural resource assessment was performed in order to comply with CEQA and 36CFR800 implementing regulations (Section 106) found in the National Historic Preservation Act (NHPA), the National Register of Historic Places (NRHP) and the National Environmental Policy Act (NEPA).

The cultural resources assessment included: (1) Cultural resource record search conducted to determine whether any previously recorded cultural materials are present within the boundaries of the study area, or within a one-mile radius of the study area; (2) Paleontological map research to determine the level of sensitivity for fossil resources; (3) A protocol block-transect survey of the project area, where possible; (4) a bridge evaluation survey for the Arrow Route bridge; (5) Examination of archived aerial photographs, topographic maps and road maps that might reveal historic land use; (6) Inspection of geological maps to determine the type of alluvial or bedrock rock units located in the area. Using the facts provided, the level of paleontological sensitivity could be determined. This section summarizes information contained in the Cultural/Scientific Resources Report included in Appendix G of this Draft EIR

On July 21, 2003, Archaeological Information Center (AIC) staff researcher Robin Laska, M.A. conducted the records search at the AIC, which is located at the San Bernardino County Museum, Redlands. A one-mile search radius about the margins of the project area was examined. To identify any historic properties, the AIC examined the current inventories of the National Register of Historic Places (NR), the California Register (CR), the California Historical Landmarks list (CHL), and the California Points of Historical Interest list (CPHI). The AIC also reviewed the California State Historic Resources Inventory (HRI) for San Bernardino County to determine the existence of previously documented local historical resources. Archival maps were examined to help locate any

previously plotted historic resources in the area. MBA staff archaeologist Marnie Aislin Kay surveyed the project area on September 3, 2003.

5.7.1 - Existing Conditions

Cultural Resources

The northernmost boundary of the College Park project site is formed by the alignment of West Arrow Route, which includes the Arrow Route Bridge (Caltrans Bridge No. 54C-0468), constructed in 1926. The history, architectural style, construction methods, modifications, and the current condition of the Arrow Route Bridge were previously studied in 1997 as part of a separate application for the Conditional Use Permit to reclaim the project site. Because the bridge is more than 45 years old and is proposed for demolition, a comprehensive evaluation of the structure was conducted in December 2003 by an MBA Architectural Historian as part of this Draft EIR to fulfill CEQA cultural resource requirements. The results of the evaluation show that the bridge structure is not eligible for the National Register of Historic Places and/or the California Register and, therefore, is not considered a historic resource for mitigative purposes. The California Historic Bridge Inventory Re-Evaluation Project, currently underway by Caltrans, also indicates that the bridge is not eligible for the National Register.

The Bridge Evaluation Study noted the possible existence of "Dinky Train" tracks under the layers of fill material that help support the vertical sides of the weakening bridge arch. Small gauged "Dinky Trains" originally passed through the underpass on rails. These trains, consisting of wood side dump cars hauled by an engine, ran on tracks which formed a loop, bringing the aggregates from the north pit to the crusher facility south of the bridge. The trains were later replaced by haul trucks.

According to AIC files, one cultural property identified as "Old San Bernardino Road" (P#36-016454/PSBR-2H) may cut across the project area. Old San Bernardino Road was at one time located along the northern periphery within the project area and ran from the east to southwest. This road was distinctive because it was used as a main thoroughfare between Los Angeles and San Bernardino and as well as points farther east. It is estimated that the route was originally used beginning in 1839. The road was paved in 1913.

During the field survey, no historic or prehistoric resources were observed. The ground surface visibility during the survey was excellent in most areas due to a lack of dense vegetation. The Old San Bernardino Road could not be observed in any portion of the project margin. The history of gravel pit development together with the existence of an extreme alluvial environment indicate that the chance that prehistoric cultural materials existing onsite is very low.

Two additional bridges (P#36-018721 and P#36–018723) are located offsite near the intersection of Foothill and the San Antonio Creek flood control channel, while three historic refuse piles are noted on vacant land near these bridges. A National Register-listed historical district, the Russian Village District, is located within the City of Montclair, approximately 1,500 meters to the southwest of the project site. Route 66 (Foothill Boulevard) and the ATSF railroad right-of-way are also listed historic sites, but are some distance from the project area.

Paleontologic Resources

According to various geological maps, the entirety of the project area is covered in a thick blanket of Holocene alluvial wash deposits. Such deposits develop as a result of flooding out of the canyons to the north. Because of the nature of these deposits, the survival rate of fossils is extremely low. Examination of the project area showed that the gravel pit had been cut more than 20 feet below the modern ground surface, and that the coarse nature of the alluvium was still evident at that depth. It is highly unlikely that fossils could be preserved in such an environment. Further, there is no record of fossils from the project site or vicinity.

5.7.2 - Thresholds of Significance

The following criteria for establishing the significance of potential impacts on cultural resources were derived from Appendix G of the CEQA Guidelines. A significant impact would occur if the proposed project would:

- Cause a substantial adverse change in the significance of a historical or archaeological resource;
- Directly or indirectly destroy a unique paleontologic resource or site, or unique geologic feature;
- Disturb any human remains, including those interred outside of formal cemeteries.

5.7.3 - Project Impacts

Cultural Resources

The Cultural/Scientific Resources Report contained in Appendix G of this Draft EIR concludes that there are no prehistoric resources located within the area of direct effect that qualify as significant under CEQA cultural resources significance thresholds:

- The bridge evaluation study concluded that the bridge structure is not eligible for the National Register of Historic Places and/or the California Register and, therefore, is not considered a historic resource for mitigative purposes. As indicated by the evaluation study and

accompanying research, the bridge can be demolished without additional mitigative measures imposed upon its loss.

- "Old San Bernardino Road" could not be observed and may have been removed during sand and gravel mining in the early part of the last century.
- There is a low-to-none probability that historic or prehistoric cultural deposits exist beneath the current modern ground surface because: (1) cultural resources were not observed within the project area; (2) there is high site disturbance due to historical use as a gravel pit; and (3) the visibility of the project area was extremely good due to the existence of low density vegetation.
- Cultural resources located outside the project area will not be affected by project implementation.

Although not considered likely based on discussions with operators of the Vulcan asphalt batch plant, it is possible that remnants of the "Dinky Train" tracks still exist below the modern ground surface. This historic rail line could, therefore, be impacted during project development if topsoil south of the Arrow Route Bridge must be removed during the development process. This is a potentially significant impact.

Paleontologic Resources

The project area has a low-to-none chance that significant paleontological resources will be impacted during construction. The Cultural/Scientific Resources Report, therefore, does not recommend that a paleontological mitigation monitoring program take place during earthmoving within the project area. No impact on paleontological resources is anticipated.

Native American Commentary

The Native American Heritage Commission (NAHC) was contacted in order to obtain information related to known Native American sacred sites in the area. The response from the NAHC, contained in Appendix G, states that a record search of the sacred lands file by NAHC does not indicate the presence of any Native American cultural resources onsite or in the immediate project area. No impact on Native American sacred sites is anticipated.

5.7.4 - Cumulative Impacts

Continued study and monitoring of development sites in Upland and surrounding jurisdictions in accordance with CEQA will prevent significant cumulative impacts to cultural/scientific resources from occurring. Through professional monitoring at development sites where this is required, significant cultural resources could be discovered and salvaged, thus expanding the level of knowledge concerning the prehistorical and historical roots of the area in and around the project site.

5.7.5 - Mitigation Measures

Because recent research showed that historic resources might be located below the current modern ground surface level beneath and south of the Arrow Route bridge span, mitigation monitoring shall be required if and only if the topsoil at the base of the gravel pit must be removed as part of the grading process.

CR-1 Because recent research showed that historic resources might be located below the current modern ground surface level beneath and south of the Arrow Route bridge span, mitigation monitoring shall be required if and only if the topsoil at the base of the gravel pit must be removed as part of the grading process.

CR-2 If the topsoil at the base of the gravel pit must be removed, a Lead Agency-approved archaeologist shall be retained to develop an archaeological mitigation plan and a discovery clause/treatment plan. Both of these plans shall be reviewed and approved by the Agency. The archaeological mitigation plan shall include limited monitoring for historic archaeological resources on the project site by an Agency-approved archaeologist and/or his representative. The discovery clause/treatment plan shall include recovery and subsequent treatment of any archaeological or historical remains and associated data uncovered by removal of topsoil at the base of the pit only. The treatment plan shall provide procedures for the curation of any detected cultural specimens. Any recovered cultural resources shall be identified, sites recorded, mapped and artifacts catalogued as required by standard professional archaeological practices. Examination by an archaeological specialist shall be included where necessary, dependent upon the artifacts, features, or sites that are encountered. Specialists will identify, date and/or determine significance potential.

CR-3 If monitoring is required based on CR-2, and if the archaeological monitor discovers cultural deposits, earthmoving shall be diverted temporarily around the deposits until the deposits have been evaluated, recorded, excavated and/or recovered, as necessary, and in accordance with the Agency-approved recovery plan. Earthmoving shall be allowed to proceed through the area after the archaeologist determines the artifacts are recovered and/or site mitigated to the extent necessary.

CR-4 Should a previously unknown cultural site be encountered during monitoring and is shown by the archaeologist that a significance determination is required, the site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (i.e., DPR 523 form). In this case, if the site is not determined to be significant, no measures subsequent to recording the site on appropriate forms are required. If any of the sites are determined to be significant, the Agency-approved archaeologist shall collect an adequate amount of artifacts at the specific archaeological site. The archaeologist shall determine the amount of artifacts needed to be collected.

CR-5 Should human remains be encountered during excavations associated with this project, all work shall halt and the County Coroner shall be notified (Section 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the City-approved archaeologist, determines that the remains are prehistoric, he/she will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD) who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code. The MLD will

make his/her recommendations within 24 hours of their notification by the NAHC. This recommendation may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (Section 7050.5 of the Health and Safety Code).

CR-6 Should any archaeological resources be uncovered, they shall be identified, sites recorded, mapped and artifacts catalogued as required by standard archaeological practices. Examination by an archaeological specialist should be included where necessary, dependent upon the artifacts, features or sites that are encountered. Specialists will identify, date and/or determine significance potential.

CR-7 Should any archaeological resources be uncovered, a final report of findings will be prepared by the Project Archaeologist for submission to the Lead Agency, and the Archaeological Information Center of the San Bernardino County Museum. The report will describe the history of the project area, summarize field and laboratory methods used, if applicable, and include any testing or special analysis information conducted to support the resultant findings.

5.7.6 - Level Of Significance After Mitigation

Compliance with standard City conditions regarding possible discovery of artifacts and adherence to the foregoing mitigation measures will ensure that project impacts to cultural resources are less-than-significant.

5.8 - HAZARDS AND HAZARDOUS MATERIALS

Potential impacts associated with hazards and hazardous materials are:

- Previous or proposed storage or use of hazardous materials on the site,
- Presence of hazardous substances in the vicinity of the project site,
- Interference with an emergency response plan,
- Exposure to wildland fires, and
- Exposure from aircraft operations.

This section incorporates data from a Phase I Environmental Site Assessment (ESA) prepared by Environmental Profiles, Inc. (EPI) in August 2002, and a Limited Phase II ESA, also prepared by EPI (September 2002), both of which are contained in Appendix H. Information from the Seismic Safety/Safety Element of the City of Upland General Plan, and the Cable Airport Comprehensive Airport Land Use Plan has also been utilized in the preparation of this discussion.

5.8.1 - Existing Conditions

On-Site Conditions

The project site, currently vacant, is a former sand and gravel quarry. The site is in the process of being filled in with engineered compacted fill by others under a separate permit that is not part of this project. To date, approximately 11 acres in the northeast area of the site have been filled. The remainder of the site is expected to be filled and compacted during 2004. When completed, the site will be comprised of rough graded building pads at grade equivalent to the surrounding properties.

Remnants of an asphalt road are located on the western portion of the site. The Phase I ESA referenced the presence of concrete refuse piles on the site. These piles are inert and believed to have emanated from road building activities in the vicinity of the site. The Phase I ESA also referenced that no storage tanks or site discharges were observed on the site. Moreover, the project site is not listed on any of the environmental databases used by EPI in preparing the Phase I ESA.

Based on the recommendations of the Phase I ESA, EPI conducted a limited Phase II ESA in order to determine if lead, asbestos or heavy oils were present on the site. The Phase II ESA determined that these contaminants were either not present or detected at levels below the level of concern. Soil samples were free of odor or significant debris.

In addition to the Phase I ESA, the Seismic Safety/Safety Element indicates that there are no industrial uses within the City that utilize large amounts of hazardous materials nor does the City have any hazardous materials disposal sites.

Adjacent Land Uses

Immediately west of the project site is an older residential neighborhood with long-term established residents. Some of these older residences abut the batch plant. Northwest of the site, diagonally across the intersection of Claremont Boulevard is the campus of the Claremont Colleges. The San Antonio Channel lies southeast of the site. This channel is an improved stormwater flood control facility.

Another former sand and gravel site lies directly adjacent to the project site across Monte Vista to the east, is being excavated for a retention basin. The excavated soils will be transported to the proposed project site as fill as part of the separately permitted reclamation project. The property immediately south of the project site is a Vulcan asphalt batch plant that may remain active for the foreseeable future. The property immediately to the north is a closed sand and gravel pit that is owned by the Claremont Colleges. This property contains a larger pit that is hydraulically connected with the project site via a channel under W. Arrow Route.

Research performed as part of the Phase I ESA involved site reconnaissance and review of aerial photographs dating back to 1953. No environmental conditions on adjacent properties were noted that could have an impact on the project site. While a database search performed as part of the Phase I ESA did identify sites in the vicinity of the project site as being contained within various databases, the Phase I concluded that the conditions associated with each individual site coupled with estimated depth to groundwater did not present a hazard for the project site.

Regional Hazards

The Cable Airport is located approximately one mile northeast of the project site. This privately owned public use airport is considered a Basic Utility Stage II airport (runway load capacity of 12,500 pounds). The Cable Airport Comprehensive Airport Land Use Plan (ALUP, 1981) established planning area boundaries for the general area near the airport. These planning area boundaries identify clear zones, safety areas, and noise impact zones. The clear and safety areas relate to crash hazards and obstructions, and the noise impact zones relate to the impact of noise-related airport operations in the vicinity of the airport.

The northeastern portion of the project site is located within Safety Area No. 2 of the Cable ALUP. The ALUP defines this as a moderate crash hazard area as contrasted to Safety Area No. 1, which is

defined as a significant crash hazard area. Guidelines for Safety Area No. 2 state that "No structure shall be constructed or object permitted within Safety Area No. 2 that would penetrate the airport imaginary surfaces as defined in Federal Aviation Regulations Part 77. Because of the proximity to aircraft operations, structures in this area should not reflect glare, emit electronic interference, or produce smoke so as to endanger aircraft operations."

5.8.2 - Thresholds of Significance

Environmental impacts pertaining to hazards will be assessed using impact criteria based on the State CEQA Guidelines. A project is considered to have a significant hazards and hazardous materials impact if it would result in the:

- Creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Creation of a significant hazard to the public or the environment through a reasonably foreseeable accidental release of hazardous materials into the environment;
- Release of hazardous emissions within a quarter-mile of an existing or proposed school;
- Handling of hazardous or acutely hazardous materials, substances, or waste within a quarter of an existing or proposed school;
- Exposure of people residing or working within an airport land use plan, or within two miles of a public airport, public use airport or private airstrip to a safety hazard;
- Impairment of implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan; or
- Exposure of people or structures to loss, injury or death involving wildland fires.

5.8.3 - Project Impacts

Short-Term Construction Impacts

In the short term, the proposed project will involve storing small quantities of petroleum products onsite during construction. The Standard Set of Conditions of Approval attached to the Conditional Use Permit, required for project implementation, will insure that the project will not create a health hazard or use, produce, or dispose of materials that pose a hazard to human, animal, or plant populations within the project area.

The Phase I and Phase II Environmental Site Assessments prepared for the project site indicate a low probability of encountering contaminated soil or groundwater during construction. If contamination were to be encountered, however, construction activities would be immediately halted and

remediation efforts initiated. Short-term construction impacts associated with hazards and hazardous materials are considered to be less than significant.

Long-Term Operational Impacts

The proposed project introduces new land uses within the project area. Typical of residential, commercial, and office development, the use of hazardous materials is likely to increase. Such materials commonly include household cleaning and janitorial products, herbicides, insecticides, and solvents. However, residential generation of hazardous materials is considerably less than typical industrial land uses, and residential and office building handling and disposal of hazardous materials is regulated at the federal, state, and local levels. Thus, the generation of hazardous materials by residential and office usage is considered to have a less than significant impact.

The project does include a gas station as part of the commercial component. Gasoline will be routinely transported to the site by commercial tanker trucks and stored in underground storage tanks. However, the laws regulating the transportation and storage of gasoline will substantially reduce potential safety hazards and result in a less than significant impact.

The project will introduce a new onsite population that would be subject to emergency evacuation or response in the event of a major disaster. However, the proposed project will not result in the impairment or interference with the implementation of the adopted City of Upland Emergency Plan (adopted in 1972 and revised in 1980) which outlines evacuation and support services procedures in the event of a natural disaster or war emergency. Project impacts regarding an adopted emergency response plan or emergency evacuation plan are considered less than significant.

The project site is not within or adjacent to a wildland area or a high fire hazard area. Therefore, the proposed project will not expose people or structures to the significant fire risks that characterize those areas. No impact is anticipated.

As stated in the Seismic Safety/Safety Element, the City has established review procedures and regulatory actions relating to land uses in the vicinity of the Cable Airport. Following are the procedures and actions applicable to the proposed project:

- All uses and building heights must conform to Federal Aviation Regulations Part 77.
- All buildings within the 65 CNEL must be attenuated to an interior level of 55 CNEL (See Exhibit 5.6-1 for location of 65 CNEL).
- The City Zoning Code restricts development within hazardous areas.
- All land uses within the primary review area of Cable Airport (one mile around the airport) are submitted to the San Bernardino County West Valley Land Use Committee for their approval and to the Federal Aviation Authority for determination of height restrictions. "Notice of

Construction" to, and clearance from, the Federal Aviation Authority is required of all proposed development within established "Safety Zones" of the airport, as depicted in the Cable Airport ALUP.

- No residential or institutional land uses are permitted within the projected 1990 60 CNEL contour boundaries of the airport (See Exhibit 5.6-1).

At the time the Cable Airport Comprehensive ALUP was written, these review procedures included the submission of proposed developments within one mile of the airport to the San Bernardino County West Valley Land Use Committee (Committee) for approval. However, after approximately 1994, this Committee was abandoned and airport-related land use decisions are now under the exclusive authority of the individual cities within the planning area of the airport. Currently, airport-related land use decisions are required to conform to the City of Upland Zoning Ordinance.

A review of the imaginary surfaces identified in Federal Aviation Regulations Part 77 – Objects Affecting Navigable Airspace (§77.25) indicates that the maximum building height of approximately 50 feet of the proposed project does not penetrate any of the established imaginary surfaces.

A review of the location of the 65 CNEL noise contour (as shown in the City of Upland Noise Element and reflected in Exhibit 5.6-1 of this Draft EIR) indicates that this noise contour line does not penetrate the boundaries of the proposed project.

A review of the 1990 60 CNEL noise contour line (reflected on Map 5H27 C, General Plan Hazards, San Bernardino County and in Exhibit 5.6-1 of this Draft EIR) indicates that this noise contour line penetrates a portion of the project boundary along Arrow Route. This portion of the project is proposed for commercial development only. The noise contour line does not penetrate the residential portion of the proposed project. (A complete discussion of noise conditions is contained in Section 5.6, Noise of this Draft EIR.)

The State Department of Transportation (Caltrans), Division of Aeronautics, responded to the Initial Study/Notice of Preparation (IS/NOP) and recommended that the development be reviewed with FAA Advisory Circular No. 150/5200-33 – Hazardous Wildlife Attractants on or Near Airports (Comment letters on the IS/NOP are contained within Appendix A). The purpose of this review is to determine if the mixed use project is identified as an incompatible land use or if the recreational component would attract wildlife and therefore pose a hazard to aircraft operations. A review of this Circular indicated that the proposed project is not identified as an incompatible land use. In addition, the conditions enumerated in the Circular that attract wildlife are not present in the proposed project. Project implementation will not expose residents, visitors, commercial clientele, or employees to a safety hazard associated with the Cable Airport. The impact is considered less than significant.

The State Department of Toxic Substances Control (DTSC) responded to the IS/NOP (Letter contained in Appendix A). The DTSC comment letter recommends that appropriate precautions be taken prior to construction if the project site is located within the "Border Zone of a Contaminated Property", defined as within 2000 feet from a contaminated site, and also during construction if soil and/or groundwater contamination is suspected. According to the Phase I ESA prepared for the project, four sites are contained within the various databases that lie within 2,000 feet of the project site boundaries. The Phase I concluded that the conditions associated with each individual site coupled with estimated depth to groundwater did not present a hazard for the project site, however. The project site is, therefore, not considered to be within the "Border Zone of a Contaminated Property". Mitigation Measure HHM-1 (listed in the following Section 5.8.5 of this Draft EIR) specifies required action if contaminated soil or groundwater is encountered during construction.

5.8.4 - Cumulative Impacts

Development of the proposed project and future development within the City and surrounding jurisdictions will cumulatively increase the population of the area. Compliance with federal, state, and local regulations concerning the storage and handling of hazardous materials and/or waste, compliance with existing regulations governing hazardous use and storage will reduce the potential for significant public health and safety impacts to occur. Therefore, the impact of the proposed project, in addition to future development within the City and surrounding jurisdictions, is not expected to significantly impact the number of people exposed to public health and safety risks. In consideration of the preceding factors, the project's contribution to cumulative impacts related to, and from, hazards and hazardous materials would be rendered less than considerable and, therefore, less than cumulatively significant.

5.8.5 - Mitigation Measures

HHM-1: If contaminated soil or groundwater is encountered during construction, construction activities will be immediately halted and remediation efforts will be initiated in compliance with existing regulations governing hazardous materials.

5.8.6 - Level Of Significance After Mitigation

Less than significant.

5.9 - PUBLIC SERVICES AND UTILITIES

The project site is located in a suburban area surrounded by an older residential subdivision, a small office park, the Claremont Colleges, and properties formerly used for sand and gravel operations. The site is adjacent to existing improved roadways and utility systems that would provide for easy access to water, sewer, telecommunication, electrical and natural gas services. The public services and utilities that would be required to service the proposed project are described in the following sections.

The level of impact significance for public services and utilities is evaluated according to thresholds of significance derived from the Public Service and Utilities/Service System sections of the Appendix G Environmental Checklist form contained in the most recent update of the California Environmental Quality Act (CEQA) Guidelines. The potential for adverse impacts on public services and utilities is based upon information provided by the individual service providers concerning their current level of service and their ability to accommodate the increased demand that the proposed development would generate. Written responses from public service and utility agencies are contained in Appendix I.

5.9.1 - Fire Services

Existing Conditions

The City of Upland Fire Department provides fire protection and emergency medical services to the project area from three local fire stations representing two engine companies and a truck company (See Table 5.9-1). Incident responses include structure fires, vehicle fires, wildland fires, and other miscellaneous fires. Fire Department personnel are on-duty 24 hours per day with a minimum staffing of 11 personnel throughout the City. Fire Station No. 163 is the primary station that would provide fire protection services to the project, with a minimum of 4 personnel. The annual number of City-wide fire response incidents that meet the reportable fire criteria is approximately 400. The minimum response to a structure fire consists of three engine companies, one truck company, and a Chief Officer. This response represents 13 personnel. The Upland Fire Department participates in mutual-aid agreements with the following municipal fire departments: Cities of Montclair, Ontario, and Rancho Cucamonga, and County of Los Angeles.

Table 5.9-1: City of Upland Fire Facilities

Station No.	Location	Response Time	Equipment
161	475 N. 2nd Ave./3.0 miles east	5 minutes*	1 fire engine
162	2062 N. San Antonio Ave./3.5 miles northeast	5 minutes*	1 fire engine
163	Benson and 13th St./1.25 miles northeast	5 to 6 minutes*	1 fire engine with 75 - foot aerial ladder

Source: City of Upland Fire Department, written correspondence, December 23, 2003.
* The City of Upland Fire Department does not collect response time data for other fire departments responding to mutual aid calls.

Thresholds of Significance

The proposed project would result in a significant impact to fire protection service if the project would substantially reduce acceptable service ratios, or other adopted performance objectives, or increase response times of the Fire Department. A physical impact could result from the need to construct new facilities to serve the project.

Project Impacts

The Upland Fire Department Fire Prevention Bureau (FPB) is currently staffed by one Fire Marshal, one Deputy Fire Marshal, and one half-time Plan Checker/Building Inspector. Currently, the Inspector function is not able to meet existing FPB inspection goals. The proposed project would require the addition of one full-time fire inspector position. Upon completion of the project, approximately 1,375 people will be living in the project area,[1] and additional people will be working within the project area and staying at the hotel. Because this area is undeveloped and not served by the Fire Department, the Department stated that the personnel and equipment level is insufficient to serve the needs of the proposed project. [2]

In addition to the needs for additional administrative personnel created by project implementation, one additional fire truck and four additional fire-fighting personnel would be needed at Fire Station No. 163.[3] Upon addition of this equipment and personnel to Fire Station No. 163, the existing ladder truck would be relocated to Fire Station No. 161. Implementation of the proposed project will increase demand for fire protection and emergency medical services. However, the additional personnel and equipment would be funded through the City General Fund, resulting in a less than significant impact to fire protection services.

[1] Based on a 2.762 persons per household figure for the City of Upland obtained from Report E-5, Table 2, State Department of Finance, Demographic Research Unit, 498 housing units would generate approximately 1,375 persons.

[2] Written correspondence, Upland Fire Department, December 23, 2003.

[3] Written correspondence, Upland Fire Department, December 23, 2003.

Cumulative Impacts

The incremental increase in demand for fire protection and emergency medical services caused by implementation of the proposed project will contribute to the cumulative need for additional equipment and manpower to provide adequate fire protection services to the project site and surrounding areas. With the existence of multiple jurisdictions within the project vicinity, additional manpower and equipment would be provided through the General Fund of the respective jurisdictions. Cumulative impacts on fire services anticipated to result from this development are not considered to be significant.

Mitigation Measures

PSU-1: Prior to actual development, the project applicant shall submit an emergency access plan to the City of Upland Fire Department for review and approval.

PSU-2: The project applicant shall pay all applicable fire facility fees required by the City of Upland Fire Department.

PSU-3: Sufficient accessibility for fire-fighting equipment shall be provided during all phases of construction and subsequent operation.

PSU-4: Prior to actual development, the City Fire Department shall review and approve building plans to ensure adequate access and fire protection facilities are available.

Level of Significance After Mitigation

Less than significant.

5.9.2 - Police Services

Existing Conditions

Police protection to the project site is provided by the City of Upland Police Department. The police station is located at 1499 West 13th Street. The Police Department is currently staffed by a total of 112 full-time personnel, including 76 sworn and 35 support (non-sworn personnel).

The City is divided into four quadrants. Each quadrant is designated as a patrol beat. The project site is located in Beat No. 2. The following are available to serve the project: Patrol officers, K-9 units, motor officers, SWAT teams, helicopters, detectives, crime prevention programs, code enforcement officers, and narcotics officers. The fleet consists of 23 patrol cars, 5 motorcycles, 10 detective cars, 1 SWAT rescue vehicle, and 3 pick-up trucks.

The average City-wide response time for emergency calls in calendar year 2002 was 6 minutes and 39 seconds for Priority 1 calls. A minimum of six sworn officers and one supervisor is available at all times throughout the City.

Thresholds of Significance

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

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

Project Impacts

An estimated 1,375 people will be living within the project area and additional people will be working within the project area and staying at the hotel. Because this area is undeveloped and not served by the Police Department, the Department stated that the existing staff and equipment level is insufficient to serve the proposed project[4]. As a result, the Police Department has indicated that one additional sworn personnel would be needed to increase the City-wide level of service in order to properly serve the project area. Implementation of the proposed project will increase demand for police protection services. However, the additional personnel and equipment would be funded through the City General Fund, resulting in a less than significant impact to police protection services.

Cumulative Impacts

The incremental increase in demand for police services caused by implementation of the proposed project will contribute to the cumulative need for additional manpower and equipment to provide adequate police services to the project site and surrounding areas. With the existence of multiple jurisdictions within the project vicinity, additional manpower and equipment would be provided through the General Fund of the respective jurisdictions. Cumulative impacts on police services anticipated to result from this development are not considered to be significant.

Mitigation Measures

PSU-5: To reduce the demand for short-term police service to the project area during the construction phase, building materials stored on-site will be fenced or enclosed in locked containers.

PSU-6: To reduce the demand for short-term police service to the project area during construction, on-site private security will be provided during periods of non-construction.

[4] Personal communication, Captain Rod Lines, Operations Division Commander, Upland Police Department, December 10, 2003.

Level of Significance After Mitigation

Less than significant with mitigation.

5.9.3 - Medical Services

Existing Conditions

The proposed project is located within the service area of two full-service hospitals: San Antonio Community Hospital and Doctors' Hospital Medical Center of Montclair, also known as U.S. Family Care Medical Center. Full-service hospitals typically include the following primary services: emergency, medical, surgical, laboratory, pediatrics, family care, cancer treatment, physical rehabilitation, and fertility. Table 5.9-2 provides information on these facilities. (Refer to Section 5.9-1, Fire Services subsection, for additional discussion of emergency medical services.)

Table 5.9-2: Hospital Facilities

Hospital	Location	Beds	Services
San Antonio Community Hospital	999 San Bernardino Rd. City of Upland 3.50 miles east	283	Full-service hospital services Paramedic base station Emergency care Urgent care center
Doctors' Hospital Medical Center of Montclair	5000 San Bernardino St. City of Montclair 1.25 miles southeast	102	Full-service hospital services Emergency care Urgent care
Source: San Antonio Community Hospital, Web Site, December 16, 2003; and Doctors' Hospital Medical Center of Montclair, Web Site, December 16, 2003.			

Thresholds of Significance

Impacts to medical services are considered significant if the project would result in the need for medical services beyond the capability of the area's medical facilities.

Project Impacts

The existing medical community and supporting facilities generally increase commensurately with population increases from new development. Health care service is considered a regional issue that generally responds to current demands. It is, therefore, anticipated that sufficient health care facilities will be available for residents, workers, and visitors to the project site. Impact on medical services is considered less than significant.

Cumulative Impacts

The proposed development along with future growth in the area would result in an increased demand for medical services. The project's contribution to cumulative impacts related to medical services are considered to be less than substantial, however, and, therefore, less than cumulatively significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

5.9.4 - Schools

Existing Conditions

The project is located within the Upland Unified School District (UUSD). The UUSD provides educational services to the City through 14 schools with a combined enrollment of 12,297. The project site will be served by the following schools: Cabrillo Elementary School; Upland Junior High School; and Upland High School. Table 5.9-3 provides information on the UUSD schools that will serve the proposed project.

Table 5.9-3: Upland Unified School District Facilities

School	Location	Grade Level	Current Enrollment	Completed/Planned Improvements
Cabrillo Elementary	1562 W. 11th Street 1 mile east	K-6	693	2-story, 6 classroom bldg. Multi-purpose room (under const.)
Upland Junior High	444 E. 11th Street 2.75 miles east	7-8	1,071	2-story science bldg. (planned)
Upland High School	565 W. 11th Street 2.25 miles east	9-12	3,550	2-story, 16 classroom bldg. (planned) 3 classrooms (planned)
Source: Upland Unified School District, Judy Rooze, Business Services, December 15, 2003.				

Thresholds of Significance

A project is considered to have a significant impact upon schools if it would result in the need for new school facilities, or adjusted hours of school services, or if it would result in overcrowding of existing facilities. Classroom overcrowding, in and of itself, however, does not equate to a significant effect on the environment (Goleta Union School District v. Regents of the University of California).

Project Impacts

Implementation of the proposed project will result in an increased enrollment at UUSD schools. The UUSD uses the State average generation factor of 0.7 school-age children per housing unit for all grade levels to determine the number of school-age children generated from a proposed project.[5] Using this generation factor, the project would generate approximately 349 school-age children across all grade levels (K-12). The UUSD also stated that it does not use pre-determined thresholds to determine if a school facility is at capacity [6]. Rather, UUSD responds to increased enrollment capacity requirements by adding portable classrooms to a school facility.

To offset impacts to school facilities, the project would be mandated to pay the State assessment fee. Government Code Section 65995 establishes an allowable school impact fee, which may be assessed upon residential development. Based on the current fee structure, any residential construction, including the location, installation, or occupancy of manufactured homes and mobile homes, can be assessed a maximum fee of $2.14 per square foot of assessable space. The definition of "Assessable Space" includes all of the square footage within the perimeter of a residential structure and excludes any carport, walkway, garage, overhand, patio, enclosed patio, detached accessory structure, or similar area. The UUSD assesses $2.14 per square foot for residential development and $0.34 per square foot for commercial development. In accordance with the definition of Assessable Space, the City will calculate the amount of square footage in accordance with their standard practice. Payment of school impact fees, which would be required of the project applicant, is considered full mitigation for all potential impacts that may occur to UUSD school facilities. Project impacts on schools are considered less than significant.

Cumulative Impacts

The proposed project will cumulatively contribute to an increased demand for schools. The site is located in an area that is served by existing schools, however. Since UUSD has indicated that the project's incremental impacts can be sufficiently mitigated through the payment of school assessment fees, cumulative impacts on schools anticipated to result from this development are not considered to be significant.

Mitigation Measures

With the payment of the required school assessment fees, no further mitigation measures are required.

[5] Written correspondence, Upland Unified School District, September 2, 2003 and December 15, 2003.

[6] Personal communication, Judy Rooze, Administrative Secretary to Business Services, Upland Unified School District, December 15, 2003.

Level of Significance After Mitigation

Less than significant.

5.9.5 - Libraries

Existing Conditions

The project area is served by the Upland Public Library, located at 450 North Euclid Avenue. Library services are divided into two categories: public services and materials collection services.

Thresholds of Significance

Impacts to libraries are considered significant if the proposed project would result in the need for new or altered level of library services beyond the capabilities of the existing facilities.

Project Impacts

The Upland Public Library has stated that the library is operating at or near capacity for storage and staff to serve the needs of the public, and believes the addition of 498 dwelling units would increase the demand on library resources and result in longer delays at the library,[7] a potential impact.

Cumulative Impacts

The proposed project will cumulatively contribute to an increased demand for libraries. The site is located in an area that is served by existing libraries, however. Since the Upland Public Library has indicated that the project's incremental impacts can be sufficiently mitigated through the payment of library impact mitigation fees, cumulative impacts on libraries anticipated to result from this development are not considered to be significant.

Mitigation Measures

PSU-8: Prior to the issuance of building permits, the project applicant shall pay any legally required library impact mitigation fees established by the City of Upland.

Level of Significance After Mitigation

Less than significant with mitigation.

[7] Written correspondence, Upland Public Library, September 30, 2003

5.9.6 - Water Service

Existing Conditions

The City Water Department provides domestic water service to properties throughout the City. In addition to the City water supply, the Inland Empire Utilities Agency provides supplemental water supplies to the City. The City's water sources include the following:

- City Wells
- San Antonio Water Company
- West End Consolidated Water Company, and
- Water Facilities Authority.

In addition to these sources, the IEUA is constructing a regional system for the distribution of recycled water. Once completed, recycled water could be available to serve the project site for appropriate uses. There is no water supply infrastructure located on or immediately adjacent to the project site. The closest water supply infrastructure is a 10-inch diameter water main located in the Arrow Route right-of-way that terminates at the San Antonio Channel east of the project site.

The City of Upland tracks total water consumption and total population on an annual basis. This information is used in conjunction with population forecasts to project future water consumption requirements. For calendar year 2002, the City of Upland Water Department estimated water consumption at 288 gallons per capita per day or 6,974,239 billion gallons annually, of which 77% was allocated to residential uses and 23% was allocated to non-residential uses[8].

In October 2001, Governor Davis signed into law two bills requiring cities and counties to consider the availability of water supplies when making certain types of land use decisions. Senate Bill (SB) 221 prohibits cities and counties from approving new subdivisions creating more than 500 new residential units unless it can be shown that an adequate water supply is available to serve the new residents. SB 221, as stated in the bill, does not apply to "any residential housing project proposed for a site that is within an urbanized area and has been previously developed for urban uses, or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses, or housing projects that are exclusively for very low and low-income households." SB 610 requires cities and counties to review detailed "water supply assessment reports" as part of the environmental review process for any "project approval" which is subject to CEQA and which meets the definition of "project" in Water Code Section 10912 (i.e. residential development projects of more than 500 dwelling units or other types of development projects using a comparable amount of water). (Public Resources Code § 21151.9.)

[8] Written correspondence, City of Upland Water Department, December 16, 2003.

Thresholds of Significance

Impacts to water service are considered significant if the proposed project will result in the need for new or expanded water supply entitlements to serve the project, or in the need for the construction or expansion of existing water service facilities to service the proposed project that would cause significant environmental impacts.

Project Impacts

Water demand for the College Park project and availability of water supply has been analyzed in the City of Upland Water Supply Assessment for College Park, prepared by the City of Upland Public Works Department (January 2004). Projected water demand for the proposed project, as estimated in the Water Supply Assessment (WSA) for College Park, is presented in Table 5.9-4. The project's average demand is 0.31 million gallons per day (mgd) or 351 acre-feet per year (af/yr) with a maximum day demand of 0.63 mgd and a peak hour demand of 1.10 mgd. The City Water Department states that water supply infrastructure will need to be extended west of the San Antonio Channel within the Arrow Route right-of-way in order to serve the project site. The developer will be required to connect to existing waterlines located in Arrow Route and Foothill Blvd. The developer will also be required to pay water impact fees.

College Park WSA projections consider land use, water development programs and projects, and water conservation. The College Park WSA SB 610 Public Water Supplier Certification, contained in Appendix I, states that "there is sufficient water available to meet the demands of the City of Upland at build-out, through normal, dry, and multiple-dry years, through 2024. The water supply capabilities and planned enhancements that would apply to the [College Park] project are documented and accounted for in Inland Empire Utilities Agency's Urban Water Management Plan adopted in December 2000, and the …Water Supply Assessment [for College Park]".

Based on the information contained in the WSA documenting the City's ability to meet the long-term water supply requirements of the City of Upland, including build-out of the College Park project, project impacts on water supply are considered less than significant.

Cumulative Impacts

The proposed project will contribute to an increased demand for water. The site is located in an area that currently receives water service, however. Existing infrastructure can be readily extended into the site to serve the proposed development. The WSA for College Park and IEUA have indicated that the project's incremental demand for water can be met. Cumulative impacts on water service anticipated to result from this development are not considered to be significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

Table 5.9-4: College Park Project Estimated Water Demand

Land Use	Area (ac)	Building Area (sf)	Dwelling Units	Density (persons/dwelling unit	Demand Factor	Unit (gpd)	Demand (gpd)
SFR/MF	22.67		498	3	170	gpd	253,980
CH/NC							
Retail	5.25	12,490			100	gpd/1000sf	1,249
Restaurant		21,705			1100	gpd/1000sf	23,876
Gas/Wash/Minimart	1.25	3,900			1000	gpd/sta	3,900
Office	2.38	54,240			175	gpd/1000sf	9,492
Hotel	2.52	51,080			375	gpd/1000sf	19,155
Park	1.05				2	af/ac/yr	1,875
Totals:		**143,415**	**498**				313,526
Average Demand						**0.314 mgd**	351 af/yr
Maximum Day Demand (2 times Average Demand						**0.627 mgd**	702 af/yr
Peak Hour Demand (3.5 times Average Demand						**1.097 mgd**	1,229 af/yr

SRF = Single Family Residential
MF = Multi-Family
CH = Commercial
NC = Neighborhood Commercial
Notes: 1) Building Areas and Number of Dwelling Units are from the data provided by Hutton Development Co.
2) Demand Factors are from the City of Upland Water System Master Plan, 1992.
Source: City of Upland Public Works Department, City of Upland Water Supply Assessment for College Park, January 2004, Table 2-3.

5.9.7 - Wastewater

Existing Conditions

The City and the Inland Empire Utilities Agency (IEUA) provide sewer services to the project area. Wastewater collection is provided by City-owned and operated sewer lines and conveyed through IEUA-owned and operated trunk sewer lines and interceptors to a regional wastewater treatment plant. There are no sewer lines that currently serve the project site. The nearest sewer line is the IEUA 18-inch Westside Interceptor located southeast of the project site. (See Appendix I for exhibits showing the existing and recommended sewer system to serve the project site and surrounding area.)

The IEUA owns and operates four regional wastewater treatment facilities and several trunk and interceptor sewer lines. Wastewater treatment would be provided by Regional Plant No. 1, located in the City of Ontario. This plant has a current capacity of 44 million gallons per day (MGD), and operates at a capacity of 86%. This plant is forecasted to continue at this operating capacity through 2013. This plant's capacity will increase to 52 MGD by 2020 and ultimately to 60 MGD by 2050. These expansions are planned in order to accommodate growth in the service territory.

Thresholds of Significance

The proposed project would result in significant impacts to wastewater delivery or treatment service if:

- The wastewater treatment provider servicing the site does not have adequate capacity to serve the project's demand in addition to the provider's existing and projected commitments.
- The project results in the need for construction of new wastewater treatment facilities or the expansion of existing facilities that would cause significant environmental impacts; or
- The project exceeds the wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Project Impacts

Development of the proposed project will increase wastewater generation, and thereby increase the amount of wastewater that would need to be conveyed by the area wastewater distribution systems and processed by wastewater treatment plants. The proposed project is expected to generate approximately 162,995 gallons of wastewater per day, based on IEUA wastewater flow generation factors.[9] The project will require the construction of sewer mains from the project site to connect to an existing 18-inch main along the east side of the San Antonio Channel. This City sewer main is of

[9] 270 gallons per day per residential dwelling unit and 2,500 gallons per acre per day for commercial uses, obtained from IEUA Wastewater Facilities Master Plan, 2002, Section 3: Wastewater Flow Projections and Management.

adequate capacity to accept sewage flows from the project site.[10] Payment of IEUA fees by the developer will also be required.

Because the amount of wastewater generated by the project would not exceed the capacity of the current wastewater treatment plant, the project will not result in the need for a new wastewater treatment plant or the expansion of an existing plant.[11] Impact on wastewater services is expected to be less than significant.

Cumulative Impacts

Implementation of the proposed project and anticipated future development would increase the generation of wastewater in the project area. The IEUA provides wastewater treatment to a large geographic area and has plans for increasing treatment capacity in anticipation of future growth. Cumulative impacts on wastewater services anticipated to result from this development are not considered to be significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

5.9.8 - Flood Control

No flood control facilities exist on the College Park site, although the San Antonio flood control channel lies immediately southeast of the project site. On-site storm drainage and flood control facilities in the area and associated impact discussions are contained in Section 5.3, Hydrology and Water Quality.

5.9.9 - Electricity

Existing Conditions

Southern California Edison (SCE) provides electric service to the project area and would extend service to the project in accordance with rules and policies for extension of service on file with the California Public Utilities Commission. A variety of sources provide electricity to SCE that include coal, nuclear and hydroelectric power plants located throughout the Western United States. Typically, high-voltage power lines carry the electricity from these power plants to specific geographic areas and are distributed to individual customers through sub-stations and low-voltage

[10] Written correspondence, City of Upland Public Works Department, November 3, 2003.
[11] Written correspondence, IEUA, October 8, 2003.

power lines. Overhead transmission lines run north-south on Monte Vista Avenue along the east side of the roadway, across from the project site. Overhead distribution lines run east-west on Arrow Route along the north side of the roadway, across from the project site.

Thresholds of Significance

The proposed project would result in significant impacts to electrical service if the electricity provider servicing the site does not have adequate capacity to serve the project's demand in addition to the provider's existing and projected commitments.

Project Impacts

The project will result in increased demand for electricity. Based on average annual electrical consumption rates[12], the 498 residences will annually consume 2,801,997 kilowatt hours of electricity, and the commercial component of the proposed project will annually consume 2,176,651 kilowatt hours of electricity, for a project total of 4,978,648 kilowatt hours of electricity. Assuming that there will be no unexpected outages to major sources of supply, and demand for generating capacity will not exceed SCE estimates, the project's electricity requirements can be met. Southern California Edison has indicated that they will not require the College Park project to underground existing overhead transmission and distribution lines along Monte Vista Avenue and Arrow Route[13]. Impact on electricity is less than significant.

Cumulative Impacts

Development of the proposed project and anticipated future development would require extensions of and connections to the existing electrical transmission and distribution system. The existing and planned SCE facilities are anticipated to adequately serve the proposed project and anticipated growth. Cumulative impacts on electric service anticipated to result from this development are not considered to be significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

[12] Table A9-11-A (Electrical Usage Rate), South Coast Air Quality Management District, CEQA Air Quality Handbook.

[13] Personal communication with Jerry Smith, Planner, Southern California Edison Company, April 9, 2004.

5.9.10 - Natural Gas

Existing Conditions

The Southern California Gas Company provides natural gas service to the area and would extend service to the project at the time contractual arrangements are made in accordance with Gas Company policies and extension rules on file with the California Public Utilities Commission. Available natural gas service to the project site is based on present conditions of gas supply and regulatory policies. As a public utility, the Southern California Gas Company is under jurisdiction of federal regulatory agencies. Should those agencies take action that affects gas supply or the condition under which service is available, natural gas service will be provided in accordance with revised conditions.

The primary use for natural gas in the project will be for combustion to produce space heating, water heating, and air conditioning. Based on average annual consumption rates,[14] the 498 residences will annually consume 25,564,824 cubic feet of natural gas, and the commercial component of the proposed project will annually consume 5,501,346 cubic feet of natural gas, for a project total of 31,066,170 cubic feet of natural gas.

Thresholds of Significance

The proposed project would result in significant impacts to natural gas service if the gas provider servicing the site does not have adequate capacity to serve the project's demand in addition to the provider's existing and projected commitments.

Project Impacts

The Gas Company has stated that facilities and sufficient gas supply are available to serve the project.[15] The nearest gas line main is located at Claremont Boulevard and 6th Street. Project impact on natural gas service is considered less than significant.

Cumulative Impacts

Development of the proposed project would require extensions of and connections to natural gas transmission line and distribution systems. The existing and planned Gas Company facilities are expected to be sufficient to serve the proposed development and anticipated future growth. Cumulative impacts on natural gas service anticipated to result from this development are not considered to be significant.

Mitigation Measures

No mitigation required.

[14] Table A9-12-A (Natural Gas Usage Rate), South Coast Air Quality Management District, CEQA Air Quality Handbook.
[15] Written correspondence, The Gas Company, September 11, 2003

Level of Significance After Mitigation

Less than significant.

5.9.11 - Telephone Service

Existing Conditions

Pacific Bell provides telephone service to the area and will expand service to the project in accordance with rules and policies for extension of service on file with the California Public Utilities Commission. No Pacific Bell easements exist on the project site.

Thresholds of Significance

The proposed project would result in a significant impact to telephone service if the site's provider does not have adequate capacity to serve the project's demand in addition to the provider's existing and projected commitments.

Project Impacts

Pacific Bell is obligated to provide telephone service within the Pacific Bell service area. The College Park project site is within the Pacific Bell service area, and adequate provision of telephone service to the project site is expected. Impact on telecommunications is less than significant.

Cumulative Impacts

Development of the proposed project and anticipated future development will result in an increased demand for telephone services. Adequate provision of telephone service to future development is anticipated, however. Cumulative impacts on telephone service anticipated to result from this development are not considered to be significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

5.9.12 - Solid Waste

Existing Conditions

The City provides solid waste collection service through a franchise agreement with Burrtec Waste Industries (BWI), a private refuse hauler. This agreement guarantees the City disposal capacity

through the term of the agreement, which expires in year 2013. Municipal solid waste and recyclable materials are collected by BWI and transported to their West Valley Material Recovery Facility for processing, located at 13373 Napa Street in the City of Fontana. Recyclable materials are separated and shipped to various domestic and overseas markets.

The West Valley Material Recovery Facility (Facility No. 36-AA-0341) is permitted by the California Integrated Waste Management Board to receive and process up to 5,000 tons per day of municipal solid waste and recyclables. Any residual materials would be shipped to either the Mid-Valley Landfill or the Olinda Alpha Landfill, which have contractual agreements with BWI. The Mid-Valley Landfill (Facility No. 36-AA-0055), located in the City of Rialto, is permitted for 7,500 tons per day of solid waste and has a remaining capacity (2001) of 694,058 cubic yards and is estimated to close in 2033. The Olinda Alpha Landfill (Facility No. 30-AB-0035), located in the City of Brea, is permitted for 8,000 tons per day of solid waste and has a remaining capacity (2001) of 50,242,370 cubic yards and is estimated to close in 2013.

The City's Source Reduction and Recycling Element sets the goals and policies for the source reduction of solid waste, recycling, composting, and environmentally-safe solid waste management alternatives to landfilling. The City achieved a 41% diversion rate in 2000 and a preliminary diversion rate of 43% in 2001.[16]

Thresholds of Significance

The proposed project would result in a significant impact to solid waste services if the site's provider of solid waste disposal does not have a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Project Impacts

BWI estimates that approximately 4.5 tons per day of solid waste and recyclables will be generated by the project, and that the West Valley Material Recovery Facility has sufficient existing capacity to receive and process the additional materials.[17] Therefore, project impact on solid waste service is considered less than significant.

Cumulative Impacts

Implementation of the proposed project together with anticipated growth in the project vicinity would increase the amount of municipal solid waste generated. There is sufficient capacity in the destination landfills to accommodate disposal needs resulting from the proposed project and future

[16] California Integrated Waste Management Board, Jurisdiction Diversion Rate Summary Online Database, 2003.

[17] Written correspondence, Burrtec Waste Industries, December 10, 2003.

anticipated growth, however. Cumulative impacts on solid waste service anticipated to result from this development are not considered to be significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

SECTION 6:
SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Significant unavoidable adverse impacts refer to those impacts of the proposed project that cannot be feasibly mitigated to a less than significant impact. Section 5 of this EIR provides a description of the potential environmental impacts of the proposed project, as well as project design features and mitigation measures proposed to reduce the environmental impact to the maximum extent feasible. Prior to the implementation of project design features and mitigation measures, the following impacts associated with the proposed project would be significant:

- Traffic and Circulation
- Air Quality [short-term construction, project inconsistency with Air Quality Management Plan (AQMP), cumulative]
- Noise (short-term construction and noise impacts on noise-sensitive land uses proposed by the project)

However, after implementation of the project design features and the proposed mitigation measures, only air quality impacts remain significant. Short-term air quality impacts from construction and long-term air quality impacts from NOx, CO, and ROG emissions are considered significant and unavoidable.

SECTION 7:
OTHER LONG TERM CONSIDERATIONS

7.1 - GROWTH-INDUCING IMPACTS

This section evaluates the potential of the proposed project to affect "economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment" [CEQA Guidelines, 15126.2(d)].

To assess the potential for growth inducing impacts, the project characteristics that may encourage and facilitate activities that may individually or cumulatively affect the environment must be evaluated.

Growth-inducing impacts can occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area of the proposed project. Also included in this category are projects that would remove physical obstacles to population growth, such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional new development. Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth, are those which may provide a catalyst for future unrelated development in the area (such as a new residential community that requires additional commercial uses to support residents).

The project site, a former sand and gravel quarry, is bordered on the north and east by properties also formerly used for aggregate mining. Mining uses on the properties have long since terminated and conversion of the properties to other uses is occurring. Earthwork to convert the property to the east to a groundwater recharge facility is underway. Long-term plans for the northern property are to create college-related uses for the Claremont University Consortium. The construction of the proposed mixed-use project will contribute to economic and population growth in the area. However, construction of new roadways is not required to access the project site. Construction of additional infrastructure by the City of Upland or surrounding jurisdictions is not required to allow extension of public utilities to service the project site. Commercial and recreational uses will be established on site as part of the mixed-use development to serve the residential component and surrounding areas. Further development and unplanned growth will not be facilitated as a result of project implementation.

7.2 - IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION IF IMPLEMENTED

The environmental effects of the College Park project are discussed in Section 5 of this EIR and summarized in Section 2, Executive Summary. Implementation of the College Park project would require the long-term commitment of natural resources and land, as discussed in the following paragraphs.

Approval and implementation of actions related to the proposed project would result in an irretrievable commitment of non-renewable resources such as energy supplies and other construction-related resources. The energy resource demands would be used for construction, heating, and cooling of buildings, transportation of people and goods to and from the project site, heating and refrigeration for food preparation and water, as well as lighting and other associated energy needs.

Nonrenewable resources would be committed primarily in the form of fossil fuels and would include fuel, oil, natural gas, and gasoline used by vehicles and equipment associated with the construction of the College Park project. The consumption of other non-renewable or slowly renewable resources would result from the development of the proposed project. These resources would include, but not be limited to, lumber and other forest products, sand and gravel, asphalt, photochemical construction materials, steel, copper, lead, and water. Because alternative energy sources such as solar or wind energy are not currently in widespread local use, it is unlikely that real savings in non-renewable energy supplies (i.e. oil and gas) could be realized in the immediate future.

SECTION 8:
ALTERNATIVES TO THE PROPOSED PROJECT

8.1 - INTRODUCTION

Section 15126.6 of the state CEQA Guidelines, as amended, requires that an EIR include a comparative evaluation of the proposed project with alternatives to the project, including a "No Project" Alternative.

As described in Section 2, Executive Summary, the proposed project is the College Park mixed use project. This section focuses on alternatives to the proposed project capable of avoiding or substantially lessening any significant adverse impact associated with the proposed project, even if these alternatives would impede to some degree the attainment of project objectives. Additionally, alternatives are discussed in the terms of achieving project objectives, which are identified in Section 3.3 of this EIR as follows:

- To provide a mixed-use development with a cohesive design among its individual components that incorporates high-level amenities typically found in planned developments such as a neighborhood park and extensive landscaping.
- To provide a mixed-use development with a commercial component large enough in size to function as a 'node' or activity center within an overall 'urban place' design concept, and to be functionally-viable based on location and relationship to surrounding uses.
- To provide additional housing opportunities within the City of Upland for the general population, and the faculty, staff, and students of the Claremont Colleges.
- To incorporate pedestrian and bicycle connections into the project design that will facilitate alternate methods of transportation between the College Park project and the Claremont Colleges campus.
- To further encourage alternative methods of transportation by providing opportunity for pedestrian and bicycle connections between the College Park project and the Montclair Metrolink Station and Transcenter.

The EIR has focused on direct, indirect and cumulative effects on the environment that will result from implementation of the proposed project. Direct environmental impacts of the project are expected related to traffic and circulation, air quality, and noise.

All impacts of the proposed project can be mitigated to a level that is considered less than significant with the exception of short-term construction phase air emissions, project inconsistency with Air Quality Management Plan (AQMP), and long-term operational and cumulative air quality impacts (within the South Coast Basin non-attainment area).

The alternatives to the proposed project evaluated in this section are the following:

- No Project/No Development
- No Project/Development in Accordance with Existing General Plan and Zoning Designations
- Reduced Development Intensity

The "Environmentally Superior Alternative" will be identified from among these alternatives and the proposed plan. An alternative that is environmentally superior would typically result in the fewest or least significant environmental impacts, and would be capable of achieving most of the objectives of the proposed project. Based upon the evaluation of the three (3) alternatives in this section, the "No Project Alternative" is considered to be the Environmentally Superior Alternative. Of the remaining alternatives, the No Project/Development in Accordance with Existing General Plan and Zoning Designations Alternative is also identified as environmentally superior, based primarily on a 53% reduction in project traffic and associated reduction in long-term operational and cumulative air quality impacts.

The analysis of the alternatives includes the assumption that all applicable mitigation measures associated with the proposed project would also 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 plan. If an impact is not raised within the discussion of the alternative, it is because the impact is expected to be of the same type and magnitude as that associated with the implementation of the proposed plan.

A description of each alternative and a comparative environmental evaluation with the identified impacts of the proposed project is provided on the following pages.

8.2 - NO PROJECT/NO DEVELOPMENT ALTERNATIVE

8.2.1 - Description

The No Project/No Development Alternative assumes that no development would occur on the 38.69-acre project site. The project site would remain vacant and undeveloped upon completion of

reclamation activities, taking place under a separate permit. The Vulcan asphalt batch plant immediately south of the project site would continue operations indefinitely. While no other development would be permitted under this alternative, the underlying General Plan and zoning designations would be retained, thereby allowing development of the project site in the future.

8.2.2 - Impact Evaluation

The No Project/No Development Alternative would avoid or postpone the non-mitigable impacts anticipated to occur with the proposed project: short-term air quality construction impacts and long-term operational and cumulative air quality impacts. Future development of the site could still occur, however, in line with the underlying General Plan and zoning designations. Eventual development in compliance with the underlying General Plan and zoning designations would meet SCAG's first criteria for AQMP consistency (project results in population and/or employment growth within the growth estimates defined by SCAG for the project area). Conformity with SCAG's second criteria for AQMP compliance that project-generated emissions not exceed SCAQMD recommended thresholds would depend on the level of air emissions associated with any subsequent plan.

A subsequent plan might not be as responsive to the needs of the Claremont Colleges as expressed to the applicant for housing and hotel accommodations and student-oriented retail, and might not incorporate the high level of amenities planned as part of the proposed project. In addition, delay of planning and development efforts for the project site will reduce the pressure being experienced by the asphalt batch plant to relocate, interfering with the transition of the local area from sand and gravel uses to alternative uses, thereby extending the operational time frame for this facility in this location.

8.2.3 - Conclusions

This alternative is considered environmentally superior to the proposed project because it would avoid the project's short- and long-term and cumulative air quality impacts. It would not meet any of the project objectives, however, nor would it be consistent with the long-range goals of the City of Upland General Plan (e.g. Land Use Element 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).

8.3 - NO PROJECT/DEVELOPMENT IN ACCORDANCE WITH EXISTING GENERAL PLAN AND ZONING DESIGNATIONS ALTERNATIVE

8.3.1 - Description

A variety of land uses may be operated within the parameters of the designated General Plan land use and zoning. The City of Upland General Plan Land Use Element designates the project site as

Commercial/Industrial–Special Use Permit (C/I-S). The City of Upland Zoning Code designation for the project site is "ML" Light Industrial. The "ML" light industrial zone is intended for the development of industrial uses and to provide locations for "Industrial Planned Unit Development" (MPUD's). MPUD's are large scale developments developed by a single owner or group of owners acting jointly involving a related group of uses, planned as an entity and having a predominant developmental feature. Under this alternative, the project site would be developed as an industrial park containing approximately 758,400 square feet of light industrial space (using a floor-area ratio or FAR of 45% of gross site acreage). Allowable uses in the "ML" light industrial zone are (extracted from City Zoning Code Sections 9473.010 through 9473.150):

- Manufacturing industries: food and related products; textile mill products; apparel and other finished products made from fabrics, leather, and similar materials; lumber and wood products (except furniture); furniture and fixtures; paper and related products; chemicals and related products; rubber and miscellaneous plastic products; stone, clay and glass products (fabricated metal products; professional, scientific and other precision instruments and products; and miscellaneous manufacturing).
- Transportation facilities: Bus garaging and equipment maintenance yards; taxicab terminals, auto or truck dispatch, parcel delivery terminals; commercial automobile parking lots and garages; and public storage facilities.
- Communications facilities: Telephone, telegraph, or radio transmitting or relay stations.
- Utilities: Electric, gas, water and sewage disposal transmission systems, substations and/or service yards, excepting any electrical or gas generation or production plants or gas storage facilities.
- Wholesale trades: Businesses dealing with products intended for resale.
- Retail uses: Adult business; auto parts sales; building materials, hardware, farm equipment, and supplies; marine craft, aircraft, and accessories; sit-down or take-out restaurants; retail uses.
- Finance, insurance and real estate services: Excluding banking and bank-related functions.
- Personal services: Laundering, dry cleaning, and dyeing; photographic services; cemeteries, mausoleums, and crematories.
- Business services: Excluding employment services.
- Repair Services: Automobile repair and related services; electrical appliance repair and service.
- Contract Construction Services.
- Uses not classified elsewhere: Other uses which the Planning Commission deems to be similar to and no more objectionable than those listed above in nature and not listed in a less restrictive zone.

- Accessory structures and uses: Retail sales as an incidental use to primary permitted manufacturing or wholesaling uses; retail sales businesses not in conjunction with manufacturing or wholesale operations; caretaker's residence; industrial commissary.
- Conditional uses and structures: Ambulance service (with incidental hospital equipment rental and sales); animal hospitals and shelter; banks; bus, railroad, or rapid rail transit passenger terminal (intercity and interstate); gasoline service station; golf course, driving range, and related facilities; kennels; motor freight terminals, garaging, and/or equipment maintenance yards; petroleum bulk station and terminal; recreation club (private); recycling facilities; restaurants; riding academy (equestrian); utilities; the manufacture of stone or clay products.

8.3.2 - Impact Evaluation

Land Use and Planning

An industrial park under the No Project/Development in Accordance with Existing General Plan and Zoning Designations Alternative (abbreviated "No Project/Development in Accordance with Existing GP/Z Alternative") would be established within the existing designations. It is expected that the Vulcan asphalt batch plant immediately south of the project site would continue operations indefinitely. Extending the operational time frame for the asphalt facility in this location prohibits complete transition of the project area from sand and gravel uses to alternative uses. Utilizing the project site for an industrial park would be less compatible with existing residential uses to west than the proposed project, and would not be as responsive to the needs of the Claremont Colleges as expressed to the applicant for housing and hotel accommodations and student-oriented retail. The recreational component as designed would not be provided under this alternative, although it is expected that a trail connection to the bicycle trail within the Huntington Drive ROW would still be provided. By establishing an industrial park on the project site instead of a mixed-use development, the opportunity to create an "urban place" that establishes connectivity with the surrounding land uses (e.g. the Claremont Colleges, commercial uses within Claremont Village southwest of the Colleges, and the transportation center) and encourages pedestrian and bicycle travel would be lost. Based on the City's desire to allow flexibility of development in this section of the City, land use impacts associated with the No Project/Development in Accordance with Existing GP/Z Alternative are anticipated to be greater than under the proposed project.

Geology and Soils

Development of an industrial park under the No Project/Development in Accordance with Existing GP/Z Alternative would not establish residential uses in proximity to the San Jose Fault and subject residents to ground shaking associated with this fault. Development under this alternative would not increase residential uses within the dam inundation area for the San Antonio Dam, although this risk is considered remote based on the need for concurrent precipitation and seismic events. Geology and soils impacts under this alternative would be less than those attributed to the proposed project.

Adherence to building codes and regulations, and compliance with site-specific geotechnical mitigation will reduce proposed project impacts to less than significant, however.

Hydrology and Water Quality

From a hydrologic perspective, impacts under the No Project/Development in Accordance with Existing GP/Z Alternative would be similar to the proposed project. An industrial park would increase runoff by a small percentage based on an anticipated increase in impermeable surface under this alternative compared to the proposed project, but still would not exceed the capacity of the downstream channel.

In terms of water quality, a light industrial park would change the spectrum of pollutants from those generated by a mixed-use project, but not necessarily reduce impacts. The anticipated pollutants under this alternative would be primarily sediment, trash, debris, oil/grease and bacteria. Generation of pollutants such as pesticides and nutrients, more commonly associated with residential uses due to related behaviors (landscaping, car washing, pets) would be reduced under this alternative. Overall effects on hydrology and water quality under this alternative would be similar to the proposed project, however, which with mitigation are rendered less than significant.

Traffic and Circulation

An industrial park containing approximately 758,400 square feet of light industrial space established under the No Project/Development in Accordance with Existing GP/Z Alternative is estimated to generate 5,278 daily vehicle trips, 675 AM peak hour trips and 698 PM peak hour trips.[1] This represents a 53% reduction in total daily trips from the proposed project, but only a 7% reduction in the AM peak hour, and a 13% reduction in the PM peak hour due to the nature of development under this alternative as an employment center. An industrial park results in a substantial reduction in the number of overall daily trips because the majority of the trips generated by this land use are employee trips, which are primarily limited to the AM and PM peak hours. Land uses, as contained in the proposed project (e.g. specialty retail, high-turnover and fast-food restaurants) generate substantially more trips outside the AM and PM peak hours.

The magnitude of impacts to traffic and circulation under this alternative would be reduced compared to the proposed project. Project mitigation will reduce all traffic and circulation impacts to less than significant, however.

[1] Trip generation potential for this alternative was estimated based on trip rates found in the Sixth Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE, 1997). Factors for an industrial park per 1000 square feet are 6.96 daily vehicle trips, with 0.89 trips for the AM peak hour and 0.92 trips for the PM peak hour.

Air Quality

Development of the site according to the No Project/Development in Accordance with Existing GP/Z Alternative would require site development similar to that required of the proposed project. Consequently, short-term construction impacts associated with emissions of NOx, CO, and ROG that were identified for the proposed project would also be experienced with development of this alternative.

Average daily traffic volumes would be reduced by 53 percent under this alternative in comparison to the proposed project, thereby proportionately reducing estimated vehicle air pollution emissions. A higher percentage of truck traffic emitting higher emissions per vehicle would be anticipated, however. When compared to the proposed project's significant long-term air quality impacts, this alternative can be expected to result in a proportionate reduction in long-term operational air quality impacts. The SCAQMD ROG threshold would likely be met under this alternative with mitigation, and nearly met for NOx. The SCAQMD threshold for CO even after mitigation would still be exceeded, representing a significant and unavoidable impact. Potential exceedance of the SCAQMD threshold for NOX and exceedance of the threshold for CO would render this alternative inconsistent with the AQMP.

Without the establishment of proximate residential uses, it is anticipated that the Vulcan asphalt batch plant immediately south of the project site would continue operations indefinitely. The asphalt plant is a SCAQMD-permitted source, however, and the AQMD may not issue a permit if the source causes a violation of air quality standards. No air quality impacts associated with continued operation of the asphalt batch plant under this alternative are anticipated.

Since this alternative conforms to existing General Plan and zoning designations, the project would result in population and employment growth within the growth estimates defined by SCAG for the project area, one of the criteria used to determine consistency with the Air Quality Management Plan for the South Coast Air Basin. This alternative would include air-quality positive features (pedestrian/bike-friendly due to proximity to transit center and bike trail within the Huntington Drive ROW), but as a single-use development, would not provide the opportunity for persons to live, work, and be entertained in a single location as could occur under the proposed project.

Air quality impacts under the No Project/Development in Accordance with Existing GP/Z Alternative would be similar to the proposed project for short-term construction, and less for long-term operations and cumulative effects, based on reduced vehicle emissions.

Noise

Development under this alternative would require on-site grading and construction activities, thereby generating short-term noise impacts similar to those resulting from the proposed project. Noise impacts during construction of this alternative would, therefore, be approximately the same as for the proposed project.

Vehicle noise is a primary contributor to urban noise level, although reduced trips do not equate to an equal reduction in noise since noise levels are logarithmic. Under this alternative, daily vehicle trips would be reduced by 53 percent, which would reduce noise impacts in the vicinity of the project site compared to the proposed project. Development under this alternative would not place noise sensitive uses along traffic corridors (e.g. the proposed hotel swimming pool; outdoor eating areas at quick-serve restaurants; and patios, decks, and balconies for apartments immediately adjacent to Monte Vista), although no significant unavoidable impacts would occur with the proposed project with implementation of appropriate mitigation measures.

Cultural Resources

Development of a light industrial park under the No Project/Development in Accordance with Existing GP/Z Alternative requires the removal of the Arrow Route Bridge similar to the proposed project. The Bridge does not meet historic criteria under the National Register of Historic Places or California Register, however, and therefore can be removed without creating a significant impact. Impacts to cultural resources under this alternative are similar to the proposed project.

Hazards and Hazardous Materials

Development under this alternative would result in an increase in storage and use of hazardous materials on site compared to the proposed project based on allowable uses (light manufacturing, personal service businesses such as dry cleaning and photo services, and automobile repair). A higher generation of hazardous materials would also likely occur under this alternative due to permitted uses. The likelihood of a spill or hazardous materials incident increases under this alternative. Hazards and hazardous materials impacts under the No Project/Development in Accordance with Existing GP/Z Alternative will be greater than under the proposed project.

Public Services and Utilities

Impacts on Public Services and Utilities under the No Project/Development in Accordance with Existing GP/Z Alternative will vary according to category:

- With the elimination of residential and hotel uses under this alternative, impacts on fire and police protection services would be reduced from the proposed project.

- With the elimination of residential uses, direct impacts on schools, libraries, and medical facilities would be reduced or eliminated.
- The extent of impacts on water service, wastewater, electricity, natural gas, telephone, and solid waste services under this alternative would depend on the type and amount of individual uses established within the industrial park. Impacts could be similar or reduced.

Impacts on Public Services and Utilities under the proposed project are anticipated to be less than significant, however.

8.3.3 - Conclusions

With the No Project/Development in Accordance with Existing GP/Z Alternative, impacts related to hydrology and water quality and cultural resources would be the same as or similar to the proposed project. Impacts related to land use and planning and hazards and hazardous materials would be increased. The impacts to geology and soils, traffic, air, noise, public services and utilities would be reduced.

This alternative is considered environmentally superior to the proposed project because it would reduce long-term operational and cumulative air quality impacts. It would have the potential to meet only one of the project objectives, however: to incorporate pedestrian and bicycle connections into the project design that will facilitate alternate methods of transportation between the College Park project and the Montclair Metrolink Station and Transcenter. Remaining project objectives would be unmet under this alternative.

8.4 - REDUCED DEVELOPMENT INTENSITY ALTERNATIVE

8.4.1 Description

With the intent of avoiding or substantially reducing significant impacts associated with the proposed project, a Reduced Development Intensity Alternative is being considered. This Alternative would be a mixed use project, but would represent a reduction in overall development intensity within the project site. While similar to the proposed project, the Reduced Density Alternative would result in a 20% intensity reduction within each individual use. Building sizes within the existing development footprint would be reduced. Square footage and units by use category would be as follows:

- 32,348 commercial square feet (sf)
- 82 rooms/40,864 hotel sf
- 38,400 office sf
- Service Station/Mini-Mart with 12 Vehicle-Fueling Positions

- 40 single-family dwelling units
- 358 multi-family dwelling units

8.4.2- Impact Evaluation

Land Use and Planning

Development of a mixed-use project under a reduced development intensity scenario would still capitalize on the opportunity to create an "urban place" that establishes connectivity with the surrounding land uses (e.g. the Claremont Colleges, commercial uses within Claremont Village southwest of the Colleges, and the transportation center), and encourage pedestrian and bicycle travel. The success of a project of this type that combines residential, employment, and entertainment uses is partly attributed to flexibility and overall complementary design, which the Reduced Development Intensity Alternative would promote. In order for a mixed use project to work, however, the intensity of all the land uses needs to be high enough to support one another. While a minimal reduction within the project components might maintain adequate intensity, a 20% reduction in intensity diminishes the ability of the mixed-use development to function as a 'node' or activity center within the overall "urban place" design concept. A 20% Reduced Intensity scenario represents an under utilization of the project site based on its location and relationship to surrounding uses. Under the Reduced Development Intensity Alternative:

- A 20% reduction in retail uses catering to the student and faculty population of the Colleges would occur. (Existing retail in Claremont Village is composed of upscale food and shopping establishments and not geared for the student population.)
- 20% less single- and multi-family housing and hotel rooms would be provided near the Claremont Colleges. (The desire for these uses has been expressed by the Colleges to the applicant.)
- Identified transportation planning goals would be met to a lesser extent, providing fewer dwellings within bicycle and pedestrian access.

Reduction of the commercial component by 20% makes the Reduced Development Intensity Alternative a less viable project, resulting in a commercial component of insufficient size to support the other uses. This reduced intensity scenario represents an under utilization of the site based on its location and relationship to surrounding uses. The second project objective, as listed on p. 8-1 of this Draft EIR, is therefore not met. Land use and planning impacts under the Reduced Development Intensity Alternative are anticipated to be greater than with the proposed project.

Geology and Soils

A mixed-use project under this alternative would subject fewer people to ground shaking effects from the San Jose Fault and surrounding fault system based on the reduced residential component. Fewer

people would reside in the dam inundation area, although the possibility of inundation is considered very remote. Geology and soils impacts under this alternative would be reduced from the proposed project.

Hydrology and Water Quality

Impacts on hydrology and water quality under the Reduced Development Intensity Alternative would be reduced compared to the proposed project due to a reduction of approximately 20% in site drainage, and increased amount of permeable area based on the reduced development footprint. Impacts on hydrology and water quality from the proposed project are already less than significant, however.

Traffic and Circulation

A 20% reduction in development intensity would correlate to a 20% reduction compared to the proposed project in total daily trips, and AM and PM peak hour levels, as shown in **Error! Reference source not found.**. The magnitude of impacts to traffic and circulation under this alternative would thereby be reduced compared to the proposed project. Project mitigation will reduce all traffic and circulation impacts to less than significant, however.

Table 8-1:Traffic Generation Forecast Reduced Development Intensity Alternative

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail Component							
Office Suites (4,992 SF)	130	15	2	17	14	70	84
Internal Capture Reduction[1]	-27	0	0	0	-3	-4	-7
Net Trip Generation	103	15	2	17	11	66	77
Specialty Retail Shops (9,992 SF)	410	6	4	10	11	15	26
Internal Capture Reduction[1]	-56	0	0	0	-1	-3	-4
Subtotal	354	6	4	10	10	12	22
Pass-By Reduction[2]	-35	-1	-0	-1	-1	-1	-2
Net Trip Generation	319	5	4	9	9	11	20
High-Turnover Rest. (9,984 SF)	1,300	48	44	92	65	43	108
Internal Capture Reduction[1]	-177	0	0	0	-9	-8	-17
Subtotal	1,123	48	44	92	56	35	91
Pass-By Reduction[2]	-112	-5	-4	-9	-24	-15	-39
Net Trip Generation	1,011	43	40	83	32	20	52
Fast-Food w/Drive-Thru (7,380 SF)	3,660	188	180	368	128	119	247
Internal Capture Reduction[1]	-499	0	0	0	-18	-21	-39
Subtotal	3,161	188	180	368	110	98	208
Pass-By Reduction[2]	-316	-92	-88	-180	-55	-49	-104
Net Trip Generation	2,845	96	92	188	55	49	104
Gas Station w/Mini-Mart (12 VFP)	1,950	60	60	120	80	80	160
Internal Capture Reduction[1]	-266	0	0	0	-11	-15	-26
Subtotal	1,684	60	60	120	69	65	134
Pass-By Reduction[2]	-168	-37	-37	-74	-39	-36	-75
Net Trip Generation	1,516	23	23	46	30	29	59
Total Retail Center Trip Generation	**7,450**	**317**	**290**	**607**	**298**	**327**	**625**
Less Total Internal Capture/Pass-By	**-1,656**	**- 135**	**- 129**	**- 264**	**- 119**	**- 101**	**- 220**
Net Retail Trip Generation	**5,794**	**182**	**161**	**343**	**137**	**175**	**312**

[1] Source: Internal Capture rates were estimated based on the methodology outlines in *Chapter 7 – Multi-Use Development* of *Trip Generation Handbook*, published by ITE, October 1998.

[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, which contain direct access to the generator. For this analysis, the following pass-by reduction factors were used (Source: *Trip Generation Handbook*, ITE October 1998).

Special Retail Center: AM & PM Peak Hour – estimated to be 10% (Source: SANDAG *Traffic Generators*)

High-Turnover Restaurant: AM Peak Hour – estimated to be 10% PM Peak Hour - 43%

Fast-food with Drive-Thru: AM Peak Hour – 49% PM Peak Hour – 50%

Gas Station with Mini Mart AM Peak Hour - 62% PM peak Hour - 56%

Daily pass-by percentage estimated to be for all above referenced land uses estimated to be 10%.

Table 8.1 (continued):
Traffic Generation Forecast Reduced Development Intensity Alternative

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Commercial Component							
General Office (38,400 SF)	640	76	10	86	21	101	122
Internal Capture Reduction[3]	-130	0	0	0	-5	-6	-11
Net Trip Generation	510	76	10	86	16	95	111
Business Hotel (82 Rooms)	600	28	20	48	30	21	51
Total Commercial Trip Generation	**1,240**	**104**	**30**	**134**	**51**	**122**	**173**
Less Total Internal Capture	**-130**	**0**	**0**	**0**	**-5**	**-6**	**-11**
Net Commercial Trip Generation	**1,110**	**104**	**30**	**134**	**46**	**116**	**162**
Residential Component							
Single Family Homes (40 DU)	380	8	22	30	26	14	40
Internal Capture Reduction[3]	-141	0	0	0	-9	-7	-16
Net Trip Generation	239	8	22	30	17	7	24
Apartments (358 DU)	2,370	29	154	183	150	72	222
Internal Capture Reduction[3]	-728	0	0	0	-34	-26	-60
Net Trip Generation	1,642	29	154	183	116	46	162
Total Residential Trip Generation	**2,750**	**37**	**176**	**213**	**176**	**86**	**262**
Less Total Internal Capture	**-869**	**0**	**0**	**0**	**-43**	**-33**	**-76**
Net Residential Trip Generation	**1,881**	**37**	**176**	**213**	**133**	**53**	**186**
Total Project Trip Generation	**11,440**	**458**	**496**	**954**	**525**	**535**	**1060**
Less Total Internal Capture/Pass-By	**-2,655**	**-135**	**-129**	**-264**	**-209**	**-191**	**-400**
Total College Park Mixed-Use Master Plan Trip Generation (Net)	**8,785**	**323**	**367**	**690**	**316**	**344**	**660**

[3] Source: Internal Capture rates were estimated based on the methodology outlines in *Chapter 7 – Multi-Use Development* of *Trip Generation Handbook*, published by ITE, October 1998.

Air Quality

Development of the site with the Reduced Intensity Alternative would require site development similar to that required of the proposed project. Consequently, short-term construction impacts associated with emissions of NOx, CO, and ROG that were identified for the proposed project would also be experienced with development of this alternative, though possibly for a reduced number of days due to the reduced development footprint. This impact would remain significant and unavoidable, however, even after mitigation.

Under this alternative, average daily traffic volumes would be reduced by 20 percent in comparison to the proposed project, thereby proportionately reducing estimated vehicle air pollution emissions. When compared to the proposed project's significant long-term air quality impacts, this alternative would result in a proportionate reduction in this impact category. However, impacts associated with emissions of NOx, CO, and ROG that were identified for the proposed project would also be experienced with development of this alternative, though to a lesser degree. Nonetheless, this impact would remain significant and unavoidable, even after mitigation. Exceedance of SCAQMD recommended thresholds would render this alternative inconsistent with the AQMP.

The Reduced Development Intensity Alternative would not provide the same level of air-quality positive features as the proposed project. Development density at this strategic location proximate to the Claremont Colleges and along the commuter rail system would be reduced, thereby reducing the number of people provided with transit, walking, and biking opportunities.

While short-term construction impacts under this alternative would be similar to the proposed project, long-term operational activity impacts would be reduced from the proposed project though remaining significant and unavoidable, even after mitigation.

Noise

Development under this alternative would require on-site grading and construction activities, thereby generating short-term noise impacts similar to those resulting from the proposed project. Noise impacts during construction of this alternative would be approximately the same as for the proposed project.

Vehicle noise is a primary contributor to urban noise level. Under this alternative, daily vehicle trips generated by the project site would be reduced by approximately 20 percent, correspondingly reducing noise impacts in the vicinity of the project site. In addition, residential units could be pulled back from Monte Vista Avenue and Arrow Route because of the reduced development intensity. As with the proposed project, no significant unavoidable impacts would occur with implementation of appropriate mitigation measures. Noise impacts under this alternative would be reduced from those anticipated under the proposed project.

Cultural Resources

Development under the Reduced Development Intensity Alternative requires the removal of the Arrow Route Bridge similar to the proposed project. The Bridge does not meet historic criteria under the National Register of Historic Places or California Register, however, and therefore can be removed without creating a significant impact. Impacts to cultural resources under this alternative are similar to the proposed project.

Hazards and Hazardous Materials

Impacts for hazards and hazardous materials under the Reduced Development Intensity Alternative will be similar in type to the proposed project but at a reduced level. These impacts are already at a less than significant level for the proposed project, however.

Public Services and Utilities

Impacts for public services and utilities under the Reduced Development Intensity Alternative will be similar in type to the proposed project but at a reduced level. These impacts are already at a less than significant level for the proposed project, however.

8.4.3 - Conclusions

With the Reduced Development Intensity Alternative, impacts related to cultural resources would be the same as the proposed project. Impacts related to land use and planning would be increased. The impacts to geology and soils, hydrology and water quality, traffic, air, noise, hazards and hazardous materials, public services and utilities would be reduced.

This alternative is considered environmentally superior to the proposed project because it would lessen long-term operational and cumulative air quality impacts. It would meet some of the project objectives as listed on p. 8-1 of this Draft EIR, but to a lesser degree than the proposed project. The second project objective referring to size of the commercial component would not be met. While a minimal reduction within the project components might maintain adequate intensity, a 20% reduction in intensity diminishes the ability of the mixed-use development to function as a 'node' or activity center within the overall "urban place" design concept. A 20% reduced intensity scenario represents an under utilization of the project site based on its location and relationship to surrounding uses.

8.5 - ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an Environmentally Superior Alternative be identified. Such an alternative would result in the fewest or least significant environmental impacts while still meeting most of the objectives of the proposed project. Pursuant to CEQA 15126.6, the No Project Alternative is identified as an environmentally superior alternative. CEQA Section 15126(d)(4) further provides that "if the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Taking that into consideration, based on a review of the alternatives that have been evaluated in the Draft EIR, the No Project/Development in Accordance with Existing General Plan and Zoning Designations Alternative is the environmentally superior alternative based primarily on the potential 53% reduction in project traffic and associated reduction in long-term operational and cumulative air quality impacts.

SECTION 9:
ORGANIZATIONS AND PERSONS CONSULTED

9.1 - PUBLIC AGENCIES

Chino Basin Water Conservation District ..... Barrett Kehl, General Manager

City of Claremont

- Community Services Department ..... Mark Hodnick, Deputy Director
  Dawn Ross, Administrative Assistant
- Planning Division ..... Scott Webb, Intern

City of Montclair

- Community Development Department ..... Rob Clark, Director
- Public Works Department ..... Mario Orioli, Superintendent

City of Upland

- Fire Department ..... Lou Steslicki, Fire Marshall
- Parks and Recreation Department ..... Larry Thornburg
- Police Department ..... Steve Adams, Captain
- Public Library ..... Information Officer

County of San Bernardino Land Use Services Department - Planning Division ..... Information Planner

Inland Empire Utilities Agency ..... Matthew Poeske, P.E.

Upland Unified School District Steve Cary, Assistant Superintendent

9.2 - PRIVATE ORGANIZATIONS

Burrtec Waste Industries ..... Eric Herbert, Vice-President

Claremont Colleges ..... Tim Lopez
Katherine Rubel, Director of Real Estate

Daily Bulletin ..... Lisa Bergherse, Reporter

Pomona College ..... Richard Fass, Vice-President of Planning
Dana Wood, Director of Real Property

Southern California Edison ..... Michael Whyte, Project Manager

Southern California Gas Company ..... Steve Dunivin, Technical Services Supervisor

SECTION 10:
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Project Manager ..... Emilie Johnson, AICP, REA
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Ray Muniz

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HYDROLOGY AND WATER QUALITY
Fuscoe Engineering ..... Ian Adam

TRAFFIC
Linscott, Law & Greenspan ..... Rich Barretto
Dan Kloos

SECTION 11:
REFERENCES

Individual references for each technical report, as contained in the Appendix, are listed in the individual sections within Section 5 of this Draft EIR.

California Air Resources Board, *The 2001 California Almanac of Emissions & Air Quality*, 2001.

Chino Basin Water Conservation District (CBWCD), *Fault Investigations, CBWCD's College Heights Property, San Bernardino, California*, July 2003.

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West Valley Planning Agency, *Cable Airport Comprehensive Airport Land Use Plan*, December 9, 1981.

Websites:

http://www.dhmcm.com (Doctors' Hospital Medical Center of Montclair).

http://www.sach.org (San Antonio Community Hospital).

http://www.spl.usace.army.mil/resreg/htdoc/snto.html (US Army Corps of Engineers).

http://www.swrcb.ca.gov./stormwtr/construction.html (State Water Resources Control Board).

http://www.swrcb.ca.gov/stormwtr/industrial.html (State Water Resources Control Board).

http://www.swrcb.ca.gov/stormwtr/municipal.html (State Water Resources Control Board).

APPENDICES

Appendix A: Initial Study; Initial Study Appendices (Biological Resources Report and Cultural Records Search); Notice of Preparation (NOP) and NOP Comment Letters; Scoping Meeting Notes

Community Development Department
Telephone (909) 931-4130
Facsimile (909) 931-4123

NOTICE OF PREPARATION

To: Agencies, Organizations, and Interested Parties

Subject: Notice of Preparation of a Draft Environmental Impact Report In Compliance With Title 14, Section 15082(A) of the California Code of Regulations.

The City of Upland will be the Lead Agency under the California Environmental Quality Act in the preparation of an Environmental Impact Report for the project defined below. We request the review of your agency as to the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR prepared by the City of Upland when considering permits that your agency may issue, or other approval for the project. The project description, location, and probable environmental effects of the proposed project are contained in the attached Initial Study.

Due to the time limits mandated by State law, your response must be received no later than 30 days after the receipt of this notice. Please indicate a contact person in your response and send your response to the following:

Jeffrey A. Bloom
Community Development Director
City of Upland City Hall
460 No. Euclid Ave
Upland, CA 91786

Project Title: College Park Project

Project Location: Southwest Corner of West Arrow Route and Monte Vista Avenue, Upland, CA

Project Description: The project site encompasses 38.69 acres. The proposed College Park project consists of three components: commercial, residential, and recreational. The commercial component of the project, occupying 11.39 acres, contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential component of the project, occupying 22.67 acres, contains 50 single-family detached dwelling units and 448 multi-family attached dwelling units. The recreational component, occupying 1.05 acres, contains a greenbelt/recreational area. Streets and dedications will occupy 3.58 acres.

Date: 8-27-03 Signature: _____

Title: Senior Planner

Telephone: 909-931-4130

DRAFT INITIAL STUDY
FOR THE
COLLEGE PARK PROJECT

Prepared for:

City of Upland Community Development Department
460 N. Euclid Avenue
Upland, CA 91786
909.931.4130

Contact: Jeffrey A. Bloom
Community Development Director

Prepared by:

Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602
714.508.4100

Contact: Emilie L. Johnson, AICP, REA
Project Manager



August 27, 2003

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Appendix A: Biological Resources Report
Appendix B: Cultural Records Search

SECTION 1
INTRODUCTION

1.1 PURPOSE

The purpose of this Initial Study (IS) is to identify the potential environmental impacts associated with the proposed College Park mixed-use project, located southwest of the intersection of W. Arrow Route and Monte Vista Avenue in the City of Upland (City). This IS has been prepared in accordance with the State CEQA Guidelines (Guidelines) and the City's CEQA implementing procedures and includes a review of proposed project design features.

Pursuant to Section 15367 of the Guidelines, the City is the lead agency in the preparation of a project-level Environmental Impact Report (EIR). Therefore, the City has primary responsibility for approval or denial of the proposed project.

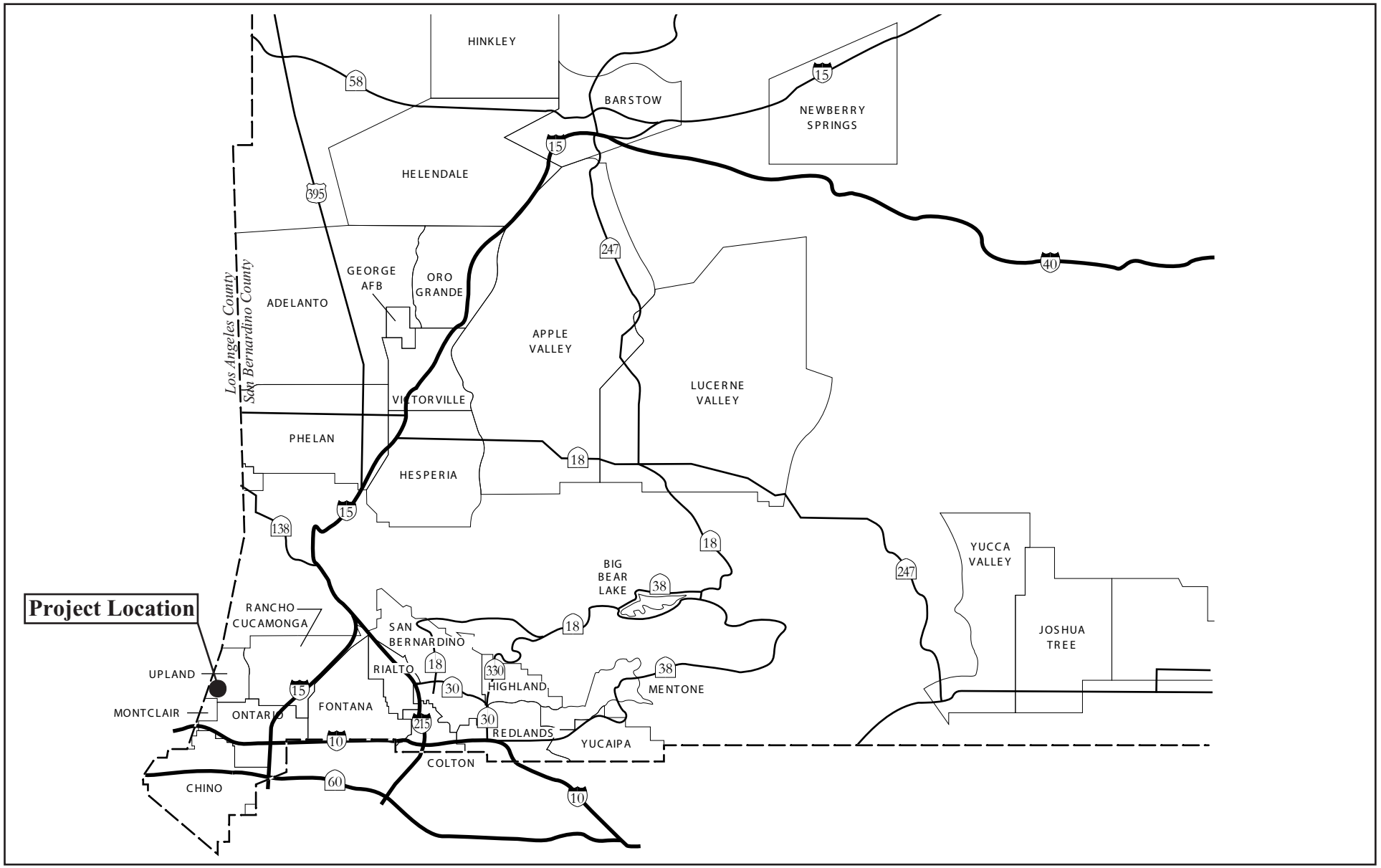
This IS identifies potentially significant impacts that require a thorough and complete analysis in a project-level EIR, and those environmental factors that are less than significant and therefore will only be described briefly in the EIR. In addition, this IS provides sufficient information to public agencies and other interested parties in formulating a meaningful response to the Notice of Preparation in accordance with Section 15082(b) of the Guidelines.

The remainder of Section 1 provides a description of the proposed project location, project history, project description, and environmental setting, as well as a list of project objectives, alternatives to be evaluated in the EIR, environmental determination, and intended uses of the EIR. Section 2 includes an environmental checklist that gives an overview of the potential environmental impacts that would or would not result from project implementation. Section 3 elaborates on the information contained in the environmental checklist.

1.2 PROJECT LOCATION

The project site encompasses 38.69 acres located in the western portion of the City of Upland in San Bernardino County. The site is located southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The site is within the City of Upland, but is bordered by the City of Claremont, the Claremont Colleges and Los Angeles County line on the west; a San Bernardino County unincorporated island to the north; Upland to the east; and the City of Montclair to the south. The San Antonio Channel lies southeast of the site. Regional freeway access to the site is provided by the San Bernardino Freeway (I-10) and the Foothill Freeway (SR 210). Major arterial access to the site is

provided by Mills Avenue, Claremont Boulevard, Foothill Boulevard (SR 66), W. Arrow Route, Arrow Highway, and Monte Vista Avenue (See Exhibit 1, Exhibit 2, and Exhibit 3).



NORTH

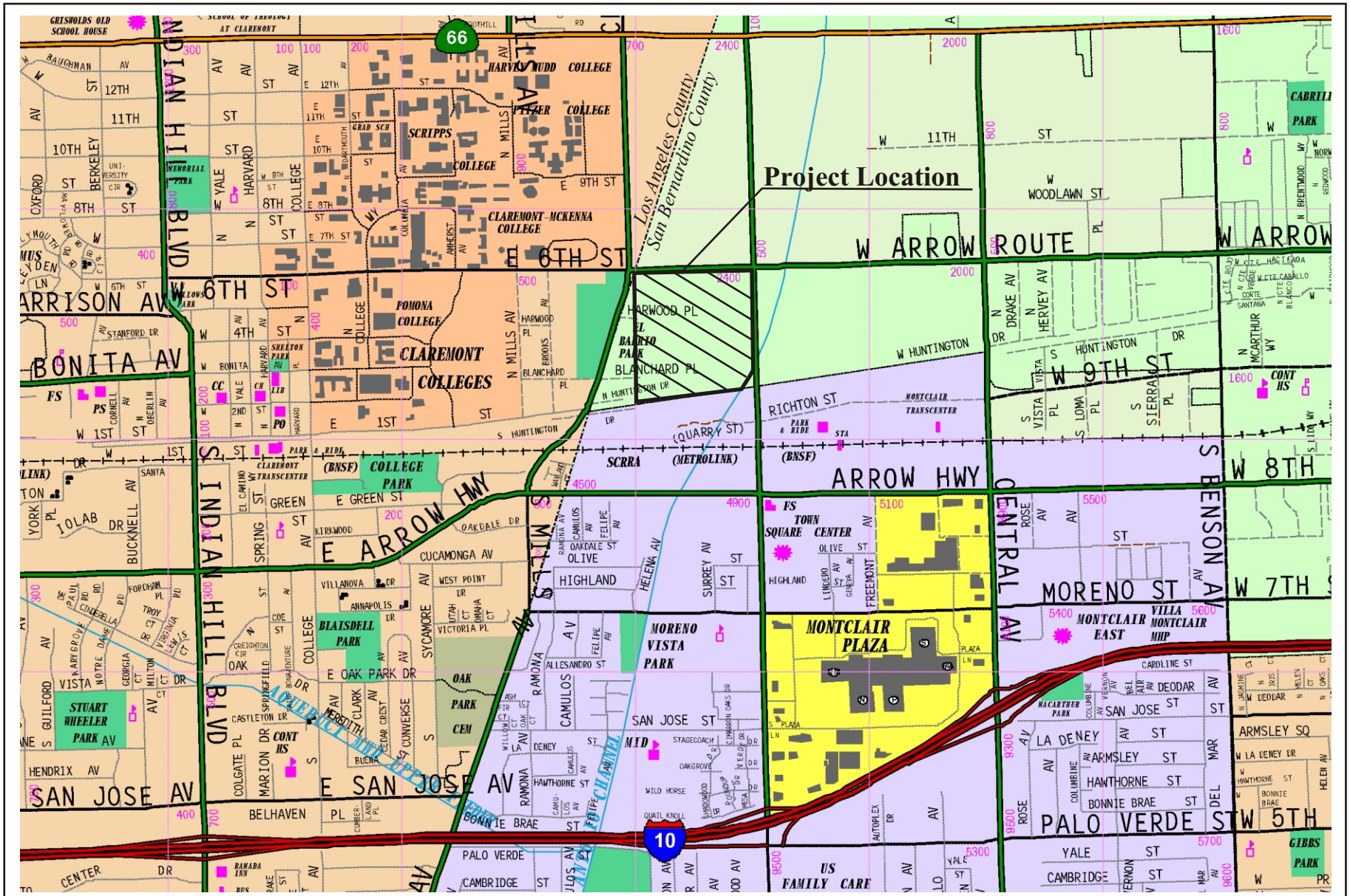
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SCALE IN MILES

Michael Brandman Associates

Exhibit **1**

Regional Location Map



Source: Thomas Guide Digital Edition, 2003.

NORTH

3,600 1,800 0 3,600

SCALE IN FEET

- City of Upland
- City of Montclair
- City of Claremont
- Unincorporated County Island

Exhibit **2**

Local Vicinity Map

Michael Brandman Associates

05190004 • 07/2003 / Local Vicinity Map.cdr

COLLEGE PARK • CITY OF UPLAND



NORTH

NOT TO SCALE

Michael Brandman Associates

Exhibit **3**

Aerial Location Map

05190004 • 07/2003 / Aerial Location Map.cdr

COLLEGE PARK • CITY OF UPLAND

1.3 PROJECT DESCRIPTION

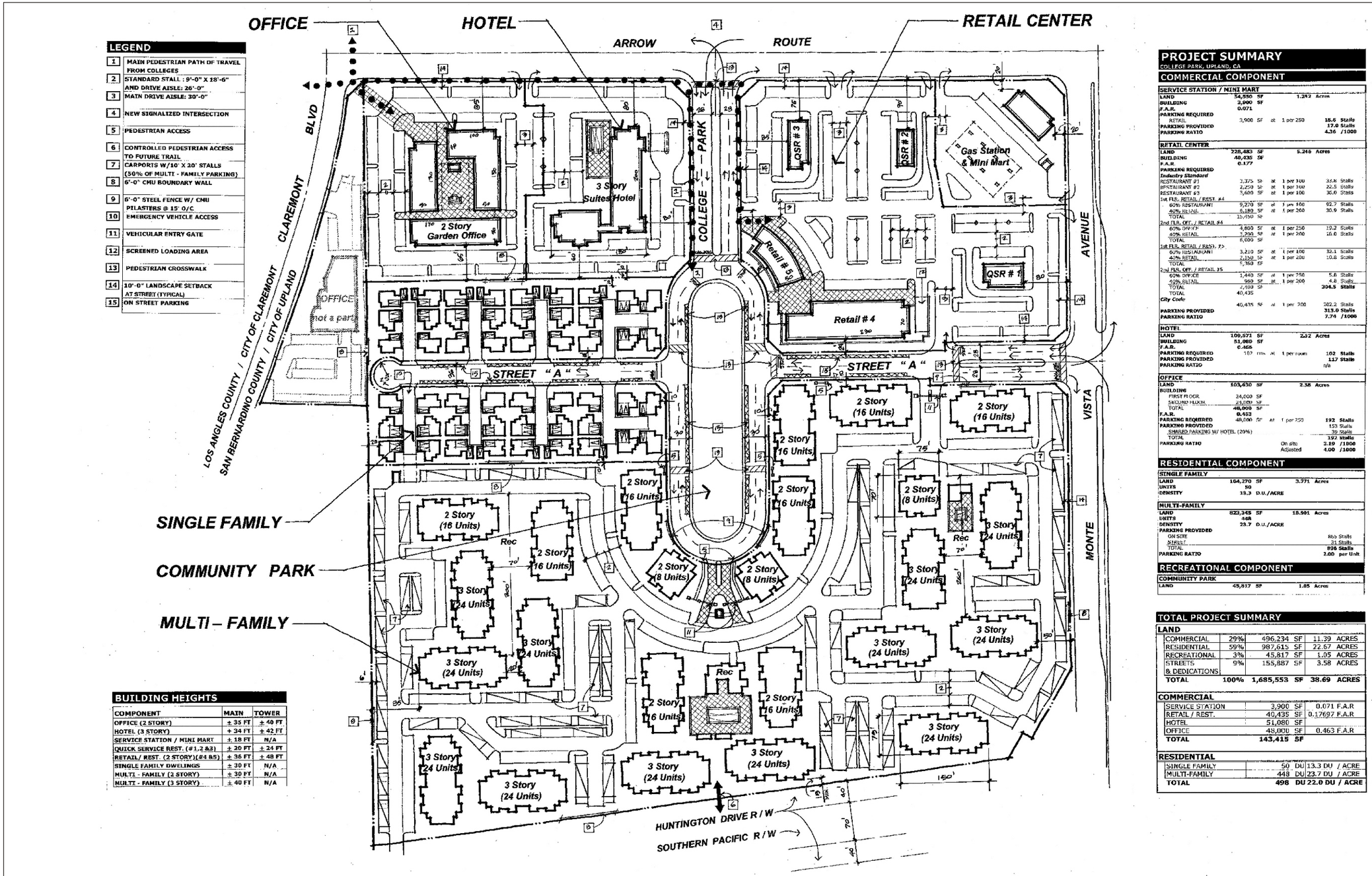
The Initial Study (IS) evaluates the College Park mixed-use development proposed for the reclaimed former sand and gravel quarry site. Filling and compaction of the site has previously commenced under a separate permit and is not part of the proposed project. At the completion of reclamation, the project site will consist of rough graded building pads. Grading requirements will be limited to fine grading.

Development

The proposed project consists of three components: commercial, residential, and recreational (Exhibit 4). The commercial component of the project contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential component of the project contains single-family detached and multi-family attached housing types. The recreational component contains a greenbelt/recreational area. A summary of land use information is presented in Table 1.3-1 and Exhibit 4: Site Plan. The Grading Plan pursuant to the approved Reclamation Plan for the project site is shown in Exhibit 5.

Table 1.3-1: Land Use Summary

Land			
Commercial	29%	496,234 SF	11.39 Acres
Residential	59%	987,615 SF	22.67 Acres
Recreational	3%	45,817 SF	1.05 Acres
Streets & Dedications	9%	155,887 SF	3.58 Acres
Total	**100%**	**1,685,553 SF**	**38.69 Acres**
Commercial			
Service Station/Mini Mart	3,900 SF	0.071 F.A.R	—
Retail/Restaurant	40,435 SF	0.17697 F.A.R	—
Hotel	51,080 SF	—	—
Office	48,000 SF	0.463 F.A.R	—
Total	**143,415 SF**	**—**	—
Residential			
Single Family	50 DU	13.3 DU / Acre	—
Multi-Family	448 DU	23.7 DU / Acre	—
Total	**498 DU**	**22.0 DU / Acre**	—



BUILDING HEIGHTS

COMPONENT	MAIN	TOWER
OFFICE (2 STORY)	± 35 FT	± 40 FT
HOTEL (3 STORY)	± 34 FT	± 42 FT
SERVICE STATION / MINI MART	± 18 FT	N/A
QUICK SERVICE REST. (#1,2 &3)	± 20 FT	± 24 FT
RETAIL/ REST. (2 STORY)(#4 &5)	± 36 FT	± 48 FT
SINGLE FAMILY DWELINGS	± 30 FT	N/A
MULTI - FAMILY (2 STORY)	± 30 FT	N/A
MULTI - FAMILY (3 STORY)	± 40 FT	N/A

PROJECT SUMMARY

COLLEGE PARK, UPLAND, CA

COMMERCIAL COMPONENT

SERVICE STATION / MINI MART

LAND	54,550 SF			1.252 Acres	
BUILDING	3,900 SF				
F.A.R.	0.071				
PARKING REQUIRED					
RETAIL	3,900 SF	at	1 per 250		15.6 Stalls
PARKING PROVIDED					17.0 Stalls
PARKING RATIO					4.36 /1000

RETAIL CENTER

LAND	228,483 SF			5.246 Acres	
BUILDING	40,435 SF				
F.A.R.	0.177				
PARKING REQUIRED					
Industry Standard					
RESTAURANT #3	3,375 SF	at	1 per 100		33.8 Stalls
RESTAURANT #2	2,250 SF	at	1 per 100		22.5 Stalls
RESTAURANT #3	5,600 SF	at	1 per 100		56.0 Stalls
1st FLR. RETAIL / REST. #4					
60% RESTAURANT	9,270 SF	at	1 per 100		92.7 Stalls
40% RETAIL	6,180 SF	at	1 per 200		30.9 Stalls
TOTAL	15,450 SF				
2nd FLR. OFF. / RETAIL #4					
60% OFFICE	4,800 SF	at	1 per 250		19.2 Stalls
40% RETAIL	3,200 SF	at	1 per 200		16.0 Stalls
TOTAL	8,000 SF				
1st FLR. RETAIL / REST. #5					
60% RESTAURANT	3,210 SF	at	1 per 100		32.1 Stalls
40% RETAIL	2,140 SF	at	1 per 200		10.8 Stalls
TOTAL	5,350 SF				
2nd FLR. OFF. / RETAIL #5					
60% OFFICE	1,440 SF	at	1 per 250		5.8 Stalls
40% RETAIL	960 SF	at	1 per 200		4.8 Stalls
TOTAL	2,400 SF				304.5 Stalls
TOTAL	40,435				
City Code					
	40,435 SF	at	1 per 200		202.2 Stalls
PARKING PROVIDED					313.0 Stalls
PARKING RATIO					7.74 /1000

HOTEL

LAND	109,571 SF			2.52 Acres	
BUILDING	51,080 SF				
F.A.R.	0.466				
PARKING REQUIRED	102 rms	at	1 per room		102 Stalls
PARKING PROVIDED					117 Stalls
PARKING RATIO					n/a

OFFICE

LAND	103,650 SF			2.38 Acres	
BUILDING					
FIRST FLOOR	24,000 SF				
SECOND FLOOR	24,000 SF				
TOTAL	48,000 SF				
F.A.R.	0.463				
PARKING REQUIRED	48,000 SF	at	1 per 250		192 Stalls
PARKING PROVIDED					153 Stalls
SHARED PARKING W/ HOTEL (20%)					39 Stalls
TOTAL					192 Stalls
PARKING RATIO			On site		3.19 /1000
			Adjusted		4.00 /1000

RESIDENTIAL COMPONENT

SINGLE FAMILY

LAND	164,270 SF			3.771 Acres	
UNITS	50				
DENSITY	13.3 D.U./ACRE				

MULTI-FAMILY

LAND	820,345 SF			18.501 Acres	
UNITS	448				
DENSITY	23.7 D.U./ACRE				
PARKING PROVIDED					
ON SITE					Nbs Stalls
STREET					31 Stalls
TOTAL					896 Stalls
PARKING RATIO					2.00 per Unit

RECREATIONAL COMPONENT

COMMUNITY PARK			
LAND	45,817 SF	1.05 Acres	

TOTAL PROJECT SUMMARY

LAND				
COMMERCIAL	29%	496,234 SF	11.39	ACRES
RESIDENTIAL	59%	987,615 SF	22.67	ACRES
RECREATIONAL	3%	45,817 SF	1.05	ACRES
STREETS & DEDICATIONS	9%	155,887 SF	3.58	ACRES
TOTAL	**100%**	**1,685,553 SF**	**38.69**	**ACRES**
COMMERCIAL				
SERVICE STATION		3,900 SF	0.071	F.A.R
RETAIL / REST.		40,435 SF	0.17697	F.A.R
HOTEL		51,080 SF		
OFFICE		48,000 SF	0.463	F.A.R
TOTAL		**143,415 SF**		
RESIDENTIAL				
SINGLE FAMILY		50 DU	13.3 DU / ACRE	
MULTI-FAMILY		448 DU	23.7 DU / ACRE	
TOTAL		**498 DU**	**22.0 DU / ACRE**	

Source: Hutton Development Company; KTGY Group, Inc.; Lundstrom & Associates, June 2003.

NORTH

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SCALE IN FEET

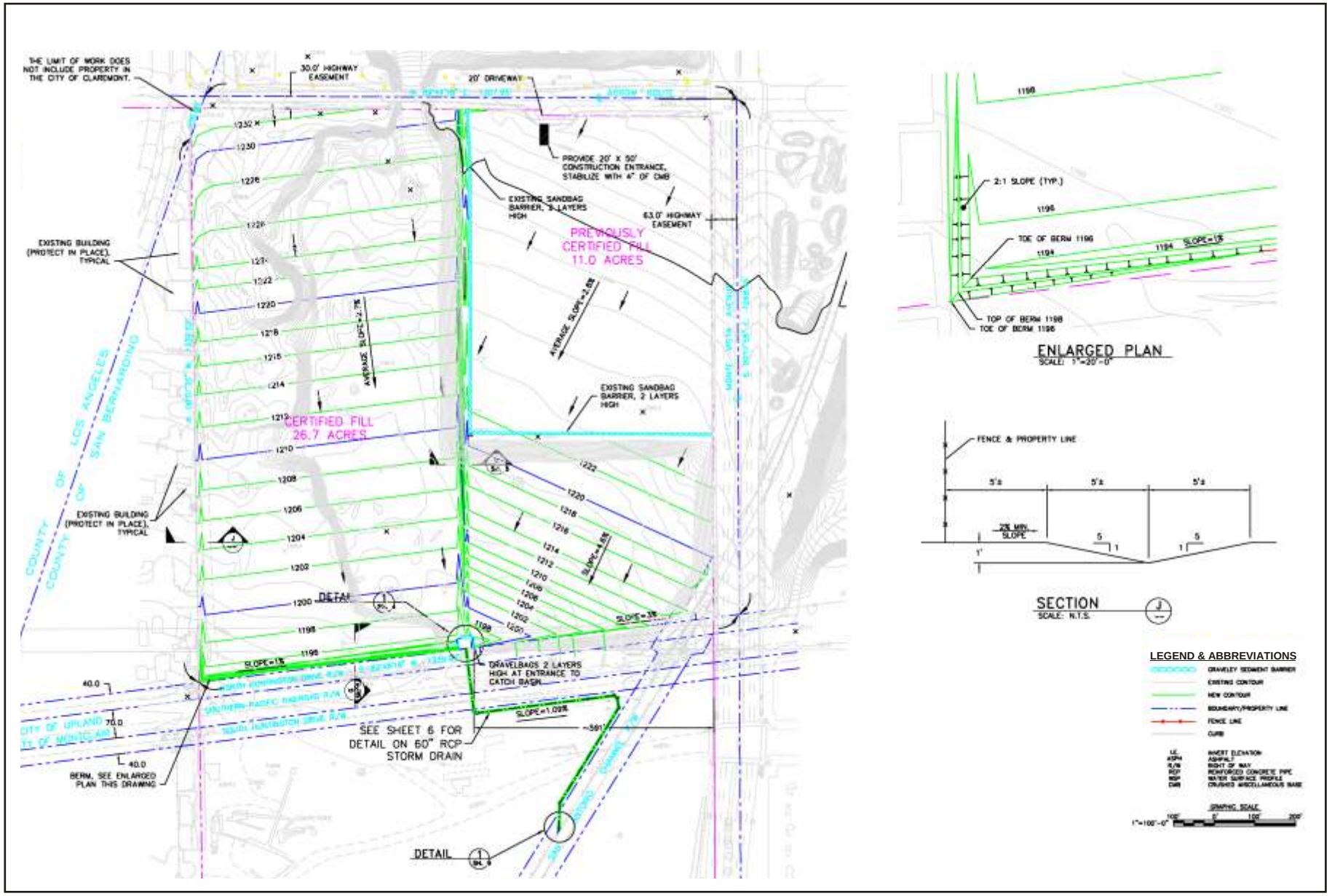
Michael Brandman Associates

05190004 • 07/2003 / Site Plan.cdr

Exhibit **4**

Site Plan

COLLEGE PARK • CITY OF UPLAND



Source: Outten Engineering Company

NORTH

60 30 0 60

SCALE IN FEET

Michael Brandman Associates

05190004 • 07/2003 / Grading Plan.cdr

Exhibit 5

Grading Plan

COLLEGE PARK • CITY OF UPLAND

Table 1.3-2: Project Component Summary

Description	Units	Bldgs.	Stories	Building Sq. Feet	Acres
Commercial Component					
Service Station / Mini Mart	1	1	1	3,900	1.25
Retail Center				40,435	5.24
Quick Service Restaurants (QSR)					
QSR No. 1	1	1	1	3,375	
QSR No. 2	1	1	1	2,250	
QSR No. 3	1	1	1	3,600	
Retail Building No. 4	First floor: 1 Restaurant (60%) Retail units TBD (40%) Second Floor: Retail units TBD (40%) Office units TBD (60%)	1	2	23,450	
Garden Office Building	Office units TBD (100%)	3	2	48,000	2.38
Hotel	102 rooms	1	3	51,080	2.52
Residential Component					
Single-family detached	50 DUs	50	2	-NA-	3.77
Multi-family attached	448 DUs	 12 12	 2 3	-NA-	18.90
Recreation Component					
Greenbelt/Recreational Area	-NA-	-NA-	-NA-	-NA-	1.05
Source: College Park Master Plan, Hutton Development Company, June 19, 2003.					

The project contains 84 separate buildings that range from one to three stories in height. Approximate building heights are presented in Table 1.3-3.

Table 1.3-3: Approximate Building Heights

Component	Main Building	Tower
Garden Office Building	35 feet	40 feet
Hotel	34 feet	42 feet
Service Station / Mini Mart	18 feet	-NA-
Retail/Rest. Buildings No. 4 and 5	36 feet	48 feet
Single-family detached	30 feet	-NA-
Multi-family attached 2 story	30 feet	-NA-
Multi-family attached 3 story	40 feet	-NA-
Source: College Park Master Plan, Hutton Development Company, June 19, 2003.		

The commercial component occupies the northern portion of the site along the entire W. Arrow Route frontage on the northern edge and approximately half of the Monte Vista Avenue frontage along the eastern edge (Exhibit 4). The single-family element of the residential component occupies the west-central portion of the site. The multi-family element of the residential component occupies the southern portion of the site and the lower half of the Monte Vista Avenue frontage. The recreational component, consisting of a greenbelt/recreational area, occupies the center portion of the site.

Access

Primary vehicular access to the site will be provided off of W. Arrow Route and Monte Vista Avenue. The project includes the signalization of the W. Arrow Route access intersection. The Monte Vista Avenue access intersection will not be signalized as part of this project. Four secondary vehicular access points are provided to the site. One secondary vehicular access driveway is provided to the hotel and garden office building complex from W. Arrow Route. A second vehicular access driveway is provided to the retail center from W. Arrow Route. Two secondary vehicular access driveways are provided to the gas station/mini mart from W. Arrow Route and Monte Vista Avenue.

Emergency vehicular access is provided by the primary and secondary driveways. Internal emergency vehicular access is provided by the internal street and drive aisles. A dedicated emergency driveway is located between the single-family and multi-family development.

College-oriented pedestrian access is provided by a pedestrian path at the northwest corner of the site leading directly to the garden office building, and along the southern side of W. Arrow Route to the primary access driveway. Additional pedestrian access is provided by the other primary and secondary driveways. A controlled pedestrian access gate, located in the southern portion of site, will provide access to a future trail system. This trail system is not part of the proposed project.

The existing bridge on W. Arrow Route, at the northern edge of the property, will be removed as part of the proposed project. The current alignment of W. Arrow Route will be maintained. West Arrow Route will be constructed at grade equivalent to the surrounding properties.

Internal Circulation

Internal circulation is provided by a street and drive aisles. A dedicated right-of-way, temporarily named Street "A", extends westerly from the primary access road on Monte Vista Avenue to the internal drive aisle circling the greenbelt/recreational area. Street "A" then extends to the west, terminating in the single-family element of the proposed project. Entrance to the multi-family element will be provided through two security controlled vehicular gates (remote or key pad entry).

Parking

All parking is provided on-site; the project does not propose any parking on either W. Arrow Route or Monte Vista Avenue. Parking is provided by a combination of garages, covered and un-covered parking stalls, and parallel parking on "A" Street and drive aisles. Parking information is summarized in Table 1.3-4.

Table 1.3-4: Parking Summary

Component	Type	Number
Commercial Component		
Service Station / Mini Mart	Un-covered stalls	17
Retail Center	Un-covered stalls	313
Garden Office Building	Un-covered stalls	153
Hotel	Un-covered stalls	117
Residential Component		
Single-family detached	Garage (Attached) and Un-covered Stalls Parallel	100 28
Multi-family attached	Covered stalls Un-covered stalls Parallel	432 433 31
Recreation Component		
Greenbelt/recreational area	-NA-	-NA-
Source: College Park Master Plan, Hutton Development Company, June 19, 2003.		

Project Phasing

The project is proposed to be developed in two phases:

- **First Phase:** Retail Center and Service Station/Mini-Mart; single-family residential (100% or 50 total dwelling units); multi-family residential (50% or 224 total dwelling units); office; greenbelt/recreation area, and roadway improvements to W. Arrow Route, Monte Vista Avenue, and all primary internal project roadways.
- **Second Phase:** Multi-family residential (50% or 224 total dwelling units); and hotel.

Proposed Discretionary Actions or Approvals

Anticipated discretionary approvals by the City and other responsible agencies for implementation of the proposed project include the following:

- **City of Upland:** Development Agreement, Zone Change from Light Manufacturing to Highway Commercial, Conditional Use Permit (CUP), tentative tract map, final map, certification of Final EIR, grading permits, building permits, mitigation monitoring program.
- **Regional Water Quality Control Board:** Section 401 permit or waiver, National Pollutant Discharge Elimination Systems Permit.

1.5 ENVIRONMENTAL SETTING

The 38.69-acre project site is located in the City of Upland in the western portion of San Bernardino County. The site is located southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The site is within the City of Upland, but is bordered by the City of Claremont, the Claremont Colleges and Los Angeles County line on the west; a San Bernardino County unincorporated island to the north; Upland to the east; and the City of Montclair to the south. The San Antonio Channel lies southeast of the site. This channel is an improved stormwater flood control facility.

The General Plan designation for the site is Commercial/Industrial (Specific Plan). The current zoning is Light Manufacturing. The site is a former sand and gravel quarry which is to be filled in with engineered compacted fill by others under a separate permit. When completed, the site will be comprised of rough graded building pads, at grade equivalent to the surrounding properties. To date, approximately 11 acres in the northeast area of the site have been filled.

The City of Upland owns another former sand and gravel site directly adjacent across Monte Vista to the east, which will be excavated for a retention basin—the excavated soils will be transported to the

proposed project site as fill as part of a separately permitted project. The property immediately south of the project site is a Vulcan asphalt batch plant that may remain active for the foreseeable future. The property immediately to the north is an existing sand and gravel pit that is owned and controlled by the Claremont Colleges. This larger pit is hydraulically connected with the project site via a channel under W. Arrow Route.

Immediately west of the project site is an older residential neighborhood with long-term established residents. Some of these older residences abut the batch plant. Northwest of the site, diagonally across the intersection of Claremont Boulevard is the campus of the Claremont Colleges.

Land uses in the general vicinity (approximately one mile) of the site are a mixture of residential, commercial, institutional, and heavy industrial. Principal land uses in the vicinity of the site are two operational sand and gravel facilities, the Claremont Colleges, the Montclair Metrolink Station and Transcenter, the Cable Airport, the BNSF/SCRRA railroad line, the San Bernardino Freeway (I-10), the San Antonio Channel, and Montclair Plaza. Additional land uses in the vicinity of the site are two neighborhood shopping centers, five public schools, a mobile home park, a cemetery, six parks, three municipal buildings, and portions of a botanical garden and golf course.

1.6 OBJECTIVES

The project proponent has identified the following objectives regarding the proposed mixed-use project:

- Incorporate pedestrian and bicycle linkages to the Claremont Colleges campus.
- Incorporate pedestrian and bicycle linkages to the Montclair Metrolink Station and Transcenter.
- Support and reinforce pedestrian, bicycle and transit use.
- Develop a residential component to serve the Claremont Colleges and the general population.
- Incorporate a high-level of amenities and quality of project design typically found in planned developments.

1.7 CUMULATIVE PROJECTS

A discussion of the cumulative, significant irreversible, and growth-inducing consequences of a project that adversely affect the environment is required by the CEQA Guidelines (California Public Resources Code Section 21000) on the adoption, amendment, or enactment of public plans, ordinances, or policies. According to the Guidelines, attention must be given to impacts that limit the

number of beneficial uses of the environment or pose long-term risks to health or safety. The growth inducing effects are also evaluated.

An EIR must discuss the "cumulative impacts" of a project when its incremental effect will be cumulatively considerable. This means that the incremental effects of the individual project would be considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (Guidelines' Section 15065(c)).

For purposes of evaluating the potential of the proposed mixed-use project to have cumulatively considerable incremental effects, the effects of related past, current, and probable future projects will be evaluated in the forthcoming project-level EIR.

1.8 ALTERNATIVES TO THE PROPOSED ACTION

The EIR will analyze a range of reasonable alternatives to the proposed project. Each alternative will be described and analyzed to determine if it can reasonably attain the objectives of the project as proposed. The analysis will focus on whether the alternatives are capable of eliminating or reducing to a level of insignificance any significant adverse environmental impact of the proposed project. A comparison of the alternatives will also be provided in tabular format. The EIR will analyze the following alternatives:

- Alternative 1 – No Project Alternative
- Alternative 2 – Reduced Development Intensity Alternative
- Alternative 3 – Single Land Use Alternative (to be determined)

1.9 ENVIRONMENTAL DETERMINATION

Through the preparation of this Initial Study (IS), the City has determined that the proposed project may have a significant impact on the environment and that a project-level EIR will be prepared in compliance with Section 15161 of the Guidelines. The preliminary scope and content of the EIR have been determined based on the results of the IS. The IS assumptions will be further evaluated based on input received from the responsible/trustee agencies and other interested members of the public during the 30-day Notice of Preparation comment period.

Effects Not Found To Be Significant

Through the preparation of this IS, the City has determined that the potentially significant effects to the environment in the following environmental factor categories are less than significant and,

therefore, will only be described briefly in the EIR, in accordance with Section 15128 of the Guidelines. These factors are:

- Aesthetics
- Agricultural Resources
- Biological Resources
- Mineral Resources
- Population and Housing
- Recreation

Effects Found To Be Potentially Significant

Through the preparation of this IS, the City has determined that the proposed project has the potential to result in potentially significant impacts on the environment. The Draft EIR prepared for the proposed project will analyze all potential impacts associated with the following environmental factors:

- Air Quality
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services, Utilities and Service Systems
- Transportation/Traffic

1.10 INTENDED USES OF THIS DOCUMENT

This Initial Study document has been prepared to determine the appropriate scope and level of detail required in completing the environmental analysis for the proposed project. This document will also serve as a basis for soliciting comments and input from members the public and public agencies regarding the proposed project, following the distribution of the Notice of Preparation (NOP) of the EIR. The NOP will be circulated for a total of 30 days, during which period comments regarding the forthcoming EIR for the proposed project are invited to be sent to:

City of Upland Community Development Department
460 N. Euclid Avenue
Upland, CA 91786
Attn: Jeffrey A. Bloom, Community Development Director

SECTION 2
ENVIRONMENTAL CHECKLIST

	Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I.	**Aesthetics** – Would the project:				
	a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
	b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☒	☐
	c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
	d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐
II.	**Agriculture Resources** – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
	a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
	b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
	c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
III.	**Air Quality** – The following responses are based on the air quality data provided in appendix c of this document. The air quality data includes an air quality assessment methodology, existing regional and local air quality data, and air emissions calculations. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
	a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
	b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
IV. Biological Resources – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. Cultural Resources – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
VI. Geology and Soils – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☒	☐	☐
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
VII. Hazards and Hazardous Materials – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

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

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☒	☐	☐
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☒	☐	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
IX. Land Use and Planning – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐	☐	☐
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	☒
X. Mineral Resources – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
XI. Noise – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☒	☐	☐	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XII. Population and Housing – Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIII. Public Services – Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire Protection?	☐	☒	☐	☐
b) Police Protection?	☐	☒	☐	☐
c) Schools?	☐	☒	☐	☐
d) Parks?	☐	☒	☐	☐
e) Other public facilities?	☐	☐	☒	☐
XIV. Recreation –				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XV. Transportation/Traffic – Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☒	☐	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☒	☐
XVI. Utilities and Service Systems – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐	☐	☐
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

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

Environmental Factors That Could Result in a Potentially Significant Impact		
The environmental factors checked below would be potentially affected by the project, involving at least one impact that is a "potentially significant impact" as indicated by the preceding checklist and supported by evidence provided in Section 3.		
☐ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☐ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Hazards & Hazardous Materials	☒ Hydrology/Water Quality	☒ Land Use/Planning
☐ Mineral Resources	☒ Noise	☐ Population/Housing
☒ Public Services	☐ Recreation	☒ Transportation/Traffic

Environmental Determination

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a Negative Declaration will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A Mitigated Negative Declaration will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an Environmental Impact Report is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measure based on the earlier analysis as described on attached sheets. An Environmental Impact Report is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signed _____ Date _____

Printed Name _____ For _____

SECTION 3
DISCUSSION OF ENVIRONMENTAL EVALUATION

I. AESTHETICS

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

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

Less Than Significant Impact (a, b). There are no scenic views from highways or scenic vantage points within or near the project site. The project is not located adjacent to or near an identified scenic resource. Therefore, project implementation would have no impact on a scenic vista and would not result in damage to scenic resources.

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

Less Than Significant Impact. The project site is a former sand and gravel quarry. Another former sand and gravel site lies directly adjacent across Monte Vista to the east. The property immediately south is an operating asphalt batch plant. Development of site would not substantially degrade the existing visual character of the site and surrounding areas. Development of this mixed-use project will serve to enhance the visual character of the area.

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

Less Than Significant with Mitigation. New lighting will be established throughout the proposed mixed use development in association with commercial, residential, and recreational uses. All lighting will be in compliance with the Upland Municipal lighting standards, ensuring that the height and intensity of lighting does not create substantial spillover to adjacent property.

II. AGRICULTURAL RESOURCES

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

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

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

No Impact (a-c). The project site is a former sand and gravel quarry. The site is zoned for Light Manufacturing by the City of Upland. Since the site does not contain any agricultural resources and is not zoned for agricultural use, the project would not convert prime farmland, unique farmland, or farmland of statewide importance to non-agricultural uses and would not conflict with zoning for agricultural use. Additionally, the proposed project would not conflict with a Williamson Act contract. The proposed mixed-use project would not involve changes to the existing environment that would result in the conversion of farmland to a non-agricultural use.

III. AIR QUALITY

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

Less Than Significant Impact. The project site is within the South Coast Air Basin (SCAB), and is subject to the requirements of the South Coast Air Quality Management District (SCAQMD), the U.S. Environmental Protection Agency (EPA), and the California Air Resources Board (CARB). A project is deemed inconsistent with air quality plans if it results in population and/or employment growth that exceed growth estimates in the applicable air quality plan. It is assumed that the emissions associated with construction and operation of the proposed project would not obstruct the implementation of the applicable Air Quality Management Plan (AQMP), adopted by the SCAQMD. However, the effects of the project on air quality and its compliance with the AQMP will be further evaluated in the EIR.

It should be noted that the project site proximity to the Claremont Colleges and the Montclair Transcenter will support and reinforce pedestrian/bike/transit use, with linkages to these destinations integrated in to the site design. These factors, together with the proposed mixed-use character of the site suggest a high degree of conformance with regional air quality goals.

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

Potentially Significant Impact. Implementation of the proposed project would contribute to both short-term and long-term air quality impacts in the South Coast Air Basin. Short-term construction emissions would result from the operation of heavy-duty construction equipment and on-site fine grading. Long-term project impacts include emissions generated from vehicles traveling to and from the site. The EIR will include a detailed discussion of the construction and operational emissions as well as the incorporation of applicable mitigation measures to reduce the impacts.

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

Potentially Significant Impact. Implementation of the proposed project would contribute to air quality impacts when combined with other existing and future emission sources in the area. The EIR would include an analysis to determine cumulative air quality impacts and to evaluate whether the project would contribute emissions that would cause significant cumulative air quality impacts.

d) Expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. It is not anticipated that the project would expose sensitive receptors to substantial pollutant concentrations. However, in the EIR, emission concentrations from non-stationary sources would be quantified and compared to appropriate AQMD significance thresholds. The analysis will include a carbon monoxide (CO) "hot spot" analysis at potentially impacted intersections.

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

No Impact. During construction of the proposed project, some odors would be emitted from construction equipment. These odors are not expected to be significant and will be concentrated on the project site. Substantial odors are not expected to travel from the site to surrounding areas. Construction emissions would, therefore, not result in odor impacts on surrounding land uses.

IV. BIOLOGICAL RESOURCES

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

Less Than Significant Impact . A Biological Resources Analysis of the project site has been conducted by MBA staff (See Appendix A). The site was surveyed by a Project Biologist on July 24, 2003 in order to identify any potentially significant biological issues related to development of the site for mixed use.

A small 2-acre area of Riversidean sage scrub, contained in the northwestern corner of the property, was noted during the field survey. This area of Riversidean sage scrub is considered isolated and previously disturbed based on its monotypic vegetation coverage.

Several sensitive species were identified in the literature review covering a 7-mile radius, including the California Gnatcatcher. However, the likelihood that sensitive species occur within the project site is extremely low due to lack of suitable habitat.

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

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

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

e) Conflict with any local applicable policies protecting biological resources?

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?

No Impact (b-f). The Biological Resources Analysis (Appendix A) notes the absence of riparian or wetland areas, indicating that **t**here are no areas of either US Army Corps of Engineers (USACE) or California Department of Fish and Game (CDFG) jurisdiction on the site. The quarry area within the project site does not contain any connectivity to adjacent drainage features. Some drainage is currently accepted from the north, but there is no evidence of connectivity to any downstream drainage feature.

Because no natural watercourses or bodies are contained within the project site, no impacts to fish habitat will occur. Due to the disturbed nature based on past quarry activity, the site is not considered a wildlife corridor. Development of the site for mixed use will not conflict with any local applicable policies protecting biological resources or with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan.

V. CULTURAL RESOURCES

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

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

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

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

Less Than Significant with Mitigation (a-d). Michael Brandman Associates (MBA) has conducted a cultural records search for the College Park project. A letter report is attached to the Initial Study as Appendix B.

The purpose of a cultural resource records search is to identify all previously recorded cultural resources (prehistoric and historic archaeological sites, historic buildings, structures, objects, or districts) within the area of potential effect, as required by the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations, 36 CFR Part 800. A records search entails a review of all previously recorded prehistoric and historic archaeological sites situated within a quarter mile radius of the project area, as well as a review of all cultural resource survey/excavation reports.

The results of the records search indicate that one recorded cultural property (P#36-016454 [PSBR-2H]) has been recorded within the project area. The on-site historic property described is also known as the "Old San Bernardino Road", which was a transportation route originally established in about 1830. Archival maps show that this road, portions of which apparently exist in Rancho Cucamonga, was paved in 1913 and then rerouted when Foothill Boulevard was established to the north on or about 1929. This historic feature crosses the parcel from east to west, beginning near the northeast corner of the property then crossing near the center of the site's western boundary. Other historic sites exist mostly northeast of the parcel. Numerous survey

reports are on file with the Information Center for the search radius, but none have addressed the parcel area, suggesting that the parcel has never been surveyed.

The results of the records search together with an assessment of potential cultural resource impacts by qualified MBA staff indicate that it is possible that cultural resources will be affected by proposed development within the project area. Because it is understood that much of the area has been excavated due to mining activities or covered with modern fill, surveying of only those portions of the project area that appear to lack recent disturbance is recommended.

A cultural resources survey of the project site will be conducted, results from which will be summarized in the EIR within the discussion of existing cultural resources, impacts, and mitigation measures. The EIR will identify appropriate mitigation, including monitoring of construction activities, suspension of grading activities should cultural material be encountered, and appropriate mitigation consistent with state and federal requirements. Notwithstanding the ability to potentially mitigate cultural resource impacts, the EIR will include full discussion of all cultural resource issues.

VI. GEOLOGY AND SOILS

Would the project:

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

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

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant with Mitigation (a, i-iii). The City of Upland Seismic Safety/Safety Element identifies five fault systems considered to be potentially hazardous to the City:

- Regional fault Systems: San Andreas Fault, San Jacinto Fault
- Local Fault Systems: Cucamonga-Sierra Madre Fault, Red Hill Fault, San Jose Fault

The Seismic Hazard Evaluation of the Ontario 7.5' Quadrangle, prepared by the State of California, Division of Mines and Geology (2000), identifies the location of the San Jose Fault adjacent to the northwest corner of the site, but outside the project boundary.

The primary seismic hazard affecting the project area would be ground shaking from a regional seismic event (earthquake) along any known active and/or inactive faults in the Southern California area. Notwithstanding the ability to mitigate geology and soils impacts, potential effects associated with fault rupture, strong seismic ground shaking or seismic-related ground failure will be fully addressed in the EIR utilizing site-specific geotechnical studies, the City Seismic Safety/Safety Element, and California Division of Mines and Geology publications. Future development within the project site will be designed to comply with all applicable geological and seismic safety requirements of the Uniform Building Code and the California State Public Resources Code [Section 2693(c)] to minimize seismic hazards. All mitigation measures necessary to maintain geology and soils impacts at a less than significant level will be presented in the EIR.

iv) Landslides?

No Impact (a, iv). The project area is not known to contain landslides. Filling and compaction of the site, taking place under a separate permit and not part of this project, is being performed in accordance with accepted standards and under the observation and testing of a licensed geotechnical engineer. The risk of landslides on the reclaimed project site is considered very low and no impact is anticipated.

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

Less Than Significant with Mitigation. Fine grading will be required to establish finished building pads. Proposed roadways and utility infrastructure groundwork grading is also required, resulting in short-term erosion impacts. Grading and earth disturbances during construction to establish the mixed use development and supporting facilities will expose soils and lead to erosion. Grading activities will be carried out pursuant to a National Pollutant Discharge Elimination System (NPDES) permit that requires adoption of appropriate Stormwater Pollution Prevention Plan (SWPPP) and implementation of Best Management Practices (BMPs) to reduce erosion. Implementation of these measures will reduce any potential impacts to less than significant.

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

Less Than Significant with Mitigation. Site specific geotechnical investigations have been performed to evaluated the suitability of the project site for development. All mitigation measures identified in the geotechnical reports will be presented in the EIR.

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

Less Than Significant with Mitigation. The expansion potential of on-site soils has been evaluated in the geotechnical evaluations. The expansion potential of fill materials is being monitored as the project site is being reclaimed. The EIR will address the potential degree of impact due to expansive soils., and mitigation measures will be specified based on the geotechnical engineer's reports to reduce any potential impacts to the extent feasible.

e) 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?

No Impact. The project will connect to the existing sewer system. Therefore, no septic tanks or alternative wastewater disposal systems will be used for the proposed project and no impacts related to support of such systems would occur.

VII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

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

Less Than Significant Impact. Future on-site uses would stock and use common household solvents and cleaners, automotive fluids, chemicals, perticides and fertilizers used in landscaping, paint products, petroleum products and compressed gases (propane, butane, etc.) and other "household" hazardous materials. These materials would not be supplied in a substantial quantity that would result in a significant hazard to the public. Transport and delivery of gasoline for the on-site service station will conform to all government regulations governing the storage and sale of gasoline. A less than significant impact is anticipated.

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

Less Than Significant with Mitigation. Future on-site uses may store hazardous materials including, but not limited to, pesticides, fertilizers, paint products, petroleum products, and compressed gases (propane, butane, etc.). The normal storage of such household and commercial hazardous materials is not considered a significant environmental effect. A Business Plan will be prepared and submitted to the City for use in responding to an accidental release of hazardous or toxic material being stored and/or used on the project site, including gasoline for the proposed service station. Impacts are considered less than significant.

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

No Impact. The project would not result in any uses that emit significant hazardous emissions or require handling of large quantities of hazardous materials. Neither the Claremont Colleges, approximately 3000' or the equivalent of more than one-half mile to the west, nor other surrounding land uses are expected to experience any impact.

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

No Impact. A search of hazardous waste lists pursuant to Government Code Section 65962.5 has been conducted for the project site as part of a Phase I Environmental Site Assessment (ESA). The Phase I ESA was prepared in August, 2002 in conformance with American Society for Testing and Materials (ASTM) standard E-1527 for standard federal and state government database research in an environmental site assessment. The project site was not included on any of the lists of hazardous materials sites searched during the Phase I Assessment.

More recent fill activities on the project site have utilized fill materials certified to be free of hazardous materials, hazardous waste, and/or contaminants. Older fill material located in the center of the quarry pit was tested during a Phase II ESA performed in August 2002 to analyze composition. Three test trenches were excavated, and soil samples were obtained and analyzed for asbestos and lead. All samples were determined to be clean, free of odor or significant debris.

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

Potentially Significant Impact. The Cable Airport is located approximately one mile northeast of the project site. The Cable Airport Comprehensive Airport Land Use Plan (ALUP) establishes Safety Area No. 2, which bisects the northeastern portion of the project site. This safety area is defined by the ALUP as a moderate crash hazard area (contrasted to Safety Area No. 1, which is defined by the ALUP as a significant crash hazard). Safety Area No. 2 dictates that "No structure shall be constructed or object permitted within Safety Area No. 2 that would penetrate the airport imaginary surfaces as defined in Federal Aviation Regulations Part 77. Because of the proximity to aircraft operations, structures in this area should not reflect glare, emit electronic interference, or produce smoke so as to endanger aircraft operations." The EIR will address the impact of having a portion of the project site within Safety Area No. 2, and provide appropriate mitigation, as necessary.

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

No Impact. The project site is not within the vicinity of a private airstrip. No impact is anticipated.

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

No Impact. Construction of the proposed project would not interfere with any local or regional emergency response or evacuation plans because the project would not result in substantial alterations to the area circulation system. Emergency access at the project site will be evaluated by the Upland Police and Fire departments during City evaluation of the proposed project.

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

No Impact. The project site is proximate to residential, sand and gravel, and additional urban development uses. No wildland areas are located within the vicinity of the project site, and thus, no impacts from wildland fires are expected to occur.

VIII. HYDROLOGY AND WATER QUALITY

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

Less Than Significant Impact. The proposed project will be subject to federal water quality requirements during grading and construction. The Federal Clean Water Act (Section 402[p]) requires discharges of storm water associated with industrial and construction activity to be regulated by National Pollutant Discharge Elimination System (NPDES) permits. NPDES compliance involves understanding the nature and feasibility of Best Management Practices (BMP's) for water quality control. Additionally, the permit requires development and implementation of a storm water pollution prevention plan (SWPPP) emphasizing stormwater BMP's. BMP's identified in the Los Angeles County Standard Urban Stormwater Mitigation Plans (SUSMP) Manual will be utilized. Compliance with these required permitting procedures will ensure that the project will not violate water quality or waste discharge requirements.

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

Less Than Significant Impact. The proposed project will be served by the Upland City Water Department, who provides water service to properties within the City boundaries. Provision of water service to the project site is not anticipated to have a significant impact on the present or future water supplies of the City Water Department. Written documentation from the City regarding the ability to provide water service and the adequacy of water supplies will be provided in the EIR.

It is not anticipated that the project would substantially deplete groundwater supplies. The project would result in an increase of impermeable surfaces; however, the site is not considered a groundwater recharge basin and would not result in a net deficit in aquifer volume.

c) Substantially alter the existing drainage pattern of the 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?

Less than Significant with Mitigation. The hydrology/water quality report and EIR to be prepared for the proposed project will address the potential changes in the existing drainage pattern of the site and surrounding area. Project design features and/or mitigation measures will be prescribed to offset or reduce such impacts.

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

Less than Significant with Mitigation. The hydrology/water quality report and EIR to be prepared for the proposed project will include a quantitative analysis of the increase in runoff and the impacts on existing drainage facilities. Project design features and/or mitigation measures will be prescribed to offset or reduce such impacts.

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

Potentially Significant Impact. The hydrology/water quality report to be prepared for the proposed project will quantify the increase in runoff due to project development. Impacts related to the existing drainage facilities, drainage courses and downstream receiving water bodies will be assessed, and project design features and/or mitigation measures to reduce impacts identified.

The hydrology/water quality report will assess surface water quality and groundwater impacts associated with the proposed project. Project design features and/or mitigation measures will be developed to meet regulatory requirements for stormwater quality utilizing BMP's identified in the Los Angeles County SUSMP Manual, including a conceptual water quality management plan of all structural and non-structural BMP's for construction and post-construction phases.

A 60" reinforced concrete pipe (as reflected in Exhibit 5) is being constructed as part of the fill operation, which is occurring under a separate permit to establish a rough graded site and is not part of the proposed project. This concrete pipe will channel drainage from the rough graded site into the San Antonio Channel. Future development of the project site for mixed use will require additional drainage improvements. Project design features of the planned stormwater drainage system will be provided in the EIR, together with discussion of potential environmental impacts and appropriate mitigation measures.

f) Otherwise substantially degrade water quality?

Less Than Significant with Mitigation. Refer to Response VIII.a,e.

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

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

Less Than Significant With Mitigation (g-h). The City of Upland is designated as Community Number 065067 for flood hazard under the National Flood Insurance Program. The project site is contained within an area classified as Zone D, defined as an undetermined Flood Boundary. Most of the surrounding areas are classified as Zone X, defined as outside the 100-year flood boundary. Notwithstanding the ability to potentially mitigate any flood hazard impacts, the EIR will include full discussion of flood hazard issues.

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

Less Than Significant Impact. Refer to Response VIIIg.h. The proposed project is not located near a levee or dam that has the potential to expose people to a significant risk. Therefore, impacts would be less than significant.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. The project site does not lie within an area that could be inundated by a seiche, tsunami, or mudflow.

IX. LAND USE AND PLANNING

a) Physically divide an established community?

No Impact. The project site is vacant and the proposed development would not encroach upon surrounding properties. Therefore, implementation of the proposed project would not physically divide the area's established community.

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

Potentially Significant Impact. Implementation of the proposed project requires a zone change from Light Manufacturing to Highway Commercial in order to permit mixed-use development. A Development Agreement will be prepared addressing site development standards for the project. The EIR will address the compatibility of the proposed land uses in relation to surrounding land uses, regional plans, the current General Plan and zoning designations for the site, and other City plans and policies.

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

No Impact. The project site is not located within a habitat conservation plan area or natural community conservation plan area. No impact is anticipated.

X. MINERAL RESOURCES

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

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

No Impact (a, b). All sand and gravel resources have been extracted from the project site. Refilling of the site is occurring under a separate permit, resulting in a relatively flat project surface. No impact on mineral resources is anticipated.

XI. NOISE

Would the project result in:

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

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

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

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

Less Than Significant with Mitigation (a-d). An acoustical analysis will be prepared for the proposed project and summarized in the EIR. On-site ambient noise monitoring will be performed to update the existing baseline noise characterization of the area and determine on-site noise exposure from the existing asphalt batching plant to the south. A baseline traffic noise exposure profile will be developed in terms of the CNEL noise metric, using the FHWA Model with the latest California vehicle noise curves (CALVENO). A No Project versus With Project mobile noise impact comparison will be prepared. Specific sensitive receiver locations will be identified, where mobile source noise impacts may adversely affect project vicinity residents.

Stationary noise impacts from temporary on-site construction noise sources will be evaluated, and the noise implications from nearby sand and gravel operations and aircraft over flights from Cable Airport will be discussed. Project noise impacts will be evaluated with respect to noise/land use compatibility guidelines in the City's Noise Element and other applicable noise exposure regulations, and a noise impact mitigation plan will be formulated for any predicted noise impacts that exceed target noise exposure limits. Adherence to applicable standards and requirements will ensure that potential impacts will be mitigated to less than significant levels.

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

Potentially Significant Impact. The northeast portion of the site is located within Safety Area No. 2 of Cable Airport, as identified by the Airport Land Use Plan. The EIR will evaluate the potential impact of aircraft operations on the proposed project.

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

No Impact. There are no private airstrips in the vicinity of the project site. No impacts are expected to occur.

XII. POPULATION AND HOUSING

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

Less Than Significant Impact. The proposed project includes 50 single-family dwelling units and 448 multi-family dwelling units. New population associated with these units will be introduced on the project site, although this is not viewed as substantial population growth. Impacts are considered less than significant.

Pursuant to Section 15126(g) of the State CEQA Guidelines, the EIR will contain a mandatory section discussing any potential growth-inducing impacts of the proposed project. Potential sources of growth inducement generally involve removal of obstacles to growth, major new infrastructure extensions, employment generation, or major economic influences. To the extent that these factors are applicable, they will be qualitatively analyzed and corresponding impacts assessed.

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

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

No Impact (b, c). The implementation of the proposed project will not result in the removal or displacement of any houses or people. Therefore, no impact on housing or population is anticipated.

XIII. PUBLIC SERVICES

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

a) Fire Protection?

b) Police Protection?

Less Than Significant with Mitigation (a, b). Development of the proposed project will require an increase in police and fire protection services, although the increased need for police and fire services is expected to be offset through increased property tax and sales tax revenues. Notwithstanding the ability to mitigate police and fire service impacts, the EIR will provide a detailed analysis to address these impacts and provide mitigation measures to reduce these impacts, as possible.

c) Schools?

d) Parks?

Less Than Significant with Mitigation (c, d). The proposed project contains residential uses and will thereby impact schools and parks. Through participation in all relevant fee programs and the provision of a recreational component, these impacts are expected to be less than significant.

e) Other public facilities?

Less Than Significant Impact. The proposed project is not anticipated to require significant modifications to other public facilities. Impacts are anticipated to be less than significant. Confirmation of this finding will occur through preparation of the EIR and evaluation of impacts on all public services.

XIV. RECREATION

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

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

No Impact. Refer to Response XIIIc,d. Besides participation in relevant recreation fee programs, the proposed project contains a 1.05 acre greenbelt/recreational area designed to help meet the recreational requirements of the project. No impacts are expected.

XV. TRANSPORTATION/TRAFFIC

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

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

Potentially Significant Impact (a, b). A traffic impact analysis (TIA) for the proposed project will be prepared and summarized in the EIR. The TIA will contain updated baseline information and an impact analysis based on the proposed development. The TIA will conform to the methods and requirements of the City, and to applicable Congestion Management Plan requirements. The EIR will present a summary of the existing traffic setting, impacts, and mitigation measures.

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

No Impact. Project design features associated with the proposed project support and encourage alternative transportation (e.g. pedestrian link to Claremont Colleges, and pedestrian access to future trail to the south providing possible eventual connection to Metro Link Station, indicated in Exhibit 4). No conflicts with adopted alternative transportation policies, plans, or programs are anticipated. Therefore, no impacts are expected.

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

Less Than Significant Impact. Based on a review of the preliminary site plan, the project does not include any hazardous features. There are no sharp curves, and the

major intersection (project entrance on W. Arrow Route) will be signalized. An analysis of the project-generated traffic on the local circulation system will be evaluated and included in the EIR.

e) Result in inadequate emergency access?

Less Than Significant Impact. Emergency access to the project site is provided from W. Arrow Route and from Monte Vista Avenue. The City Fire and Police Departments will review project plans to ensure adequate emergency access. The City's standard review procedures prior to issuance of building permits will ensure impacts are reduced to less than significant.

f) Result in inadequate parking capacity?

Less Than Significant Impact. The proposed project provides on-site parking to serve the individual land use components (See Exhibit 4 and Table 1.3-4). Parking is provided in accordance with City of Upland parking requirements. Impacts will be less than significant.

XVI. UTILITIES AND SERVICE SYSTEMS

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

Less Than Significant Impact. Design of the proposed project will meet the wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB). The project applicant and technical consultants will work closely with the RWQCB and all applicable utility and service entities to abide by system and design requirements.

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

Less Than Significant Impact. The City owns and operates the wastewater collection infrastructure within the City limits. Wastewater treatment is provided by the Inland Empire Utilities Agency (IEUA). Wastewater produced by the project would enter the City's wastewater collection system and then be transported to IEUA's Regional Plant No. 1, located in the City of Ontario. This plant has a current capacity of 44 million gallons per day (MGD), and operates at a capacity of 86%. This plant is forecasted to continue at this operating capacity through 2013. This plant's capacity will increase to 52 MGD by 2020 and ultimately to 60 MGD by 2050. These expansions are planned in order to accommodate growth in the service territory. Because the project is not anticipated to exceed the capacity of the current

wastewater treatment facilities, the project is not expected to result in the construction or expansion of the existing wastewater treatment facilities.

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

Potentially Significant Impact. Refer to Responses VIII.c, d, and e. A hydrology/water quality analysis will be prepared and the findings included in the EIR.

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

Potentially Significant Impact. In October 2001, Governor Davis signed into law two bills requiring cities and counties to consider the availability of water supplies when making certain types of land use decisions. Senate Bill (SB) 221 (codified as Government Code Section 66473.7) prohibits cities and counties from approving new subdivisions creating more than 500 new residential units unless it can be shown that an adequate water supply is available to serve the new residents. Because less than 500 new residential units are being created, the proposed project is exempt from SB 221.

Senate Bill (SB) 610 (codified as Water Code Sections 10910-10912) requires a city or county that determines a project is subject to CEQA to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment. The assessment is to include the following:

1. Discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing.

2. Identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts.

3. Description of the quantities of water received in prior years by the public water system under the existing water supply entitlements, water rights or water service contracts.

4. Water supply entitlements, water rights or water service contracts shall be demonstrated by the following:

a. Written contracts or other proof of entitlement to an identified water supply.
b. Copies of capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
c. Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.
d. Any necessary regulatory approvals that is required in order to be able to convey or deliver the water supply.

5. Identification of other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system.

6. If groundwater is included for the supply for a proposed project, the following additional information is required:
    a. Review of any information contained in the Urban Water Management Plan (UWMP) relevant to the identified water supply for the proposed project.
    b. Description of any groundwater basin(s) from which the proposed project will be supplied. Adjudicated basins must have a copy of the court order or decree adopted and a description of the amount of groundwater the public water system has the legal right to pump. For non-adjudicated basins, information on whether the DWR has identified the basin as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of Department of Water Resources (DWR) that characterizes the condition of the basin, and a detailed description of the efforts being undertaken in the basin to eliminate the long-term overdraft condition.
    c. Description and analysis of the amount and location of groundwater pumped by the public water system for the past 5 years from any groundwater basin which the proposed project will be supplied. Based on information that is reasonably available, including, but not limited to, historic use records.
    d. Description and analysis of the amount and location of groundwater projected to be pumped by the public water system from any groundwater basin which the proposed project will be supplied. Based on information that is reasonably available, including, but not limited to, historic use records.
    e. Analysis of sufficiency of the groundwater from the basin(s) from which the proposed project will be supplied.
    f. The water supply assessment shall be included in any environmental document prepared for the project.
    g. May include an evaluation of any information included in that environmental document. A determination shall be made whether the projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

The need for the proposed project to comply with the requirements of SB 610 will be determined. A discussion of water supply sufficiency will be included in the EIR.

e) 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?

Less Than Significant Impact. The wastewater treatment provider serving the project site is the Inland Empire Utilities Agency (IEUA). Refer to Response XVI.b. for a discussion of wastewater treatment capacity.

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

Less Than Significant Impact. The City Solid Waste Division and Burrtec Waste Industries are responsible for solid waste collection. The Mid-Valley Landfill, owned and operated by the County of San Bernardino, serves the waste disposal needs of the City of Upland. Solid waste is also taken to Burrtec's West Valley Materials Recovery Facility in Fontana. Both of these facilities are permitted by the California Integrated Waste Management Board. The project would generate additional solid waste. The increase is considered relatively small given the overall waste generation in the region. The project is not anticipated to have a significant impact on the capacity of the Mid-Valley landfill.

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

Less Than Significant Impact. The project will be served by one of the waste haulers under contract to the City's Solid Waste Division. Enclosed and gated trash containers at various locations on the project site will serve the multi-family and commercial components. Single-family detached units will provide individual trash containers by unit (confirm). The project will comply with all statutes and regulations related to solid waste.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

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

Less Than Significant Impact. Refer to Responses IV. a, and V. a and b.

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

Potentially Significant Impact. A review of cumulative impacts for each topical environmental issue addressed in the EIR will be provided. A determination of significance will be made for each issue.

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

Less Than Significant with Mitigation. The construction and operation of commercial, residential, and recreational uses is common throughout Southern California. These activities, through proper design and mitigation, are not know to cause substantial adverse direct or indirect effects on human beings.

SECTION 4
REFERENCES

Cable Airport Comprehensive Airport Land Use Plan, West Valley Planning Agency, Airport Land Use Commission, 1981.

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Appendix A: Biological Resources Report

Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

August 8, 2003

Jeffrey A. Bloom
Community Development Director
Upland City Hall
460 North Euclid Avenue
Upland, CA. 91786

SUBJECT: Biological Resources Analysis of the 40-acre College Park Project in the City of Upland, California

Dear Mr. Bloom:

This report contains the findings of Michael Brandman Associates (MBA) biological resources investigation of the 40-acre site in the City of Upland, California. The work effort included a literature review and a site visit to identify any potential significant biological issues related to development of the site for mixed uses.

Methodology

Sensitive biological resources present, or potentially present, onsite were identified through a literature review using the following resources; U.S. Fish and Wildlife Service (USFWS) (1997), California Natural Diversity Database (CNDDB) (1998), and the California Native Plant Society (CNPS) (1998). Information on biological resources located in the vicinity of the project site was obtained from field guides and other literature pertinent to the project area.

Prior to beginning the survey of the project site, Soil Conservation Service soil surveys of the area were reviewed and the U.S. Geological Survey (USGS) Ontario topographic quadrangle map was examined to determine areas of potential biological resources, and U. S. Army Corps of Engineers (USACE) and California Department of Fish and Game (CDFG) jurisdiction.

The site was surveyed by MBA Project Biologist Scott Crawford on foot on July 24, 2003. The entire property was surveyed making notations on existing plants and wildlife species observed during the survey. The existing vegetation within the property was evaluated for the potential to support sensitive plant and wildlife species.

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Biological Setting

The site is approximately 40 acres in size and is located north of Huntington Drive, south of Arrow Route, east of Claremont Boulevard, and west of Monte Vista Avenue. Paved roads, residential development, and railroad right-of-way roughly delineate the site's boundaries. The site is found in Section 10 of Range 8 West and Township 1 South on the Ontario USGS Topographic Quadrangle.

The literature review and CNDDB database search (RareFind2) indicated eight special status species have been reported as occurring in the region. Of these eight, no species were considered as potentially occurring in the vicinity of the site based on their current distribution, habitat requirements and information concerning land use in the vicinity of the site.

The site has been previously disturbed by a quarry operation that is now closed. The northeastern corner of the property remains relatively flat with the central portion of the site having been excavated to a depth of approximately 15 to 20 feet.

The bottom of the quarry contains mostly bare ground with sparse disturbed ruderal vegetation (21 acres). Dominant vegetation observed within this area includes scale broom (*Lepidospartum squamatum*), horseweed (*Conyza canadensis*), black mustard (*Brassica nigra*), white sweet clover (*Melilotus alba*), and telegraph weed (*Heterotheca grandiflora*).

The northeastern corner of the property, previously excavated and now refilled with certified fill, contains a dense cover of non-native grasslands (11 acres). The dominant plant species include schismus (*Schismus barbatus*), yellow star-thistle (*Centaurea solstitialis*), rip gut grass (*Bromus diandrus*), and western ragweed (*Ambrosia psilostachya*).

The northwestern corner of the property (2 acres) contains a dense stand of Riversidean sage scrub. The dominant vegetation consists of California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Molosma laurina*), and deer weed (*Lotus scoparius*). This plant community is almost completely dominated by three to four foot tall buckwheat with no understory, which is typical of an early successional stage of disturbed sage scrub.

The western portion of the property contains a mixture of ruderal vegetation with sparse native shrubs (6 acres). Plant species observed in this area include Indian tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), and red-stemmed filaree (*Erodium cicutarium*).

Biological Resources

Wetlands

Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is

defined as: (1) all navigable waters (including all waters subject to the ebb and flow of the tide); (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; (4) all impoundments of waters mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above.

In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as rivers, lakes and intermittent streams, extend to the ordinary high water mark (OHWM), which is defined as:

> *... that line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

Typically in Southern California, the OHWM is indicated by the presence of an incised streambed with defined bank shelving. In court cases, however, various criteria have been used in the interpretation of the lateral extent of the OHWM, including vegetation and soil characteristics.

If the waters of the United States consist only of wetlands, the limits of USACE jurisdiction extend to the limit of the wetlands which is defined as:

> *... those areas that are inundated, or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.*

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake which supports fish or wildlife resources. There are some significant differences between USACE and California Department of Fish and Game (CDFG) jurisdictions. The CDFG uses less well defined and more ecologically based criteria in their jurisdiction determinations. For a watercourse to be considered under CDFG jurisdiction, it must have a terminus, banks, and channel through which water can flow, at least periodically. Historic court cases have further extended CDFG jurisdiction to include watercourses that seemingly disappear, but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be claimed as jurisdiction.

The quarry area does not contain any connectivity to adjacent drainage features; therefore, there are no areas of either USACE or CDFG jurisdiction on the site. Some drainage is currently

accepted from the north, but there is no evidence of connectivity to any downstream drainage feature.

Special Status Species

Special status species are native species that have been accorded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

The USFWS administers the federal Endangered Species Act (ESA). The ESA was passed in 1973 and has since been amended and reauthorized. The ESA provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The ESA has several major sections that are usually referred to by section number.

Species are listed as either endangered or threatened under the ESA. The ESA defines as "endangered" any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is a species that is likely to become endangered in the foreseeable future. A "proposed" species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list, but has not yet been listed.

The ESA requires that all federal departments and agencies shall use their authority to conserve threatened and endangered species. Procedural rulemakings provide for interagency cooperation with USFWS in meeting the goals of the Act.

Section 9 of the ESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Take" can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species in a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat.

Conclusion

Based on MBA's literature review, the following species were recorded to occur within the vicinity of the project site:

Coastal California Gnatcatcher (*Polioptila californica*)
San Diego Desert Woodrat (*Neotoma lepida intermedia*)
Plummer's Mariposa Lily (*Calochortus plummerae*)
Intermediate Mariposa Lily (*Calochortus weedii* var. *intermedius*)

The small 2-acre area of Riversidean sage scrub in the northwestern corner is considered isolated and previously disturbed based on its monotypic vegetation coverage. Although MBA cannot rule out the potential existence of these species within the property, the likelihood that these species occur within the project site is extremely low due to lack of suitable habitat.

Based on MBA's study, no anticipated significant impacts to biological resources associated with the development of the College Park Project are anticipated. No impacts to federal- or state-listed plant and wildlife species, special status plant and wildlife species, as well as USACE and/or CDFG jurisdictional waters are anticipated.

Please call me or Emilie Johnson at 714.508.4100 if you have any questions concerning this biological resources report. We look forward to continuing to assist you with work on this or other sites.

Sincerely,

MICHAEL BRANDMAN ASSOCIATES

Scott A. Crawford
Project Biologist

SAC:ej:ap

Cc: Ernest Perea, EPC Land Planning Consultants
Savoy Bellavia, Hutton Development Co.

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REFERENCES

California Department of Fish and Game (CDFG). 1996b. Endangered, Threatened, and Rare Plants of California. The Resources Agency of California. Sacramento, California. 14 pp.

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California Native Plant Society. 1998. *California Native Plant Society's Electronic Inventory of Rare and Endangered Vascular Plants of California.* David C. Hudson & Associates and the Information Center for the Environment. U.C. Davis.

Skinner, M.W., and B.M. Pavlik. 1994. *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California.* California Native Plant Society. Special Publication, No. 1, 5th ed.

U.S. Department of Agriculture, Soil Conservation Service (USDA). 1980. Soil Survey of San Bernardino County Southwestern Part, California.

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Appendix B: Cultural Records Search

Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

August 8, 2003

Jeffrey A. Bloom
Community Development Director
Upland City Hall
460 North Euclid Avenue
Upland, CA. 91786

Subject: **Records Search Results for the College Park Project, located near Monte Vista Avenue and West Arrow Route, Upland, San Bernardino County, California.**

Dear Mr. Bloom:

Michael Brandman Associates (MBA) has conducted a cultural resource records search for the College Park Project, located southwest of the intersection of Monte Vista Avenue and West Arrow Route in Upland, California. The property is bordered by the Southern Pacific tracks to the south, West Arrow Route to the north and Monte Vista Avenue to the east. The project is located in Section 10 of Township 1 South Range 8 West, as found on the USGS *Ontario*, CA. 7.5' topographic quadrangle. A mixed-use development is proposed for the site, approximately 40 acres in size.

The project site has been previously disturbed by a quarry operation that is now closed. The entire site was excavated during quarry operations. The northeastern corner of the property has been refilled with certified fill. The western edge of the site has been filled with rock, asphalt and steel, planned for removal prior to development. Current depth in the central portion, not yet refilled, is approximately 15 to 20 feet.

The purpose of a cultural resource records search is to identify all previously recorded cultural resources (prehistoric and historic archaeological sites, historic buildings, structures, objects, or districts) within the area of potential effect, as required by the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations, 36 CFR Part 800. A records search entails a review of all previously recorded prehistoric and historic archaeological sites situated within a quarter mile radius of the project area, as well as a review of all cultural resource survey/excavation reports.

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On July, 21 2003, Archaeological Information Center (AIC) staff researcher Robin Laska, M.A. conducted the records search at the AIC, which is located at the San Bernardino County Museum, Redlands. A one-mile search radius about the margins of the parcel was examined. To identify any historic properties, the AIC examined the current inventories of the National Register of Historic Places (NR), the California Register (CR), the California Historical Landmarks list (CHL), and the California Points of Historical Interest list (CPHI). The AIC also reviewed the California State Historic Resources Inventory (HRI) for San Bernardino County to determine the existence of previously documented local historical resources. Archival maps were examined to help locate any previously plotted historic resources in the area.

Records Search Results

The results of the records search indicated that one recorded cultural property (P#36-016454 [PSBR-2H]) has been recorded within the project area. The on-site historic property described is also known as the "Old San Bernardino Road", which was a transportation route originally established in about 1830. Archival maps show that this road, portions of which apparently exist in Rancho Cucamonga, was paved in 1913 and then rerouted when Foothill Boulevard was established to the north on or about 1929. This historic feature crosses the parcel from east to west, beginning near the northeast corner of the property then crossing near the center of the site's western boundary. Other historic sites exist mostly northeast of the parcel. These consist of bridges, historic refuse sites and historic residences. Numerous survey reports are on file with the Information Center for the search radius, but none have addressed the parcel area, suggesting that the parcel has never been surveyed.

The 1903/1917 *Cucamonga 7.5'* USGS archival topographic map was scrutinized for the presence of historic properties. This map showed that, except for the rail lines, the area was relatively rural at that time. One historic structure is plotted within the parcel north of the RR tracks and west of what is now the San Antonio Channel. The San Bernardino County HRI does not list any known recorded historic properties within the parcel. No additional historic properties are found on the NR, CR, CHL, and/or the CHPI inventories for the parcel, but one National Register site does exist in the Russian Village District of Montclair about 2000 feet south of the parcel. Given the above facts, Ms. Laska determined that the prehistoric sensitivity of the project area should be considered "high" and the historic sensitivity should be considered "high", and that survey should take place.

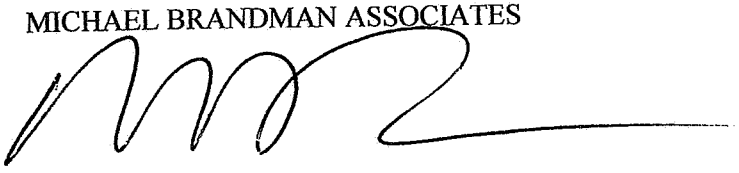
Recommendations

In accordance with CEQA and 36 CFR Part 800, MBA has assessed the effects of the proposed project on any local historic properties. The results of our assessment indicate that it is possible that cultural resources will be affected by the development within the project area. Because we understand that much of the area has been excavated due to mining activities or covered with modern fill, we recommend surveying those portions of the project area that appear to lack recent disturbance.

We at MBA appreciate the opportunity to assist you on this project. If we can be of any further assistance, or if you have any questions concerning this letter, please do not hesitate to contact Michael Dice at 714.508.4100 x111 or via his e-mail, mdice@brandman.com.

Sincerely,

MICHAEL BRANDMAN ASSOCIATES



Michael Dice, M.A.,
Senior Archaeologist

MD:ej/ap

Enclosure: Historical Resources Records Search

Cc: Ernest Perea, EDC Land Planning Consultants
Savoy Bellavia, Hutton Development Co.

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STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
Governor

Tal Finney
Interim Director

Notice of Preparation

August 28, 2003

To: Reviewing Agencies

Re: College Park Project
SCH# 2003081156

Attached for your review and comment is the Notice of Preparation (NOP) for the College Park Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Jeffrey A. Bloom
City of Upland
460 North Euclid Avenue
Upland, CA 91786

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

Resources Agency

- **Resources Agency**
  Nadell Gayou
- **Dept. of Boating & Waterways**
  Suzi Betzler
- **California Coastal Commission**
  Elizabeth A. Fuchs
- **Colorado River Board**
  Gerald R. Zimmerman
- **Dept. of Conservation**
  Roseanne Taylor
- **California Energy Commission**
  Environmental Office
- **Dept. of Forestry & Fire Protection**
  Allen Robertson
- **Office of Historic Preservation**
  Hans Kreutzberg
- **Dept of Parks & Recreation**
  B. Noah Tilghman
  Environmental Stewardship Section
- **Reclamation Board**
  Lori Buford
- **Santa Monica Mountains Conservancy**
  Paul Edelman
- **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- **Dept. of Fish & Game**
  Scott Flint
  Environmental Services Division
- **Dept. of Fish & Game 1**
  Donald Koch
  Region 1
- **Dept. of Fish & Game 2**
  Banky Curtis
  Region 2
- **Dept. of Fish & Game 3**
  Robert Floerke
  Region 3
- **Dept. of Fish & Game 4**
  William Laudermilk
  Region 4
- **Dept. of Fish & Game 5**
  Don Chadwick
  Region 5, Habitat Conservation Program
- **Dept. of Fish & Game 6**
  Gabrina Gatchel
  Region 6, Habitat Conservation Program
- **Dept. of Fish & Game 6 I/M**
  Tammy Allen
  Region 6, Inyo/Mono, Habitat Conservation Program
- **Dept. of Fish & Game M**
  Tom Napoli
  Marine Region

Other Departments

- **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- **Dept. of General Services**
  Robert Sleppy
  Environmental Services Section
- **Dept. of Health Services**
  Wayne Hubbard
  Dept. of Health/Drinking Water

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  Debby Eddy
- **Office of Emergency Services**
  John Rowden, Manager
- **Governor's Office of Planning & Research**
  State Clearinghouse

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- **Native American Heritage Comm.**
  Debbie Treadway
- **Public Utilities Commission**
  Ken Lewis
- **State Lands Commission**
  Jean Sarino
- **Tahoe Regional Planning Agency (TRPA)**
  Lyn Barnett

Business, Trans & Housing

- **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- **Caltrans - Planning**
  Ron Helgeson
- **California Highway Patrol**
  Lt. Julie Page
  Office of Special Projects
- **Housing & Community Development**
  Cathy Creswell
  Housing Policy Division

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  District 1
- **Dept. of Transportation 2**
  Don Anderson
  District 2
- **Dept. of Transportation 3**
  Jeff Pulverman
  District 3
- **Dept. of Transportation 4**
  Tim Sable
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- **Dept. of Transportation 5**
  David Murray
  District 5
- **Dept. of Transportation 6**
  Marc Birnbaum
  District 6
- **Dept. of Transportation 7**
  Stephen J. Buswell
  District 7
- **Dept. of Transportation 8**
  Linda Grimes,
  District 8
- **Dept. of Transportation 9**
  Gayle Rosander
  District 9
- **Dept. of Transportation 10**
  Tom Dumas
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- **Dept. of Transportation 11**
  Bill Figge
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- **Dept. of Transportation 12**
  Bob Joseph
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- Transportation Projects
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- **State Water Resources Control Board**
  Jim Hockenberry
  Division of Financial Assistance
- **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- **State Water Resouces Control Board**
  Mike Falkenstein
  Division of Water Rights
- **Dept. of Toxic Substances Control**
  CEQA Tracking Center

Regional Water Quality Control Board (RWQCB)

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  Cathleen Hudson
  North Coast Region (1)
- **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- **RWQCB 3**
  Central Coast Region (3)
- **RWQCB 4**
  Jonathan Bishop
  Los Angeles Region (4)
- **RWQCB 5S**
  Central Valley Region (5)
  - **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- **RWQCB 6**
  Lahontan Region (6)
  - **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- **RWQCB 7**
  Colorado River Basin Region (7)
- **RWQCB 8**
  Santa Ana Region (8)
- **RWQCB 9**
  San Diego Region (9)

- **Other** _____
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Document Details Report
State Clearinghouse Data Base

SCH# 2003081156
Project Title College Park Project
Lead Agency Upland, City of

Type NOP Notice of Preparation

Description The proposed College Park Project consists of three components: commercial, residential, and recreational. The commercial component of the project contains a service statio/mini mart, a retail center, a hotel, and a garden office building. The residential component of the project contains 50 single-family detached dwelling units and 448 multi-family attached dwelling units. The recreational component, occupying 1.05 acres, contains a greenbelt recreational area. Streets and dedications will occupy 3.58 acres.

Lead Agency Contact

Name Jeffrey A. Bloom
Agency City of Upland
Phone 909-931-4130 **Fax**
email
Address 460 North Euclid Avenue
City Upland **State** CA **Zip** 91786

Project Location

County San Bernardino
City Upland
Region
Cross Streets Arrow Route and Monte Vista Avenue
Parcel No.
Township 1S **Range** 8W **Section** 10 **Base**

Proximity to:

Highways SR 210 and SR 66
Airports Cable Airport
Railways BNSF/Metrolink
Waterways San Antonio Channel
Schools
Land Use Light Manufacturing

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Forest Land/Fire Hazard; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Public Services; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Conservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 6; Native American Heritage Commission; Public Utilities Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 8; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 8

Date Received 08/28/2003 **Start of Review** 08/28/2003 **End of Review** 09/26/2003

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-4959
FAX (916) 653-9531
TTY (916) 651-6827

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September 10, 2003

Mr. Jeffrey A. Bloom
City of Upland
460 North Euclid Avenue
Upland, CA 91786

Dear Mr. Bloom:

Re: *College Park Project*
SCH# 2003081156

Thank you for including the California Department of Transportation (Department), Division of Aeronautics, in the environmental review process for the above-referenced project. We have reviewed the Notice of Preparation for an Environmental Impact Report, dated August 2003 and offer the following comments relative to airport land use compatibility.

1. The proposed College Park Project consists of commercial, residential, and recreational components. The commercial component of the project contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential component of the project contains 50 single-family detached dwelling units, and 448 multi-family attached dwelling units. The recreational component, occupying 1.05 acres, contains a greenbelt recreational area. The project site is located approximately one mile southwest of Cable Airport. The Initial Study indicates that "the northeast portion of the site is located within Safety Area 2 of Cable Airport, as identified in the Airport Land Use Plan."

2. In the Cable Airport Land Use Plan (ALUP), Safety Area 2 is the designated "Moderate Crash Hazard Area." The ALUP states that "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." The ALUP adds that "because of the proximity to aircraft operations, structures in this area should not reflect glare, emit electronic interference, or produce smoke so as to endanger aircraft operations."

3. In accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21096, the Department's Airport Land Use Planning Handbook (Handbook) must be utilized as a resource in the preparations

of environmental documents for projects within the boundaries of an airport land use compatibility plan, or if such a plan has not been adopted, within two nautical miles of an airport. The Handbook is a resource that should be applied to all public use airports, and it can be viewed on-line at http://www.dot.ca.gov/hq/planning/aeronaut/htmlfile/landuse.html. In specific, we recommend that the residential and non-residential density criteria tabulated in Table 9C of our Handbook be applied to the proposed project.

4. The Federal Aviation Administration provides guidance about hazardous wildlife attractants on and near airports in Advisory Circular 150/5200-33, published on-line at http://www1.faa.gov/arp/publications/Acs/5370-2E.pdf. Since a part of this project involves the creation of a greenbelt/open-space area, we recommend that the environmental management guidelines in this Advisory Circular be considered in the project development.

5. We recommend that the project application and its environmental document also be referred to the Cable Airport management to assess consistency with the Cable Airport Master Plan.

These comments reflect the areas of concern to the Department's Division of Aeronautics. We advise you to contact our District 08 office concerning surface transportation issues.

We appreciate the opportunity to review and comment on this project. If you have any questions, please call me at (916) 654-5253.

Sincerely,

D. Cohen

DAVID COHEN
Associate Environmental Planner

c: State Clearinghouse
Cable Airport

Department of Toxic Substances Control

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

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

September 11, 2003

Mr. Jeffrey A. Bloom, Director
Community Development Department
City of Upland
460 North Euclid Avenue
Upland, California 91786

NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE COLLEGE PARK PROJECT (SCH #2003081156)

Dear Mr. Bloom:

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

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

1) The draft EIR needs to identify and determine whether current or historic uses at the Project site have resulted in any release of hazardous wastes/substances at the Project area.

2) The draft EIR needs to identify any known or potentially contaminated sites within the proposed Project area. For all identified sites, the draft EIR should evaluate whether conditions at the site pose a threat to human health or the environment.

3) The draft EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government agency to provide appropriate regulatory oversight. If hazardous materials/wastes were stored at the site, an environmental assessment should be conducted to determine if a release has occurred. If so, further studies should be carried out to delineate the nature and extent of the contamination. Also, it is necessary to estimate the potential threat to public health and/or the environment posed by the site. It may be necessary to determine if an expedited response action is required to reduce existing or potential threats to public health

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or the environment. If no immediate threat exists, the final remedy should be implemented in compliance with state regulations and policies.

4) All environmental investigation and/or remediation should be conducted under a Workplan which is approved by a regulatory agency that has jurisdiction to oversee hazardous waste cleanup.

5) If any property adjacent to the project site is contaminated with hazardous chemicals, and if the proposed project is within 2,000 feet from a contaminated site, then the proposed development may fall within the "Border Zone of a Contaminated Property." Appropriate precautions should be taken prior to construction if the proposed project is within a "Border Zone Property."

6) If building structures are planned to be demolished/renovated, an investigation should be conducted for the presence of lead-based paints and asbestos containing materials (ACMs). If lead-based paints or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.

7) If during construction/demolition of the project, soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the draft EIR should identify how any required investigation and/or remediation will be conducted, and the government agency to provide appropriate regulatory oversight.

DTSC provides guidance for preparation of a Preliminary Endangerment Assessment (PEA), and cleanup oversight through, the Voluntary Cleanup Program (VCP). For additional information on the VCP, please visit DTSC's web site at www.dtsc.ca.gov.

If you have any questions regarding this letter, please contact Mr. Johnson P. Abraham, Project Manager, at (714) 484-5476.

Sincerely,

Greg Holmes
Unit Chief
Southern California Cleanup Operations Branch
Cypress Office

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

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

DEPARTMENT OF PUBLIC WORKS
FLOOD CONTROL • REGIONAL PARKS • SOLID WASTE MGMT • SURVEYOR • TRANSPORTATION

COUNTY OF SAN BERNARDINO
ECONOMIC DEVELOPMENT
AND PUBLIC SERVICES GROUP

825 East Third Street • San Bernardino, CA 92415-0835 • (909) 387-8104
Fax (909) 387-8130

KEN A. MILLER
Director of Public Works

September 26, 2003

Mr. Jeffrey A. Bloom, Director
Community Development Department
City of Upland
460 North Euclid Avenue
Upland, CA 91786

File #10(ENV)-4.01

RE: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT - COLLEGE PARK PROJECT, CITY OF UPLAND

Dear Mr. Bloom:

Thank you for giving the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project.

After reviewing the submitted document, our Department has comments regarding the project. The project site is located at the southwest corner of West Arrow Route and Monte Vista Avenue, and is partially adjacent to San Antonio Channel, a fully improved, Corps of Engineers' designed and maintained, Flood Control District facility, in Upland, CA. According to the most recent FEMA Flood Insurance Rate Map, Panel 8605 F (unprinted), dated March 18, 1996, the site lies within Zone X.

The Water Resources Division's comments are as follows:

1. In general, it appears that the Initial Study has identified the major concerns of the Flood Control District.
2. It is assumed that the City will establish adequate provisions for intercepting and conducting the accumulated drainage around or through the site in a manner which will not adversely affect adjacent or downstream properties.
3. Prior to encroachment on District right-of-way, a permit shall be obtained from the District's Flood Control Operations Division, Permit Section. Other on-site of off-site improvements may be required which cannot be determined at the is time.
4. U.S. Army Corps of Engineers' approval may also be required. Information regarding this item can be obtained from the Flood Control District's Operations Division, Permit Section.

The Traffic Division's request is as follows:

We request a Traffic Impact Analysis (TIA) report be sent to us for review.

WILLY ADE
County Administrative Officer
JOHN GOSS
Assistant County Administrator
Economic Development and
Public Services Group

Board of Supervisors
BILL POSTMUS ..... First District
FRED AGUIAR ..... Fourth District
JERRY EAVES ..... Fifth District

RE: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT - COLLEGE PARK PROJECT, CITY OF UPLAND

The Environmental Management Division's recommendation is as follows:

We have no comments at the current time. We may have comments on the Draft EIR once it is prepared and sent to us for review.

Should there be any changes to this project, please notify our Department so that we may have the opportunity to comment on the changes. If you have any questions or need additional information, please contact Kelly A. Rozich, Senior Associate Planner, at (909) 387-8114.

Sincerely,

Frank J. Molina for

NARESH P. VARMA, Chief
Environmental Management Division

NPV:KR/PrepDEIR-CollegePark-Response

cc: Mike Fox, Water Resources
Jacob Babico, Traffic
Theresa Fay, EMD
Kelly A. Rozich, EMD
KAM/PJM Reading File

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SEP 2 ? 2003

COMMUNITY DEVELOPMENT

September 29, 2003

Mr. Jeffrey A. Bloom
Community Development Director
City of Upland
460 North Euclid Avenue
Upland, CA 91786

RE: COLLEGE PARK PROJECT INITIAL STUDY

Dear Mr. Bloom:

After reviewing the Notice of Preparation, the following comments are in response to the College Park Project Initial Study (IS) dated August 27, 2003.

The City's primary concern is the increased traffic volume on Monte Vista Avenue. A Traffic Impact Analysis will be required and will be provided according to the IS. Arrow Highway will also be impacted, but probably to a lesser extent.

The drainage issue as noted in the IS should not be a problem for the City of Montclair, however, sewering the site may be a real concern. All of the sewage would be generated on the west side of the San Antonio Channel. Upland's sewer line is on the east side of the channel and considerably higher than the channel invert. To connect to your sewer system the development will have to get under the channel then flatten the sewer line slope to recover grade. It is likely that use of the City of Montclair Redevelopment Agency's property east of the channel will be required, at least for construction purposes and possibly to place the sewer as well.

The IS mentions the Transcenter and Metrolink, but fails to mention the Gold Line. The Gold Line should be discussed under Traffic/Transportation.

The presence of Vulcan Material's asphalt batch plant is noted in the IS but does not recognize the incompatibility of this type of industrial use and the proposed project. For years the City of Montclair has dealt with complaints regarding dust, noise, and odor from the people on Huntington Drive South. As the residential units are occupied in the new development, the City will likely receive more complaints. The problem should be fully addressed and mitigation measures recommended in the EIR.

As a final comment, the IS notes grading activities that are to be done separately from this project and, therefore, not considered in the EIR. The grading is an integral part of this development and should be considered, particularly the impacts on Monte Vista Avenue that would affect traffic in Montclair.

Respectfully,

Michael C. Hudson
City Engineer
CITY OF MONTCLAIR
5111 Benito Street, P.O. Box 2308, Montclair, CA 91763 (909) 626-8571 FAX (909) 621-1584

Mayor Paul M. Eaton • Mayor Pro Tem J. John Dutrey • Council Members: Leonard Paulitz, Carolyn Raft, Bill Ruh • City Manager Lee C. McDougal

CITY OF CLAREMONT Community Development Department

City Hall
207 Harvard Avenue
P.O. Box 880
Claremont, CA 91711-0880
FAX (909) 399-5327

Building • (909) 399-5471
Planning • (909) 399-5470
Engineering • (909) 399-5465
Community Improvement • (909) 399-5467
Economic Development • (909) 399-5341

September 30, 2003

Jeffrey Bloom, Community Development Director
City of Upland
460 N. Euclid Avenue
Upland CA 91786

Dear Jeff:

This is in response to the Notice of Preparation (NOP) received by the City of Claremont on September 2nd regarding the College Park project located at the southwest corner of Arrow Route and Monte Vista Avenue. The City of Claremont agrees with the conclusion of the NOP that an Environmental Impact Report (EIR) should be prepared on the project in the nine issue areas specified (e.g. Air Quality, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Land Use and Planning, Noise, Public Services/Utilities Systems, and Transportation/Traffic).

We request that recreation also be added to the list of issue areas to be studied given the large residential component planned and the proximity of El Barrio Park to the project which is the closest park to the site. It is likely that future residents may use this park and the associated impacts should be analyzed and mitigated as needed.

We also request that the traffic study prepared for this project analyze the feasibility of extending First Street/Huntington Drive into the site from both Claremont Boulevard and Monte Vista Avenue to help facilitate circulation and traffic flow in the area.

Since traffic impacts on the City of Claremont are the greatest potential impact, we respectfully request an opportunity to review the draft traffic report once it is prepared and before it is incorporated into the draft EIR. In this manner, we can work together to ensure that the analysis and mitigation measures are appropriate.

If you have any questions, please contact either City Engineer Craig Bradshaw at (909) 399-5465 or me at (909) 399-5470. We look forward to working with you on this project.

Sincerely,

Lisa Prasse

Lisa Prasse, AICP
City Planner

lprasse\letters\collegeparknopresponse

c: Anthony Witt, Community Development Director
Craig Bradshaw, City Engineer

CITY OF UPLAND
COLLEGE PARK PROJECT
SCOPING MEETING MINUTES
SEPTEMBER 3, 2003

Six Attendees and Staff/Consultants [Jeff Zwack (JZ), City of Upland, Sr. Project Manager; Ernest Perea (EP), EPC Land Planning Consultants; Savoy Bellavia (SB), Hutton Development Co., VP/Applicant; Tom Holm, AICP (TH), Michael Brandman Associates, Director of Environmental and Cultural Services; Emilie Johnson (EJ), AICP, Michael Brandman Associates, Project Manager].

(EP) Introduction and Project Description

Question: Target Populations? Price Ranges?
(SB) Commercial retail; Limited services hotel (e.g. Ramada, La Quinta Inn, Suites); Garden office building (50,000 sf , not class "A"); 1-2 bedroom apartments, very few 3 bedroom apartments, high amenity (garages); SF homes, courtyard style, entry through front (driveways, garages)

- 1200-1700 sf Single Family homes
- 1 bedroom apt. 650-700 sf
- 2 bedroom apt. 900-1,100 sf
- 3 bedroom apt. 1,300 sf

Question - Daily Bulletin: Architectural styles consistent throughout?
(SB) Yes; materials, colors similar.
Question: "Old courtyard style" – What is it?
(SB) Cluster footprints.
Question Apartments for rent only? Or sale?
(SB) To be held to rent.

(EJ) Encouraged Attendees to sign-in and fill out comment cards.
Reviewed "Scoping" process and California Environmental Quality Act process.

(EP) Zone Change required from Industrial to Highway Commercial; Planning Commission hearings planned.

(EP) City wants outreach. 10-day notice prior to public hearings will occur.
City will expand mailing list to everyone who received IS/NOP.

Question: Where is the southern edge of the property? Asphalt Plant?
(SB) "Old Huntington Drive" (2 lanes north – 2 lanes south at 60' ROW – paper street")
(Jeff Z) Access to southern end of property only, via Vulcan plant currently.

Question: Asphalt plant is south of Huntington Drive, but north of rail line?

CITY OF UPLAND
COLLEGE PARK PROJECT
SCOPING MEETING MINUTES
SEPTEMBER 3, 2003

(JZ)	Ownership is unclear in this area. Railroad ROW is controlled by San Bernardino Associated Governments (SANBAG).
Question:	Will Upland be annexing property all the way to the railroad track?
(JZ)	City hopes to annex in the future.
Questions	Regarding "stub of Huntington Drive" – jurisdiction?
(SB)	North part of Huntington Drive is Upland South side of Huntington Drive is Montclair. Apartment project will have pedestrian access to the south.
Question:	Existing asphalt plant is noisy and smelly; is it in Montclair?
Reply:	Yes.
Question	Fill site with dirt from east side of Monte Vista?
(SB)	Separate project for reclamation. West side of property will be excavated, cleaned and reused for base. Remainder of property will be filled to street level.
Comment:	"Nice Plan". We have heard about pedestrian trail previously.
(JZ)	City is looking for comments on ongoing basis (IS/NOP comment period extends through end of September). Draft EIR process provides opportunity for comment as well.
Comment:	We own an empty lot next to batch plant. Concerned about noise/odor/overall compatibility.
Question:	What is to the east?
(SB)	Older homes on large lots. Across Claremont Blvd. there is residential. Claremont McKenna is planning to improve their property with office building.
Question:	Project to be architecturally compatible with Claremont McKenna?
(SB)	Office building within proposed project is close to Claremont Mckenna property. Design will complement Claremont McKenna use and make it seem like one project.
Question:	Egress on west side possible (i. e. extend center east-west project road through to Claremont Boulevard)?

(SB) Can't control property to west.

Question: Outlets to egress site? Only 2 outlets? Adequate? (Would be nice to have west side outlet).

Question: Project stresses relationship to college, but project faces to east.

(SB) Area to west has multiple property owners; difficult to control. W. Arrow Route and Monte Vista more suitable for access.

Question: Purpose of apartments to market to college residents?

(SB) Apartments will meet need for college and community.

Comment: Very accessible to colleges.

Question: Any plan to improve north side of Arrow Route?

(SB) City will need to determine what will ultimately be needed on north side. Claremont Consortium owns this property City would need to condemn. Hutton will improve south side.

(EP) EIR will address traffic study and circulation improvements needed. Traffic Study will be available for review as part of EIR.

Question When will city approval be sought?

(SB) Looking at slight plan refinement now, to occur over the next 90 days. Then project approvals will be in phase with EIR certification. Hope to break ground 2nd or 3rd quarter of 2004. All streets will be constructed in the beginning.

Question: Has Hutton done projects like this?

(SB) Yes. Hutton Centre at Main/MacArthur, just off the 55 freeway. Hutton Centre is a mixed use project, but

-larger scale. Same land area as College Park but Hutton Centre is six times as dense.

(EP) Next steps: 3-4 months until distribution of Draft EIR (Dec. 2003 or Jan. 2004).

Comment: Exhibit needed in EIR showing trail connections – current, planned, etc., including trail planned within Huntington ROW.

Appendix B: Geotechnical Report

MORHOL, INC.
GEOSCIENCE CONSULTING

GEOTECHNICAL REPORT OF ROUGH GRADING PHASE III, JULY 8, 1998 TO NOVEMBER 18, 1998 AND PRELIMINARY FOUNDATION RECOMMENDATIONS FOR THE NORTHEAST PARCEL CALMAT UPLAND SITE UPLAND, CALIFORNIA

PREPARED FOR:
CALMAT PROPERTIES
3200 SAN FERNANDO ROAD
LOS ANGELES, CALIFORNIA 90065

JOB NO. 1809
December 4, 1998

1646 CLEMENTINE STREET • ANAHEIM, CA 92802 • (714) 991-4540 • FAX (714) 991-1326

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INTRODUCTION

This report presents the results of the geotechnical observation and testing services performed by our firm during Phase III fill placement (reclamation) of the Upland Site.

The purposes of this report are to provide (1) geotechnical documentation of the grading performed during the period from July 8, 1998 to November 18, 1998 and (2) geotechnical conclusions and foundation recommendations for the as-graded conditions of the 600 by 800 foot pad area (Northeast Parcel) at the northeast corner of the site. Previous geotechnical reports (References 7, 8) have been prepared to document the Phase 1 and Phase II grading operations, and those reports are attached Appendices C and D.

PROJECT DATA

Site:	Upland Pit, Upland, California, southwest corner of Arrow Route and Monte Vista Ave.
Developer:	CalMat Properties Co.
Jurisdictional Agency:	City of Upland
Civil Engineer:	Outten Engineering
Grading Plan:	by Outten Engineering; Sheet 1 of 1, Upland Landfill, San Bernardino County, Northeast Parcel, Grading Plan, dated October 16, 1998; scale of 1 inch equal to 60 feet; This plan was used as the base map for our Test Location Plan.
Grading Contractor:	A.E. Schmidt
Grading Period:	July 8 to November 18, 1998
Test Numbers:	From 342 to 718
Previous Geotechnical Reports:	See References

SITE LOCATION/PROJECT DESCRIPTION

The site is located at the southwest corner of the intersection of Monte Vista Avenue and West Arrow Route in the City of Upland.

The site is approximately 37 ± acres and consists of an inactive open pit quarry that was mined for aggregate to a maximum depth of approximately 50 feet below adjacent ground surface. In accordance with the Reclamation Plan, the pit is to be reclaimed

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(filled) to approximate original ground contours. A major portion (26 ± acres) is planned for structural fill (minimum relative compaction ≥ 90%), and a lessor portion (11 ± acres) for non-structural fill. The Phase III report herein documents the continuation of Phases I and II grading within the planned structural fill area, and the completion of rough grading at the northeast corner (11 ± acres) of the site (See Plate 1). This grading involved the removal and recompaction of uncompacted wash tailings. A significant volume of previously compacted fill was also removed and placed as fill in the northeast corner to complete grading of this portion of the site.

GEOTECHNICAL CONDITIONS

Prior to the start of Phase I grading, the inactive quarry was partially filled with uncompacted silt and silty fine sand wash tailings from previous quarry operations, as well as piles of concrete and asphalt rubble. The wash tailings and rubble piles are underlain by dense native alluvial deposits consisting of sand and gravel mixtures. Uncompacted wash tailings, varying from approximately 5 to 30 feet in thickness were removed, and a maximum thickness of about 40 feet of fill was placed in the structural fill area during the Phase I and Phase II grading. During the Phase III grading, wash tailings and uncompacted fills located in the west portion of the site were removed, screened, and placed as compacted fill in the northeast pad area. In order to complete grading of the northeast pad area as reported herein, approximately 20 feet of previously compacted fill, which had been placed in the southwest corner of the site, was removed and placed as fill on the completed pad area. This removal area is shown on the Test Location Plan, Plate 1. The maximum thickness of fill placed during rough grading is approximately 55 feet at the northeast corner of the site.

ROUGH GRADING PROCEDURES

Site Preparation

Phase III grading is essentially a continuation of Phase II grading and involved the following procedures:

1. Removal of wash tailings and previously placed uncompacted fills on the south and west portions of the site and placement as compacted fill over previously compacted fill soils and approved removal areas.

2. Borrow of previously placed structural fill and placement as compacted fill to rough finish grade elevation at the Northeast Parcel.

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3. Materials exposed at the perimeter of the Phase III fill consisted of previously placed compacted fill and native soils. The perimeter soils were benched to remove loose surficial soils prior to fill placement.

4. The south and west slopes of the Northeast Parcel were constructed as compacted fill or cut into previously placed fill. These slopes were constructed at a ratio of 2:1 (horizontal:vertical) and are a maximum height of 29 feet.

Fill Materials

Fill materials placed during the grading phase herein reported consisted of the excavated silt tailings generated from the removal operations, as well as a limited amount of on-site native sandy gravel materials.

Fill Placement

Areas to receive structural fill were ripped, watered to approximately optimum moisture content and recompacted prior to placement of fill. Fill soils were then placed in 8 to 10-inch lifts, brought to near optimum moisture conditions and compacted to a minimum of 90 percent relative compaction as determined by ASTM D 1557-91. Equipment used during grading included Cat 633C Scrapers, a 825B steel wheel sheepfoot, a 963 track loader, a D9N dozer, a D8L dozer, a 140G Grader, and an 824 rubber wheel dozer with a 5 by 5 sheepfoot. Moisture was provided by two 3000 gallon trucks and one 10,000 gallon water truck.

OBSERVATIONS AND TESTS

Procedure

The earthwork was observed, probed and tested by our soil technician under the supervision of the Project Geologist and Engineer.

Bulk samples, considered representative of the on-site fill soils, were obtained for laboratory testing.

Test Methods

The following test methods were adopted:

Test	Method
• Maximum dry density and optimum moisture	ASTM D 1557-91
• In-situ density and moisture content	ASTM D 1556 (sand cone) ASTM D 2937 (drive tube)

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•	Direct Shear	ASTM D 3080
•	Consolidation	ASTM D 2435
•	Expansion Index	ASTM D 4829
•	Soluble Sulfate	California Test Method 417
•	R-Value	California Test Method 301

Test Results

The results of the in-situ density testing and the maximum density/optimum moisture relationships are shown in Appendix A, Summary of Field Density Test Results. The approximate locations of the tests taken are shown on the attached Test Location Plan, Plate 1. The test locations shown on the map are not intended to show the precise test locations but to depict the general locations of tests. The remaining test results are presented in Appendix B, Laboratory Test Results.

Records

A field report was prepared by our soil technician, geologist, or engineer for each day of observed earthwork activity. The reports were reviewed by the Project Geologist and/or Engineer, and copies were provided for the owner and contractor.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- It is our opinion that the earthwork construction performed under our observation and testing and described herein was generally acceptable. Based upon the results of our tests and observations, it is our opinion that the fills have been placed in compliance with our recommendations contained in the referenced reports and are suitable for their intended use.

- Rough grading is completed for the Northeast Parcel which provides a 600 foot by 800 foot pad area. This area is suitable for construction, provided the geotechnical criteria presented in this report are incorporated in the design and construction.

- The expansion index test results (EI = 6 to 16) indicate that the near-surface soils for the Northeast Parcel have a very low expansion potential.

- The near-surface soils have a low sulfate content (0.014% to 0.022%). The potential for sulfate attack on concrete is expected to be low.

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- The post-grading settlement within the compacted fill is anticipated to be negligible after 6 to 9 months from the date of completion of grading.

- The west and south portions of the site remain ungraded. A significant volume of import soil will be required to bring these areas to grade.

- The slopes for the Northeast parcel are constructed in accordance with the approved geotechnical specifications and are considered grossly stable. Provisions for surface drainage, slope plantings and other measures should be considered to prevent surficial erosion on the slopes.

- The geotechnical testing and observation services reported herein do not include any evaluation, assessment or treatment of hazardous or toxic materials.

Recommendations

- All additional grading should be observed and tested by the project geotechnical consultant.

- Materials to be imported for placement as fill should be sampled and approved by the Geotechnical Consultant prior to being brought on-site.

- Precise grading and improvement plans should be reviewed by the geotechnical consultant prior to construction. Geotechnical parameters given herein for preliminary foundation design should be verified by the geotechnical consultant after completion of precise grading operations.

Foundation Design Recommendations

The following preliminary design parameters are recommended for building foundations based on the low expansion potential of subgrade soil. The recommended parameters should be verified upon completion of precise grading.

• Minimum footing depth	18 inches below lowest adjacent grading
• Minimum footing width	18 inches for continuous footing 24 inches for isolated footings
• Allowable bearing pressure	1,800 psf at a depth of 18 inches and may be increased 300 psf per foot of the footing depth to a maximum of 4,500 psf

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- Coefficient of friction 0.35
- Allowable passive resistance 250 psf/ft

The above bearing values may be increased by one-third for loadings of short duration such as wind or seismic loads.

With an assumed maximum column load of 300 kips, the total and differential settlement with the above requirements are anticipated to be less than 1 inch and ½ inch over 20 feet, respectively. Slabs-on-grade should be placed after primary structure loads are applied to the proposed building foundations.

Pavement Design

R-values of 57 and 58 were obtained from our laboratory testing. The pavement design was based on the R-value of 57 for subgrade soils and 78 for base materials and a Traffic Index (TI) of 5. Recommendations for the flexible pavement structural sections for different combinations of Asphalt Concrete (AC) and Aggregate Base (AB) are listed below:

AC/inch	AB/inch
3	4
5	0

Pavement subgrades should be compacted to 90 percent relative compaction and aggregate base to 95 relative compaction. If full depth of asphalt section is used without aggregate base, the subgrade should be compacted to 95 percent relative compaction.

Trench Backfill

Materials to be used for backfilling utility trenches may consist of the excavated on-site soils, imported sand having a sand equivalent (S.E.) of 30 or more or a sand/cement slurry. Excavated soil or sand used for backfill should be placed in thin lifts, moisture conditioned and mechanically compacted to at least 90 percent relative compaction on structural fill areas. Sand/cement slurry, if used for backfill, should be at least 1.0 sacks of Portland cement per cubic yard of washed concrete sand.

Surface Drainage

Surface runoff should be directed away from the slopes and proposed building foundations into storm drains or other man-made drainage to reduce the potential for surficial failures during periods of heavy rainfall.

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Cement Type

The soluble sulfate of representative on-site soils has a low potential for sulfate attack on concrete. Common Type II cement is considered to be suitable for use in concrete construction on the Northeast Parcel site.

CLOSURE

The data and information in this report represent the professional opinions that have been developed using that degree of care and skill ordinarily exercised under similar circumstances by reputable geotechnical engineers and engineering geologists practicing in this locality. No other warranty, expressed or implied, is made as to the professional advice and data included in this report.

This report is issued with the understanding that it is the responsibility of the owner or his representative to ensure that the information and recommendations contained herein are brought to the attention of the project engineer and architect, and are incorporated into the plans, specifications and design for the project. The owner or his representative should also take the steps necessary to ensure that the recommendations of our report are incorporated into the project construction.

It should be understood that the undersigned do not practice or consult in the field of safety engineering. In addition, we do not direct the contractors' operations; therefore, we cannot be responsible for project personnel other than our own on the site.

Further, it should be understood that no opinion as to the presence or absence of hazardous or toxic waste materials on or beneath the site is included in this report.

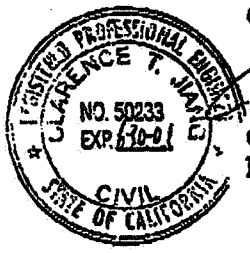
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The opportunity to be of service is appreciated. If you have any questions, please call us.

Respectfully submitted,
MORHOL, INC.

Cecil E. Hollon
C.E.G. 397

Thomas G. Hill
C.E.G. 1100



Clarence Jiang
R.C.E. 50233

TGH/CJ/dt

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Appendix C: Hydrology and Water Quality Assessment

HYDROLOGY & WATER QUALITY ASSESSMENT



COLLEGE PARK PROJECT

City of Upland, CA

Prepared for:

MICHAEL BRANDMAN ASSOCIATES

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Project Manager:
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Date Prepared: December 17, 2003
JN: 619.0101

Prepared by:

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COLLEGE PARK PROJECT

Section 1: Hydrology Assessment Report

1. INTRODUCTION

This section addresses the potential impacts of the proposed project with regard to surface water hydrology. The surface water hydrology analysis identifies surface water runoff and drainage characteristics, as well as drainage and flood control improvements. A Drainage Design Report for Vulcan Materials Landfill Development was prepared by Outten Engineering Company for the City of Upland, California. This report was prepared by Outten Engineering on January 28, 2003 and subsequently revised on April 30, 2003. Fuscoe Engineering, INC. (FEI) was subsequently hired to perform a technical analysis of the hydrology and water quality impacts of the proposed project for EIR purposes.

Project Description

The proposed project site encompasses 38.7 acres in the City of Upland within the County of San Bernardino. The proposed College Park project consists of three main development components: commercial, residential, and recreational. The commercial component of the project , occupying 11.40 acres, contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential component occupies 22.7 acres, containing 50 single-family detached dwelling units and 448 multi-family attached dwelling units. The recreational component, occupying approximately 1 acre, contains a greenbelt area. Streets and dedications will occupy roughly 3.6 acres.

2. EXISTING CONDITIONS

The proposed College Park Project is located at the southwest corner of West Arrow Route and Monte Vista Avenue in the City of Upland (See Figure 1: Vicinity Map). The site is located southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The site is within the City of Upland, but is bordered by the City of Claremont, the Claremont Colleges and Los Angeles County line on the west; a San Bernardino County unincorporated island to the north; Upland to the east; and the City of Montclair to the south.

The existing site is a former sand and gravel quarry that has been partially filled with artificial wash tailings from past processing associated with the sand and gravel operations. Quarry operations encompassed most of the site, with varied pit bottom elevations. The quarry was originally mined to a depth of approximately 40 feet below the existing adjacent ground. The native alluvial deposits consisted of sand and gravel. Following completion of the mining operations, the site was used to dispose of wash tailings from adjacent mining operations, and as a dumpsite for concrete and asphaltic concrete rubble.

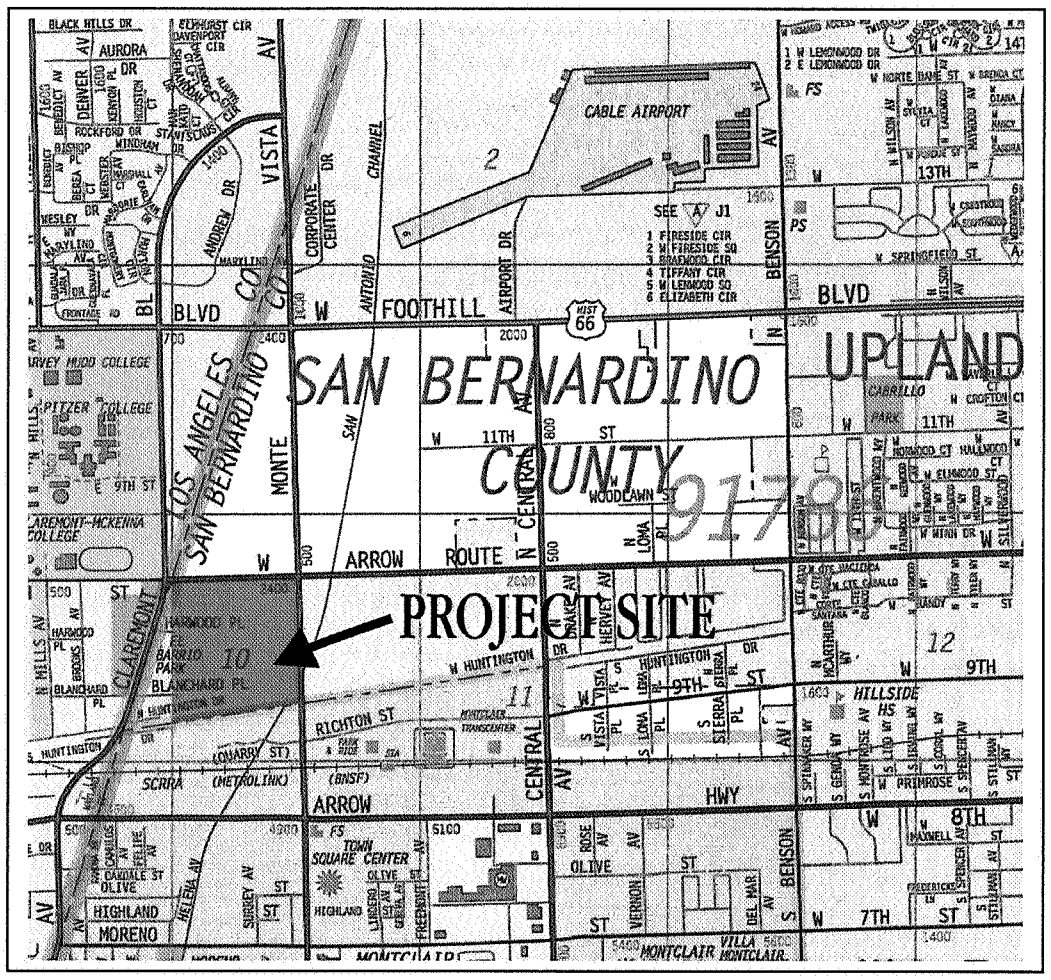


Figure 1: **Vicinity Map**

The northeast corner of the site (approximately 11 acres) has been filled and graded to match the adjacent grades at the north and east sides of the property. The area was graded to drain to the southwest to match the general flow direction of the surrounding area grades. Sediment control measures in the form of double sand bag layers were implemented along the west and south borders of the 11-acre fill site to minimize the amount of sediment discharging from the filled area to the remaining quarry pit. The fill used in the northeast corner was excavated from the existing wash tailings at the site. The new fill was constructed as engineered, compacted fill.

2.1. Existing Hydrology

Under the existing conditions, the quarry pit serves as a large reservoir during storm events and does not discharge any runoff into the City's Municipal Separate Storm Sewer System (MS4 system). The sand and gravel soil characteristics provide high infiltration capabilities and the depth of the pit (up to 40 feet) provides sufficient storage capacity so that no spill over conditions occur. In summary, there is a net zero discharge of surface water runoff from the project site into the public storm drain system (See Figure 2: Existing Drainage Map).

The project does not receive any off-site runoff from the surrounding streets or land uses. An existing pit north of Arrow Route stores runoff and does not contribute any runoff to the existing site. Similarly, an existing pit adjacent to Monta Vista Avenue prevents off-site runoff from entering the site from the east.

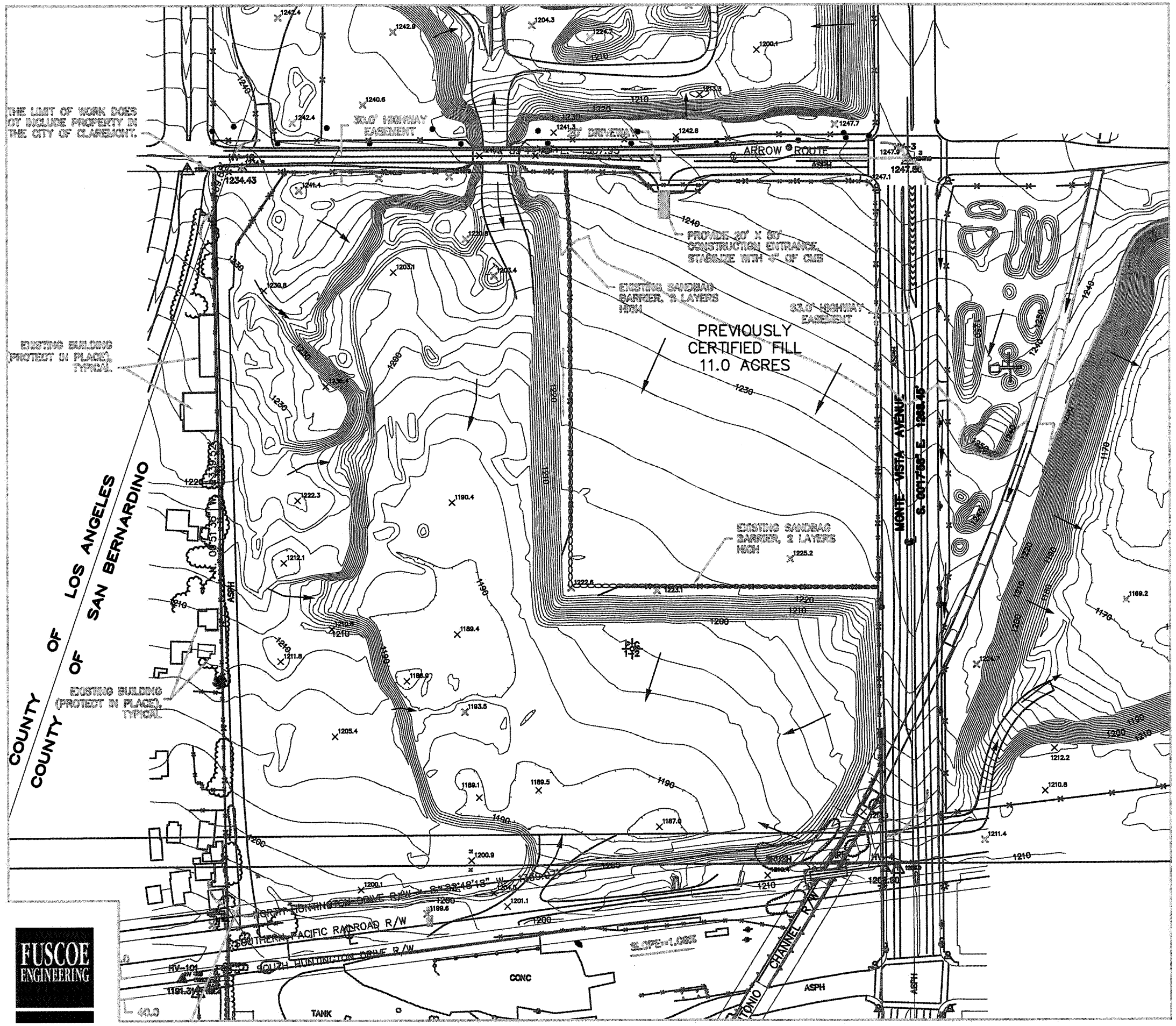
2.2. Existing Drainage

Under the existing conditions, the existing drainage facility is the sand and gravel pit. Adjacent to the project site is the San Antonio Channel that conveys flows northeast (upstream) of the site to the southwest (downstream). The channel is operated and maintained by the US Army Corps of Engineers (USACOE). The channel does not receive any runoff from the proposed site under the existing conditions but does receive runoff from the surrounding streets.

2.3. FEMA Flood Boundary / Dam Inundation Boundary

The National Flood Insurance Act established the National Flood Insurance Program, which is based on the minimal requirements for flood plain management and is designed to minimize flood damage within Special Flood Hazard Areas. According to the Flood Insurance Rate Map (FIRM) Panel 8605 F (unprinted) dated March 18, 1996 from the Federal Emergency Management Agency (FEMA), the project site lies within Zone X.[1] Zone X is referred to as an area outside the 100-year flood plain where flood insurance is not required.

[1] Initial Study/Notice of Preparation Comment Letter – College Park Project; Department of Public Works, County of San Bernardino; September 26, 2003, as contained in Appendix A of this Draft EIR.



LEGEND & ABBREVIATIONS

- GRAVELEY SEDIMENT BARRIER
- EXISTING CONTOUR
- BOUNDARY/PROPERTY LINE
- FENCE LINE
- CURB

I.E.	INVERT ELEVATION
ASPH	ASHPALT
R/W	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
WSP	WATER SURFACE PROFILE
CMB	CRUSHED MISCELLANEOUS BASE

PLANS PREPARED BY

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http://www.outten.com
Phone: (562) 435-5552

FUSCOE ENGINEERING

Scale: 1"=200'
Exhibit Date: 10-28-03

EXISTING DRAINAGE MAP
COLLEGE PARK PROJECT

W:\Watershed Management Division\Projects\619101\Engineering Dwgs\Grading Plan\619101xh-Ex-DM.dwg

The project site is located downstream of the San Antonio Dam, which is owned and operated by the US Army Corps of Engineers (USACOE). The dam is situated on San Antonio Creek about 10.5 miles upstream from its confluence with Chino Creek, which is a tributary to the Santa Ana River. According to the San Bernardino County Official Land Use Plan, General Plan Hazard Overlay, the project site is located within the downstream inundation area. The dam is designed to retain floodwaters up to the 2,238 ft elevation (9,350 ac-ft) and release regulated discharges up to 8,000 cfs.[2] Since the completion of the dam in 1951, the capacity of the dam has never been breached.

3. PROPOSED CONDITIONS

The proposed project will result in the conversion of a 37-acre former sand and gravel operation into a mixed development use consisting of primarily impervious surface conditons. The creation of impervious surfaces decreases the amount of infiltration and increases the volume and rate at which runoff discharges from the site. The following sections will identify the proposed hydrology and drainage conditions and impacts.

3.1. Proposed Hydrology

The rational method following procedures in the San Bernardino (SB) County Hydrology Manual was used to compute the estimated peak discharge of runoff from the proposed site. For the purposes of this study, the future development was assumed to be 100% impervious for the 38-acre site. This is considered a conservative approach since the fully developed site will incorporate some pervious areas such as the recreational component and landscaping areas that will ultimately reduce the peak discharge.

Peak discharges were calculated based on a 100-year return frequency flood using the required isohyetal maps, soils maps and intensity duration curves found in the SB hydrology manual. Peak runoff from the entire area is predicted to discharge 143 cubic feet per second (cfs). This represents an increase of 143 cfs to the San Antonio Channel for a 100-year storm event in comparison to the zero net discharge of surface runoff under the existing condition (See Figure 3: Proposed Drainage Map).

3.2. Proposed Drainage/Hydraulics

Certified fill will be added to the remaining 26 acres and graded to drain in the general flow direction of the surrounding area grades. Runoff from the graded area will collect in a basin at the southern end of the site. The basin will be concrete lined and will drain into a 60-inch buried pipe, which will route the flow to the San Antonio Channel. USACOE hydraulic design requirements for discharging into the channel were used for the design of the connection point into the channel.

[2] http://www.spl.usace.army.mil/resreg/htdocs/snto.html, US Army Corps of Engineers, Reservoir Regulation Section, retrieved December 4, 2003.

THE LIMIT OF WORK DOES NOT INCLUDE PROPERTY IN THE CITY OF CLAREMONT.

30.0' HIGHWAY EASEMENT

20' DRIVEWAY

N 89°42'18" E 1307.95

ARROW ROUTE

ASPH

PROVIDE 20' X 50' CONSTRUCTION ENTRANCE STABILIZE WITH ½" CR CMB

EXISTING SANDBAG BARRIER, 2 LAYERS HIGH

63.0' HIGHWAY EASEMENT

PREVIOUSLY CERTIFIED FILL 11.0 ACRES

AVERAGE SLOPE=2.8%

MONTE VISTA AVENUE

S 0°17'58" E 1268.15'

EXISTING BUILDING (PROTECT IN PLACE), TYPICAL

AVERAGE SLOPE=2.7%

CERTIFIED FILL 26.7 ACRES

EXISTING SANDBAG BARRIER, 2 LAYERS HIGH

SL. 3

PIC 142

SLOPE=4.6%

COUNTY OF LOS ANGELES

COUNTY OF SAN BERNARDINO

EXISTING BUILDING (PROTECT IN PLACE), TYPICAL

DETAIL

SLOPE=3%

SLOPE=1.00%

N 89°48'18" W

NORTH HUNTINGTON DRIVE R/W

SOUTHERN PACIFIC RAILROAD R/W

SOUTH HUNTINGTON DRIVE R/W

CITY OF UPLAND

CITY OF MONTCLAIR

HM-101

Proposed Basin Inlet

Proposed 60" RCP Storm Drain

SEE ENLARGED THIS DRAWING

TANK

TANK

CONVEYORS

ASPH

BRUSH

LEGEND & ABBREVIATIONS

- GRAVELEY SEDIMENT BARRIER
- EXISTING CONTOUR
- NEW CONTOUR
- BOUNDARY/PROPERTY LINE
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- CURB

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FUSCOE ENGINEERING

Scale: 1"=200'

Exhibit Date: 10-28-03

PROPOSED DRAINAGE MAP
COLLEGE PARK PROJECT

W:\Watershed Management Division\Projects\61901\Engineering Dwgs\Grading Plan\61901xh-Pr-DM.dwg

Flow pass-through calculations were based on routing an inflow hydrograph through the basin to the San Antonio Channel. The rational method was used in the program to compute runoff for the site. Reach and basin routing was performed using the storage-indication method.

3.3. Permitting and FEMA

In order to design and construct a storm drain connection into a USACOE maintained and operated channel, an approval and permit is required from the Corp's Engineering Branch. Based on the hydrology report, permission has been granted by the Corps to drain runoff from the site into the channel.[3] The Corps has also approved construction details for a 48-inch pipe connection into the channel. The proposed 60-inch connection that is currently being designed will be submitted to the Corps for reapproval. It is anticipated that the Corps will aprove the drainage design, since the anticipated peak discharge to the San Antonio Channel has not changed with the larger diameter pipe design.

The proposed project will not require any FEMA clearances or adjustments to the existing FIRM map since the site is located outside the 100-year flood plain.

4. HYDROLOGY IMPACTS AND MITIGATION

The following sub-sections will describe the existing regulations and threshold standards, identify the potential impacts, and introduce project design features and mitigation measures to reduce potential impacts with respect to hydrology and flood control.

4.1. Existing Regulations

Pursuant to Title 14, Chapter 3, Appendix G (Environmental Checklist Form) of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), thresholds of significance applicable to the environmental issue of hydrology are whether the project would:

- Substantially alter the existing drainage pattern in a manner which would result in substantial erosion or siltation on or off-site; or
- Substantially alter the existing drainage pattern or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off-site; or
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems; or

[3] Drainage Design Report for Vulcan Materials Landfill Development, Upland, California; Outten Engineering Company; January 28, 2003 and revised April 30, 2003.

- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or FIRM map or other flood hazard delineation map; or

- Place within a 100-year flood hazard area structures, which would impede or redirect flood flows; or

- 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.

In addition, the San Bernardino County Area-Wide Urban Storm Water Runoff Permit (NPDES No. CAS618036) requires the following questions to be addressed with respect to hydrology and flooding.

- Potential for significant changes in the flow velocity or volume of storm water runoff to cause environmental harm.

- Potential for significant increases in erosion of the project site or surrounding areas.

4.2. Potential Hydrology Impacts

The filling of the project site and the subsequent increase in discharge from the project site into the San Antonio Channel represents a substantial alteration to the existing drainage pattern resulting in potential impacts. Potential impacts could include downstream flooding and erosion of receiving water bodies, exceedence of downstream flood control capacities, flood inundation by upstream dam failure and cumulative flooding impacts related to the development and future developments.

4.3. Project Design Features

On-site Hydrology and Drainage

Storm drainage improvements associated with project implementation have been designed to convey storm water runoff safely from the project area without increasing flood or erosion hazards or exceeding capacity within the project site. The proposed storm drainage improvements for the project include several major elements. A series of storm drains and laterals would be constructed within the internal street system to pick up flows from the development areas. Streets, curbs and gutters would direct street flows into collection points, where flows would enter the storm drain. The storm drains would be strategicially placed to pick up flows from the development areas in accordance with City design standards to minimize the threat of on-site flooding. The flows would be delivered to a basin at the downstream end and then discharged into the proposed main storm drain line that connects into the

San Antonio Channel. The proposed on-site storm drain system is designed to safely convey peak flows through the site. The on-site hydrologic impacts associated with the project are considered less-than-significant.

Off-site Hydrology and Drainage

As the designer and operator of the channel, USACOE is responsible for identifying capacity and flooding issues at the point of connection and downstream. Approval by the USACOE's Engineering Branch indicates that the San Antonio Channel has the capacity to accept the proposed discharge from the site without increasing potential for downstream flooding. Impacts on capacity and downstream flooding potential are therefore considered less-than-significant. Downstream erosion impacts are also less-than-significant as the downstream channel is concrete lined.

Flood Boundaries and Dam Inundation

The proposed project would not place any housing within a designated 100-year flood hazard area as indicated by the FEMA Flood Maps and impacts are considered less-than-significant. The project is subject to flooding in the event of a catastrophic failure of the San Antonio Dam. The inundation area covers the majority of the city and development of the proposed project within this area is considered a potential impact.

As stated in the City of Upland Seismic Safety/Safety General Plan Element, inundation due to dam failure of the San Antonio Dam is a remote possibility in the event of a severe winter season having extremely high amounts of precipitation, approaching those designated by the category "100 year flood". Remoteness of this potential is enhanced by the number and capacity of "settling basins" located south of the dam, which are designed to accommodate conditions well above a 100-year flood category. In addition to the forementioned factor, dam failure of the San Antonio Dam is highly improbable without a concurrent seismic incident.

There are no upstream bodies of water that are subject to seiches or mudflows and the project site is not located near the ocean. Therefore, the project would not expose people or structures to a significant risk of loss, injury or death involving seiches, mudflows, or tsunami's. There are no impacts associated with these conditions.

Cumulative Impacts

Development of the proposed project in conjuction with future build out of adjacent projects would cumulatively increase the amount of impervious surface area, runoff, landform, and drainage pattern alteration in the general Upland area surrounding San Antonio Channel. The proposed project has been calculated into the master drainage plan for the San Antonio Channel as a fully developed site. Cumulative downstream impacts from project implementation are therefore considered less-than-significant.

In order to minimize cumulative impacts in the future, all development projects draining into the channel will have to undergo the same approval process through the US Army Corps of Engineers to determine if the channel has sufficient capacity. If the capacity is ever deemed insufficient, those future development projects will have to implement mitigation measures such as detention/retention basins prior to discharging into the channel.

4.4. Additional Mitigation Measures

The proposed project will be required to submit final engineering plans to the City Engineer and other responsible agencies for review and approval prior to development of any drainage improvements. As discussed above, no significant long-term impacts from storm water runoff are expected. Therefore, no mitigation measures are required under CEQA. However, the following measures are recommended to further reduce the project's less-than-significant impacts from storm water runoff:

- Drainage from the building sites shall be directed toward the street in non-erosive drainage devices.
- Building pads shall have sufficient height above the curb to drain toward the street on a slope of two percent.
- Slopes shall be graded so that runoff of surface water is minimized.
- Permanent drainage facilities shall be constructed to the satisfaction of the City Engineer. As proposed, these facilities include:
    - Underground storm drains with a local sump capacity for a 25-year conveyance and combined capacity of storm drains and street right-of-ways for a 100-year flood protection.
    - Roof runoff collected in a rain gutter and downspout system and directed to approved areas via non-erodible conductors or storm water planters.
- Project shall adhere to applicable provisions of the City Engineer/Public Works Department and the County of San Bernardino Public Works Department.

5. Level of Significance after Mitigation

No significant hydrology-related impacts are anticipated. The final design of the storm drain plans will ensure the proper and safe conveyance of storm flows from on-site to the local flood control channel. The Drainage Design Report (Outten Engineering) demonstrates the proposed 143 cfs from the site can be accomodated into the San Antonio Channel with sufficient capacity and the USACOE has approved the connection. Future development projects within the same area and upstream will have to undergo a similar approval process from the USACOE in order to minimize cumulative impacts downstream.

COLLEGE PARK PROJECT

Section 2: Water Quality Assessment Report

6. HISTORY

Controlling pollution to the nation's receiving water bodies has been a major environmental concern for more than three decades. Growing public awareness of the impacts of water pollution in the United States culminated in the establishment of the Clean Water Act[4] (CWA) in 1972, which provided the regulatory framework for surface water quality protection. Up until 1987, efforts were focused on regulating point source pollution, such as discharges (through pipes) from sewage treatment plants and industrial facilities, and with great success. However, little attention was paid to pollution from non-point sources, such as runoff from streets, construction sites, and agricultural land. As a result, non-point source pollution (polluted runoff) has emerged as one of the leading water quality problems in many States, including California.

Unlike point source discharges, which originate from a single identifiable source, non-point sources are diffuse in nature and are difficult to pinpoint as originating from a distinct facility and its effluent (e.g. sewage treatment plants and industrial process wastewaters). Hence, polluted runoff is controlled by controlling the broad categories of land uses and activities that generate it (e.g. manufacturing, landfills, transportation facilities, and construction activities). To accomplish this, United States Congress amended the CWA[5] in 1987 to specifically regulate non-point source pollution through pollution prevention programs. Rather than setting numeric effluent limitations as in point source regulation, non-point source regulation calls for the implementation of Best Management Practices (BMPs) to reduce or prevent the discharge of pollutants from these activities to the Maximum Extent Practicable (MEP).[6] As a result, non-point source pollution regulations have been implemented at the federal, state, and local levels.

7. NPDES STORM WATER REGULATORY SETTING

The proposed College Park Project and its facilities must comply with surface water quality regulations promulgated by a multitude of public agencies – federal, state, and local – to control polluted runoff. They include: (1) the U.S. Environmental Protection Agency (US EPA), (2) the California State Water Resources Control Board (SWRCB), (3) the California Regional Water Quality Control Board, Santa Ana Region (SARWQCB), (4) the County of San Bernardino, and (5) the City of Upland.

[4] Also referred to as the Federal Water Pollution Control Act of 1972
[5] Section 402(p)
[6] California SWRCB justified this approach by stating that "the substantial variability of storm events and pollutant constituents and concentrations in storm water runoff makes it extremely difficult to formulate numeric effluent limitations bearing a reasonable relationship to established water quality standards." (San Francisco BayKeeper vs. SWRCB)

7.1. Federal EPA

In 1990, the US EPA initiated the National Pollutant Discharge Elimination System (NPDES) Storm Water Program, in accordance with Section 402(p) of the CWA, to control polluted runoff from sources that had the greatest potential to negatively impact water quality to the waters of the United States. As a result, this permitting program requires operators of municipal separate storm sewer systems (MS4s), industrial facilities, and construction sites to obtain coverage for the storm water discharges generated from these operations. These NPDES permits thus provide a mechanism for monitoring and regulating the discharge of pollutants from these non-point sources. In essence, the NPDES permits effectively prohibits non-storm water discharges from MS4s, industrial activities, and construction activities, unless otherwise permitted under a separate NPDES permit.

The implementation of the NPDES Storm Water Program was carried out in two phases. Phase I, which began in 1990, required NPDES permit coverage from Large and Medium MS4s serving populations of 100,000 or more (i.e. cities and counties). Eleven categories of industrial activities (classified by SIC code) were also required to have NPDES permit coverage.[7] One of those eleven activities included construction activities disturbing five acres or more of soil. Phase II of the NPDES Storm Water Program, implemented in 1999, tightened non-point source regulations by adding Small MS4s (those serving less than 100,000 population), public facilities (i.e. military bases, school districts, hospitals, etc.), as well as construction activities disturbing between one and five acres of land, to the regulated community.

7.2. State Water Resources Control Board

In the State of California, the SWRCB and local RWQCBs have assumed the responsibility of implementing US EPA's NPDES Storm Water Program. Under the State's water quality control law, better known as the Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.), the SWRCB is granted control over California's water rights and water quality policy. As a result, the SWRCB issues NPDES Storm Water permits in the form of Waste Discharge Requirements (WDRs) to Phase I and II permittees in California. More specifically, the SWRCB is the regulating authority for industrial and construction activities, while local RWQCBs issue and enforce MS4 storm water permits.

[7] (i) Facilities with effluent limitations, (ii) Manufacturing, (iii) Mineral, Metal, Oil and Gas, (iv) Hazardous Waste, Treatment, or Disposal Facilities, (v) Landfills, (vi) Recycling Facilities, (vii) Steam Electric Plants, (viii) Transportation Facilities, (ix) Treatment Works, (x) Construction Activity, (xi) Light Industrial Activity.

7.2.1. General Industrial Storm Water Permit

The General Industrial Storm Water Permit (GISP), WDRs Order 97-03-DWQ, (NPDES Permit No. CAS000001), regulates storm water discharges from 10 categories of industrial activities. Construction activities are regulated under a separate permit issued by the SWRCB. Industrial facilities that qualify must submit a Notice of Intent (NOI) to file for permit coverage or otherwise be in violation of the CWA.

"The GISP requires the implementation of BMPs that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). The General Industrial Permit also requires the development of a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce storm water pollution are described." [8]

The SARWQCB, under the guidance of the SWRCB, administers and oversees the GISP program within the Santa Ana River Watershed. The College Park Project does not have any of the regulated industrial activities planned for the project site and therefore coverage under the Industrial Permit is not required.

7.2.2. General Construction Permit

According to US EPA, construction sites without proper sediment and erosion controls can discharge 10 to 20 times the sediment load than agricultural lands and 1000 to 2000 times the rate from forest lands.[9] The General Construction Permit (GCP), WDRs Order 99-08-DWQ, NPDES Permit No. CAS000002, regulates storm water discharges associated with construction activities disturbing 1 acre or greater of soil. Construction sites that qualify must submit a Notice of Intent (NOI) to file for permit coverage or otherwise be in violation of the CWA.

The GCP "requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) [that will achieve BCT and BAT performance standards] the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d)

[8] Website: http://www.swrcb.ca.gov/stormwtr/industrial.html.
[9] Storm Water Phase II Proposed Rule Fact Sheet Series, Fact Sheet 3.0 (EPA, April 1999).

list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP." [10]

The College Park Project encompasses 38.69 acres in the City of Upland, and is therefore subject to the storm water discharge requirements of the GCP. The project will require NPDES permit coverage prior to the commencement of soil disturbing activities. In the Santa Ana Region, where this project resides, the SWRCB is the permitting authority, while the SARWQCB provides local oversight and enforcement of the GCP.

7.2.3. SARWQCB MS4 Permits

The SARWQCB issued a MS4 storm water permit, WDR Order No. R8-2002-0012, NPDES Permit No. CAS618036, to the County of San Bernardino, and its 16 co-permittees within the Santa Ana region, which includes the City of Upland.

Whereas the GISP and GCP are issued statewide, MS4 permits are issued by local Regional Boards in order to provide the permits with the means to address storm water quality issues specific to the local watershed or region. As a result, MS4 permits are a more prescriptive level of regulation, requiring permittees to develop and implement a storm water management program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). The MEP standard is a more stringent performance standard than BCT/ BAT established for both the GISP and GCP. The storm water management program or Municipal Storm Water Management Program (MSWMP), as it is referred to in the Santa Ana region, must specify SARWQCB approved BMPs to address the following program areas: public education and outreach, illicit discharge detection and elimination, construction and post-construction, and good housekeeping for municipal operations.[11]

The College Park Project and its facilities will discharge into the MS4 within the jurisdiction of the City of Upland and the County of San Bernardino. Pursuant to the San Bernardino County MS4 Permit, the City and County are responsible for controlling or limiting urban pollutants generated by construction and post-construction activities from reaching their MS4s. ***The proposed project is, therefore, subject to the requirements of the San Bernardino County MS4 Permit as it is applied by the permittee and its co-permittees.***

[10] Website: http://www.swrcb.ca.gov/stormwtr/construction.html.
[11] http://www.swrcb.ca.gov/stormwtr/municipal.html

7.3. Local Agencies

The current MSWMP established by the County of San Bernardino and the City of Upland, pursuant to the MS4 Permit (currently in its third term), was submitted to the SARWQCB in September 2000.[12] The MSWMP approved by the SARWQCB includes, among other programs, guidelines for "new development and redevelopment". More specifically, the program describes the range of source control, pollution prevention, and/ or structural treatment BMPs available to new developments to address storm runoff water quality. New development projects, such as the College Park Project, must consider these SARWQCB approved BMPs to address post-construction management of storm runoff water quality and subsequently prepare a Water Quality Management Plan (WQMP) describing the menu of BMPs chosen for the project site. The WQMP must then be submitted to the City of Upland for approval prior to the City issuing any building or grading permits.

As required by County and City water quality ordinances, the College Park Project must submit a WQMP to the City of Upland that outlines approved post-construction BMPs selected for the project to reduce pollutants in post-development runoff to the BAT/ BCT performance standard.

8. WATER QUALITY STANDARDS

The ultimate goal of the Clean Water Act is to protect the physical, chemical, and biological integrity of the waters of the United States. Along with regulatory programs for storm water and non-storm water discharges generated from pollutant sources, the CWA also required States to adopt water quality standards for receiving waterways and water bodies to achieve this goal. Water quality standards are based on a water body's designated beneficial use, along with its water quality criteria based upon these uses. To further elaborate, beneficial uses of water bodies describe the appropriate uses of a particular water body based on current and historical use of it, such as contact recreation or drinking water uses. Its associated water quality criteria are expressed either as numeric concentrations, levels of constituents, or as narrative summaries which represent the quality of water that support the designated beneficial use.

8.1. 303(d) List of Limited Water Quality Segments

Under Section 303(d) of the CWA, States are required to identify water bodies that do not meet their water quality standards. Once a water body has been listed as impaired, a Total Maximum Daily Load (TMDL) for the constituent of concern (pollutant) must be developed for that water body. A TMDL is an estimate of the daily load of pollutants that a water body may receive from point sources, non-point sources, and natural background conditions (including an appropriate margin of

[12] Also referred to as: County of San Bernardino, Santa Ana Basin Area, Report of Waste Discharge – Application for Renewal of the Municipal NPDES Storm water Permit, 2001-2006 (September 1, 2000).

safety), without exceeding its water quality standard. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL.

As opposed to the NPDES programs, which focus on reducing or eliminating non-storm water discharges and reducing the discharge of pollutants to the maximum extent practicable, TMDLs provide an analytical basis for planning and implementing pollution controls, land management practices, and restoration projects needed to protect water quality. According to the 2002 CWA Section 303(d) List of Water Quality Limited Segments, there are no impaired receiving water bodies within the vicinity of the College Park Project. The project site is adjacent to the San Antonio Channel, which is not on the 303(d) list.

8.2. Water Quality Objectives

In 1995, the SARWQCB revised its Santa Ana River Basin Water Quality Control Plan (Basin Plan), which establishes water quality objectives for surface and ground waters in the Santa Ana Region.

8.2.1. Surface Waters

The designated beneficial uses of the San Antonio Creek, which is the receiving water body for the proposed project, are:

- MUN - municipal and domestic supply;
- AGR – agricultural supply;
- IND – industrial service supply;
- PROC – industrial process supply;
- GWR – groundwater recharge;
- POW – hydropower generation;
- REC1 – water contact recreation;
- REC2 – non-contact water recreation;
- COLD – cold freshwater habitat; and
- WILD – wildlife habitat.

San Antonio Creek water quality objectives to maintain these beneficial uses are:

- Total Dissolved Solids (TDS) – 225 mg/L;
- Hardness ($CaCO_3$) – 150 mg/L;
- Sodium (Na) – 20 mg/L;
- Chloride (Cl)– 6 mg/L;
- Total Inorganic Nitrogen (TIN) – 4 mg/L;
- Sulfate (SO_4) – 25 mg/L; and
- Chemical Oxygen Demand (COD) – 5 mg/L.

Based on the proposed drainage plan, the College Park Project will indirectly discharge into the San Antonio Creek via the MS4 owned and operated by the City of Upland. Under the current San Bernardino County MS4 Permit, no numeric effluent limitations are required for storm water discharges and no sampling or monitoring programs are required by the owner/developer. However, the activities associated with the proposed project necessitates the implementation of construction BMPs, with the best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT), and post-construction BMPs to the maximum extent practicable (MEP) to mitigate and abate pollutants that may compromise the Creek's beneficial uses and water quality objectives.

8.2.2. Groundwater

Groundwater is a valuable water resource in inland areas of the Santa Ana Region. A significant portion of San Bernardino County relies upon groundwater as a source of municipal water supply. As a result, water quality objectives were established by the SARWQCB in its Basin Plan for the region's groundwater basins and subbasins. The College Park Project resides in the Cucamonga subbasin of the Chino Groundwater Basin. In 1978, the Chino Groundwater Basin was adjudicated by the California Superior Court. It serves as the primary source of water for the basin's cities, industry, and remaining agriculture. Since 1975, several significant studies of the basin have indicated that groundwater quality has been seriously degraded over the years. Two particular concerns brought up in the 2002 Watershed Management Initiative for the Santa Ana Region are (1) quality and quantity of the groundwater supply, (2) storm water runoff and related water quality impacts.[13]

Cucamonga subbasin has beneficial use designations of: MUN, AGR, IND, and PROC. The water quality objectives to support these beneficial uses for the subbasin are listed in the table below.[14]

Subbasin	Water Quality Objectives (mg/L)						Hydrologic Unit	
	TDS	Hard.	Na	Cl	NO_3-N	SO_4	Primary	Secondary
Cucamonga	220	170	15	15	5	20	801.24	801.21
Chino I	220	170	15	15	5	20	801.21	481.23, 418.22, 801.27

[13] Santa Ana Regional Water Quality Control Board (8): Watershed Management Initiative Chapter, Section 3.1 (February 2002).

[14] Chino I subbasin is also shown due to its proximity to the project site and its overlap with the southern portions of the City of Upland.

As a source of municipal and domestic water supply, Cucamonga subbasin is also regulated for numerous other water quality objectives such as heavy metals, total coliforms, barium and boron among others.

Based on the proposed site plan, the project does not include any significant infiltration zones where the bottom of the infiltration structural BMP is within ten feet of the historic high groundwater mark. In addition, any proposed infiltration BMP's such as storm water planters will be designed with sufficient vegetation, permeable soil to provide adequate treatment and removal of typical storm water pollutants, and underdrain pipes prior to discharging into the MS4 system.

9. WATER QUALITY IMPACTS AND MITIGATION MEASURES

The following sub-sections will describe the existing regulations and threshold standards, identify the potential impacts and introduce project design features and mitigation measures to reduce potential impacts with respect to water quality.

9.1. Existing Regulations

Storm water runoff generated from within the project is managed in accordance with existing laws and regulations established under the NPDES Pollutant Discharge Elimination System of the Clean Water Act, Section 402; the State of California NPDES General Permit for Construction Activities adopted by the SWRCB under Water Quality Order No. 99-08-DWQ; the San Bernardino County NPDES MS4 Permit (No. CAS6118036) adopted April 26, 2002 by the RWQCB Santa Ana Region with the City of Upland and the County as co-permittees, under Order No. R-8-2002-0012; the associated San Bernardino Municipal Storm Water Management Program (MSWMP); and the City of Upland Municipal Code, Sanitation and Health Chapter, Section 5880.8.

Pursuant to Title 14, Chapter 3, Appendix G (Environmental Checklist Form) of the Guidelines for Implementation of the California Environmental Quality Act (CEQA), thresholds of significance applicable to the environmental issue of water quality are whether the project would:

- Violate any water quality standards or waste discharge requirements; or
- Otherwise substantially degrade water quality.

In addition, the San Bernardino County NPDES Area MS4 Permit requires the following questions be analyzed for potential impacts.

- Potential impacts of project construction on storm water runoff; or
- Potential impact of project's post-construction activity on storm water runoff; or
- Potential for discharge of storm water pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.

9.2. Potential Impacts

Clearing, grading, excavation and construction activities associated with the proposed project may impact water quality due to sheet erosion of exposed soils and subsequent deposition of particles and pollutants in drainage aras. Grading activities, in particular, lead to exposed areas of loose soil, as well as sediment stockpiles, that are susceptible to uncontrolled sheet flow. The use of materials such as fuels, solvents, and paints also present a risk to surface water quality due to an increased potential for non-visible pollutants entering the storm drain system. If uncontrolled, these materials could lead to water quality problems including sediment-laden runoff, prohibited non-storm water discharges, and ultimately the degradation of downstream receiving water bodies, such as the San Antonio Creek adjacent to the project site.

Development of the proposed project may result in long-term impacts to the quality of storm water and urban runoff, subsequently impacting downstream water quality. New developments, similar to the College Park Project, generally alter the existing drainage course, increase the area of impervious surface, and create potential sources for runoff contamination. As a consequence, the proposed project has the potential to increase the post-construction pollutant loadings of certain constituent pollutants associated with 11.39 acres of commercial buildings, 22.67 acres of residential housing, 1.05 acres of recreational area, and 3.58 acres of streets and dedications. These constituents are summarized in the table below:

Anticipated and Potential Pollutants Generated by Land Use Type[15]

Priority Project Categories and/or Project Features	General Pollutant Categories								
	Bacteria/ Virus	Heavy Metals	Nutrients	Pesticides	Organic Compounds	Sediments	Trash & Debris	Oxygen Demanding Substances	Oil & Grease
Detached Residential Development	X		X	X		X	X	X	X
Attached Residential Development	P		X	X		X	X	P(1)	P (2)
Commercial/ Industrial Development >100,000 ft²	P (3)	P	P (1)	P (1)	P (5)	P (1)	X	P (1)	X
Service Station		P	X		X (4, 5)		X		X
Restaurants	X						X	X	X
Parking Lots			P (1)	P (1)	X (4)	P (1)	X	P (1)	X
Streets		X	P (1)	P (1)	X (4)	X	X	P (1)	X

X = anticipated.
P = potential
(1) A potential pollutant if landscaping or open area exist on-site.
(2) A potential pollutant if the project includes uncovered parking areas.
(3) A potential pollutant if land use involves food or animal waste products.
(4) Including petroleum hydrocarbons.
(5) Including solvents.

[15] California Regional Water Quality Control Board (RWQCB), Santa Ana Region

The College Park Project will generate storm water runoff and non-storm water discharges that will enter into the MS4 and ultimately discharge into receiving water bodies during the construction and post-construction phases of the project. Project approval by the City of Upland will require obtaining coverage under the SWRCB issued GCP, which requires the project to develop a SWPPP to minimize potential construction related impacts on storm water runoff. In addition, by City ordinance, a WQMP must be prepared and submitted for City review and approval to address the potential long-term impacts of the project. There are no 303(d) listed water bodies that will receive drainage from the proposed project leading to the exceedence of water quality standards.

9.3. Project Design Features / Mitigation Measures

The following measures are required to reduce construction and long-term water quality impacts from the College Park Project.

9.3.1. Construction Measures

Under the Statewide General Construction NPDES Permit (Order 92-08-DWQ), the project proponent must submit a Notice of Intent (NOI) to the State Water Resources Control Board (SWRCB) prior to commencement of construction activities. In addition, a SWPPP must be prepared and implemented at the project site, and revised as necessary as administrative or physical conditions change. The SWPPP must describe Best Management Practices (BMPs) that address pollutant source reduction and provide measures/controls necessary to mitigate potential pollutant sources. These include, but are not limited to: erosion controls, sediment controls, tracking controls, non-storm water management, materials & waste management, and good housekeeping practices.[16]

Erosion Controls

The scheduling of construction activities should minimize soil disturbing activities in the wet season. If such activities occur in the wet season, all exposed slopes or areas with loose soil will be stabilized. This may involve the application of hydraulic mulch, soil binders, geotextiles and mats, or hydroseeding. Temporary earth dikes or drainage swales may also be employed to divert runoff away from exposed areas and into more suitable locations. If implemented correctly, erosion controls can effectively reduce the sediment loads entrained in storm water runoff from construction sites.

Sediment Controls

Sediment discharges off-site will be controlled by employing sediment control BMPs. All storm drain inlets on the project site should be adequately protected with an impoundment (i.e. gravel bags) around the inlet and equipped with a sediment filter (i.e. fiber roll). In addition, silt fencing should be installed along the perimeter of the site where sheet flows discharge from the site. They should also be placed around areas of soil disturbing activities, such as grading or clearing. Check dams or chevrons should be situated in areas where high velocity runoff is anticipated. Gravel bag berms or fiber rolls should be used to

[16] A widely used resource for construction BMPs can be found at: http://www.cabmphandbooks.com/Construction.asp.

intercept sheet flows or at the toe of slopes to minimize sediment mobilization. Street sweeping should also be scheduled in areas where sediment can be tracked from the project site onto paved streets or roads.

Tracking Controls

The proposed project site will stabilize all construction entrance/ exit points to reduce the tracking of sediments onto paved streets and roads by construction vehicles. Construction roadways should also be stabilized to minimize offsite tracking of mud and dirt. Wind erosion controls should be employed in conjunction with tracking controls.

Non-Storm Water Management

Paving and grinding operations should be avoided during the wet season, where possible. Illegal connections and dumpings incidents on the construction site, especially at or near storm drain inlets, will be promply reported and cleaned up at the earliest opportunity. Vehicle equipment cleaning, fueling, and maintenance should be conducted in designated areas that are adequately protected and contained. Spill kits should also be readily available in these designated areas.

Materials and Waste Management

All materials with the potential to contaminate storm water runoff should be delivered and stored in designated areas with secondary containment measures (i.e. covered and bermed). Chemicals, drums, and bagged materials should not be stored directly on soil, but instead be on pallets. Personnel should also be trained on the proper use of these materials. Stockpiles of sediment should be stored in areas away from drainage courses and concentrated flows of runoff. A temporary barrier around stockpiles should also be installed and cover provided during the rainy season. Spill cleanup procedures and kits should be made readily available near hazardous materials and waste. Solid wastes, such as trash and debris, should be collected on a regular basis and stored in designated areas. Concrete and paint washout areas should be installed in areas conducting their associated activities and properly maintained.

Monitoring Program

A monitoring program will also be included in the SWPPP that outlines storm event inspections of the site and a sampling plan in accordance with the GCP. "The goals of [the program] are (1) to identify areas contributing to a storm water discharge; (2) to evaluate whether measures to reduce pollutant loadings identified in the SWPPP are adequate and properly installed and functioning in accordance with the terms of the General Permit; and (3) whether additional control practices or corrective maintenance activities are needed."[17] If a discharge is observed during these inspections, a sampling and analysis of the discharge is required.

Sampling and Analysis

"Any breach, malfunction, leakage, or spill observed which could result in the discharge of pollutants to surface waters that would not be visually detectable

[17] Website: http://www.swrcb.ca.gov/stormwtr/docs/finalconstpermit120602.doc. (Fact Sheet for Water Quality Order 99-08-DWQ)

in storm water shall trigger the collection of a sample of discharge...The goal of the sampling and analysis is to determine whether the BMPs employed and maintained on site are effective in preventing the potential pollutants from coming in contact with storm water and causing or contributing to an exceedance of water quality objectives in the receiving waters."[18] In this case, sampling and analysis will be required to ensure that the beneficial uses of San Antonio Creek are protected. In particular, sampling and analysis of potential discharges originating from the project site shall consider testing for concentrations of TDS, Hardness, Na, Cl, TIN, SO_4, and COD.

9.3.2. Post-Construction Storm Water Management Measures

In conformance with WDR Order No. R8-2002-0012, NPDES Permit No. CAS618036, the San Bernardino County NPDES Permit, the College Park Project will implement various non-structural and structural BMPs to ensure that long-term water quality is protected from the daily operations of its proposed improvements. This permit requires that discharges of pollutants to the MS4 from areas of new development be reduced to the maximum extent practicable. Compliance with this standard requires that control measures be incorporated into the design of new development to reduce pollution discharges in site runoff over the life of the project. The City of Upland also operates under Municipal Code Section 5880.8, which prohibits certain urban runoff discharges to the MS4.

Due to water quality objectives established for groundwater in the Basin Plan, any use of structural infiltration treatment BMPs for the post-construction operations of the proposed site must not cause or contribute to an exceedance of groundwater quality objectives for Cucamonga Basin. Guidelines for proper design and use of these BMPs in Section XII.C. of the San Bernardino County MS4 Permit include[19]: (1) not be implemented in industrial or high vehicular traffic areas (25,000 or greater average daily traffic), (2) be located at least 100 feet from water supply wells, (3) maintain a distance of at least 10 feet from the high groundwater mark, (4) not cause a nuisance or pollution as defined in Water Code Section 13050, and (5) incorporate source control and pollution prevention BMPs to protect groundwater quality.[20] These measures will need to be documented in the project WQMP in order reduce infiltration treatment BMPs to the threshold of significance to less than significant.

A Water Quality Management Plan (WQMP) will be required pursuant to the County MSWMP. The WQMP will outline the BMPs to be used to satisfy storm water discharge criteria for the post-construction phase of the project. BMP selection is based on using Best Available Technology (BAT) that is economically feasible to remove the pollutants of concern to the MEP. Post-construction BMPs should be implemented according to the land uses proposed for the project site. SARWQCB approved non-structural and structural BMPs can be

[18] Water Quality Order 99-08-DWQ, Section B.8.
[19] WDR Order No. R8-2002-0012, NPDES Permit No. CAS618036.
[20] WDR Order No. R8-2002-0012, NPDES Permit No. CAS618036, Section VII.C.

found in the "Guidelines for New Development and Redevelopment" (June 2000), developed for use by the permittees of the San Bernardino County Storm Water Program to assist with the preparation of WQMP's. The following tables provide a summary of the required BMPs and their areas of application for the proposed development plan:

Non-Structural BMPs

Appropriate Non-Structural BMPs		Residential	Retail/ Office Center	Restaurants Warehouse/ Grocery	Fuel Dispensing
Homeowner/ Tenant Education	(N1)	X	X		
Activity Restrictions	(N2)	X	X	X	
Common Area Landscape Management	(N3)	X	X	X	
Catch Basin Inspection	(N4)	X	X	X	X
Common Area Litter Control	(N5)	X	X	X	X
Private Street/ Lot Sweeping	(N6)	X	X	X	
Underground Storage Tank Compliance	(N7)			X	X
Spill Contingency Plan	(N8)				X
Haz-Mat Disclosure Compliance	(N9)				X
Uniform Fire Code Implementation	(N10)				X
Title 22 CFR Compliance	(N11)				X
Housekeeping of Loading Docks	(N12)			X	
Employee Training	(N13)		X	X	X
BMP Maintenance	(N14)	X	X	X	X

Routine Structural BMPs

Appropriate Routine Structural BMPs		Residential	Retail/ Office Center	Restaurants Warehouse/ Grocery	Fuel Dispensing
Control of Impervious Runoff	(S1)	X	X	X	
Common Area Efficient Irrigation	(S2)	X	X	X	X
Common Area Runoff Minimizing Landscape	(S3)	X	X	X	X
Community Car Wash Racks	(S4)	X			
Wash Water Controls For Food Preparation Areas	(S5)			X	
Trash Container (Dumpster) Areas	(S6)	X	X	X	X
Self Contained Areas For Washing/ Steam Cleaning/ Repair/ Mat. Processing	(S7)			X	X
Outdoor Storage	(S8)			X	X
Motor Fuel Concrete Dispensing Area	(S9)				X
Motor Fuel Dispensing Area Canopy	(S10)				X
Air/Water Supply Area Drainage	(S11)				X
Energy Dissipaters	(S12)	X	X		
Catch Basin Stenciling	(S13)	X	X		
Inlet Trash Racks	(S14)	X	X		

Site Design / Source Control Measures

The first component to water quality management involves site design and source control measures. Site design measures include minimization of impervious surfaces, minimization of erosion and sedimentation from susceptible areas and minimization of directly connected impervious areas by utilizing landscaped areas for roof drainage. Source control measures effectively minimize the potential for typical urban pollutants to come into contact with storm water, thereby limiting water quality impacts downstream. These features include use of drought tolerant landscaping, efficient irrigation systems and properly designed trash storage areas among others.

The commercial component of the College Park Project consists of a service station/ mini mart, a retail center, a 3-story hotel, and a 2-story garden office building. The residential component of the proposed project will consist of 50 single-family detached units and 448 multi-family attached units along with 896 parking stalls. The recreational area consists of an open space greenbelt area. The following combination of site design and source control mitigation measures shall be implemented:

- For the service station, the fuel dispensing area must be properly designed. The area shall be paved with Portland cement concrete, or equivalent, with a 2 to 4 percent grade to prevent ponding. It shall also be designed to prevent run-on of storm water into the area. The dispensing area must also be canopied and the roof drainage must not enter the area.
- Trash containers in the fuel dispensing area must also be properly protected from run-on.
- All trash containers located around the commercial buildings and residential areas must have roof drainage diverted around them and should be leak proof with covers.
- All proposed catch basins must be stenciled with "No Dumping – Flows to Creek" or other equally effective message, and inlet trash racks should be considered.
- Runoff from impervious areas should be diverted to landscaped areas wherever possible (i.e. storm water planters)
- Semi-permeable pavement shall be considered for applicable hardscape areas.
- Each restaurant should have contained areas, floor sinks, and mop sinks all connecting to the sanitary sewer for disposal of wash waters. In addition, the contained areas should be covered to prevent storm water contact. Outdoor storage of materials should have secondary containment and shall be protected from storm waters.
- Parking lots and streets shall be swept on a routine basis (i.e. monthly)
- Efficient irrigation systems that minimize runoff and evaporation, and maximize the water that would reach the plant roots, such as a dripline system should be installed.

- Timed irrigation systems shall be provided for water conservation in all community or public serving areas.
- Mulch shall be used to the extent feasible in all landscape areas to minimize soil erosion.
- Reducing pesticide and fertilizer use at the source can minimize pollutants in urban runoff. The project developer and homeowners' association(s) shall adopt Integrated Pest Management (IPM) programs for use on their own public grounds in addition to promoting their use to project residents.
- "Pooper-scooper" regulations shall be included in CC&R's to require proper disposal of animal waste and prevent additional bacteria loading into storm water.
- Stabilization of exposed surfaces with permanent measures such as hydroseed and vegetation as soon as practical after completion of final grading.
- Car wash racks if car washing is to be allowed in the high-density multi-family areas
- Homeowner/Tenant storm water education material distribution
- Maintenance schedules for all structural and non-structural BMPs implemented throughout the project site
  - More specifically, an agreement between the project applicant/developer, the HOA and the City of Upland citing the maintenance requirements for all water quality structural BMPs (catch basin inserts, storm drain inserts, landscaping areas) and the source of funding shall be executed prior to the approval of a grading permit.

Additional details on these BMPs are provided in the aforementioned "Guidelines for New Development and Redevelopment" and will be further documented in the final Water Quality Management Plan.

Treatment Control Measures

Treatment control BMP's are required for all development projects that trigger a certain threshold of development. The applicable thresholds to the proposed project include[21]:

- Home divisions of 10 or more (attached, detached, multi-family, condominiums and apartments)
- Commercial developments of 100,000 sq ft or more
- Restaurants where the land development is 5,000 sq ft or more
- Parking lots of 5,000 sq ft or more exposed to storm water

Treatment control BMPs (structural BMPs) are required for all new development and must be sized to comply with one of the following numeric sizing criteria:

- Volume based BMPs shall be designed to infiltrate or treat the volume of runoff produced from a 85th percentile 24-hour storm event, as determined from the local historical rainfall record[22]

[21] WDR Order No. R8-2002-0012, NPDES Permit No. CAS618036, Section XII.B

[22] The Permittees are encouraged to calculate the 85th percentile storm event for each of their jurisdictions using local rain data pertinent to their jurisdiction.

- Flow based BMPs shall be designed to infiltrate or treat the maximum flow rate of runoff produced from a rainfall intensity of 0.2 inches per hour

Structural treatment control BMPs are a class of physical structures designed to treat, infiltrate and/or remove pollutants of concern from storm water runoff. These devices generally target silt, sediment, oil/grease, and floatable trash. Indirect removal of heavy metals and bacteria associated with adsorption to the solids also occurs. For example, parking lots typically contain pollutants such as trash/debris, oil/grease and organic compounds. Structural BMPs such as catch basin inserts or storm drain inserts are designed to remove these pollutants in accordance with the treatment design standards above. Other uses such as residential have the potential to include other pollutants such as pesticides and nutrients so the structural BMPs must be designed to include design elements to address these pollutants as well. Therefore, the following treatment control BMPs shall be implemented:

Commercial/Residential Treatment Control Measures

All runoff from commercial areas (11.4 acres) including the parking lots and roads shall be treated by catch basin inserts or storm drain inserts or a combination thereof. These structural BMPs are designed to remove free oils/greases and hydrocarbons as well as trash, debris and sediment (organic compounds). Opportunities to utilize the landscaped areas within the parking lots to provide storm water filtration (i.e. storm water planter, filtration swale) in place of structural inserts should also be considered.

All runoff from the proposed residential areas (22.7 acres) shall be treated by catch basin inserts, grate inlet inserts, storm water planters or a combination thereof. The structural BMP inserts within the residential areas should be fitted with filtration media to provide treatment of additional pollutants such as nutrients, pesticides and heavy metals. Storm water planters shall also be considered to accept rooftop runoff from buildings, thereby reducing the reliance on structural inserts and filtration media. These planters should be designed with an impervious bottom and an under drain pipe. The planter must include secondary overflow and an approved discharge point to the on-site storm drain system.

The treatment BMPs for this site shall be designed to treat flows according to the following storm water calculation. It is the responsibility of the project applicant/developer and the City Engineer to ensure these treatment requirements are met through the WQMP approval process.

$SQDF = C_D * I_X * A_{TOTAL} * (1.008333\ ft^3\text{-hour/acre-inches-seconds})$;

Where: SQDF = storm water quality design (cfs)
C_D = runoff coefficient of developed area
I_X = .2 inches of rainfall per hour
A_{TOTAL} = total area to be treated

Volume based BMPs such as bio-filtration areas and water quality basins may also be substituted for the recommended flow-based BMPs accordingly.

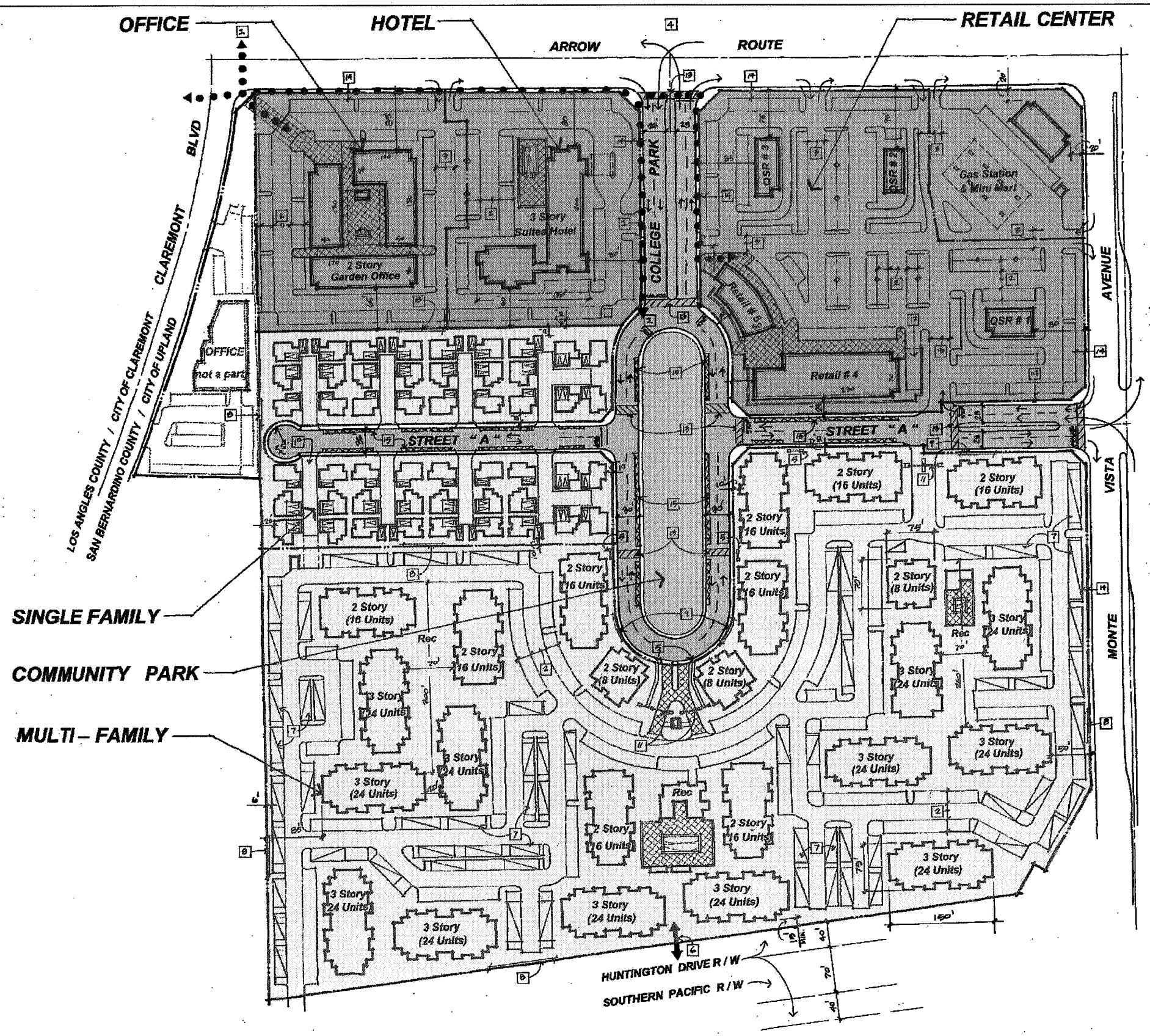
Recreational Treatment Measures

The recreational area provides opportunities for infiltration of storm water through its pervious surface. Where feasible, low flow diversions should be directed towards the landscaped buffer areas surrounding the recreational area to provide first flush treatment of nuissance flows and initial storm flows. The diversion of these flows to the recreational area would reduce the treatment requirements for the remaining commercial and residential development areas. Strict pesticide and irrigation control shall be implemented for these areas. Native drought tolerant plants should be considered in the landscape design. All applicable routine BMPs such as efficient irrigation, common area litter disposal, etc. shall be implemented.

See Figure 4: Water Quality Management Plan for a summary of these BMPs.

10. Level of Significance After Mitigation

During construction, compliance with the General Construction Permit through the use of the SWPPP and on-site BMPs would result in less-than-significant impacts on water quality during the short-term phases of the project. Implementation of the post-construction mitigation measures as identified by the site design, source control and treatment control measures would ensure the proposed project's water quality impacts would be less-than-significant for the long-term operations of the project.



LEGEND

Residential

Storm Drain Insert
Catch Basin Insert - (Filtration Media)
Storm Water Planters

Commercial

Storm Drain Insert
Catch Basins Inserts - (Standard)
Storm Water Planters

Recreational

Low-Flow Diversion
Landscape Buffering

Roads/Streets

Storm Drain Insert
Catch Basin Inserts - (Standard)

Source: Hutton Development Company; KTGY Group, Inc.; Lundstrom & Associates, June 2003.

54 27 0 54
SCALE IN FEET

WATER QUALITY MANAGEMENT PLAN

FUSCOE ENGINEERING

12/18/03

Appendix D: Traffic Impact Analysis Report

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TRAFFIC IMPACT ANALYSIS REPORT
COLLEGE PARK PROJECT
Upland, California

Prepared for:

MICHAEL BRANDMAN ASSOCIATES
220 Commerce, Suite 200
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and

THE CITY OF UPLAND
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Prepared by:



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2-032467-1

December 17, 2003

Prepared By:
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December 17, 2003

Ms. Emilie Johnson, ACIP, Project Manager
MICHAEL BRANDMAN ASSOCIATES
220 Commerce, Suite 200
Irvine, CA 92602

LLG Reference: 2.03.2467.1

SUBJECT: TRAFFIC IMPACT ANALYSIS REPORT FOR THE COLLEGE PARK PROJECT Upland, California

Dear Ms. Johnson:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Traffic Impact Analysis Report for the College Park Project, a mixed-use development that will consist of retail shops, commercial office space, a hotel, single family residential homes and apartments to be developed by Hutton Development Company, Inc. The project site is a 38.69-acre vacant parcel of land located at the southwest corner of Arrow Route and Monte Vista Avenue in the City of Upland, California.

This report summarizes the trip generation potential for the proposed College Park Project, develops an estimated project traffic distribution pattern, and assigns the project-related trips to the roadway system within the project vicinity. The traffic analysis evaluates the relative traffic impacts of the College Park Project at twenty-six (26) study intersections upon opening of the project (2006) and for a long-term horizon year (2025). The project's potential traffic impacts on two (2) segments of the I-10 Freeway were evaluated as well.

Briefly, the proposed project will generate approximately 11,130 daily trips, with 860 trips (401 inbound, 459 outbound) produced in the AM peak hour and 799 trips (397 inbound, 402 outbound) produced in the PM peak hour on a "typical" weekday. Based on the results of our analysis, we conclude that the proposed mixed-use project will have a significant traffic impact at three of the key study intersections in the near-term (Year 2006). In the long-term (Year 2025), the project will have a significant impact at 12 of the twenty-six intersections and two freeway segments on the I-10 Freeway.

The implementation of improvements at the intersections and freeway segments impacted by the College Park Project will result in satisfactory service levels at all study locations. The proposed project can be expected to pay a proportional "fair-share" of the improvement costs of these intersections to mitigate the project's traffic impacts. Based on our fair-share analysis, the project's fair-share contribution for the recommended intersection and freeway improvements totals approximately **$423,971.20**.

* * * * * * * * * * * *

We appreciate the opportunity to prepare this analysis. Should you have any questions or comments regarding the findings and recommendations within this report, please contact our office at (714) 641-1587.

Very truly yours,
LINSCOTT, LAW & GREENSPAN, ENGINEERS

Richard E. Barretto, P.E.
Principal

Daniel A. Kloos, P.E.
Transportation Engineer II





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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY
TRAFFIC IMPACT ANALYSIS REPORT
COLLEGE PARK PROJECT
Upland, California

Project Description and Location

1. The College Park Project is a proposed mixed use development that will consist of a 44,335 square-foot (SF) retail center, a 48,000 SF, two-level office building, a 51,080 SF business hotel with 102 rooms, 50 single–family homes and 448 apartment units. The project site consists of 38.69 acres of vacant land that is located south of Arrow Route and west of Monte Vista Avenue in the western portion of the City of Upland, California. The site is located within the City of Upland, but is bordered by the City of Claremont, the Claremont Colleges and the Los Angeles County line on the west, San Bernardino County on the north and the City of Montclair on the south. The College Park Project is expected to be developed in two phases with full occupancy expected by the Year 2006.

2. The trip generation potential for the proposed College Park Project was estimated based on trip rates found in the Sixth Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington, D.C., 1997]. On a typical weekday, the proposed project is forecast to generate 11,130 daily trips, with 860 trips (401 inbound, 459 outbound) produced in the AM peak hour and 799 trips (397 inbound, 402 outbound) produced in the PM peak hour.

Study Area

3. The following twenty-six (26) intersections and two (2) freeway segments were selected for analysis through application of San Bernardino County Congestion Management Program (CMP) criteria.

1. Mills Ave at Foothill Blvd (Claremont)
2. Claremont Blvd at Foothill Blvd (Claremont)
3. Monte Vista Ave at Foothill Blvd (Upland/SB County)
4. Central Ave at Foothill Blvd (Upland/SB County)
5. Indian Hill Blvd at 6th St (Claremont)
6. Claremont at 6th St/Arrow Rte (Upland/SBC/Claremont)
7. Monte Vista Ave at Arrow Rte (Upland/SB County)
8. Central Ave at Arrow Rte (Upland/SB County)
9. Benson Ave at Arrow Rte (Upland/SB County)
10. Indian Blvd at Arrow Hwy (Claremont)
11. Claremont Blvd at Arrow Hwy (Claremont)
12. Monte Vista Ave at Arrow Hwy (Montclair)
13. Central Ave at Arrow Hwy (Montclair)
14. Benson Ave at Arrow Hwy/8th St (Upland/Montclair)
15. Claremont/Mills at Moreno St (Claremont/Montclair)
16. Monte Vista Ave at Moreno St (Montclair)
17. Central Ave at Moreno St/ 7th St (Montclair)
18. Monte Vista Ave at I-10 WB Ramp (Montclair)
19. Monte Vista Ave at I-10 EB Ramp (Montclair)
20. Central Ave at I-10 WB Ramp (Montclair)
21. Central Ave at I-10 EB Ramp (Montclair)
22. Claremont at San Bernardino (Montclair/Pomona)
23. Monte Vista Ave at San Bernardino Ave (Montclair)
24. Indian Hill Blvd at Foothill Blvd (Claremont)
25. Towne Ave at Foothill Blvd (Claremont/Pomona)
26. Monte Vista Ave at Baseline Road (Claremont)

1. I-10 Freeway, between Towne Avenue and Indian Hill Boulevard
2. I-10 Freeway Freeway, between Indian Hill Boulevard and Monte Vista

Detailed peak hour level of service analyses were prepared for Existing (Year 2003) Traffic Conditions, Year 2006 Background Traffic Conditions, Year 2006 Future Background plus College Park Project Traffic Conditions, Year 2025 Background Traffic Conditions and Year 2025 Future Background plus College Park Project Traffic Conditions at these locations.

Level of Service (LOS) Standards

4. The City of Upland considers LOS "D" as the minimum acceptable condition that should be maintained during the peak commute hours. The Cities of Claremont, Montclair and Pomona also consider LOS "D" as the minimum acceptable condition that should be maintained during the peak commute hours, while the County of San Bernardino considers LOS "C" to be the minimum acceptable condition.

5. The County of San Bernardino 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. Based on the CMP guidelines, traffic operational problems are required to be mitigated to provide LOS E or better operation. However, if the local jurisdiction requires mitigation to a higher LOS, this takes precedence over the CMP requirements.

Existing Conditions

6. Twenty-four (24) of the twenty-six (26) key study intersections currently operate at an acceptable service level during the AM and/or PM peak hour based on the LOS standards defined in this traffic study. Two intersections, Central Avenue at Foothill Boulevard and Monte Vista Road at Baseline Road, currently operate at an unacceptable LOS during the AM peak hour and/or PM peak hour.

7. The two freeway study segments located on the I-10 Freeway, between Towne Avenue and Monte Vista Avenue, currently operate at LOS E or better during the AM peak hour of typical weekday, which is acceptable based on San Bernardino County CMP criteria.

Future Conditions

8. To provide an estimate of future on-street conditions prior to completion of the College Park Project in the Year 2006, the traffic generation potential of thirty-three (33) planned and/or approved, related projects within the project vicinity were included as part of the near-term cumulative traffic setting. Eight (8) related projects are located in the City of Claremont, twenty-four (24) related projects are located in the City of Upland and one (1) related project is located in the City of Rancho Cucamonga.

9. During a "typical" weekday, the 33 related projects are projected to generate 61,299 daily trips with 2,680 AM peak hour trips (1,294 inbound, 1,386 outbound) and 4,127 PM peak hour trips (2,057 inbound, 2,070 outbound) by the Year 2006.

10. The results of the near-term (Year 2006) traffic analysis indicate that the proposed College Park Project will adversely impact three of the key study intersections. The intersections of Central Avenue at Foothill Boulevard, Towne Avenue at Foothill Boulevard and Monte Vista Road at Baseline Road are projected to operate at an unacceptable LOS during the AM peak hour and/or PM peak hour in the Year 2006 with the addition of project traffic. With implementation of recommended improvements, the project's near-term impacts are completely offset and acceptable service levels are achieved at all impacted locations.

11. The results of the long-term (Year 2025) traffic analysis indicate that the proposed College Park Project will adversely impact 12 of the 26 key study intersections. The 12 intersections that are projected to be impacted by the proposed project, and the jurisdiction in which they are located, are listed below.

Key Intersection		City/Jurisdiction
1.	Mills Avenue at Foothill Boulevard	City of Claremont
3.	Monte Vista Avenue at Foothill Boulevard	City of Upland / County of San Bernardino
4	Central Avenue at Foothill Boulevard	City of Upland / County of San Bernardino
6.	Claremont Boulevard at 6th/Arrow Rte	Upland / County of San Bernardino / Claremont
11.	Claremont Boulevard at Arrow Highway	City of Claremont
12.	Monte Vista Avenue at Arrow Highway	City of Claremont / Montclair
15.	Claremont Boulevard at Moreno Street	City of Montclair
19.	Monte Vista Avenue at I-10 EB Ramp	City of Montclair
23.	Monte Vista Ave at San Bernardino Blvd	City of Montclair
24.	Indian Boulevard at Foothill Boulevard	City of Claremont
25.	Towne Avenue at Foothill Boulevard	City of Claremont / Pomona
26.	Monte Vista Avenue at Baseline Road	City of Claremont

Recommended Intersection Mitigation Measures

12. Per CMP guidelines and the City of Upland requirements, the College Park Project can be expected to pay a fair-share of the construction costs to implement these mitigation measures.

- 1) Mills Avenue at Foothill Boulevard
  - Widen and/or restripe Foothill Blvd to provide an exclusive westbound right-turn lane.

- Restripe southbound approach on Mills Avenue to provide two left-turn lanes and a shared through/right-turn lane.
- Modify existing traffic signal and install a split phase operation on Mills Avenue.

- 3) Monte Vista Avenue at Foothill Boulevard
  - Widen and/or restripe to provide a third northbound and a third southbound through lane on Monte Vista Avenue.
  - Widen and/or restripe Foothill Boulevard to provide a third eastbound and a third westbound through lane.
  - Add a second westbound left-turn lane on Foothill Boulevard.
  - Modify existing traffic signal and install an eastbound right-turn overlap phase with the northbound left-turn phase.

- 4) Foothill Boulevard at Central Avenue
  - Restripe the northbound approach of Central Avenue to provide a left-turn lane, a through lane and a right-turn lane.
  - Restripe the southbound right-turn lane on Central to a shared through/right-turn lane.
  - Modify existing traffic signal and remove north-south split-phase operation.

- 6) Claremont Boulevard at 6th Street / Arrow Route
  - Add a separate left-turn lane on the eastbound and westbound approaches of 6th Street / Arrow Route.
  - Modify existing traffic signal and remove east-west split-phase operation.

- 11) Claremont Boulevard at Arrow Highway
  - Widen and/or restripe Arrow Highway to provide an exclusive eastbound right-turn lane.
  - Modify existing traffic signal.

- 12) Monte Vista Avenue at Arrow Highway
  - Widen and/or restripe to provide a third northbound and a third southbound through lane on Monte Vista Avenue.
  - Add a second southbound left-turn lane on Monte Vista Avenue.
  - Modify existing traffic signal and install a westbound right-turn overlap phase with the southbound left-turn phase.

- 15) Moreno Street at Claremont Boulevard
  - Widen and/or restripe Claremont Boulevard to provide a southbound left-turn lane.
  - Widen and/or restripe Moreno Street to provide a westbound left-turn lane.
  - Install a traffic signal.

- 19) I-10 EB Ramp at Monte Vista Avenue
  - Widen and/or restripe the I-10 EB Ramp to provide an exclusive eastbound right-turn lane.
  - Add a second southbound left-turn lane on Monte Vista Avenue.
  - Modify existing traffic signal and install a northbound right-turn overlap phase with the westbound left-turn phase.

- 23) San Bernardino Avenue at Monte Vista Avenue
  - Add a second eastbound left-turn lane on San Bernardino Avenue.
  - Add a northbound left-turn lane on Monte Vista Avenue.
  - Add a separate southbound right-turn lane on Monte Vista Avenue.
  - Restripe southbound approach on Monte Vista Avenue to provide a single left-turn lane, two through lanes and a right-turn lane.
  - Modify existing traffic signal to operate as an eight-phase traffic signal.

- 24) Indian Hill Boulevard at Foothill Boulevard
  - Widen and/or restripe Indian Hill Boulevard provide a second southbound left-turn lane.
  - Modify existing traffic signal.

- 25) Towne Avenue at Foothill Boulevard
  - Widen and/or restripe Towne Avenue to provide a second southbound left-turn lane.
  - Widen and/or restripe Foothill Boulevard to provide an exclusive westbound right-turn lane.
  - Modify existing traffic signal and install a westbound right-turn overlap phase with the southbound left-turn phase.

- 26) Baseline Road at Monte Vista Avenue
  - Widen and/or restripe Baseline Road to provide a second westbound left-turn lane.
  - Widen and/or restripe Monte Vista Avenue to provide an exclusive northbound right-turn lane.
  - Modify existing traffic signal and install a northbound right-turn overlap phase with the westbound left-turn phase.

Recommended Freeway Mitigation Measures

13. The results of the freeway mainline operations analysis indicates that both study segments on the I-10 Freeway, between Towne Avenue and Monte Vista Avenue will operate at an unacceptable level of service without improvements for both the Year 2025 traffic conditions without and with College Park Project traffic. The improvements to the I-10 Freeway consist of the following:

- Eastbound I-10: Add one general use lane between Towne Avenue and Indian Hill Blvd
- Eastbound I-10: Add one general use lane between Indian Hill Blvd and Monte Vista Avenue
- Westbound I-10: Add two general use lanes between Towne Avenue and Indian Hill Blvd
- Westbound I-10: Add two general use lanes between Indian Hill Blvd and Monte Vista Avenue

Project Fair-Share Contribution

14. The implementation of improvements at the intersections impacted by the College Park Project will result in satisfactory service levels at all study intersections. Per the City of Upland and County of San Bernardino CMP criteria, the College Park Project can be expected to pay a proportional "fair-share" of the improvement costs of these intersections to mitigate the project's traffic impacts. The projects "fair-share" contribution is presented in the table below.

Key Intersection		City/Jurisdiction	Fair Share Contribution
1.	Mills Avenue at Foothill Boulevard	City of Claremont	$5,625.00
3.	Monte Vista Ave at Foothill Boulevard	City of Upland / County of San Bernardino	$32,250.00
4	Central Avenue at Foothill Boulevard	City of Upland / County of San Bernardino	$13,680.00
6.	Claremont Boulevard at 6th/Arrow Rte	Upland / County of San Bernardino / Claremont	$65,275.00
11.	Claremont Boulevard at Arrow Highway	City of Claremont	$19,000.00
12.	Monte Vista Avenue at Arrow Highway	City of Claremont / Montclair	$90,090.00
15.	Claremont Boulevard at Moreno Street	City of Montclair	$9,680.00
19.	Monte Vista Avenue at I-10 EB Ramp	City of Montclair	$21,675.00
23.	Monte Vista Ave at San Bernardino Blvd	City of Montclair	$14,805.00
24.	Indian Boulevard at Foothill Boulevard	City of Claremont	$19,500.00
25.	Towne Avenue at Foothill Boulevard	City of Claremont / Pomona	$14,525.00
26.	Monte Vista Avenue at Baseline Road	City of Claremont	$12,425.00
Total Project Fair-Share Contribution for Intersection Improvements:			**$318,530.00**

15. The project's fair share cost contribution for improvements to the impacted segments on the I-10 Freeway totals **$105,441.20.**

16. The overall College Park Project calculated fair share contribution for the intersection and freeway improvements necessary to ensure acceptable services levels are maintained in the Year 2025 is **$423,971.20**.

Site Access Evaluation

17. Access to the College Park Project will be provided via four driveways located along Arrow Route and two driveways located along Monte Vista Avenue for a total of six project driveways. The four driveways along Arrow Route will consist of one "full access" driveway and three

"right-turn in/out only" driveways. The two driveways along Monte Vista Avenue will consist of one "full access" driveway and one "right-turn in/out only" driveway. The two "full access" driveways will require the installation of traffic signals to accommodate projected traffic volumes at these project access points.

18. Based on review of the conceptual site plan, it appears that the on-site circulation layout for the College Park Project is adequate. However, to ensure truck access for small service/delivery (Fedex, UPS) trucks and trash trucks, and large trucks can be accommodated, we recommend an on-site truck circulation evaluation be conducted during the refinement and development of the project site plan.

Recommended Project Circulation Improvements

19. To ensure that adequate access and egress to the project site is provided and impacts to through traffic on Arrow Route and Monte Vista Avenue are minimized, the following improvements are recommended.

- **Arrow Route, adjacent to the project site:** Widen and improve Arrow Route bordering the project site to ultimate half-section width per the City of Upland Secondary Highway street standards. Arrow Route, within City limits, is designated as a Secondary Highway in the City of Upland Master Plan of Streets & Highway with an 88-foot right-of way section, 64-foot paved width, and 12-foot sidewalk/landscape areas on either side.

- **Arrow Route at Driveway #1:** Install a "STOP" sign and stop bar at this project driveway.

- **Arrow Route at College Park (Driveway #2):** Install a 175-foot westbound left-turn lane with a 90-foot transition on Arrow Route at Driveway #2. Install a three-phase traffic signal at this project driveway.

- **Arrow Route at Driveway #3:** Install a "STOP" sign and stop bar at this project driveway.

- **Arrow Route at Driveway #4:** Install a "STOP" sign and stop bar at this project driveway.

- **Monte Vista Avenue at Driveway #5:** Install a "STOP" sign and stop bar at this project driveway.

- **Monte Vista Avenue at Street "A" (Driveway #6):** Install a 200-foot northbound left-turn lane with a 90-foot transition on Monte Vista Avenue at Driveway #6. Install a three-phase traffic signal at this project driveway.

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TRAFFIC IMPACT ANALYSIS REPORT

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TRAFFIC IMPACT ANALYSIS REPORT
COLLEGE PARK PROJECT
Upland, California

INTRODUCTION

This Traffic Impact Analysis Report has been prepared to evaluate the potential traffic impacts and circulation needs associated with the College Park Project, a mixed-use development that will consist of retail shops, commercial office space, a hotel, single family residential homes and apartments to be developed by Hutton Development Company, Inc. The project site is a 38.69-acre vacant parcel of land located at the southwest corner of Arrow Route and Monte Vista Avenue in the City of Upland, California.

This traffic analysis identifies the potential traffic impacts that the College Park Project will have on the Congestion Management Program (CMP) local and regional network in the vicinity of the project site. A total of twenty-six (26) intersections and two (2) freeway segments have been identified as the locations that may be impacted by the proposed project. The project site has been visited and an existing inventory of adjacent area roadways and intersections made. Existing traffic count information has been compiled and is utilized in this report in support of a detailed intersection capacity analysis.

The Scope of Work for this project was developed in consideration of the City of Upland requirements and discussions with San Bernardino Associated Governments (SANBAG) staff. This traffic analysis follows the guidelines for the preparation of traffic impact analysis reports as outlined in the *Congestion Management Program for San Bernardino County, 2001 Update.* The City of Upland is the lead agency for the environmental analysis of the proposed project, in accordance with CMP legislation. Given the project site's proximity to Los Angeles County, the report also considers the traffic study requirements contained in the *2002 Congestion Management Program (CMP) for Los Angeles County.*

Per the San Bernardino CMP requirements, this traffic report analyzes existing traffic conditions and future peak hour traffic conditions upon opening (completion) of the project (Year 2006) and in the CMP horizon year (Year 2025). Near-term cumulative peak hour traffic forecasts were projected by incorporating a one (1%) percent annual growth rate and the trip generation potential of thirty-three (33) related projects. Long-term peak hour traffic forecasts were projected based on modeled traffic projections prepared by SCAG-Riverside utilizing the Riverside-San Bernardino (RIVSAN) County Transportation Planning (CTP) Funded 2025 Model.

Per the San Bernardino County CMP, the study area must include all freeway links with 100 or more project trips (two-way) and other CMP roadways with 80 or more peak hour project trips (two-way). In addition, the analysis need not extend more than five miles beyond the project site, even if there are more than 80 project trips on an arterial and 100 project trips on a freeway.

For study intersections and freeway segments located within Los Angeles County, the trip thresholds outlined in the *2002 Congestion Management Program for Los Angeles* (i.e., greater than 50 vehicles per hour (vph) at intersections/arterial street segments and greater than 150 vph in either direction on mainline freeway segments) was utilized.

The twenty-six (26) key study intersections and two (2) I-10 Freeway segments selected for evaluation were determined primarily through application of San Bernardino County CMP criteria and in coordination with City staff. The project's added traffic volumes on to the SR-210 Freeway were below the CMP threshold required for analysis.

The intersections listed below provide both local and regional access to the study area and define the extent of the boundaries for this traffic impact investigation.

1. Mills Ave at Foothill Blvd (Claremont)
2. Claremont Blvd at Foothill Blvd (Claremont)
3. Monte Vista Ave at Foothill Blvd (Upland/SB County)
4. Central Ave at Foothill Blvd (Upland/SB County)
5. Indian Hill Blvd at 6th St (Claremont)
6. Claremont at 6th St/Arrow Rte (Upland/SBC/Claremont)
7. Monte Vista Ave at Arrow Rte (Upland/SB County)
8. Central Ave at Arrow Rte (Upland/SB County)
9. Benson Ave at Arrow Rte (Upland/SB County)
10. Indian Blvd at Arrow Hwy (Claremont)
11. Claremont Blvd at Arrow Hwy (Claremont)
12. Monte Vista Ave at Arrow Hwy (Montclair)
13. Central Ave at Arrow Hwy (Montclair)
14. Benson Ave at Arrow Hwy/8th St (Upland/Montclair)
15. Claremont/Mills at Moreno St (Claremont/Montclair)
16. Monte Vista Ave at Moreno St (Montclair)
17. Central Ave at Moreno St/ 7th St (Montclair)
18. Monte Vista Ave at I-10 WB Ramp (Montclair)
19. Monte Vista Ave at I-10 EB Ramp (Montclair)
20. Central Ave at I-10 WB Ramp (Montclair)
21. Central Ave at I-10 EB Ramp (Montclair)
22. Claremont at San Bernardino (Montclair/Pomona)
23. Monte Vista Ave at San Bernardino Ave (Montclair)
24. Indian Hill Blvd at Foothill Blvd (Claremont)
25. Towne Ave at Foothill Blvd (Claremont/Pomona)
26. Monte Vista Ave at Baseline Road (Claremont)

The Level of Service (LOS) investigations at these key locations were used to evaluate the potential traffic-related impacts associated with area growth, related projects and the proposed College Park Project. When necessary, this report recommends intersection improvements that may be required to accommodate future traffic volumes and restore/maintain an acceptable Level of Service, and/or mitigate the impact of the project. The project's potential fair-share contribution to the cost of intersection and/or freeway improvements has been specifically calculated.

Included in this Traffic Impact Analysis Report are:

- Existing traffic counts,
- Estimated cumulative project traffic generation/assignment,
- Estimated project traffic generation/distribution/assignment,
- AM and PM peak hour analyses for existing conditions and near-term and long-term conditions without and with project traffic,
- Freeway Segment (CMP) Analysis,
- Area Traffic Improvements,

- Project-Related Fair-Share Contributions,
- Los Angeles County Congestion Management Program Compliance,
- Site Access Evaluation, and
- Evaluation of First Street / Huntington Drive Connection

PROJECT DESCRIPTION AND LOCATION

The project site consists of 38.69 acres of vacant land that is located south of Arrow Route and west of Monte Vista Avenue in the western portion of the City of Upland, California. The site is located within the City of Upland, but is bordered by the City of Claremont, the Claremont Colleges and the Los Angeles County line on the west, San Bernardino County on the north and the City of Montclair on the south. **Exhibit 1** presents a Vicinity Map, which illustrates the general location of the project site and depicts the existing surrounding transportation system that will service the site.

Exhibit 2 presents the Conceptual Site Plan for the College Park Project. Review of the project site plan indicates that the proposed mixed-use project consists of three components: retail, commercial, and residential. The retail component of the project includes a service station/mini mart, a retail center that will include a variety of retail shops, office suites, and/or food uses. The commercial component of the project includes a garden office building and a business hotel. The residential component includes single-family detached (patio/courtyard-style) homes and apartments. In addition, a 1.05-acre community park is proposed.

Table 1 presents the currently proposed development totals for this project. The proposed mixed-use project includes development of a 44,335 square-foot (SF) retail center, a 48,000 SF, two-level office building, a 51,080 SF business hotel with 102 rooms, 50 single–family homes and 448 apartment units.

Access to the proposed project will be provided via driveways located along Monte Vista Avenue and Arrow Route. Primary access will be provided via "full access" driveways at the intersections of College Park and Arrow Route and Street "A" and Monte Vista Avenue. Secondary access will be provided via three proposed "right-turn only" driveways on Arrow Route and one "right-turn only" driveway on Monte Vista Avenue. The College Park Project is expected to be developed in the following two phases with full occupancy expected by the Year 2006.

- Phase 1: 44,335 SF Retail Center with Service Station/Mini-Mart; 50 single family residential homes; 224 apartment units (50% of total); 48,000 SF office building; community park and all primary access and internal roadway improvements.

- Phase 2: 224 apartment units (50% of total); 51,080 SF, 102-room hotel.

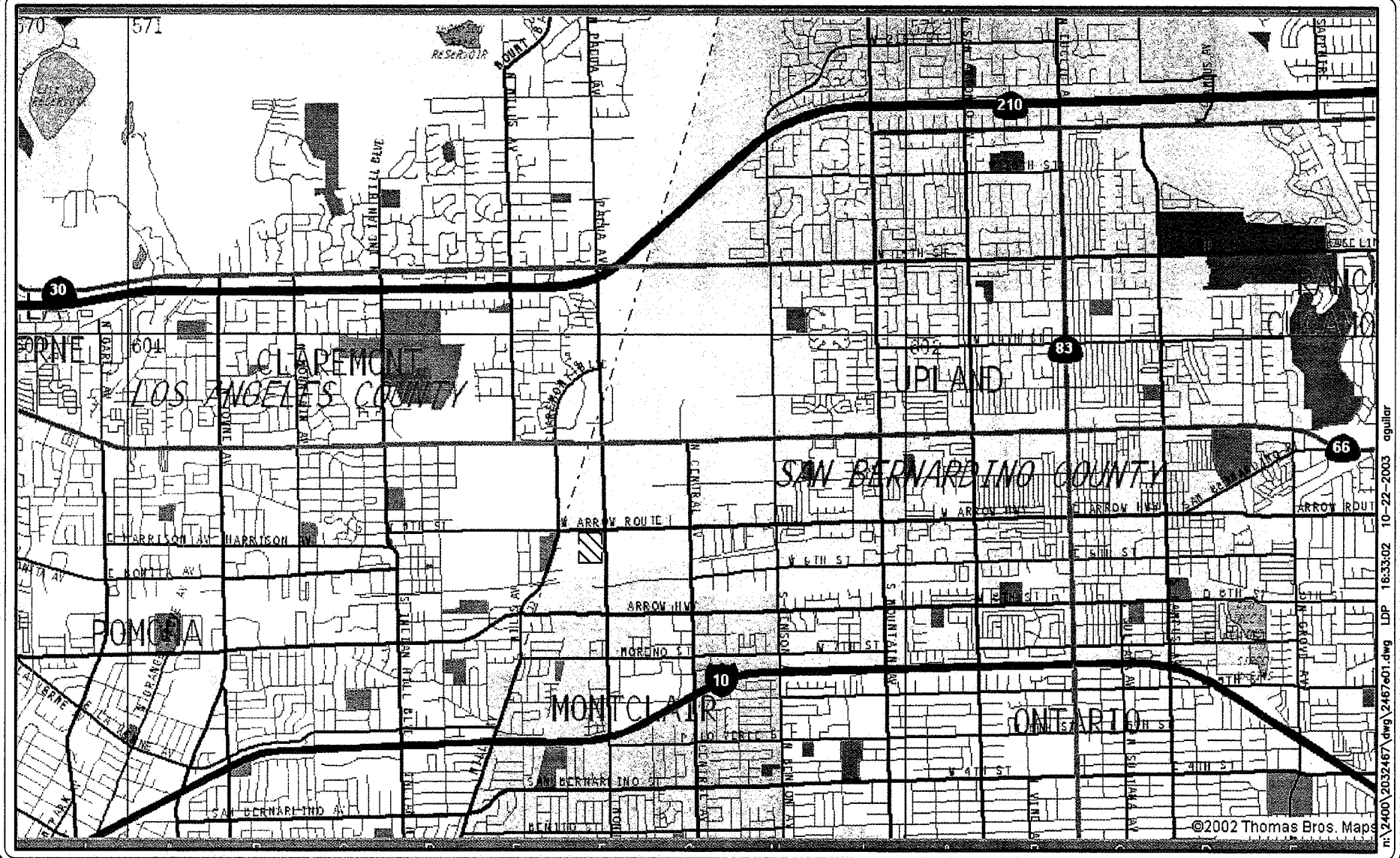
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TABLE 1

PROGRAM DEVELOPMENT SUMMARY[1]
College Park Project, Upland

PROJECT USE	Square-Feet (SF) / No. of Units (DU)		Acres (AC)	
Retail Component				
• Office Suites	6,240	SF		
• Retail Shops	12,490	SF		
• In-line Food Uses/Restaurants	12,480	SF		
• Fast-Food Restaurants	9,225	SF	5.24	AC
• Gas Station/Mini-Mart (16 fueling positions)	3,900	SF	1.25	AC
Subtotal – Retail	**44,335**	**SF**	**6.49**	**AC**
Commercial Component				
• General Office Building	48,000	SF	2.38	AC
• Business Hotel (102 Rooms)	51,080	SF	2.52	AC
Subtotal – Commercial	**99,080**	**SF**	**4.90**	**AC**
Total Retail/Commercial Floor Area	**143,415**	**SF**	**11.39**	**AC**
Residential Component				
• Single Family Detached Homes	50	DU	3.77	AC
• Multi-Family/Apartments	448	DU	18.90	AC
Total Residential Units	**498**	**DU**	**22.67**	**AC**
Recreational Component				
• Community Park	**N/A**		**1.05**	**AC**
• Streets and Dedication	**155,887**	**SF**	**3.58**	**AC**
PROJECT TOTAL	**N/A**		**38.69**	**AC**

[1] Source: *Project Summary and Master Plan, dated June 19, 2003,* prepared for Hutton Development Co., Inc. by KTGY Group, Inc. and Lundstrom & Associates.



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SOURCE: THOMAS BROS.

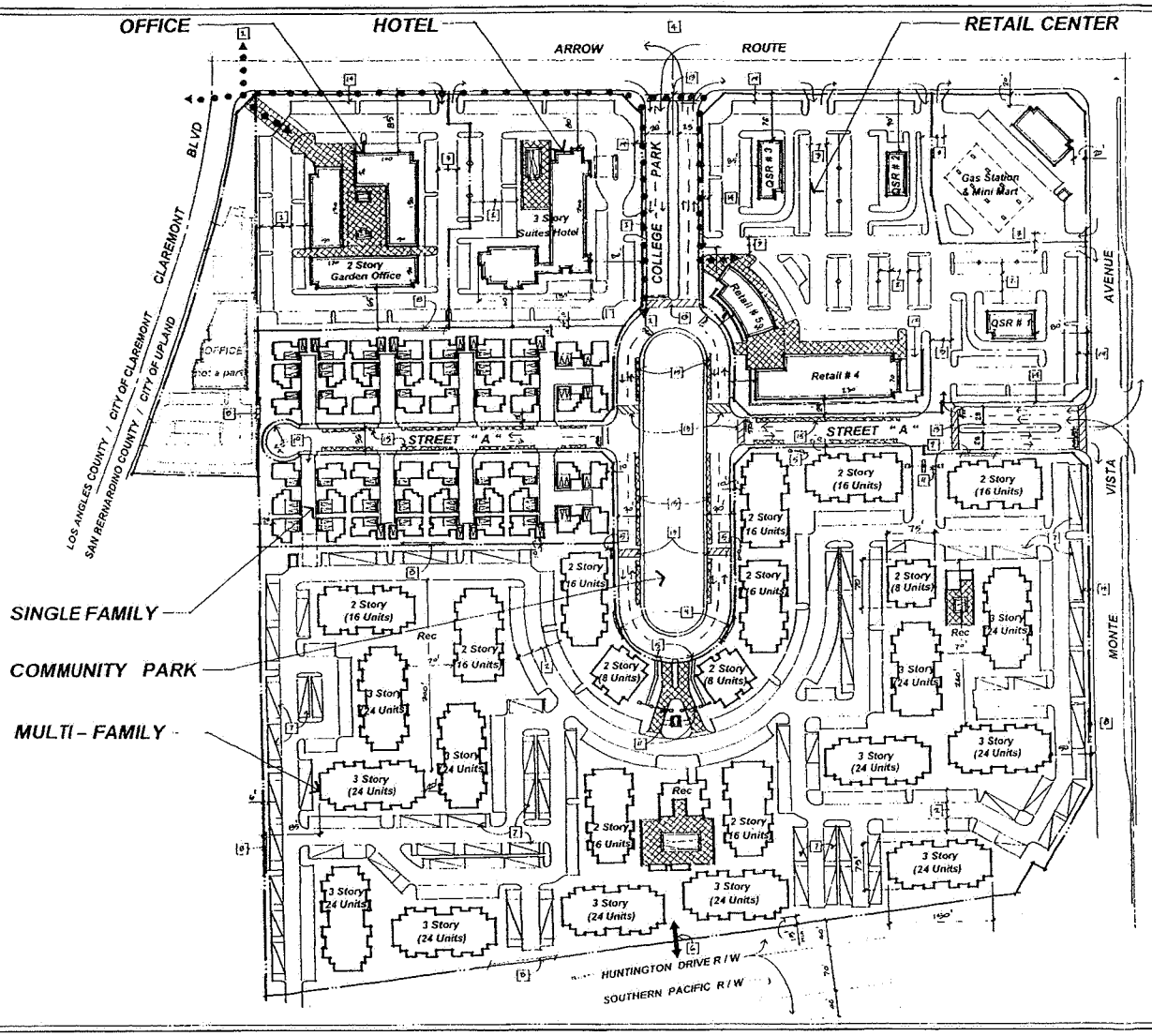
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EXHIBIT 1

VICINITY MAP

COLLEGE PARK, UPLAND



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EXHIBIT 2

PROPOSED SITE PLAN
COLLEGE PARK, UPLAND

EXISTING STREET SYSTEM

The **San Bernardino Freeway (I-10) Freeway** and the **State Route (SR-210) Freeway** provide regional access to the College Park Project site. The I-10 Freeway provides access to the project site, via an interchange at Monte Vista Avenue and Central Avenue. This freeway facility, with high occupancy vehicle (HOV) lanes in the median, is a major highway, which extends through San Bernardino County and links Upland with the neighboring communities of Ontario, Rancho Cucamonga, and Fontana, as well as the LA County cities of Claremont, Pomona and Glendora.

The SR-210 Freeway provides access to the project site, via an interchange at Towne Avenue and Baseline Road/16th Street. This newly opened freeway facility, with high occupancy vehicle (HOV) lanes in the median, is a major highway, which extends through San Bernardino County and links Upland with the neighboring communities of Ontario, Rancho Cucamonga, and Fontana, as well as the LA County cities of Claremont, Pomona and Glendora.

The principal local network of streets serving the College Park Project are Baseline Road/16th Street, Foothill Boulevard, 6th Street/Arrow Route, Arrow Highway, Claremont Boulevard, Monte Vista Avenue and Benson Avenue. The following discussion provides a brief synopsis of these key area streets. These descriptions are based on an inventory of existing roadway conditions.

Baseline Road/16th Street is a four-lane, divided roadway oriented in the east-west direction, which currently provides two lanes of travel in each direction. Parking is not permitted on either side of this roadway, within the vicinity of the project. A traffic signal controls the study intersection of Baseline Road and Monte Vista Avenue. The posted speed limit on Baseline Road/16th Street is 45 miles per hour (mph).

Foothill Boulevard is a four-lane, divided roadway oriented in the east-west direction. Parking is not permitted on either side of this roadway, within the vicinity of the project. Traffic signals control the study intersections of Foothill Boulevard and Towne Avenue, Indian Hill Boulevard, Mills Avenue, Claremont Boulevard, Monte Vista Avenue and Central Avenue. The posted speed limit on Foothill Boulevard is 40 mph west of Mountain Avenue and 45 mph east of Mountain Avenue.

6th Street/Arrow Route is a two-lane, undivided roadway between Indian Hill Boulevard and Monte Vista Avenue, a two-lane, divided roadway between Monte Vista Avenue and Mountain Avenue and a four-lane, divided roadway east of Mountain Avenue oriented in the east-west direction, which borders the project site to the north. Parking is generally not permitted on either side of this roadway, within the vicinity of the project. Traffic signals control the study intersections of 6th Street/Arrow Route and Claremont Boulevard, Monte Vista Avenue, Central Avenue and Benson Avenue. The posted speed limit on 6th Street/Arrow Route is 35 mph west of Benson Avenue and 40 mph east of Benson 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 the east-west direction. Parking is generally permitted on either side of this roadway, within the vicinity of the project. Traffic signals control the study intersections of Arrow Highway and Indian Hill Boulevard, Claremont Boulevard, Monte Vista Avenue, Central Avenue and Benson Avenue. The posted speed limit on Arrow Highway is 35 mph west of Monte Vista Avenue, 40 mph between Monte Vista Avenue and Mountain Avenue and 35 mph east of Mountain Avenue.

Claremont Boulevard is a four-lane, divided roadway oriented in the north-south direction. Parking is generally permitted on either side of this roadway, within the vicinity of the project. Traffic signals control the study intersections of Claremont Boulevard and Foothill Boulevard, 6th Street/Arrow Route, Arrow Highway, and San Bernardino Avenue. The posted speed limit on Claremont Boulevard is 40 mph north of Foothill Boulevard, 45 mph between Foothill Boulevard and Arrow Highway and 40 mph south of Arrow Highway.

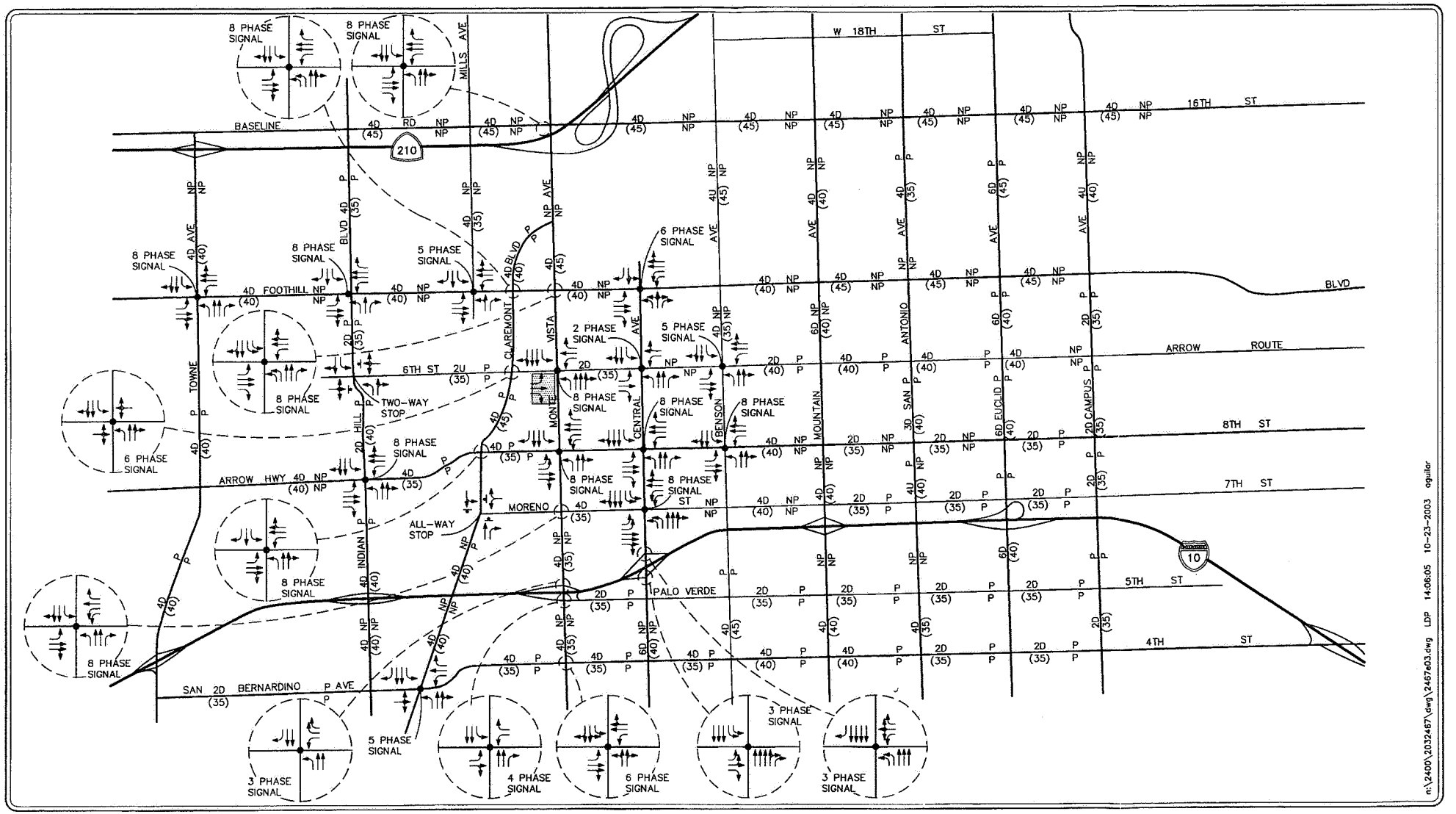
Monte Vista Avenue is a four-lane, divided roadway north of Foothill Boulevard, a six-lane, divided roadway between Foothill Boulevard and Arrow Highway and a four-lane, divided roadway south of Arrow Highway oriented in the north-south direction, which borders the project site to the east. Parking is not permitted on either side of this roadway, within the vicinity of the project. Traffic signals control the study intersections of Monte Vista Avenue and Baseline Road, Foothill Boulevard, 6th Street/Arrow Route, Arrow Highway, Moreno Street, the I-10 WB and EB Ramps and San Bernardino Avenue. The posted speed limit on Monte Vista Avenue is 45 mph north of Arrow Highway and 35 mph south of Arrow Highway.

Benson Avenue is generally a four-lane, divided roadway oriented in the north-south direction. Parking is not permitted on either side of this roadway, within the vicinity of the project. Traffic signals control the study intersections of Benson Avenue and Arrow Route and Arrow Highway/8th Street. The posted speed limit on Benson Avenue is generally 45 mph north of Foothill Boulevard and generally 35 mph south of Foothill Boulevard.

Exhibit 3 presents an inventory of the existing roadway conditions for the arterials and intersections evaluated in this report. This exhibit identifies the number of travel lanes for key arterials, as well as intersection configurations and controls for the key area intersections neighboring the project site.

EXISTING AREA TRAFFIC VOLUMES

Twenty-six (26) key study intersections have been identified as the locations at which to evaluate existing and future traffic operating conditions. Some portion of potential project-related traffic will pass through each of these intersections, and their analysis will reveal the expected relative impacts of the project.



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← = APPROACH LANE ASSIGNMENT
● = TRAFFIC SIGNAL
⊥ = STOP SIGN
P = PARKING, NP = NO PARKING
U = UNDIVIDED, D = DIVIDED
2 = NUMBER OF TRAVEL LANES
(XX) = POSTED SPEED LIMIT (MPH)

▨ = PROJECT SITE

PHASE = THE PART OF THE SIGNAL CYCLE ALLOCATED TO ANY COMBINATION OF TRAFFIC MOVEMENTS RECEIVING THE RIGHT-OF-WAY SIMULTANEOUSLY DURING ONE OR MORE INTERVALS

EXHIBIT 3

EXISTING ROADWAY CONDITIONS AND INTERSECTION CONTROLS

COLLEGE PARK, UPLAND

Exhibits 4 and **5** depict the existing AM and PM peak hour traffic volumes for the key study intersections within the project study area, respectively. The existing AM and PM peak hour traffic counts were conducted in September 2003 by Transportation Studies.

The existing AM and PM peak hour traffic volumes illustrated in Exhibits 4 and 5 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. **Appendix A** contains copies of the peak period count sheets for the existing key study intersections evaluated in this report and the summary tables for converting truck traffic turning movements to P.C.E.'s.

EXISTING INTERSECTION CONDITIONS

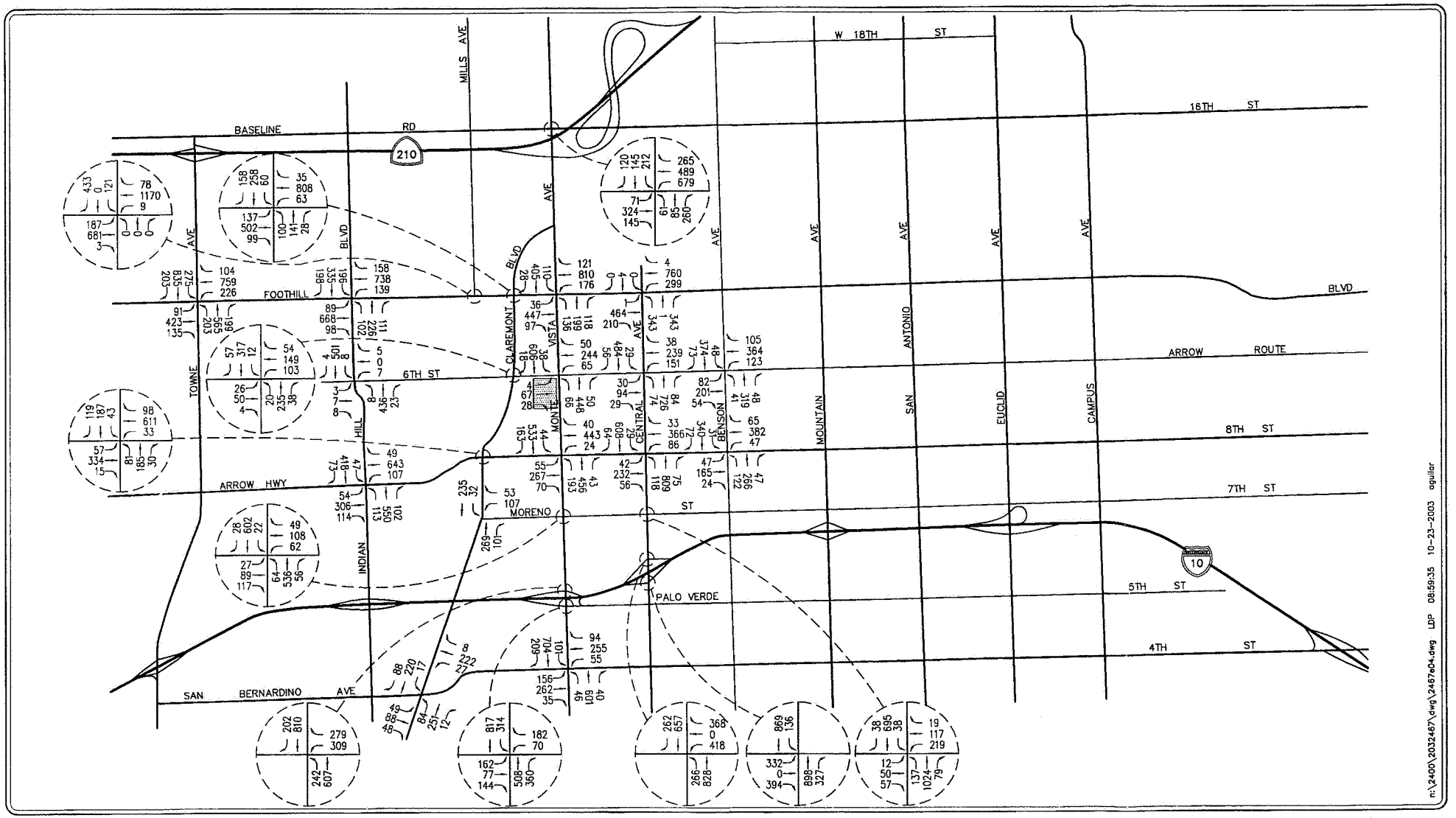
Highway Capacity Manual (HCM) Method of Analysis (Signalized Intersections)

In conformance with the City of Upland requirements, lead agency for the environmental analysis, and San Bernardino County CMP requirements, existing AM and PM peak hour operating conditions for the key signalized study intersections were evaluated using the 2000 Highway Capacity Manual (HCM) signalized methodology.

Based on the HCM method of analysis, level of service for signalized intersections 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, geometries, 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, in the absence of geometric delay, in the absence of any incidents, and when there are no other vehicles on the road.

In Chapter 16 of the HCM, 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. In contrast, in previous versions of the HCM (1994 and earlier), delay included only stopped delay. Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle. The six qualitative categories of Level of Service that have been defined along with the corresponding HCM control delay value range for signalized intersections are shown in **Table 2.**

It should be noted that given the project site's proximity to City of Claremont in Los Angeles County, the traffic study requirements contained in the *2002 Congestion Management Program (CMP) for Los Angeles County* were also considered in this traffic study.



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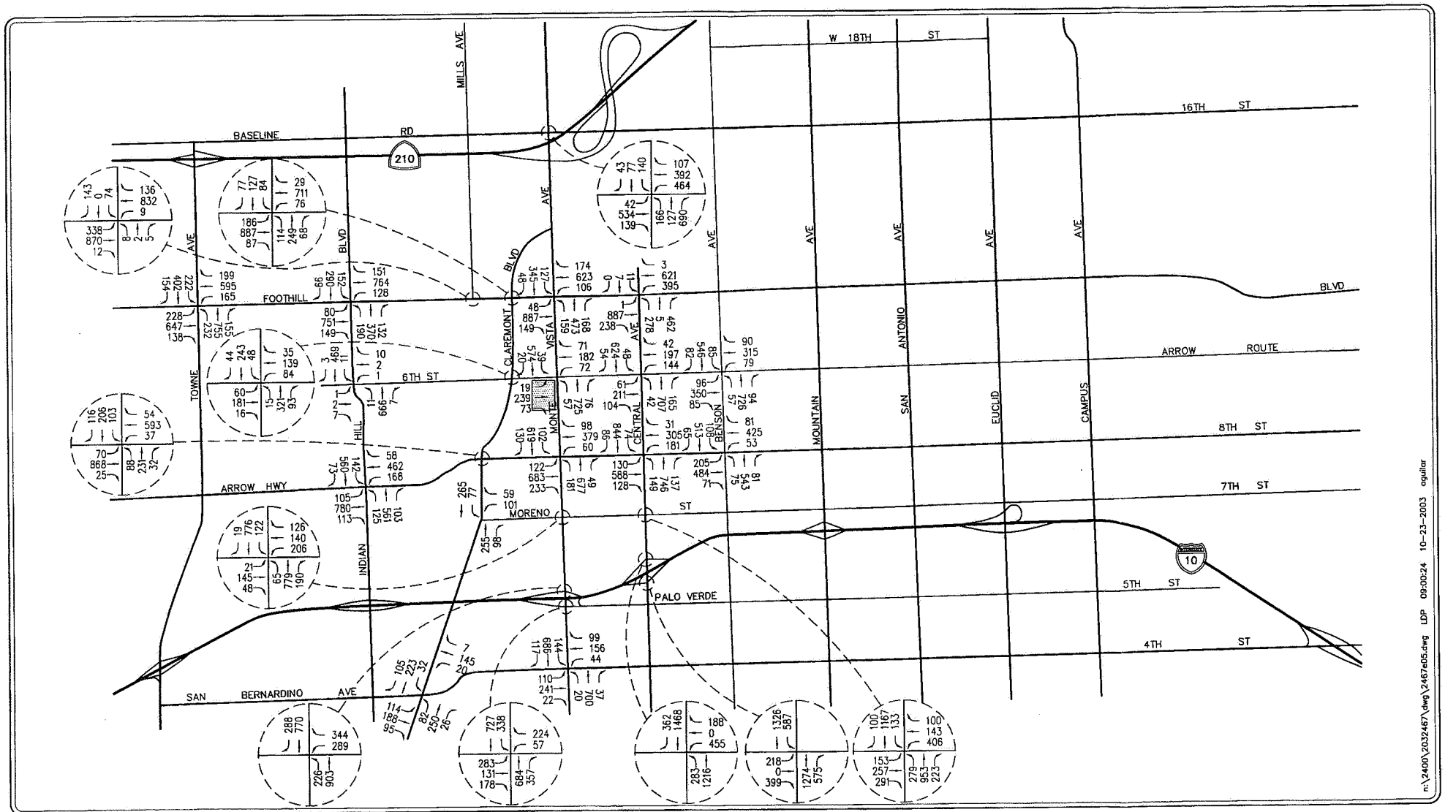
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EXHIBIT 4

EXISTING AM PEAK HOUR TRAFFIC VOLUMES

COLLEGE PARK, UPLAND

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EXHIBIT 5

EXISTING PM PEAK HOUR TRAFFIC VOLUMES

COLLEGE PARK, UPLAND

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TABLE 2

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS[2]
College Park Project, Upland

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 arrive during the green phase. 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 cycle 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, or high *v/c* ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle 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 lengths, and high *v/c* ratios. Individual cycle failures are frequent occurrences.
F	≥ 80.0	Severe congestion. This level, considered to be unacceptable to most drivers, 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.

[2] Source: Highway Capacity Manual 2000, Chapter 16 (Signalized Intersections).

According to City of Upland criteria, LOS "D" is the minimum acceptable condition that should be maintained during the peak commute hours. Hence, any of the study intersections within the City of Upland's jurisdiction operating at LOS "E" or "F" is considered deficient/unsatisfactory. For the study intersections in the Cities of Claremont, Montclair and Pomona, LOS "D" is the minimum acceptable condition that should be maintained during the peak commute hours. For the study intersections in the County of San Bernardino, LOS "C" is the minimum acceptable condition that should be maintained during the peak commute hours.

The County of San Bernardino 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. 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.

HCM Method of Analysis (Unsignalized Intersections)

The 2000 HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the key unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. The overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. The HCM control delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in **Table 3. Appendix B** presents the HCM/LOS calculations for the twenty-six (26) key study intersections for the AM peak hour and PM peak hour.

Existing Level of Service Results

Table 4 summarizes the existing peak hour level of service calculations for the 26 key study intersections based on existing traffic volumes and current street geometry. Review of Table 4 indicates that two of the 26 key study intersections currently operate at an unacceptable LOS when compared to the LOS criteria identified in this report. The two locations operating at an adverse LOS are as follows:

Key Intersection	City/Jurisdiction	AM Peak Hour Delay/LOS	PM Peak Hour Delay/LOS
4. Central Avenue at Foothill Boulevard	City of Upland / County of San Bernardino	37.2/D	39.2/D
26. Monte Vista Avenue at Baseline Road	City of Claremont	---	57.4/E

The remaining 24 key study intersections currently operate at an acceptable LOS during the AM and PM peak hours.

TABLE 3

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS[3]
College Park Project, Upland

Level of Service (LOS)	Control Delay Per Vehicle (seconds/vehicle)	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

[3] Source: Highway Capacity Manual 2000, Chapter 17 (Unsignalized Intersections).

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TABLE 4

EXISTING PEAK HOUR LEVELS OF SERVICE SUMMARY[4]
College Park Project, Upland

Key Intersections	Time Period	City/Jurisdiction	Control Type	Delay (sec/veh)	LOS
1. Mills Avenue at Foothill Boulevard	AM PM	City of Claremont	5∅ Traffic Signal	30.7 s/v 27.0 s/v	C C
2. Claremont Boulevard at Foothill Boulevard	AM PM	City of Claremont	8∅ Traffic Signal	27.6 s/v 30.2 s/v	C C
3. Monte Vista Avenue at Foothill Boulevard	AM PM	Upland / County of San Bernardino	8∅ Traffic Signal	30.2 s/v 30.4 s/v	C C
4. Central Avenue at Foothill Boulevard	AM PM	Upland / County of San Bernardino	6∅ Traffic Signal	**37.2 s/v** **39.2 s/v**	**D** **D**
5. Indian Hill Boulevard at 6th Street	AM PM	City of Claremont	2-Way Stop Control	0.67 s/v 0.48 s/v	A A
6. Claremont Blvd at 6th Street/Arrow Route	AM PM	Upland / County of San Bernardino / Claremont	6∅ Traffic Signal	28.5 s/v 28.8 s/v	C C
7. Monte Vista Avenue at Arrow Route	AM PM	Upland / County of San Bernardino	8∅ Traffic Signal	28.6 s/v 27.9 s/v	C C
8. Central Avenue at Arrow Route	AM PM	Upland / County of San Bernardino	2∅ Traffic Signal	15.7 s/v 15.8 s/v	B B
9. Benson Avenue at Arrow Route	AM PM	Upland / County of San Bernardino	5∅ Traffic Signal	22.8 s/v 23.3 s/v	C C
10. Indian Hill Boulevard at Arrow Highway	AM PM	City of Claremont	8∅ Traffic Signal	30.0 s/v 35.2 s/v	C D
11. Claremont Boulevard at Arrow Highway	AM PM	City of Claremont	8∅ Traffic Signal	27.9 s/v 28.6 s/v	C C
12. Monte Vista Avenue at Arrow Highway	AM PM	City of Montclair	8∅ Traffic Signal	29.1 s/v 33.3 s/v	C C
13. Central Avenue at Arrow Highway	AM PM	City of Montclair	8∅ Traffic Signal	29.0 s/v 33.3 s/v	C C

[4] **Bold HCM/LOS values** indicate adverse service levels based on City of Upland, City of Claremont, City of Montclair, City of Pomona and County of San Bernardino LOS standards.

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TABLE 4 (continued)

EXISTING PEAK HOUR LEVELS OF SERVICE SUMMARY[5]
College Park Project, Upland

Key Intersections	Time Period	City/Jurisdiction	Control Type	Delay (sec/veh)	LOS
14. Benson Avenue at Arrow Hwy/8th Street	AM PM	City of Upland / Montclair	8Ø Traffic Signal	28.0 s/v 32.9 s/v	C C
15. Claremont Blvd/Mills at Moreno Street	AM PM	City of Claremont / Montclair	All-Way Stop Control	10.69 s/v 11.47 s/v	B B
16. Monte Vista Avenue at Moreno Street	AM PM	City of Montclair	8Ø Traffic Signal	25.0 s/v 27.3 s/v	C C
17. Central Avenue at Moreno St/7th Street	AM PM	City of Montclair	8Ø Traffic Signal	28.4 s/v 37.0 s/v	C D
18. Monte Vista Avenue at I-10 WB Ramp	AM PM	City of Montclair	3Ø Traffic Signal	22.9 s/v 21.1 s/v	C C
19. Monte Vista Avenue at I-10 EB Ramp	AM PM	City of Montclair	4Ø Traffic Signal	32.8 s/v 43.1 s/v	C D
20. Central Avenue at I-10 WB Ramp	AM PM	City of Montclair	3Ø Traffic Signal	21.9 s/v 23.7 s/v	C C
21. Central Avenue at I-10 EB Ramp	AM PM	City of Montclair	3Ø Traffic Signal	21.8 s/v 26.6 s/v	C C
22. Claremont Blvd/Mills at San Bernardino Ave	AM PM	City of Montclair / Pomona	3Ø Traffic Signal	22.6 s/v 23.2 s/v	C C
23. Monte Vista Ave at San Bernardino Ave	AM PM	City of Montclair	6Ø Traffic Signal	39.7 s/v 35.7 s/v	D D
24. Indian Hill Boulevard at Foothill Boulevard	AM PM	City of Claremont	8Ø Traffic Signal	35.3 s/v 37.5 s/v	D D
25. Towne Avenue at Foothill Boulevard	AM PM	City of Claremont / Pomona	8Ø Traffic Signal	48.1 s/v 48.5 s/v	D D
26. Monte Vista Avenue at Baseline Road	AM PM	City of Claremont	8Ø Traffic Signal	51.7 s/v **57.4 s/v**	D **E**

[5] **Bold HCM/LOS values** indicate adverse service levels based on City of Upland, City of Claremont, City of Montclair, City of Pomona and County of San Bernardino LOS standards.

TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the proposed College Park Project, a multi-step process has been utilized. 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 assignment allocates specific volume 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 traffic 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.

Definition of Deficiency and Significance Criteria

The County of San Bernardino 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. Based on the CMP guidelines, traffic operational problems are required to be mitigated to provide LOS E or better operation. However, if the local jurisdiction requires mitigation to a higher LOS, this takes precedence over the CMP requirements. The City of Upland considers a significant project impact to occur if an intersection that is projected to operate at LOS D or better without the project is forecast to operate at LOS "E" or "F" with the project.

In the event that an intersection is operating at or is forecast to operate at an adverse 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.

PROJECT TRAFFIC CHARACTERISTICS

Project Traffic Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation factors and equations used in this traffic forecasting procedure are found in the Sixth Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington, D.C., 1997]

Table 5 summarizes the trip generation equations used in forecasting the impact of the College Park Project. Trips generated by the residential component of the proposed project were estimated using ITE Land Use 210: Single Family Detached Housing and ITE Land Use 220: Apartment trip rates, while the trip generation potential of the commercial component was estimated using ITE Land Use 312: Business Hotel and ITE Land Use 710: General Office Building trip rates. The project's retail component's trip generation potential was estimated using ITE Land Use ITE Land Use 814: Specialty Retail Center, ITE Land Use 832: High-Turnover (Sit-Down) Restaurant, ITE Land Use 834: Fast-Food Restaurant with Drive-Through Window, and ITE Land Use 845: Gasoline Service Station with Convenience Market trip rates.

Tables 6A and **6B** summarize the trip generation forecast for the proposed College Park Project. As shown in Table 6A, the retail component of the College Park Project is projected to generate approximately 9,480 daily trips, with 769 trips (401 inbound, 368 outbound) produced in the AM peak hour and 778 trips (379 inbound, 399 outbound) produced in the PM peak hour on a "typical" weekday.

Review of the upper portion of Table 6B indicates that the commercial component of the College Park Project is projected to generate approximately 1,500 daily trips, with 162 trips (126 inbound, 36 outbound) produced in the AM peak hour and 197 trips (61 inbound, 136 outbound) produced in the PM peak hour on a "typical" weekday.

The lower portion of the Table 6B indicates that the residential component of the College Park Project is projected to generate approximately 3,450 daily trips, with 267 trips (46 inbound, 221 outbound) produced in the AM peak hour and 329 trips (221 inbound, 108 outbound) produced in the PM peak hour on a "typical" weekday.

Combined, the retail, commercial and residential components of the College Park Project have a trip generation potential of 14,430 daily trips, with 1,198 trips (573 inbound, 625 outbound) produced in the AM peak hour and 1,304 trips (661 inbound, 643 outbound) produced in the PM peak hour on a "typical" weekday.

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TABLE 5

PROJECT TRAFFIC GENERATION EQUATIONS[6]
College Park Project, Upland

ITE Land Use Code	Time Period	Equations	Percent Entering	Percent Exiting
• 210: Single Family Detached Housing (TE/DU)	Daily	T = 9.57 (DU)	50%	50%
	AM Peak	T = 0.75 (DU)	25%	75%
	PM Peak	T = 1.01 (DU)	64%	36%
• 220: Apartment (TE/DU)	Daily	T = 6.63 (DU)	50%	50%
	AM Peak	T = 0.51 (DU)	16%	84%
	PM Peak	T = 0.62 (DU)	67%	33%
• 312: Business Hotel (TE/RM)	Daily	T = 7.27 (RM)	50%	50%
	AM Peak	T = 0.58 (RM)	59%	41%
	PM Peak	T = 0.62 (RM)	60%	40%
• 710: General Office Building (TE/1000 SF)	Daily	Ln (T) = 0.768 Ln (X) + 3.654	50%	50%
	AM Peak	Ln (T) = 0.797 Ln (X) + 1.558	88%	12%
	PM Peak	T = 1.121 (X) + 79.295	17%	83%
• 814: Specialty Retail Center (TE/1000 SF) [7]	Daily	T = 40.67 (X)	50%	50%
	AM Peak	T = 1.03 (X)	61%	39%
	PM Peak	T = 2.59 (X)	43%	57%
• 832: High-Turnover (Sit-down) Restaurant (TE/1000 SF)	Daily	T = 130.34 (X)	50%	50%
	AM Peak	T = 9.27 (X)	52%	48%
	PM Peak	T = 10.86 (X)	60%	40%
• 834: Fast-Food Rest. with Drive-Through Window (TE/1000 SF)	Daily	T = 496.12 (X)	50%	50%
	AM Peak	T = 49.86 (X)	51%	49%
	PM Peak	T = 33.48 (X)	52%	48%
• 845: Gasoline/Service Station with Conv. Market (TE/VFP)	Daily	T = 162.78 (VFP)	50%	50%
	AM Peak	T = 10.06 (VFP)	50%	50%
	PM Peak	T = 13.38 (VFP)	50%	50%

TE/DU = Trip ends per dwelling unit (residential)
TE/1000 SF = Trip ends per 1000 square-feet (SF) of development
TE/RM = Trip ends per occupied room of hotel
TE/VFP = Trip ends per vehicle fueling position for gas station

[6] Source: *Trip Generation, 6th Edition,* Institute of Transportation Engineers (ITE), Washington, D.C. (1997).
[7] AM peak hour trip generation rate for ITE Land Use 814: Specialty Retail Center based on average AM peak hour trip rate of ITE Land Use 820: Shopping Center.

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TABLE 6A

PROJECT TRAFFIC GENERATION FORECAST
College Park Project, Upland

Project Description	Daily 2-Way	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Retail Component							
• Office Suites (6,240 SF)	160	18	2	20	15	72	87
Internal Capture Reduction[8]	-32	0	0	0	-4	-5	-9
Net Trip Generation	128	18	2	20	11	67	78
• Specialty Retail Shops (12,490 SF)	510	8	5	13	14	18	32
Internal Capture Reduction	-66	0	0	0	-2	-3	-5
Subtotal	444	8	5	13	12	15	27
Pass-By Reduction[9]	-44	-1	-0	-1	-1	-2	-3
Net Trip Generation	400	7	5	12	11	13	24
• High-Turnover Rest. (12,480 SF)	1,630	60	56	116	82	54	136
Internal Capture Reduction	-212	0	0	0	-9	-11	-20
Subtotal	1418	60	56	116	73	43	116
Pass-By Reduction	-142	-6	-6	-12	-31	-19	-50
Net Trip Generation	1,276	54	50	104	42	24	66
• Fast-Food w/Drive-Thru (9,225 SF)	4,580	235	225	460	161	148	309
Internal Capture Reduction	-595	0	0	0	-20	-26	-46
Subtotal	3,985	235	225	460	141	122	263
Pass-By Reduction	-398	-115	110	-225	-71	-61	-132
Net Trip Generation	3,587	120	115	235	70	61	131
• Gas Station w/Mini-Mart (16 VFP)	2,600	80	80	160	107	107	214
Internal Capture Reduction	-338	0	0	0	-14	-18	-32
Subtotal	2,262	80	80	160	93	89	182
Pass-By Reduction	-226	-50	-50	-100	-52	-50	-102
Net Trip Generation	2,036	30	30	60	41	39	80
Total Retail Center Trip Generation	**9,480**	**401**	**368**	**769**	**379**	**399**	**778**
Less Total Internal Capture/Pass-By	**- 2,053**	**- 172**	**-166**	**- 338**	**- 204**	**- 195**	**- 399**
Net Retail Trip Generation	**7,427**	**229**	**202**	**431**	**175**	**204**	**379**

[8] Source: Internal Capture rates were estimated based on the methodology outlines in *Chapter 7 – Multi-Use Development* of *Trip Generation Handbook*, published by ITE, October 1998

[9] 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, which contain direct access to the generator. For this analysis, the following pass-by reduction factors were used (Source: *Trip Generation Handbook*, ITE October 1998).

Special Retail Center:	AM & PM Peak Hour – estimated to be 10% (Source: SANDAG *Traffic Generators*)	
High-Turnover Restaurant:	AM Peak Hour – estimated to be 10%	PM Peak Hour - 43%
Fast-food with Drive-Thru:	AM Peak Hour – 49%	PM Peak Hour – 50%
Gas Station with Mini Mart	AM Peak Hour - 62%	PM peak Hour - 56%

Daily pass-by percentage estimated to be for all above referenced land uses estimated to be 10%.

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TABLE 6B

PROJECT TRAFFIC GENERATION FORECAST
College Park Project, Upland

Project Description	Daily 2-Way	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Commercial Component							
• General Office (48,000 SF)	760	91	12	104	23	110	133
Internal Capture Reduction[10]	-152	0	0	0	-6	-7	-13
Net Trip Generation	608	91	12	104	17	103	120
• Business Hotel (102 Rooms)	740	35	24	59	38	26	64
Total Commercial Trip Generation	**1,500**	**126**	**36**	**162**	**61**	**136**	**197**
Less Total Internal Capture	**-152**	**0**	**0**	**0**	**-6**	**-7**	**-13**
Net Commercial Trip Generation	**1,348**	**126**	**36**	**162**	**55**	**129**	**184**
Residential Component							
• Single Family Homes (50 DU)	480	10	28	38	33	18	51
Internal Capture Reduction	-177	0	0	0	-11	-10	-21
Net Trip Generation	303	10	28	38	22	8	30
• Apartments (448 DU)	2,970	36	193	229	188	90	278
Internal Capture Reduction	-918	0	0	0	-43	-29	-72
Net Trip Generation	2,052	36	193	229	145	61	206
Total Residential Trip Generation	**3,450**	**46**	**221**	**267**	**221**	**108**	**329**
Less Total Internal Capture	**-1,095**	**0**	**0**	**0**	**-54**	**-39**	**-93**
Net Residential Trip Generation	**2,355**	**46**	**221**	**267**	**167**	**69**	**236**
Total Project Trip Generation	**14,430**	**573**	**625**	**1,198**	**661**	**643**	**1,304**
Less Total Internal Capture/Pass-By	**-3,300**	**-172**	**-166**	**-338**	**-264**	**-241**	**-505**
Total College Park Mixed-Use Master Plan Trip Generation (Net)	**11,130**	**401**	**459**	**860**	**397**	**402**	**799**

[10] Source: Internal Capture rates were estimated based on the methodology outlines in *Chapter 7 – Multi-Use Development* of *Trip Generation Handbook*, published by ITE, October 1998

Project Internal Capture and Pass-by Reductions

To account for the trip interactions between the proposed uses of the College Park Project, an internal capture reduction was applied. Internal capture is a legitimate reduction of external trips for mixed-use developments such as the College Park Project, especially where trips can be made by either walking or riding a bike. The Internal Capture Reduction rates for the College Park mixed-use development were estimated based on the methodology outlines in *Chapter 7 – Multi-Use Development* of *Trip Generation Handbook*, published by ITE, October 1998.

The ITE methodology for calculating internal capture applies percentages for interactions between pair of land uses to both the trips originating from each land use, as well as the trips destined for each land use; compares the resulting trips between each pair; then selects the lesser of the two. For this project, the internal capture rate calculates to 18.5% on a daily basis and 17.7% on a PM peak hour basis. A copy of the internal capture reduction worksheets for the College Park Project based in the ITE methodology can be found in **Appendix C**.

The pass-by factors used in this report were based on information published in the *Chapter 5 – Pass-by, Primary, and Diverted Linked Trips* of the *Trip Generation Handbook*, published by ITE, October 1998. For this analysis, the following pass-by reduction factors were used.

- Special Retail Center: AM & PM Peak Hour – estimated to be 10%
- High-Turnover Restaurant: AM Peak Hour – estimated to be 10% PM Peak Hour - 43%
- Fast-food with Drive-Thru: AM Peak Hour – 49% PM Peak Hour – 50%
- Gas Station with Mini Mart AM Peak Hour - 62% PM peak Hour - 56%
- Daily pass-by percentage estimated to be for all above referenced land uses estimated to be 10%.

After adjustment for internal capture and pass-by, the College Park Project is projected to generate approximately 11,130 daily trips, with 860 trips (401 inbound, 459 outbound) produced in the AM peak hour and 799 trips (397 inbound, 402 outbound) produced in the PM peak hour on a "typical" weekday (See last row of figures on Table 6B). The potential project impact of these trips was evaluated in the traffic analysis section of this report.

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.

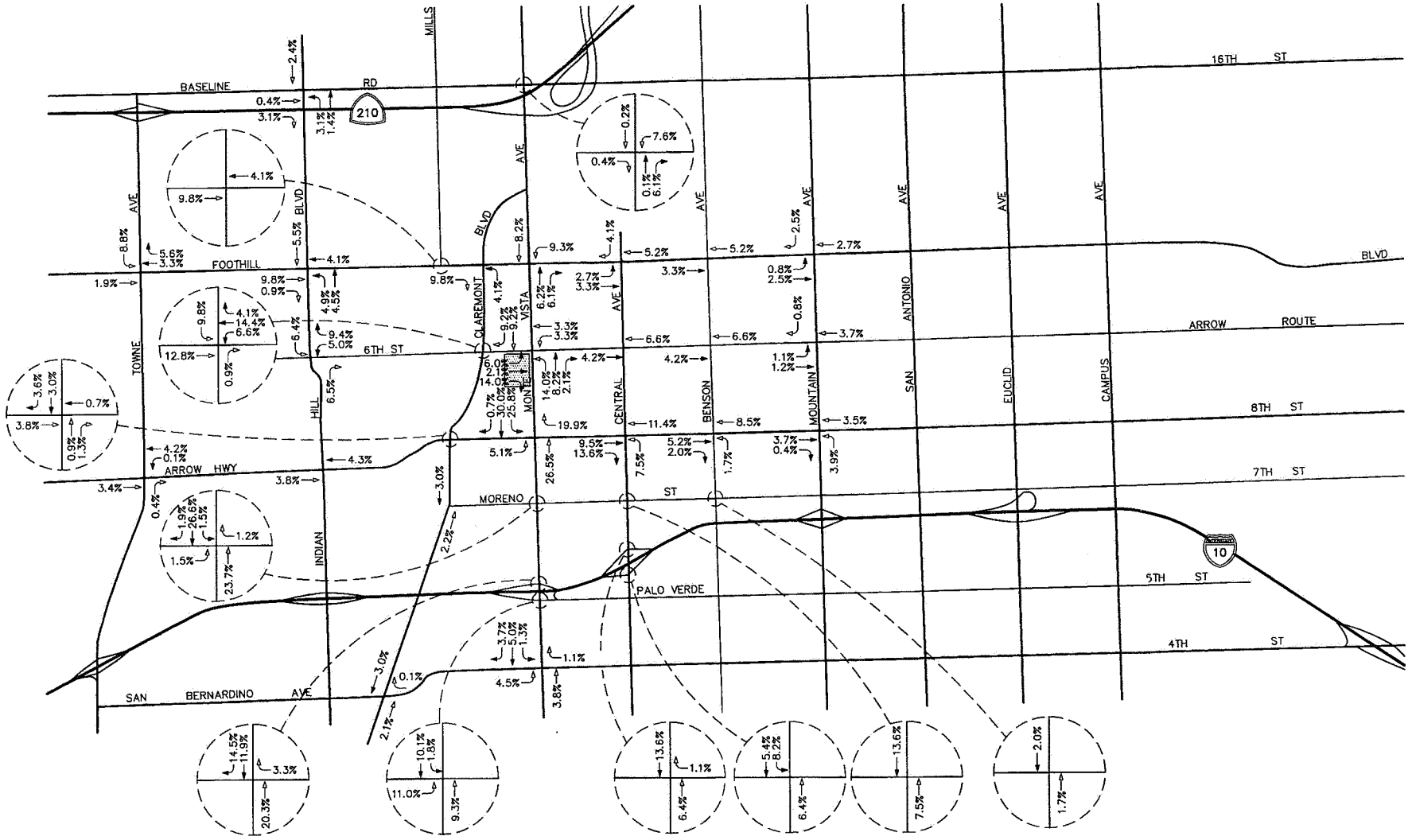
Per the CMP requirements, project generated traffic was distributed and assigned to the local roadway system based on a traffic distribution pattern determined from the Southern California Association of Governments (SCAG) "select zone" CMP model runs. The select zone model runs are model runs that show 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 destination 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 traffic 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.

The project traffic distribution patterns during the AM and PM peak hours are presented in **Exhibits 6, 7, 8,** and **9**, respectively. Exhibits 6 and 7 present the AM and PM peak hour project traffic distribution patterns for the entire project at key study intersections. Exhibits 8 and 9 present the AM and PM peak hour driveway project traffic distribution patterns for the proposed project. The method by which the specific distribution patterns were determined at each of the study intersections is contained in **Appendix C**.

The anticipated AM and PM peak hour project traffic volumes associated with the College Park Project are presented in **Exhibits 10A** and **11A**, respectively.

Exhibits 10B and **11B** present the AM and PM peak hour driveway project traffic volumes. The traffic volume assignments presented in Exhibits 10A, 10B, 11A and 11B reflect the traffic distribution characteristics illustrated in Exhibits 6, 7, 8, and 9, and the traffic generation forecast presented in Tables 6A and 6B.



N NO SCALE

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KEY
XX% = INBOUND PERCENTAGE
XX% = OUTBOUND PERCENTAGE
= PROJECT SITE

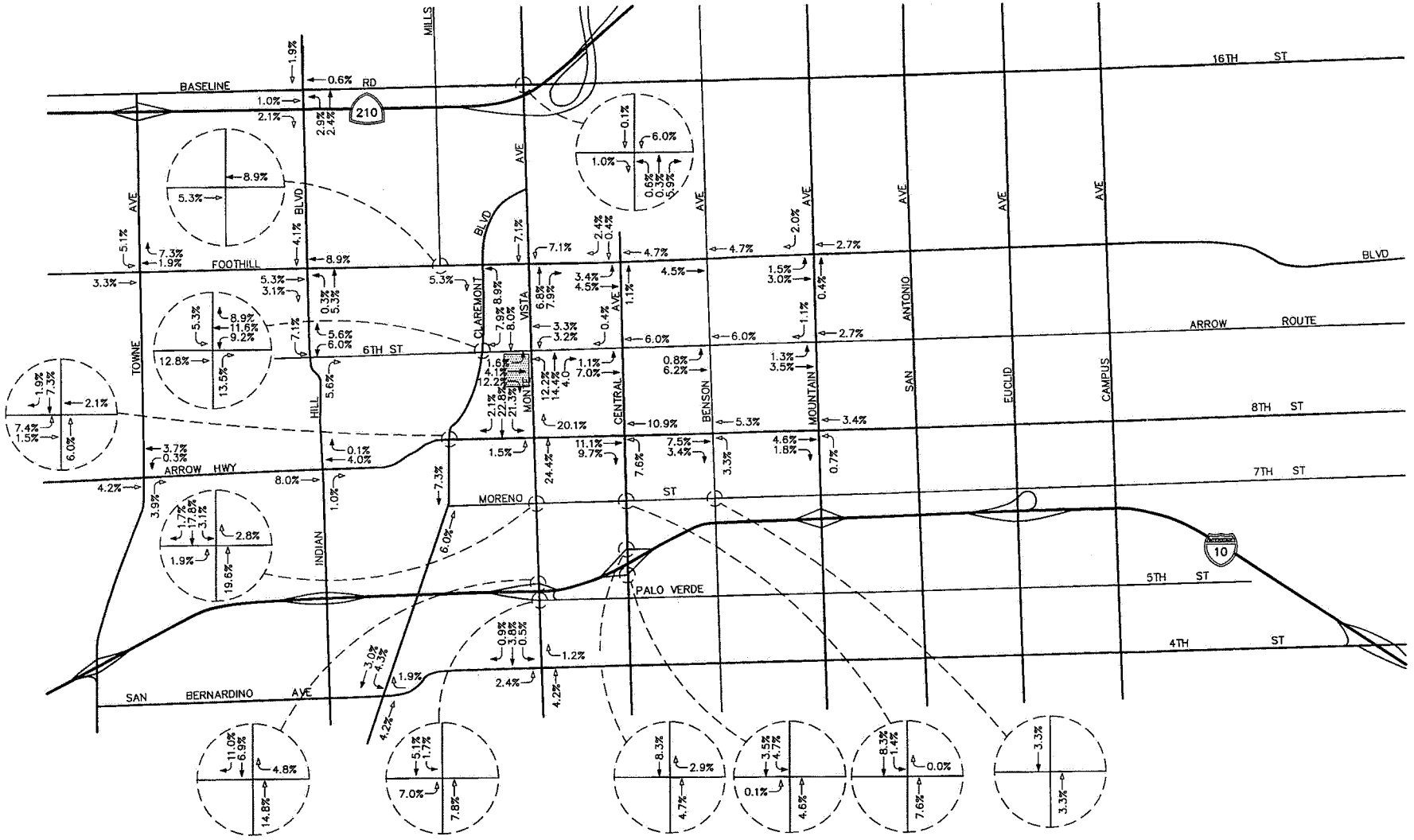
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EXHIBIT 6

AM PEAK HOUR PROJECT TRAFFIC DISTRIBUTION PATTERN

COLLEGE PARK, UPLAND

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KEY
XX% = INBOUND PERCENTAGE
XX% = OUTBOUND PERCENTAGE
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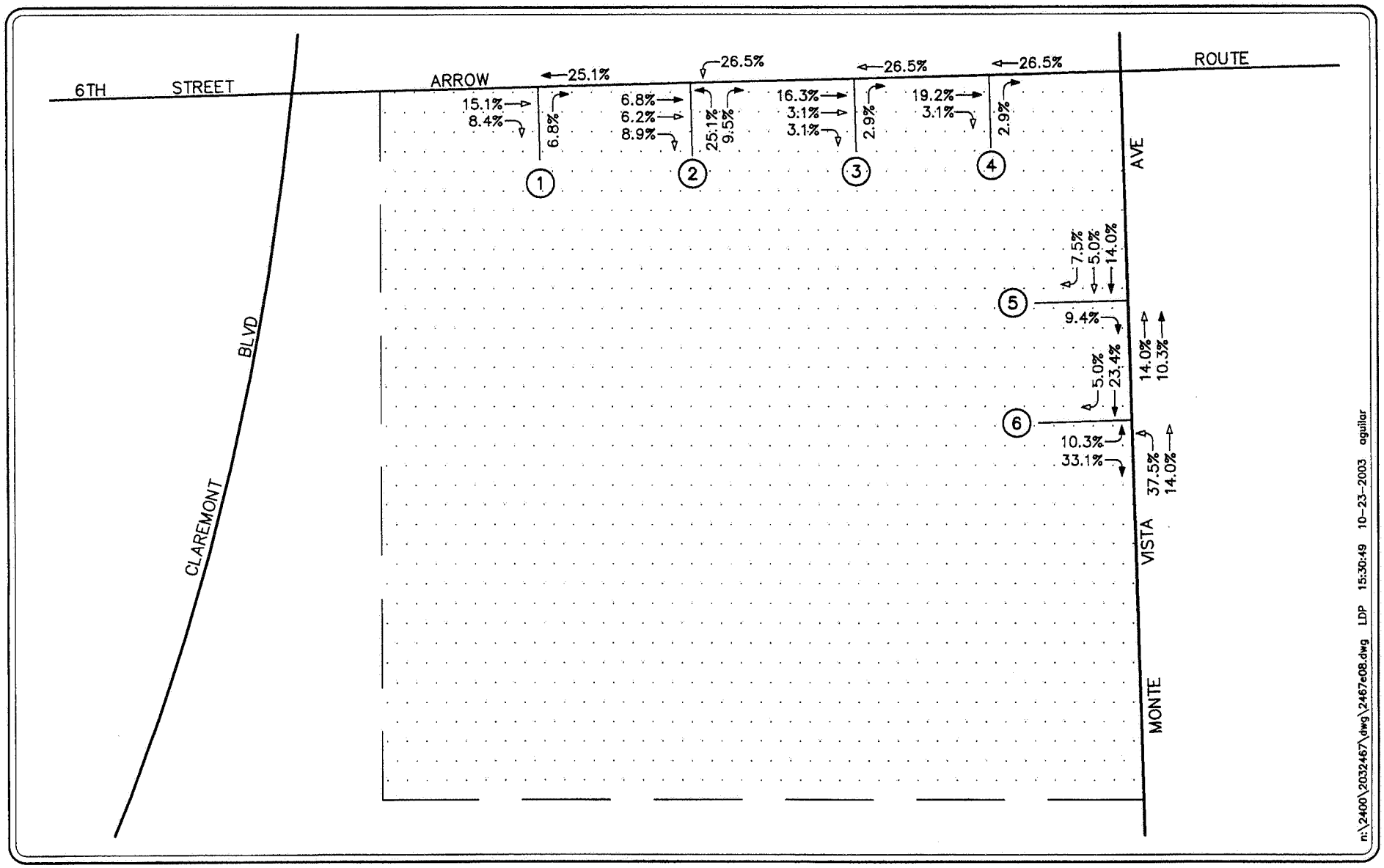
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EXHIBIT 7

PM PEAK HOUR PROJECT TRAFFIC DISTRIBUTION PATTERN

COLLEGE PARK, UPLAND

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KEY

←XX% = INBOUND PERCENTAGE

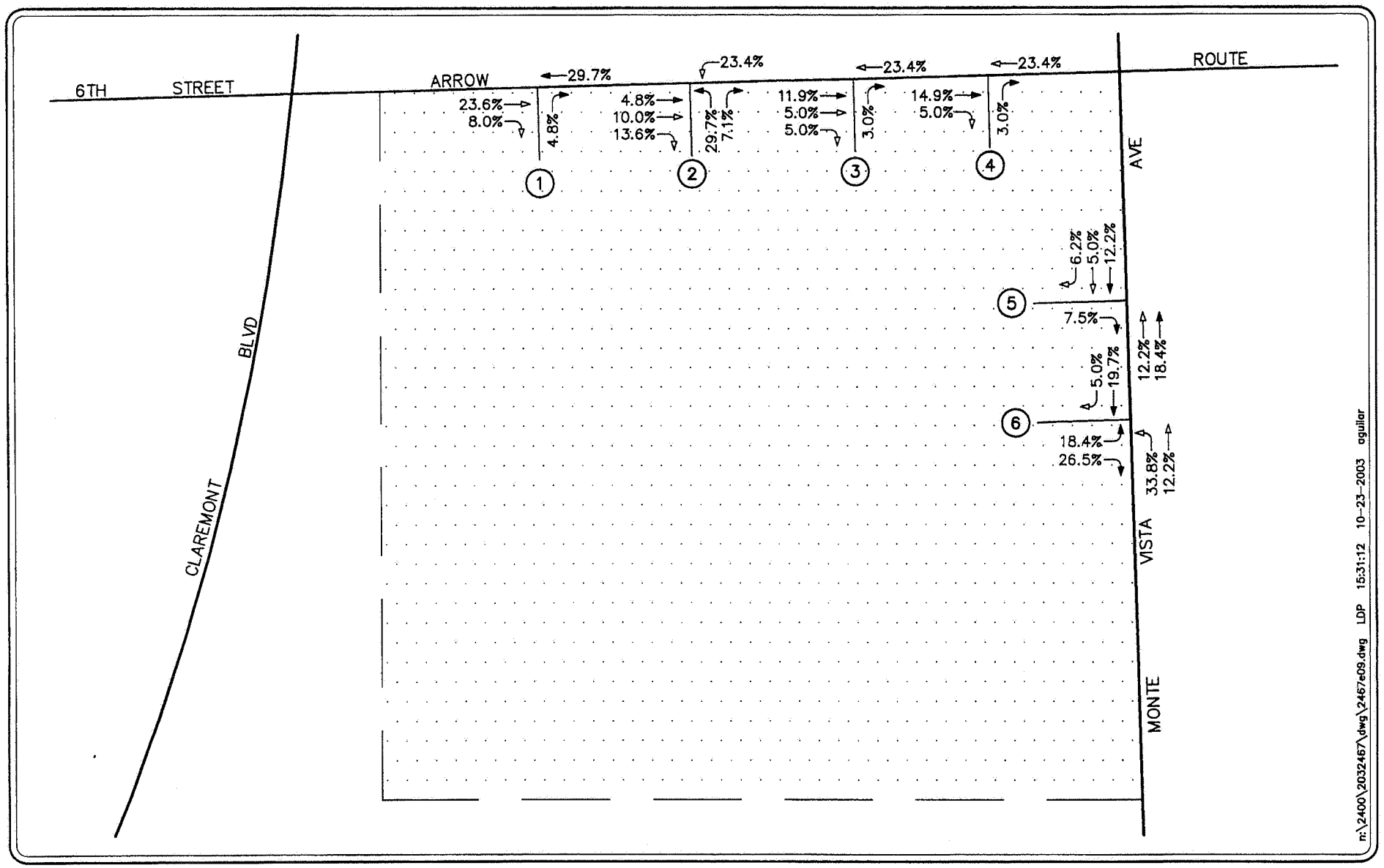
←XX% = OUTBOUND PERCENTAGE

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EXHIBIT 8

AM PEAK HOUR PROJECT DRIVEWAY TRAFFIC DISTRIBUTION PATTERN

COLLEGE PARK, UPLAND



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NO SCALE

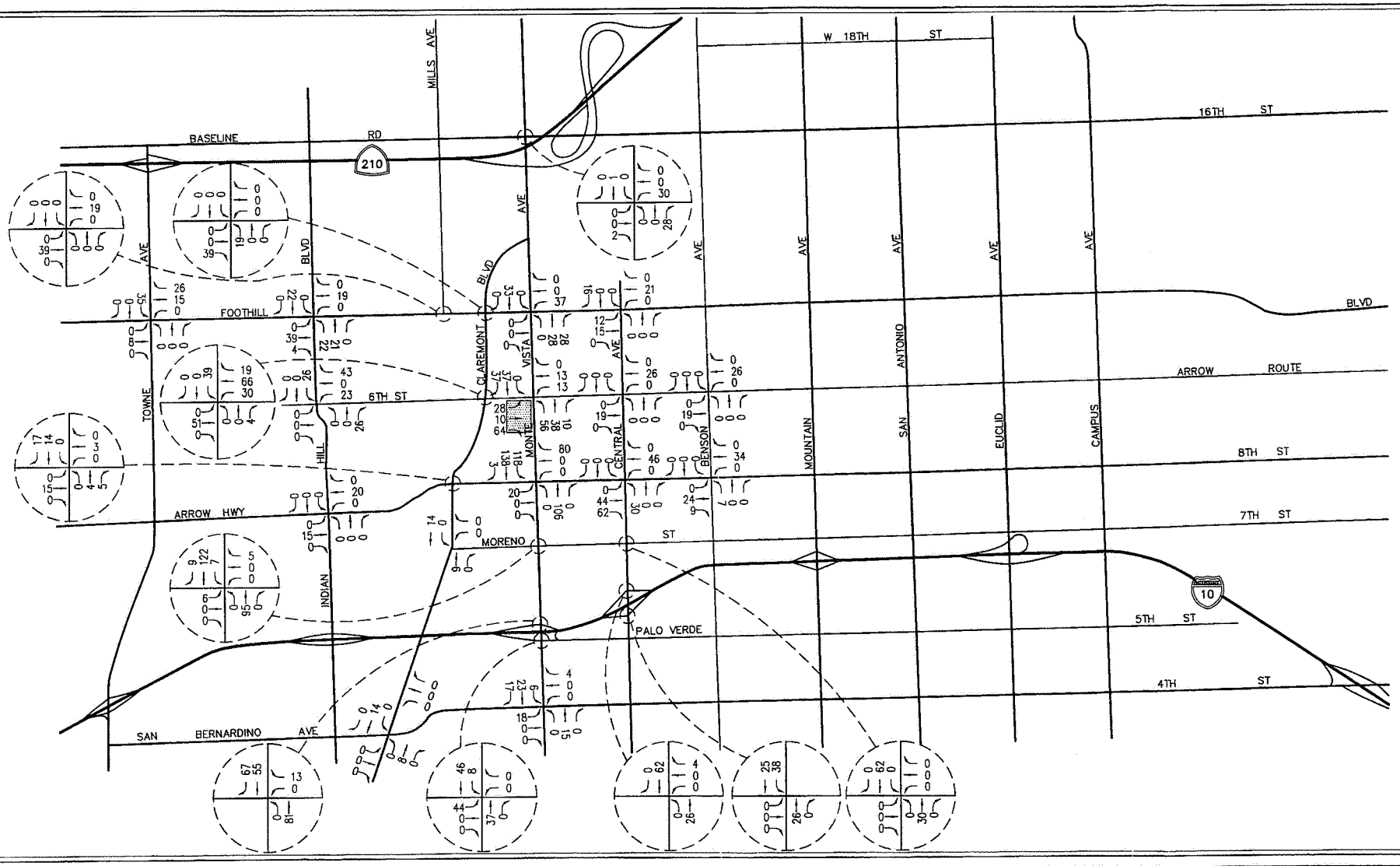
LINSCOTT
LAW &
GREENSPAN
ENGINEERS

KEY
←XX% = INBOUND PERCENTAGE
←XX% = OUTBOUND PERCENTAGE
= PROJECT SITE

EXHIBIT 9

PM PEAK HOUR PROJECT DRIVEWAY TRAFFIC DISTRIBUTION PATTERN

COLLEGE PARK, UPLAND



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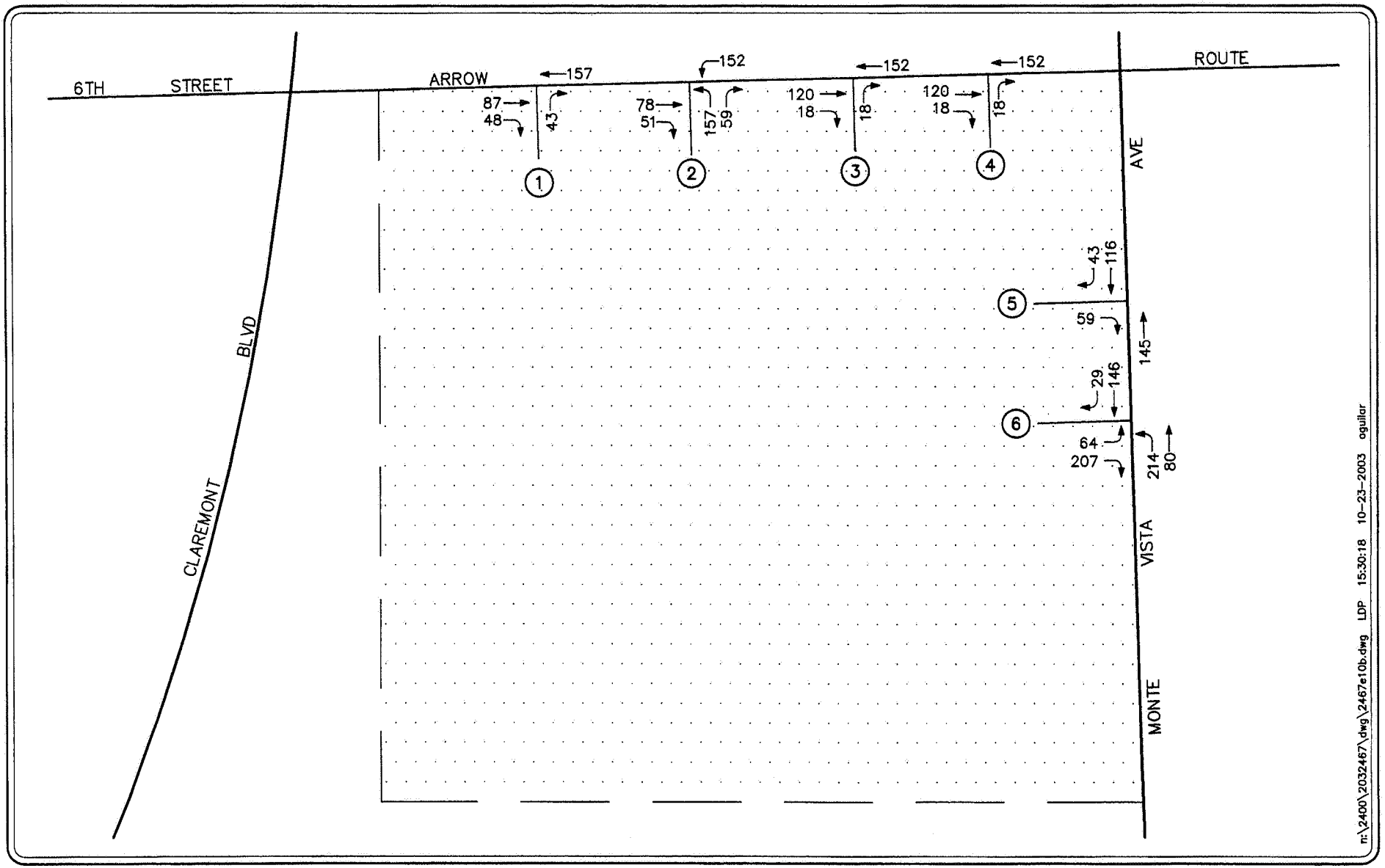
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EXHIBIT 10A

YEAR 2006 AM PEAK HOUR PROJECT TRAFFIC VOLUMES

COLLEGE PARK, UPLAND



N NO SCALE

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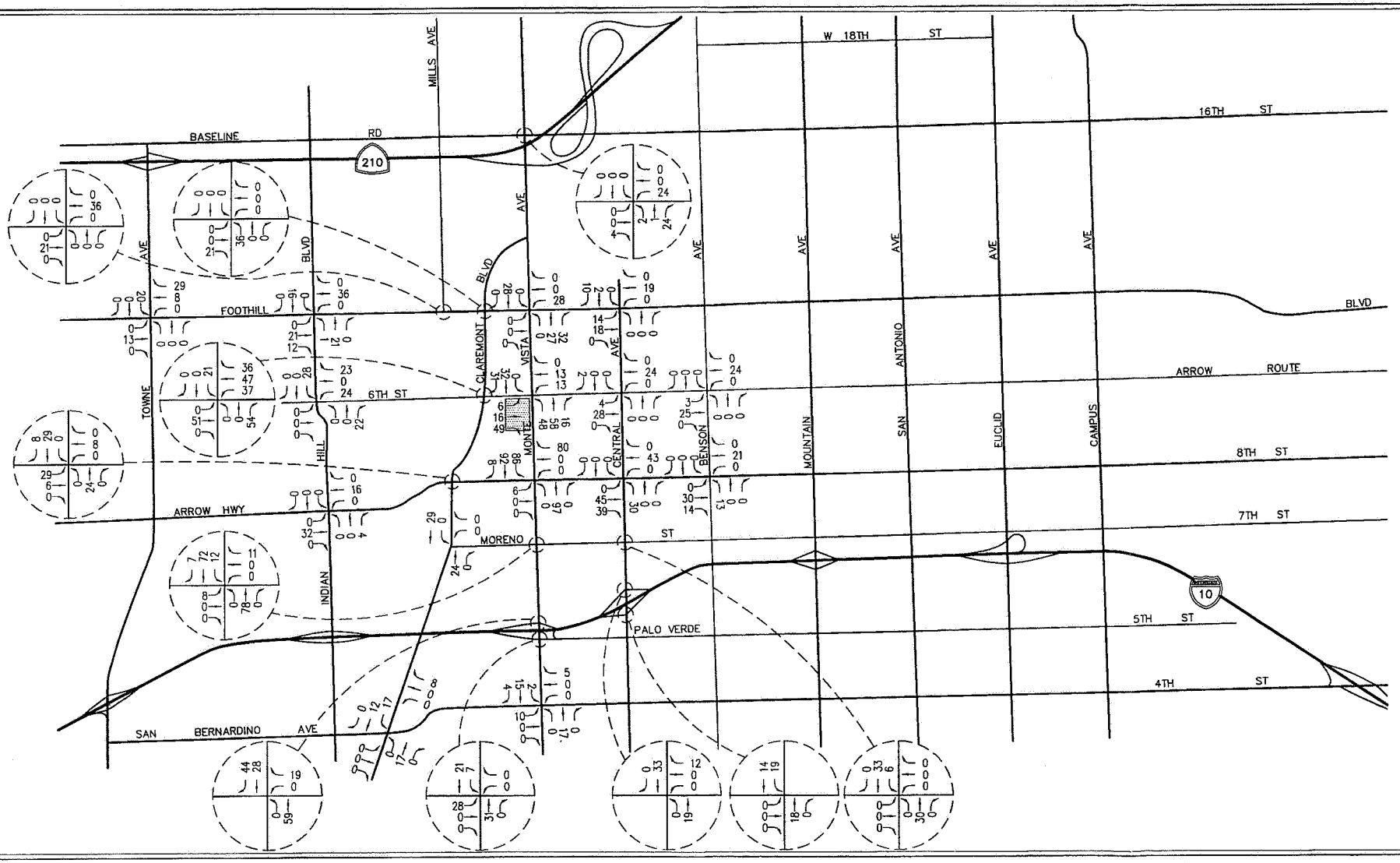
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EXHIBIT 10B

AM PEAK HOUR DRIVEWAY PROJECT TRAFFIC VOLUMES

COLLEGE PARK, UPLAND



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N NO SCALE

LINSCOTT LAW & GREENSPAN ENGINEERS

KEY

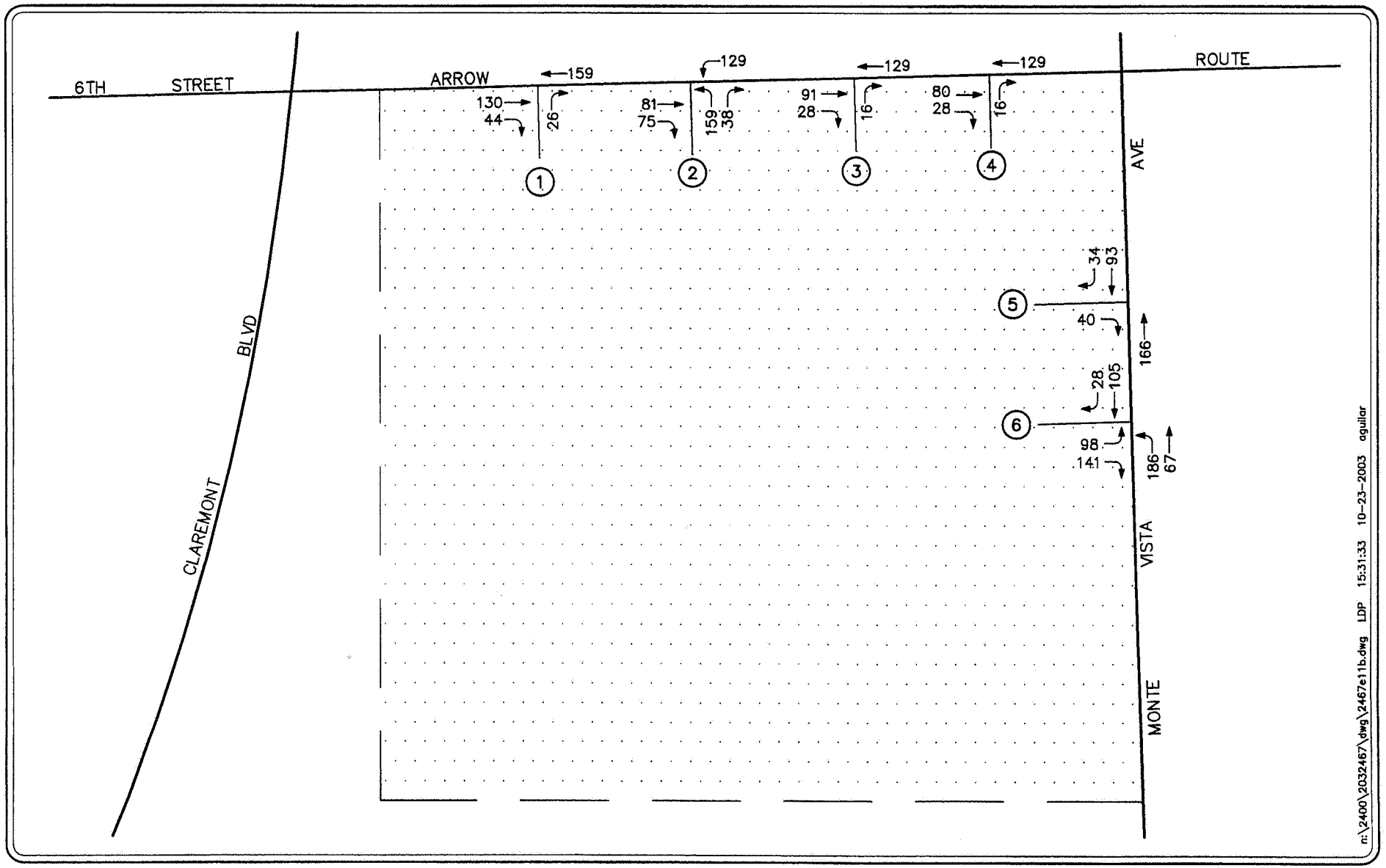
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31

EXHIBIT 11A

YEAR 2006 PM PEAK HOUR PROJECT TRAFFIC VOLUMES

COLLEGE PARK, UPLAND



N NO SCALE

LINSCOTT LAW & GREENSPAN ENGINEERS

KEY

= PROJECT SITE

EXHIBIT 11B

PM PEAK HOUR DRIVEWAY PROJECT TRAFFIC VOLUMES

COLLEGE PARK, UPLAND

FUTURE TRAFFIC CONDITIONS

Year 2006 Traffic Conditions

Near-term (Year 2006) horizon year background traffic estimates have been calculated using an ambient growth factor. For this traffic study, a rate of 1.0 percent per year has been used to develop background traffic conditions in the absence of the related projects traffic and College Park Project traffic.

This one percent (1%) 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 College Park Project can be evaluated within the context of the cumulative impact of ongoing development. **Appendix D** contains the supporting documentation with respect to the determination of the annual traffic growth factor.

Related Project Locations

Further, to make a realistic estimate of future on-street conditions prior to completion of the proposed project, the status of other known development projects (related projects) in the area has been researched at the Cities of Upland, Claremont, Montclair and Rancho Cucamonga. 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 about a 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 coordination with the City of Upland staff. Information was provided by the City of Upland on related projects in the City. City staff from the adjacent jurisdictions of the cities of Claremont, Montclair and Rancho Cucamoga were also contacted.

A total of 54 such (related or cumulative) projects were identified. However, only 33 of 54 cumulative projects were included in this study. These related projects are in some stage of the approval/entitlement process, ranging from projects that are under construction to projects that are proceeding through the planning process. Of the thirty-three (33) planned and/or approved, related projects that were considered in this traffic analysis, eight (8) related projects are located in the City of Claremont, twenty-four (24) related projects are located in the City of Upland and one (1) related project is located in the City of Rancho Cucamonga. The 21 cumulative projects that were excluded from this traffic analysis were either recently completed and operating, ancillary uses to existing development, or no formal description of the potential development was identified by the City in which the project was located.

Table 7 provides the location and a brief description for each of the fifty-four (54) related projects that were identified during our research, 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 for all 54 related projects are presented in this table. **Exhibit 12** presents the general location of the 54 cumulative projects with respect to the College Park Project site.

Related Projects Trip Generation

Table 8 summarizes the trip generation potential for the thirty-three (33) related projects on a daily and peak hour basis for a "typical" weekday that were considered in this traffic analysis. As shown, the related projects are expected to generate 61,299 daily trips with 2,680 AM peak hour trips (1,294 inbound, 1,386 outbound) and 4,127 PM peak hour trips (2,057 inbound, 2,070 outbound). The trip generation potential of both the Colonies Mixed-Use Development and the Upland Commercial/Industrial Mixed-Use Master Plan summarized in Table 7 represents the amount of traffic that will be generated by these two related projects by the Year 2006.

Year 2025 Traffic Conditions

The Year 2025 traffic volume forecasts 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 aforementioned 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 contained in **Appendix E**. Please note that the post-processing methodology utilized in this report is consistent with SANBAG requirements.

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TABLE 7

LOCATION AND DESCRIPTION OF RELATED PROJECTS
College Park Project, Upland

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
City of Upland					
(1) SP-01-35	Wendy's	Northwest corner of Mountain Ave/8th Street	3,240 SF Fast Food Restaurant With Drive-thru	No	Existing and operating
(2) SP-01-38	Planned Residential	Southwest corner of Arrow Hwy/Grove Avenue	77 Single Family Detached	**Yes**	---
(3) SP-01-42	Fueling Facility at Von's Center	Northwest corner of Euclid Ave/Foothill Blvd	4,400 SF Canopy	No	Existing and operating
(4) SP-01-44	Fast Food Restaurant With Drive-thru	Northwest corner of Foothill Blvd/San Antonio Ave	3,260 SF Fast Food Restaurant With Drive-thru	**Yes**	---
(5) SP-02-15	Multi-tenant Industrial Buildings	Southeast corner of Benson Avenue/9th Street	6,671 SF and 4,950 SF Industrial Buildings	**Yes**	---
(6) SP-02-19	A&W/KFC Fast Food w/Drive-thru	Southwest corner of Foothill Blvd/Mountain Ave	3,152 SF Fast Food Restaurant With Drive-thru	**Yes**	---
(7) SP-02-24	Animal Hospital	281 North Central Avenue	6,450 SF Animal Hospital	No	Existing and operating
(8) SP-02-27	Warehouse Buildings	1431 West 9th Street	10,400 SF Warehouse	**Yes**	---
(9) SP-02-31	Office Buildings	Southeast corner of Benson Ave and 16th Street	15,412 SF Office	**Yes**	---
(10) SP-03-04	Jack in the Box	Northwest corner of Foothill Boulevard and Monte Vista Avenue	4,858 SF Fast Food Restaurant With Drive-thru	**Yes**	---
(11) SP-03-09	High Turnover Restaurant	1261 West Foothill Blvd	Building for three small restaurants (5,500 SF total)	**Yes**	---
(12) SP-03-10	J.E. Plount and Co.	20th Street between Euclid Ave and Campus Ave	10 Single Family Detached	**Yes**	---
(13) SP-02-44	Cell Tower Site	517 North Mountain Ave	---	No	No trips generated
(14) SP-03-04	PC Gaming Center	830 East Foothill Blvd	1,800 SF Cyber-cafe	**Yes**	---
(15) SP-00-18	Von's Store and Shops	Northwest corner of Foothill Blvd/Euclid Ave	93,066 SF Shopping Center	No	Existing and operating
(16) SP-01-22	Asphalt Plant	North side of 20th Street and east of Campus Avenue	Relocate and replace existing stationary asphalt plant	No	Existing and operating
(17) SP-01-25	ATI Windows	Northeast corner of Sultana Avenue/8th Street	75,044 SF office, warehouse and manufacturing facility	**Yes**	---
(18) SP-01-26	ATI Windows	Northwest corner of 6th Avenue and A Street	16,758 SF Office and Warehouse Facility	No	Existing and operating
(19) SP-01-29	Subway	1125 East 16th Street	1,200 SF High Turnover (Sit-Down) Restaurant	No	Existing and operating
(20) SP-01-30	G and L Commercial Industrial Park	1111 East 8th Street	68,161 SF Industrial Park	**Yes**	---

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TABLE 7 (continued)

LOCATION AND DESCRIPTION OF RELATED PROJECTS
College Park Project, Upland

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
(21) SP-01-31	Office/Classroom	531 West 8th Street	4,320 SF Office and Classroom for a Child Development Program	Yes	---
(22) SP-01-32	J.E. Plount & Co Apartment Building	South side of Richland St, east of Sultana Ave and west of Campus Ave	10-unit Apartment Building	Yes	---
(23) SP-03-11	Claremont McKenna College Offices	Southeast corner of Arrow Hwy/6th St & Claremont Boulevard	18,000 SF Office	Yes	---
(24) SP-03-15	Retail/Dental Office Building	East side of Euclid Avenue and south of 9th Street	2,219 SF Retail and 2,457 SF Medical Office	Yes	---
(25) SP-03-18	Farmer Boys Rest. w/drive-thru	South side of Foothill Blvd and east of Mountain Ave	3,129 Fast Food Restaurant With Drive-thru	Yes	---
(26) SP-03-01	McDonalds Site	100 East Foothill Boulevard	8,876 SF Of New Retail	Yes	---
(27) SP-01-28	Peter Currie Medical Office Building	239 North Euclid Avenue	1,649 SF Medical Office	No	Existing and Operating
(28) SP-01-12, SP-01-13 and SP-02-33 through SP-02-42	The Colonies at San Antonio Mixed-Use Development	South of 20th Street, north of 16th Street and generally east of Campus Avenue	350 Condominiums, 800 Single Family Homes, 900 Student Elementary School, 814,000 SF Shopping Center, 3,900 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[11]	Yes	---
(29)	Upland Commercial/ Industrial Mixed-Use Master Plan	Northwest corner of Benson Avenue and Foothill Boulevard	274,900 SF Industrial Park, 240,600 SF Office Uses, 402,700 SF Commercial Retail, 163,268 SF Home Improvement Superstore[12]	Yes	---
(30)	Baseline Road Master Plan	North of 16th Street and east of SR-210 Freeway	460,000 SF Retail Shopping Center on 41-acres, a 42-acre City Park and 15 acres of Open Space/Flood Control	Yes	---

[11] Of the Colonies related project, only the 305 single family detached homes will be completed prior to the horizon year (Year 2006) of the proposed project, and thus is included within the near-term cumulative traffic analysis.

[12] Of the Upland Commercial/Industrial Mixed-Use project, only the 163,268 SF Home Improvement Superstore will be completed prior to the horizon year (Year 2006) of the proposed project, and thus is included within the near-term cumulative traffic analysis.

TABLE 7 (continued)

LOCATION AND DESCRIPTION OF RELATED PROJECTS
College Park Project, Upland

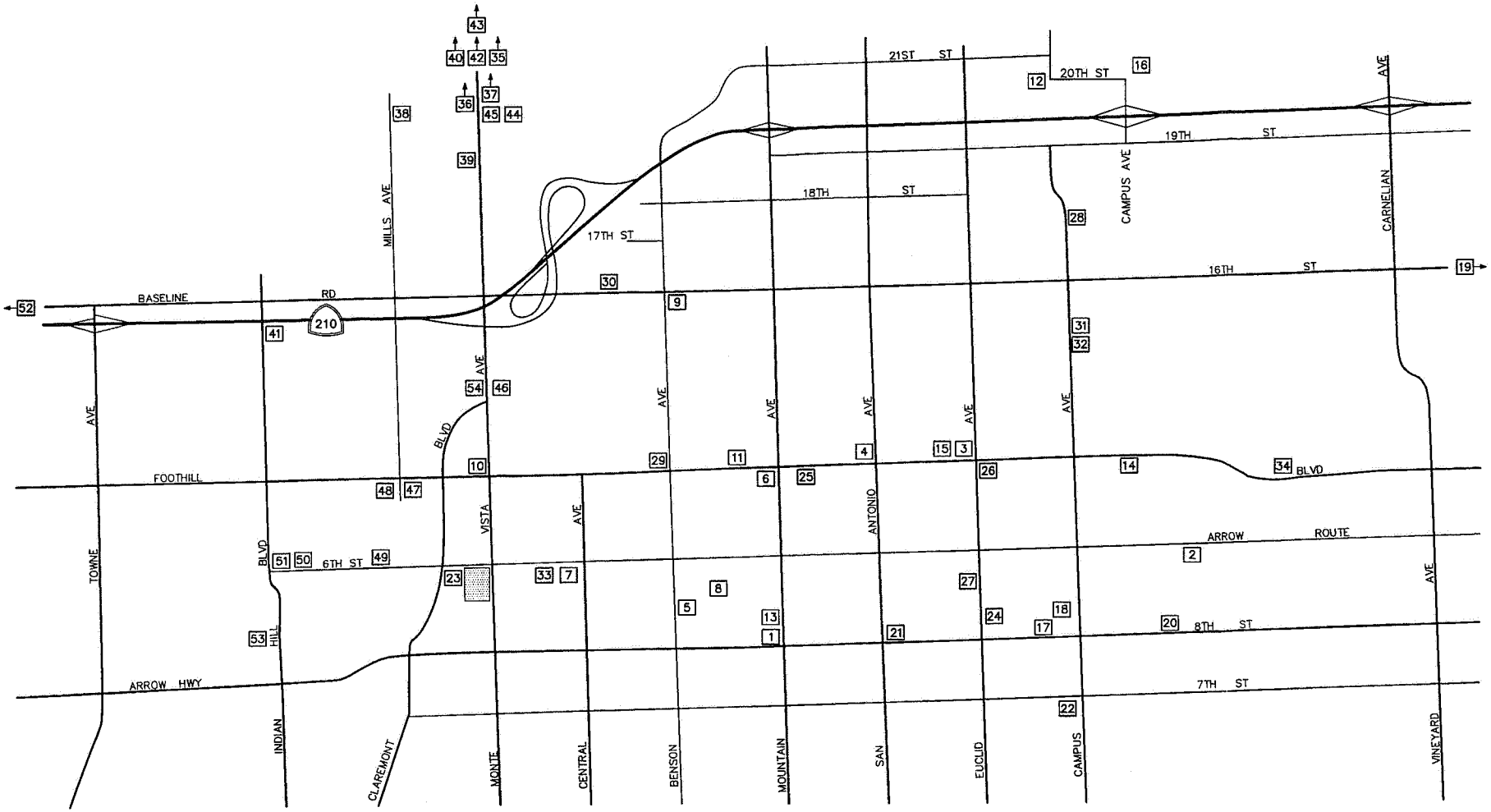
No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
(31) SP-01-27	Alexander Communities	Northeast corner of Campus Avenue and 15th Street	54-unit single family gated residential subdivision	Yes	---
(32) SP-01-10	Dry Dock Depot RV and Boat Storage Expansion	Southeast corner of Campus Avenue and 15th Street	Proposed 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	---
(33)	Rancho Monte Vista Apartments – Hutton Development	Located south of Arrow Route, west of Central Avenue	Potential development includes a 280-unit of apartments to be developed in two phases	Yes	---
City of Rancho Cucamonga					
(34)	Foothill Boulevard Condominiums	North of Foothill Boulevard and east of San Bernardino Rd	219-unit Gated Residential Condominiums/Townhomes	Yes	---
City of Claremont					
(35)	Stone Canyon Preserve	Northeast corner of Padua Ave and Mt. Baldy Road	125 Single Family Detached	Yes	---
(36)	Chanteclair	Southwest corner of Mt. Baldy Road and Padua Avenue	26 Single Family Detached	No	Recently Completed
(37)	Belage	Southeast corner of Mt. Baldy Road and Padua Avenue	39 Single Family Detached	No	Recently Completed
(38)	Creekside Estates	Mills Avenue north of Mt. Baldy Road	12 Single Family Detached	No	Recently Completed
(39)	Grove Specific Plan	Northwest corner of Padua Avenue and Pomello Drive	12 Single Family Detached	No	Recently Completed
(40)	Padua Hills	4300 Block of Via Padova	10 Single Family Detached	No	Recently Completed
(41)	Route 210 Freeway	---	---	No	Recently Completed
(42)	Padua Hills Theatre Rehabilitation	4467 Via Padova	---	No	No formal project description
(43)	Mt. Baldy R.V. Park	Mt. Baldy Road and Glendora Ridge Road	227 R.V. Spaces	Yes	---
(44)	PVPA Land	---	Various uses mentioned such as golf course or mining	No	No formal project description
(45)	Padua Avenue Park	Padua Avenue between Mt. Baldy Road and Baseline Road	24 Acre Park	Yes	---
(46)	City Yard	1616 Monte Vista Avenue	42,000 SF Building	Yes	---

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TABLE 7 (continued)

LOCATION AND DESCRIPTION OF RELATED PROJECTS
College Park Project, Upland

No.	Cumulative Project	Location/Address	Description	Included (Yes/No)	Reason Why Not Included
(47)	Harvey Mudd College	Southeast corner of Mills Avenue and Foothill Boulevard	80 Bed Dormitory	**Yes**	---
(48)	Harvey Mudd College	12th Street west of Dartmouth	20,000 SF Dining Commons	No	Ancillary use to college
(49)	Claremont McKenna College	600 block of Mills Avenue	Recreational Gym	No	Ancillary use to college
(50)	Pomona College	200 block of 7th Street	100+ Space Parking Garage	No	Ancillary use to college
(51)	Pomona College	Northeast corner of 6th Street and Harvard	40,000 SF Biology Building	No	Ancillary use to college
(52)	Shepherd Cove	Eastern Terminus of Shepherd Way	5 Single Family Detached	**Yes**	---
(53)	Olson/Village Walk	1st Street and Indian Hill Boulevard	155 Single Family Detached	**Yes**	---
(54)	Claremont Club	1717 Monte Vista Avenue	15,000 SF Addition	**Yes**	---



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KEY

[#] = RELATED PROJECT LOCATION

= PROJECT SITE

EXHIBIT 12

LOCATION OF RELATED PROJECTS

COLLEGE PARK, UPLAND

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TABLE 8

RELATED PROJECTS TRAFFIC GENERATION FORECAST
College Park Project, Upland

Related Project No. & Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
2. 77 Single Family Detached Homes	737	15	43	58	50	28	78
4. Fast-Food Rest W/Drive-thru[13]	1,455	42	41	83	29	26	55
5. Multi-tenant Industrial Buildings	81	9	1	10	1	10	11
6. A&W/Kentucky Fried Chicken[13]	1,408	41	39	80	28	25	53
8. Warehouse Buildings	52	4	1	5	1	4	5
9. Office Buildings	316	37	5	42	16	80	96
10. Jack in the Box[13]	2,169	63	61	124	43	39	82
11. Three High Turnover Restaurants[13]	645	27	24	51	21	14	35
12. J.E. Plount & Company Homes (10DU)	96	2	6	8	7	4	11
14. P.C. Gaming Center Cyber-Café[13]	211	9	8	17	7	4	11
17. A.T.I. Windows	287	42	13	55	20	35	55
20. G. & L. Commercial Industrial Park	474	50	11	61	13	50	63
21. Office/Classroom	342	29	26	55	27	30	57
22. J.E. Plount Apartments (10DU)	66	1	4	5	4	2	6
23. Claremont McKenna College Offices	356	42	6	48	17	83	100
24. Retail/Dental Office Building[13]	174	6	2	8	5	10	15
25. Farmer Boy Rest. W/Drive-thru[13]	1,397	41	39	80	27	25	52
26. McDonalds New Retail Site[13]	343	6	4	10	11	11	22
28. The Colonies Mixed-Use Development	2,892	56	167	223	188	105	293
29. Upland Comm/Indust Mixed-Use Plan	5,723	131	111	242	220	248	468
30. Baseline Road Master Plan	15,740	355	275	630	714	765	1,479
31. Alexander Communities	554	11	33	44	37	21	58
32. Dry Dock Depot R.V. & Boat Storage	364	11	10	21	19	20	39
33. Rancho Monte Vista Apartments	1,860	23	120	143	118	56	174
34. Foothill Boulevard Condominiums	1,283	15	81	96	79	39	118
35. Stone Canyon Preserve	1,196	24	70	94	81	45	126
43. Mt. Baldy R.V. Park	16,884	31	30	61	45	44	89
45. Padua Avenue Park	1,200	72	48	120	48	48	96
46. City Yard	520	60	8	68	19	98	117
47. Harvey Mudd College[14]	493	7	7	14	19	18	37
52. Shepherd Cove	48	1	3	4	3	2	5
53. Olson/Village Walk	1,483	29	87	116	101	56	157
54. Claremont Club	450	2	2	4	39	25	64
Total Related Projects Trip Generation Potential	**61,299**	**1,294**	**1,386**	**2,680**	**2,057**	**2,070**	**4,127**

[13] The trips presented above include adjustments for pass-by. Source: *Trip Generation Handbook*, ITE October 1998. The following pass-by reduction factors were utilized:
- Land Use 820: Shopping Center (Daily = assume 10% and PM Peak Hour =34%)
- Land Use 832: High Turnover (Sit-Down) Restaurant (Daily = assume 10% and PM Peak Hour = 43%)
- Land Use 834: Fast-Food Restaurant W/Drive-thru (Daily = assume 10%, AM Peak Hour =49% & PM Peak Hour = 50%)

[14] Trip generation based on rates developed by LLG Engineers for Chapman University dormitories.

Year 2006 and 2025 Traffic Volumes

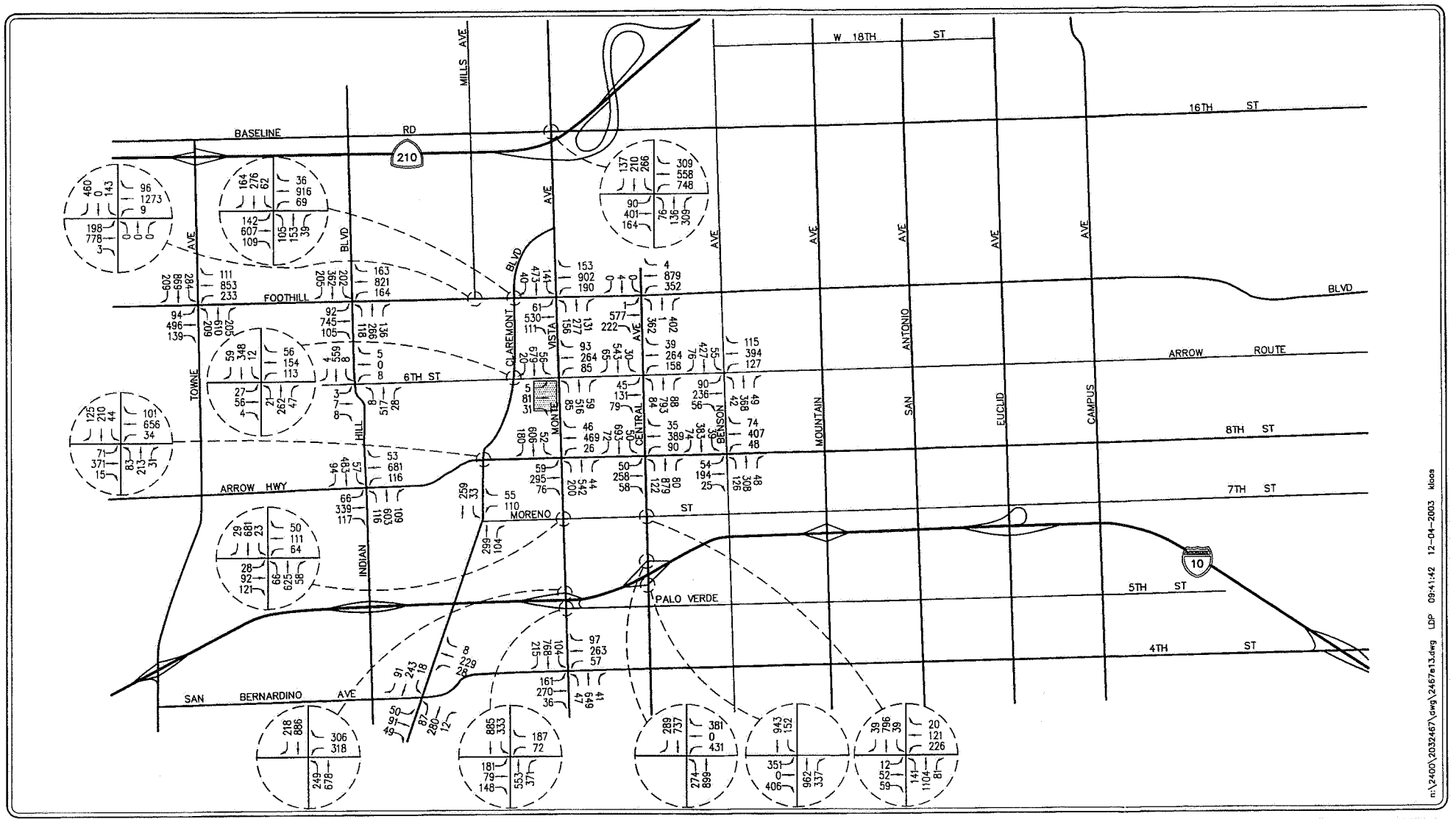
Exhibits 13 and **14** present the AM and PM peak hour background traffic volumes (existing traffic + ambient growth + related projects traffic) at the key study intersections evaluated in the study area for the Year 2006, respectively.

Exhibits 15A and **16A** illustrate the Year 2006 forecast AM and PM peak hour traffic volumes, with the inclusion of the trips generated by the College Park Project, respectively. **Exhibits 15B** and **16B** present the Year 2006 forecast AM and PM peak hour driveway traffic volumes.

Exhibits 17 and **18** present the Year 2025 AM and PM peak hour background traffic volumes at the key intersections, respectively. As confirmed with SANBAG and SCAG staff the total traffic generation potential of the Colonies at San Antonio Mixed-Use Development project, the Upland Commercial/Industrial Mixed-Use Master Plan project, the Olson/Village Walk project and the Foothill Boulevard Condominiums project are included in the 2025 background traffic projections and were included as part of the modeled data provided by SCAG.

SCAG staff could not confirm if the trip generation potential of the remaining related projects were included as part of the modeled data. Hence, to provide a conservative forecast, the related projects traffic volumes for the remaining 29 related projects were "manually" added and post-processed to develop Year 2025 background traffic volumes without project traffic.

Exhibits 19A and **20A** illustrate the Year 2025 forecast AM and PM peak hour traffic volumes, respectively, with project generated trips included. **Exhibits 19B** and **20B** present the Year 2025 forecast AM and PM peak hour driveway traffic volumes.



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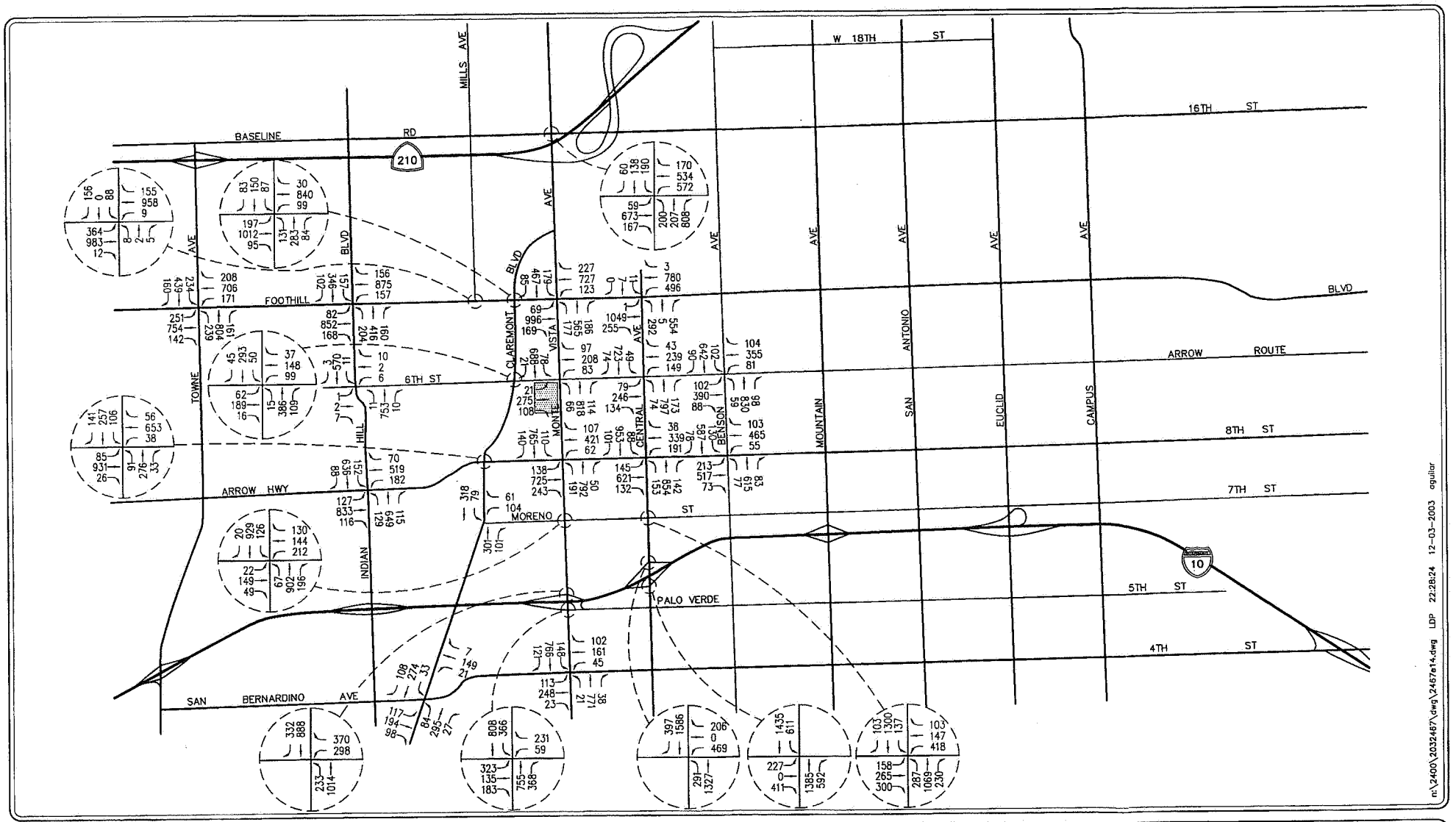
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EXHIBIT 13

YEAR 2006 AM PEAK HOUR BACKGROUND TRAFFIC VOLUMES

COLLEGE PARK, UPLAND

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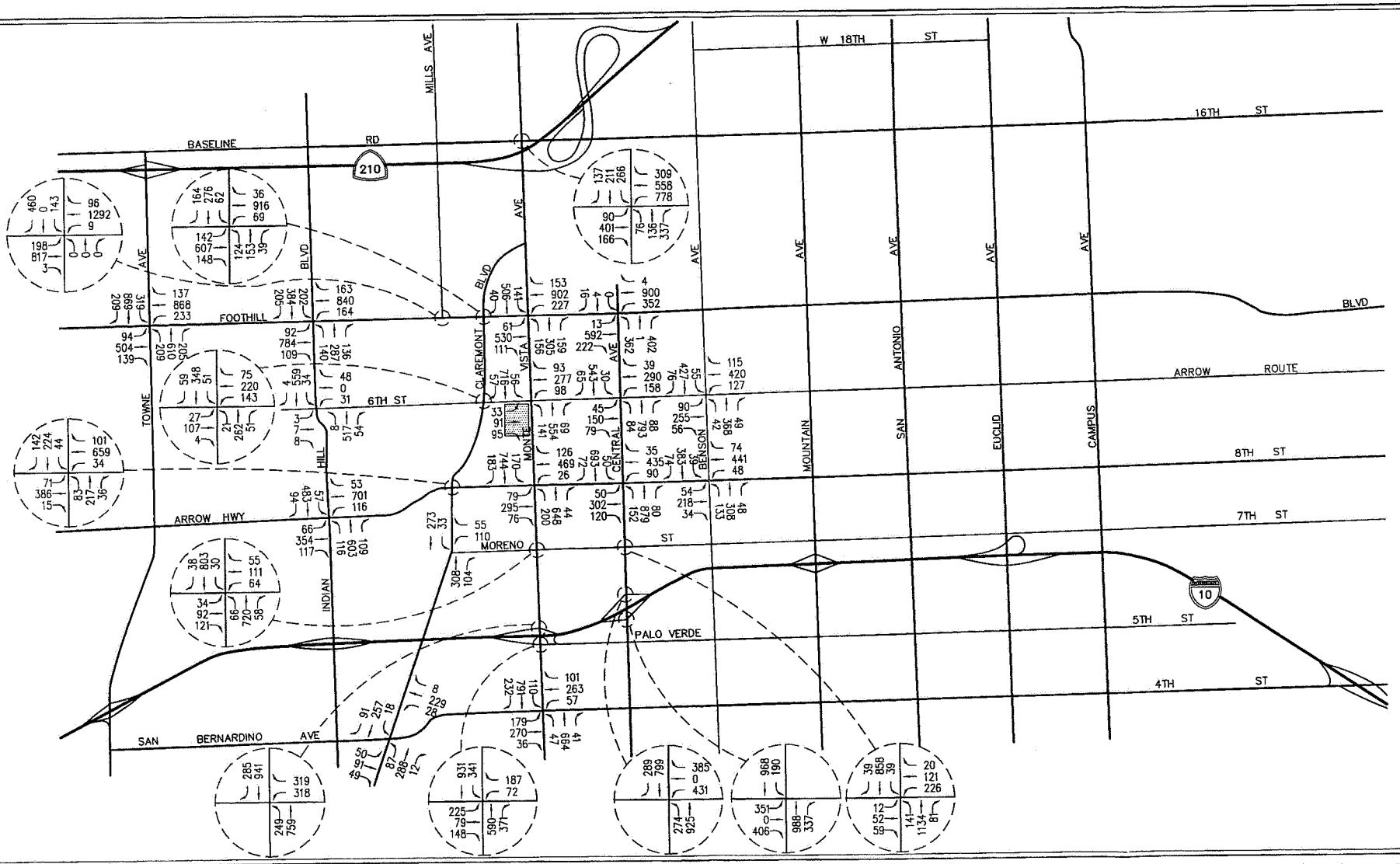
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EXHIBIT 14

YEAR 2006 PM PEAK HOUR BACKGROUND TRAFFIC VOLUMES

COLLEGE PARK, UPLAND

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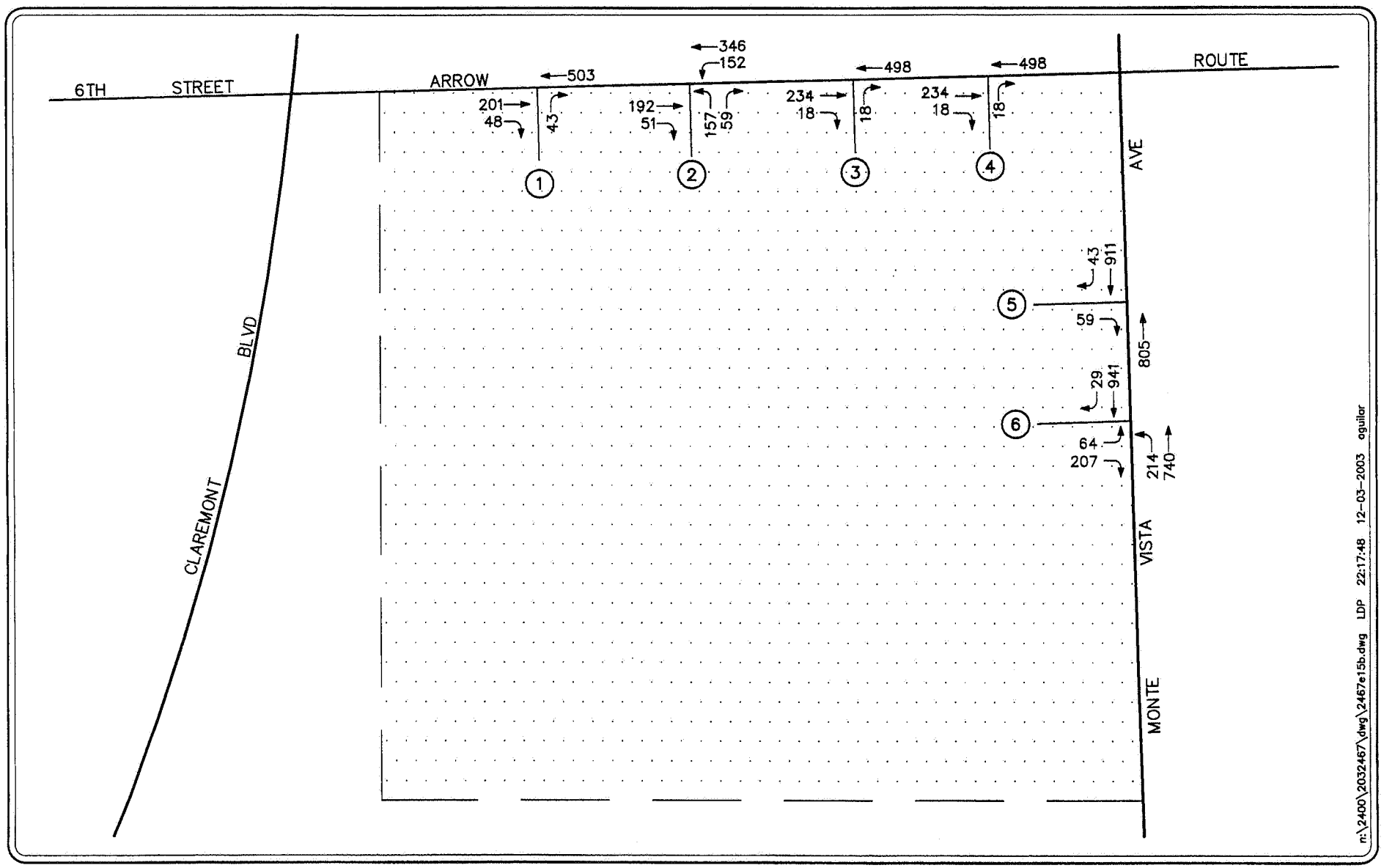
44

EXHIBIT 15A

YEAR 2006 AM PEAK HOUR TRAFFIC VOLUMES WITH PROJECT TRAFFIC

COLLEGE PARK, UPLAND

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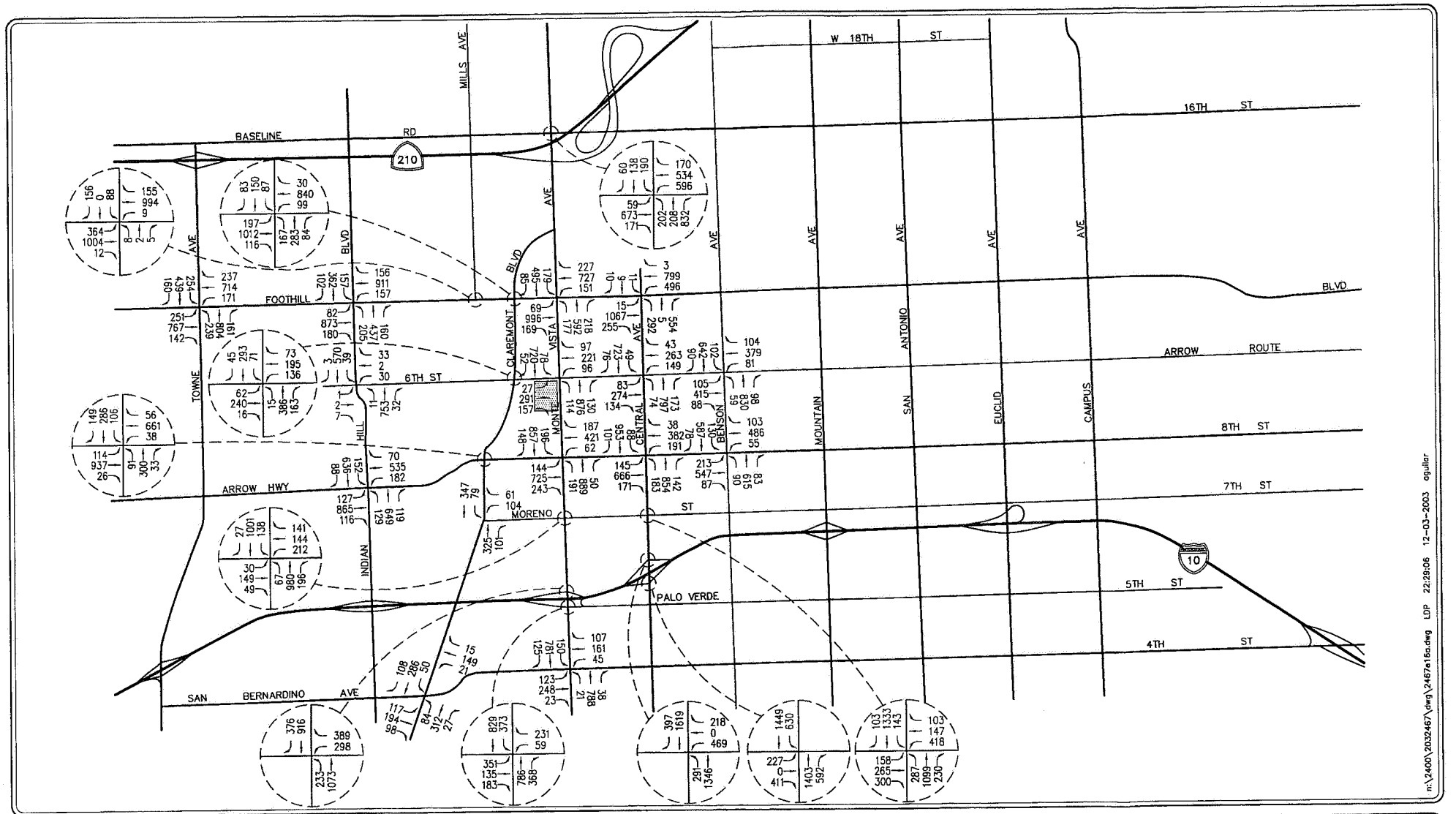
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EXHIBIT 15B

YEAR 2006 AM PEAK HOUR DRIVEWAY TRAFFIC VOLUMES WITH PROJECT TRAFFIC

COLLEGE PARK, UPLAND



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LINSCOTT LAW & GREENSPAN ENGINEERS

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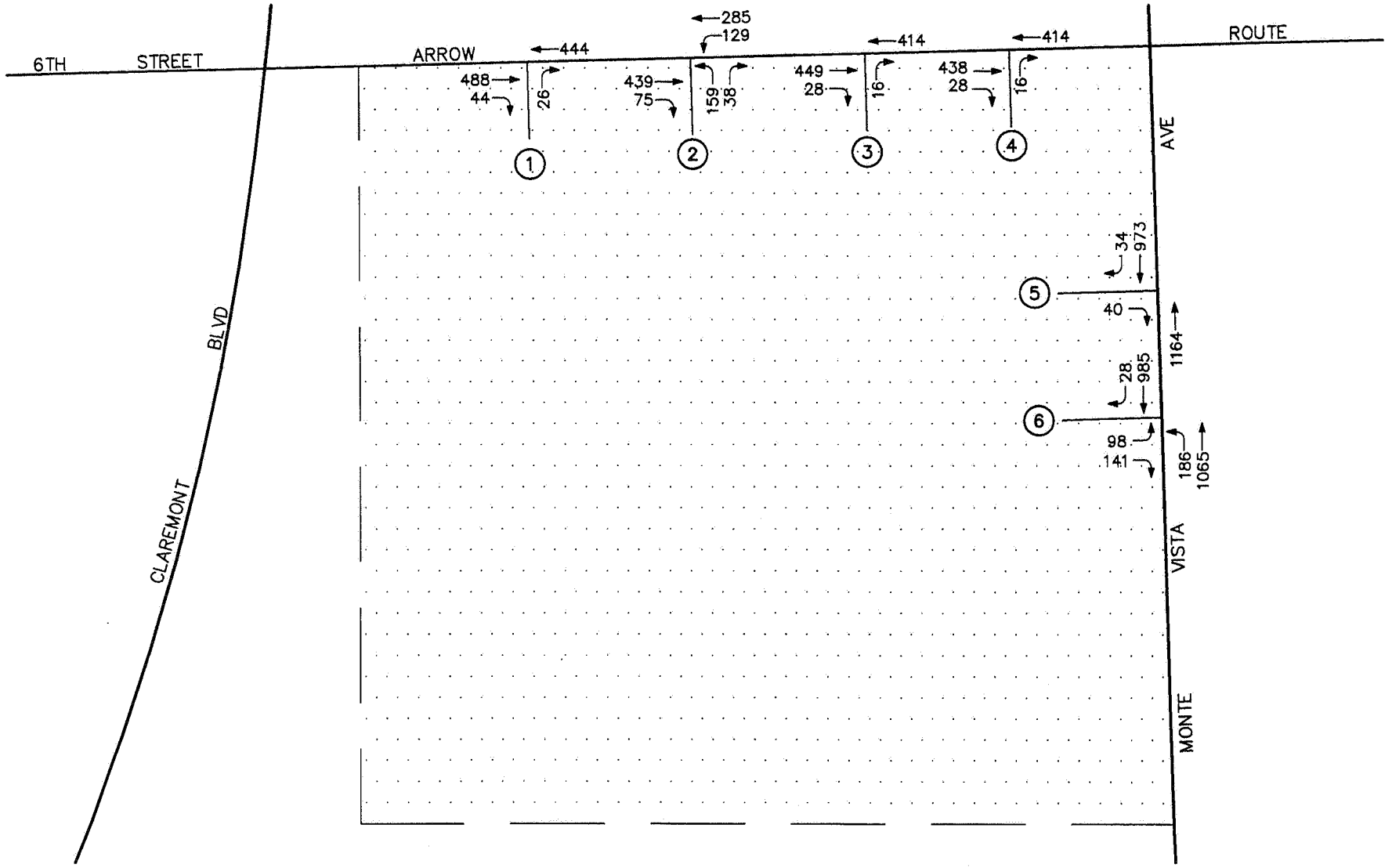
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EXHIBIT 16A

YEAR 2006 PM PEAK HOUR TRAFFIC VOLUMES WITH PROJECT TRAFFIC

COLLEGE PARK, UPLAND

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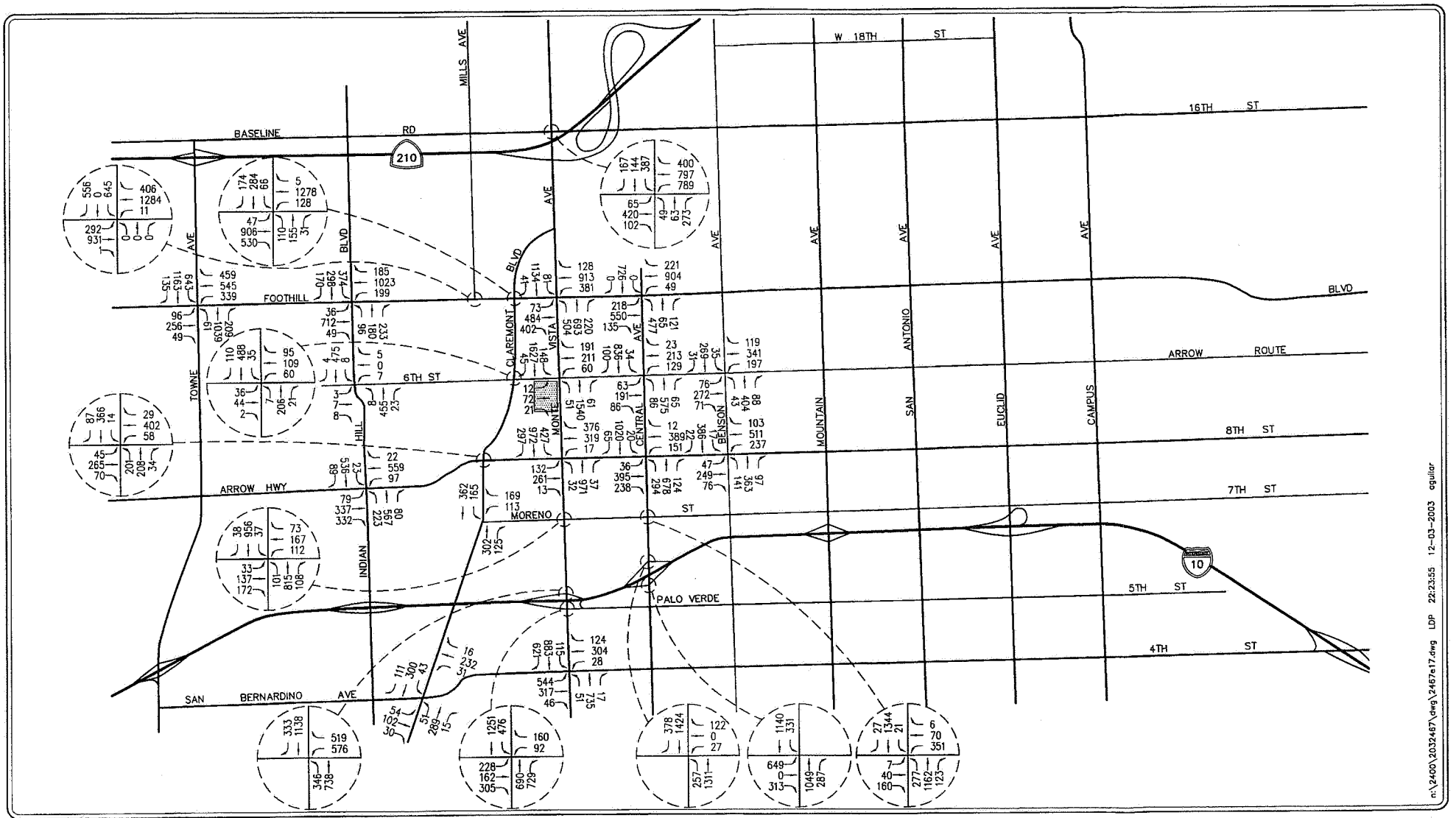
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EXHIBIT 16B

YEAR 2006 PM PEAK HOUR DRIVEWAY TRAFFIC VOLUMES WITH PROJECT TRAFFIC

COLLEGE PARK, UPLAND



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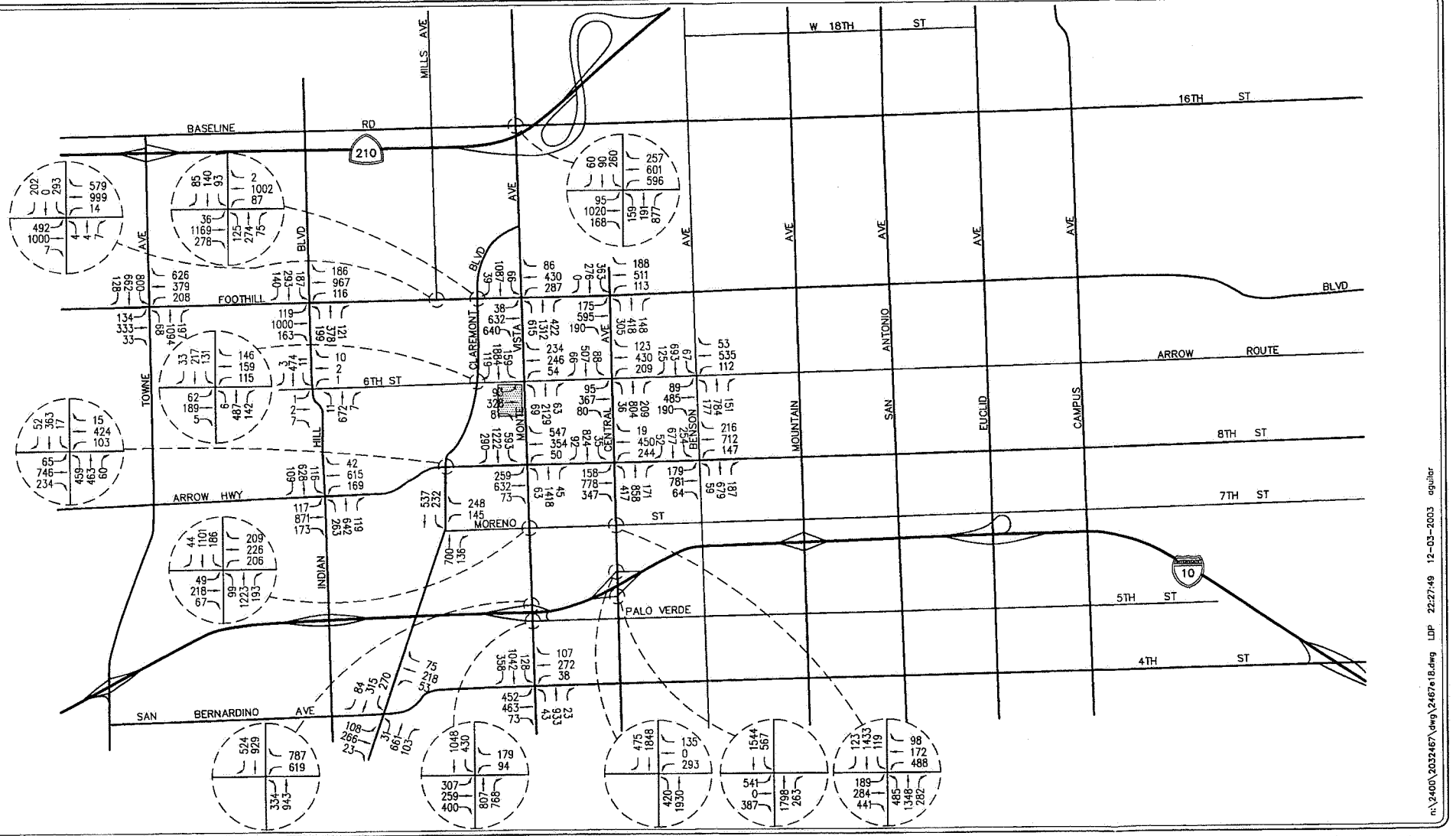
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EXHIBIT 17

YEAR 2025 AM PEAK HOUR BUILDOUT TRAFFIC VOLUMES

COLLEGE PARK, UPLAND

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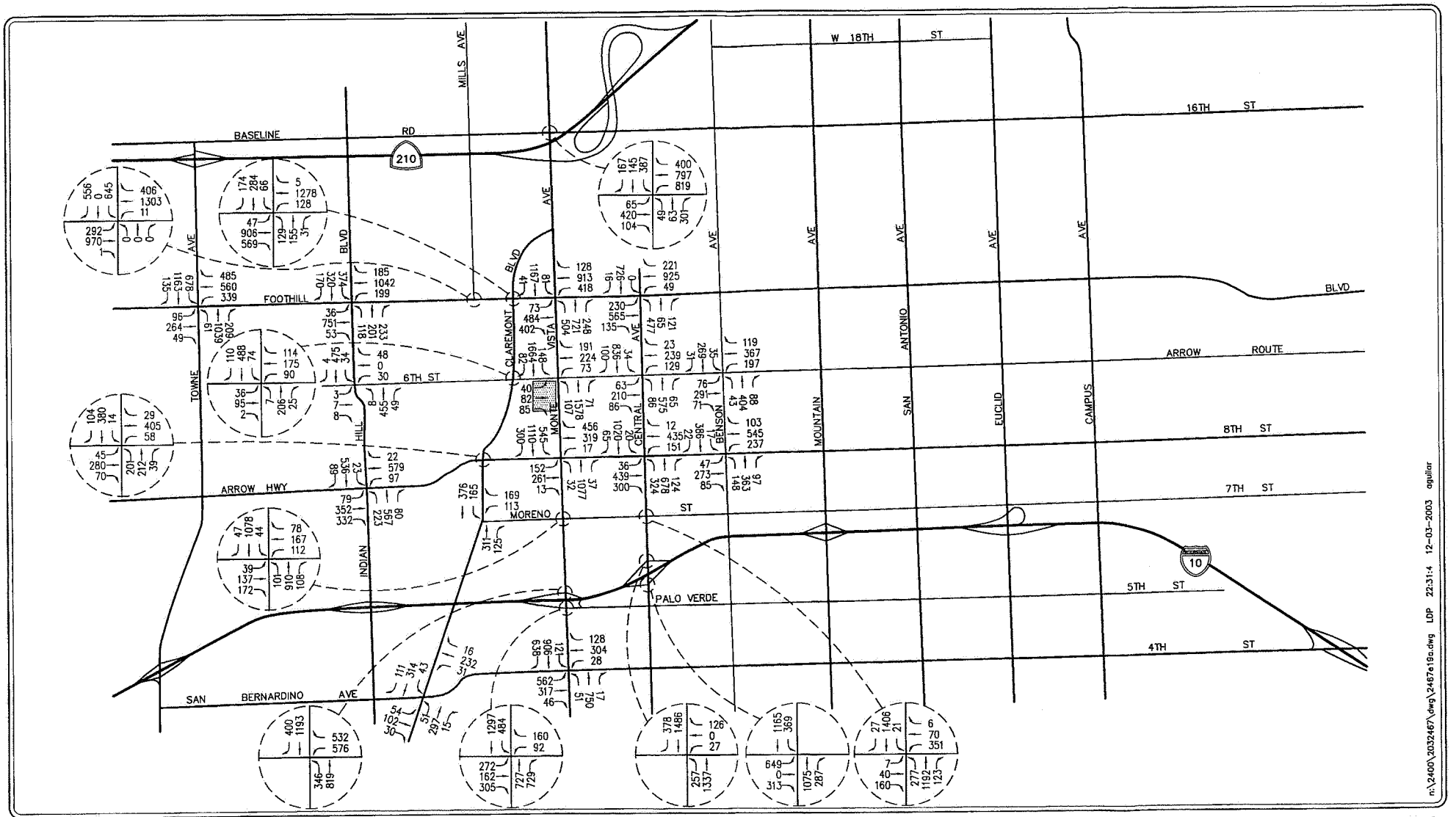
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EXHIBIT 18

YEAR 2025 PM PEAK HOUR BUILDOUT TRAFFIC VOLUMES

COLLEGE PARK, UPLAND

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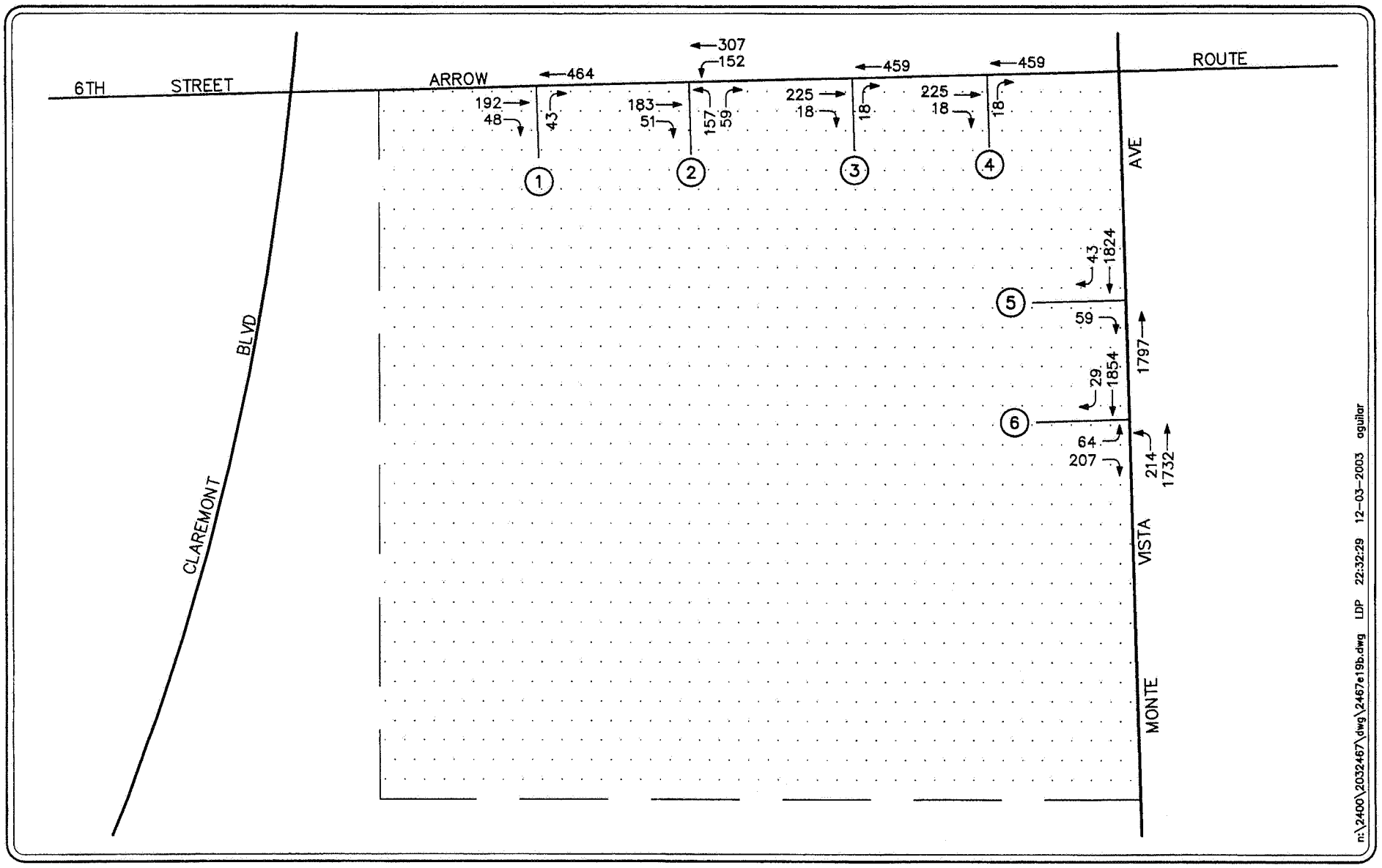
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EXHIBIT 19A

YEAR 2025 AM PEAK HOUR BUILDOUT TRAFFIC VOLUMES WITH PROJECT TRAFFIC

COLLEGE PARK, UPLAND

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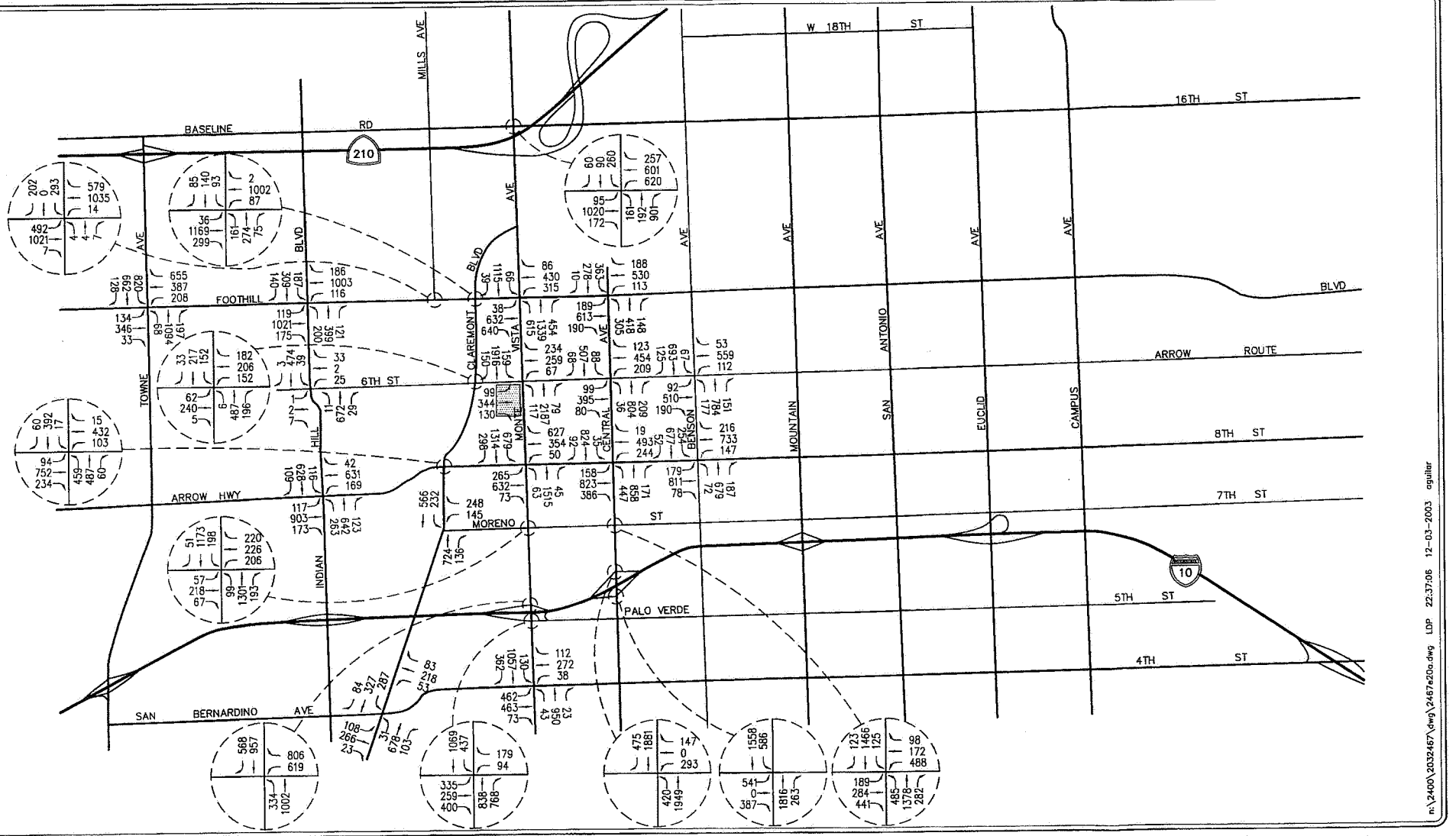
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EXHIBIT 19B

YEAR 2025 AM PEAK HOUR DRIVEWAY TRAFFIC VOLUMES WITH PROJECT TRAFFIC

COLLEGE PARK, UPLAND



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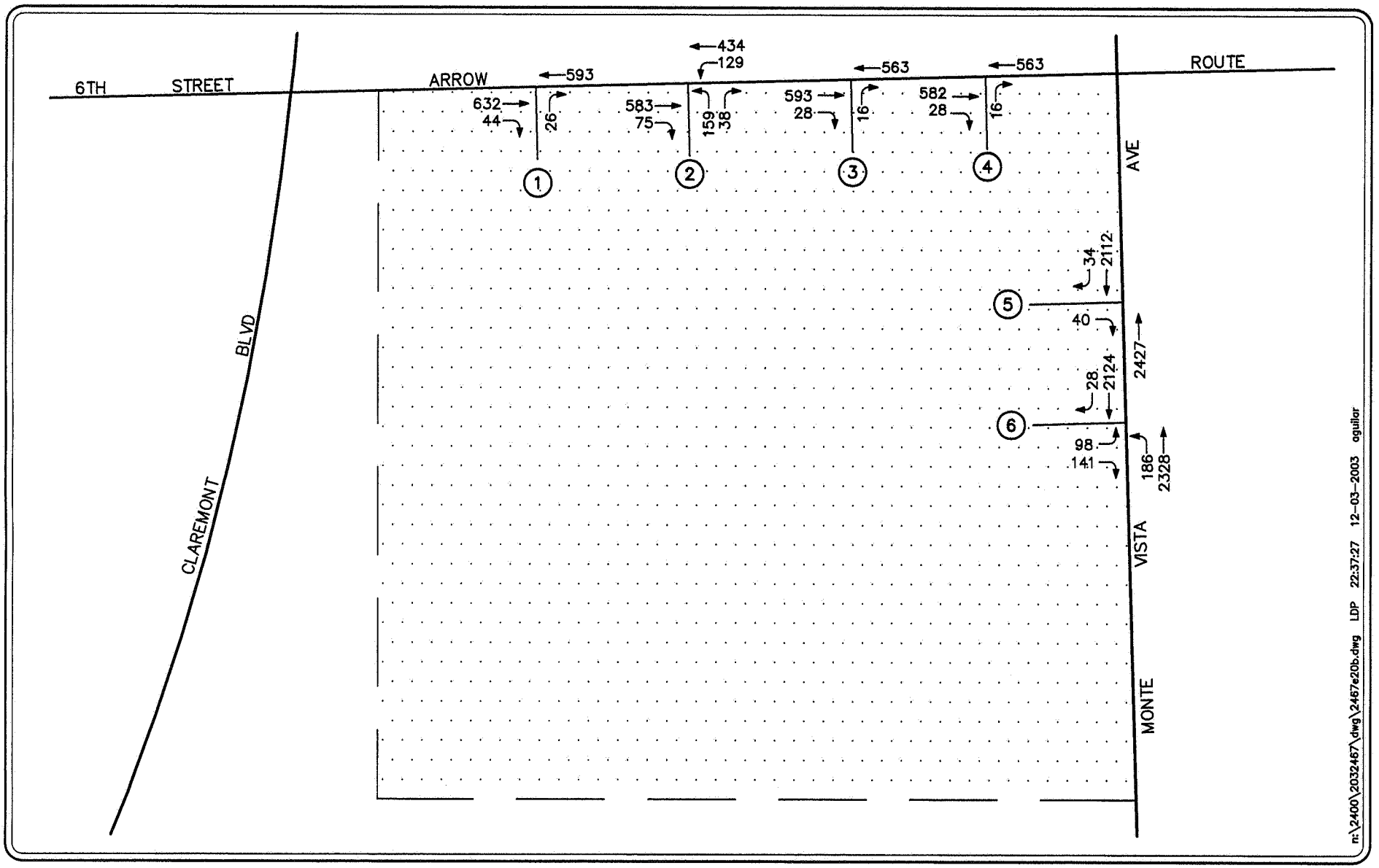
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EXHIBIT 20A

YEAR 2025 PM PEAK HOUR BUILDOUT TRAFFIC VOLUMES WITH PROJECT TRAFFIC

COLLEGE PARK, UPLAND



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LINSCOTT LAW & GREENSPAN ENGINEERS

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EXHIBIT 20B

YEAR 2025 PM PEAK HOUR DRIVEWAY TRAFFIC VOLUMES WITH PROJECT TRAFFIC

COLLEGE PARK, UPLAND

TRAFFIC IMPACT ANALYSIS METHODOLOGY

The relative impact of the added peak hour project traffic volumes generated by the College Park Project have been evaluated based on the analysis of future operating conditions at twenty-six (26) key study intersections. Operating conditions at the key study intersections were evaluated during the AM and PM peak hours for existing 2003 traffic conditions and future near-term (2006) and long-term (2025) traffic conditions without, then with the proposed project. The previously 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 in this report.

Traffic Impact Analysis Scenarios

As required, the following scenarios are those for which LOS calculations have been performed at the key intersections for near-term (Year 2006) and long-term (Year 2025) conditions:

(1) Existing Traffic.
(2) Year 2006 Background Traffic (existing plus ambient plus related projects).
(3) Year 2006 Future Traffic with College Park Project traffic.
(4) Condition (3) with planned and/or recommended improvements.
(5) Year 2025 Future Traffic.
(6) Year 2025 Future Traffic with College Park Project traffic.
(7) Condition (6) with implementation of mitigation measures, where necessary.

PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Near-Term (Year 2006)

Table 9 summarizes the peak hour Level of Service results at the key study intersections for the Year 2006 (near-term) traffic impact analysis scenarios based on the Highway Capacity Manual (HCM) intersection operations method of analyses. The first column (1) of LOS values in Table 9 present a summary of existing AM and PM peak hour traffic conditions (which were also presented in Table 4). The second column (2) lists forecast 2006 background conditions (existing traffic plus ambient growth plus related projects traffic) based on existing roadway conditions.

The third column (3) presents future forecast traffic conditions with the addition of traffic generated by the College Park Project. The fourth 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 in this report. The fifth column (5) indicates the anticipated level of service with planned and/or recommended improvements.

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TABLE 9

YEAR 2006 PEAK HOUR CAPACITY ANALYSIS SUMMARY[15]
College Park Project, Upland

Key Intersections	Time Period	(1) 2003 Existing Traffic Conditions		(2) Year 2006 Background Traffic		(3) Year 2006 Plus Project Traffic		(4) Significant Impact	(5) Year 2006 With Improvements	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Yes/No	Delay (sec/veh)	LOS
1. Mills Avenue at Foothill Boulevard	AM	30.7 s/v	C	35.4 s/v	D	35.8 s/v	D	No	--	--
	PM	27.0 s/v	C	30.0 s/v	C	30.8 s/v	C	No	--	--
2. Claremont Boulevard at Foothill Boulevard	AM	27.6 s/v	C	28.4 s/v	C	28.7 s/v	C	No	--	--
	PM	30.2 s/v	C	32.8 s/v	C	34.3 s/v	C	No	--	--
3. Monte Vista Avenue at Foothill Boulevard	AM	30.2 s/v	C	33.3 s/v	C	34.8 s/v	C	No	--	--
	PM	30.4 s/v	C	34.1 s/v	C	34.8 s/v	C	No	--	--
4. Central Avenue at Foothill Boulevard	AM	**37.2 s/v**	**D**	**42.5 s/v**	**D**	**42.9 s/v**	**D**	**Yes**	25.7 s/v	C
	PM	**39.2 s/v**	**D**	**53.2 s/v**	**D**	**54.2 s/v**	**D**	**Yes**	31.9 s/v	C
5. Indian Hill Boulevard at 6th Street	AM	0.67 s/v	A	0.69 s/v	A	2.32 s/v	A	No	--	--
	PM	0.48 s/v	A	0.63 s/v	A	2.58 s/v	A	No	--	--
6. Claremont Boulevard at 6th Street/Arrow Route	AM	28.5 s/v	C	28.9 s/v	C	31.7 s/v	C	No	--	--
	PM	28.8 s/v	C	29.7 s/v	C	34.8 s/v	C	No	--	--
7. Monte Vista Avenue at Arrow Route	AM	28.6 s/v	C	29.4 s/v	C	34.0 s/v	C	No	--	--
	PM	27.9 s/v	C	29.0 s/v	C	30.7 s/v	C	No	--	--
8. Central Avenue at Arrow Route	AM	15.7 s/v	B	16.0 s/v	B	16.1 s/v	B	No	--	--
	PM	15.8 s/v	B	16.3 s/v	B	16.4 s/v	B	No	--	--
9. Benson Avenue at Arrow Route	AM	22.8 s/v	C	23.1 s/v	C	23.2 s/v	C	No	--	--
	PM	23.3 s/v	C	24.1 s/v	C	24.2 s/v	C	No	--	--
10. Indian Hill Boulevard at Arrow Highway	AM	30.0 s/v	C	31.1 s/v	C	31.2 s/v	C	No	--	--
	PM	35.2 s/v	D	38.8 s/v	D	39.2 s/v	D	No	--	--
11. Claremont Boulevard at Arrow Highway	AM	27.9 s/v	C	28.5 s/v	C	28.5 s/v	C	No	--	--
	PM	28.6 s/v	C	29.9 s/v	C	30.8 s/v	C	No	--	--
12. Monte Vista Avenue at Arrow Highway	AM	29.1 s/v	C	29.9 s/v	C	31.7 s/v	C	No	--	--
	PM	33.3 s/v	C	36.8 s/v	D	41.1 s/v	D	No	--	--
13. Central Avenue at Arrow Highway	AM	29.0 s/v	C	30.2 s/v	C	30.6 s/v	C	No	--	--
	PM	33.3 s/v	C	35.7 s/v	D	36.9 s/v	D	No	--	--

[15] **Bold HCM/LOS values** indicate adverse service levels based on City of Upland, City of Claremont, City of Montclair, City of Pomona and County of San Bernardino LOS standards.

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TABLE 9 (continued)

YEAR 2006 PEAK HOUR CAPACITY ANALYSIS SUMMARY[16]
College Park Project, Upland

Key Intersections	Time Period	(1) 2003 Existing Traffic Conditions		(2) Year 2006 Background Traffic		(3) Year 2006 Plus Project Traffic		(4) Significant Impact	(5) Year 2006 With Improvements	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Yes/No	Delay (sec/veh)	LOS
14. Benson Avenue at Arrow Highway/8th Street	AM	28.0 s/v	C	28.3 s/v	C	28.5 s/v	C	No	--	--
	PM	32.9 s/v	C	34.8 s/v	C	35.3 s/v	D	No	--	--
15. Claremont Blvd/Mills at Moreno Street	AM	10.69 s/v	B	11.36 s/v	B	11.67 s/v	B	No	--	--
	PM	11.47 s/v	B	13.12 s/v	B	14.27 s/v	B	No	--	--
16. Monte Vista Avenue at Moreno Street	AM	25.0 s/v	C	25.6 s/v	C	26.9 s/v	C	No	--	--
	PM	27.3 s/v	C	29.2 s/v	C	31.1 s/v	C	No	--	--
17. Central Avenue at Moreno Street/7th Street	AM	28.4 s/v	C	28.9 s/v	C	29.2 s/v	C	No	--	--
	PM	37.0 s/v	D	39.7 s/v	D	40.4 s/v	D	No	--	--
18. Monte Vista Avenue at I-10 WB Ramp	AM	22.9 s/v	C	23.4 s/v	C	23.6 s/v	C	No	--	--
	PM	21.1 s/v	C	21.9 s/v	C	22.2 s/v	C	No	--	--
19. Monte Vista Avenue at I-10 EB Ramp	AM	32.8 s/v	C	34.6 s/v	C	36.2 s/v	D	No	--	--
	PM	43.1 s/v	D	50.4 s/v	D	54.8 s/v	D	No	--	--
20. Central Avenue at I-10 WB Ramp	AM	21.9 s/v	C	22.2 s/v	C	22.2 s/v	C	No	--	--
	PM	23.7 s/v	C	24.5 s/v	C	24.6 s/v	C	No	--	--
21. Central Avenue at I-10 EB Ramp	AM	21.8 s/v	C	22.1 s/v	C	22.2 s/v	C	No	--	--
	PM	26.6 s/v	C	28.1 s/v	C	28.7 s/v	C	No	--	--
22. Claremont Blvd/Mills at San Bernardino Ave	AM	22.6 s/v	C	22.8 s/v	C	22.8 s/v	C	No	--	--
	PM	23.2 s/v	C	23.5 s/v	C	23.6 s/v	C	No	--	--
23. Monte Vista Avenue at San Bernardino Avenue	AM	39.7 s/v	D	44.4 s/v	D	49.5 s/v	D	No	--	--
	PM	35.7 s/v	D	39.7 s/v	D	41.7 s/v	D	No	--	--
24. Indian Hill Boulevard at Foothill Boulevard	AM	35.3 s/v	D	39.6 s/v	D	41.8 s/v	D	No	--	--
	PM	37.5 s/v	D	47.3 s/v	D	51.4 s/v	D	No	--	--
25. Towne Avenue at Foothill Boulevard	AM	48.1 s/v	D	**55.1 s/v**	**E**	**57.4 s/v**	**E**	**Yes**	54.2 s/v	D
	PM	48.5 s/v	D	**59.6 s/v**	**E**	**63.6 s/v**	**E**	**Yes**	54.4 s/v	D
26. Monte Vista Avenue at Baseline Road	AM	51.7 s/v	D	**69.5 s/v**	**E**	**75.1 s/v**	**E**	**Yes**	43.7 s/v	D
	PM	**57.4 s/v**	**E**	**106.5 s/v**	**F**	**113.5 s/v**	**F**	**Yes**	44.1 s/v	D

[16] **Bold HCM/LOS values** indicate adverse service levels based on City of Upland, City of Claremont, City of Montclair, City of Pomona and County of San Bernardino LOS standards.

Year 2003 Existing Conditions

As previously presented in Table 4, two of the 26 key study intersections currently operate at an unacceptable LOS when compared to the LOS criteria identified in this report. The remaining 24 key study intersections currently operate at a satisfactory service level during the AM and PM peak hours. The two locations operating at an adverse LOS are as follows:

Key Intersection	City/Jurisdiction	AM Peak Hour Delay/LOS	PM Peak Hour Delay/LOS
4. Central Avenue at Foothill Boulevard	City of Upland / County of San Bernardino	37.2/D	39.2/D
26. Monte Vista Avenue at Baseline Road	City of Claremont	---	57.4/E

Year 2006 Background Traffic Conditions

An analysis of future (Year 2006) background traffic conditions indicates that ambient traffic growth and related projects traffic will adversely impact three of the 26 key study intersections. The remaining 23 key study intersections are forecast to continue to operate at an acceptable LOS. The locations projected to operate at an adverse LOS are as follows:

Key Intersection	City/Jurisdiction	AM Peak Hour Delay/LOS	PM Peak Hour Delay/LOS
4. Central Avenue at Foothill Boulevard	City of Upland / County of San Bernardino	42.5/D	53.2/D
25. Towne Avenue at Foothill Boulevard	City of Claremont / Pomona	55.1/E	59.5/E
26. Monte Vista Avenue at Baseline Road	City of Claremont	69.3/E	106.0/F

Year 2006 With Project Traffic

Review of Columns 3 and 4 of Table 9 indicates that traffic associated with the proposed College Park Project will significantly impact three of the 26 key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. The remaining 23 key study intersections are forecast to continue to operate at an acceptable LOS with the addition of project generated traffic in the Year 2006. The following three key study intersections are projected to operate at an unsatisfactory service level and will be significantly impacted by project-generated traffic.

Key Intersection	City/Jurisdiction	AM Peak Hour Delay/LOS	PM Peak Hour Delay/LOS
4. Central Avenue at Foothill Boulevard	City of Upland / County of San Bernardino	42.9/D	54.2/D
25. Towne Avenue at Foothill Boulevard	City of Claremont / Pomona	57.4/E	63.5/E
26. Monte Vista Avenue at Baseline Road	City of Claremont	74.9/E	113.1/F

However, the implementation of recommended mitigation measures at the affected intersections completely offsets the impact of the proposed project and as a result the impacted intersections are forecast to operate at an acceptable LOS during both peak hours (See Column 5 of Table 9).

Long-Term (Year 2025)

Per the CMP requirements, additional capacity analyses have been completed for the Year 2025 Horizon. **Table 10** presents a summary of the projected levels of service at the 26 key study intersections for Year 2025 conditions. The structure of this table is similar to the near-term (Year 2006) capacity analysis summary presented in Table 9.

Year 2025 Buildout Traffic Conditions

Review of column 2 of Table 10 shows that projected Year 2025 buildout traffic will impact 11 of the 26 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 Delay/LOS	PM Peak Hour Delay/LOS
1.	Mills Avenue at Foothill Boulevard	City of Claremont	90.0/F	--
3.	Monte Vista Avenue at Foothill Boulevard	City of Upland / County of San Bernardino	90.2/F	153.8/F
4	Central Avenue at Foothill Boulevard	City of Upland / County of San Bernardino	170.9/F	74.4/E
6.	Claremont Boulevard at 6th/Arrow Rte	City of Upland / County of San Bernardino	--	35.6/D
11.	Claremont Boulevard at Arrow Highway	City of Claremont	--	57.0/E
12.	Monte Vista Avenue at Arrow Highway	City of Claremont / Montclair	--	165.7/F
15.	Claremont Boulevard at Moreno Street	City of Montclair	--	192.09/F
19.	Monte Vista Avenue at I-10 EB Ramp	City of Montclair	92.6/F	127.1/F
23.	Monte Vista Ave at San Bernardino Blvd	City of Montclair	189.2/F	182.1/F
25.	Towne Avenue at Foothill Boulevard	City of Claremont / Pomona	133.5/F	183.5/F
26.	Monte Vista Avenue at Baseline Road	City of Claremont	87.2/F	161.6/F

Year 2025 Buildout Traffic Conditions with Project

Review of Columns 3 and 4 of Table 10 shows that the College Park Project will contribute to the degradation of the 11 intersections forecast to operate at an unsatisfactory LOS in the Year 2025. The locations projected to operate at an adverse LOS in the Year 2025, prior to implementation of recommended intersection improvements, are as follows:

Key Intersection		City/Jurisdiction	AM Peak Hour Delay/LOS	PM Peak Hour Delay/LOS
1.	Mills Avenue at Foothill Boulevard	City of Claremont	91.0/F	--
3.	Monte Vista Avenue at Foothill Boulevard	City of Upland / County of San Bernardino	97.7/F	163.6/F
4	Central Avenue at Foothill Boulevard	City of Upland / County of San Bernardino	173.6/F	77.4/F
6.	Claremont Boulevard at 6th/Arrow Rte	City of Upland / County of San Bernardino	--	49.3/D
11.	Claremont Boulevard at Arrow Highway	City of Claremont	--	60.8/E
12.	Monte Vista Avenue at Arrow Highway	City of Claremont / Montclair	73.6/E	200.2/F
15.	Claremont Boulevard at Moreno Street	City of Montclair	--	210.90/F
19.	Monte Vista Avenue at I-10 EB Ramp	City of Montclair	92.4/F	127.0/F
23.	Monte Vista Ave at San Bernardino Blvd	City of Montclair	202.0/F	189.6/F
25.	Towne Avenue at Foothill Boulevard	City of Claremont / Pomona	139.4/F	191.7/F
26.	Monte Vista Avenue at Baseline Road	City of Claremont	91.5/F	166.8/F

However, as shown in Column 5 of Table 10, the implementation of recommended long-term mitigation measures at the 11 impacted intersections completely offsets the impact of the proposed project, as well as future background traffic (See Column 5 of Table 10). Per the San Bernardino County CMP, the College Park Project can be expected to pay a fair-share of the construction costs to implement recommended mitigation measures.

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.

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TABLE 10

YEAR 2025 PEAK HOUR CAPACITY ANALYSIS SUMMARY[17]
College Park Project, Upland

Key Intersections	Time Period	(1) 2003 Existing Traffic Conditions		(2) Year 2025 Background Traffic		(3) Year 2025 Plus Project Traffic		(4) Significant Impact	(5) Year 2025 With Improvements	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Yes/No	Delay (sec/veh)	LOS
1. Mills Avenue at Foothill Boulevard	AM	30.7 s/v	C	**90.0 s/v**	**F**	**91.0 s/v**	**F**	**Yes**	54.0 s/v	D
	PM	27.0 s/v	C	52.6 s/v	D	54.3 s/v	D	No	49.2 s/v	D
2. Claremont Boulevard at Foothill Boulevard	AM	27.6 s/v	C	30.8 s/v	C	31.8 s/v	C	No	--	--
	PM	30.2 s/v	C	29.7 s/v	C	30.9 s/v	C	No	--	--
3. Monte Vista Avenue at Foothill Boulevard	AM	30.2 s/v	C	**90.3 s/v**	**F**	**97.8 s/v**	**F**	**Yes**	34.2 s/v	C
	PM	30.4 s/v	C	**153.9 s/v**	**F**	**163.7 s/v**	**F**	**Yes**	34.6 s/v	C
4. Central Avenue at Foothill Boulevard	AM	37.2 s/v	D	**170.9 s/v**	**F**	**173.6 s/v**	**F**	**Yes**	33.6 s/v	C
	PM	39.2 s/v	D	**74.4 s/v**	**E**	**77.4 s/v**	**E**	**Yes**	27.2 s/v	C
5. Indian Hill Boulevard at 6th Street	AM	0.67 s/v	A	0.67 s/v	A	2.13 s/v	A	No	--	--
	PM	0.48 s/v	A	0.48 s/v	A	1.94 s/v	A	No	--	--
6. Claremont Boulevard at 6th Street/Arrow Route	AM	28.5 s/v	C	30.2 s/v	C	31.4 s/v	C	No	22.4 s/v	C
	PM	28.8 s/v	C	**35.6 s/v**	**D**	**49.3 s/v**	**D**	**Yes**	19.9 s/v	B
7. Monte Vista Avenue at Arrow Route	AM	28.6 s/v	C	31.6 s/v	C	33.2 s/v	C	No	--	--
	PM	27.9 s/v	C	32.3 s/v	C	34.8 s/v	C	No	--	--
8. Central Avenue at Arrow Route	AM	15.7 s/v	B	16.1 s/v	B	16.2 s/v	B	No	--	--
	PM	15.8 s/v	B	17.2 s/v	B	17.5 s/v	B	No	--	--
9. Benson Avenue at Arrow Route	AM	22.8 s/v	C	24.9 s/v	C	25.0 s/v	C	No	--	--
	PM	23.3 s/v	C	24.5 s/v	C	24.6 s/v	C	No	--	--
10. Indian Hill Boulevard at Arrow Highway	AM	30.0 s/v	C	33.5 s/v	C	33.6 s/v	C	No	--	--
	PM	35.2 s/v	D	42.4 s/v	D	43.1 s/v	D	No	--	--
11. Claremont Boulevard at Arrow Highway	AM	27.9 s/v	C	31.2 s/v	C	31.4 s/v	C	No	31.1 s/v	C
	PM	28.6 s/v	C	**57.1 s/v**	**E**	**61.0 s/v**	**E**	**Yes**	48.4 s/v	D
12. Monte Vista Avenue at Arrow Highway	AM	29.1 s/v	C	43.9 s/v	D	**73.6 s/v**	**E**	**Yes**	28.0 s/v	C
	PM	33.3 s/v	C	**165.7 s/v**	**F**	**200.2 s/v**	**F**	**Yes**	49.7 s/v	D
13. Central Avenue at Arrow Highway	AM	29.0 s/v	C	39.7 s/v	D	44.1 s/v	D	No	--	--
	PM	33.3 s/v	C	47.0 s/v	D	53.1 s/v	D	No	--	--

[17] **Bold HCM/LOS values** indicate adverse service levels based on City of Upland, City of Claremont, City of Montclair, City of Pomona and County of San Bernardino LOS standards.

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TABLE 10 (continued)

YEAR 2025 PEAK HOUR CAPACITY ANALYSIS SUMMARY[18]
College Park Project, Upland

Key Intersections	Time Period	(1) 2003 Existing Traffic Conditions		(2) Year 2025 Background Traffic		(3) Year 2025 Plus Project Traffic		(4) Significant Impact	(5) Year 2025 With Improvements	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Yes/No	Delay (sec/veh)	LOS
14. Benson Avenue at Arrow Highway/8th Street	AM	28.0 s/v	C	33.5 s/v	C	33.7 s/v	C	No	--	--
	PM	32.9 s/v	C	47.5 s/v	D	49.8 s/v	D	No	--	--
15. Claremont Blvd/Mills at Moreno Street	AM	10.69 s/v	B	24.33 s/v	C	26.45 s/v	C	No	20.5 s/v	C
	PM	11.47 s/v	B	**192.41 s/v**	**F**	**211.23 s/v**	**F**	**Yes**	28.7 s/v	C
16. Monte Vista Avenue at Moreno Street	AM	25.0 s/v	C	25.4 s/v	C	26.5 s/v	C	No	--	--
	PM	27.3 s/v	C	31.7 s/v	C	34.3 s/v	C	No	--	--
17. Central Avenue at Moreno Street/7th Street	AM	28.4 s/v	C	34.3 s/v	C	34.8 s/v	C	No	--	--
	PM	37.0 s/v	D	48.8 s/v	D	49.9 s/v	D	No	--	--
18. Monte Vista Avenue at I-10 WB Ramp	AM	22.9 s/v	C	42.8 s/v	D	45.1 s/v	D	No	--	--
	PM	21.1 s/v	C	40.7 s/v	D	42.6 s/v	D	No	--	--
19. Monte Vista Avenue at I-10 EB Ramp	AM	32.8 s/v	C	**92.6 s/v**	**F**	**92.4** s/v	**F**	**Yes**	32.9 s/v	C
	PM	43.1 s/v	D	**127.1 s/v**	**F**	**127.0** s/v	**F**	**Yes**	40.5 s/v	D
20. Central Avenue at I-10 WB Ramp	AM	21.9 s/v	C	22.2 s/v	C	22.4 s/v	C	No	--	--
	PM	23.7 s/v	C	22.9 s/v	C	23.0 s/v	C	No	--	--
21. Central Avenue at I-10 EB Ramp	AM	21.8 s/v	C	21.8 s/v	C	21.9 s/v	C	No	--	--
	PM	26.6 s/v	C	23.3 s/v	C	23.5 s/v	C	No	--	--
22. Claremont Blvd/Mills at San Bernardino Ave	AM	22.6 s/v	C	20.7 s/v	C	20.6 s/v	C	No	--	--
	PM	23.2 s/v	C	28.6 s/v	C	29.5 s/v	C	No	--	--
23. Monte Vista Avenue at San Bernardino Avenue	AM	39.7 s/v	D	**189.2 s/v**	**F**	**202.0 s/v**	**F**	**Yes**	41.3 s/v	D
	PM	35.7 s/v	D	**182.1 s/v**	**F**	**189.6 s/v**	**F**	**Yes**	34.3 s/v	C
24. Indian Hill Boulevard at Foothill Boulevard	AM	35.3 s/v	D	52.0 s/v	D	54.3 s/v	D	No	--	--
	PM	37.5 s/v	D	42.8 s/v	D	45.6 s/v	D	No	--	--
25. Towne Avenue at Foothill Boulevard	AM	48.1 s/v	D	**133.5 s/v**	**F**	**139.4 s/v**	**F**	**Yes**	53.1 s/v	D
	PM	48.5 s/v	D	**183.5 s/v**	**F**	**191.7 s/v**	**F**	**Yes**	52.2 s/v	D
26. Monte Vista Avenue at Baseline Road	AM	51.7 s/v	D	**87.4 s/v**	**F**	**91.6 s/v**	**F**	**Yes**	49.1 s/v	D
	PM	**57.4 s/v**	**E**	**162.1 s/v**	**F**	**167.3 s/v**	**F**	**Yes**	54.8 s/v	D

[18] **Bold HCM/LOS values** indicate adverse service levels based on City of Upland, City of Claremont, City of Montclair, City of Pomona and County of San Bernardino LOS standards.

FREEWAY SEGMENT (CMP) ANALYSIS

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 freeway peak hour traffic forecasts were developed based on the peak period CTP model data for autos and trucks. This incremental growth was added to existing freeway volumes obtained from Caltrans to develop Year 2025 background traffic volumes. College Park Project traffic volumes, as assigned by the CTP model, were added to these volumes to develop Year 2025 conditions with project traffic. Based on the Year 2025 project traffic distribution pattern shown in Exhibits 6 and 7 as well as the project freeway trip distribution calculation sheets in Appendix C, the proposed College Park Project will require an evaluation of two of the fifteen freeway segments on the I-10 Freeway and SR-210 Freeway that were tested.

Table 11 presents a summary of project traffic volumes on key CMP freeway segments that were tested to determine if a detailed CMP freeway analysis was required. Review of Table 11 indicates that weekday peak hour project generated trips exceed the threshold of 100 trips required for a freeway segment analysis on two freeway segments on the I-10 Freeway during the AM peak hour and none during the PM peak hour. The project's added peak hour traffic volumes to the SR-210 Freeway were below the CMP threshold required for analysis.

Tables 12 summarize the results of the freeway mainline operations analysis for the AM peak hour for the Year 2025 traffic conditions without and with College Park Project traffic for two freeway segments of the I-10 Freeway, between Towne Avenue and Monte Vista Avenue.

Review of Table 12 indicates that both the eastbound and westbound directions of the I-10 Freeway are expected to experience adverse service levels during the AM peak hour, without and with College Park Project traffic.

The improvements needed to provide LOS E or better operations during AM peak hour consists of the following:

- Eastbound I-10: Add one general use lane between Towne Avenue and Indian Hill Blvd
- Eastbound I-10: Add one general use lane between Indian Hill Blvd and Monte Vista Avenue
- Westbound I-10: Add two general use lanes between Towne Avenue and Indian Hill Blvd
- Westbound I-10: Add two general use lanes between Indian Hill Blvd and Monte Vista Avenue

Review of the last column of Table 12 summarizes the resulting service levels with the required freeway improvements considered in the analysis.

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TABLE 11

CMP FREEWAY PROJECT CONTRIBUTION SUMMARY
College Park Project, Upland

Freeway Segment	AM Peak Hour Project Freeway Volume (two-way)	PM Peak Hour Project Freeway Volume (two-way)
1. SR-210 Freeway, between Fruit Street and Towne Avenue	65	49
2. SR-210 Freeway, between Towne Avenue and Baseline Road	0	0
3. SR-210 Freeway, between Baseline Road and Mountain Avenue	57	47
4. SR-210 Freeway, between Mountain Avenue and Campus Avenue	44	35
5. SR-210 Freeway, between Campus Avenue and Carnelian Avenue	40	33
6. I-10 Freeway, between Dudley Street and White Avenue	66	50
7. I-10 Freeway, between White Avenue and Garey Avenue	90	75
8. I-10 Freeway, between Garey Avenue and Towne Avenue	96	79
9. I-10 Freeway, between Towne Avenue and Indian Hill Boulevard	**108**	73
10. I-10 Freeway, between Indian Hill Boulevard and Monte Vista Avenue	**111**	72
11. I-10 Freeway, between Monte Vista Avenue and Central Avenue	21	26
12. I-10 Freeway, between Central Avenue and Mountain Avenue	65	56
13. I-10 Freeway, between Mountain Avenue and Euclid Avenue	79	63
14. I-10 Freeway, between Euclid Avenue and 4th Street	65	53
15. I-10 Freeway, 4th street and Vineyard Avenue	47	39

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TABLE 12

YEAR 2025 AM PEAK HOUR CMP FREEWAY MAINLINE OPERATIONS ANALYSIS
College Park Master Plan, Upland

Freeway Segment Limits	No. of Lanes General	No. of Lanes HOV	Capacity	Year 2003 Existing Traffic Conditions: Existing Volumes	V/C Ratio[1]	LOS	Year 2025 Background Traffic Conditions: Future Volumes	V/C Ratio[1]	LOS	Year 2025 Total Traffic Conditions with Project: Project Trips	Future W/Project	V/C Ratio[1]	LOS	Significant Impact Yes/No	With Improvements: No. of Lanes General	No. of Lanes HOV	Capacity	V/C Ratio[1]	LOS
I-10 Freeway - Eastbound																			
Towne Avenue to Indian Hill Blvd	4	1	10,800	7,785	0.785	C	11,891	**1.199**	**F**	43	11,934	**1.203**	**F**	**Yes**	5	1	13,100	0.992	E
Indian Hill Blvd to MonteVista Ave	4	1	10,800	7,650	0.771	C	11,972	**1.207**	**F**	65	12,037	**1.213**	**F**	**Yes**	5	1	13,100	1.000	E
I-10 Freeway - Westbound																			
Towne Avenue to Indian Hill Blvd	4	1	10,800	9,515	0.959	E	13,959	**1.407**	**F**	44	14,003	**1.411**	**F**	**Yes**	6	1	15,400	0.990	E
Indian Hill Blvd to MonteVista Ave	4	1	10,800	9,350	0.942	E	14,054	**1.417**	**F**	67	14,121	**1.423**	**F**	**Yes**	6	1	15,400	0.998	E

Notes:
[1] The V/C Ratio assumes a peak hour factor of 0.95 and a heavy vehicle factor f (HV) consisting of level terrain with 5.0% trucks, 2.0% recreational vehicles and 1.0% buses.

AREA TRAFFIC IMPROVEMENTS (CMP MITIGATION PROGRAM)

For those intersections and/or freeway segments where future traffic volumes are expected to result in poor operating conditions, this report identifies roadway improvements and recommends mitigation measures that change the intersection geometry or number of freeway lanes to increase capacity. These intersections capacity improvements usually involve roadway widening and/or restriping to reconfigure or add lanes to various approaches of a key intersection. The proposed improvements are expected to reduce the impact of background traffic and the project's impact to less than significant levels and improve Levels of Service to an acceptable range.

Recommended Intersection Mitigation Measures

Near-Term (Year 2006) – Opening Year Conditions

The following improvements listed below have been identified to mitigate the projects near-term (Year 2006) traffic impacts. Per CMP guidelines, the College Park Project can be expected to pay a fair-share of the construction costs to implement these mitigation measures.

- 4) Foothill Boulevard at Central Avenue
  - Restripe the northbound approach of Central Avenue to provide a left-turn lane, a through lane and a right-turn lane.
  - Modify existing traffic signal and remove north-south split-phase operation.

- 25) Towne Avenue at Foothill Boulevard
  - Widen and/or restripe Towne Avenue to provide a second southbound left-turn lane.

- 26) Baseline Road at Monte Vista Avenue
  - Widen and/or restripe Monte Vista Avenue to provide an exclusive northbound right-turn lane.
  - Widen and/or restripe Baseline Road to provide a second westbound left-turn lane.
  - Modify existing traffic signal and install a northbound right-turn overlap phase with the westbound left-turn phase.

Long-Term (Year 2025)

The following improvements listed below have been identified to mitigate the projects long-term (Year 2025) traffic impacts at the 11 impacted intersections. Per CMP guidelines, the College Park Project can be expected to pay a fair-share of the construction costs to implement these mitigation measures.

- 1) Mills Avenue at Foothill Boulevard
  - Widen and/or restripe Foothill Boulevard to provide an exclusive westbound right-turn lane.
  - Restripe southbound approach on Mills Avenue to provide two left-turn lanes and a shared through/right-turn lane.
  - Modify existing traffic signal and install a split phase operation on Mills Avenue.

- 3) Monte Vista Avenue at Foothill Boulevard
  - Widen and/or restripe to provide a third northbound and a third southbound through lane on Monte Vista Avenue.
  - Widen and/or restripe Foothill Boulevard to provide a third eastbound and a third westbound through lane.
  - Add a second westbound left-turn lane on Foothill Boulevard.
  - Modify existing traffic signal and install an eastbound right-turn overlap phase with the northbound left-turn phase.

- 4) Foothill Boulevard at Central Avenue
  - Restripe the northbound approach of Central Avenue to provide a left-turn lane, a through lane and a right-turn lane.
  - Restripe the southbound right-turn lane on Central to a shared through/right-turn lane.
  - Modify existing traffic signal and remove north-south split-phase operation.

- 6) Claremont Boulevard at 6th Street / Arrow Route
  - Add a separate left-turn lane on the eastbound and westbound approaches of 6th Street / Arrow Route.
  - Modify existing traffic signal and remove east-west split-phase operation.

- 11) Claremont Boulevard at Arrow Highway
  - Widen and/or restripe Arrow Highway to provide an exclusive eastbound right-turn lane.
  - Modify existing traffic signal.

- 12) Monte Vista Avenue at Arrow Highway
  - Widen and/or restripe to provide a third northbound and a third southbound through lane on Monte Vista Avenue.
  - Add a second southbound left-turn lane on Monte Vista Avenue.

- Modify existing traffic signal and install a westbound right-turn overlap phase with the southbound left-turn phase.

- 15) Moreno Street at Claremont Boulevard
  - Widen and/or restripe Claremont Boulevard to provide a southbound left-turn lane.
  - Widen and/or restripe Moreno Street to provide a westbound left-turn lane.
  - Install a traffic signal.

- 19) I-10 EB Ramp at Monte Vista Avenue
  - Widen and/or restripe the I-10 EB Ramp to provide an exclusive eastbound right-turn lane.
  - Add a second southbound left-turn lane on Monte Vista Avenue.
  - Modify existing traffic signal and install a northbound right-turn overlap phase with the westbound left-turn phase.

- 23) San Bernardino Avenue at Monte Vista Avenue
  - Add a second eastbound left-turn lane on San Bernardino Avenue.
  - Add a northbound left-turn lane on Monte Vista Avenue.
  - Add a separate southbound right-turn lane on Monte Vista Avenue.
  - Restripe southbound approach on Monte Vista Avenue to provide a single left-turn lane, two through lanes and a right-turn lane.
  - Modify existing traffic signal to operate as an eight-phase traffic signal.

- 25) Towne Avenue at Foothill Boulevard
  - Widen and/or restripe Towne Avenue to provide a second southbound left-turn lane.
  - Widen and/or restripe Foothill Boulevard to provide an exclusive westbound right-turn lane.
  - Modify existing traffic signal and install a westbound right-turn overlap phase with the southbound left-turn phase.

- 26) Baseline Road at Monte Vista Avenue
  - Widen and/or restripe Baseline Road to provide a second westbound left-turn lane.
  - Widen and/or restripe Monte Vista Avenue to provide an exclusive northbound right-turn lane.
  - Modify existing traffic signal and install a northbound right-turn overlap phase with the westbound left-turn phase.

Recommended Freeway Mitigation Measures

Long –Term (Year 2025) I-10 Freeway Improvements

To mitigate the impact of projected Year 2025 traffic volumes as well as College Park Project traffic, mainline freeway improvements are necessary to achieve LOS E or better operations during the AM peak hour. The improvements to the I-10 Freeway consist of the following:

- Eastbound I-10: Add one general use lane between Towne Avenue and Indian Hill Blvd
- Eastbound I-10: Add one general use lane between Indian Hill Blvd and Monte Vista Avenue
- Westbound I-10: Add two general use lanes between Towne Avenue and Indian Hill Blvd
- Westbound I-10: Add two general use lanes between Indian Hill Blvd and Monte Vista Avenue

PRELIMINARY IMPROVEMENT COSTS

This section of the report summarizes the improvements and associated costs required to meet LOS standards of the City of Upland and the San Bernardino County CMP requirements for the near-term (Year 2006) and long-term (Year 2025) analysis. The improvement costs have been estimated using cost guidelines contained in the San Bernardino County CMP Handbook.

Intersection Improvements

Table 13 presents the improvements and their respective costs to mitigate the near-term (Year 2006) traffic impacts. Review of Table 13 shows that improvements recommended at the intersections of Foothill Boulevard/Central Avenue, Towne Avenue/Foothill Boulevard and Baseline Road/Monte Vista Avenue will cost approximately $310,000.

Table 14 presents the intersection improvements and their respective costs to mitigate the long-term (Year 2025) traffic impacts. Review of Table 14 shows that the improvements necessary for the long-term (Year 2025) at the intersections of Mills Avenue/Foothill Boulevard, Monte Vista Avenue/Foothill Boulevard, Foothill Boulevard/Central Avenue, Claremont Boulevard/6th Street-Arrow Route, Claremont Boulevard/Arrow Highway, Monte Vista Avenue/Arrow Highway, Moreno Street/Claremont Boulevard, I-10 EB Ramp/Monte Vista Avenue, San Bernardino Avenue/Monte Vista Avenue, Towne Avenue/Foothill Boulevard and Baseline Road/Monte Vista Avenue will cost roughly $2,620,000.

Freeway Improvements

Table 15 presents the cost to construct additional general flow traffic lanes on the I-10 Freeway for eastbound and westbound traffic to mitigate the long-term (Year 2025) traffic impacts. Review of Table 15 shows that the freeway improvements on the I-210 Freeway, between Towne Avenue and Monte Vista Avenue required for the long-term (Year 2025) will cost $8,763,000.

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TABLE 13

YEAR 2006 SUMMARY OF RECOMMENDED INTERSECTION MITGATION MEASURES AND COSTS[19]
College Park Project, Upland

Key Intersections		Improvement Description	Cost Estimate
4.	Foothill Boulevard at Central Avenue	- Restripe NB shared left/thru lane to a thru lane - Modify existing traffic signal and remove split-phase operation.	$10,000 $75,000
		Total	**$85,000**
25.	Towne Avenue at Foothill Boulevard	- Add 2nd SB left-turn lane.	$50,000
		Total	**$50,000**
26.	Baseline Road at Monte Vista Avenue	- Construct 2nd WB left-turn lane. - Add separate NB right-turn lane. - Modify existing traffic signal and install NB right-turn overlap phase.	$50,000 $50,000 $75,000
		Total	**$175,000**
TOTAL COSTS OF YEAR 2006 MITIGATION MEASURES			**$310,000**

[19] The improvement costs have been estimated using cost guidelines contained in the CMP Handbook.

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TABLE 14

YEAR 2025 SUMMARY OF RECOMMENDED INTERSECTION MITGATION MEASURES AND COSTS[20]
College Park Project, Upland

Key Intersections		Improvement Description	Cost Estimate
1	Mills Avenue at Foothill Boulevard	- Construct WB right-turn lane. - Restripe to add 2nd SB left-turn lane. - Modify existing traffic signal and install split-phase operation on Mills.	$50,000 $10,000 $75,000
		Total	**$135,000**
3.	Monte Vista Avenue at Foothill Boulevard	- Construct 3rd NB and 3rd SB through lane - Construct 3rd EB and 3rd WB through lane. - Add 2nd WB left-turn lane. - Modify existing traffic signal and install EB right-turn overlap phase.	$260,000 $260,000 $50,000 $75,000
		Total	**$645,000**
4.	Foothill Boulevard at Central Avenue	- Restripe NB shared left/thru lane to a thru lane - Restripe SB right-turn lane to a shared thru/right-turn lane. - Modify existing traffic signal and remove split-phase operation.	$10,000 $10,000 $75,000
		Total	**$95,000**
6.	Claremont Boulevard at 6th / Arrow Route	- Construct EB left-turn lane. - Construct WB left-turn lane. - Modify existing traffic signal and remove split-phase operation.	$50,000 $50,000 $75,000
		Total	**$175,000**
11.	Claremont Boulevard at Arrow Highway	- Construct EB right-turn. - Modify existing traffic signal.	$50,000 $75,000
		Total	**$125,000**
12.	Monte Vista Avenue at Arrow Highway	- Construct 3rd NB and 3rd SB through lane - Add 2nd SB left-turn lane. - Modify existing traffic signal and install WB right-turn overlap phase.	$260,000 $50,000 $75,000
		Total	**$385,000**

[20] The improvement costs have been estimated using cost guidelines contained in the CMP Handbook.

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TABLE 14 (continued)

YEAR 2025 SUMMARY OF RECOMMENDED INTERSECTION MITGATION MEASURES AND COSTS[21]
College Park Project, Upland

Key Intersections	Improvement Description	Cost Estimate
15. Moreno Street at Claremont Boulevard	- Construct SB left-turn lane. - Add WB left-turn lane. - Install traffic signal.	$50,000 $50,000 $120,000
	Total	**$220,000**
19. I-10 EB Ramp at Monte Vista Avenue	- Construct EB right-turn lane. - Add 2nd SB left-turn lane. - Modify existing traffic signal and install NB right-turn overlap phase.	$130,000 $50,000 $75,000
	Total	**$255,000**
23. San Bernardino Avenue at Monte Vista Avenue	- Add 2nd EB left-turn lane. - Add NB left-turn lane. - Add SB right-turn lane. - Restripe SB approach to provide a left, 2 through lanes, and a right-turn lane. - Modify existing traffic signal to operate as an 8-phase traffic signal.	$50,000 $50,000 $50,000 $10,000 $75,000
	Total	**$235,000**
25. Towne Avenue at Foothill Boulevard	- Add 2nd SB left-turn lane. - Construct WB right-turn lane. - Modify existing traffic signal and install WB right-turn overlap phase.	$50,000 $50,000 $75,000
	Total	**$175,000**
26. Baseline Road at Monte Vista Avenue	- Construct 2nd WB left-turn lane. - Add separate NB right-turn lane. - Modify existing traffic signal and install NB right-turn overlap phase.	$50,000 $50,000 $75,000
	Total	**$175,000**
TOTAL COSTS OF YEAR 2025 MITIGATION MEASURES		**$2,620,000**

[21] The improvement costs have been estimated using cost guidelines contained in the CMP Handbook.

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TABLE 15

YEAR 2025 SUMMARY OF CMP FREEWAY IMPROVEMENTS AND COSTS[22]
College Park Project, Upland

Freeway Segment	Improvement Description	Cost per lane per mile per direction	Segment Length (miles)	Cost Estimate
Eastbound I-10				
Towne Avenue and Indian Hill Boulevard	• Add one (1) additional EB freeway lane.	$1,150,000	1.33 miles	$1,529,500
Indian Hill Boulevard and Monte Vista Ave	• Add one (1) additional EB freeway lane.	$1,150,000	1.21 miles	$1,391500
			Total I-10 Eastbound Freeway	**$2,921,000**
Westbound I-10				
Towne Avenue and Indian Hill Boulevard	• Add two (2) additional WB freeway lanes.	$1,150,000	1.33 miles	$3,059,000
Indian Hill Boulevard and Monte Vista Ave	• Add two (2) additional WB freeway lanes.	$1,150,000	1.21 miles	$2,783,000
			Total I-10 Westbound Freeway	**$5,842,000**
			TOTAL COSTS OF FREEWAY IMPROVEMENTS	**$8,763,000**

[22] The improvement costs have been estimated using cost guidelines contained in the CMP Handbook.

PROJECT-RELATED FAIR SHARE CONTRIBUTION

Intersection Improvements

Table 16 presents the AM peak hour and PM peak hour percentage of net traffic impact at the study intersections impacted by the College Park Project for Year 2025 traffic conditions. These fair share calculations are based on the recommended methodology contained in the San Bernardino County CMP.

As presented in this table, the first column (1) presents a total of all intersection peak hour movements for existing conditions. The second column (2) presents future Year 2025 background traffic conditions. The third column (3) presents future Year 2025 traffic conditions with project traffic. The fourth column (4) represents what percentage of total intersection peak hour traffic is project-related traffic. Columns (5) and (6) present the cost of the recommended mitigation measures, and the project's fair-share contribution.

Review of Table 16 shows that the College Park Project's total fair share contribution to offset all long-term (Year 2025) intersection project impacts is $318,530.00. Please note that the projects fair share contribution for the Year 2025 includes the Year 2006 improvements

Freeway Improvements

Table 17 summarizes the freeway mainline improvement costs and the project fair share cost contribution for the segments on the I-10 Freeway that will require improvements. As shown in Table 17, the project's fair share of the freeway costs totals $105,441.20.

The College Park Project calculated fair share contribution for intersection and freeway improvements recommended to ensure acceptable services levels are maintained in the Year 2025 is $423,971.20.

Since the College Park Project is forecast to impact a State Highway (I-10 Freeway) and also impact intersections within the jurisdictions of the City of Claremont, City of Montclair, County of San Bernardino, and City of Pomona, the City of Upland is required to notify the Congestion Management Agency (SANBAG), Caltrans, and the adjacent jurisdictions in accordance with the CMP requirements. Each of these agencies will be provided with a copy of the CMP traffic impact analysis for review and confirmation of project impact within their jurisdiction, once the document is accepted by the City of Upland.

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TABLE 16

YEAR 2025 PROJECT FAIR SHARE COST CONTRIBUTION
College Park Project, Upland

Key Intersections		Impacted Time Period	(1) Year 2003 Existing Traffic	(2) Year 2025 Background Traffic	(3) Year 2025 w/Project Traffic	(4) Net Project Percent Increase[23]	(5) Total Improvement Cost	(6) Project Fair Share Contribution
1.	Mills Avenue at Foothill Boulevard	AM	2,682	4,126	4,184	3.9%	$135,000.00	$5,625.00
3.	Monte Vista Avenue at Foothill Boulevard	AM PM	2,683 3,307	5,054 5,654	5,180 5,769	5.0% 4.7%	$645,000.00	$32,250.00
4.	Foothill Boulevard at Central Avenue	PM	2,908	3,282	3,345	14.4%	$95,000.00	$13,680.00
6.	Claremont Boulevard at 6th / Arrow Route	PM	1,279	1,692	1,938	37.3%	$175,000.00	$65,275.00
11.	Claremont Boulevard at Arrow Highway	PM	2,423	3,001	3,105	15.2%	$125,000.00	$19,000.00
12.	Monte Vista Avenue at Arrow Highway	AM PM	2,331 3,333	3,854 5,546	4,319 5,915	23.4% 14.3%	$385,000.00	$90,090.00
15.	Moreno Street at Claremont Boulevard	PM	858	2,001	2,054	4.4%	$220,000.00	$9,680.00
19.	I-10 EB Ramp at Monte Vista Avenue	AM PM	2,634 2,755	4,093 4,113	4,228 4,200	8.5% 6.0%	$255,000.00	$21,675.00
23.	San Bernardino Avenue at Monte Vista Avenue	AM PM	2,558 2,376	3,785 3,932	3,868 3,985	6.3% 3.3%	$235,000.00	$14,805.00
24.	Indian Hill Boulevard at Foothill Boulevard[24]	PM	3,105	3,683	3,790	15.6%	$125,000.00	$19,500.00
25.	Towne Avenue at Foothill Boulevard	AM PM	4,018 3,892	4,994 4,662	5,078 4,732	7.9% 8.3%	$175,000.00	$14,525.00
26.	Baseline Road at Monte Vista Avenue	AM PM	2,856 2,921	3,656 4,374	3,717 4,429	7.1% 3.6%	$175,000.00	$12,425.00
TOTAL FAIR-SHARE COST CONTRIBUTION FOR RECOMMENDED INTERSECTION IMPROVEMENTS								**$318,530.00**

[23] Net Project Percent Increase (4) = [Column (3) – Column (2)] / [Column (3) – Column (1)].

[24] It should be noted that the College Park Project did not significantly impact this key study intersection when evaluated using the criteria/requirements of the City of Upland and the San Bernardino County CMP requirements. The fair share at this location is required to satisfy the Los Angeles County CMP criteria/requirements.

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TABLE 17

YEAR 2025 PROJECT FAIR SHARE FREEWAY CONTRIBUTION
College Park Master Plan, Upland

Key Freeway Segment	Impacted Time Period	Existing Traffic	Year 2025 Future Traffic Conditions				Percent Impact	Cost of Improvement	Project Fair-Share Contribution
			Future Traffic	With Project	Project Traffic	New Traffic			
I-10 Eastbound Freeway									
Towne Avenue to Indian Hill Blvd	AM	7,785	11,891	11,934	43	4,149	1.04%	$ 1,529,500.00	$ 15,906.80
Indian Hill Blvd to Monte Vista Avenue	AM	7,650	11,972	12,037	65	4,387	1.48%	$ 1,391,500.00	$ 20,594.20
I-10 Westbound Freeway									
Towne Avenue to Indian Hill Blvd	AM	9,515	13,959	14,003	44	4,488	0.98%	$ 3,059,000.00	$ 29,978.20
Indian Hill Blvd to Monte Vista Avenue	AM	9,350	14,054	14,121	67	4,771	1.40%	$ 2,783,000.00	$ 38,962.00
Total Project Fair Share Contribution								**$ 8,763,000.00**	**$ 105,441.20**

LOS ANGELES COUNTY CONGESTION MANAGEMENT PROGRAM COMPLIANCE

The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (LACMTA). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system.

A total of 164 intersections are identified for monitoring on the system in Los Angeles County. This section describes the analysis of project-related impacts on the Los Angeles County CMP system. The analysis has been conducted according to the guidelines set forth in the *2002 Congestion Management Program for Los Angeles County.*

Although only two of the College Park Project study intersections, Indian Boulevard at Arrow Highway and Indian Boulevard at Foothill Boulevard, are part of the 164 monitoring locations on the Los Angeles County CMP System, the 11 study intersections located within the City of Claremont and/or Pomona in Los Angeles County were also analyzed based on the CMP Transportation Impact Analysis (TIA) Guidelines of Los Angeles County. The study intersections were determined based on the LA County CMP "50 or more trips" threshold.

Criteria for Determining Significant Impacts

For the purpose of a Los Angeles County CMP TIA, a significant project impact occurs when the proposed project increases traffic demand on a CMP facility by two percent of capacity (change in V/C $\geq$ 0.02), causing or worsening LOS "F" (V/C > 1.00).

Given the City of Claremont and the City of Pomona both consider 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% (V/C ratio increase $\geq$ 0.020), causing or worsening LOS E or F (ICU > 0.900) conditions.

Intersection Capacity Utilization (ICU) Method of Analysis

In conformance with Los Angeles County CMP requirements, peak hour operating conditions for the key signalized intersections located in the City of Claremont and/or City of Pomona 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. It should be noted that 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%) was added to each Level of Service calculation. The ICU value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance.

The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements. The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range, as shown in **Table 18**.

ICU Peak Hour Intersection Capacity Analysis

Tables 19 and **20** summarize the peak hour Intersection Capacity Utilization (ICU)/Level of Service (LOS) results at the 11 study intersections within the City of Claremont and/or City of Pomona for the Year 2006 and Year 2025 traffic conditions, respectively.

The first column of ICU/LOS values in Table 19 presents a summary of Year 2003 existing traffic conditions. The second column presents Year 2006 background traffic conditions based on existing intersection geometry, but without any College Park Project traffic. The third column presents future forecast traffic conditions with the addition of project traffic. The fourth column indicates whether the intersection will be adversely impacted by the proposed project based on the LA County CMP criteria. The fifth column indicates the forecast operating conditions with intersection improvements, if required, recommended to achieve an acceptable Level of Service.

The structure of Table 20 is similar to the near-term (Year 2006) capacity analysis summary presented in Table 19; however, the summary of ICU/LOS values in this table is for the Year 2025.

Review of Table 19 indicates that based on the ICU method of analysis and LA County CMP significance impact criteria, the College Park Project will significantly impact two of 11 study intersections in the Year 2006. Towne Avenue at Foothill Boulevard and Monte Vista Road at Baseline Road are projected to operate at LOS E and/or F during the AM peak hour and PM peak hour.

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TABLE 18

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS ICU/LOS METHOD OF ANALYSIS College Park Project, Upland

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.

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TABLE 19

YEAR 2006 PEAK HOUR CAPACITY ANALYSIS SUMMARY
ICU/LOS METHOD OF ANALYSIS
College Park Project, Upland

Key Intersections	Time Period	(1) 2003 Existing Traffic Conditions		(2) Year 2006 Background Traffic		(3) Year 2006 Plus Project Traffic		(4) Significant Impact		(5) Year 2006 With Improvements	
		V/C ratio	LOS	V/C ratio	LOS	V/C ratio	LOS	Change in V/C	Yes/ No	V/C ratio	LOS
1. Mills Avenue at Foothill Boulevard	AM	0.761	C	0.815	D	0.821	D	0.006	No	--	--
	PM	0.666	B	0.737	C	0.748	C	0.011	No	--	--
2. Claremont Boulevard at Foothill Boulevard	AM	0.604	B	0.648	B	0.655	B	0.007	No	--	--
	PM	0.604	B	0.677	B	0.683	B	0.006	No	--	--
5. Indian Hill Boulevard at 6th Street	AM	0.432	A	0.469	A	0.528	A	0.059	No	--	--
	PM	0.536	A	0.595	A	0.657	B	0.062	No	--	--
6. Claremont Boulevard at 6th Street/Arrow Route	AM	0.471	A	0.496	A	0.600	A	0.104	No	--	--
	PM	0.581	A	0.631	B	0.767	C	0.136	No	--	--
10. Indian Hill Boulevard at Arrow Highway	AM	0.583	A	0.629	B	0.635	B	0.006	No	--	--
	PM	0.746	C	0.808	D	0.819	D	0.011	No	--	--
11. Claremont Boulevard at Arrow Highway	AM	0.526	A	0.564	A	0.574	A	0.010	No	--	--
	PM	0.586	A	0.641	B	0.661	B	0.020	No	--	--
15. Claremont Boulevard at Moreno Street	AM	0.373	A	0.395	A	0.401	A	0.006	No	--	--
	PM	0.414	A	0.451	A	0.469	A	0.018	No	--	--
22. Claremont Boulevard at San Bernardino Avenue	AM	0.361	A	0.373	A	0.377	A	0.004	No	--	--
	PM	0.482	A	0.508	A	0.511	A	0.003	No	--	--
24. Indian Hill Boulevard at Foothill Boulevard	AM	0.699	B	0.769	C	0.810	D	0.041	No	--	--
	PM	0.787	C	0.875	D	0.898	D	0.023	No	--	--
25. Towne Avenue at Foothill Boulevard	AM	0.878	D	**0.928**	**E**	**0.941**	**E**	0.013	No	**0.941**	**E**
	PM	0.866	D	**0.940**	**E**	**0.964**	**E**	**0.024**	**Yes**	0.893	D
26. Monte Vista Avenue at Baseline Road	AM	0.866	D	**0.998**	**E**	**1.025**	**F**	**0.027**	**Yes**	0.703	C
	PM	0.900	D	**1.103**	**F**	**1.126**	**F**	**0.023**	**Yes**	**0.949**	**E**

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TABLE 20

YEAR 2025 PEAK HOUR CAPACITY ANALYSIS SUMMARY
ICU/LOS METHOD OF ANALYSIS
College Park Project, Upland

Key Intersections	Time Period	(1) 2003 Existing Traffic Conditions		(2) Year 2025 Background Traffic		(3) Year 2025 Plus Project Traffic		(4) Significant Impact		(5) Year 2025 With Improvements	
		V/C ratio	LOS	V/C ratio	LOS	V/C ratio	LOS	Change in V/C	Yes/ No	V/C ratio	LOS
1. Mills Avenue at Foothill Boulevard	AM	0.761	C	**1.214**	**F**	**1.220**	**F**	0.006	No	**1.038**	**F**
	PM	0.666	B	**1.089**	**F**	**1.100**	**F**	0.011	No	0.862	D
2. Claremont Boulevard at Foothill Boulevard	AM	0.604	B	0.810	D	0.829	D	0.019	No	--	--
	PM	0.604	B	0.773	C	0.780	C	0.007	No	--	--
5. Indian Hill Boulevard at 6th Street	AM	0.432	A	0.415	A	0.485	A	0.070	No	--	--
	PM	0.536	A	0.539	A	0.600	A	0.061	No	--	--
6. Claremont Boulevard at 6th Street/Arrow Route	AM	0.471	A	0.507	A	0.611	B	0.104	No	0.495	A
	PM	0.581	A	0.802	D	**0.938**	**E**	**0.136**	**Yes**	0.690	B
10. Indian Hill Boulevard at Arrow Highway	AM	0.583	A	0.665	B	0.671	B	0.006	No	--	--
	PM	0.746	C	0.872	D	0.882	D	0.010	No	--	--
11. Claremont Boulevard at Arrow Highway	AM	0.526	A	0.618	B	0.628	B	0.010	No	0.628	B
	PM	0.586	A	**0.984**	**E**	**1.004**	**F**	**0.020**	**Yes**	**0.931**	**E**
15. Claremont Boulevard at Moreno Street	AM	0.373	A	0.605	B	0.614	B	0.009	No	0.473	A
	PM	0.414	A	0.827	D	0.845	D	0.018	No	0.790	C
22. Claremont Boulevard at San Bernardino Avenue	AM	0.361	A	0.371	A	0.375	A	0.004	No	--	--
	PM	0.482	A	0.789	C	0.804	D	0.015	No	--	--
24. Indian Hill Boulevard at Foothill Boulevard	AM	0.699	B	0.809	D	0.835	D	0.026	No	0.749	C
	PM	0.787	C	0.889	D	**0.913**	**E**	**0.024**	**Yes**	0.865	D
25. Towne Avenue at Foothill Boulevard	AM	0.878	D	**1.201**	**F**	**1.236**	**F**	**0.035**	**Yes**	**0.970**	**E**
	PM	0.866	D	**1.340**	**F**	**1.365**	**F**	**0.025**	**Yes**	**0.975**	**E**
26. Monte Vista Avenue at Baseline Road	AM	0.866	D	**1.071**	**F**	**1.099**	**F**	**0.028**	**Yes**	0.777	C
	PM	0.900	D	**1.289**	**F**	**1.312**	**F**	**0.023**	**Yes**	**1.145**	**F**

Review of Table 20 indicates that the College Park Project will significantly impact the following 5 intersections in the year 2025.

Key Intersection	City/Jurisdiction	AM Peak Hour ICU/LOS	PM Peak Hour ICU/LOS
6. Claremont Boulevard/6th St-Arrow Rte	City of Claremont / Upland / SB County	--	0.938/E
11. Claremont Boulevard/Arrow Highway	City of Claremont	--	1.004/F
24. Indian Hill Boulevard/Foothill Boulevard	City of Claremont	--	0.913/E
25. Towne Avenue/Foothill Boulevard	City of Claremont / Pomona	1.236/F	1.365/F
26. Monte Vista Avenue/Baseline Road	City of Claremont	1.099/F	1.312/F

However, implementation of previously recommended mitigation measures at four of the five locations impacted by the College Park Project would offset the significant traffic impacts of project traffic. Details of the previously recommended mitigation improvement measures are summarized below.

Recommended Long-Term (Year 2025) Mitigation Measures

The College Park Project can be expected to pay a fair-share of the construction costs to implement these mitigation measures.

- 6) Claremont Boulevard at 6th Street / Arrow Route
  - Add a separate left-turn lane on the eastbound and westbound approaches of 6th Street / Arrow Route.
  - Modify existing traffic signal and remove east-west split-phase operation.

- 11) Claremont Boulevard at Arrow Highway
  - Widen and/or restripe Arrow Highway to provide an exclusive eastbound right-turn lane.

- 25) Towne Avenue at Foothill Boulevard
  - Widen and/or restripe Towne Avenue to provide a second southbound left-turn lane.
  - Widen and/or restripe Foothill Boulevard to provide an exclusive westbound right-turn lane.
  - Modify existing traffic signal and install a westbound right-turn overlap phase with the southbound left-turn phase.

- 26) Baseline Road at Monte Vista Avenue
  - Widen and/or restripe Baseline Road to provide a second westbound left-turn lane.
  - Widen and/or restripe Monte Vista Avenue to provide an exclusive northbound right-turn lane.
  - Modify existing traffic signal and install a northbound right-turn overlap phase with the westbound left-turn phase.

To mitigate the project's significant traffic impact at the intersection of Indian Hill Boulevard and Foothill Boulevard, the following additional mitigation measure is recommended:

- 24) Indian Hill Boulevard at Foothill Boulevard
  - Widen and/or restripe Indian Hill Boulevard to provide a second southbound left-turn lane.
  - Modify existing traffic signal.
  - These improvements are expected to cost approximately $125,000 and the College Park Project's fair-share is estimated to be $19,500.00 (or 15.6%). The project's fair share contribution towards these improvements is included in Table 16.

It should be noted that the College Park Project did not significantly impact the Indian Hill Boulevard/Foothill Boulevard intersection when evaluated using the criteria/requirements of the City of Upland and the San Bernardino County CMP requirements.

Appendix F contains the level of service calculation sheets for the 11 key study intersections located within the City of Claremont/Pomona, Los Angeles County that were evaluated using the ICU/LOS method of analysis.

SITE ACCESS EVALUATION

Project Access Opportunities and Constraints

Access to the proposed College Park Project will be provided via four driveways located along Arrow Route and two driveways located along Monte Vista Avenue for a total of six project driveways. The four driveways along Arrow Route will consist of one "full access" driveway and three "right-turn in/out only" driveways. The two driveways along Monte Vista Avenue will consist of one "full access" driveway and one "right-turn in/out only" driveway.

Tables 21 and **22** summarize the intersection operations at the six project driveways for near-term (Year 2006) and long-term (Year 2025) traffic conditions at completion and full occupancy of the proposed project, respectively. The operations analysis is based on the *Highway Capacity Manual 2000* (HCM 2000) methodology. **Appendix G** presents the Year 2006 and the Year 2025 level of service calculation worksheets at the six project driveways.

As shown in Table 21, the six project driveways are forecast to operate at acceptable service levels during the AM and PM peak hours for near-term traffic conditions. Although the levels of service are acceptable at Driveways #2 (College Park at Arrow Route) and #6 (Street "A" at Monte Vista Drive), vehicles exiting the project site are forecast to experience excessive delays and thus traffic signals are recommended at these two locations to ensure adequate ingress and egress to the project site is provided. As indicated in Table 21, the installation of traffic signals at Driveways #2 (College Park at Arrow Route) and #6 (Street "A" at Monte Vista Drive) will result in acceptable service levels during the AM and PM peak hours and ensure the delay motorists experience while exiting the project site is kept to a minimum.

Review of Table 22 indicates that all project driveways are forecast to operate at acceptable service levels during the AM and PM peak hours for long-term traffic conditions, with the exception of Driveways #2 (College Park at Arrow Route) and #6 (Street "A" at Monte Vista Drive). Driveway #2 is forecast to operate at LOS E during the PM peak hour as a "full access" unsignalized driveway while Driveway #6 is forecast to operate at LOS F during the AM and PM peak hours as a "full access" unsignalized driveway. As indicated in Table 22, the installation of traffic signals at both Driveways #2 and #6 will result in acceptable service levels during the AM and PM peak hours at these two project access points.

Traffic signal warrants were conducted for Driveways #2 (College Park at Arrow Route) and #6 (Street "A" at Monte Vista Drive) for Year 2006 traffic conditions with project traffic and Year 2025 traffic conditions with project traffic. Based on the results of the traffic signal warrant analysis, the Year 2006 traffic volumes with project traffic and the Year 2025 traffic volumes with project traffic do not warrant the installation of a traffic signal at Driveway #2. However, due to the excessive delays experienced by motorists exiting the project site, a traffic signal is recommended for installation at Driveway #2. Implementation of this traffic signal will minimize vehicular delays for vehicles entering and exiting the project site and improve safety conditions at this project driveway.

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TABLE 21

NEAR-TERM (YEAR 2006) PEAK HOUR LEVELS OF SERVICE SUMMARY AT THE PROJECT DRIVEWAYS
College Park Project, Upland

Key Intersections	Time Period	Intersection Control	Year 2006 With Project	
			HCM	LOS
1. Project Driveway #1 at Arrow Route	AM PM	1-Way Stop Right In/Out	0.52 s/v 0.27 s/v	A A
2. College Park (Project Driveway #2) at Arrow Route	AM PM	1-Way Stop Full Access	9.7 s/v 14.5 s/v	A B
With Signalization	AM PM	3ϕ Traffic Signal	18.1 s/v 17.7 s/v	B B
3. Project Driveway #3 at Arrow Route	AM PM	1-Way Stop Right In/Out	0.21 s/v 0.17 s/v	A A
4. Project Driveway #4 at Arrow Route	AM PM	1-Way Stop Right In/Out	0.21 s/v 0.18 s/v	A A
5. Project Driveway #5 at Monte Vista Avenue	AM PM	1-Way Stop Right In/Out	0.40 s/v 0.20 s/v	A A
6. Street "A" (Project Driveway #6) at Monte Vista Avenue	AM PM	1-Way Stop Full Access	12.1 s/v 29.2 s/v	B D
With Signalization	AM PM	3ϕ Traffic Signal	17.6 s/v 15.9 s/v	B B

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TABLE 22

LONG-TERM (YEAR 2025) PEAK HOUR LEVELS OF SERVICE SUMMARY AT THE PROJECT DRIVEWAYS
College Park Project, Upland

Key Intersections	Time Period	Intersection Control	Year 2025 With Project	
			HCM	LOS
1. Project Driveway #1 at Arrow Route	AM PM	1-Way Stop Right In/Out	0.55 s/v 0.23 s/v	A A
2. College Park (Project Driveway #2) at Arrow Route	AM PM	1-Way Stop Full Access	9.0 s/v **36.7 s/v**	A **E**
With Signalization	AM PM	3ϕ Traffic Signal	19.1 s/v 19.9 s/v	B B
3. Project Driveway #3 at Arrow Route	AM PM	1-Way Stop Right In/Out	0.23 s/v 0.14 s/v	A A
4. Project Driveway #4 at Arrow Route	AM PM	1-Way Stop Right In/Out	0.23 s/v 0.14 s/v	A A
5. Project Driveway #5 at Monte Vista Avenue	AM PM	1-Way Stop Right In/Out	0.20 s/v 0.10 s/v	A A
6. Street "A" (Project Driveway #6) at Monte Vista Avenue	AM PM	1-Way Stop Full Access	**160.0 s/v** **203.4 s/v**	**F** **F**
With Signalization	AM PM	3ϕ Traffic Signal	26.7 s/v 21.3 s/v	C C

Based on the results of the traffic signal warrant analysis, the installation of a traffic signal at Driveway #6 (Street "A" at Monte Vista Drive) is justified based on forecast Year 2006 traffic conditions with project traffic and Year 2025 traffic conditions with project traffic. Implementation of a traffic signal at this project intersection will minimize vehicular delays for vehicles entering and exiting the project site. Appendix G also contains the Year 2006 plus project traffic and the Year 2025 plus project traffic signal warrant worksheets for Driveways #2 and #6.

In response to City staff concerns, stacking/storage requirements at the project driveways were evaluated, with a particular focus to turning movements at full access Driveway #2 and Driveway #6. The queuing evaluation was conducted based on projected Year 2025 peak hour project driveway traffic volumes and the Highway Capacity Manual (HCM) signalized and unsignalized methodology.

Based on the HCM service level calculation, which calculates a critical (95th percentile) queue value in number of vehicles, the AM peak hour and PM peak hour queue length is not more than seven (7) vehicles for the westbound left-turning movement on Arrow Route at College Park (Driveway #2), and not more than seven (7) vehicles for the northbound (outbound) movements at College Park (Driveway #2). College Park (Driveway #2) provides two outbound lanes with stacking sufficient enough to accommodate up to 13 vehicles per lane.

The AM peak hour and PM peak hour queue length is not more than ten (10) vehicles for the northbound left-turning movement on Monte Vista Avenue at Street "A" (Driveway #6), and not more than ten (10) vehicles for the eastbound (outbound) movements at Street "A" (Driveway #6). Street "A" (Driveway #6) provides two outbound lanes with stacking sufficient enough to accommodate up to 10 vehicles per lanes.

The AM and PM peak hour queue length is not more than one (1) vehicle for the outbound movement at the four "right-turn in/out only" driveways (Driveways #1, #3, #4 and #5).

Internal Circulation

Based on review of the conceptual site plan, it appears that the on-site circulation layout for the College Park Project is adequate. However, to ensure truck access for small service/delivery (Fedex, UPS) trucks and trash trucks, and large trucks can be accommodated, we recommend an on-site truck circulation evaluation be conducted during the refinement of the project site plan.

Recommended Project Circulation Improvements

To ensure that adequate access and egress to the project site is provided and impacts to through traffic on Arrow Route and Monte Vista Avenue are minimized, we recommend the following improvements.

- **Arrow Route, adjacent to the project site:** In conjunction with the development of the College Park Project, widen and improve Arrow Route bordering the project site to ultimate

half-section width per the City of Upland Secondary Highway street standards. Arrow Route, within City limits, is designated as a Secondary Highway in the City of Upland Master Plan of Streets & Highway with an 88-foot right-of way section, 64-foot paved width, and 12-foot sidewalk/landscape areas on either side.

- **Arrow Route at Driveway #1:** It is recommended that a "STOP" sign and stop bar be installed at this project driveway.

- **Arrow Route at College Park (Driveway #2):** The final signing and striping plan of Arrow Route at Driveway #2 should be designed to include a westbound left-turn lane with a minimum left-turn storage pocket of 175-feet and a 90-foot transition to accommodate projected traffic volumes. It is recommended that a three-phase traffic signal be installed at this project driveway. This improvement will cost $120,000.00 and is the sole responsibility of the proposed project.

- **Arrow Route at Driveway #3:** It is recommended that a "STOP" sign and stop bar be installed at this project driveway.

- **Arrow Route at Driveway #4:** It is recommended that a "STOP" sign and stop bar be installed at this project driveway.

- **Monte Vista Avenue at Driveway #5:** It is recommended that a "STOP" sign and stop bar be installed at this project driveway.

- **Monte Vista Avenue at Street "A" (Driveway #6):** The final signing and striping plan of Monte Vista Avenue at Driveway #6 should be designed to include a northbound left-turn lane with a minimum left-turn storage pocket of 220-feet and a 90-foot transition to accommodate projected traffic volumes. It is recommended that a three-phase traffic signal be installed at this project driveway. This improvement will cost $120,000.00 and is the sole responsibility of the proposed project.

FIRST STREET / HUNTINGTON DRIVE CONNECTION

The section of the report responds to traffic-related comments received from the City of Claremont during the Notice of Preparation (NOP) with regards to the extension of Huntington Drive into the project site from Claremont Boulevard and Monte Vista Drive.

Impact/Benefit to Project Access

The extension of Huntington Drive from its current terminus at Claremont Boulevard along the South Pacific Railroad right-of-way and City of Upland/Montclair boundary lines to Monte Vista Drive is not a part of the proposed project and is not required to accommodate access to the project site. As indicated in the prior section, the results of the site access evaluation prepared for the College Park project indicate that site access is adequate as proposed, with project driveways on Arrow Route and Monte Vista Drive forecast to operate at acceptable service levels.

The two primary access points, Arrow Route at College Park and Street A at Monte Vista, are proposed to be signalized and are forecast to operate at LOS C or better during the AM and PM peak hours upon opening of the project in the Year 2006 and buildout of the area in the Year 2025. The project's secondary "right-turn only" driveways are projected to operate at LOS A.

Further, the extension of Huntington Drive from Claremont Boulevard to Monte Vista Drive is not required to facilitate circulation and traffic flow in the area. The results of the traffic analysis provided in this report, which essentially analyzed the "without Huntington Drive Extension", indicates that acceptable service levels can be maintained within the project study area without extending Huntington Drive.

Impact/Benefit to Area Circulation

A review of the existing circulation system in the immediate area indicates that study intersections most likely to be impacted by the potential extension of Huntington Drive include Claremont Boulevard at Foothill Boulevard (#2), Claremont Boulevard at 6th/Arrow Route (#6), Claremont Boulevard at Arrow Highway (#11), Monte Vista Drive at Foothill Boulevard (#3), Monte Vista Drive at Arrow Route (#7) and Monte Vista Drive at Arrow Highway (#12). Close inspection of the level of service calculations provided in Tables 9, on page 55, reveals that these six study intersections are projected to operate at LOS D or better upon completion of the project in the Year 2006 (no mitigation required at any of these six study intersections).

In addition, review of the Year 2025 level of service calculations summarized in Table 10, on page 60, indicates that acceptable LOS can be achieved at Claremont Boulevard at Foothill Boulevard (#2), Claremont Boulevard at 6th/Arrow Route (#6), Claremont Boulevard at Arrow Highway (#11), Monte Vista Drive at Foothill Boulevard (#3), Monte Vista Drive at Arrow Route (#7) and Monte Vista Drive at Arrow Highway (#12) with implementation of recommended long-term mitigation measures.

Lastly, the extension of Huntington is not likely to be a benefit to the circulation system in the immediate area as turning movements from Huntington Drive at Monte Vista Drive would likely be restricted to "right-turn only" movements. The proximity of the Richton Street and Monte Vista Avenue signalized intersection to the potential Huntington Drive extension in all likelihood would prevent the installation of a traffic signal at the Huntington Drive/Monte Drive intersection. These intersections would be within 200 feet of each other. Further more, a raised median currently exists on Monte Vista Drive.

Given the above, it can be concluded that the extension of Huntington Drive from its current terminus at Claremont Boulevard to Monte Vista Drive is not required to accommodate access to the project site or facilitate circulation and traffic flow in the area and is not recommended.

Appendices to the Traffic Impact Analysis Report are available for review at the City of Upland Community Development Department

Appendix E: Air Quality Modeling Output Reports

URBEMIS 2002 OUTPUT FILES

PROJECT PHASES BEFORE MITIGATION

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Upland-phase1.urb
Project Name: College Park Specific Plan
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: March, 2004
Construction Duration: 12
Total Land Use Area to be Developed: 38.69 acres
Maximum Acreage Disturbed Per Day: 9.67 acres
Single Family Units: 50 Multi-Family Units: 224
Retail/Office/Institutional/Industrial Square Footage: 89435

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2004***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	96.70	-	96.70
Off-Road Diesel	81.83	715.20	537.63	-	34.37	34.37	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	1.01	1.93	20.49	0.01	0.08	0.03	0.05
Maximum lbs/day	82.84	717.13	558.12	0.01	131.15	34.40	96.75
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	50.23	423.94	342.14	-	20.21	20.21	0.00
Bldg Const Worker Trips	1.11	0.61	13.17	0.00	0.17	0.01	0.16
Arch Coatings Off-Gas	262.35	-	-	-	-	-	-
Arch Coatings Worker Trips	1.11	0.61	13.17	0.00	0.17	0.01	0.16
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	314.80	425.16	368.48	0.00	20.55	20.23	0.32
Max lbs/day all phases	314.80	717.13	558.12	0.01	131.15	34.40	96.75
*** 2005***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	50.23	406.80	354.44	-	18.71	18.71	0.00
Bldg Const Worker Trips	1.02	0.57	12.12	0.00	0.17	0.01	0.16
Arch Coatings Off-Gas	262.35	-	-	-	-	-	-
Arch Coatings Worker Trips	1.02	0.57	12.12	0.00	0.17	0.01	0.16
Asphalt Off-Gas	2.30	-	-	-	-	-	-
Asphalt Off-Road Diesel	9.50	61.99	79.04	-	2.68	2.68	0.00
Asphalt On-Road Diesel	0.55	10.88	2.05	0.15	0.26	0.25	0.01
Asphalt Worker Trips	0.05	0.03	0.64	0.00	0.01	0.00	0.01
Maximum lbs/day	327.03	480.83	460.41	0.15	22.00	21.66	0.34
Max lbs/day all phases	327.03	480.83	460.41	0.15	22.00	21.66	0.34

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Mar '04
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
19	Rubber Tired Dozers	352	0.590	8.0
19	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Apr '04
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Apr '04
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
8	Concrete/Industrial saws	84	0.730	8.0
17	Other Equipment	190	0.620	8.0
8	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '04
SubPhase Architectural Coatings Duration: 3 months
Start Month/Year for SubPhase Asphalt: Jan '05
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 9.67
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
2	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages
Changes made to the default values for Construction
The user has overridden the Default Phase Lengths

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Upland-phase2.urb
Project Name: College Park Specific Plan
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: January, 2005
Construction Duration: 10
Total Land Use Area to be Developed: 38.69 acres
Maximum Acreage Disturbed Per Day: 0 acres
Single Family Units: 0 Multi-Family Units: 224
Retail/Office/Institutional/Industrial Square Footage: 51000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source *** 2005***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	32.17	260.77	226.86	-	12.00	12.00	0.00
Bldg Const Worker Trips	1.88	3.56	38.09	0.02	0.16	0.06	0.10
Arch Coatings Off-Gas	172.69	-	-	-	-	-	-
Arch Coatings Worker Trips	0.66	0.37	7.80	0.00	0.11	0.01	0.10
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	207.39	264.70	272.75	0.02	12.26	12.06	0.20
Max lbs/day all phases	207.39	264.70	272.75	0.02	12.26	12.06	0.20

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jan '05
Phase 3 Duration: 10.0 months
Start Month/Year for SubPhase Building: Jan '05
SubPhase Building Duration: 10 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
5	Concrete/Industrial saws	84	0.730	8.0
11	Other Equipment	190	0.620	8.0
5	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Aug '05
SubPhase Architectural Coatings Duration: 3 months
SubPhase Asphalt Turned OFF

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.23	3.02	1.27	-	0.01
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.58	0.05	4.29	0.02	0.01
Consumer Prdcts	13.40	-	-	-	-
TOTALS(lbs/day,unmitigated)	14.21	3.06	5.55	0.02	0.02

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	5.26	5.70	63.56	0.05	4.86
Apartments low rise	17.58	17.68	197.27	0.17	15.10
High turnover (sit-down)	12.46	16.88	179.21	0.16	14.18
Fast food rest. w/ drive	34.59	47.49	504.23	0.44	39.88
Strip mall	3.96	5.15	54.52	0.05	4.32
Gasoline/service station	19.45	26.42	279.53	0.24	22.13
General office building	1.58	2.03	22.18	0.02	1.74
Office park	8.36	10.43	114.70	0.10	9.00
TOTAL EMISSIONS (lbs/day)	103.25	131.78	1,415.21	1.23	111.21

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	50.00	478.50
Apartments low rise	6.63 trips / dwelling units	224.00	1,485.12
High turnover (sit-down)	130.34 trips / 1000 sq. ft.	12.48	1,626.64
Fast food rest. w/ drive	496.12 trips / 1000 sq. ft	9.22	4,576.71
Strip mall	40.67 trips / 1000 sq. ft.	12.49	507.97
Gasoline/service station	162.78 trips / Pumps	16.00	2,604.48
General office building	25.64 trips / 1000 sq. ft.	6.24	159.99
Office park	15.83 trips / 1000 sq. ft.	48.00	759.84

Vehicle Assumptions:
Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.30	97.10	0.60
Light Truck < 3,750 lbs	15.10	4.00	93.40	2.60
Light Truck 3,751- 5,750	15.50	1.90	96.80	1.30
Med Truck 5,751- 8,500	6.80	1.50	95.60	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.30	0.00	0.00	100.00
Motor Home	1.40	14.30	78.60	7.10

Travel Conditions

	Residential			Commercial	
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work Customer

Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
High turnover (sit-down) rest.				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
Gasoline/service station				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

Changes made to the default values for Area
The landscape year changed from 2004 to 2005.

Changes made to the default values for Operations
The operational emission year changed from 2004 to 2005.
The double counting internal work trip limit changed from to 392.724.
The double counting shopping trip limit changed from to 396.568718.
The double counting other trip limit changed from to 844.3566.

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Upland-Buildout.urb
Project Name: College Park Specific Plan
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.40	5.20	2.18	-	0.01
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.58	0.05	4.35	0.02	0.01
Consumer Prdcts	24.36	-	-	-	-
TOTALS(lbs/day,unmitigated)	25.34	5.25	6.54	0.02	0.02

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	5.01	5.31	59.25	0.05	4.86
Apartments low rise	33.52	32.95	367.79	0.33	30.17
High turnover (sit-down)	11.80	15.74	167.05	0.15	14.17
Fast food rest. w/ drive	32.74	44.28	470.00	0.43	39.86
Hotel	7.07	7.16	75.94	0.07	6.44
Strip mall	3.76	4.80	50.82	0.05	4.31
Gasoline/service station	18.42	24.64	260.55	0.24	22.11
General office building	1.49	1.89	20.68	0.02	1.74
Office park	7.93	9.71	106.95	0.10	9.00
TOTAL EMISSIONS (lbs/day)	121.74	146.48	1,579.02	1.45	132.67

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2006 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	50.00	478.50
Apartments low rise	6.63 trips / dwelling units	448.00	2,970.24
High turnover (sit-down)	130.34 trips / 1000 sq. ft.	12.48	1,626.64
Fast food rest. w/ drive	496.12 trips / 1000 sq. ft	9.22	4,576.71
Hotel	7.25 trips / rooms	102.00	739.50
Strip mall	40.67 trips / 1000 sq. ft.	12.49	507.97
Gasoline/service station	162.78 trips / Pumps	16.00	2,604.48
General office building	25.64 trips / 1000 sq. ft.	6.24	159.99
Office park	15.83 trips / 1000 sq. ft.	48.00	759.84

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.60	2.20	97.30	0.50
Light Truck < 3,750 lbs	15.10	4.00	93.40	2.60
Light Truck 3,751- 5,750	15.90	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.00	1.40	95.70	2.90
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	0.00	91.70	8.30

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
High turnover (sit-down) rest.				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Hotel				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
Gasoline/service station				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The landscape year changed from 2004 to 2006.

Changes made to the default values for Operations

The operational emission year changed from 2004 to 2006.
The double counting internal work trip limit changed from to 689.748.
The double counting shopping trip limit changed from to 415.056218.
The double counting other trip limit changed from to 1482.9582.
The travel mode environment settings changed from both to: none

URBEMIS 2002 OUTPUT FILES

MITIGATED PROJECT PHASES

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Upland-phase1Mitigated.urb
Project Name: College Park Specific Plan
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: March, 2004
Construction Duration: 12
Total Land Use Area to be Developed: 38.69 acres
Maximum Acreage Disturbed Per Day: 9.67 acres
Single Family Units: 50 Multi-Family Units: 224
Retail/Office/Institutional/Industrial Square Footage: 89435

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2004***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	96.70	-	96.70
Off-Road Diesel	81.83	715.20	537.63	-	34.37	34.37	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	1.01	1.93	20.49	0.01	0.08	0.03	0.05
Maximum lbs/day	82.84	717.13	558.12	0.01	131.15	34.40	96.75
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	24.98	203.25	176.24	-	9.61	9.61	0.00
Bldg Const Worker Trips	1.11	0.61	13.17	0.00	0.17	0.01	0.16
Arch Coatings Off-Gas	262.35	-	-	-	-	-	-
Arch Coatings Worker Trips	1.11	0.61	13.17	0.00	0.17	0.01	0.16
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	289.55	204.47	202.58	0.00	9.95	9.63	0.32
Max lbs/day all phases	289.55	717.13	558.12	0.01	131.15	34.40	96.75
*** 2005***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	24.98	195.46	181.47	-	8.86	8.86	0.00
Bldg Const Worker Trips	1.02	0.57	12.12	0.00	0.17	0.01	0.16
Arch Coatings Off-Gas	262.35	-	-	-	-	-	-
Arch Coatings Worker Trips	1.02	0.57	12.12	0.00	0.17	0.01	0.16
Asphalt Off-Gas	2.30	-	-	-	-	-	-
Asphalt Off-Road Diesel	9.50	61.99	79.04	-	2.68	2.68	0.00
Asphalt On-Road Diesel	0.55	10.88	2.05	0.15	0.26	0.25	0.01
Asphalt Worker Trips	0.05	0.03	0.64	0.00	0.01	0.00	0.01
Maximum lbs/day	301.78	269.48	287.44	0.15	12.15	11.81	0.34
Max lbs/day all phases	301.78	269.48	287.44	0.15	12.15	11.81	0.34

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Mar '04
Phase 2 Duration: 1.3 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
19	Rubber Tired Dozers	352	0.590	8.0
19	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Apr '04
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Apr '04
SubPhase Building Duration: 10.7 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
9	Other Equipment	190	0.620	8.0
8	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '04
SubPhase Architectural Coatings Duration: 3 months
Start Month/Year for SubPhase Asphalt: Jan '05
SubPhase Asphalt Duration: 0.5 months
Acres to be Paved: 9.67
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
2	Rollers	114	0.430	8.0

100.0 <- Transit Effectiveness Credit

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction
The user has overridden the Default Phase Lengths
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly
has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily
has been changed from off to on.
Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
has been changed from off to on.
Phase 2 mitigation measure Off-Road Diesel Exhaust: Time & Tune Engines-Prohibit Idling

has been changed from off to on.

Phase 2 mitigation measure On-Road Diesel Exhaust: Traffic Control Plan-Prohibit Idling has been changed from off to on.
Phase 2 mitigation measure Worker Trips: Traffic Control Plan with Designated Parking has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Traffic Control Plan with Designated Parking has been changed from off to on.
Phase 3 mitigation measure Offgassing: HVLP Spray Equipment or Hand Application has been changed from off to on.
Phase 3 mitigation measure Off-Road Diesel Exhaust: Time & Tune Engines-Prohibit Idling has been changed from off to on.
Phase 3 mitigation measure On-Road Diesel Exhaust: Traffic Control Plan-Prohibit Idling has been changed from off to on.
Phase 3 mitigation measure Worker Trips: Traffic Control Plan with Designated Parking has been changed from off to on.
Phase 3 mitigation measure Offgassing: has been changed from off to on.

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Upland-phase2Mitigated.urb
Project Name: College Park Specific Plan
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: January, 2005
Construction Duration: 10
Total Land Use Area to be Developed: 38.69 acres
Maximum Acreage Disturbed Per Day: 0 acres
Single Family Units: 0 Multi-Family Units: 224
Retail/Office/Institutional/Industrial Square Footage: 51000

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source *** 2005***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	16.39	128.67	118.75	-	5.84	5.84	0.00
Bldg Const Worker Trips	1.88	3.56	38.09	0.02	0.16	0.06	0.10
Arch Coatings Off-Gas	69.08	-	-	-	-	-	-
Arch Coatings Worker Trips	0.63	0.35	7.41	0.00	0.11	0.01	0.10
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	87.97	132.58	164.25	0.02	6.11	5.91	0.20
Max lbs/day all phases	87.97	132.58	164.25	0.02	6.11	5.91	0.20

Construction-Related Mitigation Measures
Phase 2 - Site Grading Assumptions: Phase Turned OFF
Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jan '05
Phase 3 Duration: 10.0 months
Start Month/Year for SubPhase Building: Jan '05
SubPhase Building Duration: 10 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
6	Other Equipment	190	0.620	8.0
5	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Aug '05
SubPhase Architectural Coatings Duration: 3 months
Start Month/Year for SubPhase Asphalt: Oct '05
SubPhase Asphalt Duration: 0 months
Acres to be Paved: 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths
Phase 3 mitigation measure Worker Trips: Traffic Control Plan with Designated Parking
has been changed from off to on.
Phase 3 mitigation measure Offgassing: HVLP Spray Equipment or Hand Application
has been changed from off to on.
Phase 3 mitigation measure Offgassing:
has been changed from off to on.

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Upland-phase2Mitigated-longterm.urb
Project Name: College Park Specific Plan
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.23	3.02	1.27	-	0.01
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.58	0.05	4.29	0.02	0.01
Consumer Prdcts	13.40	-	-	-	-
TOTALS(lbs/day,unmitigated)	14.21	3.06	5.55	0.02	0.02

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	4.62	4.86	54.11	0.05	4.14
Apartments low rise	15.59	15.09	167.95	0.14	12.84
High turnover (sit-down)	9.47	12.75	135.42	0.12	10.71
Fast food rest. w/ drive	26.17	35.87	381.02	0.33	30.13
Strip mall	3.03	3.87	40.98	0.04	3.24
Gasoline/service station	14.69	19.85	210.13	0.18	16.63
General office building	1.26	1.60	17.44	0.02	1.37
Office park	6.84	8.30	91.28	0.08	7.15
TOTAL EMISSIONS (lbs/day)	81.68	102.19	1,098.34	0.95	86.21

OPERATIONAL (Vehicle) EMISSION ESTIMATES
Analysis Year: 2005 Temperature (F): 90 Season: Summer
EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	50.00	478.50
Apartments low rise	6.63 trips / dwelling units	224.00	1,485.12
High turnover (sit-down)	130.34 trips / 1000 sq. ft.	12.48	1,626.64
Fast food rest. w/ drive	496.12 trips / 1000 sq. ft	9.22	4,576.71
Strip mall	40.67 trips / 1000 sq. ft.	12.49	507.97
Gasoline/service station	162.78 trips / Pumps	16.00	2,604.48
General office building	25.64 trips / 1000 sq. ft.	6.24	159.99
Office park	15.83 trips / 1000 sq. ft.	48.00	759.84

Vehicle Assumptions:
Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.30	97.10	0.60
Light Truck < 3,750 lbs	15.10	4.00	93.40	2.60
Light Truck 3,751- 5,750	15.50	1.90	96.80	1.30
Med Truck 5,751- 8,500	6.80	1.50	95.60	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.30	0.00	0.00	100.00

Motor Home	1.40	14.30	78.60	7.10		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
High turnover (sit-down) rest.				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
Gasoline/service station				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

ENVIRONMENTAL FACTORS APPLICABLE TO THE PROJECT

Pedestrian Environment

2.0	Side Walks/Paths: Most Destinations Covered
1.0	Street Trees Provide Shade: Moderate Coverage
2.0	Pedestrian Circulation Access: Some Destinations
3.0	Visually Interesting Uses: Moderate Number and Variety
1.0	Street System Enhances Safety: Some Streets
1.0	Pedestrian Safety from Crime: Moderate Degree of Safety
1.0	Visually Interesting Walking Routes: Moderate Level

11.0 <- Pedestrian Environmental Credit
11.0 /19 = 0.6 <- Pedestrian Effectiveness Factor

Transit Service

100.0 Transit Service: High Speed Rail w/in 1/2 mile (e.g. Urban BART)

100.0 <- Transit Effectiveness Credit
11.0 <- Pedestrian Factor
111.0 <-Total
111.0 /110 = 1.0 <-Transit Effectiveness Factor

Bicycle Environment

3.0	Interconnected Bikeways: Moderate Coverage
2.0	Bike Routes Provide Paved Shoulders: Some Routes
1.0	Safe Vehicle Speed Limits: Some Destinations
5.0	Safe School Routes: University/College Within Cycling Distance
2.0	Uses w/in Cycling Distance: Moderate Number and Variety
0.0	Bike Parking Ordinance: No Ordinance or Unenforceable

13.0 <- Bike Environmental Credit
13.0 /20 = 0.6 <- Bike Effectiveness Factor

MITIGATION MEASURES SELECTED FOR THIS PROJECT
(All mitigation measures are printed, even if
the selected land uses do not constitute a mixed use.)

Transit Infrastructure Measures

% Trips Reduced	Measure
15.0	Credit for Existing or Planned Community Transit Service
2.0	Provide Transit Shelters Benches
0.5	Provide Street Lighting
17.5 <- Totals	

Pedestrian Enhancing Infrastructure Measures (Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
3.0	Mixed Use Project (Residential Oriented)
1.0	Provide Sidewalks and/or Pedestrian Paths
1.0	Provide Direct Pedestrian Connections
0.5	Provide Street Lighting
7.5 <- Totals	

Pedestrian Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
1.0	Mixed Use Project (Commercial Oriented)
1.0	Provide Wide Sidewalks and Onsite Pedestrian Facilities
0.5	Provide Street Lighting
0.5	Project Provides Shade Trees to Shade Sidewalks
5.0 <- Totals	

Bicycle Enhancing Infratructure Measures (Residential)

% Trips Reduced	Measure
7.0	Credit for Surrounding Bicycle Environment
7.0 <- Totals	

Bike Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
5.0	Credit for Surrounding Area Bike Environment
2.0	Provide Bike Lanes/Paths Connecting to Bikeway System
7.0 <- Totals	

Operational Measures (Applying to Commute Trips)

% Trips Reduced	Measure
0.0 <- Totals	

Operational Measures (Applying to Employee Non-Commute Trips)

% Trips Reduced	Measure
0.0 <- Totals	

Operational Measures (Applying to Customer Trips)

% Trips Reduced	Measure
0.0 <- Totals	

Measures Reducing VMT (Non-Residential)

VMT Reduced	Measure
0.0	Park and Ride Lots
0.0 <- Totals	

Measures Reducing VMT (Residential)

VMT Reduced	Measure
0.0 <- Totals	

Total Percentage Trip Reduction
with Environmental Factors and Mitigation Measures

Travel Mode	Home-Work Trips	Home-Shop Trips	Home-Other Trips
Pedestrian	0.48	1.91	1.91
Transit	17.66	3.88	4.77
Bicycle	4.55	4.55	4.55
Totals	0.00	0.00	0.00

Travel Mode	Work Trips	Employee Trips	Customer Trips
Pedestrian	0.32	2.89	2.89
Transit	17.66	0.35	17.66
Bicycle	4.55	4.55	4.55
Other	0.00	0.00	0.00
Totals	0.00	0.00	0.00

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths

Changes made to the default values for Area

The landscape year changed from 2004 to 2005.

Changes made to the default values for Operations

The operational emission year changed from 2004 to 2005.
The double counting internal work trip limit changed from to 392.724.
The double counting shopping trip limit changed from to 396.568718.
The double counting other trip limit changed from to 844.3566.
The travel mode environment settings changed from both to: both
The default/nodefault travel setting changed from nodefault to: nodefault
 Side Walks/Paths: No Sidewalks
      changed to: Side Walks/Paths: Most Destinations Covered
Street Trees Provide Shade: No Coverage
      changed to:Street Trees Provide Shade: Moderate Coverage
Pedestrian Circulation Access: No Destinations
      changed to:Pedestrian Circulation Access: Some Destinations
Visually Interesting Uses: No Uses Within Walking Distance
      changed to:Visually Interesting Uses: Moderate Number and Variety
 Street System Enhances Safety: No Streets
      changed to: Street System Enhances Safety: Some Streets
Pedestrian Safety from Crime: No Degree of Safety
      changed to:Pedestrian Safety from Crime: Moderate Degree of Safety
Visually Interesting Walking Routes: No Visual Interest
      changed to:Visually Interesting Walking Routes: Moderate Level
 Transit Service: Dial-A-Ride or No Transit Service
      changed to: Transit Service: High Speed Rail w/in 1/2 mile (e.g. Urban BART)
 Interconnected Bikeways: No Bikeway Coverage
      changed to: Interconnected Bikeways: Moderate Coverage
Bike Routes Provide Paved Shoulders: No Routes
      changed to:Bike Routes Provide Paved Shoulders: Some Routes
Safe Vehicle Speed Limits: No Routes Provided
      changed to:Safe Vehicle Speed Limits: Some Destinations
 Safe School Routes: No Schools
      changed to: Safe School Routes: University/College Within Cycling Distance
Uses w/in Cycling Distance: No Uses w/in Cycling Distance
      changed to:Uses w/in Cycling Distance: Moderate Number and Variety
Mitigation measure Provide Transit Shelters Benches:2
     has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
     has been changed from off to on.
Mitigation measure Mixed Use Project (Residential Oriented):3

has been changed from off to on.

Mitigation measure Provide Sidewalks and/or Pedestrian Paths:1
has been changed from off to on.
Mitigation measure Provide Direct Pedestrian Connections:1
has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
has been changed from off to on.
Mitigation measure Mixed Use Project (Commercial Oriented):1
has been changed from off to on.
Mitigation measure Provide Wide Sidewalks and Onsite Pedestrian Facilities:1
has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
has been changed from off to on.
Mitigation measure Project Provides Shade Trees to Shade Sidewalks:0.5
has been changed from off to on.
Mitigation measure Provide Bike Lanes/Paths Connecting to Bikeway System:2
has been changed from off to on.

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Upland-Buildout-Mitigated.urb
Project Name: College Park Specific Plan
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.40	5.20	2.18	-	0.01
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.58	0.05	4.35	0.02	0.01
Consumer Prdcts	24.36	-	-	-	-
TOTALS(lbs/day,unmitigated)	25.34	5.25	6.54	0.02	0.02

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	4.35	4.46	49.67	0.04	4.07
Apartments low rise	29.44	27.69	308.35	0.28	25.27
High turnover (sit-down)	8.97	11.89	126.23	0.12	10.70
Fast food rest. w/ drive	24.77	33.45	355.16	0.33	30.11
Hotel	5.78	5.40	57.39	0.05	4.87
Strip mall	2.88	3.61	38.20	0.04	3.24
Gasoline/service station	13.92	18.52	195.86	0.18	16.62
General office building	1.20	1.49	16.26	0.01	1.37
Office park	6.49	7.73	85.11	0.08	7.15
TOTAL EMISSIONS (lbs/day)	97.79	114.24	1,232.23	1.13	103.40

OPERATIONAL (Vehicle) EMISSION ESTIMATES
Analysis Year: 2006 Temperature (F): 90 Season: Summer
EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	50.00	478.50
Apartments low rise	6.63 trips / dwelling units	448.00	2,970.24
High turnover (sit-down)	130.34 trips / 1000 sq. ft.	12.48	1,626.64
Fast food rest. w/ drive	496.12 trips / 1000 sq. ft	9.22	4,576.71
Hotel	7.25 trips / rooms	102.00	739.50
Strip mall	40.67 trips / 1000 sq. ft.	12.49	507.97
Gasoline/service station	162.78 trips / Pumps	16.00	2,604.48
General office building	25.64 trips / 1000 sq. ft.	6.24	159.99
Office park	15.83 trips / 1000 sq. ft.	48.00	759.84

Vehicle Assumptions:
Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.60	2.20	97.30	0.50
Light Truck < 3,750 lbs	15.10	4.00	93.40	2.60
Light Truck 3,751- 5,750	15.90	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.00	1.40	95.70	2.90
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	0.00	91.70	8.30

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
High turnover (sit-down) rest.				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Hotel				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
Gasoline/service station				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

ENVIRONMENTAL FACTORS APPLICABLE TO THE PROJECT

Pedestrian Environment

2.0	Side Walks/Paths: Most Destinations Covered
1.0	Street Trees Provide Shade: Moderate Coverage
2.0	Pedestrian Circulation Access: Some Destinations
3.0	Visually Interesting Uses: Moderate Number and Variety
1.0	Street System Enhances Safety: Some Streets
1.0	Pedestrian Safety from Crime: Moderate Degree of Safety
1.0	Visually Interesting Walking Routes: Moderate Level
11.0	<- Pedestrian Environmental Credit
11.0 /19 = 0.6	<- Pedestrian Effectiveness Factor

Transit Service

100.0	Transit Service: High Speed Rail w/in 1/2 mile (e.g. Urban BART)
100.0	<- Transit Effectiveness Credit
11.0	<- Pedestrian Factor
111.0	<-Total
111.0 /110 = 1.0	<-Transit Effectiveness Factor

Bicycle Environment

3.0	Interconnected Bikeways: Moderate Coverage
2.0	Bike Routes Provide Paved Shoulders: Some Routes
1.0	Safe Vehicle Speed Limits: Some Destinations
5.0	Safe School Routes: University/College Within Cycling Distance
2.0	Uses w/in Cycling Distance: Moderate Number and Variety
0.0	Bike Parking Ordinance: No Ordinance or Unenforceable
13.0	<- Bike Environmental Credit
13.0 /20 = 0.6	<- Bike Effectiveness Factor

MITIGATION MEASURES SELECTED FOR THIS PROJECT
(All mitigation measures are printed, even if
the selected land uses do not constitute a mixed use.)

Transit Infrastructure Measures

% Trips Reduced	Measure
15.0	Credit for Existing or Planned Community Transit Service
2.0	Provide Transit Shelters Benches
0.5	Provide Street Lighting
17.5	<- Totals

Pedestrian Enhancing Infrastructure Measures (Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
3.0	Mixed Use Project (Residential Oriented)
1.0	Provide Sidewalks and/or Pedestrian Paths
1.0	Provide Direct Pedestrian Connections
0.5	Provide Street Lighting
7.5	<- Totals

Pedestrian Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
1.0	Mixed Use Project (Commercial Oriented)
1.0	Provide Wide Sidewalks and Onsite Pedestrian Facilities
0.5	Provide Street Lighting
0.5	Project Provides Shade Trees to Shade Sidewalks
5.0	<- Totals

Bicycle Enhancing Infratructure Measures (Residential)

% Trips Reduced	Measure
7.0	Credit for Surrounding Bicycle Environment
2.0	Provide Bike Lanes/Paths Connecting to Bikeway System
9.0	<- Totals

Bike Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
5.0	Credit for Surrounding Area Bike Environment
2.0	Provide Bike Lanes/Paths Connecting to Bikeway System
7.0	<- Totals

Operational Measures (Applying to Commute Trips)

% Trips Reduced	Measure
0.0	<- Totals

Operational Measures (Applying to Employee Non-Commute Trips)

% Trips Reduced	Measure
0.0	<- Totals

Operational Measures (Applying to Customer Trips)

% Trips Reduced	Measure
0.0	<- Totals

Measures Reducing VMT (Non-Residential)

VMT Reduced	Measure
0.0	<- Totals

Measures Reducing VMT (Residential)

VMT Reduced	Measure
0.0	<- Totals

Total Percentage Trip Reduction
with Environmental Factors and Mitigation Measures

Travel Mode	Home-Work Trips	Home-Shop Trips	Home-Other Trips
Pedestrian	0.48	1.91	1.91
Transit	17.66	3.88	4.77
Bicycle	5.85	5.85	5.85
Totals	0.00	0.00	0.00

Travel Mode	Work Trips	Employee Trips	Customer Trips
Pedestrian	0.32	2.89	2.89
Transit	17.66	0.35	17.66
Bicycle	4.55	4.55	4.55
Other	0.00	0.00	0.00
Totals	0.00	0.00	0.00

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area
The landscape year changed from 2004 to 2006.

Changes made to the default values for Operations
The operational emission year changed from 2004 to 2006.
The double counting internal work trip limit changed from to 689.748.

The double counting shopping trip limit changed from to 415.056218.
The double counting other trip limit changed from to 1482.9582.
The travel mode environment settings changed from both to: both
The default/nodefault travel setting changed from nodefault to: nodefault
 Side Walks/Paths: No Sidewalks
      changed to: Side Walks/Paths: Most Destinations Covered
Street Trees Provide Shade: No Coverage
      changed to:Street Trees Provide Shade: Moderate Coverage
Pedestrian Circulation Access: No Destinations
      changed to:Pedestrian Circulation Access: Some Destinations
Visually Interesting Uses: No Uses Within Walking Distance
      changed to:Visually Interesting Uses: Moderate Number and Variety
 Street System Enhances Safety: No Streets
      changed to: Street System Enhances Safety: Some Streets
Pedestrian Safety from Crime: No Degree of Safety
      changed to:Pedestrian Safety from Crime: Moderate Degree of Safety
Visually Interesting Walking Routes: No Visual Interest
      changed to:Visually Interesting Walking Routes: Moderate Level
 Transit Service: Dial-A-Ride or No Transit Service
      changed to: Transit Service: High Speed Rail w/in 1/2 mile (e.g. Urban BART)
 Interconnected Bikeways: No Bikeway Coverage
      changed to: Interconnected Bikeways: Moderate Coverage
Bike Routes Provide Paved Shoulders: No Routes
      changed to:Bike Routes Provide Paved Shoulders: Some Routes
Safe Vehicle Speed Limits: No Routes Provided
      changed to:Safe Vehicle Speed Limits: Some Destinations
 Safe School Routes: No Schools
      changed to: Safe School Routes: University/College Within Cycling Distance
Uses w/in Cycling Distance: No Uses w/in Cycling Distance
      changed to:Uses w/in Cycling Distance: Moderate Number and Variety
Mitigation measure Provide Transit Shelters Benches:2
     has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
     has been changed from off to on.
Mitigation measure Mixed Use Project (Residential Oriented):3
     has been changed from off to on.
Mitigation measure Provide Sidewalks and/or Pedestrian Paths:1
     has been changed from off to on.
Mitigation measure Provide Direct Pedestrian Connections:1
     has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
     has been changed from off to on.
Mitigation measure Mixed Use Project (Commercial Oriented):1
     has been changed from off to on.
Mitigation measure Provide Wide Sidewalks and Onsite Pedestrian Facilities:1
     has been changed from off to on.
Mitigation measure Provide Street Lighting:0.5
     has been changed from off to on.
Mitigation measure Project Provides Shade Trees to Shade Sidewalks:0.5
     has been changed from off to on.
Mitigation measure Provide Bike Lanes/Paths Connecting to Bikeway System:2
     has been changed from off to on.
Mitigation measure Provide Bike Lanes/Paths Connecting to Bikeway System:2
     has been changed from off to on.

Mitigation measuremitop5: Park and Ride Lots
has been changed from on to off.

CALINE4 OUTPUT FILES
YEAR 2006 WITHOUT PROJECT SCENARIOS

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Central at Arrow Hwy 2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	15.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Central NB	*	14	344	14	440	*	AG	1149	10.8	.0	18.0
B. Central NB	*	14	440	14	492	*	AG	996	26.3	.0	18.0
C. Central NB	*	14	492	14	544	*	AG	1037	26.3	.0	18.0
D. Central NB	*	14	544	14	640	*	AG	1037	10.8	.0	18.0
E. Central NB	*	14	440	7	492	*	AG	153	26.3	.0	18.0
F. Central SB	*	-4	544	7	492	*	AG	88	26.3	.0	18.0
G. Central SB	*	-4	640	-4	544	*	AG	1142	10.8	.0	18.0
H. Central SB	*	-4	544	-4	492	*	AG	1054	26.3	.0	18.0
I. Central SB	*	-4	492	-4	440	*	AG	1276	26.3	.0	18.0
J. Central SB	*	-4	440	-4	344	*	AG	1276	10.8	.0	18.0
K. Arrow EB	*	-140	481	-45	481	*	AG	898	10.8	.0	18.0
L. Arrow EB	*	-45	481	7	481	*	AG	760	26.3	.0	18.0
M. Arrow EB	*	7	481	59	481	*	AG	851	26.3	.0	18.0
N. Arrow EB	*	59	481	155	481	*	AG	851	10.8	.0	18.0
O. Arrow WB	*	155	499	59	499	*	AG	568	10.8	.0	18.0
P. Arrow WB	*	59	499	7	499	*	AG	377	26.8	.0	18.0
Q. Arrow WB	*	7	499	-45	499	*	AG	593	26.8	.0	18.0
R. Arrow WB	*	-45	499	-140	499	*	AG	593	10.8	.0	18.0
S. Arrow EB	*	-45	485	7	492	*	AG	145	26.8	.0	18.0
T. Arrow WB	*	59	499	7	492	*	AG	191	26.8	.0	18.0

JOB: Central at Arrow Hwy 2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	3.6	.0	.0	.0	.5	.0	.1	.4	2.4	.0	.0
2. Recpt 2	.7	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	6.3	.0	.0	.4	.4	.0	.1	.1	1.6	1.7	.0
4. Recpt 4	2.5	.0	.5	.1	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
3. Recpt 3	.0	1.1	.0	.0	.0	.0	.6	.0	.2	.0
4. Recpt 4	.0	.0	1.3	.0	.0	.4	.0	.0	.0	.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Central Av.at Foothill-2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Central NB	*	14	344	14	440	* AG	851	10.8	.0	18.0
B. Central NB	*	14	440	14	492	* AG	559	26.3	.0	18.0
C. Central NB	*	14	492	14	544	* AG	9	26.3	.0	18.0
D. Central NB	*	14	544	14	640	* AG	9	10.8	.0	18.0
E. Central NB	*	14	440	7	492	* AG	292	26.3	.0	18.0
F. Central SB	*	-4	544	7	492	* AG	11	26.3	.0	18.0
G. Central SB	*	-4	640	-4	544	* AG	18	10.8	.0	18.0
H. Central SB	*	-4	544	-4	492	* AG	7	26.3	.0	18.0
I. Central SB	*	-4	492	-4	440	* AG	758	26.3	.0	18.0
J. Central SB	*	-4	440	-4	344	* AG	758	10.8	.0	18.0
K. Foothill EB	*	-140	481	-45	481	* AG	1305	10.8	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	1304	26.3	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1614	26.3	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1614	10.8	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	1279	10.8	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	783	26.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	1072	26.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	1072	10.8	.0	18.0
S. Foothill EB	*	-45	485	7	492	* AG	1	26.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	496	26.8	.0	18.0

JOB: Central Av.at Foothill-2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	7.4	.0	.5	.0	.0	.3	.0	.0	.0	1.1	.0
4. Recpt 4	4.8	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.3	.8	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.1	.7	.0	.0	.0	.0
3. Recpt 3	.0	1.7	2.6	.4	.4	.1	.0	.0	.0	.2
4. Recpt 4	.0	.0	3.5	.8	.4	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Claremont at ArrowHwy2006WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	285.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Claremont NB	*	14	344	14	440	* AG	399	10.8	.0	13.2
B. Claremont NB	*	14	440	14	492	* AG	308	26.3	.0	13.2
C. Claremont NB	*	14	492	14	544	* AG	416	26.3	.0	13.2
D. Claremont NB	*	14	544	14	640	* AG	416	10.8	.0	13.2
E. Claremont NB	*	14	440	7	492	* AG	91	26.3	.0	13.2
F. Claremont SB	*	-4	544	7	492	* AG	106	26.3	.0	18.0
G. Claremont SB	*	-4	640	-4	544	* AG	504	10.8	.0	18.0
H. Claremont SB	*	-4	544	0	492	* AG	398	26.3	.0	18.0
I. Claremont SB	*	0	492	0	440	* AG	321	26.3	.0	18.0
J. Claremont SB	*	0	440	0	344	* AG	321	10.8	.0	18.0
K. Arrow EB	*	-140	485	-45	485	* AG	1042	10.8	.0	13.2
L. Arrow EB	*	-45	485	7	485	* AG	957	26.3	.0	13.2
M. Arrow EB	*	7	485	59	485	* AG	1070	26.3	.0	13.2
N. Arrow EB	*	59	485	155	485	* AG	1070	10.8	.0	13.2
O. Arrow WB	*	155	499	59	499	* AG	747	10.8	.0	13.2
P. Arrow WB	*	59	499	7	499	* AG	709	26.8	.0	13.2
Q. Arrow WB	*	7	499	-45	499	* AG	885	26.8	.0	13.2
R. Arrow WB	*	-45	499	-140	499	* AG	885	10.8	.0	13.2
S. Arrow EB	*	-45	485	7	492	* AG	85	26.8	.0	13.2
T. Arrow WB	*	59	499	7	492	* AG	56	26.8	.0	13.2

JOB: Claremont at ArrowHwy2006WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	478	1.8
4. Recpt 4	22	478	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	1.3	.0	.0	.7	.0	.0	.1	.0	.4	.0	.0
3. Recpt 3	3.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	5.4	.0	.5	.0	.0	.1	.0	.0	.0	.3	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.4	2.5	.0	.0	.0	.0	.0	.5	.1	.0
4. Recpt 4	.1	1.9	1.4	.0	.0	.0	.5	.3	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Claremont at Arrow Rt-2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	200.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Claremont NB	*	14	344	14	440	* AG	510	10.8	.0	13.2
B. Claremont NB	*	14	440	14	492	* AG	495	26.3	.0	13.2
C. Claremont NB	*	14	492	14	544	* AG	485	26.3	.0	13.2
D. Claremont NB	*	14	544	14	640	* AG	485	10.8	.0	13.2
E. Claremont NB	*	14	440	7	492	* AG	15	26.3	.0	13.2
F. Claremont SB	*	0	544	7	492	* AG	50	26.3	.0	13.2
G. Claremont SB	*	0	640	0	544	* AG	388	10.8	.0	13.2
H. Claremont SB	*	0	544	0	492	* AG	338	26.3	.0	13.2
I. Claremont SB	*	0	492	0	440	* AG	408	26.3	.0	13.2
J. Claremont SB	*	0	440	0	344	* AG	408	10.8	.0	13.2
K. Arrow EB	*	-140	488	-45	488	* AG	267	10.8	.0	9.9
L. Arrow EB	*	-45	488	7	488	* AG	205	26.3	.0	9.9
M. Arrow EB	*	7	488	59	488	* AG	348	26.3	.0	9.9
N. Arrow EB	*	59	488	155	488	* AG	348	10.8	.0	9.9
O. Arrow WB	*	155	499	59	499	* AG	284	10.8	.0	9.9
P. Arrow WB	*	59	499	7	499	* AG	185	26.8	.0	9.9
Q. Arrow WB	*	7	499	-45	499	* AG	208	26.8	.0	9.9
R. Arrow WB	*	-45	499	-140	499	* AG	208	10.8	.0	9.9
S. Arrow EB	*	-45	485	7	492	* AG	62	26.8	.0	9.9
T. Arrow WB	*	59	499	7	492	* AG	99	26.8	.0	9.9

JOB: Claremont at Arrow Rt-2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	481	1.8
4. Recpt 4	22	481	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	2.9	.0	.8	.7	.0	.0	.0	.0	.0	.4	.1
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	1.9	.0	1.4	.0	.0	.0	.0	.0	.0	.1	.2

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.2	.0	.0	.0	.0	.4	.0	.0	.0
2. Recpt 2	.0	.0	.4	.0	.0	.3	.0	.0	.0	.1
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Indian Hill at Arrow Hwy-2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Indian NB	*	14	344	14	440	* AG	893	10.8	.0	13.2
B. Indian NB	*	14	440	14	492	* AG	764	26.3	.0	13.2
C. Indian NB	*	14	492	14	544	* AG	846	26.3	.0	13.2
D. Indian NB	*	14	544	14	640	* AG	846	10.8	.0	13.2
E. Indian NB	*	14	440	7	492	* AG	129	26.3	.0	13.2
F. Indian SB	*	0	544	7	492	* AG	152	26.3	.0	13.2
G. Indian SB	*	0	640	0	544	* AG	875	10.8	.0	13.2
H. Indian SB	*	0	544	0	492	* AG	723	26.3	.0	13.2
I. Indian SB	*	0	492	0	440	* AG	933	26.3	.0	13.2
J. Indian SB	*	0	440	0	344	* AG	933	10.8	.0	13.2
K. Arrow EB	*	-140	481	-45	481	* AG	1076	10.8	.0	18.0
L. Arrow EB	*	-45	481	7	481	* AG	949	26.3	.0	18.0
M. Arrow EB	*	7	481	59	481	* AG	1100	26.3	.0	18.0
N. Arrow EB	*	59	481	155	481	* AG	1100	10.8	.0	18.0
O. Arrow WB	*	155	499	59	499	* AG	771	10.8	.0	18.0
P. Arrow WB	*	59	499	7	499	* AG	589	26.8	.0	18.0
Q. Arrow WB	*	7	499	-45	499	* AG	736	26.8	.0	18.0
R. Arrow WB	*	-45	499	-140	499	* AG	736	10.8	.0	18.0
S. Arrow EB	*	-45	481	7	492	* AG	127	26.8	.0	18.0
T. Arrow WB	*	59	499	7	492	* AG	182	26.8	.0	18.0

JOB: Indian Hill at Arrow Hwy-2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	3.1	.0	.0	.8	.0	.0	.2	.0	1.2	.0	.0
2. Recpt 2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	6.2	.0	.7	.0	.0	.2	.0	.0	.0	1.6	.0
4. Recpt 4	3.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.2	.5	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0
3. Recpt 3	.0	1.0	2.0	.3	.3	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	2.4	.6	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Mills at Foothill-2006 without Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	110.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mills NB	*	11	344	11	440	* AG	15	10.8	.0	9.9
B. Mills NB	*	11	440	11	492	* AG	7	26.3	.0	9.9
C. Mills NB	*	11	492	11	544	* AG	521	26.3	.0	9.9
D. Mills NB	*	11	544	11	640	* AG	521	10.8	.0	9.9
E. Mills NB	*	11	440	7	492	* AG	8	26.3	.0	9.9
F. Mills SB	*	0	544	7	492	* AG	88	26.3	.0	13.2
G. Mills SB	*	0	640	0	544	* AG	244	10.8	.0	13.2
H. Mills SB	*	0	544	0	492	* AG	156	26.3	.0	13.2
I. Mills SB	*	0	492	0	440	* AG	21	26.3	.0	13.2
J. Mills SB	*	0	440	0	344	* AG	21	10.8	.0	13.2
K. Foothill EB	*	-140	481	-45	481	* AG	1359	10.8	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	995	26.3	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1076	26.3	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1076	10.8	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	1122	10.8	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	1113	26.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	1122	26.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	1122	10.8	.0	18.0
S. Foothill EB	*	-45	481	7	492	* AG	364	26.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	9	26.8	.0	18.0

JOB: Mills at Foothill-2006 without Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	18	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	5.0	.0	.0	.5	.0	.0	.1	.0	.3	.0	.0
2. Recpt 2	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.7	.3	.0	1.6	1.3	.0	.0	.0
2. Recpt 2	.0	.0	.1	.5	.2	2.6	.0	.0	.0	.0
3. Recpt 3	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: MonteVista at Arrow Hwy 2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	282.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mont Vsta NB	14	344	14	440	AG	1033	10.8	.0	13.2
B. Mont Vsta NB	14	440	14	492	AG	842	26.3	.0	13.2
C. Mont Vsta NB	14	492	14	544	AG	1037	26.3	.0	13.2
D. Mont Vsta NB	14	544	14	640	AG	1037	10.8	.0	13.2
E. Mont Vsta NB	14	440	7	492	AG	191	26.3	.0	13.2
F. Mont Vsta SB	-4	544	7	492	AG	110	26.3	.0	18.0
G. Mont Vsta SB	-4	640	-4	544	AG	1015	10.8	.0	18.0
H. Mont Vsta SB	-4	544	0	492	AG	905	26.3	.0	18.0
I. Mont Vsta SB	0	492	0	440	AG	1070	26.3	.0	18.0
J. Mont Vsta SB	0	440	0	344	AG	1070	10.8	.0	18.0
K. Arrow EB	-140	481	-45	481	AG	1106	10.8	.0	18.0
L. Arrow EB	-45	481	7	481	AG	968	26.3	.0	18.0
M. Arrow EB	7	481	59	481	AG	885	26.3	.0	18.0
N. Arrow EB	59	481	155	481	AG	885	10.8	.0	18.0
O. Arrow WB	155	499	59	499	AG	590	10.8	.0	18.0
P. Arrow WB	59	499	7	499	AG	528	26.8	.0	18.0
Q. Arrow WB	7	499	-45	499	AG	752	26.8	.0	18.0
R. Arrow WB	-45	499	-140	499	AG	752	10.8	.0	18.0
S. Arrow EB	-45	485	7	492	AG	138	26.8	.0	18.0
T. Arrow WB	59	499	7	492	AG	62	26.8	.0	18.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: MonteVista at Arrow Hwy 2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	3.4	.0	.0	1.8	.0	.0	.1	.0	.9	.0	.0
3. Recpt 3	3.3	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
4. Recpt 4	6.4	.0	1.4	.0	.0	.3	.0	.0	.0	1.1	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.3	.2	.0	.0	.0
3. Recpt 3	.5	2.2	.0	.0	.0	.0	.0	.3	.1	.0
4. Recpt 4	.2	1.7	1.0	.0	.0	.0	.2	.3	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Mont Vsta at Foothill-2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mont Vsta NB	*	14	344	14	440	* AG	927	10.8	.0	18.0
B. Mont Vsta NB	*	14	440	14	492	* AG	750	26.3	.0	18.0
C. Mont Vsta NB	*	14	492	14	544	* AG	860	26.3	.0	18.0
D. Mont Vsta NB	*	14	544	14	640	* AG	860	10.8	.0	18.0
E. Mont Vsta NB	*	14	440	7	492	* AG	177	26.3	.0	18.0
F. Mont Vsta SB	*	-4	544	7	492	* AG	179	26.3	.0	18.0
G. Mont Vsta SB	*	-4	640	-4	544	* AG	731	10.8	.0	18.0
H. Mont Vsta SB	*	-4	544	-4	492	* AG	552	26.3	.0	18.0
I. Mont Vsta SB	*	-4	492	-4	440	* AG	759	26.3	.0	18.0
J. Mont Vsta SB	*	-4	440	-4	344	* AG	759	10.8	.0	18.0
K. Foothill EB	*	-140	481	-45	481	* AG	1234	10.8	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	1165	26.3	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1361	26.3	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1361	10.8	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	1077	10.8	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	954	26.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	989	26.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	989	10.8	.0	18.0
S. Foothill EB	*	-45	485	7	492	* AG	69	26.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	123	26.8	.0	18.0

JOB: Mont Vsta at Foothill-2006 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	2.9	.0	.0	.8	.0	.0	.2	.0	.8	.0	.0
2. Recpt 2	1.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	6.7	.0	.7	.0	.0	.2	.0	.0	.0	1.1	.0
4. Recpt 4	4.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.3	.7	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0
3. Recpt 3	.0	1.5	2.2	.4	.4	.2	.0	.0	.0	.0
4. Recpt 4	.0	.0	3.0	.7	.3	.0	.0	.0	.0	.0

CALINE4 OUTPUT FILES
YEAR 2025 WITHOUT PROJECT SCENARIOS

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Central at Arrow Hwy 2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	15.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Central NB	*	14	344	14	440	* AG	1446	4.6	.0	18.0
B. Central NB	*	14	440	14	492	* AG	1029	12.8	.0	18.0
C. Central NB	*	14	492	14	544	* AG	1035	12.8	.0	18.0
D. Central NB	*	14	544	14	640	* AG	1035	4.6	.0	18.0
E. Central NB	*	14	440	7	492	* AG	417	4.6	.0	18.0
F. Central SB	*	-4	544	7	492	* AG	35	12.8	.0	18.0
G. Central SB	*	-4	640	-4	544	* AG	951	4.6	.0	18.0
H. Central SB	*	-4	544	-4	492	* AG	916	12.8	.0	18.0
I. Central SB	*	-4	492	-4	440	* AG	1415	4.6	.0	18.0
J. Central SB	*	-4	440	-4	344	* AG	1415	12.8	.0	18.0
K. Arrow EB	*	-140	481	-45	481	* AG	1283	4.6	.0	18.0
L. Arrow EB	*	-45	481	7	481	* AG	1125	12.8	.0	18.0
M. Arrow EB	*	7	481	59	481	* AG	984	12.8	.0	18.0
N. Arrow EB	*	59	481	155	481	* AG	984	4.6	.0	18.0
O. Arrow WB	*	155	499	59	499	* AG	713	4.6	.0	18.0
P. Arrow WB	*	59	499	7	499	* AG	469	12.8	.0	18.0
Q. Arrow WB	*	7	499	-45	499	* AG	959	12.8	.0	18.0
R. Arrow WB	*	-45	499	-140	499	* AG	959	4.6	.0	18.0
S. Arrow EB	*	-45	485	7	492	* AG	158	12.8	.0	18.0
T. Arrow WB	*	59	499	7	492	* AG	244	12.8	.0	18.0

JOB: Central at Arrow Hwy 2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	1.5	.0	.0	.0	.2	.0	.0	.1	1.0	.0	.0
2. Recpt 2	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	2.8	.0	.0	.2	.2	.0	.0	.0	.7	.3	.0
4. Recpt 4	1.4	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.8	.0	.0	.0	.0	.4	.0	.1	.0
4. Recpt 4	.0	.0	.7	.0	.0	.2	.0	.0	.0	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Central Av.at Foothill-2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Central NB	*	14	344	14	440	* AG	871	4.6	.0	18.0
B. Central NB	*	14	440	14	492	* AG	566	12.8	.0	18.0
C. Central NB	*	14	492	14	544	* AG	781	12.8	.0	18.0
D. Central NB	*	14	544	14	640	* AG	781	4.6	.0	18.0
E. Central NB	*	14	440	7	492	* AG	305	4.6	.0	18.0
F. Central SB	*	-4	544	7	492	* AG	363	12.8	.0	18.0
G. Central SB	*	-4	640	-4	544	* AG	639	4.6	.0	18.0
H. Central SB	*	-4	544	-4	492	* AG	279	12.8	.0	18.0
I. Central SB	*	-4	492	-4	440	* AG	579	4.6	.0	18.0
J. Central SB	*	-4	440	-4	344	* AG	579	12.8	.0	18.0
K. Foothill EB	*	-140	481	-45	481	* AG	960	4.6	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	785	12.8	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1106	12.8	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1106	4.6	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	812	4.6	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	699	12.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	816	12.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	816	4.6	.0	18.0
S. Foothill EB	*	-45	485	7	492	* AG	175	12.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	113	12.8	.0	18.0

JOB: Central Av.at Foothill-2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	1.2	.0	.0	.4	.0	.0	.2	.0	.2	.0	.0
2. Recpt 2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	2.2	.0	.3	.0	.0	.0	.0	.0	.0	.1	.0
4. Recpt 4	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
3. Recpt 3	.0	.5	.9	.1	.1	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	1.2	.3	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Claremont at ArrowHwy2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	285.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Claremont NB	*	14	344	14	440	* AG	981	4.6	.0	13.2
B. Claremont NB	*	14	440	14	492	* AG	523	12.8	.0	13.2
C. Claremont NB	*	14	492	14	544	* AG	543	12.8	.0	13.2
D. Claremont NB	*	14	544	14	640	* AG	543	4.6	.0	13.2
E. Claremont NB	*	14	440	7	492	* AG	458	4.6	.0	13.2
F. Claremont SB	*	-4	544	7	492	* AG	17	12.8	.0	18.0
G. Claremont SB	*	-4	640	-4	544	* AG	432	4.6	.0	18.0
H. Claremont SB	*	-4	544	0	492	* AG	415	12.8	.0	18.0
I. Claremont SB	*	0	492	0	440	* AG	700	4.6	.0	18.0
J. Claremont SB	*	0	440	0	344	* AG	700	12.8	.0	18.0
K. Arrow EB	*	-140	485	-45	485	* AG	1045	4.6	.0	13.2
L. Arrow EB	*	-45	485	7	485	* AG	980	12.8	.0	13.2
M. Arrow EB	*	7	485	59	485	* AG	823	12.8	.0	13.2
N. Arrow EB	*	59	485	155	485	* AG	823	4.6	.0	13.2
O. Arrow WB	*	155	499	59	499	* AG	541	4.6	.0	13.2
P. Arrow WB	*	59	499	7	499	* AG	438	12.8	.0	13.2
Q. Arrow WB	*	7	499	-45	499	* AG	934	12.8	.0	13.2
R. Arrow WB	*	-45	499	-140	499	* AG	934	4.6	.0	13.2
S. Arrow EB	*	-45	485	7	492	* AG	65	12.8	.0	13.2
T. Arrow WB	*	59	499	7	492	* AG	103	12.8	.0	13.2

JOB: Claremont at ArrowHwy2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	478	1.8
4. Recpt 4	22	478	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.7	.0	.0	.5	.0	.0	.0	.0	.2	.0	.0
3. Recpt 3	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	2.6	.0	.4	.0	.0	.1	.0	.0	.0	.1	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.2	1.3	.0	.0	.0	.0	.0	.2	.0	.0
4. Recpt 4	.0	.9	.5	.0	.0	.0	.2	.1	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Claremont at Arrow Rt-2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	200.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Claremont NB	*	14	344	14	440	* AG	635	4.6	.0	13.2
B. Claremont NB	*	14	440	14	492	* AG	629	12.8	.0	13.2
C. Claremont NB	*	14	492	14	544	* AG	695	12.8	.0	13.2
D. Claremont NB	*	14	544	14	640	* AG	695	4.6	.0	13.2
E. Claremont NB	*	14	440	7	492	* AG	6	4.6	.0	13.2
F. Claremont SB	*	0	544	7	492	* AG	131	12.8	.0	13.2
G. Claremont SB	*	0	640	0	544	* AG	381	4.6	.0	13.2
H. Claremont SB	*	0	544	0	492	* AG	250	12.8	.0	13.2
I. Claremont SB	*	0	492	0	440	* AG	337	4.6	.0	13.2
J. Claremont SB	*	0	440	0	344	* AG	337	12.8	.0	13.2
K. Arrow EB	*	-140	488	-45	488	* AG	256	4.6	.0	9.9
L. Arrow EB	*	-45	488	7	488	* AG	194	12.8	.0	9.9
M. Arrow EB	*	7	488	59	488	* AG	462	12.8	.0	9.9
N. Arrow EB	*	59	488	155	488	* AG	462	4.6	.0	9.9
O. Arrow WB	*	155	499	59	499	* AG	420	4.6	.0	9.9
P. Arrow WB	*	59	499	7	499	* AG	305	12.8	.0	9.9
Q. Arrow WB	*	7	499	-45	499	* AG	198	12.8	.0	9.9
R. Arrow WB	*	-45	499	-140	499	* AG	198	4.6	.0	9.9
S. Arrow EB	*	-45	485	7	492	* AG	62	12.8	.0	9.9
T. Arrow WB	*	59	499	7	492	* AG	115	12.8	.0	9.9

JOB: Claremont at Arrow Rt-2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	481	1.8
4. Recpt 4	22	481	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	1.7	.0	.5	.5	.0	.0	.0	.0	.0	.0	.1
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	1.1	.0	.9	.0	.0	.0	.0	.0	.0	.0	.2

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.1	.0	.0	.0	.0	.2	.0	.0	.0
2. Recpt 2	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: IndianHill at Arrow hwy-2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Indian NB	14	344	14	440	AG	1024	4.6	.0	13.2
B. Indian NB	14	440	14	492	AG	761	12.8	.0	13.2
C. Indian NB	14	492	14	544	AG	801	12.8	.0	13.2
D. Indian NB	14	544	14	640	AG	801	4.6	.0	13.2
E. Indian NB	14	440	7	492	AG	263	4.6	.0	13.2
F. Indian SB	0	544	7	492	AG	116	12.8	.0	13.2
G. Indian SB	0	640	0	544	AG	851	4.6	.0	13.2
H. Indian SB	0	544	0	492	AG	735	12.8	.0	13.2
I. Indian SB	0	492	0	440	AG	969	4.6	.0	13.2
J. Indian SB	0	440	0	344	AG	969	12.8	.0	13.2
K. Arrow EB	-140	481	-45	481	AG	1161	4.6	.0	18.0
L. Arrow EB	-45	481	7	481	AG	1044	12.8	.0	18.0
M. Arrow EB	7	481	59	481	AG	1106	12.8	.0	18.0
N. Arrow EB	59	481	155	481	AG	1106	4.6	.0	18.0
O. Arrow WB	155	499	59	499	AG	826	4.6	.0	18.0
P. Arrow WB	59	499	7	499	AG	657	12.8	.0	18.0
Q. Arrow WB	7	499	-45	499	AG	986	12.8	.0	18.0
R. Arrow WB	-45	499	-140	499	AG	986	4.6	.0	18.0
S. Arrow EB	-45	481	7	492	AG	117	12.8	.0	18.0
T. Arrow WB	59	499	7	492	AG	169	12.8	.0	18.0

JOB: IndianHill at Arrow hwy-2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	1.5	.0	.0	.4	.0	.0	.0	.0	.6	.0	.0
2. Recpt 2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	2.5	.0	.4	.0	.0	.0	.0	.0	.0	.3	.0
4. Recpt 4	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
3. Recpt 3	.0	.5	1.0	.1	.1	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	1.2	.3	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Mills at Foothill-2025 without Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	110.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mills NB	*	11	344	11	440	* AG	15	4.6	.0	9.9
B. Mills NB	*	11	440	11	492	* AG	11	12.8	.0	9.9
C. Mills NB	*	11	492	11	544	* AG	1075	12.8	.0	9.9
D. Mills NB	*	11	544	11	640	* AG	1075	4.6	.0	9.9
E. Mills NB	*	11	440	7	492	* AG	4	4.6	.0	9.9
F. Mills SB	*	0	544	7	492	* AG	293	12.8	.0	13.2
G. Mills SB	*	0	640	0	544	* AG	495	4.6	.0	13.2
H. Mills SB	*	0	544	0	492	* AG	202	12.8	.0	13.2
I. Mills SB	*	0	492	0	440	* AG	21	4.6	.0	13.2
J. Mills SB	*	0	440	0	344	* AG	21	12.8	.0	13.2
K. Foothill EB	*	-140	481	-45	481	* AG	1499	4.6	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	1007	12.8	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1300	12.8	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1300	4.6	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	1592	4.6	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	1578	12.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	1205	12.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	1205	4.6	.0	18.0
S. Foothill EB	*	-45	481	7	492	* AG	492	12.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	14	12.8	.0	18.0

JOB: Mills at Foothill-2025 without Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	18	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	3.3	.0	.0	.5	.0	.0	.2	.0	.2	.0	.0
2. Recpt 2	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.4	.2	.0	1.1	.7	.0	.0	.0
2. Recpt 2	.0	.0	.0	.3	.1	1.7	.0	.0	.0	.0
3. Recpt 3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: MonteVista at Arrow Hwy 2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	282.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mont Vsta NB	14	344	14	440	AG	1526	4.6	.0	13.2
B. Mont Vsta NB	14	440	14	492	AG	1463	12.8	.0	13.2
C. Mont Vsta NB	14	492	14	544	AG	2224	12.8	.0	13.2
D. Mont Vsta NB	14	544	14	640	AG	2224	4.6	.0	13.2
E. Mont Vsta NB	14	440	7	492	AG	63	4.6	.0	13.2
F. Mont Vsta SB	-4	544	7	492	AG	593	12.8	.0	18.0
G. Mont Vsta SB	-4	640	-4	544	AG	2105	4.6	.0	18.0
H. Mont Vsta SB	-4	544	0	492	AG	1512	12.8	.0	18.0
I. Mont Vsta SB	0	492	0	440	AG	1345	4.6	.0	18.0
J. Mont Vsta SB	0	440	0	344	AG	1345	12.8	.0	18.0
K. Arrow EB	-140	481	-45	481	AG	964	4.6	.0	18.0
L. Arrow EB	-45	481	7	481	AG	705	12.8	.0	18.0
M. Arrow EB	7	481	59	481	AG	1270	12.8	.0	18.0
N. Arrow EB	59	481	155	481	AG	1270	4.6	.0	18.0
O. Arrow WB	155	499	59	499	AG	951	4.6	.0	18.0
P. Arrow WB	59	499	7	499	AG	901	12.8	.0	18.0
Q. Arrow WB	7	499	-45	499	AG	707	12.8	.0	18.0
R. Arrow WB	-45	499	-140	499	AG	707	4.6	.0	18.0
S. Arrow EB	-45	485	7	492	AG	259	12.8	.0	18.0
T. Arrow WB	59	499	7	492	AG	50	12.8	.0	18.0

JOB: MonteVista at Arrow Hwy 2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	3.3	.0	.0	1.8	.0	.0	.3	.0	.7	.0	.0
3. Recpt 3	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	3.2	.0	1.2	.0	.0	.0	.0	.0	.0	.2	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
3. Recpt 3	.2	.8	.0	.0	.0	.0	.0	.1	.1	.0
4. Recpt 4	.0	.6	.7	.0	.0	.0	.0	.1	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Mont Vsta at Foothill-2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mont Vsta NB	*	14	344	14	440	* AG	2348	4.6	.0	18.0
B. Mont Vsta NB	*	14	440	14	492	* AG	1733	12.8	.0	18.0
C. Mont Vsta NB	*	14	492	14	544	* AG	1435	12.8	.0	18.0
D. Mont Vsta NB	*	14	544	14	640	* AG	1435	4.6	.0	18.0
E. Mont Vsta NB	*	14	440	7	492	* AG	615	4.6	.0	18.0
F. Mont Vsta SB	*	-4	544	7	492	* AG	66	12.8	.0	18.0
G. Mont Vsta SB	*	-4	640	-4	544	* AG	1192	4.6	.0	18.0
H. Mont Vsta SB	*	-4	544	-4	492	* AG	1126	12.8	.0	18.0
I. Mont Vsta SB	*	-4	492	-4	440	* AG	2014	4.6	.0	18.0
J. Mont Vsta SB	*	-4	440	-4	344	* AG	2014	12.8	.0	18.0
K. Foothill EB	*	-140	481	-45	481	* AG	1310	4.6	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	1272	12.8	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1120	12.8	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1120	4.6	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	803	4.6	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	516	12.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	1084	12.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	1084	4.6	.0	18.0
S. Foothill EB	*	-45	485	7	492	* AG	38	12.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	287	12.8	.0	18.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Mont Vsta at Foothill-2025 WO Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	2.0	.0	.0	.6	.0	.0	.0	.0	.8	.0	.0
2. Recpt 2	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	3.4	.0	.7	.0	.0	.1	.0	.0	.0	.5	.0
4. Recpt 4	1.7	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
3. Recpt 3	.0	.8	.9	.1	.1	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	1.2	.3	.1	.0	.0	.0	.0	.0

CALINE4 OUTPUT FILES
YEAR 2006 WITH PROJECT SCENARIOS

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Central at Arrow Hwy 2006 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	15.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Central NB	*	14	344	14	440	*	AG	1179	10.8	.0	18.0
B. Central NB	*	14	440	14	492	*	AG	996	26.3	.0	18.0
C. Central NB	*	14	492	14	544	*	AG	1037	26.3	.0	18.0
D. Central NB	*	14	544	14	640	*	AG	1037	10.8	.0	18.0
E. Central NB	*	14	440	7	492	*	AG	183	26.3	.0	18.0
F. Central SB	*	-4	544	7	492	*	AG	88	26.3	.0	18.0
G. Central SB	*	-4	640	-4	544	*	AG	1142	10.8	.0	18.0
H. Central SB	*	-4	544	-4	492	*	AG	1054	26.3	.0	18.0
I. Central SB	*	-4	492	-4	440	*	AG	1315	26.3	.0	18.0
J. Central SB	*	-4	440	-4	344	*	AG	1315	10.8	.0	18.0
K. Arrow EB	*	-140	481	-45	481	*	AG	982	10.8	.0	18.0
L. Arrow EB	*	-45	481	7	481	*	AG	837	26.3	.0	18.0
M. Arrow EB	*	7	481	59	481	*	AG	896	26.3	.0	18.0
N. Arrow EB	*	59	481	155	481	*	AG	896	10.8	.0	18.0
O. Arrow WB	*	155	499	59	499	*	AG	611	10.8	.0	18.0
P. Arrow WB	*	59	499	7	499	*	AG	420	26.8	.0	18.0
Q. Arrow WB	*	7	499	-45	499	*	AG	666	26.8	.0	18.0
R. Arrow WB	*	-45	499	-140	499	*	AG	666	10.8	.0	18.0
S. Arrow EB	*	-45	485	7	492	*	AG	145	26.8	.0	18.0
T. Arrow WB	*	59	499	7	492	*	AG	191	26.8	.0	18.0

JOB: Central at Arrow Hwy 2006 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	3.6	.0	.0	.0	.5	.0	.1	.4	2.4	.0	.0
2. Recpt 2	.7	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	6.5	.0	.0	.4	.4	.0	.1	.1	1.6	1.8	.0
4. Recpt 4	2.6	.0	.5	.1	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
3. Recpt 3	.0	1.2	.0	.0	.0	.0	.6	.0	.2	.0
4. Recpt 4	.0	.0	1.3	.0	.0	.4	.0	.0	.0	.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Central Av.at Foothill-2006 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Central NB	*	14	344	14	440	* AG	851	10.8	.0	18.0
B. Central NB	*	14	440	14	492	* AG	559	26.3	.0	18.0
C. Central NB	*	14	492	14	544	* AG	23	26.3	.0	18.0
D. Central NB	*	14	544	14	640	* AG	23	10.8	.0	18.0
E. Central NB	*	14	440	7	492	* AG	292	26.3	.0	18.0
F. Central SB	*	-4	544	7	492	* AG	11	26.3	.0	18.0
G. Central SB	*	-4	640	-4	544	* AG	30	10.8	.0	18.0
H. Central SB	*	-4	544	-4	492	* AG	19	26.3	.0	18.0
I. Central SB	*	-4	492	-4	440	* AG	761	26.3	.0	18.0
J. Central SB	*	-4	440	-4	344	* AG	761	10.8	.0	18.0
K. Foothill EB	*	-140	481	-45	481	* AG	1337	10.8	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	1322	26.3	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1632	26.3	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1632	10.8	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	1298	10.8	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	802	26.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	1101	26.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	1101	10.8	.0	18.0
S. Foothill EB	*	-45	485	7	492	* AG	15	26.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	496	26.8	.0	18.0

JOB: Central Av.at Foothill-2006 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	7.4	.0	.5	.0	.0	.3	.0	.0	.0	1.1	.0
4. Recpt 4	4.9	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.3	.8	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.1	.8	.0	.0	.0	.0
3. Recpt 3	.0	1.8	2.6	.4	.4	.1	.0	.0	.0	.2
4. Recpt 4	.0	.0	3.5	.8	.4	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Claremont at ArrowHwy2006withProject
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	285.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Claremont NB	14	344	14	440	AG	423	10.8	.0	13.2
B. Claremont NB	14	440	14	492	AG	332	26.3	.0	13.2
C. Claremont NB	14	492	14	544	AG	469	26.3	.0	13.2
D. Claremont NB	14	544	14	640	AG	469	10.8	.0	13.2
E. Claremont NB	14	440	7	492	AG	91	26.3	.0	13.2
F. Claremont SB	-4	544	7	492	AG	106	26.3	.0	18.0
G. Claremont SB	-4	640	-4	544	AG	541	10.8	.0	18.0
H. Claremont SB	-4	544	0	492	AG	435	26.3	.0	18.0
I. Claremont SB	0	492	0	440	AG	350	26.3	.0	18.0
J. Claremont SB	0	440	0	344	AG	350	10.8	.0	18.0
K. Arrow EB	-140	485	-45	485	AG	1077	10.8	.0	13.2
L. Arrow EB	-45	485	7	485	AG	963	26.3	.0	13.2
M. Arrow EB	7	485	59	485	AG	1076	26.3	.0	13.2
N. Arrow EB	59	485	155	485	AG	1076	10.8	.0	13.2
O. Arrow WB	155	499	59	499	AG	755	10.8	.0	13.2
P. Arrow WB	59	499	7	499	AG	717	26.8	.0	13.2
Q. Arrow WB	7	499	-45	499	AG	901	26.8	.0	13.2
R. Arrow WB	-45	499	-140	499	AG	901	10.8	.0	13.2
S. Arrow EB	-45	485	7	492	AG	114	26.8	.0	13.2
T. Arrow WB	59	499	7	492	AG	56	26.8	.0	13.2

JOB: Claremont at ArrowHwy2006withProject
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	478	1.8
4. Recpt 4	22	478	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	1.5	.0	.0	.8	.0	.0	.1	.0	.5	.0	.0
3. Recpt 3	3.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	5.5	.0	.6	.0	.0	.1	.0	.0	.0	.4	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.4	2.6	.0	.0	.0	.0	.0	.5	.2	.0
4. Recpt 4	.1	1.9	1.4	.0	.0	.0	.5	.3	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Claremont at Arrow Rt-2006 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	200.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Claremont NB	*	14	344	14	440	* AG	564	10.8	.0	13.2
B. Claremont NB	*	14	440	14	492	* AG	549	26.3	.0	13.2
C. Claremont NB	*	14	492	14	544	* AG	521	26.3	.0	13.2
D. Claremont NB	*	14	544	14	640	* AG	521	10.8	.0	13.2
E. Claremont NB	*	14	440	7	492	* AG	15	26.3	.0	13.2
F. Claremont SB	*	0	544	7	492	* AG	71	26.3	.0	13.2
G. Claremont SB	*	0	640	0	544	* AG	409	10.8	.0	13.2
H. Claremont SB	*	0	544	0	492	* AG	359	26.3	.0	13.2
I. Claremont SB	*	0	492	0	440	* AG	445	26.3	.0	13.2
J. Claremont SB	*	0	440	0	344	* AG	445	10.8	.0	13.2
K. Arrow EB	*	-140	488	-45	488	* AG	312	10.8	.0	9.9
L. Arrow EB	*	-45	488	7	488	* AG	256	26.3	.0	9.9
M. Arrow EB	*	7	488	59	488	* AG	474	26.3	.0	9.9
N. Arrow EB	*	59	488	155	488	* AG	474	10.8	.0	9.9
O. Arrow WB	*	155	499	59	499	* AG	404	10.8	.0	9.9
P. Arrow WB	*	59	499	7	499	* AG	268	26.8	.0	9.9
Q. Arrow WB	*	7	499	-45	499	* AG	255	26.8	.0	9.9
R. Arrow WB	*	-45	499	-140	499	* AG	255	10.8	.0	9.9
S. Arrow EB	*	-45	485	7	492	* AG	62	26.8	.0	9.9
T. Arrow WB	*	59	499	7	492	* AG	136	26.8	.0	9.9

JOB: Claremont at Arrow Rt-2006 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	481	1.8
4. Recpt 4	22	481	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	3.4	.0	.9	.7	.0	.0	.0	.0	.0	.4	.1
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	2.0	.0	1.6	.0	.0	.0	.0	.0	.0	.1	.2

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.3	.0	.0	.0	.0	.4	.0	.0	.0
2. Recpt 2	.0	.0	.5	.0	.0	.5	.0	.0	.0	.2
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: IndianHill at Arrow hwy-2006with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Indian NB	*	14	344	14	440	*	AG	897	10.8	.0	13.2
B. Indian NB	*	14	440	14	492	*	AG	768	26.3	.0	13.2
C. Indian NB	*	14	492	14	544	*	AG	846	26.3	.0	13.2
D. Indian NB	*	14	544	14	640	*	AG	846	10.8	.0	13.2
E. Indian NB	*	14	440	7	492	*	AG	129	26.3	.0	13.2
F. Indian SB	*	0	544	7	492	*	AG	152	26.3	.0	13.2
G. Indian SB	*	0	640	0	544	*	AG	875	10.8	.0	13.2
H. Indian SB	*	0	544	0	492	*	AG	723	26.3	.0	13.2
I. Indian SB	*	0	492	0	440	*	AG	933	26.3	.0	13.2
J. Indian SB	*	0	440	0	344	*	AG	933	10.8	.0	13.2
K. Arrow EB	*	-140	481	-45	481	*	AG	1108	10.8	.0	18.0
L. Arrow EB	*	-45	481	7	481	*	AG	981	26.3	.0	18.0
M. Arrow EB	*	7	481	59	481	*	AG	1136	26.3	.0	18.0
N. Arrow EB	*	59	481	155	481	*	AG	1136	10.8	.0	18.0
O. Arrow WB	*	155	499	59	499	*	AG	787	10.8	.0	18.0
P. Arrow WB	*	59	499	7	499	*	AG	605	26.8	.0	18.0
Q. Arrow WB	*	7	499	-45	499	*	AG	752	26.8	.0	18.0
R. Arrow WB	*	-45	499	-140	499	*	AG	752	10.8	.0	18.0
S. Arrow EB	*	-45	481	7	492	*	AG	127	26.8	.0	18.0
T. Arrow WB	*	59	499	7	492	*	AG	182	26.8	.0	18.0

JOB: IndianHill at Arrow hwy-2006with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	3.1	.0	.0	.8	.0	.0	.2	.0	1.2	.0	.0
2. Recpt 2	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	6.3	.0	.7	.0	.0	.2	.0	.0	.0	1.6	.0
4. Recpt 4	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.2	.5	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0
3. Recpt 3	.0	1.1	2.0	.3	.3	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	2.5	.6	.3	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Mills at Foothill-2006 With Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	110.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mills NB	*	11	344	11	440	* AG	15	10.8	.0	9.9
B. Mills NB	*	11	440	11	492	* AG	7	26.3	.0	9.9
C. Mills NB	*	11	492	11	544	* AG	521	26.3	.0	9.9
D. Mills NB	*	11	544	11	640	* AG	521	10.8	.0	9.9
E. Mills NB	*	11	440	7	492	* AG	8	26.3	.0	9.9
F. Mills SB	*	0	544	7	492	* AG	88	26.3	.0	13.2
G. Mills SB	*	0	640	0	544	* AG	244	10.8	.0	13.2
H. Mills SB	*	0	544	0	492	* AG	156	26.3	.0	13.2
I. Mills SB	*	0	492	0	440	* AG	21	26.3	.0	13.2
J. Mills SB	*	0	440	0	344	* AG	21	10.8	.0	13.2
K. Foothill EB	*	-140	481	-45	481	* AG	1380	10.8	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	1016	26.3	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1097	26.3	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1097	10.8	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	1158	10.8	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	1149	26.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	1158	26.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	1158	10.8	.0	18.0
S. Foothill EB	*	-45	481	7	492	* AG	364	26.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	9	26.8	.0	18.0

JOB: Mills at Foothill-2006 With Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	18	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	5.1	.0	.0	.5	.0	.0	.1	.0	.3	.0	.0
2. Recpt 2	3.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.7	.3	.0	1.7	1.3	.0	.0	.0
2. Recpt 2	.0	.0	.1	.5	.2	2.7	.0	.0	.0	.0
3. Recpt 3	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: MonteVista at Arrow Hwy 2006with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	282.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mont Vsta NB	*	14	344	14	440	* AG	1130	10.8	.0	13.2
B. Mont Vsta NB	*	14	440	14	492	* AG	939	26.3	.0	13.2
C. Mont Vsta NB	*	14	492	14	544	* AG	1220	26.3	.0	13.2
D. Mont Vsta NB	*	14	544	14	640	* AG	1220	10.8	.0	13.2
E. Mont Vsta NB	*	14	440	7	492	* AG	191	26.3	.0	13.2
F. Mont Vsta SB	*	-4	544	7	492	* AG	196	26.3	.0	18.0
G. Mont Vsta SB	*	-4	640	-4	544	* AG	1201	10.8	.0	18.0
H. Mont Vsta SB	*	-4	544	0	492	* AG	1005	26.3	.0	18.0
I. Mont Vsta SB	*	0	492	0	440	* AG	1162	26.3	.0	18.0
J. Mont Vsta SB	*	0	440	0	344	* AG	1162	10.8	.0	18.0
K. Arrow EB	*	-140	481	-45	481	* AG	812	10.8	.0	18.0
L. Arrow EB	*	-45	481	7	481	* AG	968	26.3	.0	18.0
M. Arrow EB	*	7	481	59	481	* AG	971	26.3	.0	18.0
N. Arrow EB	*	59	481	155	481	* AG	971	10.8	.0	18.0
O. Arrow WB	*	155	499	59	499	* AG	670	10.8	.0	18.0
P. Arrow WB	*	59	499	7	499	* AG	608	26.8	.0	18.0
Q. Arrow WB	*	7	499	-45	499	* AG	760	26.8	.0	18.0
R. Arrow WB	*	-45	499	-140	499	* AG	760	10.8	.0	18.0
S. Arrow EB	*	-45	485	7	492	* AG	144	26.8	.0	18.0
T. Arrow WB	*	59	499	7	492	* AG	62	26.8	.0	18.0

JOB: MonteVista at Arrow Hwy 2006with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	3.9	.0	.0	2.1	.0	.0	.2	.0	1.0	.0	.0
3. Recpt 3	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0
4. Recpt 4	6.7	.0	1.6	.0	.0	.3	.0	.0	.0	1.1	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0
3. Recpt 3	.4	2.2	.0	.0	.0	.0	.0	.3	.1	.0
4. Recpt 4	.2	1.7	1.1	.0	.0	.0	.2	.3	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Mont Vsta at Foothill-2006 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	79.5 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mont Vsta NB	*	14	344	14	440	* AG	986	10.8	.0	18.0
B. Mont Vsta NB	*	14	440	14	492	* AG	809	26.3	.0	18.0
C. Mont Vsta NB	*	14	492	14	544	* AG	887	26.3	.0	18.0
D. Mont Vsta NB	*	14	544	14	640	* AG	887	10.8	.0	18.0
E. Mont Vsta NB	*	14	440	7	492	* AG	177	26.3	.0	18.0
F. Mont Vsta SB	*	-4	544	7	492	* AG	179	26.3	.0	18.0
G. Mont Vsta SB	*	-4	640	-4	544	* AG	759	10.8	.0	18.0
H. Mont Vsta SB	*	-4	544	-4	492	* AG	580	26.3	.0	18.0
I. Mont Vsta SB	*	-4	492	-4	440	* AG	815	26.3	.0	18.0
J. Mont Vsta SB	*	-4	440	-4	344	* AG	815	10.8	.0	18.0
K. Foothill EB	*	-140	481	-45	481	* AG	1234	10.8	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	1165	26.3	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1393	26.3	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1393	10.8	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	1105	10.8	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	954	26.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	989	26.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	989	10.8	.0	18.0
S. Foothill EB	*	-45	485	7	492	* AG	69	26.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	151	26.8	.0	18.0

JOB: Mont Vsta at Foothill-2006 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	2.9	.0	.0	.8	.0	.0	.2	.0	.8	.0	.0
2. Recpt 2	1.1	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	6.9	.0	.7	.0	.0	.2	.0	.0	.0	1.2	.0
4. Recpt 4	4.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.3	.7	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0
3. Recpt 3	.0	1.6	2.2	.3	.4	.2	.0	.0	.0	.0
4. Recpt 4	.0	.0	3.0	.7	.4	.0	.0	.0	.0	.0

CALINE4 OUTPUT FILES
YEAR 2025 WITH PROJECT SCENARIOS

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Central at Arrow Hwy 2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	15.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Central NB	14	344	14	440	AG	1476	4.6	.0	18.0
B. Central NB	14	440	14	492	AG	1029	12.8	.0	18.0
C. Central NB	14	492	14	544	AG	1035	12.8	.0	18.0
D. Central NB	14	544	14	640	AG	1035	4.6	.0	18.0
E. Central NB	14	440	7	492	AG	447	4.6	.0	18.0
F. Central SB	-4	544	7	492	AG	35	12.8	.0	18.0
G. Central SB	-4	640	-4	544	AG	951	4.6	.0	18.0
H. Central SB	-4	544	-4	492	AG	916	12.8	.0	18.0
I. Central SB	-4	492	-4	440	AG	1454	4.6	.0	18.0
J. Central SB	-4	440	-4	344	AG	1454	12.8	.0	18.0
K. Arrow EB	-140	481	-45	481	AG	1367	4.6	.0	18.0
L. Arrow EB	-45	481	7	481	AG	1209	12.8	.0	18.0
M. Arrow EB	7	481	59	481	AG	1029	12.8	.0	18.0
N. Arrow EB	59	481	155	481	AG	1029	4.6	.0	18.0
O. Arrow WB	155	499	59	499	AG	756	4.6	.0	18.0
P. Arrow WB	59	499	7	499	AG	512	12.8	.0	18.0
Q. Arrow WB	7	499	-45	499	AG	1032	12.8	.0	18.0
R. Arrow WB	-45	499	-140	499	AG	1032	4.6	.0	18.0
S. Arrow EB	-45	485	7	492	AG	158	12.8	.0	18.0
T. Arrow WB	59	499	7	492	AG	244	12.8	.0	18.0

JOB: Central at Arrow Hwy 2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	1.5	.0	.0	.0	.2	.0	.0	.1	1.0	.0	.0
2. Recpt 2	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	2.9	.0	.0	.2	.2	.0	.0	.0	.7	.3	.0
4. Recpt 4	1.4	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.9	.0	.0	.0	.0	.5	.0	.1	.0
4. Recpt 4	.0	.0	.7	.0	.0	.2	.0	.0	.0	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Central Av.at Foothill-2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	280.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Central NB	*	14	344	14	440	*	AG	871	4.6	.0	18.0
B. Central NB	*	14	440	14	492	*	AG	566	12.8	.0	18.0
C. Central NB	*	14	492	14	544	*	AG	795	12.8	.0	18.0
D. Central NB	*	14	544	14	640	*	AG	795	4.6	.0	18.0
E. Central NB	*	14	440	7	492	*	AG	305	4.6	.0	18.0
F. Central SB	*	-4	544	7	492	*	AG	363	12.8	.0	18.0
G. Central SB	*	-4	640	-4	544	*	AG	651	4.6	.0	18.0
H. Central SB	*	-4	544	-4	492	*	AG	288	12.8	.0	18.0
I. Central SB	*	-4	492	-4	440	*	AG	581	4.6	.0	18.0
J. Central SB	*	-4	440	-4	344	*	AG	581	12.8	.0	18.0
K. Foothill EB	*	-140	481	-45	481	*	AG	992	4.6	.0	18.0
L. Foothill EB	*	-45	481	7	481	*	AG	803	12.8	.0	18.0
M. Foothill EB	*	7	481	59	481	*	AG	1124	12.8	.0	18.0
N. Foothill EB	*	59	481	155	481	*	AG	1124	4.6	.0	18.0
O. Foothill WB	*	155	499	59	499	*	AG	831	4.6	.0	18.0
P. Foothill WB	*	59	499	7	499	*	AG	718	12.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	*	AG	845	12.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	*	AG	845	4.6	.0	18.0
S. Foothill EB	*	-45	485	7	492	*	AG	189	12.8	.0	18.0
T. Foothill WB	*	59	499	7	492	*	AG	113	12.8	.0	18.0

JOB: Central Av.at Foothill-2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	1.3	.0	.0	.6	.0	.0	.2	.0	.1	.0	.0
3. Recpt 3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	2.3	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0
3. Recpt 3	.3	.8	.0	.0	.0	.0	.0	.1	.0	.0
4. Recpt 4	.1	.7	.6	.0	.0	.0	.0	.1	.1	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Claremont at ArrowHwy2025with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	285.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Claremont NB	*	14	344	14	440	* AG	1005	4.6	.0	13.2
B. Claremont NB	*	14	440	14	492	* AG	547	12.8	.0	13.2
C. Claremont NB	*	14	492	14	544	* AG	596	12.8	.0	13.2
D. Claremont NB	*	14	544	14	640	* AG	596	4.6	.0	13.2
E. Claremont NB	*	14	440	7	492	* AG	458	4.6	.0	13.2
F. Claremont SB	*	-4	544	7	492	* AG	17	12.8	.0	18.0
G. Claremont SB	*	-4	640	-4	544	* AG	469	4.6	.0	18.0
H. Claremont SB	*	-4	544	0	492	* AG	452	12.8	.0	18.0
I. Claremont SB	*	0	492	0	440	* AG	735	4.6	.0	18.0
J. Claremont SB	*	0	440	0	344	* AG	735	12.8	.0	18.0
K. Arrow EB	*	-140	485	-45	485	* AG	1080	4.6	.0	13.2
L. Arrow EB	*	-45	485	7	485	* AG	986	12.8	.0	13.2
M. Arrow EB	*	7	485	59	485	* AG	829	12.8	.0	13.2
N. Arrow EB	*	59	485	155	485	* AG	829	4.6	.0	13.2
O. Arrow WB	*	155	499	59	499	* AG	549	4.6	.0	13.2
P. Arrow WB	*	59	499	7	499	* AG	446	12.8	.0	13.2
Q. Arrow WB	*	7	499	-45	499	* AG	950	12.8	.0	13.2
R. Arrow WB	*	-45	499	-140	499	* AG	950	4.6	.0	13.2
S. Arrow EB	*	-45	485	7	492	* AG	94	12.8	.0	13.2
T. Arrow WB	*	59	499	7	492	* AG	103	12.8	.0	13.2

JOB: Claremont at ArrowHwy2025with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	478	1.8
4. Recpt 4	22	478	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.8	.0	.0	.5	.0	.0	.0	.0	.2	.0	.0
3. Recpt 3	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	2.7	.0	.5	.0	.0	.1	.0	.0	.0	.1	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.2	1.3	.0	.0	.0	.0	.0	.2	.0	.0
4. Recpt 4	.0	.9	.5	.0	.0	.0	.2	.2	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Claremont at Arrow Rt-2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	200.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Claremont NB	*	14	344	14	440	* AG	689	4.6	.0	13.2
B. Claremont NB	*	14	440	14	492	* AG	683	12.8	.0	13.2
C. Claremont NB	*	14	492	14	544	* AG	731	12.8	.0	13.2
D. Claremont NB	*	14	544	14	640	* AG	731	4.6	.0	13.2
E. Claremont NB	*	14	440	7	492	* AG	6	4.6	.0	13.2
F. Claremont SB	*	0	544	7	492	* AG	152	12.8	.0	13.2
G. Claremont SB	*	0	640	0	544	* AG	402	4.6	.0	13.2
H. Claremont SB	*	0	544	0	492	* AG	250	12.8	.0	13.2
I. Claremont SB	*	0	492	0	440	* AG	374	4.6	.0	13.2
J. Claremont SB	*	0	440	0	344	* AG	374	12.8	.0	13.2
K. Arrow EB	*	-140	488	-45	488	* AG	307	4.6	.0	9.9
L. Arrow EB	*	-45	488	7	488	* AG	245	12.8	.0	9.9
M. Arrow EB	*	7	488	59	488	* AG	588	12.8	.0	9.9
N. Arrow EB	*	59	488	155	488	* AG	588	4.6	.0	9.9
O. Arrow WB	*	155	499	59	499	* AG	540	4.6	.0	9.9
P. Arrow WB	*	59	499	7	499	* AG	388	12.8	.0	9.9
Q. Arrow WB	*	7	499	-45	499	* AG	245	12.8	.0	9.9
R. Arrow WB	*	-45	499	-140	499	* AG	245	4.6	.0	9.9
S. Arrow EB	*	-45	485	7	492	* AG	62	12.8	.0	9.9
T. Arrow WB	*	59	499	7	492	* AG	182	12.8	.0	9.9

JOB: Claremont at Arrow Rt-2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	481	1.8
4. Recpt 4	22	481	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	2.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.1
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	1.2	.0	.9	.0	.0	.0	.0	.0	.0	.0	.2

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.1	.0	.0	.0	.0	.2	.0	.0	.0
2. Recpt 2	.0	.0	.3	.0	.0	.3	.0	.0	.0	.1
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: IndianHill at Arrow hwy2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Indian NB	*	14	344	14	440	* AG	1028	4.6	.0	13.2
B. Indian NB	*	14	440	14	492	* AG	765	12.8	.0	13.2
C. Indian NB	*	14	492	14	544	* AG	801	12.8	.0	13.2
D. Indian NB	*	14	544	14	640	* AG	801	4.6	.0	13.2
E. Indian NB	*	14	440	7	492	* AG	263	4.6	.0	13.2
F. Indian SB	*	0	544	7	492	* AG	116	12.8	.0	13.2
G. Indian SB	*	0	640	0	544	* AG	851	4.6	.0	13.2
H. Indian SB	*	0	544	0	492	* AG	735	12.8	.0	13.2
I. Indian SB	*	0	492	0	440	* AG	969	4.6	.0	13.2
J. Indian SB	*	0	440	0	344	* AG	969	12.8	.0	13.2
K. Arrow EB	*	-140	481	-45	481	* AG	1193	4.6	.0	18.0
L. Arrow EB	*	-45	481	7	481	* AG	1076	12.8	.0	18.0
M. Arrow EB	*	7	481	59	481	* AG	1142	12.8	.0	18.0
N. Arrow EB	*	59	481	155	481	* AG	1142	4.6	.0	18.0
O. Arrow WB	*	155	499	59	499	* AG	842	4.6	.0	18.0
P. Arrow WB	*	59	499	7	499	* AG	673	12.8	.0	18.0
Q. Arrow WB	*	7	499	-45	499	* AG	1002	12.8	.0	18.0
R. Arrow WB	*	-45	499	-140	499	* AG	1002	4.6	.0	18.0
S. Arrow EB	*	-45	481	7	492	* AG	117	12.8	.0	18.0
T. Arrow WB	*	59	499	7	492	* AG	169	12.8	.0	18.0

JOB: IndianHill at Arrow hwy2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	1.6	.0	.0	.4	.0	.0	.0	.0	.6	.0	.0
2. Recpt 2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	2.6	.0	.4	.0	.0	.0	.0	.0	.0	.3	.0
4. Recpt 4	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
3. Recpt 3	.0	.6	1.0	.1	.1	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	1.2	.3	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Mills at Foothill-2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	110.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mills NB	*	11	344	11	440	* AG	15	4.6	.0	9.9
B. Mills NB	*	11	440	11	492	* AG	11	12.8	.0	9.9
C. Mills NB	*	11	492	11	544	* AG	1075	12.8	.0	9.9
D. Mills NB	*	11	544	11	640	* AG	1075	4.6	.0	9.9
E. Mills NB	*	11	440	7	492	* AG	4	4.6	.0	9.9
F. Mills SB	*	0	544	7	492	* AG	293	12.8	.0	13.2
G. Mills SB	*	0	640	0	544	* AG	495	4.6	.0	13.2
H. Mills SB	*	0	544	0	492	* AG	202	12.8	.0	13.2
I. Mills SB	*	0	492	0	440	* AG	21	4.6	.0	13.2
J. Mills SB	*	0	440	0	344	* AG	21	12.8	.0	13.2
K. Foothill EB	*	-140	481	-45	481	* AG	1520	4.6	.0	18.0
L. Foothill EB	*	-45	481	7	481	* AG	1028	12.8	.0	18.0
M. Foothill EB	*	7	481	59	481	* AG	1321	12.8	.0	18.0
N. Foothill EB	*	59	481	155	481	* AG	1321	4.6	.0	18.0
O. Foothill WB	*	155	499	59	499	* AG	1628	4.6	.0	18.0
P. Foothill WB	*	59	499	7	499	* AG	1614	12.8	.0	18.0
Q. Foothill WB	*	7	499	-45	499	* AG	1241	12.8	.0	18.0
R. Foothill WB	*	-45	499	-140	499	* AG	1241	4.6	.0	18.0
S. Foothill EB	*	-45	481	7	492	* AG	492	12.8	.0	18.0
T. Foothill WB	*	59	499	7	492	* AG	14	12.8	.0	18.0

JOB: Mills at Foothill-2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-7	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	18	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	3.3	.0	.0	.5	.0	.0	.2	.0	.2	.0	.0
2. Recpt 2	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.4	.2	.0	1.1	.7	.0	.0	.0
2. Recpt 2	.0	.0	.0	.3	.1	1.8	.0	.0	.0	.0
3. Recpt 3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: MonteVista at Arrow Hwy 2025with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	282.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mont Vsta NB	14	344	14	440	AG	1623	4.6	.0	13.2
B. Mont Vsta NB	14	440	14	492	AG	1560	12.8	.0	13.2
C. Mont Vsta NB	14	492	14	544	AG	2407	12.8	.0	13.2
D. Mont Vsta NB	14	544	14	640	AG	2407	4.6	.0	13.2
E. Mont Vsta NB	14	440	7	492	AG	63	4.6	.0	13.2
F. Mont Vsta SB	-4	544	7	492	AG	679	12.8	.0	18.0
G. Mont Vsta SB	-4	640	-4	544	AG	2291	4.6	.0	18.0
H. Mont Vsta SB	-4	544	0	492	AG	1612	12.8	.0	18.0
I. Mont Vsta SB	0	492	0	440	AG	1437	4.6	.0	18.0
J. Mont Vsta SB	0	440	0	344	AG	1437	12.8	.0	18.0
K. Arrow EB	-140	481	-45	481	AG	970	4.6	.0	18.0
L. Arrow EB	-45	481	7	481	AG	705	12.8	.0	18.0
M. Arrow EB	7	481	59	481	AG	1356	12.8	.0	18.0
N. Arrow EB	59	481	155	481	AG	1356	4.6	.0	18.0
O. Arrow WB	155	499	59	499	AG	1031	4.6	.0	18.0
P. Arrow WB	59	499	7	499	AG	981	12.8	.0	18.0
Q. Arrow WB	7	499	-45	499	AG	715	12.8	.0	18.0
R. Arrow WB	-45	499	-140	499	AG	715	4.6	.0	18.0
S. Arrow EB	-45	485	7	492	AG	265	12.8	.0	18.0
T. Arrow WB	59	499	7	492	AG	50	12.8	.0	18.0

JOB: MonteVista at Arrow Hwy 2025with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-7	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	3.5	.0	.0	2.0	.0	.0	.4	.0	.8	.0	.0
3. Recpt 3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	3.3	.0	1.3	.0	.0	.0	.0	.0	.0	.2	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
3. Recpt 3	.2	.8	.0	.0	.0	.0	.0	.1	.1	.0
4. Recpt 4	.0	.6	.7	.0	.0	.0	.0	.1	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: Mont Vsta at Foothill-2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	600. (M)
BRG=	80.0 DEGREES	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Mont Vsta NB	14	344	14	440	AG	2407	4.6	.0	18.0
B. Mont Vsta NB	14	440	14	492	AG	1792	12.8	.0	18.0
C. Mont Vsta NB	14	492	14	544	AG	1462	12.8	.0	18.0
D. Mont Vsta NB	14	544	14	640	AG	1462	4.6	.0	18.0
E. Mont Vsta NB	14	440	7	492	AG	615	4.6	.0	18.0
F. Mont Vsta SB	-4	544	7	492	AG	66	12.8	.0	18.0
G. Mont Vsta SB	-4	640	-4	544	AG	1220	4.6	.0	18.0
H. Mont Vsta SB	-4	544	-4	492	AG	1154	12.8	.0	18.0
I. Mont Vsta SB	-4	492	-4	440	AG	2070	4.6	.0	18.0
J. Mont Vsta SB	-4	440	-4	344	AG	2070	12.8	.0	18.0
K. Foothill EB	-140	481	-45	481	AG	1310	4.6	.0	18.0
L. Foothill EB	-45	481	7	481	AG	1272	12.8	.0	18.0
M. Foothill EB	7	481	59	481	AG	1152	12.8	.0	18.0
N. Foothill EB	59	481	155	481	AG	1152	4.6	.0	18.0
O. Foothill WB	155	499	59	499	AG	831	4.6	.0	18.0
P. Foothill WB	59	499	7	499	AG	516	12.8	.0	18.0
Q. Foothill WB	7	499	-45	499	AG	1084	12.8	.0	18.0
R. Foothill WB	-45	499	-140	499	AG	1084	4.6	.0	18.0
S. Foothill EB	-45	485	7	492	AG	38	12.8	.0	18.0
T. Foothill WB	59	499	7	492	AG	315	12.8	.0	18.0

JOB: Mont Vsta at Foothill-2025 with Project
RUN: Hour 1
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	-11	506	1.8
2. Recpt 2	22	506	1.8
3. Recpt 3	-11	474	1.8
4. Recpt 4	22	474	1.8

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H	I	J
1. Recpt 1	2.0	.0	.0	.6	.0	.0	.0	.0	.8	.0	.0
2. Recpt 2	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	3.5	.0	.8	.0	.0	.1	.0	.0	.0	.5	.0
4. Recpt 4	1.8	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
3. Recpt 3	.0	.8	.9	.1	.1	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	1.2	.3	.1	.0	.0	.0	.0	.0

Appendix F: Noise Impact Analysis

Giroux & Associates
Environmental Consultants

NOISE IMPACT STUDY

COLLEGE PARK PROJECT

UPLAND, CALIFORNIA

Prepared for:

Michael Brandman Associates
Attn: Emilie Johnson, AICP
220 Commerce, Suite 200
Irvine, California 92602

Date:

December 9, 2003

Project No.: P03-139

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NOISE ENVIROMENT SETTING

A quiet environment is a valuable environmental resource that is conducive to psychological and physiological well-being. A consideration of noise exposure must, therefore, be an integral part of the land use planning process for future City of Upland development.

Noise is defined as any sound that is undesirable or interferes with normal hearing processes. Periods of quiet are necessary for human health and welfare. Although the major adverse impact of exposure to an excessively noisy environment is reduced hearing capacity, the psychological impacts of noise exposure at less than hearing loss thresholds are equally important.

There are a variety of technical noise rating scales used to measure the impact of noise source. The basic unit of sound pressure level measurement is the decibel (dB) which allows for comparisons of sounds differing in loudness by factors of a million or more through an easily manageable logarithmic scale. Because the human ear does not respond equally to sounds of all frequencies, multi-spectral noise is weighted more heavily in frequencies of greatest human sensitivity to gauge true auditory response in a process called A-weighting. A-weighted sound levels are the standard representation in California for planning purposes and are reported as dB(A).

Since cumulative noise exposure is the result of a number of isolated noise events, several additional metrics of the noise environments have been developed to describe ambient noise levels. Statistical descriptions can be used to indicate the sound pressure level that is exceeded over some percent of each hour, but a more common approach for impact assessment purposes is the energy equivalent noise level (Leq). Leq is the steady-state noise level that has the same acoustic energy as a time-varying event.

Differences in the perception of noise intrusion as a function of time of day and personal activity level have been incorporated into community noise characterization by applying an artificial penalty to noise levels during evening and nighttime quiet hours. The resulting noise characterization is variously called the Community Noise Equivalent Level (CNEL) or the Day-Night Level (Ldn) which are measures of the 24-hour cumulative noise exposure level at a given location. Communities within the State of California are required, by law, to use the CNEL characterization for land use planning purposes, while federal agencies typically use the Ldn descriptor. In most applications, differences between the Ldn and CNEL metrics are negligibly small. Because CNEL is a 24-hour weighted average, it is particularly well suited for evaluating roadway noise impacts on residential and other noise sensitive uses because both the noise sources as well as the receiver site are potentially active around the clock.

State law (Title 24 of the California Code of Regulations) requires that indoor noise levels in habitable rooms of multi-family dwelling units be limited to a 45 dB (A) CNEL. Since the average attenuation factor for structures with closable windows exceeds 20 dB, a 65 dB(A) CNEL exterior noise exposure level is typically considered to be a desirable maximum exterior noise loading. The Noise Element of the City of Upland General Plan established exterior and interior noise quality standards for land use categories consistent with this sensitivity criterion. The Noise Element specifies acceptable noise exposure based on noise sensitivity of the impacted land use. The Noise Element states that single-family residential uses, as a maximally sensitive land use, can experience a noise exposure of up to 60 dB CNEL without consideration

of special noise abatement procedures. A noise exposure in the range of 60-70 dB(A) CNEL is considered "conditionally acceptable" for residential uses if all available mitigation has been employed and if a means to shut out the noise is provided (usually closed windows with air conditioning). Although 70 dB(A) CNEL is considered "acceptable," City policy seeks to limit noise exposure to 65 dB(A) or less in all usable outdoor space. Noise exposures in excess of 70 dB(A) CNEL for residential uses are strongly discouraged. Figure 1 shows this noise/land use compatibility matrix.

Because noise levels of 65 dB(A) require some form of enhanced acoustical protection to allow the 45 dB(A) standard to be met, the Noise Element recommends that a "noise referral zone" threshold be established that requires acoustical verification of interior standards based upon exterior noise loading. The Noise Element suggests that 57 dB(A) CNEL is an appropriate dividing line between negligible potential impact versus a need for additional analysis.

Project site noise levels derive from a wide variety of sources. Traffic noise along Monte Vista and Arrow Route is pervasive along the eastern and northern site perimeters. The southern site boundary is within view of the Vulcan operations and the Metrorail tracks farther south. The site is under the flight path from Cable Airport. The average site noise level from the airport is shown in the latest noise contour to be approximately 60 dB(A) CNEL near the northern project boundary, and less than 60 dB(A) CNEL over the rest of the site. This airport noise is an annual average and may fluctuate from day-to-day.

In order to better characterize exiting noise conditions, a noise measurement was made for 24+ hours along three site perimeter locations. Measurements were made on the site at 50-65 feet from the Monte Vista and Arrow Route centerline, and within the site interior along the southern site boundary near the Vulcan operations access road. The noise measurements are summarized in Table 1.

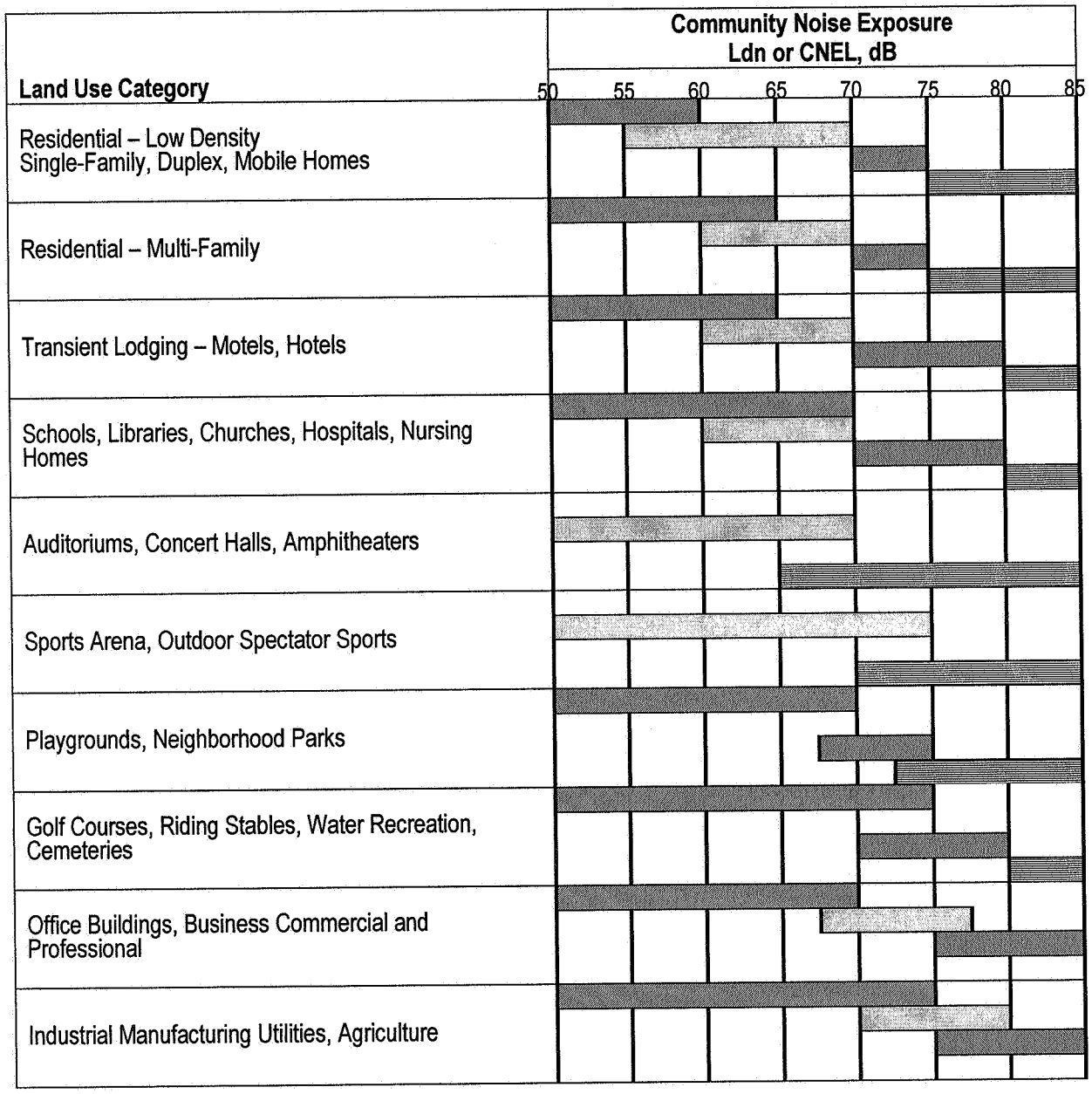
Noise levels close to Monte Vista Avenue are well in excess of City standards. Siting of any noise-sensitive uses close to Monte Vista Avenue will require noise mitigation. Noise levels from non-traffic sources did not appreciably affect any part of the project site. There was no clear-cut noise "signature" from Vulcan, the trains or from aircraft. These sources are masked by traffic noise along the site perimeter, and their combined effects are well below the 65 dB(A) CNEL threshold within the site interior. To the extent that these measurement days are representative of Vulcan operations and/or train activities, these noise sources do not appear to be a significant constraint to proposed residential development.

Site 3 was selected to observe both aggregate activity noise, as well as to observe possible single-event noise from Metrolink trains on tracks located perhaps 1,000 feet from the project site. The aggregate activity noise would be reflected in an elevated background noise. The train noise, if audible, would be seen in individual "spikes" associated with peak usage hours.

The lack of Metrolink audibility on the project site is reflected in the fact that the quietest hours (lowest value spikes) were from 6:00 a.m. to 10:00 a.m. and 5:00 p.m. to 7:00 p.m. when there was considerable track activity. Peak noise levels during these time periods were in the mid- to upper-60 dB range. From 10:00 a.m. to 5:00 p.m., single-event maxima were in the low- to mid-70 dB range.

Figure 1

Land Use Compatibility for Community Noise Environments



INTERPRETATION

Normally Acceptable: Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. 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.

Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: State of California Governor's Office of Planning and Research, General Plan Guidelines, 1990.

Table 1

On-Site Noise Monitoring Summary
(dB[A], November 18-19, 2003)

Parameter	Site 1	Site 2	Site 3
24-Hour CNEL	73	65	62
Peak 1-Hour Leq	71	63	61
When (?)	6-7 a.m.	7-8 a.m.	7-8 a.m.
2nd-High Leq	71	62	59
When (?)	7-8 a.m.	6-7 a.m. 5-7 p.m.	6-7 a.m. 6-7 p.m.
Min. 1-Hour Leq	60	52	52
When (?)	0-3 a.m.	2-3 a.m.	3-4 a.m.
1 Second Maximum	92	80	80
1-Second Minimum	42	42	42

Site 1=50 feet to Monte Vista centerline.
Site 2=65 feet to Arrow Route centerline.
Site 3=Near Vulcan access road on project site.

The lack of clear train noise audibility is not unexpected given the character of train noise and the degree of geometrical spreading losses between the source and the receiver. The peak noise level from a Metrolink train is around 88 dBA at 50 feet from the tracks according to federal rail environmental guidelines. The spreading loss in propagation from 50 to 1,100 feet is -27 dBA. The expected peak train noise on the project site is therefore 61 dBA. This level is much lower than the single-event maxima observed from other existing peak noise sources on the project site. Peak train noise is expected to be masked by louder existing non-train activity sources.

The aggregate operations were similarly almost inaudible at the southern property line noise monitor. The background noise levels from 6:00 a.m. to 8:00 a.m. during plant operations were 2 dB higher than in the evening without plant operations. The maximum plausible plant noise level was near 50 dB at the southern boundary. This is well below the existing background level. Plant operation noise will be substantially masked by non-plant background levels.

NOISE IMPACTS

Two characteristic noise sources are typically identified with land use intensification such as that proposed for the College Park project area. Construction activities, especially heavy equipment, will create short-term noise increases near the project site. Such impacts could be important for noise-sensitive receptors such as completed and occupied residences when uncompleted commercial phases are developed. Upon completion, project-related traffic will cause an incremental increase in areawide noise levels throughout the project area. Such impacts may affect off-site uses, and may also affect noise-sensitive on-site uses such as residences or hotels, or outdoor eating areas at quick-serve restaurants.

Standards of Significance

CEQA Guidelines identify significant impacts as those that cause standards to be exceeded when they are currently met. An impact is also considered significant if it "substantially" worsens an existing unacceptable noise environment.

"Substantially" is not defined in any guidelines. The accuracy of sound level meters and of sound propagation computer models is no better than ± 1 dB. This is also the human loudness difference discrimination level under ideal laboratory conditions. Most people cannot distinguish a change in the noise environment that differs by less than 3 dB between the pre- and post-project exposure if the change occurs under ambient conditions. For the purposes of this analysis, an increase of 3 dB which creates or worsens an area of noise/land use incompatibility would be considered a significant degradation of noise quality.

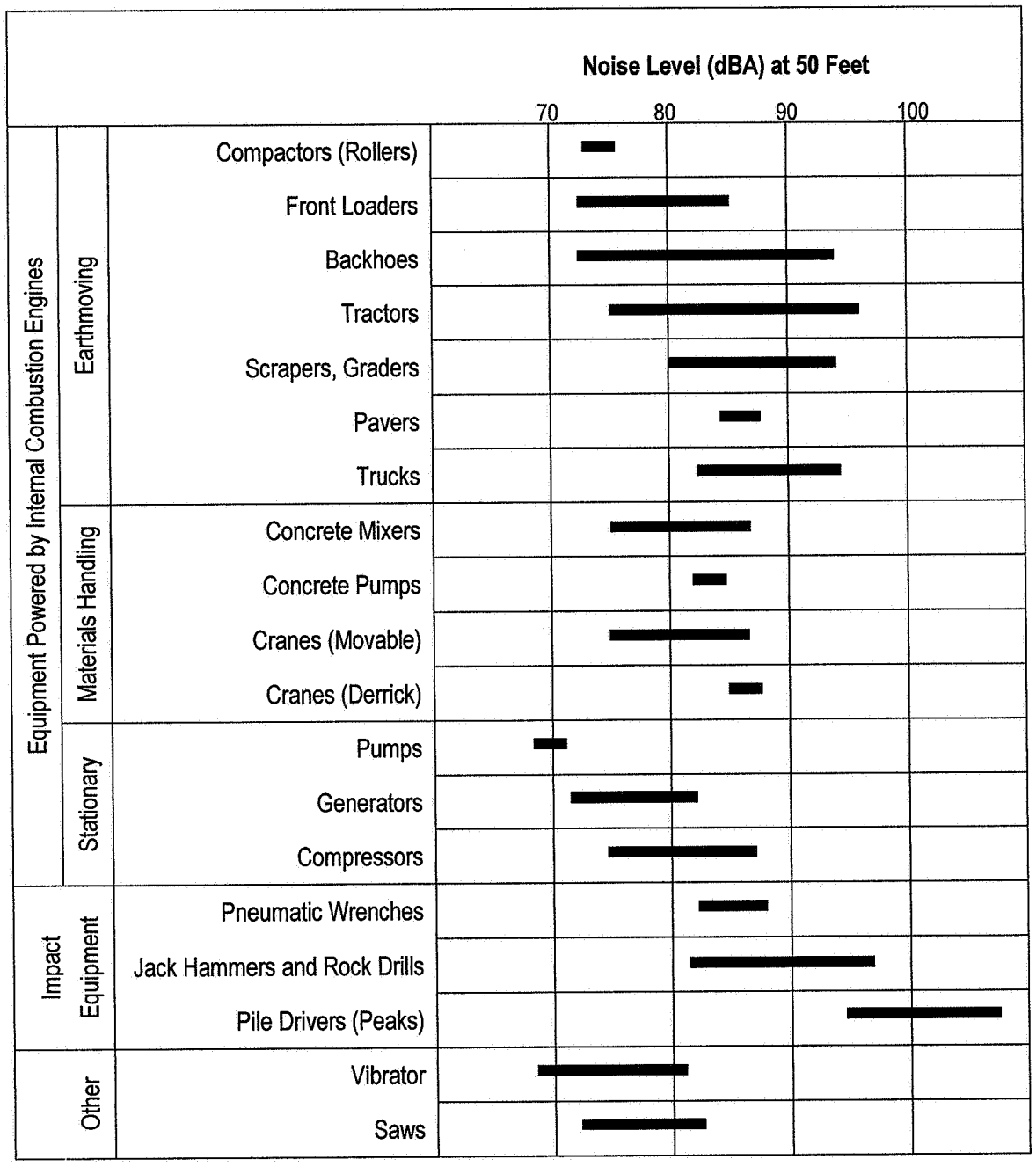
Because of the logarithmic relationship between traffic volumes and noise levels, it requires a dramatic increase in traffic to create even a perceptible change in noise levels. A +1 dB increase requires a 25 percent greater traffic volume. A +3 dB noise increase occurs when volumes double. In areas where traffic levels are already high enough to create a noise concern, few projects would individually cause traffic volumes to double. Off-site traffic noise impacts tend therefore to be more of a cumulative, rather than an individual impact.

Construction Noise Impacts

Temporary construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially be earth-moving sources, then by foundation and roadway construction, and finally for finish construction. The earth-moving sources are the noisiest with equipment noise ranging up to about 90 dB(A) at 50 feet from the source. Figure 2 shows the range of typical construction noise during various construction phases. Spherically radiating point sources of noise emissions are atmospherically attenuated by a factor of 6 dB per doubling of distance. The earth-moving noise sources could thus be detectable beyond about 1,000 feet from the construction area. Because uneven terrain or physical structure such as completed development tends to shield certain propagation directions, the heavy equipment construction noise "envelope" is somewhat reduced in portions of the local area by obstruction of line of site noise propagation.

Figure 2

Typical Construction Equipment Noise Generation Levels



Source: EPA PB 206717, Environmental Protection Agency, December 31, 1971, "Noise from Construction Equipment and Operations."

On-site heavy equipment operations during site grading will generate noise levels similar to those generated for many years by sand and gravel extraction. The reclamation plan was designed to leave the site rough-graded with appropriate slope and drainage to minimize the need for extensive additional grading. Project grading will require generally smaller equipment. Grading activity noise will likely be less than previously experienced, and will be of generally short duration.

Construction noise sources are not strictly relatable to a noise standard because they occur only during selected times and the source strength varies sharply with time. The penalty associated with noise disturbance usually leads to time limits on construction activities imposed as conditions on construction permits. The hours from 7:00 a.m. to 6:00 p.m. on weekdays are the times allowed in the City of Upland Noise Ordinance (Municipal Code Section 5400.1000.130) for construction activities. In order to further minimize possible construction noise conflict, all off-road construction equipment is required to have a properly operated and maintained muffler. Any project site stockpiling or equipment/ vehicle staging should be conducted as far as practicable from occupied dwellings or other nearby noise-sensitive land uses.

Materials handling and small stationary noise sources during later stages of construction have lower initial noise levels, and their corresponding noise impact zones are, therefore, much smaller. Noise emissions from cement trucks, fork lifts, compressors, pumps, etc. are generally attenuated to acceptable levels within a few hundred feet of the noise source. As structures are built on the parcel, they will help protect the nearest receptors and further confine the primary noise impact zone within the immediate vicinity of the development itself. Construction noise impacts, particularly because of the limited grading requirements for this project, are not expected to create a significant noise impact if they comply with standard City conditions.

Vehicular Noise Impacts

Long term noise concerns from the site development, both in terms of project traffic noise impacts and project noise exposure to ambient noise levels, center primarily on mobile source emissions on the roadways surrounding the project site. College Park at full build-out is forecast to add 14,430 average daily trips (ADT) to local roadway systems. A portion of this traffic will be from one use to another within the development (internal capture). Some commercial traffic will be from cars already on local streets that stop for goods or services, and then continue to their original destination (pass-by traffic). With "credit" for internal trips and pass-by reductions, the estimated net "new" traffic is 11,130 ADT.

Existing vehicular noise distributions and changes attributable to project development were calculated using the California specific vehicle noise curves (CALVENO) in the federal roadway noise model (the FHWA Highway Traffic Noise Prediction Model, FHWA-RD-77-108). The model calculates the Leq noise level for a particular reference set of input conditions, and then makes a series of adjustments for site-specific traffic volumes, distances, speeds, or noise barriers. Table 2 shows CNEL level (dBA) at 50 feet from the centerline of 36 roadway links in the project vicinity.

Table 2

College Park Traffic Noise Impact Analysis
(CNEL in dBA @ 50 feet to centerline)

Roadway/Segment	Existing	2006		2025	
		No Project	With Project	No Project	With Project
Foothill Blvd.					
W of Mills	71.3	71.8	71.9	72.2	72.3
Mills-Claremont	70.8	71.4	71.5	72.3	72.4
Claremont-Monte Vista	70.6	71.2	71.2	71.7	71.7
Monte Vista-Central	71.0	71.7	71.8	70.5	70.7
E of Central	71.6	72.5	72.5	70.7	70.8
6th Street/Arrow Route					
W of Claremont	64.4	64.6	65.4	64.4	65.3
Claremont-Monte Vista	65.5	66.1	67.2	67.4	68.3
Monte Vista-Central	66.1	67.1	67.4	68.2	68.4
Central-Benson	67.4	67.8	68.0	69.6	69.8
E of Benson	67.9	68.4	68.6	69.3	69.5
Arrow Hwy.					
W of Claremont	70.3	70.7	70.8	70.8	70.9
Claremont-Monte Vista	70.2	70.5	70.5	69.7	69.7
Monte Vista-Central	69.2	69.6	70.0	71.3	71.6
Central-Benson	69.0	69.4	69.6	70.3	70.5
E of Benson	68.7	69.1	69.3	71.4	71.5
Moreno St.					
Claremont-Monte Vista	63.7	63.8	63.9	66.5	66.5
Monte Vista-Central	68.2	68.3	68.3	69.5	69.5
E of Central	68.9	69.0	69.0	69.4	69.5

Table 2
(continued)

Roadway/Segment	Existing	2006		2025	
		No Project	With Project	No Project	With Project
Mills Ave.					
N of Foothill	66.2	66.7	66.7	69.8	69.8
Claremont Blvd.					
N of Foothill	66.6	67.0	67.0	65.8	65.8
Foothill-Arrow Route	66.5	66.9	67.5	68.0	68.4
Arrow Route-Arrow Hwy.	66.7	67.5	67.9	67.7	68.1
Arrow Hwy. – Moreno	65.9	66.5	66.8	70.1	70.3
S of Moreno	66.4	67.0	67.3	69.6	69.8
Monte Vista Ave.					
N of Foothill	68.7	69.9	70.0	72.0	72.1
Foothill-Arrow Route	69.4	70.2	70.5	74.4	74.5
Arrow Route-Arrow Hwy.	70.0	70.8	71.4	74.2	74.5
Arrow Hwy.-Moreno	70.5	71.1	71.5	72.4	72.7
S of Moreno	71.0	71.6	71.8	72.4	72.7
Central Ave.					
Foothill-Arrow Route	69.5	70.1	70.1	69.8	69.8
Arrow Route-Arrow Hwy.	70.5	71.1	71.1	70.7	70.7
Arrow Hwy.-Moreno	71.6	72.1	72.2	72.7	72.8
S of Moreno	73.1	73.4	73.5	74.3	74.4
Benson Ave.					
N of Arrow Route	69.9	70.6	70.6	70.4	70.4
Arrow Route-8th St.	69.7	70.3	70.3	71.0	71.0
S of 8th Street	69.1	69.6	69.6	70.4	70.4

The maximum project-related noise impact, represented by the difference between the "with project" versus "no project" condition, is 1.1 dBA CNEL or less at any analysis location. The maximum project contribution 1.1 dBA CNEL would occur along Arrow Route between Claremont Blvd. and Monte Vista Ave. Changes of less than 1.5 dB are imperceptible to human listeners even under laboratory conditions. The adopted significance threshold is +3.0 dB. Project related changes in traffic noise are therefore considered less-than-significant.

The small increase in CNEL levels in Table 2 is reflected in a correspondingly small increase in the 65 dBA CNEL contour distance in Table 3. The maximum increase in contour distance is +15 feet along Monte Vista Avenue between Arrow Route and Arrow Highway along the eastern project site perimeter. The average increase is +5 feet. Project-related traffic noise will not expose any substantial number of noise-sensitive uses to noise levels exceeding City of Upland standards. Project traffic will also not substantially increase levels at receivers already exposed to excessive noise.

The project site, particularly along the Monte Vista Avenue frontage, will have traffic noise constraints for proposed development in closest proximity to the roadway. Potential uses that may require exterior noise protection (by barriers or by setback) include the hotel swimming pool, the outdoor eating areas at quick-service restaurants and patios or decks from apartments adjacent to Monte Vista. Recreation areas for the apartments are planned to be located within the site interior with shielding by project perimeter buildings.

When exterior noise levels exceed 65 dBA CNEL, it requires more than "standard" construction practice to achieve an acceptable 45 dBA CNEL interior level. The distances in Table 3 refer to ground-level uses where noise propagation is characterized by acoustically "soft" conditions. For upstairs uses where there is minimal ground absorption or scattering of sound waves, the potential noise constraint for meeting indoor standards extends somewhat farther from the roadway than the distances shown in Table 3.

For build-out conditions, the noise impact distances across the project site under clear line-of-sight conditions are as follows (feet from centerline):

Noise Level (dBA CNEL)	Impact Consideration	Monte Vista		Arrow Route	
		Ground Level (feet	Upstairs (feet)	Ground Level (feet	Upstairs (feet)
57	"Noise Referral Zone"	735	2,820	285	675
65	Outdoor Recreation and Upgraded Structural Features	215	445	85	105
70	Commercial Outdoor Use	100	N/A	<50	N/A

Table 3

College Park Traffic Noise Impact Analysis
(Distance to the 65 dB CNEL contour (feet) from centerline)

Roadway/Segment	Existing (feet)	2006		2025	
		No Project (feet)	With Project (feet)	No Project (feet)	With Project (feet)
Foothill Blvd.					
W of Mills	130	140	145	150	155
Mills-Claremont	125	135	135	155	155
Claremont-Monte Vista	120	130	130	140	140
Monte Vista-Central	125	140	140	115	120
E of Central	140	155	160	120	120
6th Street/Arrow Route					
W of Claremont	<50	<50	55	<50	50
Claremont-Monte Vista	55	60	70	75	85
Monte Vista-Central	60	70	75	80	85
Central-Benson	75	75	80	100	105
E of Benson	80	85	85	95	100
Arrow Hwy.					
W of Claremont	115	120	120	120	125
Claremont-Monte Vista	110	115	115	100	105
Monte Vista-Central	95	100	110	130	140
Central-Benson	95	100	100	115	115
E of Benson	90	95	95	135	135
Moreno St.					
Claremont-Monte Vista	<50	<50	<50	65	65
Monte Vista-Central	80	85	85	100	100
E of Central	90	90	95	100	100

Table 3
(continued)

Roadway/Segment	Existing (feet)	2006		2025	
		No Project (feet)	With Project (feet)	No Project (feet)	With Project (feet)
Mills Ave.					
N of Foothill	60	65	65	105	105
Claremont Blvd.					
N of Foothill	65	70	70	55	55
Foothill-Arrow Route	65	65	75	80	85
Arrow Route-Arrow Hwy.	65	75	80	75	80
Arrow Hwy. – Moreno	55	65	65	110	115
S of Moreno	60	70	70	100	105
Monte Vista Ave.					
N of Foothill	90	105	110	150	150
Foothill-Arrow Route	100	110	115	210	215
Arrow Route-Arrow Hwy.	110	120	135	205	215
Arrow Hwy.-Moreno	115	130	135	155	160
S of Moreno	125	135	145	155	165
Central Ave.					
Foothill-Arrow Route	100	110	110	105	105
Arrow Route-Arrow Hwy.	115	130	130	120	120
Arrow Hwy.-Moreno	140	150	150	165	165
S of Moreno	170	180	185	210	215
Benson Ave.					
N of Arrow Route	105	120	120	115	115
Arrow Route-8th St.	105	115	115	125	125
S of 8th Street	95	100	100	115	115

Outdoor uses at the apartments along Monte Vista Avenue appear to be the project site uses that have the greatest requirement for noise impact mitigation. Any outdoor ground-level patios within 215 feet of the Monte Vista Avenue centerline will require a noise wall under clear line-of-sight conditions. Downstairs units within this contour distance will require upgraded windows and supplemental ventilation in order to meet interior standards. Upstairs units as far as 445 feet from the Monte Vista centerline could be noise-impacted (requiring partial balcony/deck enclosure and dual-paned windows). Because structures along the site perimeter will shield interior buildings, the maximum zone of potential noise impact will not be realized. Mitigation will be mainly required for east-facades of the proposed apartments directly facing Monte Vista Avenue. The north and south faces will have partly restricted views, but may require noise protection.

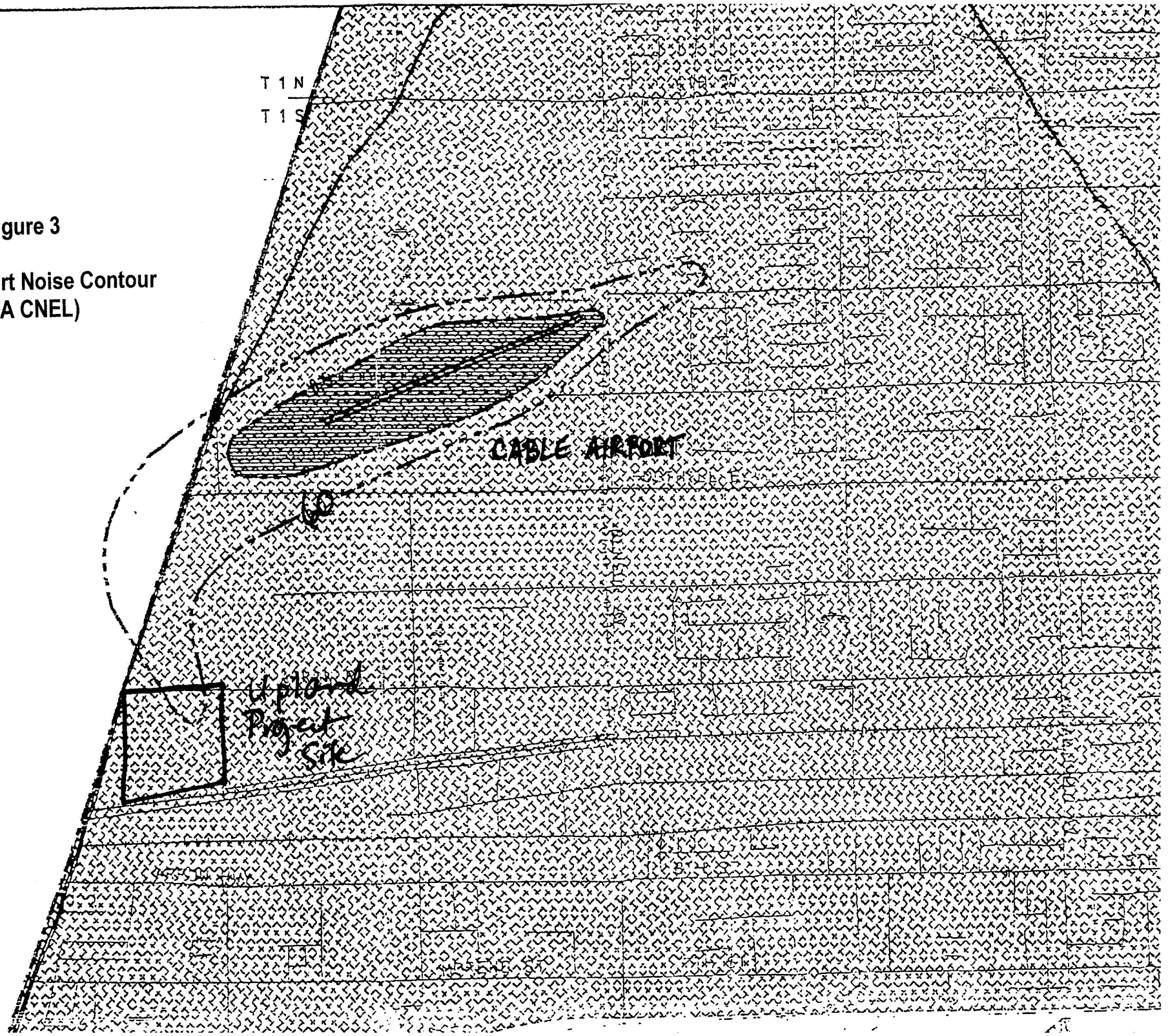
For the setbacks shown on the conceptual site plan, the degree of "excess" noise is 5-6 dB at upstairs balconies or windows. The noise reduction benefit of a 5- to 6-foot glass shield on a deck or balcony will achieve 65 dBA CNEL. Similarly, the added noise reduction from dual-paned windows and other minor noise improvements is 7-8 dB more than achievable with single-paned windows. Noise exposures of the proposed apartments closest to Monte Vista Avenue are therefore significant, but mitigable to less-than-significant levels.

Commercial activity outdoor uses will have adequate setback from perimeter roadways as to not be noise-impacted. On-site noise measurements along the southern site boundary indicate minimal potential for any significant noise intrusion from the Vulcan Materials operations or from Metrorail train traffic.

The traffic noise analysis does not consider the effects of Cable Airport flight activity noise that will be superimposed upon any roadway traffic sources. Figure 3 shows that the 60 dBA CNEL contour extends slightly into the northern site boundary. Much of the rest of the site has an aircraft noise exposure of less than 60 dBA CNEL. The combination of a 65 dBA CNEL traffic noise contour (noise compatibility for noise-sensitive uses) and a 60 dBA CNEL airport contribution is 66 dBA CNEL. A one (1) dBA contribution is imperceptible. Superposition of the airport noise "signature" upon any on-road traffic impacts will not perceptibly increase the traffic noise constraint to proposed site development.

Figure 3

Cable Airport Noise Contour (dBA CNEL)



MITIGATION

The following measures are required to achieve a less-than-significant noise impact:

1. Construction: All activities shall comply with City of Upland ordinance requirements, including limiting construction hours from 7:00 a.m. to 6:00 p.m. weekdays only, using properly muffled equipment, and locating staging areas away from occupied noise-sensitive uses.

2. Exterior Protection: Noise protection for usable exterior space (patios, balconies, etc) within 445 feet of Monte Vista Avenue with clear lines-of-sight of the roadway shall be evaluated and implemented prior to final occupancy. Such protection shall include solid walls (masonry, wood, glass, etc.) shielding such uses from roadway noise.

3. Interior Protection: Apartments within 445 feet of Monte Vista Avenue with direct roadway views will employ dual-paned windows in noise-sensitive rooms, and will be air conditioned to allow for window closure.

APPENDIX

Noise Analysis Traffic Input Data:

CNEL = 67.84 (10,000 ADT ref. Value)

+ 10 * LOG (ADT/10,000) in dB(A))

Table X

Noise Calculation Input Data (ADT)

Roadway/Segment	Existing	2006		2025	
		No Project	With Project	No Project	With Project
Foothill Blvd.					
W of Mills	22,030	24,810	25,380	27,040	27,610
E of Mills	19,260	21,980	22,550	28,920	29,490
W of Claremont	20,620	23,580	24,150	26,950	27,520
E of Claremont	18,550	21,520	21,520	24,280	24,280
W of Monte Vista	19,140	22,230	22,230	23,940	23,940
E of Monte Vista	20,850	24,280	24,980	19,230	19,830
W of Central	20,250	23,770	24,380	17,760	18,370
E of Central	23,790	28,930	29,300	19,180	19,550
Arrow Route/6th Street					
W of Claremont	4,550	4,750	5,730	4,540	5,520
E of Claremont	5,800	6,320	8,780	8,820	11,280
W of Monte Vista	5,900	6,990	8,620	9,360	10,990
E of Monte Vista	6,790	8,550	9,140	10,840	11,430
W of Central	6,690	8,460	9,040	10,740	11,320
E of Central	8,070	8,990	9,510	14,260	14,780
W of Benson	9,850	10,850	11,360	16,010	16,520
E of Benson	10,130	11,300	11,790	14,030	14,520
Arrow Hwy.					
W of Claremont	17,600	19,270	19,780	19,790	20,300
E of Claremont	16,780	18,170	18,310	13,650	13,790
W of Monte Vista	17,280	18,580	18,720	16,710	16,850
E of Monte Vista	13,710	14,750	16,410	22,210	23,870
W of Central	13,860	14,910	16,480	22,420	23,990
E of Central	13,160	14,190	15,070	16,970	17,850
W of Benson	13,250	14,410	15,010	18,470	19,070
E of Benson	12,320	13,520	14,030	22,950	23,460

Roadway/Segment	Existing	2006		2025	
		No Project	With Project	No Project	With Project
Moreno St.					
E of Claremont	3,350	3,450	3,450	7,610	7,610
W of Monte Vista	4,380	4,510	4,660	7,030	7,180
E of Monte Vista	9,290	9,570	9,800	12,380	12,610
W of Central	12,230	12,600	12,600	16,940	16,940
E of Central	12,620	13,000	13,060	14,430	14,490
Mills Ave.					
N of Foothill	6,930	7,650	7,740	15,660	15,700
Claremont Blvd.					
N of Foothill	7,520	8,300	8,300	6,300	6,300
S of Foothill	7,210	8,420	8,990	9,790	10,360
N of Arrow Route	7,510	7,730	9,300	10,760	12,330
S of Arrow Route	7,720	9,180	10,090	9,720	10,630
N of Arrow Hwy.	7,800	9,200	10,000	9,750	10,650
S of Arrow Hwy.	6,190	7,200	7,730	16,810	17,340
N of Moreno	6,560	7,580	8,110	17,160	17,690
S of Moreno	7,190	8,230	8,760	15,170	15,700
Monte Vista Ave.					
N of Foothill	12,150	15,910	16,460	26,270	26,820
S of Foothill	14,000	16,860	18,010	43,620	44,770
N of Arrow Route	14,480	17,230	18,500	46,180	47,450
S of Arrow Route	15,770	18,770	20,930	42,800	44,960
N of Arrow Hwy.	17,410	20,520	24,210	43,290	46,980
S of Arrow Hwy.	18,190	21,030	22,920	28,710	30,600
N of Moreno	18,430	21,290	23,170	28,120	30,000
S of Moreno	20,640	23,550	25,050	28,890	30,390

Roadway/Segment	Existing	2006		2025	
		No Project	With Project	No Project	With Project
Central Ave.					
S of Foothill	13,850	16,090	16,110	14,500	14,520
N of 6th St.	15,360	17,650	17,710	16,830	16,890
S of 6th St.	17,860	20,500	20,500	18,450	18,450
N of Arrow Hwy.	19,110	21,790	21,790	19,860	19,860
S of Arrow Hwy.	21,850	24,250	24,940	28,610	29,300
N of Moreno	26,060	28,700	29,390	33,100	33,790
S of Moreno	33,190	36,040	36,670	44,770	45,400
Benson Ave.					
N of 6th St.	16,250	18,690	18,720	18,100	18,130
S of 6th St.	15,870	17,970	17,970	21,060	21,060
N of Arrow Hwy.	15,150	17,250	17,250	20,550	20,550
S of Arrow Hwy.	13,360	14,900	15,170	18,130	18,400

Appendix G: Cultural/Scientific Resources Report

Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

February 4, 2004

Jeffrey A. Bloom
Community Development Director
460 North Euclid Avenue
Upland, California 91786

Subject: **Cultural Resource Survey Report and Paleontological Records Review for the College Park Project located southwest of the intersection of Monte Vista Avenue and West Arrow Route, Upland, San Bernardino County, California.**

Dear Mr. Bloom:

Enclosed is a letter report associated with a CEQA-protocol cultural resource survey and paleontological review of the College Park project. The findings of the study were positive and limited mitigation-monitoring is required.

If you have any questions or concerns regarding this report, please do not hesitate to call me or MBA Project Manager Emilie Johnson at 714.508.4100.

Sincerely,
MICHAEL BRANDMAN ASSOCIATES

Michael Dice, M.A.
Senior Archaeologist

Enclosures: Appendix A: Photographs of the Study Area
Appendix B: Personnel Qualifications
Appendix C: Compliance Documents

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Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

An Archaeological Resource Evaluation and Paleontological Records Search for the College Park Project, Monte Vista Avenue and West Arrow Route, City of Upland, San Bernardino County, California.

Final

Prepared for:

Jeffrey A. Bloom
Community Development Director
460 North Euclid Avenue
Upland, California 91786

Prepared by:

Michael Dice, M.A.
Senior Archaeologist

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Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602

February 4, 2004

Keywords: City of Upland, Bridge No. 54C0468 (Gravel Pit Bridge)

USGS *Ontario, CA.* 7.5' topographic quadrangle map

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Section 1.0. Public Information Statement

1.1 Location and Study Area

At the request of the City of Upland, Michael Brandman Associates (MBA) has conducted a cultural resource records review, field survey and paleontological review of acreage located in the City of Upland, California. The College Park Master Plan is a proposed mixed-use development that will consist of a 44,335 square-foot (sf) retail center, a 48,000 sf two-level office building, a 51,080 sf business hotel with 102 rooms, 50 single-family homes and 498 apartment units. Under the current development plan, which shall be modified/clarified prior to submission of the EIR, the southern half of West Arrow Route shall be widened, and a bridge (Bridge No 54C0468) shall be demolished. Traffic signals and intersection improvements shall be constructed at the Arrow Route/Monte Vista intersection, in addition to other improvements.

The project site consists of 38.69 acres of vacant land that is located south of Arrow Route and west of Monte Vista Avenue in the western portion of the City of Upland, California. The site is located within the City of Upland, but is bordered by the City of Claremont, the Claremont Colleges and the Los Angeles County line on the west, San Bernardino County on the north and the City of Montclair on the south.

1.2 Purpose

The purpose of this report is to delineate the location of the study area, identify all potentially significant cultural and paleontological resources situated within the study area and, if impacted by the proposed development, propose recommendations for mitigation where necessary. Completion of this investigation fulfills the requirements of the National Environmental Policy Act (NEPA), protocols associated with the California Environmental Quality Act (CEQA), the National Historic Preservation Act (NHPA) as Amended, and Executive Order 11593 requirements. This report follows the California State Historic Preservation Office (SHPO) recommended Archaeological Resource management Report (ARMR) archaeological reporting format and fulfills all protocols associated with CEQA and NEPA-level archaeological studies.

1.3 Report Overview

This report is organized into sections and appendices, which are summarized as follows:

- Section 2 reviews the goals of this study.
- Section 3 summarizes the environmental and cultural setting.
- Section 4 presents the investigative methods.
- Section 5 reviews background information.
- Section 6 delineates the results of the cultural resource survey and paleontological review.
- Section 7 summarizes the project and provides management recommendations.
- Section 8 presents a reference list.
- Section 9 contains the project certification.
- Appendix A provides recent photographs of the Study Area.
- Appendix B presents personnel qualifications.
- Appendix C presents archaeological compliance documents and other compliance documents.
- Appendix D presents historic DPR site forms associated evaluation of Bridge #54C0468.

1.4 Research

On July 21, 2003, Archaeological Information Center (AIC) staff researcher Robin Laska, M.A. conducted the records search at the AIC, which is located at the San Bernardino County Museum, Redlands. A one-mile search radius about the margins of the project area was examined. To identify any historic properties, the AIC examined the current inventories of the National Register of Historic Places (NR), the California Register (CR), the California Historical Landmarks list (CHL), and the California Points of Historical Interest list (CPHI). The AIC also reviewed the California State Historic Resources Inventory (HRI) for San Bernardino County to determine the existence of previously documented local historical resources. Archival maps were examined to help locate any previously plotted historic resources in the area. MBA staff archaeologist Marnie Aislin Kay surveyed the project area on September 3, 2003.

Bridge 54C0468 was detected during the survey. Because the bridge is more than 45 years old and is proposed for demolition, an evaluation of the structure was required in order to fulfill CEQA cultural resource mandates. Christeen Taniguchi, MBA staff architectural historian, evaluated the structure in December of 2003.

Geological maps were inspected to determine the type of alluvial or bedrock rock units located in the area. Given these facts, the level of paleontological sensitivity could be determined. Much of the site exhibits an open sand and gravel pit along with fill removed from the pit.

1.5 Findings Summary

The results of the records search indicated that one recorded cultural property (P#36-016454/PSBR-2H) has been recorded within the project area. The on-site historic property is described is also known as the "Old San Bernardino Road", which was a transportation route originally established in about 1830. Ms. Laska determined that the prehistoric sensitivity of the project area should be considered "high" and the historic sensitivity should be considered "high" and that a cultural resources survey should take place.

During the cultural resources survey, one cultural property was detected in the study area. This is Bridge No. 54C0468 (Gravel Pit Bridge), which according to Caltrans was constructed in 1940, but was actually constructed in 1926. The results of the evaluation showed that the bridge structure is not eligible for the National Register and/or the California Register and therefore is not considered a historic resource for mitigative purposes. We believe that our research shows that the bridge can be demolished without additional mitigative measures imposed upon its loss.

The map search showed that the type of alluvium located in this area is from the Holocene era, which is of low paleontological sensitivity. It is highly unlikely any vertebrate fossils would be impacted during earthmoving. Paleontological resource monitoring is not recommended during all earthmoving phases of site development, because there is a low-to-none chance that buried cultural materials will be uncovered during grading.

Section 2.0. Introduction

Michael Brandman Associates has conducted a cultural resource records search, field survey, historic structure evaluation, and paleontological review for the College Park Project in the City of Upland. The Proponent proposes to fill in an existing gravel pit and construct a mixed-use

development on approximately 38 acres of land. The property is bordered by the Southern Pacific railroad tracks to the south, West Arrow Route to the north, the City of Claremont and the Los Angeles County line to the west, and Monte Vista Avenue to the east. The project site is located in the northwestern section of the City of Upland (see Exhibit 1).

The cultural resource fieldwork took place on September 3, 2003. The cultural records search took place on July 21, 2003. The study area was surveyed for cultural resources utilizing procedures noted in Section 4.0.

The cultural resource assessment was performed to comply with CEQA and 36CFR800 implementing regulations (Section 106) found in the National Historic Preservation Act (NHPA 1999; Archnet 1999), the National Register of Historic Places (NRHP 1999, ParkNet 2001) and the National Environmental Policy Act (NEPA). This report closely follows the ARMR reporting format as is currently recommended by the California State Office of Historic Preservation (SHPO).

2.1 Resource Assessment Goals

The goal of this project was to identify any significant cultural and paleontological resources situated within the boundaries of the defined study area.

The resource study consisted of six distinct efforts:

1. Cultural resource record search conducted to determine whether any previously recorded cultural materials are present within the boundaries of the study area, or within a one-mile radius of the study area.
2. Paleontological map research to determine the level of sensitivity for fossil resources.
3. A protocol block-transect survey of the project area, where possible.
4. Examination of archived aerial photographs, topographic maps and road maps that might reveal historic land use.
5. Evaluation of a historic bridge that will be affected by development of the property.
6. Development of mitigation recommendations.

Section 3.0. Environmental and Cultural Setting

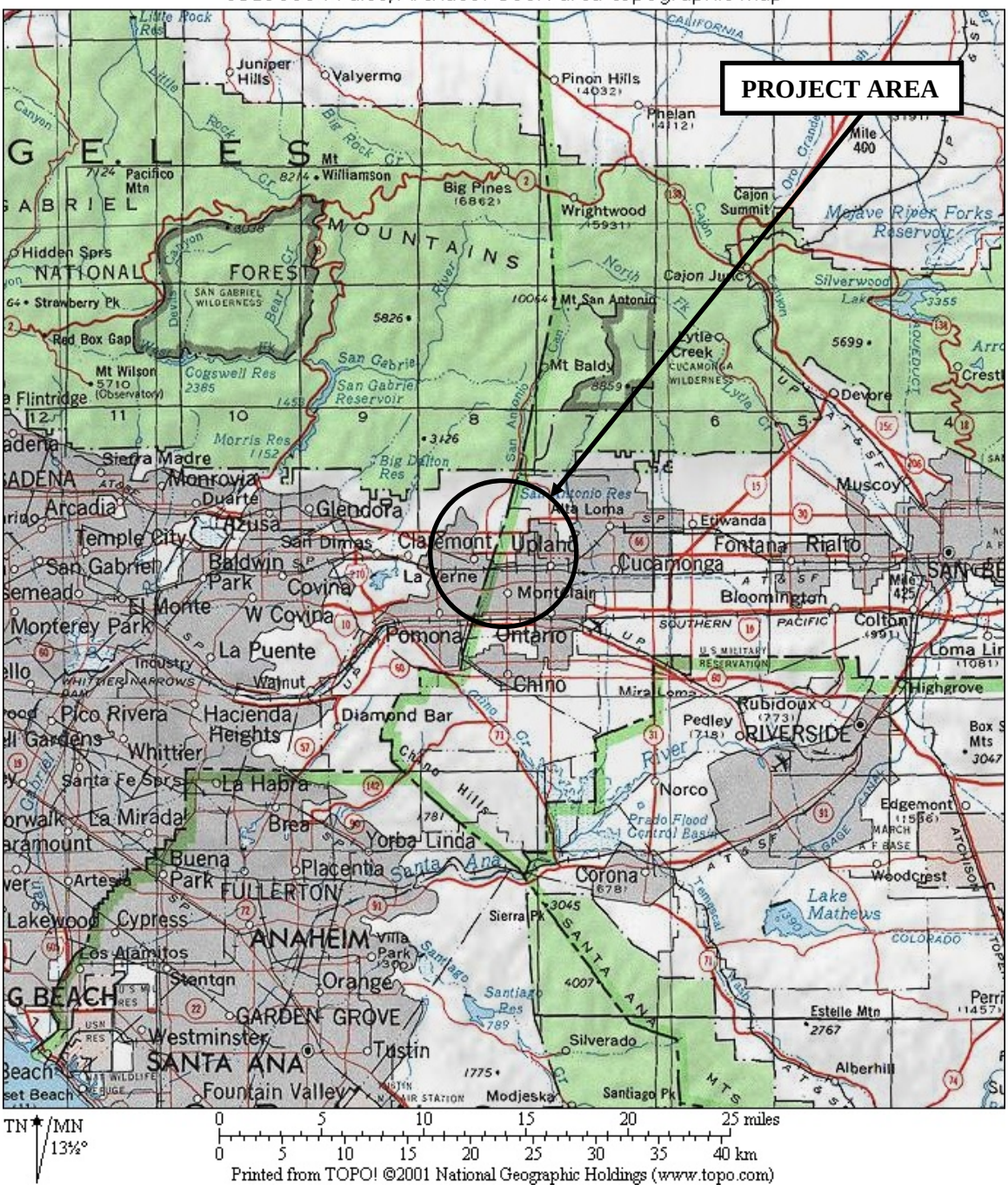
3.1 Location

As seen in Exhibit 2, the project area is located southwest of the intersection of Monte Vista Avenue and West Arrow Route, City of Upland. The project is located in Section 10 of T.1S R.8W (SBBM), as found on the USGS *Ontario*, CA. 7.5' topographic quadrangle (Exhibit 2). The project area could be easily accessed, and roughly 10 acres of the 38-acre project site could be surveyed to protocol. The remaining 28 areas are located in an abandoned gravel pit.

3.2 Topography

The topography of the study area is typical of the junction of the eastern San Gabriel Range and the alluvial fans that have developed along the southern margin of the range. The landscape consists of foothills, cut by occasional washes, and rolling, alluvium-covered slopes. The project area rests on an alluvial fan that is quite massive, having developed during millions of years of flooding from the San Antonio and Cucamonga Canyons.

05190004 Paleo/Archaeo: 500K area topographic map



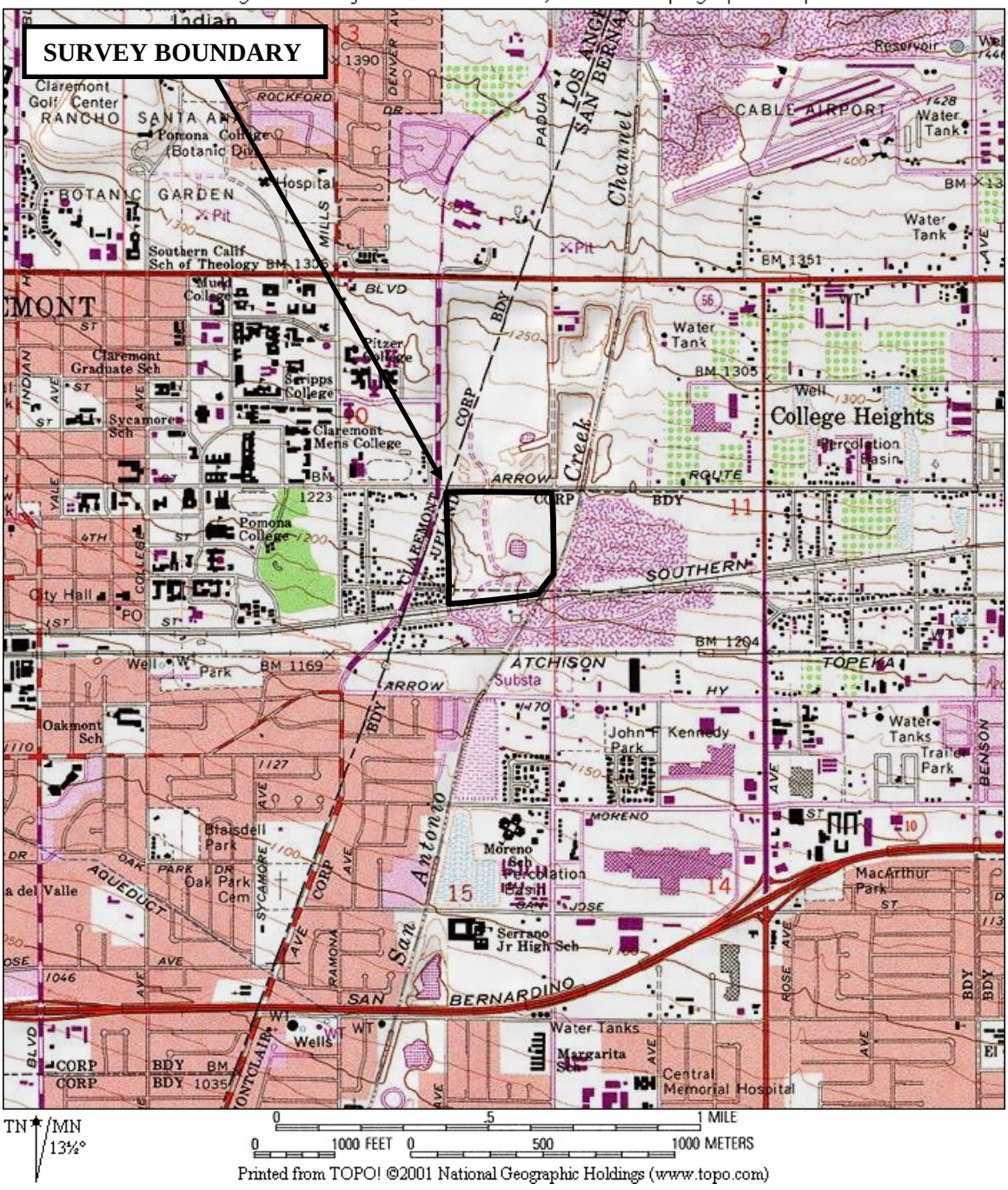
SOURCE: Topo! @National Geographic Holdings

Michael Brandman Associates

Exhibit **1**

Vicinity Map

College Park Project: USGS Ontario, CA. 7.5' topographic map



SOURCE: Topo! @National Geographic Holdings

Michael Brandman Associates

Exhibit **2**

Project Topographic Map



SOURCE: www.terraserver.com

Dated June 1 1994● North is up.

Michael Brandman Associates

Exhibit **3**

USGS Modern Aerial Photograph

The area has been heavily disturbed by the development of freeways, homes and roads. The topographic map shows that the gravel pit was open and in use after about 1967. The pit operators extracted sand and gravel out of the center of the San Antonio Creek channel, which left scars and depressions easily visible during the survey (see Exhibit 3 above). Ground visibility during the survey was excellent and elevation within the study area is approximately 1250 feet above sea level.

3.3 Vegetation

The project site is covered with ruderal plants, sagebrush and grasses. The northernmost section of the survey exhibited an extremely dense chaparral-type plant community, while the southern portion exhibited sparse ruderal plants and grasses.

3.4 Geology

The surficial geology of the project area can be characterized as *Younger Alluvium*, and *Older Alluvium. The Younger Alluvium* is located in the San Antonio Channel and found in the center of the project area, while the *Older Alluvium* is found throughout the remainder of the property. Nearly all of these deposits have been heavily impacted from the quarry operation, which tends to churn and mix the top three to four feet of the topsoil. Gravels, cobbles and sandy silt tended to be evenly mixed throughout the area.

3.5 Water Resources

In the southeast corner of the project area is the San Antonio Creek Channel, which contains flows out of San Antonio Canyon. The topographic map does not reveal a true creek bed, suggesting that prior to development, the creek was a meandering stream that shifted in response to the locations of wash-outs. It is possible that no permanent water was available on-site, but both the San Antonio and the Cucamonga Canyons were less than five miles from the project area, suggesting that close permanent water was available to prehistoric peoples who may have utilized the project area at one time.

3.6 Prehistoric and Ethnographic Background

Moratto (1984) and Chartkoff and Chartkoff (1984) provide recent overviews of California archaeology and historical reviews of the inland southern California coast, among other locales. The most accepted regional chronology for coastal and the central interior of southern California is from Wallace's four-part *Horizon* format (1955), which was later updated and revised by Warren (1968). As of this writing, regional archaeologists generally follow Wallace's (1955) southern California format, but the loosely established timeframes for each cultural horizon are often challenged. Most of the cultural periods described prior to about 2,000 YBP (years before present) are founded upon projectile point typologies, associated radiocarbon dates and a *lack* of characteristic temporo-cultural artifacts found elsewhere.

The Paleo-Indian Period of North America and Southern California (~13,000-11,000 YBP)

Little is known of Paleo-Indian peoples in the California archaeological record, and the culture history of this period generally follows that described for North America as a whole. The period begins with the crossing of man from Siberia, following a route from the Bering Strait and into North America after the Wisconsin Ice Sheet receded (~14,000 YBP) and before the Beringia land bridge submerged (~12,000 YBP). The timing, manner and location of the crossing are disputed, but the initial migration probably occurred as a result of a reduction of the Laurentide Ice Sheet along the Alaskan Coast and Yukon interior. With the possible exception of the Meadowcroft Rockshelter, no unequivocally dated human settlement in North America is known

prior to the earliest defined date from the Clovis complex (~11,200 YBP: Fagan 1995). This includes the controversial Monte Verde Creek site in Chile and the Meadowcroft rockshelter. Both sites exhibit strata dated roughly at 12,000 YBP.

Most of the known California Late Paleo-Indian/early Archaic sites are located near extinct desert valley lakes, in caves, and on the Channel Islands. These consist of occupation sites, butchering stations, and burials. Late Paleo-Indian/early Archaic burials are known along the southern California coast (Chartkoff and Chartkoff 1984). As glaciation receded, large stream-fed lakes were left behind throughout the American West. Many early sites in California are known along these currently dry lake margins. Dates are generally late (e.g., Moratto 1984) relative to other Paleo-Indian sites in North America. Lakeshore occupation sites exhibit artifacts such as large projectile points (Clovis and Folsom styles), debitage, and fire-cracked rock concentrations.

The Paleo-Indian period ends with a marked extinction of large game native to North America and a modification of the prehistoric toolkit. The late Pleistocene-early Holocene geologic period (~11,000 YBP) in California is marked by generally warmer temperatures in desert valleys and less precipitation in mountainous areas.

The Archaic Period, Desert and Coastal Regions (~11,000-2,500 YBP)

The earliest known cultural horizon in southern California is known as the San Dieguito tradition, which is dated to approximately 10,000-7,500 YBP (Warren 1968). This is also known as Wallaces' (1955) *Early Man Horizon* and is most thoroughly documented in the San Diego area. Believed to be a primarily hunting oriented society, these people manufactured stemmed projectile points, crescents and leaf-shaped knives. The subsistence tool kit does not suggest that grain processing was a significant portion of their overall diet. The first appearance of "millingstone" assemblages is associated with the La Jolla Complex (7500-3000 YBP as noted in Moratto 1984:158), which occurred at the same time as the Gypsum Complex. This complex of grinding stones and projectile points appears to have been an adaptation to changes in climate after 7500 YBP, which may have stimulated movements of desert peoples to the coastal regions, bringing millingstone technology with them. Peoples of the coastal regions focused on mollusks, while inland adaptations relied on wild seed gathering and acorn collecting.

Late Prehistoric Period, Coastal Regions (~2500 YBP to A.D.1769)

The late prehistoric period was characterized by the increasing importance of acorn processing, in addition to other hunting and gathering. Meighan (1954) identified the period after AD 1400 as the San Luis Rey complex. San Luis Rey I (AD 1400 – 1750) is associated with bedrock mortars and millingstones, cremations, small triangular projectile points with concave bases, and Olivella beads. The San Luis Rey II (AD 1750-1850) period is marked by the addition of pottery, red and black pictographs, cremation urns, steatite arrow straighteners, and non-aboriginal materials (Meighan 1954:223, Keller and McCarthy 1989:6). The San Luis Rey complex most likely represents the forebearers of the Luiseño (Bean and Shipek 1978:550). Work at Cole Canyon and other sites suggest that the origins of this complex, and the ethnographically-modeled lifeway of the native people of the region, is believed to have been well established by at least AD 1000 (Keller and McCarthy 1989:80).

Native American Tribes of the Eastern San Gabriel Foothills: The Gabrielino

The project area lies along the southern edge of an area generally thought to have been utilized by California Indians that were once associated with the Mission San Gabriel (Bean and Vane 1979). Indigenous native culture was forever modified after the arrival of the Spanish soldiers. Bean and

Smith (1978) characterize the area as the "Interior Mountains/Adjacent Foothills" zone of the Gabrieliño culture. The arrival of Spanish explorers and the establishment of missions and outposts during the 18th century ended the prehistoric period in California.

The Gabrieliño spoke a language that belongs to the Cupan group of the Takic subfamily of the Uto-Aztecan language family (a language family that includes the Shoshoean groups of the Great Basin). The total Gabrieliño population at about 1770 AD was roughly 5,000 persons, based on an estimate of 100 small villages of 50-200 people apiece (Goldberg and Arnold 1988). Their range is generally thought to have been located on the Pacific coast from Malibu to San Pedro Bay and south to Aliso Creek, then east to Temescal Canyon and the San Bernardino area, then north to the headwaters of the San Gabriel River. Also included were several islands, including Catalina. This large area encompasses the city of Los Angeles, much of Rancho Cucamonga, Corona, Glendale, and Long Beach. The Gabrieliño occupied most of the fertile bottomlands in the southern California basin (Keller 1995).

The first modern social analyses of Gabrieliño culture took place in the early part of the 20th century (Kroeber 1925), but by that time acculturation and disease had taken their toll. The population studied at that time was a mere remnant and a shadow of their cultural form prior to contact with the Spanish Missionaries. Nonetheless, the Gabrieliño are viewed as a chief-oriented society of semi-sedentary hunter-gatherers. Technology was sophisticated and reflected seasonal resource exploitation originating from village-centered territories (Keller 1995). Influenced by the wide variety of coastal and interior environmental settings, their material culture was quite elaborate and consisted of well-made wood, bone, stone and shell items. Included among these was a hunting stick made to bring down numerous types of game. Located in an area of extreme environmental diversity, large villages may have been permanent (such as that found on or near Red Hill in Alta Loma), with satellite villages utilized seasonally. Their living structures were large, domed and circular thatched rooms that may have housed multiple families. The society exhibited ranked individuals, possibly chiefs, who possessed a much higher level of economic power than unranked persons.

City of Upland Roads and Bridges

Incorporated in 1906, agriculture was the economic mainstay of the city until the 1960's. The Arrow Route, the Arrow Highway and Foothill Boulevard (Route 66) were the main east-west arterials in the lower foothills in the first half of the last century. Paralleling the Union Pacific, ATSF and BNSF railroad corridors, the roads in this area were typically two-lane oiled or blacktopped maintained highways. Such roads ran through the center of towns such as San Dimas, La Verne, Claremont, Upland and the Cucamonga Colonies, and served the citrus packing houses located off the railroad mainlines or spur lines. Primary irrigation waterlines paralleled these roads, and service industries sprang up along them.

According to an unpublished document provided to MBA by the Proponent (Ostashay 1997), Bridge No 54C0468 was built on Arrow Route in 1926. The purpose was to link two sand and gravel pits located on both sides of Arrow Route with "Dinky Trains" (small narrow-gauge locomotives) that could pass through the arch on dual tracks that formed a closed loop. Construction plans are available on microfiche at the Dept of Transportation-Flood Control archives at the San Bernardino County Public Works Group.

The San Bernardino County Local Agency Bridge List, maintained on-line by Caltrans, states that the structure was built in 1940 and is known as the "Gravel Pit Bridge. According to Christie

Hammond, Caltrans District 8 architectural historian, a Caltrans Bridge Study documenting bridges in the lower San Bernardino County area will be published in the summer of 2004. The survey, which is a historical inventory for Caltrans staff and not a CEQA-level evaluative document, will classify the Bridge as "NR-5", which is a code meaning "historic property recognized as historically significant by local government". As noted, the Caltrans Bridge study does not attempt to determine the eligibility of this bridge as a historic resource. Under CEQA, this effort must be required as part of our study.

Section 4.0. Investigative Methods

Customary procedures were utilized to produce the data for this report. Protocol guidelines for performing the cultural resource field survey and recording any sites or isolates were previously downloaded from Federal and State websites. The California Office of Historic Preservation (OHP 1995, CHRIS 1999) archaeological recordation guidelines and procedures follow National Park Service recordation guidelines (1983, 1985) and SHPO requirements.

4.1 Record Search Procedure

On July 21, 2003, Archaeological Information Center (AIC) staff researcher Robin Laska, M.A. conducted the records search at the AIC, which is located at the San Bernardino County Museum, Redlands. This consisted of a search for any previously recorded cultural resource sites and/or isolates on or within a one-mile radius about the study area. This radius is found in Exhibit 4. The records search consisted of examining topographic maps for previous survey or study locations as well as locations of previously recorded archaeological sites. Photocopies of positive-finding reports (exhibiting any analytical information) and regional overviews were made, while cumulative lists of all negative-finding reports were generated.

4.2 Cultural Resource Fieldwork Procedure

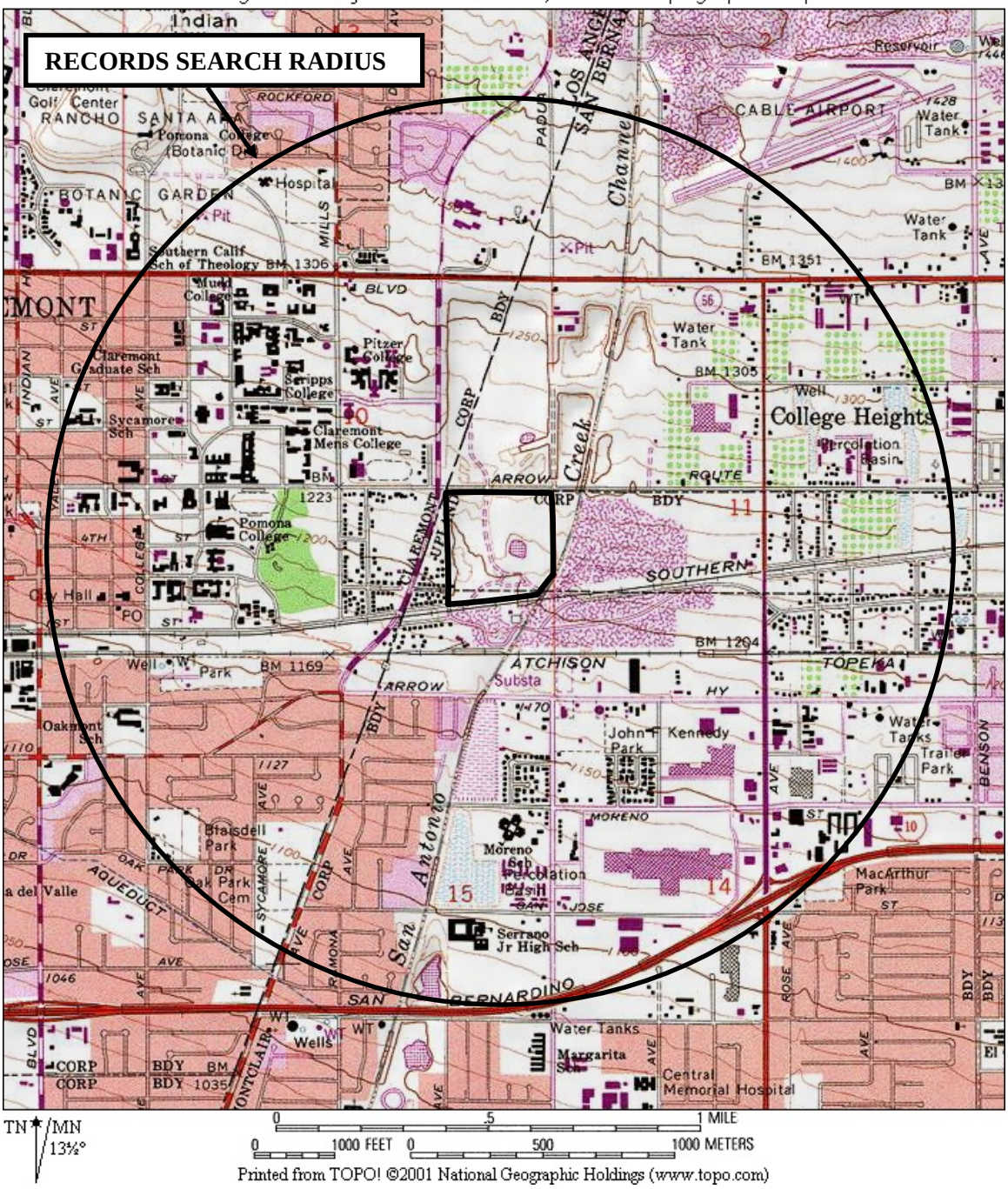
Ms. Kay undertook a walkover survey of the project area on September 3, 2003. The property was examined for cultural resources and photographed at key points. The California OHP recommends that all potentially significant or important cultural resources (sites or isolates) discovered during a survey be documented utilizing modern State of California Department of Parks and Recreation Archaeological Site Forms (DPR523 series: OHP 1995).

For the purposes of this study, the presence of three or more culturally significant artifacts within a 20m radius constitutes the minimal definition of the term "site" as would the existence of one or more historically significant surface/subsurface "features." "Isolated artifacts" are defined as one or two artifacts within a 20m radius without the presence of a "feature." If impacts to sites cannot be avoided by the project, recorded sites should be assessed using NHPA/NRHP *Significance* criteria (see Archnet 1999, CHRIS 1999, NRHP 1999, OHP 1995) utilizing methods noted as follows.

4.3 Procedures for Cultural Significance Determinations

In most cases prior to impact, CEQA and State OHP protocols require that a cultural resource record search and a cultural resource survey take place on a property that exhibits some potential for cultural resources.

College Park Project: USGS Ontario, CA. 7.5' topographic map



SOURCE: Topo! @National Geographic Holdings

Michael Brandman Associates

Exhibit **4**

Cultural Records Search Radius

According to federal NHPA/NRHP (ArchNet 1999, CHRIS 1999) and state protocol, if such a survey detects cultural sites or artifactual remains, the jurisdictional agency (whose role is to fulfill Section 106 requirements), must be able to determine whether the cultural resources are eligible for inclusion in the California Register and/or the National Register of Historic Places. At the federal level, a step-by-step "Section 106" process has been developed and implemented per 36 CFR 800 (NHPA 1999). As a part of this procedure, the resource must be evaluated to determine whether it is "historically significant". Federal eligibility must be determined utilizing four evaluative criteria found in implementing regulations 36 CFR part 63. The four National criteria include the following:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
B. That are associated with the lives of persons significant in our past; or
C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. That has yielded or may be likely to yield, information important in prehistory or history.

The State of California SHPO evaluation guidelines utilize significance criteria that essentially mirror that of the NHPA:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
B. Is associated with the lives of persons important to our past;
C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
D. Has yielded, or may be likely to yield, information important to prehistory or history.

If avoidance of a site cannot occur as a result of an action under CEQA, the project development plans must be evaluated in order to determine whether the action would cause a "substantial adverse change" in the *Significance* of the resource utilizing the State criteria above. Under Federal (36CRF800.5) and State regulations, all archaeological or historical sites must be carefully evaluated relative to the effects of the action, even if they have not been officially listed at the time the proposed action will take place. Although avoidance of cultural resources is always the best choice, where necessary, impacts to previously listed or potentially listed resources will and must be mitigated.

Should it be determined that a cultural resource is or could be potentially listed on the National Register of Historical Resources, a Phase 2 (archaeological testing and/or historical structure evaluation) assessment of the resource must take place prior to impact. Should it be determined that the resource is *Significant* and that impacts *will cause a substantial adverse change in its significance*, that resource must undergo Phase 3 (data collection) prior to impact. Under CEQA, should Phase 2 test results determine that the resource would not qualify for listing in the California (or National) Register of Historical Resources, no further mitigation of any kind is required.

Section 5.0. Previous Research

The cultural resource record search indicated that the project area has never been surveyed for cultural resources, and that the older topographic maps showed that the pit had been greatly expanded through time. The search also indicated that one cultural property had been plotted within the project boundary, while five historic archaeological sites and three pending historic archaeological sites are known for the search radius. The topographic map review found seven possible historic structures near the project area. Four archaeological assessment reports (Hearn 1977; Landis 1993; Lapin 2000; Scott 1976) are known for the search radius, but these four studies did not directly examine the project area.

5.1 Known Resources in the Project Area

According to AIC files, one cultural property (P#36-016454/PSBR-2H) may cut across the project area. This is known as "Old San Bernardino Road," which was at one time located along the northern periphery within the project area and ran from the east to southwest. This road was distinctive because it was used as a main thoroughfare between Los Angeles, San Bernardino and points east. It is estimated that the route had been used since 1839. The road was paved in 1913.

Two bridges (P#36-018721 and -018723) are located near the intersection of Foothill and the San Antonio Creek flood control channel, while three historic refuse piles are noted on vacant land near these bridges. The National Register-listed Russian Village District within the City of Montclair is located about 1500 meters to the southwest. Route 66 (Foothill Boulevard) and the ATSF railroad right-of-way are also listed historic sites, but are some distance from the project area. The project will not have indirect effects on any of the cultural resources located outside the project area.

Ostashay (1997) generated a non-compliant historic bridge report for the pit owner at the time, CALMAT Properties Company. The complete history of the bridge is spelled out in this document, however the report lacks elements and statements that are required under CEQA-level historical analyses. Originally known as West 10th Street, Arrow Route crossed "uncleared land with a small wash" as early as 1915. In 1920's the quarry in the wash was expanded to the point where a bridge was required to link the western side and eastern side of West 10th together.

Section 6.0. Results

6.1 Cultural Resource Findings

During the survey, no prehistoric resources and one historic structure were observed. The ground surface visibility during the survey was excellent in most areas due to a lack of dense vegetation. The Old San Bernardino Road (P #36-016454/PSBR-2H) could not be observed in any portion of the project margin, and was likely destroyed during development of the gravel pit. It is clear that the chance that prehistoric cultural materials are located in an extremely disturbed alluvial environment is very low.

According to current construction plans, Bridge #54C0468 will be demolished as a result of the development. This resource must be evaluated for significance as part of a mitigation measures under CEQA.

6.2 Evaluation of Bridge 54C0468

Bridge #54C0468 is a reinforced concrete bridge constructed in 1926. It was commissioned by American Plant Union Rock Company to connect the north and south sections of their rock quarry. This is a closed spandrel deck arch bridge; Arrow Route, a two-lane asphalt road, runs along the deck. The railings at the north and south sides of the bridge each have thirteen blank rectangular panels. The east and west sides of the bridge flair out into wing walls. Just below the railing on each spandrel wall is a simple classical molding detail that runs the length of the bridge (see Appendix D, Figures 13 and 14). Along with these modest traditional details that could also be found on masonry bridges, construction has also resulted in an honesty of the material; instead of imitating the appearance of stone, the poured concrete surfaces of this bridge still retain the distinct imprints left by their wood forms.

According to original drawings, the bridge length is 104 feet; the structure is 44 feet high and 30 feet deep (see Appendix D, Figures 26, 27, 28 and 29). Its arch was originally about 40 feet high and 40 feet wide. Over the past few decades, however, the abutments of the arch have weakened, forcing the County of San Bernardino to fill the space between them with dirt so that today only the arch ring is exposed (Wallsten 2004). Fill work appears to be either minimal or has not yet begun in a photograph taken by the County in 1970 (see Appendix D, Figure 21). Since Planning Consultants Research (PCR) wrote a report on this structure (Ostashay 1997), the height of the fill at the structure base has doubled (see Appendix D, Figure 20). San Bernardino County Transportation Design Division correspondence from 1999 indicates that it is likely the current fill level was achieved on or near that year. Originally, there were tracks from Dinky Trains used to transport aggregates from the quarry to the north of the bridge to the crusher located south. These are no longer evident. It is possible, however, that that the tracks from the trains still exist under the fill. Today, the arch is closed off on either side with chain link fences.

The condition of the bridge is good to fair. In addition to the weakened abutments mentioned above, there is also sporadic graffiti throughout, located at the inside railing at the deck, the inside of the arch and the spandrel walls of the bridge (see Appendix D, Figures 3 and 11). Some of the graffiti on the deck have been over-painted. Both elevations have exposed and corroded rebar resulting in pieces of concrete spalling off the surface (see Appendix D, Figure 16). Inside the arches is evidence of efflorescence (a whitish powder or crust of salts resulting from lime leaching from the cement) and carbon soot stains (see Appendix D, Figure 17). At the north side, small stones have been adhered to the surface by rock climbers. There is evidence of repair at the west end of the railing at the south side (see Appendix D, Figure 15); bridge inspection reports by Caltrans indicate it is likely this damage occurred some time between 1983 and 1987. It has subsequently been repaired in its entirety, although in 2000 the damage to the exterior side of the railing had not yet been repaired, leading to corrosion problems. The integrity of the bridge is good to excellent. Although the overall appearance of the bridge has been changed by the fill, this is a reversible alteration if the structural problems of the bridge are corrected. Otherwise, the bridge has retained its original design integrity.

Ostashay (1997) indicates the American Plant Union Rock Company was formed in 1925 when the Union Rock Company purchased stocks of the American Crushed Rock Company, who had already been operating a quarry at this location. Quarry operations began on this property some time after 1916.

Individual names, however, were listed as owners in assessor books located at the San Bernardino County Archives. Margaret Fleming owned the north section of the quarry. After ownership

transferred to Anna Ferguson from 1927 to 1929, Fleming again obtained the property for a year. In 1930, however, the Title Insurance & Trust Co. acquired the property and retained it until 1942. It was in the same year that the name of the quarry company changed to Consolidated Rock Products Company. According to the Archives, the Union Rock Company acquired it for a year in 1943. It is likely that Fleming also owned the south section of the quarry as well at the time of the bridge construction. There is no record of ownership in assessor records of that year, but Fleming did own this southern property from 1929 until 1946. Consolidated Rock Products Company did not become the owner of both properties, according to assessor books, until 1944 for the northern property and 1946 for the southern. They continued operations at the quarry until 1972 when the company name changed to the ConRock Company. Quarry operations ceased in 1975; since then, the property has been used as a wash site for gravel coming from other sites, especially the one to the north (Hutton, 2004). In 1984, ownership came into the hands of CALMAT Properties Company (Ostashay, 1997), who continues to own the property today as a subsidiary to Vulcan Materials. San Bernardino County is performing general maintenance work on the bridge. Although the underpass is no longer associated with quarrying, the two-lane Arrow Route is used by vehicles, as well as pedestrians and bicycles.

Bridge construction allowed transport of gravel under its arch by the quarry company. According to Ostashay, narrow-gauge Dinky Trains originally passed through the underpass on rails. These trains, consisting of wood side dump cars hauled by an engine, were popular for quarry operations at the time. The American Plant Union Rock Company quarry had two such trains, which operated simultaneously. They ran on the tracks, which formed a loop, bringing the aggregates from the north pit and bringing it down to the "crusher" facility south of the bridge. They were later replaced by haul trucks (Ostashay 1997). No longer visible, it is possible that the tracks from the Dinky Trains that were used by the quarry still exist under the layers of fill material that help support the vertical sides of the weakening arch.

The designer was Los Angeles-based engineer Robert V. Leeson. There is little available information regarding his work as a bridge designer. According to Ostashay, before arriving in Los Angeles in 1921, Leeson already had fifteen years of experience in reinforced concrete construction. An advertisement in the *Southwest Builder and Contractor*, he placed upon his arrival, identified himself as a Design and Consulting Engineer for steel and reinforced concrete bridges (Ostashay 1997). Ostashay also indicates other commissions in the San Bernardino and Riverside County areas that were designed by Leeson. These are the Temecula Creek Bridge in Temecula, the Auburndale Bridge across the Santa Ana River, a steel bridge across the San Jacinto River on State Route 79, the Rubidoux Bridge in Riverside and the Victoria Avenue Bridge in Riverside. The Victoria Avenue Bridge has been determined eligible for the National Register. The contractor for the work is unknown, although construction drawings indicate that the contractor hired to build the bridge would be different from the one hired to pave the road. Also according to the drawings, the American Plant Union Rock Company apparently did the rough excavation for the bridge, while the contractor would have performed the remaining excavation.

The Arrow Route bridge is typical of a reinforced concrete bridge, which is the most common historic bridge type in California. In addition, its construction as a vehicular bridge is reflective of the growing number of such bridges throughout the United States, in response to the increased popularity of the automobile; this type eclipsed the railroad bridges of the nineteenth century. Reinforced concrete bridges began to be built in California during the latter part of the nineteenth century, and by the twentieth century replaced steel truss bridges as the most widely constructed

bridge type in the state. With the high cost of steel and the availability of high quality cement, the transition to concrete bridge construction came early and readily to the state (Mikesell 1990: 11, 71). Although making the forms can be costly, as it requires skilled labor, the actual construction and maintenance costs were less expensive than the earlier bridge types (Plowden, 2002: pp304). Locally available materials such as the cement, sand and gravel, were used during construction. Many technologically innovative and/or aesthetically pleasing bridges resulted from these efforts throughout the State (Mikesell 1990:71), such as the Colorado Street Bridge in Pasadena and the Arroyo Hondo Bridge near Gaviota. According to Andy Hope at Caltrans, there are five other reinforced concrete spandrel bridges in San Bernardino County. These are 54C-345 on Route 330 (built in 1948), 54C-365 on Route 330 (built in 1947), 54C-187 on Brookside Avenue in Redlands (construction year unknown) and 54C-188 on Brookside Avenue in Redlands (construction year unknown).

The bridge being studied carries Arrow Route, a road developed in the 1920s to serve a vast agricultural community between the cities of Upland and San Bernardino. Today, it runs between Irwindale in Los Angeles County to Fontana in San Bernardino County. In 1924, San Bernardino County finalized efforts to secure the deeds to the right-of-way for Arrow Route (*The Sun*, November 5, 1924:pp1). The section of Arrow Route in Upland already existed; at the time it was West 10th Street, according to 1915/16 drawings generated by the County for proposed improvements. Bridge #54C0468 was built around the same time Arrow Route was being planned and constructed. In San Bernardino County, Arrow Route was developed to serve an unmet transportation need that existed between two existing thoroughfares: Foothill Boulevard to the north and Valley Boulevard to the south. Today, as with most of the County, Arrow Route serves an increasingly suburbanized community, with very little remaining agriculture.

There is some confusion with Arrow Route. For one, as the Route runs through San Bernardino County, the name of the street alternates between "Arrow Route", "Arrow Highway" and "Arrow Boulevard" near its terminus in Fontana (see Appendix D, Figure 25). The original West 10th Street in Upland was officially renamed "Arrow Highway" in 1939 (*The Daily Report*, March 21, 1939: 3:1).

More significantly, the western end of the route in Upland does not connect to its continuation going west into Los Angeles County. At the western boundary of San Bernardino County, there is an approximate 1-1/4 mile stretch where Arrow Route passes through Upland (where Arrow Route bridge is located). Directly south, another thoroughfare named Arrow Highway runs parallel through Montclair. This southern Highway is what continues west and terminates in Irwindale. The reason for this disconnect is explained in an article in *The Daily Bulletin* written by Joe Blackstock. According to his research, Arrow Route was built or laid out as a dirt road almost to the San Bernardino County line by 1925, as were sections in Los Angeles County. Initial plans called for Arrow Route to run through the Claremont College campus, which met objections from the city. This derailed the rest of construction until 1957 when Los Angeles County finally built the Arrow Highway extension between the two counties. Eastward through Claremont and Pomona, the roadway proceeds through Montclair, joining West Eighth Street in Upland, thus running parallel rather than connecting with the existing Arrow Route in San Bernardino County. There was a brief period after this extension was built when Arrow in Upland was still called a Highway as was the one in Montclair to the south. There were apparently appeals at that time from the recently incorporated Montclair for Upland to change its street name. The resolution was to change the section in Upland to Arrow Route. Early 1970s local newspaper articles document the continued debate between the cities of Upland and

Montclair, regarding which city should rename its "Arrow" (*The Daily Report*, November 16, 1971, February 14, 1973). The issue has not yet been resolved, so that the route remains disjointed.

National Register Eligibility Evaluation
The bridge was evaluated under Criterion A for its potential significance as part of a historic trend that may have made a significant contribution to the broad patterns of our history. The bridge was built by an existing quarry operation at the same time Arrow Route was being constructed. The latter was made to service the growing transportation needs of vast agricultural needs in San Bernardino County. In addition to contributing to the purpose of the vehicular road, the underpass of the bridge was used by what appears to have been a thriving quarry business located north and south of the structure. However, the bridge and its portion of Arrow Route do not appear to play a significant role in the development of transportation in San Bernardino County. Therefore, the property does not qualify for the National Register of Historic Places (NHRP) under Criterion A.

The bridge was evaluated under Criterion B for its association with the lives of persons significant in our past. There is no evidence of the bridge being associated with any important individuals. Therefore, the property does not qualify for the National Register of Historic Places (NHRP) under Criterion B.

The bridge was evaluated under Criterion C for embodying the distinctive characteristics of a type, period, or method of construction, or representing the work of a master, or possessing high artistic values, or representing a significant and distinguishable entity whose components may lack individual distinction. This bridge is representative of a reinforced concrete closed spandrel arch bridge popular at its time. However, by 1926, this technology was no longer new and innovative. Also, there were also many other Southern California concrete bridges of this period with a higher level of design sophistication, such as the Los Angeles River bridges. This bridge is not distinctive for either its aesthetics or its engineering. In addition, not enough evidence was produced to indicate that the designer, Robert V. Leeson was a master in bridge design. He was experienced with reinforced concrete bridge design, but there is no evidence of his playing a significant role in the development or innovation of this structure type. Therefore, the property does not qualify for the National Register of Historic Places (NHRP) under Criterion C.

The property was evaluated under Criterion D for the potential to yield, or may likely to yield, information important to prehistory or history. According to the Bulletin, for buildings, structures and objects to be eligible under this criterion, it would need to "be, or must have been, the principal source of important information." This is not the case with this property. Therefore, the property does not qualify for the National Register of Historic Places (NHRP) under Criterion D.

In summary, the bridge does not qualify for the NHRP under these criteria. Therefore, it is not considered a historic resource for the purposes of NHPA.

California Register Eligibility Evaluation
The bridge was also evaluated in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA) guidelines, using the following criteria outlined in Section 5024.1 of the California Public Resources Code:

1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2) It is associated with the lives of persons important to local, California, or national history.
3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The property does not qualify for the California Register under these criteria. Therefore, the bridge is not a historic resource for the purposes of CEQA.

6.3 Paleontological Records Review

According to various geological maps, the entirety of the project area is covered in a thick blanket of recent Holocene alluvial wash deposits. Such deposits develop as a result of flooding out of the canyons to the north. Because of the nature and age of these deposits, the survival rate of fossils is extremely low. Examination of the project area showed that the base of the gravel pit had been cut more than 20 feet below the modern ground surface, and that the coarse nature of the alluvium was still evident at that depth. It is highly unlikely that fossils could be preserved in such an environment.

Section 7.0. Mitigation Recommendations

7.1 Cultural Resource Management Recommendations

Although one historic bridge was found and evaluated under CEQA, we have concluded that there are no prehistoric resources located within the area of direct effect that qualify as *significant* under CEQA cultural resource criteria, or under criterion A, B, C or D of the NEPA-level 36CFR part 63 criteria for listing. The protohistoric "Old San Bernardino Road" could not be observed and may have been removed during sand and gravel mining in the early part of the last century.

Prehistoric cultural resources were not observed within the project area, the property was used as a gravel pit for many years, and the visibility of the project area was extremely good due to the existence of low-density vegetation. Overall, the evidence suggests that there is a low-to-none probability that prehistoric cultural deposits exist beneath the current modern ground surface.

Bridge #54C0468 was observed along the northern boundary of the study area. Once we determined that the bridge would be removed during the developmental process, it became clear that the structure would have to be evaluated. During the evaluation, it was determined that remnants of the original "Dinky Train" track might be located below the modern ground surface. Thus, we believe that there is a moderate chance that this historic rail line could be impacted during development. Thus, we recommend that part-time monitoring by a qualified archaeologist experienced with historic resources take place ***if and only if*** topsoil south of the existing historic bridge must be removed during the development process.

If sites are detected during earthmoving (excluding isolated artifacts), the sites should be tested for *significance* prior to continued impact. In addition, California State Health and Safety Code Section 7050.5 dictates that if human remains are unearthed during construction, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and Public Resources Code Section 5097.98.

Mitigation measures:

1) The College Park Project does not exhibit cultural resources located within the area of direct effect that will qualify as *significant* under CEQA cultural resource criteria, or under criterion A, B, C or D of the NEPA-level 36CFR part 63 criteria for listing. However, because recent research showed that historic resources might be located below the current modern ground surface level beneath and south of the Arrow Route bridge span, mitigation monitoring shall be required if and only if the topsoil at the base of the gravel pit must be removed as part of the grading process.

2) If the topsoil at the base of the gravel pit must be removed, the project applicant shall retain a Lead Agency-approved archaeologist to develop an archaeological mitigation plan and a discovery clause/treatment plan. Both of these plans shall be reviewed and approved by the Agency. The archaeological mitigation plan shall include limited monitoring for historic archaeological resources on the project site by an Agency-approved archaeologist and/or his representative. The discovery clause/treatment plan shall include recovery and subsequent treatment of any archaeological or historical remains and associated data uncovered by removal of topsoil at the base of the pit only. The treatment plan shall provide procedures for the curation of any detected cultural specimens. Any recovered cultural resources shall be identified, sites recorded, mapped and artifacts catalogued as required by standard professional archaeological practices. Examination by an archaeological specialist shall be included where necessary, dependent upon the artifacts, features, or sites that are encountered. Specialists will identify, date and/or determine significance potential.

3) If monitoring is required based on #2 above, and if the archaeological monitor discovers cultural deposits, earthmoving shall be diverted temporarily around the deposits until the deposits have been evaluated, recorded, excavated and/or recovered, as necessary, and in accordance with the Agency-approved recovery plan. Earthmoving shall be allowed to proceed through the area after the archaeologist determines the artifacts are recovered and/or site mitigated to the extent necessary.

4) Should a previously unknown cultural site be encountered during monitoring and is shown by the archaeologist that a significance determination is required, the site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (i.e., DPR 523 form). In this case, if the site is not determined to be significant, no measures subsequent to recording the site on appropriate forms are required. If any of the sites are determined to be significant, the Agency-approved archaeologist shall collect an adequate amount of artifacts at the specific archaeological site. The archaeologist shall determine the amount of artifacts needed to be collected.

5) Should human remains be encountered during excavations associated with this project, all work shall halt and the County Coroner shall be notified (Section 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the City-approved archaeologist, determines that the remains are prehistoric, he/she will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely

descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code. The MLD will make his/her recommendations within 24 hours of their notification by the NAHC. This recommendation may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (Section 7050.5 of the Health and Safety Code).

6) Should any archaeological resources be uncovered, they shall be identified, sites recorded, mapped and artifacts catalogued as required by standard archaeological practices. Examination by an archaeological specialist should be included where necessary, dependent upon the artifacts, features or sites that are encountered. Specialists will identify, date and/or determine significance potential.

7) Should any archaeological resources be uncovered, a final report of findings will be prepared by the Project Archaeologist for submission to the Proponent, the Lead Agency, and the Archaeological Information Center of the San Bernardino County Museum. The report will describe the history of the project area, summarize field and laboratory methods used, if applicable, and include any testing or special analysis information conducted to support the resultant findings.

7.2 Paleontological Resource Management Recommendations

The project area has a low-to-none chance that significant paleontological resources will be impacted during construction. We do not recommend that a paleontological mitigation-monitoring program take place during earthmoving within the project area.

7.3 Native American Commentary

It is assumed that once the Draft Environmental Report is sent to the State environmental clearinghouse and routed through the Lead agency, local tribal jurisdictions will comment upon these findings. On October 11, 2003 MBA sent a request to the Native American Heritage Commission (NAHC) for the purposes of obtaining information related to known Native American sacred sites in the area. A response to the letter was received on October 27, 2003. The NAHC letter reveals that no known sacred sites will be affected by the undertaking. Because no known prehistoric sites are located within or near the project area, attempts to make direct tribal contact has not taken place.

Section 8.0. References

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Keller, J.K. and D.F. McCarthy
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(NRHP) National Register of Historic Places
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Section 9.0. Certification

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this archaeological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: 2/4/04 **Signed:** _____

Michael Dice, M.A.
Michael Brandman Associates
Irvine, CA.

Appendix A: Photographs From The Study Area



North facing view of the project area from the center of the western edge of the gravel pit.



East facing view of the project area from the center of the western edge of the gravel pit.



West facing view of the project area from the center of the western edge of the gravel pit.



South facing view of the project area from the center of the western edge of the gravel pit.



East facing view of concrete refuse, deposited throughout the project area.



North facing view of asphalt road from the western boundary.



View of concrete refuse piles seen near the northwest corner of the study area.



East facing view of the project area from the northwest corner of the study area.



South facing view of the western boundary within the project area.



Southeast facing view of the project area and gravel pit.



South facing view of the project area from West Arrow Route.



East facing view of West Arrow Route with Arrow Route Bridge #54C0468 visible.



South facing view of the existing asphalt batch plant.



East facing view of the project area from the southwest corner.



Typical view of the ground surface.



Southeast facing view of the study area.



North facing overview of the project area.



South facing view of quarry equipment and spoils piles.



View of the southwest corner in the study area.

Appendix B: Personnel Qualifications

MICHAEL H. DICE, M.A.
PROJECT SCIENTIST/SENIOR ARCHAEOLOGIST

EDUCATION

M.A., Anthropology - Arizona State University, Tempe, Arizona
B.A., Anthropology - Washington State University, Pullman, Washington
Anthropology Track, University of Washington, Seattle, Washington

Professional Affiliations
Member, California Historical Society
Member, National Trust For Historic Preservation

REGISTERED PROFESSIONAL ARCHAEOLOGIST (RPA 2000)

Professional History
Michael Brandman Associates, Irvine, California - Senior Archaeologist
L&L Environmental, Inc. Corona, California - Senior Archaeologist
National Park Service (Pipe Spring National Monument) - Archaeologist

NATIONAL PARK SERVICE (MESA VERDE NATIONAL PARK) - ARCHAEOLOGIST

CRMC, Inc., Farmington, New Mexico - Archaeological Project Manager
LaPlata Archaeological Consultants, Dolores, Colorado - Archaeologist
CASA, Inc. Cortez, Colorado - Archaeologist, Human Skeletal Analyst

Mr. Dice is a Certified Archaeologist with more than 16 years of experience performing records searches, archaeological surveys, archaeological site testing (Phase 2) and data collection (Phase 3) projects on private and public lands in the Southwestern United States and Southern California. During his career, he has authored or co-authored more than 50 CEQA and/or NEPA level documents including several manuscripts for the National Park Service. Mr. Dice is a member of the California Historical Society, a Registered Professional Archaeologist (RPA), and is a member of the National Trust For Historic Preservation.

Professional Experiences
Project Scientist/Archaeologist for CEQA-level Phase 1, Phase 2 and Phase 3 archaeological mitigation for the Temecula Marketplace Project in the City of Temecula, California. Performed the field survey, recorded a large historic ranch complex remnant, developed testing procedures for the historic and prehistoric components of the site, then gathered a crew and performed the Phase 2 test in the field. Responsible for developing the Phase 3 data collection plan.

Project Scientist/Archaeologist for Section 106 level review of archaeological testing at Pipe Spring National Monument, Fredonia, Arizona. Produced complete report synthesizing a series of excavations (1996-1998) on an historic Mormon Fort within the Monument. Also wrote a draft plan for any future archaeological mitigation.

Project Archaeologist/Database Manager for the emergency Chapin-5 Fire Rehabilitation Project, Mesa Verde National Park, Colorado (1996-1999). Began as field crew chief (GS-7) and finished with the Park as a GS-9 Database manager. Created an ACCESS 6.0 database for the recordation or re-recordation of more than 500 archaeological sites within the rehabilitation area.

Project Scientist/Archaeologist for CEQA-level Phase 1 and Phase 4 archaeological mitigation for the "The Club at Big Bear Lake" Project in the City of Big Bear Lake, California. Performed the field survey, recorded a large historic tourist complex remnant, wrote mitigation-monitoring recommendations for the City, then supervised the monitoring, analyzed the historic artifacts and wrote the final report. Performed more than 40 CEQA-level Phase 1 archaeological surveys in Southern California, which included evaluating more than 30 historic and prehistoric archaeological sites per California SHPO protocol. The reports fulfill ARMR reporting guidelines, while the County of Riverside reports fulfilled both ARMR and County of Riverside protocols.

CHRISTEEN Y. TANIGUCHI
ARCHITECTURAL HISTORIAN

Ms. Taniguchi has been professionally involved in research and documentation of historic districts, sites, buildings and structures, since 1989. Her recent and past assignments include working with the Sculpture Conservation Studio as an Architectural Conservator, working on preservation projects in Pasadena, at four California missions, at Will Rogers State Historic Park, the Hollyhock House in Los Angeles, Cypress Lawn Cemetery in Colma, CA, and a number of treatment proposals for historic architectural projects. She spent three years with the National Park Service as an Architectural Historian, preparing HABS/HAER documents for the Library of Congress, organizing conferences and workshops, maintaining the National Historic Landmarks program, reviewing federal grant applications, and preparing research reports. Other past assignments have been with Historic Preservation Partners, the Los Angeles Conservancy, the Museum of Natural History (Los Angeles), and the Santa Monica Heritage Museum.

PROFESSIONAL EXPERIENCE

- NEPA Compliance/Telecommunication Facilities. Serving as a cultural historian for a variety of telecommunication providers throughout southern California in complying with the National Environmental Policy Act (NEPA) for the implementation of cellular communication facilities. This project includes the preparation of NEPA compliance documents in accordance with the Federal Communication Commissions regulations pertaining to telecommunication facilities, in particular, **(**managing and generating related documentation for the Los Angeles, Orange County and Venture County areas, and overseeing the works of field archaeologists and architectural historians). Generated Section 106 review documentation. Biological surveys, including focused, sensitive species surveys and wetland delineations and permitting, construction monitoring, and arborist surveys.

- Due Diligence for Parcels along Foothill Boulevard, City of Rancho Cucamonga, California. Performed historical assessments of several homes, which included field work, research and producing written documentation for a Phase 1 cultural resources assessment, paleontological records search and architectural history evaluation:

- Performed historical assessments of two historic archaeological sites and other historic resources, which included field work, research and producing written documentation Provided an archaeological and paleontological resource evaluation and significance assessment for a residential development, located in the City of Rancho Cucamonga Sphere of Influence, County of San Bernardino, California.

- Pasadena, CA. Recently headed up the assessment and treatment of a historic sandstone block bench and wall in Pasadena.

- California Missions San Juan Capistrano, San Buenaventura and San Juan Bautista. Created thorough assessment reports that detail current conditions and recommendations for the proper maintenance and conservation of artifacts and building materials at the California Missions.

- Will Rogers State Historic Park, Pacific Palisades, CA. Assisted with creating a condition assessment report of outdoor artifacts.

- Hollyhock House, Los Angeles, CA. Helped identify, document, label and pack historic artifacts and building components, as part of the restoration project at Hollyhock House in Los Angeles. Individual condition assessments and comprehensive artifact lists were a part of the work performed.

- Cypress Lawn Cemetery, Colma, CA. Assisted with determining and carrying out treatments for the conservation of a granite and marble mausoleum.

- National Park Service, Philadelphia, PA. Prepared approved HABS/HAER documents for shipment to the Library of Congress. Assisted with the organization of conferences and workshops. Helped create historic cemetery survey forms, as well as organized teams to perform survey work. Assisted with maintaining the National Historic Landmarks program. Participated in review committees for National Historic Landmarks federal grant applications.

- Historic Preservation Partners, Los Angeles, CA. Helped owners with National Register or National Register eligible buildings damaged by the Northridge Earthquake receive federal grant funds, by acting as the liaison between the owners and the federal funding agency. Organized teams of architects and engineers to survey damaged historic buildings.

- Los Angeles, CA. Prepared nomination forms for Los Angeles Historic Cultural Monuments by doing research, organizing support for the nominations, and presenting the results to the Los Angeles Cultural Heritage Commission and city council.

- Museum of Natural History, Los Angeles, CA. Inventoried and packed objects of American material to be moved.

PROFESSIONAL HISTORY

Michael Brandman Associates, Architectural Historian
Sculpture Conservation Studio, Architectural Conservator
Conde Nast Publications, Editorial Assistant
National Park Service, Architectural Historian
Los Angeles Conservancy, Intern
Historic Preservation partners, Field Representative
Museum of Natural History, Museum Assistant
Santa Monica Heritage Museum, Intern/Museum Assistant

EDUCATION

MS, Historic Preservation, University of Pennsylvania, PA
BA, History, University of California, Los Angeles, CA
Cum laude and Phi Beta Kappa honors, One year of study abroad at the University of Kent, England

SELECTED PUBLICATIONS

Co-presented a paper on a Damien Hirst installation at the 2002 Western Association for Art Conservation (WAAC) annual meeting

Wrote treatment proposals for various historic architectural projects for the Sculpture Conservation Studio, Los Angeles CA.

Presented a paper dealing with the preservation of interior plastic architectural components at Russel Wright's home, Dragon Rock in Garrison, New York, at the 1998 Association for Preservation Technology (APT) annual conference.

Researched and wrote the text for a tour of historic houses designed by architect Paul R. Williams. An accompanying brochure was also generated.

Master of Science thesis dealt with the identification and conservation of interior plastic architectural components at Dragon Rock, in Garrison, NY

Appendix C: Compliance Documents

October 11, 2003

via fax: 916-657-5390

Commissioner
Native American Heritage Commission
915 Capitol Mall, Suite 364
Sacramento, CA 95814-4801

Subject: **Sacred Lands Search for the College Park-Hutton Development Project located near Monte Vista Avenue and West Arrow Route, Upland, San Bernardino County, California.** (USGS *Ontario, CA.* quad)

Dear Ms. Pilas-Tredwell:

Michael Brandman Associates (MBA) requests a consultation with individuals or organizations with regard to cultural properties that may lie on or near a proposed single-family residential construction project. The project site consists of approximately 38 acres located southwest of the intersection of Monte Vista Avenue and Arrow Route. The site is bordered by the City of Claremont, the Claremont Colleges and Los Angeles County line on the west; a San Bernardino County unincorporated area to the north; the City of Upland to the east; and the City of Montclair to the south. Approximately 1-acre of the project on the south side is actually within the City of Montclair. The project consists of the development of a mixed-use residential area.

As seen in the attached topo, the project area is located near Monte Vista Avenue and West Arrow Route, Upland, CA. 91786. The project is located in Section 10 of T.1S R.8W (SBBM), as found on the USGS *Ontario*, CA. 7.5' topographic quadrangle.

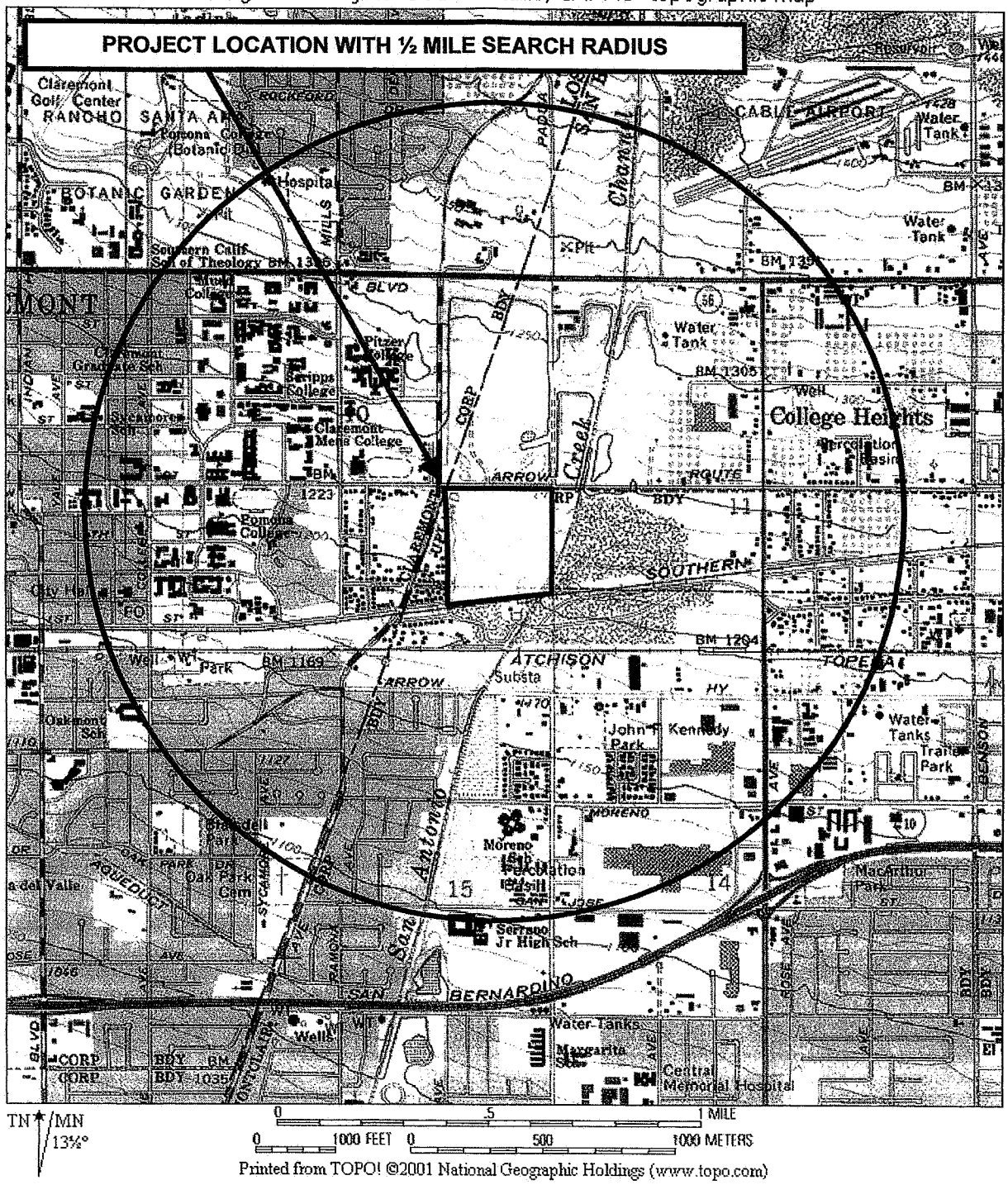
Please notify us of any sacred Native American sites that may be affected by the undertaking. A full description of this aspect of the project can be found in our archaeological survey report, which is forthcoming.

Sincerely,

Michael Dice M.A., Senior Archaeologist
Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA. 92602

MD/md
05190004

College Park Project: USGS Ontario, CA. 7.5' topographic map



Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

SOURCE: Topo! @National Geographic Holdings

Michael Brandman Associates

Exhibit **1**

Project Topographic Map

STATE OF CALIFORNIA Gray Davis, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390
Web Site www.nahc.ca.gov

October 27, 2003

Michael Dice
Michael Brandman Associates

Sent By Fax: 714-508-4110
No. of Pages: 4

RE: Proposed College Park-Hutton Development Project, Upland, San Bernardino County.

Dear Mr. Dice:

A record search of the sacred lands file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend other with specific knowledge. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4040.

Sincerely,

Rob Wood

Rob Wood
Environmental Specialist III

NATIVE AMERICAN CONTACTS
San Bernardino County
October 27, 2003

La Jolla Band of Mission Indians
Wendy Schlater, Chairperson
22000 Highway 76 Luiseno
Pauma Valley , CA 92061
(760) 742-3771/72

Rincon Band of Mission Indians
Culture Committee
P.O. Box 68 Luiseno
Valley Center , CA 92082
(760) 749-1051
(760) 749-8901 Fax

Pala Band of Mission Indians
Robert Smith, Chairperson
P.O. Box 50 Luiseno
Pala , CA 92059 Cupeno
(760) 742-3784
(760) 742-1411 Fax

San Manuel Band of Mission Indians
Deron Marquez, Chairperson
PO Box 266 Serrano
Patton , CA 92369
(909) 864-8933
(909) 864-3370 Fax
Bingo Hall:(909) 864-5050

Pauma & Yuima
Christobal C. Devers, Chairperson
P.O. Box 369 Luiseno
Pauma Valley , CA 92061
(760) 742-1289
(760) 742-3422 Fax

Soboba Band of Mission Indians
Robert J. Salgado, Sr., Chairperson
P.O. Box 487 Luiseno
San Jacinto , CA 92581
(909) 654-2765
Fax: (909) 654-4198

Pechanga Band of Mission Indians
Mark Macarro, Chairperson
P.O. Box 1477 Luiseno
Temecula , CA 92593
(909) 676-2768
(909) 695-1778 Fax

Twenty-Nine Palms Band of Mission Indians
Dean Mike, Chairperson
46-200 Harrison Place Luiseno
Coachilla , CA 92236 Chemehuevi
(760) 775-5566
(760) 775-4639 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regards to cultural resources assessment for the proposed College Park-Hutton Development Project, Upland, San Bernardino County.

NATIVE AMERICAN CONTACTS
San Bernardino County
October 27, 2003

Samuel H. Dunlap
P.O. Box 1391
Temecula , CA 92593
(909) 262-9351 (Cell)
(909) 693-9196 FAX

Gabrielino
Cahuilla
Luiseno

Gabrieleno/Tongva Tribal Council
Anthony Morales, Chairperson
PO Box 693
San Gabriel , CA 91778
(626) 286-1632
(626) 286-1262 Fax
(626) 286-1758 (Home)

Gabrielino Tongva

Ti'At Society
Cindi Alvitre
6602 Zelzah Avenue
Reseda , CA 91335
(714) 504-2468 Cell

Gabrielino

San Luis Rey Band of Mission Indians
Henry Contreras, Cultural Resources Representative
1763 Chapulin Lane
Fallbrook , CA 92028
(760) 728-6722 - Home
(760) 207-3618 - Cell

Luiseno
Cupeno

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Chairperson
5450 Slauson Avenue, Suite 151
Culver City , CA 90230-6000
(562) 925-7989 - Voice
(562) 920-9449 - Fax

Gabrielino Tongva

San Luis Rey Band of Mission Indians
Russell Romo, Captain
2302 Carriage Circle
Oceanside , CA 92056
(760) 724-8505
(760) 757-6749 - Fax

Luiseno
Cupeno

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838
Newhall , CA 91322
(661) 753-9833 Office
(760) 885-0955 Cell
(760) 949-2103 Home
(760) 949-1604 Fax
tsen2u2@msn.com

Fernandeño
Tataviam
Serrano
Vanyume
Kitanemuk

Gabrielino/Tongva Council / Gabrielino Tongva Nation
501 Santa Monica Blvd., Suite 500
Santa Monica 90401-2415
, CA
(310) 587-2203
(310) 587-2281 Fax

Gabrielino Tongva

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regards to cultural resources assessment for the proposed College Park-Hutton Development Project, Upland, San Bernardino County.

NATIVE AMERICAN CONTACTS
San Bernardino County
October 27, 2003

Gabrielino Band of Mission Indians of CA
Ms. Susan Frank
PO Box 3021 Gabrielino
Beaumont , CA 92223
(702) 647-0094: Phone/FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regards to cultural resources assessment for the proposed College Park-Hutton Development Project, Upland, San Bernardino County.

Appendix D: DPR523 Form Set

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code | Reviewer | Date

*Resource Name or #: College Park Project for the City of Upland

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted *a. County: San Bernardino

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Ontario Date: 1967, photorev. 1981 T.1S ; R.8W ; ¼ of ¼ of Sec 10 ; San Bernardino B.M.

c. Address: Arrow Route between Claremont Boulevard and Monte Vista Avenue City: Upland Zip: 91786

d. UTM: 1983 datum; 435350 mE/ 3773425 mN (G.P.S.)

e. Other Locational Data: 0.6 miles westerly of Central Avenue; Lat.: 34°-06.0' N, Long.: 117°-41.9'W Elevation:

*P3a. Description:

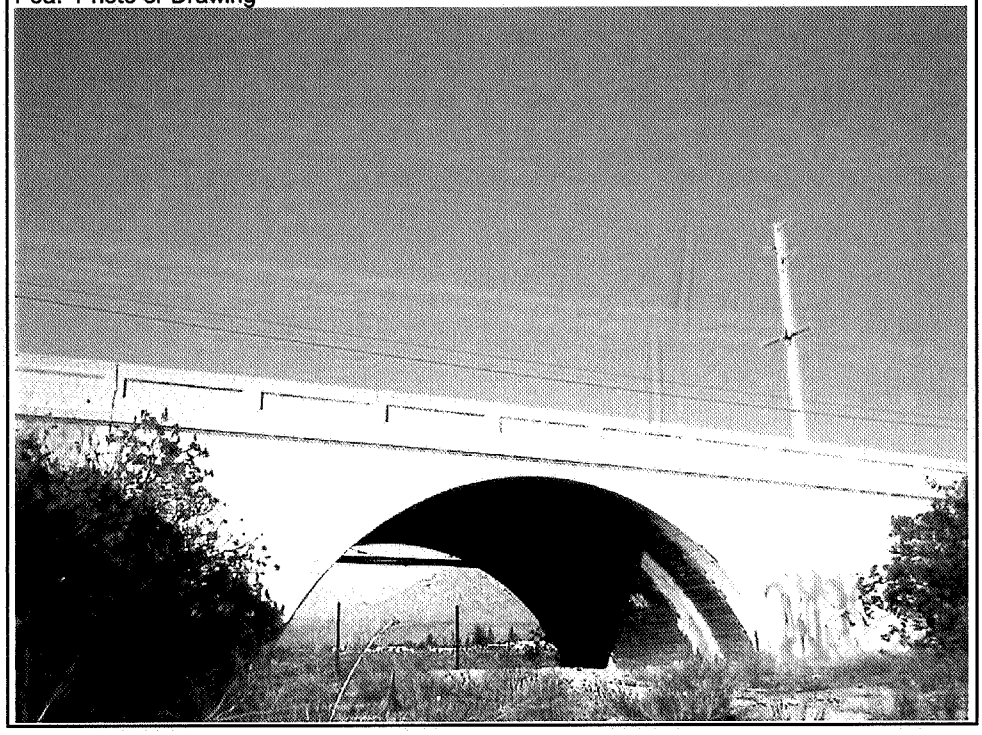
The assessed property consists of a reinforced concrete bridge constructed in 1926. It was commissioned by American Plant Union Rock Company to connect the north and south sections of their rock quarry. This is a closed spandrel deck arch bridge; Arrow Route, a two-lane asphalt road, runs along the deck. The railings at the north and south sides of the bridge each have thirteen blank rectangular panels. The east and west sides of the bridge flair out into wing walls. Just below the railing on each spandrel wall is a simple classical molding detail that runs the length of the bridge (see Figures 13 & 14). Along with these modest traditional details that could also be found on masonry bridges, construction has also resulted in an honesty of the material; instead of imitating the appearance of stone, the poured concrete surfaces of this bridge still retain the distinct imprints left by their wood forms.

(see continuation sheet)

*P3b. Resource Attributes: HP19. Bridge

*P4. Resources Present: ☐Building ☒ Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: View looking northeast at the south side, January 9, 2004

*P6. Date Constructed/Age and Sources: ☒Historic ☐Prehistoric ☐Both

1926, original construction drawings, County of San Bernardino, Department of Public Works, Transportation Design Division.

*P7. Owner and Address:

County of San Bernardino
San Bernardino, CA 92415

*P8. Recorded by:

Christeen Taniguchi
Architectural Historian
Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602

*P9. Date Recorded:

January 15, 2004

*P10. Survey Type:

CEQA level compliance

*P11. Report Citation: Ostashay, Jan. "Historic Bridge Report: Arrow Route Bridge," Planning Consultants Research, May 15, 1997 (prepared for CALMAT Properties Company).

*Attachments: ☐NONE ☐Location Map ☐Sketch Map ☒Continuation Sheets ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

(continued 523a)

According to original drawings, the bridge length is 104 feet; the structure is 44 feet high and 30 feet deep (see Figures 26, 27, 28 & 29). Its arch was originally about 40 feet high and 40 feet wide. Over the past few decades, however, the abutments of the arch have weakened, forcing the County of San Bernardino to fill the space between them with dirt so that today only the arch ring is exposed (Wallsten, 2004). Fill work appears to be either minimal or has not yet begun in a photograph taken by the County in 1970 (see Figure 21). By the time of Jan Ostashay's Planning Consultants Research (PCR) report in 1997, however, the height of the fill is shown to be about half of what it is today (see Figure 20). San Bernardino County Transportation Design Division correspondence from 1999 indicates that it is likely the current fill level was achieved at that time. Originally, there were tracks from Dinky Trains used to transport aggregates from the quarry to the north of the bridge to the crusher located south. These are no longer evident. It is possible, however, that that the tracks from the trains still exist under the fill. Today, the arch is closed off on either side with chain link fences.

The condition of the bridge is good to fair. In addition to the weakened abutments mentioned above, there is also sporadic graffiti throughout, located at the inside railing at the deck, the inside of the arch and the spandrel walls of the bridge (see Figures 3 & 11). Some of the graffiti on the deck have been over-painted. Both elevations have exposed and corroded rebar resulting in pieces of concrete spalling off the surface (see Figure 16). Inside the arches is evidence of efflorescence (a whitish powder or crust of salts resulting from lime leaching from the cement) and carbon soot stains (see Figure 17). At the north side, small stones have been adhered to the surface by rock climbers. There is evidence of repair at the west end of the railing at the south side (see Figure 15); bridge inspection reports by Caltrans indicate it is likely this damage occurred some time between 1983 and 1987. It has subsequently been repaired in its entirety, although in 2000 the damage to the exterior side of the railing had not yet been repaired, leading to corrosion problems. The integrity of the bridge is good to excellent. Although the overall appearance of the bridge has been changed by the fill, this is a reversible alteration if the structural problems of the bridge are corrected. Otherwise, it has retained its original design integrity.

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z

***Resource Name or #** College Park project for the City of Upland

B1. Historic Name: none or unknown

B2. Common Name: Arrow Route Bridge (Ostashay, 1997)/Gravel Pit Bridge (Caltrans)/54C-0468 (State Bridge no.)

B3. Original Use: bridge and underpass B4. Present Use: bridge

***B5. Architectural Style:** utilitarian bridge with classical elements

***B6. Construction History:** (see continuation sheet)

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:** The bridge is part of Arrow Route located at the border of unincorporated San Bernardino County land to the north and the City of Upland to the south.

B9a. Designer/Engineer: Robert V. Leeson (Los Angeles, CA) b. Builder: unknown

***B10. Significance: Theme:** development of reinforced concrete bridge construction **Area:** Southern California
Period of Significance: 1926 **Property Type:** reinforced concrete bridge **Applicable Criteria:** N/A
(see continuation sheet)

B11. Additional Resource Attributes: HP19. Bridge

***B12. References:**

Research Resources:

Bellavia, Savoy M., Vice President, Hutton Development Company, e-mail correspondence, January 15, 2004.

County of San Bernardino, Archives: assessor books.

County of San Bernardino, Department of Aerial Photos: aerial photographs.

Hope, Andrew, Architectural Historian, California Department of Transporation, Telephone interview, January 12, 2004.

Ontario City Library, Model Colony Room: newspaper clippings, photographs.

San Bernardino County, Department of Public Works, Transportation Design Division: file on the bridge, original construction drawings (1926), drawings for proposed improvements to West 10th Street (1915/16).

Wallsten, David, San Bernardino County, Department of Public Works, Transportation Design Division. Personal interview, January 9, 2004.

Publications and Reports:

Eriksson, Merv, C. Milo McLeod and Dan Gard. *Identifying and Preserving Historic Bridges.* Washington, D.C.: United States Department of Agriculture, December 2000.

Forsyth, Raymond and Joseph Hagwood. *One Hundred Years of Progress: A Photographic Essay on the Development of the California Transportation System.* Sacramento: California Transportation Foundation, c1996.

Jackson, Donald C. *Great American Bridges and Dams.* A National Trust Guide. New York: John Wiley & Sons, Inc., c1988.

Mikesell, Stephen D. *Historic Highway Bridges of California.* [Sacramento]: California Department of Transporation, c1990.

Ostashay, Jan. "Historic Bridge Report: Arrow Route Bridge," Planning Consultants Research, May 15, 1997.

Plowden, David. *Bridges: The Spans of North America.* New York: W. W. Norton & Company, c2002.

Stephens, John H. *Towers, Bridges and Other Structures.* New York: Sterling Publishing Co., Inc., c1976.

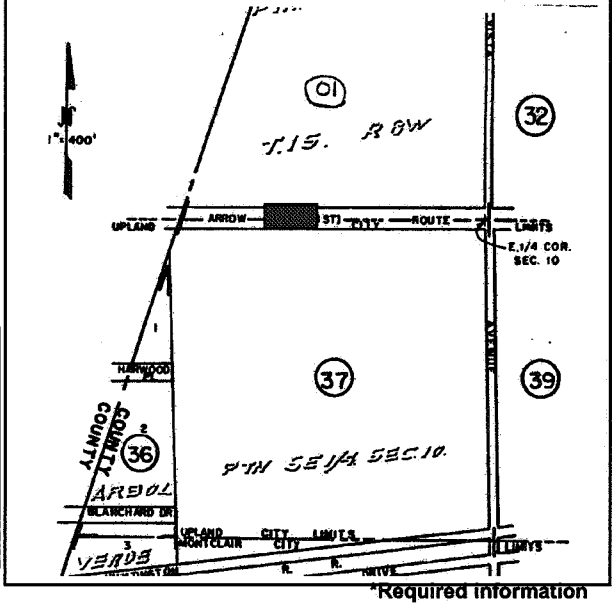
B13. Remarks:

***B14. Evaluator:**

Christeen Taniguchi
Architectural Historian
Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602

***Date of Evaluation:** January 15, 2004

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

*Required information

(continued 523b)

Construction History (B6):
The bridge and its associated Dinky Train tracks under the arch were constructed in 1926. Although minimal fill work may have been done even while the quarry was still in operation, by 1997, the arch was filled half way up the abutments due to their growing instability. The rest of the arch was filled in about 1999 so that only the arch ring is still exposed. It is possible that the Dinky Train tracks constructed running below the arch are still intact under the layers of fill. The area below the arch is now blocked by chain link fencing on either side.

Significance (B10):
According to original construction drawings, the bridge was commissioned by the American Plant Union Rock Company in 1926. Jan Ostashay of Planning Consultants Research (PCR) indicates the Company was formed in 1925 when the Union Rock Company purchased stocks of the American Crushed Rock Company, who had already been operating a quarry at this location. Quarry operations began on this property some time after 1916 (Ostashay, 1997).

Individual names, however, were listed as owners in assessor books located at the San Bernardino County Archives. Margaret Fleming owned the north section of the quarry. After ownership transferred to Anna Ferguson from 1927 to 1929, Fleming again obtained the property for a year. In 1930, however, the Title Insurance & Trust Co. acquired the property and retained it until 1942. It was in the same year that the name of the quarry company changed to Consolidated Rock Products Company. According to the Archives, the Union Rock Company acquired it for a year in 1943. It is likely that Fleming also owned the south section of the quarry as well at the time of the bridge construction. There is no record of ownership in assessor records of that year, but Fleming did own this southern property from 1929 until 1946. Consolidated Rock Products Company did not become the owner of both properties, according to assessor books, until 1944 for the northern property and 1946 for the southern. They continued operations at the quarry until 1972 when the company name changed to the ConRock Company. Quarry operations ceased in 1975; since then, the property has been used as a wash site for gravel coming from other sites, especially the one to the north (Hutton, 2004). In 1984, ownership came into the hands of CALMAT Properties Company (Ostashay, 1997), who continues to own the property today as a subsidiary of Vulcan Materials Company. General maintenance work of the bridge is being done by San Bernardino County. Although the underpass is no longer being used by quarry operations, the two-lane road (Arrow Route) is still being used by vehicles, as well as pedestrians and bicycles.

Bridge construction allowed transport of gravel under its arch by the quarry company. According to Ostashay, small gauged Dinky Trains originally passed through the underpass on rails. These trains, consisting of wood side dump cars hauled by an engine, were popular for quarry operations at the time. The American Plant Union Rock Company quarry had two such trains, which operated simultaneously. They ran on the tracks, which formed a loop, bringing the aggregates from the north pit and bringing it down to the "crusher" facility south of the bridge. They were later replaced by haul trucks (Ostashay, 1997). No longer visible, it is possible that the tracks from the Dinky Trains that were used by the quarry still exist under the layers of fill material that help support the vertical sides of the weakening arch.

The designer was Los Angeles-based engineer Robert V. Leeson. There is little available information regarding his work as a bridge designer. According to Jan Ostashay, before arriving in Los Angeles in 1921, Leeson already had fifteen years of experience in reinforced concrete construction. An advertisement in the *Southwest Builder and Contractor*, he placed upon his arrival, identified himself as a Design and Consulting Engineer for steel and reinforced concrete bridges (Ostashay 1997). Ostashay also indicates other commissions in the San Bernardino and Riverside County areas that were designed by Leeson. These are the Temecula Creek Bridge in Temecula, the Auburndale Bridge across the Santa Ana River, a steel bridge across the San Jacinto River on State Route 79, the Rubidoux Bridge in Riverside and the Victoria Avenue Bridge in Riverside. The Victoria Avenue Bridge has been determined eligible for the National Register. The contractor for the work is unknown, although construction drawings indicate that the contractor hired to build the bridge would be different from the one hired to pave the road. Also according to the drawings, the American Plant Union Rock Company apparently did the rough excavation for the bridge, while the contractor would have performed the remaining excavation.

(continued 523b)

The Arrow Route bridge is typical of a reinforced concrete bridge, which is the most common historic bridge type in California. In addition, its construction as a vehicular bridge is reflective of the growing number of such bridges throughout the United States, in response to the increased popularity of the automobile; this type eclipsed the railroad bridges of the nineteenth century. Reinforced concrete bridges began to be built in California during the latter part of the nineteenth century, and by the twentieth century replaced steel truss bridges as the most widely constructed bridge type in the state. With the high cost of steel and the availability of high quality cement, the transition to concrete bridge construction came early and readily to this State (Mikesell, c1990: 11, 71). Although making the forms can be costly as it requires skilled labor, its actual construction and maintenance were less expensive (Plowden, c2002: 304). Locally available materials such as the cement mentioned above, sand and gravel were used. Many technologically innovative and/or aesthetically pleasing bridges resulted from these efforts throughout the State (Mikesell, c1990: 71), such as the Colorado Street Bridge in Pasadena and the Arroyo Hondo Bridge near Gaviota. According to Andy Hope at Caltrans, there are five other reinforced concrete spandrel bridges in San Bernardino County. These are 54C-345 on Route 330 (built in 1948), 54C-365 on Route 330 (built in 1947), 54C-187 on Brookside Avenue in Redlands (construction year unknown) and 54C-188 on Brookside Avenue in Redlands (construction year unknown).

The bridge being studied is part of Arrow Route, developed in the 1920s to serve a vast agricultural community between the cities of Upland and San Bernardino. Today, it runs between Irwindale in Los Angeles County to Fontana in San Bernardino County. Arrow Route is confusing, for it has changing names at different sections of the Route, and its east and west sections do not meet in Upland where Arrow Route bridge is located (see Figure 25).

In 1924, San Bernardino County finalized efforts to secure the deeds to the right-of-way for Arrow Route (*The Sun*, November 5, 1924: 1). The section of Arrow Route in Upland already existed; at the time it was West 10th Street, according to 1915/16 drawings generated by the County for proposed improvements. Arrow Route bridge was built around the same time Arrow Route was being planned and constructed. The bridge is located on Arrow Route, less than 1/8 mile from the Los Angeles County border where Arrow Route ends and becomes East 6th Street in Claremont. In San Bernardino County, Arrow Route was developed to serve an unmet transportation need, which existed between two parallel thoroughfares: Foothill Boulevard to the north and Valley Boulevard to the south. Today, as with most of the County, Arrow Route serves an increasingly suburbanized community, with very little remaining agriculture.

There is some confusion with Arrow Route. For one, as the Route goes through San Bernardino County, the names alternate between Arrow Route, Arrow Highway and Arrow Boulevard until it ends in Fontana. West 10th Street in Upland was officially renamed to Arrow Highway in 1939 (*The Daily Report*, March 21, 1939: 3:1) to become part of this name-changing Route.

More significantly, the western end of the route in Upland does not connect to its continuation going west into Los Angeles County. At the western boundary of San Bernardino County, there is an approximate 1-1/4 mile stretch where Arrow Route passes through Upland (where Arrow Route bridge is located). Directly south, another thoroughfare named Arrow Highway runs parallel through Montclair. This southern Highway is what continues west and terminates in Irwindale. The reason for this disconnect is explained in an article in *The Daily Bulletin* written by Joe Blackstock. According to his research, Arrow Route was built or laid out as a dirt road almost to the San Bernardino County line by 1925, as were sections in Los Angeles County. Initial plans called for Arrow Route to run through the Claremont College campus, which met objections from the city. This derailed the rest of construction until 1957 when Los Angeles County finally built the Arrow Highway extension between the two counties. Eastward through Claremont and Pomona, the roadway proceeds through Montclair, joining West Eighth Street in Upland, thus running parallel rather than connecting with the existing Arrow Route in San Bernardino County. There was a brief period after this extension was built when Arrow in Upland was still called a Highway as was the one in Montclair to the south. There were apparently appeals at that time from the recently incorporated Montclair for Upland to change its street name. The resolution was to change the section in Upland to Arrow Route. Early 1970s local newspaper articles document the continued debate between the cities of Upland and Montclair, regarding which city should rename its "Arrow" (*The Daily Report*, November 16, 1971, February 14, 1973). The issue has not yet been resolved, so that the route remains disjointed.

(continued 523b)

National Register Eligibility Evaluation

The bridge was assessed under National Register Criterion A for its potential significance as part of a historic trend that may have made a significant contribution to the broad patterns of our history. The bridge was built by an existing quarry operation at the same time Arrow Route was being constructed. The latter was made to service the growing transportation needs of vast agricultural needs in San Bernardino County. In addition to contributing to the purpose of the vehicular road, the underpass of the bridge was used by what appears to have been a thriving quarry business located north and south of the structure. However, the bridge and its portion of Arrow Route do not appear to play a significant role in the development of transportation in San Bernardino County. Therefore, the property does not qualify for the National Register of Historic Places (NHRP) under Criterion A.

The bridge was considered under Criterion B for its association with the lives of persons significant in our past. There is no evidence of the bridge being associated with any important individuals. Therefore, the property does not qualify for the National Register of Historic Places (NHRP) under Criterion B.

The bridge was evaluated for Criterion C for embodying the distinctive characteristics of a type, period, or method of construction, or representing the work of a master, or possessing high artistic values, or representing a significant and distinguishable entity whose components may lack individual distinction. This bridge is representative of a reinforced concrete closed spandrel arch bridge popular at its time. However, by 1926, this technology was no longer new and innovative. Also, there were also many other Southern California concrete bridges of this period with a higher level of design sophistication, such as the Los Angeles River bridges. This bridge is not distinctive for either its aesthetics or its engineering. In addition, not enough evidence was produced to indicate that the designer, Robert V. Leeson was a master in bridge design. He was experienced with reinforced concrete bridge design, but there is no evidence of his playing a significant role in the development or innovation of this structure type. Therefore, the property does not qualify for the National Register of Historic Places (NHRP) under Criterion C.

The property was considered for Criterion D for the potential to yield, or may likely to yield, information important to prehistory or history. According to the Bulletin, for buildings, structures and objects to be eligible under this criterion, it would need to "be, or must have been, the principal source of important information." This is not the case with this property. Therefore, the property does not qualify for the National Register of Historic Places (NHRP) under Criterion D.

In summary, the bridge does not qualify for the NHRP under these criteria. Therefore, it is not a historic resource for the purposes of NHPA.

California Register Eligibility Evaluation

The bridge was also evaluated in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA) guidelines, using the following criteria outlined in Section 5024.1 of the California Public Resources Code:

1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2) It is associated with the lives of persons important to local, California, or national history.
3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The property does not qualify for the California Register under these criteria. Therefore, the bridge is not a historic resource for the purposes of CEQA.



Fig. 1 View looking northeast at the south side



Fig. 2 View looking northwest at the southwest abutment

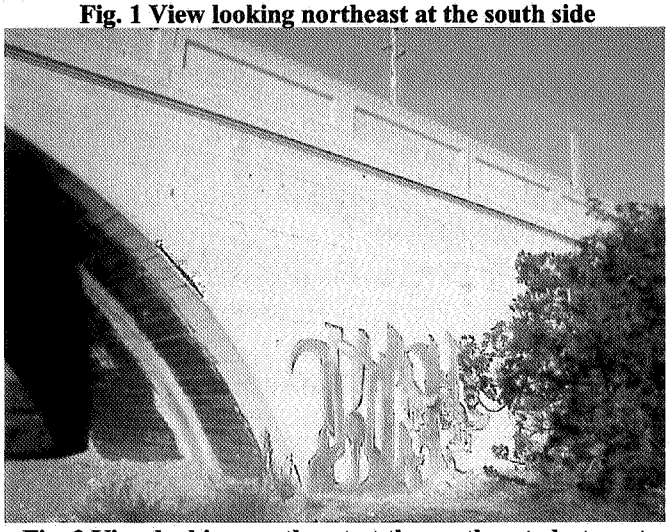


Fig. 3 View looking northeast at the southeast abutment

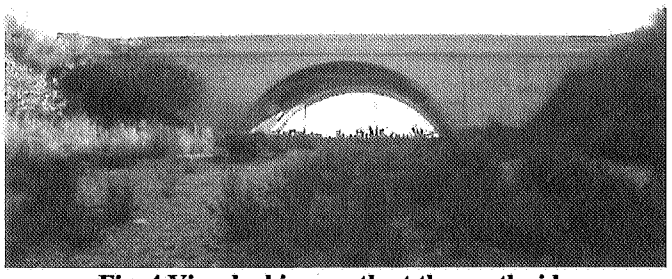


Fig. 4 View looking south at the north side



Fig. 5 View looking southeast at the north side



Fig. 6 View looking southeast at the northeast abutment

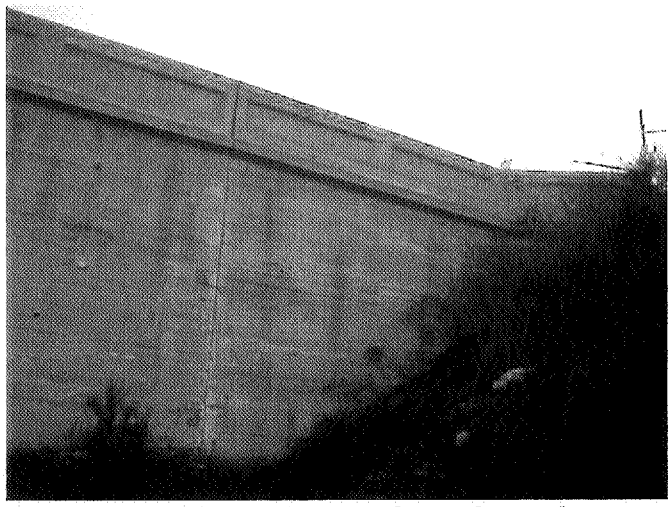


Fig. 7 View looking southwest at the northwest abutment

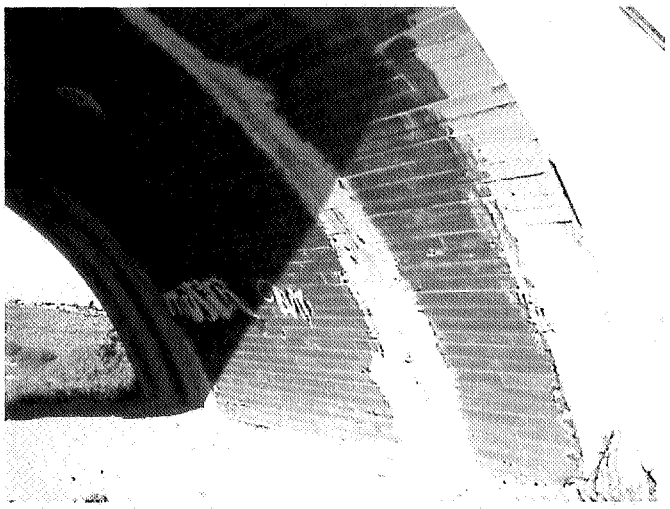


Fig. 8 View looking northeast at the inside of the arch



Fig. 9 View looking southwest at the inside of the arch

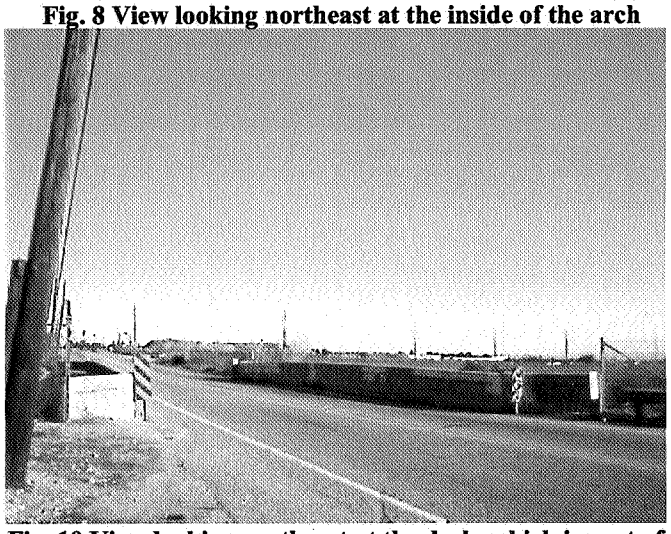


Fig. 10 View looking southeast at the deck, which is part of Arrow Route



Fig. 11 View looking southwest at the deck, which is part of Arrow Route

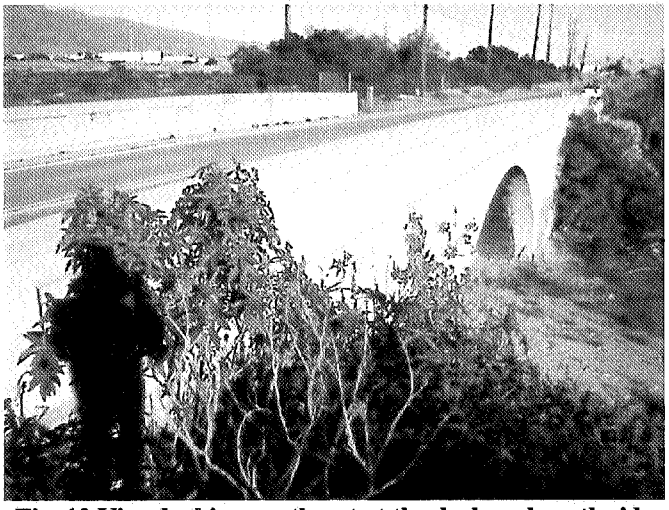


Fig. 12 View looking northeast at the deck and south side

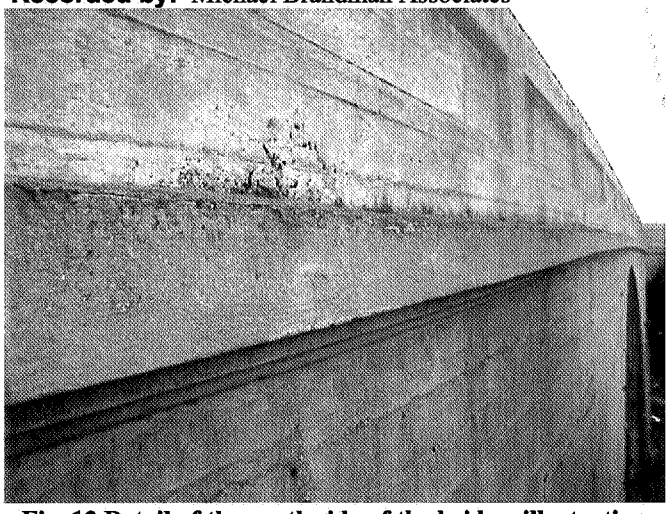


Fig. 13 Detail of the north side of the bridge, illustrating blank panels of the railing and molding below



Fig. 14 Detail of the molding below the railing

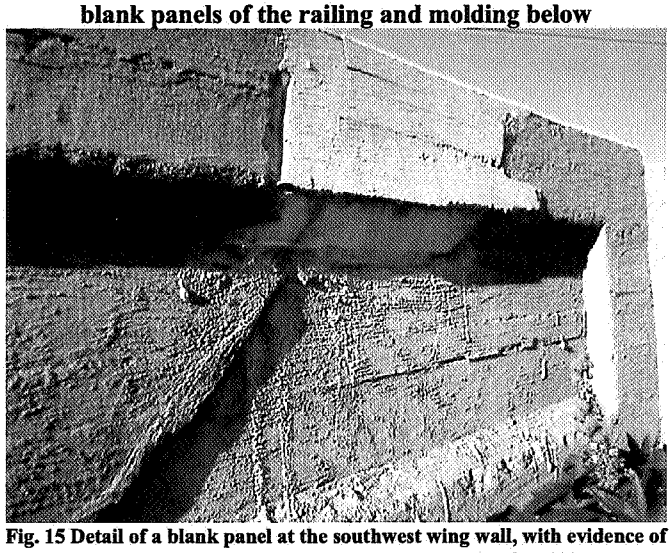


Fig. 15 Detail of a blank panel at the southwest wing wall, with evidence of repair for what was likely damage sustained in the 1980s

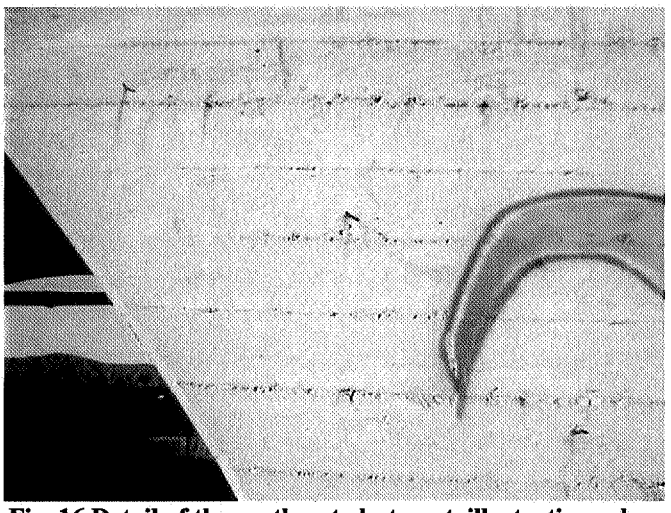


Fig. 16 Detail of the southeast abutment, illustrating rebar corrosion stains and spalled concrete, as well as graffiti

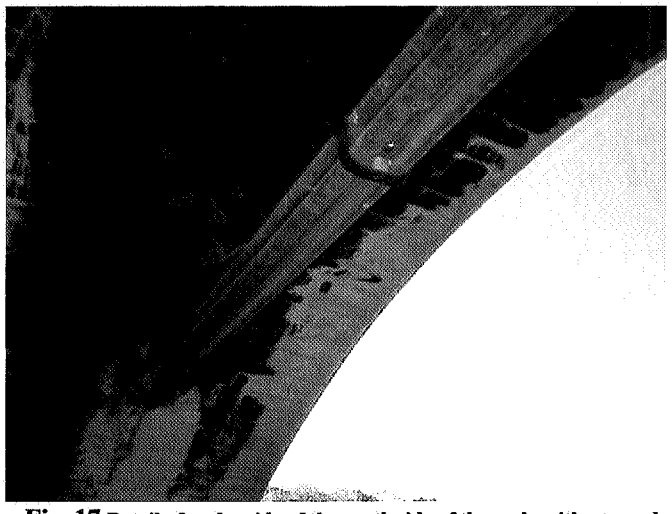


Fig. 17 Detail of under side of the north side of the arch, with exposed utility pipes that run below ground level along Arrow Route. There is what appears to be carbon soot staining as well as efflorescence.

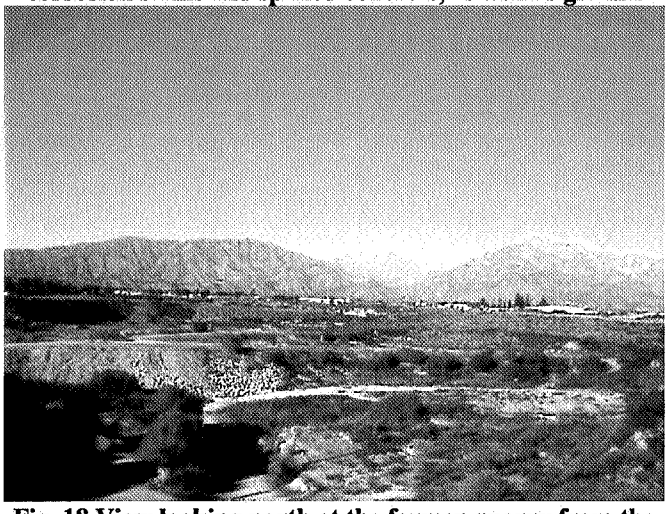


Fig. 18 View looking north at the former quarry from the deck



Fig. 19 View looking north at the south side of the bridge in January 15, 2004, illustrating the additional fill work done circa 1999 so that only the arch ring is still visible

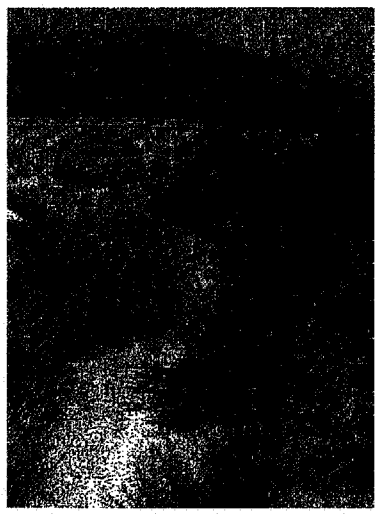


Fig. 20 View looking north at the south side of the bridge in May 1997, illustrating fill work performed some time after 1970 (Photograph taken by Jan Ostashay. Ostashay, Jan. "Historic Bridge Report: Arrow Route Bridge," Planning Consultants Research, May 15, 1997)



Fig. 21 View looking north at the south side of the bridge in September 14, 1970, indicating that there is either minor or no fill. The quarry was still active at this time, although the Dinky Train tracks are no longer visible. It is possible that they have been covered. (Photograph taken by F. A. Rubino. Located in the files of San Bernardino County's Department of Public Works, Transportation Design Division)



Fig. 22 View looking northeast at the southeast abutment in September 14, 1970, illustrating sand bags to prevent soil erosion, indicated on the 1978 Caltrans bridge inspection. At the time, there were sandbags at each of the four corners of the bridge. (Photograph taken by F. A. Rubino. Located in the files of San Bernardino County's Department of Public Works, Transportation Design Division)

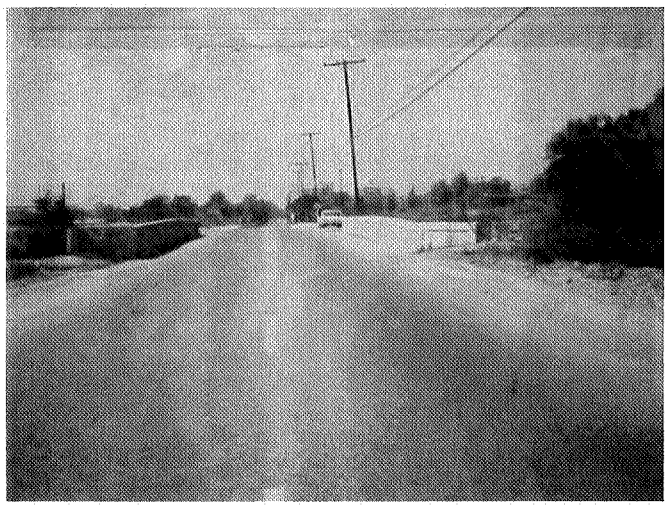


Fig. 23 View looking west at the deck of the bridge in September 14, 1970. (Photograph taken by F. A. Rubino. Located in the files of San Bernardino County's Department of Public Works, Transportation Design Division)

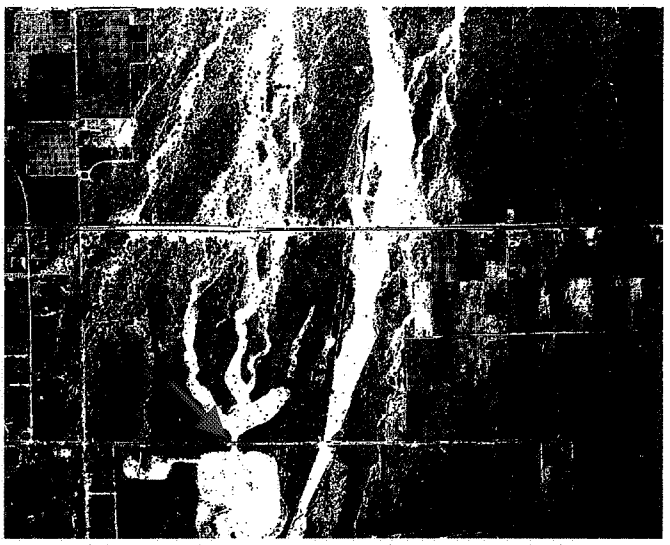


Fig. 24 1938 aerial photograph with arrow pointing to the bridge. The quarry is located to its north and south. (County of San Bernardino, Department of Aerial Photos)

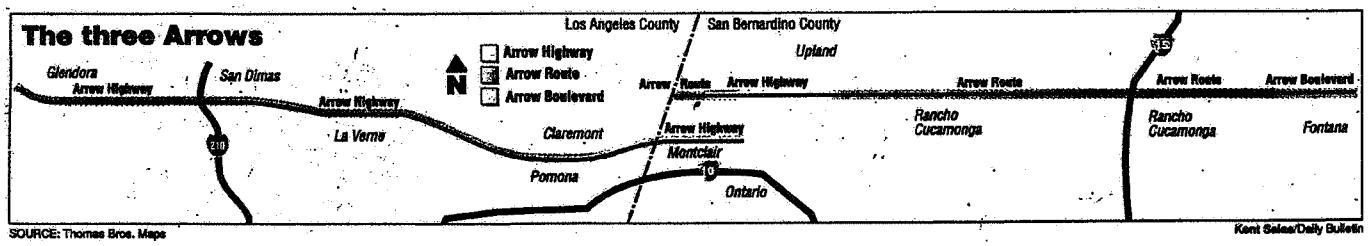


Fig. 25 Map illustrating the dual nature of Arrow Highway (*The Daily Bulletin*, August 29, 1992, p. B: 8)

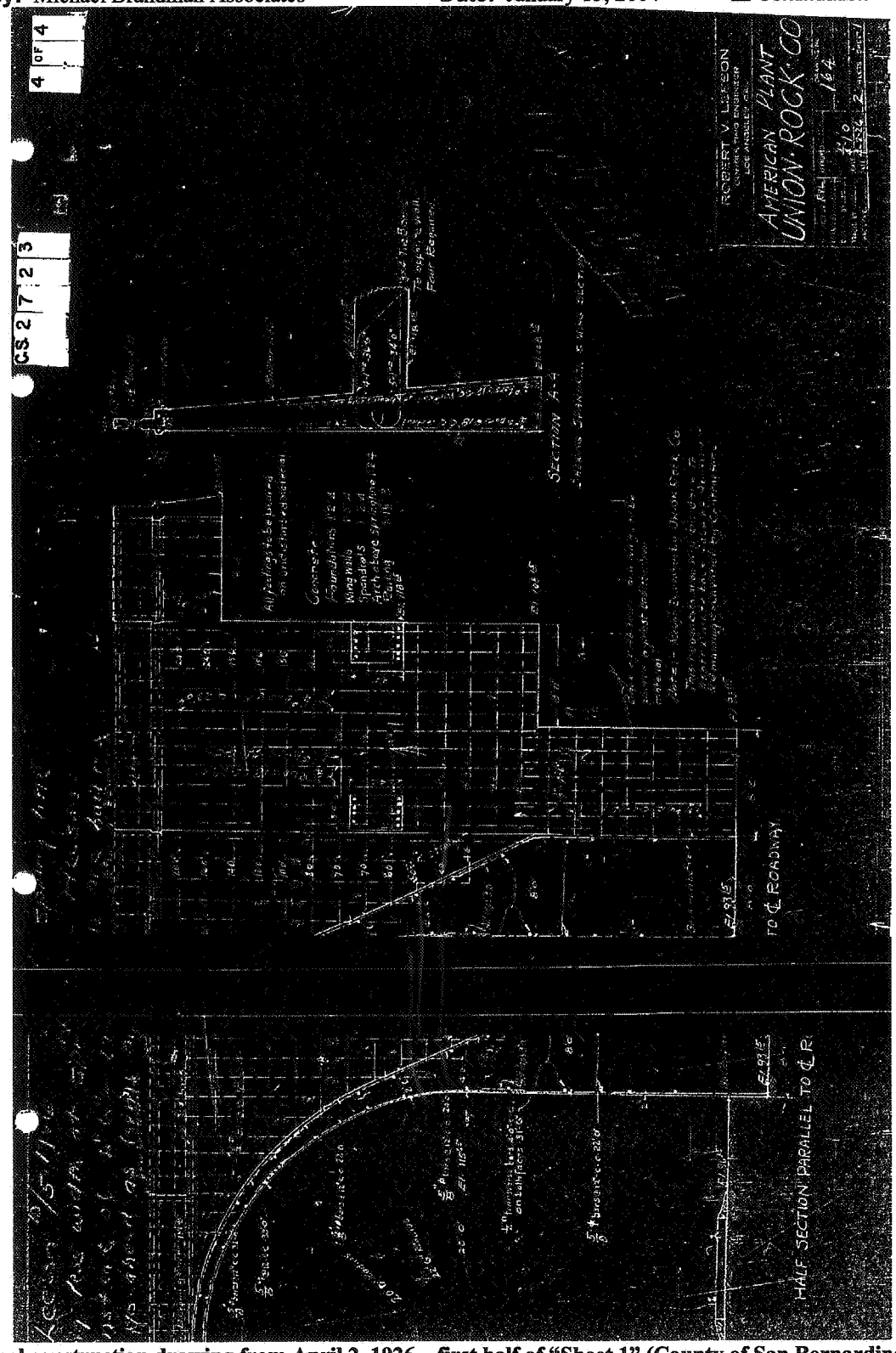


Fig. 26 Original construction drawing from April 2, 1926 – first half of "Sheet 1" (County of San Bernardino, Department of Public Works, Transportation Design Division)

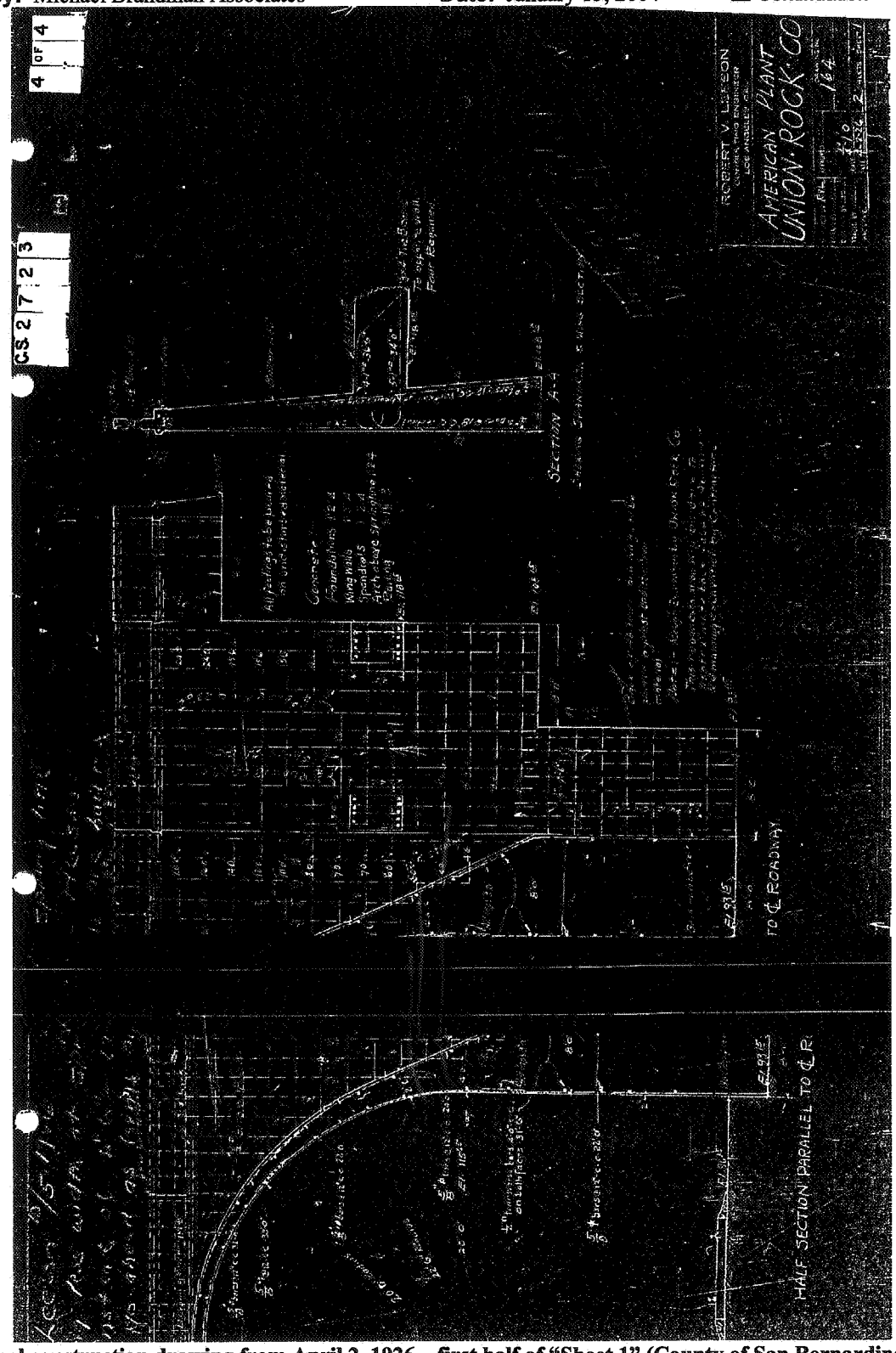


Fig. 26 Original construction drawing from April 2, 1926 – first half of "Sheet 1" (County of San Bernardino, Department of Public Works, Transportation Design Division)

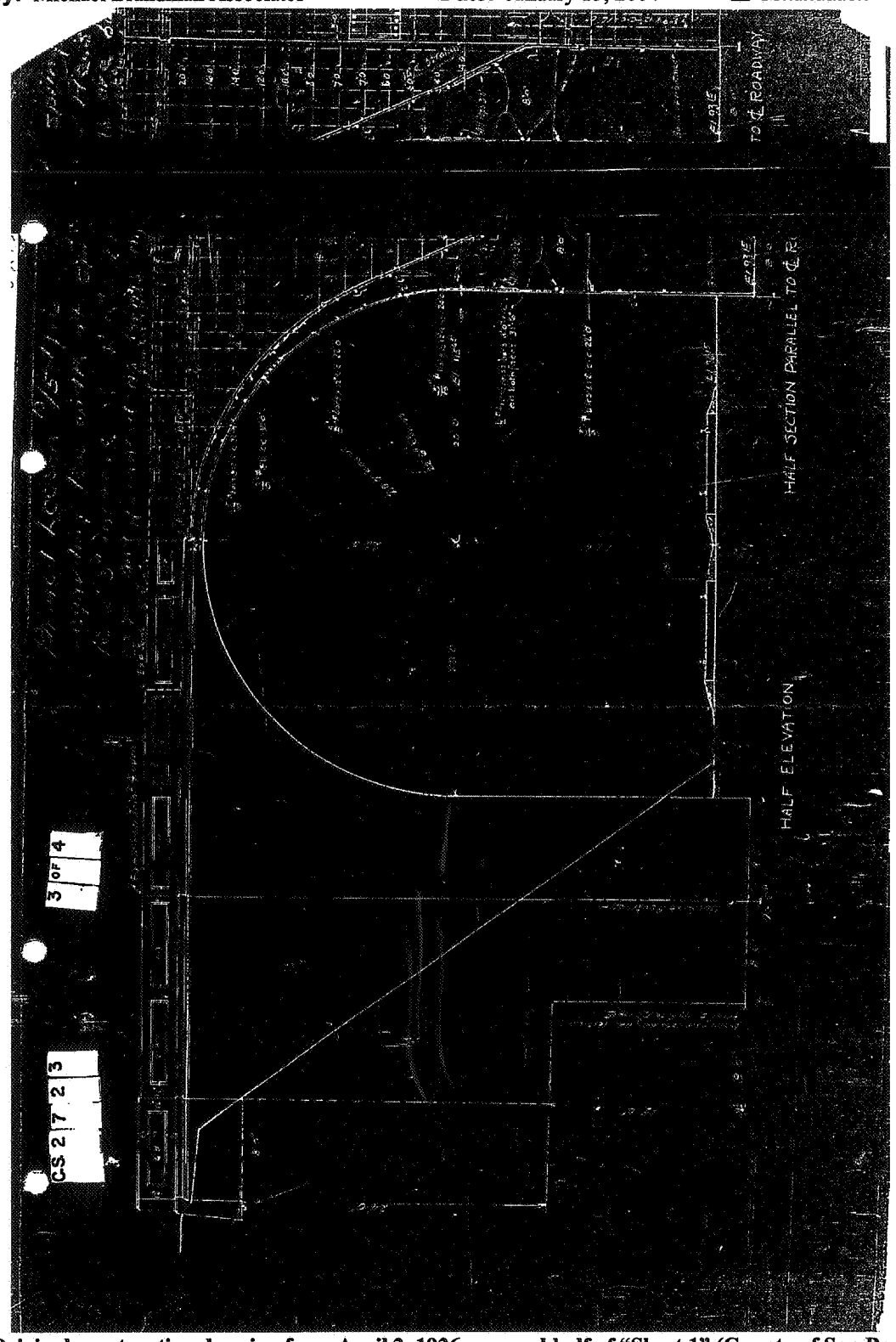


Fig. 27 Original construction drawing from April 2, 1926 – second half of "Sheet 1" (County of San Bernardino, Department of Public Works, Transportation Design Division)

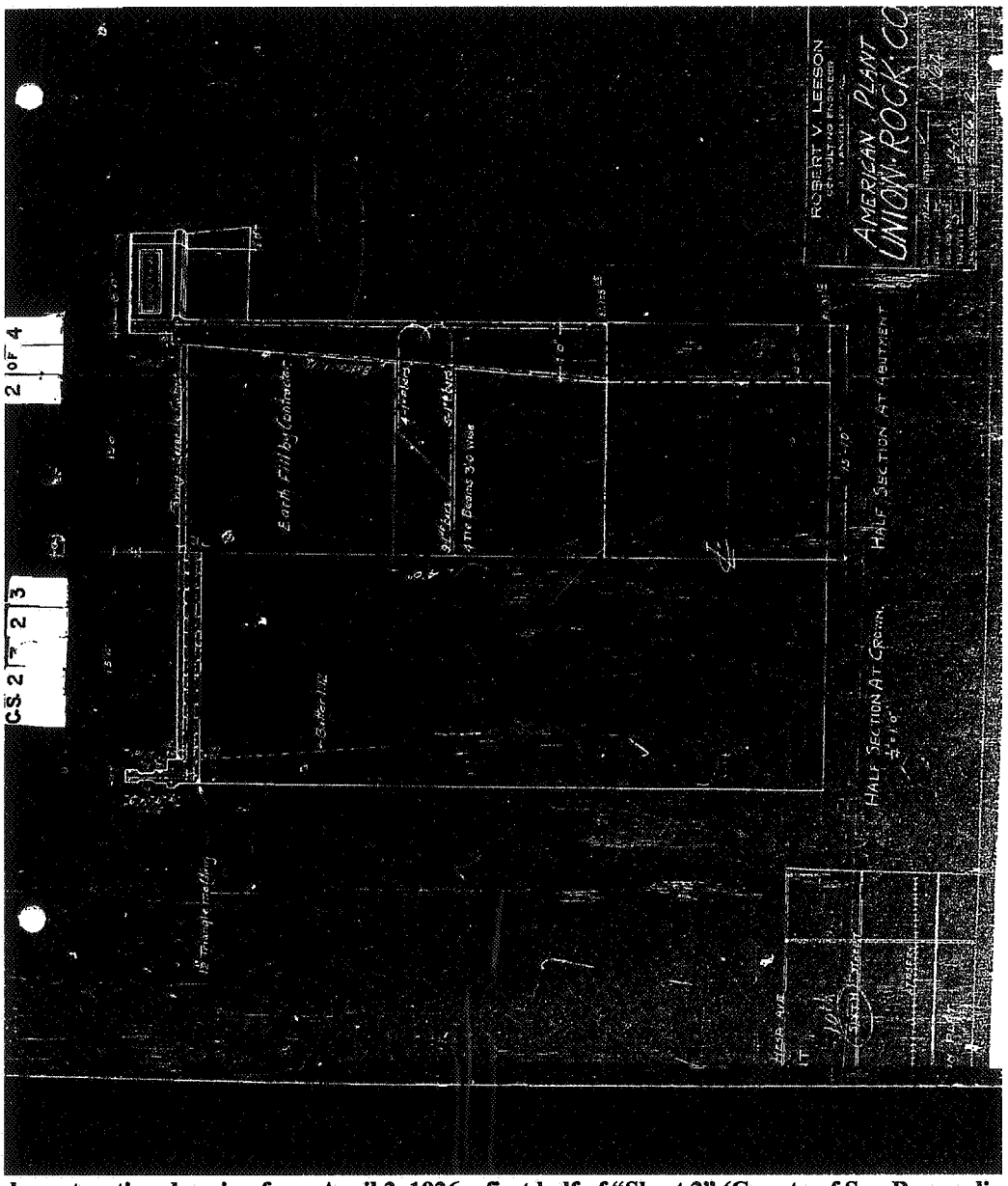


Fig. 28 Original construction drawing from April 2, 1926 – first half of "Sheet 2" (County of San Bernardino, Department of Public Works, Transportation Design Division)

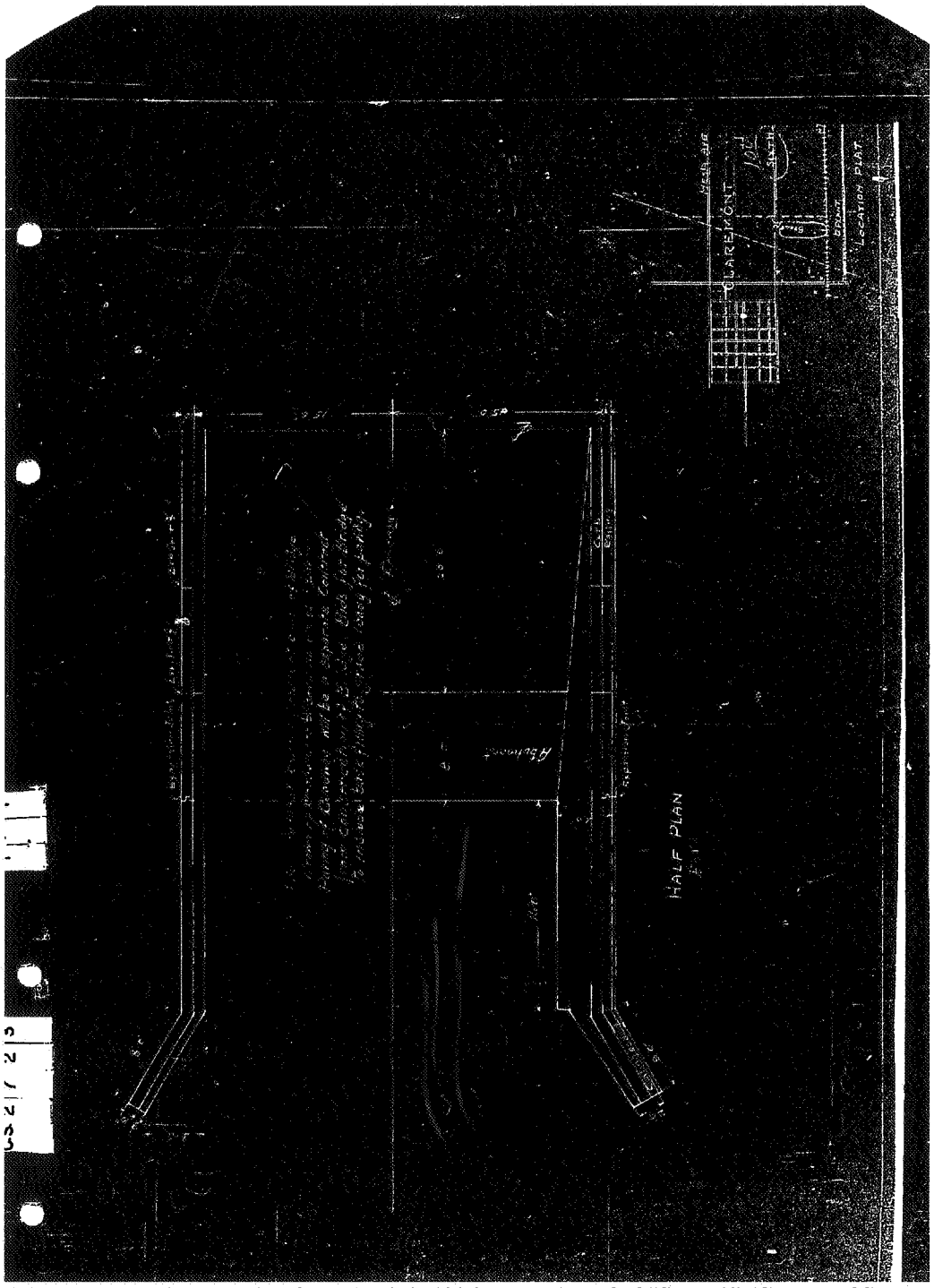


Fig. 29 Original construction drawing from April 2, 1926 – second half of "Sheet 2" (County of San Bernardino, Department of Public Works, Transportation Design Division)

Appendix H: Phase I Environmental Site Assessments

ENVIRONMENTAL PROFILES, INC.

Site Assessments * Remedial Investigation Feasibility Studies * Soil and Water Sample Collection * Compaction Testing

REPORT

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

EPI PROJECT No. 120802.PI

Site Location:

Upland West

Upland, California 91786

Prepared For:

Vulcan Materials
3200 San Fernando Road
Los Angeles, California
attn: Michael Linton

August 5, 2002

5480 Katella Avenue, Suite 211, Los Alamitos, CA 90720-2834 * * * (562)493-2190 * * * FAX (562)430-5177

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Appendix E - Aerial Photographs
Appendix F - Definitions and Description of Terms Specific to the ASTM Standard

Environmental Profiles, Inc.

5480 Katella Avenue, Suite 211, Los Alamitos, CA 90720-2834 * (562)493-2190 * FAX (562)430-5177

Project Name: Upland West	Job#: 120802
Location: Upland, California	
Map Source: U.S. G.S. Ontario Quadrangle, California 7.5 Minute Series Revised 1981	

Figure 1- Area Map

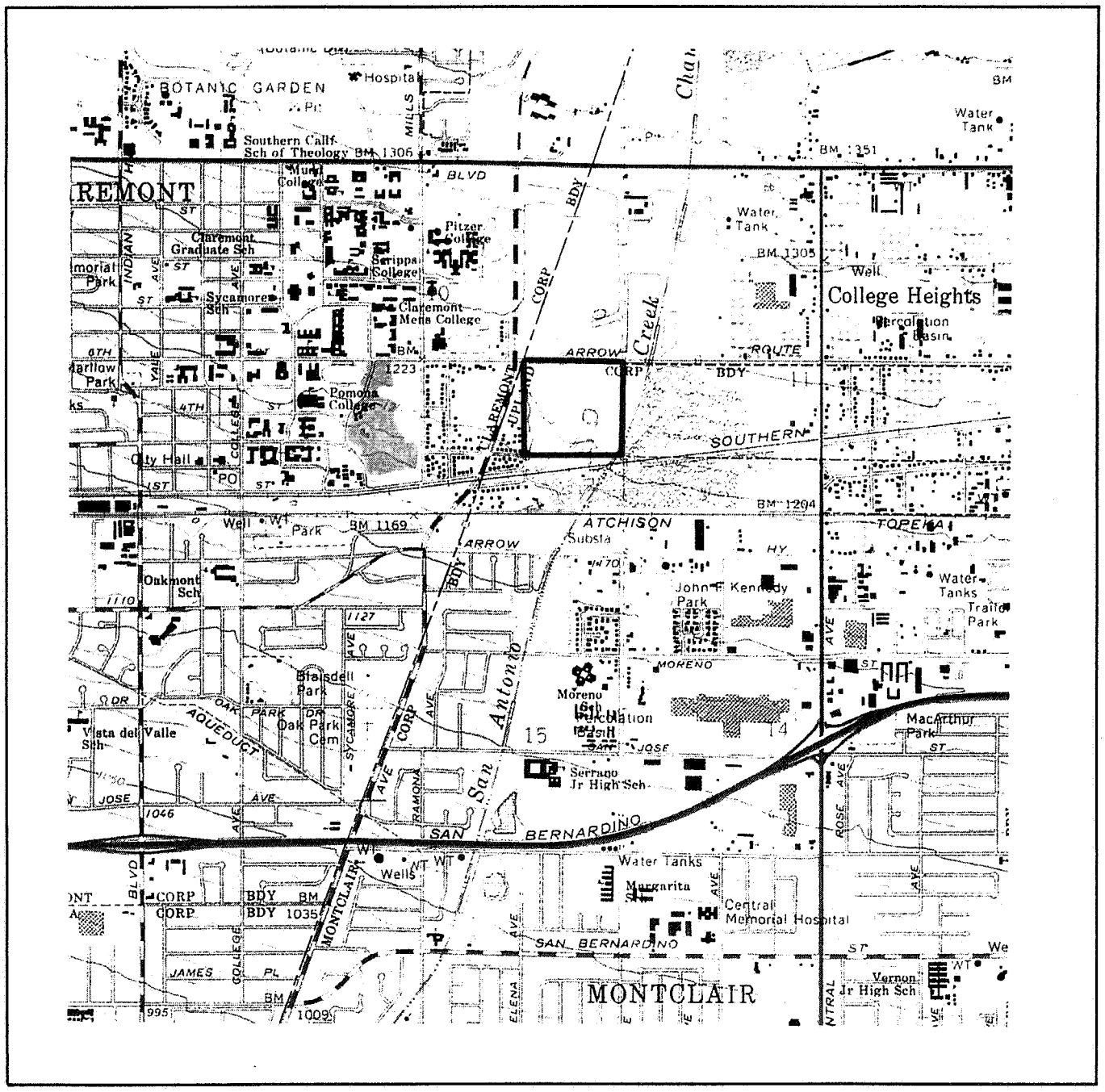
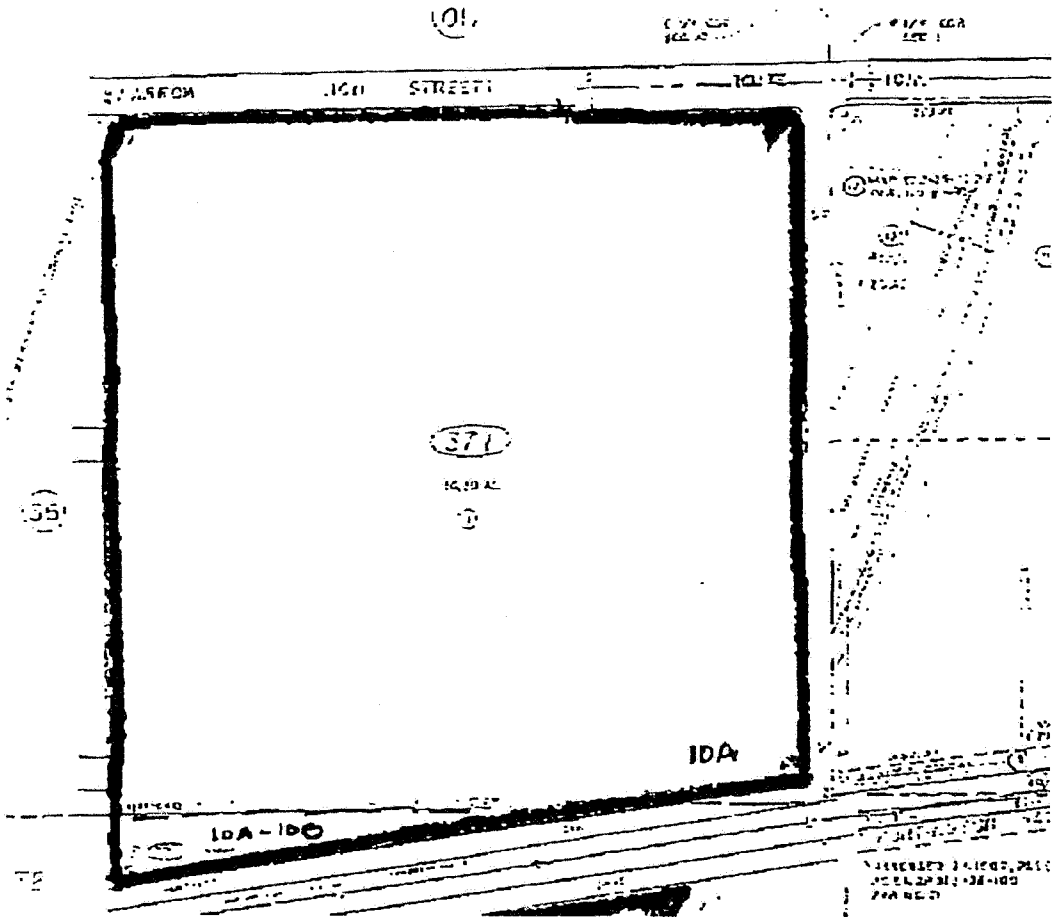


Figure 2 – Parcel Map



Legend	Blue – Subject property	

Environmental Profiles, Inc.
5480 Katella Avenue, Suite 211, Los Alamitos, CA 90720-2823 • • (562)493-2190 • • Fax (562)430-5177

Project: Upland West		Job# 120802
Location: Upland, California		
Date: 8/1/2002	Drawing By: supplied by Calmat	Engineer: Matthew J. Walker

LIST of ACRONYMS SPECIFIC to the ASTM STANDARD

ASTM	American Society for Testing and Materials.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980 (as amended, 42, USC'9601 et seq.).
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System (maintained by the EPA).
CFR	Code of Federal Regulations.
EPA	United States Environmental Protection Agency.
EPCRA	Emergency Planning and Community Right to Know Act (SARA Title III, 42 USC' 11001 et seq.).
ERNS	Emergency Response Notification System.
ESA	Environmental Site Assessment.
FIOA	U.S. Freedom of Information Act (5 USC 552 et seq.).
FR	Federal Register.
LUST	Leaking Underground Storage Tank.
NMSDS	Material Safety Data Sheet.
NCP	National Contingency Plan.
NPDES	National Pollution Discharge Elimination System.
NPL	National Priorities List
PCBs	Polychlorinated biphenyls.
PRP	Potentially responsible party (pursuant to CERCLA 42 USC' 9607(a)).
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization act of 1986 (amendment to CERCLA)
USC	United States Code
USGS	United States Geological Survey.
UST	Underground Storage Tank.

EXECUTIVE SUMMARY

Environmental Profiles, Incorporated, has performed a Phase I Environmental Site Assessment (ESA) on the Vulcan Materials (VMC) property known as the Upland West property located in Upland, California. The portion of Upland West that was studied for this project consists of two parcels of land (1007-371-001 and 1007-721-01) that VMC is removing from inventory. The parcels are contiguous and total an area of 37.8 acres and lies within an area bounded by Arrow Route on the north, Huntington Drive on the south, Monte Vista Avenue on the east and Padua Avenue on the west.

The ESA was performed in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) practice E 1527-00. The scope of service, objectives, extent and limitations of the services and this report are described in more detail in the text of this report.

Environmental Profiles, Inc. ordered and reviewed research materials, conducted site visits and interviews for the ESA between May 7, 2002 and June 21, 2002. Interviews with former and current employees of the site, persons familiar with site and regional history and individuals with knowledge of the surrounding area were conducted after the site visit.

Records were obtained from Environmental Data Resources, Inc. (EDR). EDR searches a number of national and local databases for information pertaining to the environmental conditions at a specific location. Other documents examined pertaining to Site history and potential environmental conditions included a Chain of Title as produced by NETR, a real estate research company.

All parcels are currently undeveloped and have no surface cover other than vegetation. During the investigation and site visit no significant site conditions were recognized as being of an environmental concern. The following items were noted as being if interest or advisable:

- Minor dumping on various parts of the site. The dumping appears to be of a house hold nature on the northern perimeter and one large spoils pile consisting of roadway debris on the southern perimeter.

- Review of fill records and random test trenching is recommended for the verification of fill types.

1.0 INTRODUCTION

1.1 Purpose and Limitations

Vulcan Materials retained Environmental Profiles, Inc. to perform a Phase I Environmental Site Assessment (ESA) for the site located at Upland West, Upland, California. The site comprises approximately 37.8 acres of land that was purchased for an aggregate mining operation and backfilled with engineered fill on the northeastern 1/4 of the site. The location of the site is depicted on Figure 1 - Area Diagram and Figure 2 - Parcel Diagram.

1.2 Scope of Services

To satisfy the requirements of the standards presented in American Society for Testing and Materials (ASTM) Practice E 1527-00, Environmental Profiles, Inc. performed the following tasks as part of the Phase I ESA. At the request of Vulcan materials the scope of services includes the following considerations to provide a baseline evaluation of the environmental conditions at this time:

- Records Review - Environmental Profiles, Inc. (EPI) requested public records, internal records and aerial photographs. EPI reviewed records that would help identify *recognized environmental conditions* in connection with the subject site. The minimum search distance (MSD) followed ASTM recommendations for the standard and additional environmental record sources.

- Site Reconnaissance - Physical inspection of site by Environmental Profiles. Inc. obtained information that would help identify *recognized environmental conditions* in connection with the Site. As a part of the visit EPI inspected the site and neighboring properties for land uses on adjoining properties that may have a potential for recognized environmental conditions to adversely affect the property. The Phase I ESA also evaluated the potential impact by off site resources such as leaking underground storage tank (LUST incidents and the significance of identified up gradient groundwater contamination sources.

- Interviews with current owners or operations of the subject site. Obtained information *regarding recognized environmental* conditions through interview with individuals familiar with property.

- Evaluation and Report Preparation - Prepared a report listing the findings of the projected scope for this Phase I report.

1.3 Disclaimer

The scope of Environmental Profiles, Inc. (EPI) services for this project is included as Appendix A. This report has been prepared for the exclusive use of Vulcan Materials Company (VMC) in accordance with the standards of the environmental consulting industry at the time the services were performed. The Task Order Agreement between VMC and EPI dated May 13, 2002 details the assignment.

This work has been performed for the sole purpose of assisting in the evaluation of environmental conditions associated with the Site. This report is governed by the specific scope of work authorized by VMC. The findings are presented herein are based on the observations of current site conditions and a review of *reasonable ascertainable* standard records sources.

The conclusions presented herein are not necessarily indicative of future conditions or operation practices on this property. The findings of the Phase I ESA, as represented within this report, must be viewed in recognition of certain limiting conditions. The scope of work commissioned for this project does not represent an exhaustive study, but rather a reasonable inquiry, consistent with good commercial practice, in accordance with ASTM Practice E 1527-00.

In accordance with the ASTM Standard, this assessment serves to reduce, but not eliminate, the level of uncertainty regarding the potential for *recognized environmental conditions* at the Site. In the course of this assessment, EPI has relied on information provided by outside parties, such as regulatory agencies and interview sources. EPI has made no independent investigation as to the validity, completeness or accuracy of such information provided by third party sources.

For the purposes of this assessment, such third party information is assumed to be accurate unless contradictory evidence is noted, and EPI does not express or imply any warranty regarding information provided by third party sources. This report makes no representation that environmental contamination does not exist at this Site beyond that described in this report. Throughout this report, italicized terms refer to specific definitions set forth in section 3.3 of the ASTM Standard.

The purpose of the ESA is to identify, to the extent feasible, pursuant to the scope and limitation of the guidelines set forth in the ASTM Practice E1527-00, *recognized environmental conditions* in connection with the property. The term *recognized environmental conditions* as is defined by ASTM (2000) as:

> The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.
>
> The term includes hazardous substances or petroleum products even under conditions in compliance with laws.
>
> The term is not intended to include *de minimis* conditions that generally do not present material risk of harm to public health or to the environmental and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.
>
> The term *reasonably ascertainable* is defined by ASTM (2000) as information that is publicly available to anyone upon request, obtainable from its source within reasonable time and cost constrains, and provided by the source in a practically review able manner sorted by geographical area.

EPI attempted to identify uses on the Site from when it was first used as a mining operation. The Site was inspected by walking across the entire property and additional information was obtained by interviewing persons with direct knowledge of the Site and its history. An updated computerized database search was also conducted.

2.0 SITE DESCRIPTION

2.1 Location and Vicinity Characteristics

The Upland West location consists of two contiguous parcels of land. The area totals 37.8 acres. It lies within an area bounded by Arrow Route on the North, Huntington Drive on the South, Padua Avenue on the West and North Central on the East. Figure 2 - Parcel map shows the parcels. The site consists of the following three parcels of land:

Table 1 - Parcel Description
Cajon Creek

Parcel Number	Description	Size (Acres)
1007-391-001	Varying levels, bare soil surface, sparse vegetation	36.3
1007-721-01	Varying levels, bare soil surface, sparse vegetation	1.5
	Total acreage	37.8

The parcels are matched with the surrounding grade with the exception of the unrestored mined pit area in the approximate center and a mound of construction debris on the west. The bare surface appears to be largely manufactured fill that was spread as top cover. The site is predominantly free of refuse but some minor dumping of house hold refuse is in evidence. No water or ponding areas were in evidence on the parcels.

2.2 Site Surrounding Properties

The site is surrounded by residential properties on the west and commercial or industrial properties on the other borders.

2.3 Topography

EPI reviewed the 1903, 1944, 1954, 1967, 1973 and 1981 USGS 7.5 minute topographic map for the site and vicinity to determine the physical setting of the site. The USGS maps show a general consistency in the topography.

In the past twenty years significant development has begun in the area but prior to that the area was relatively undisturbed. Appendix D and F present USGS Maps and Aerial Photographs that depict the site with each plate.

2.4 Local and Site Hydrogeology

Groundwater flow in the region has not been discerned, but is generally southerly. Estimated depth to groundwater is 125 feet.

3.0 RECORDS REVIEW

3.1 Environmental Records Sources

The purpose of the records review is to obtain and review reasonable ascertainable records that will help identify recognized environmental conditions in connection with the subject site. For this review, records were obtained from Environmental Data Resources Inc. (EDR). EDR searches national and local databases for information pertaining to specific location.

For this review, records were obtained from Environmental Data Resources Inc. (EDR). EDR searches a number of national and local databases for information pertaining to specific location. The EDR report is reproduced in its' entirety as a matter of completeness within the scope of this project.

In this case the EDR report is relatively small and had very few items of interest. The overall impression is that the area did not have significant activity until the last ten years and that operations in the area were largely confined filling of the site with construction debris such as concrete and rubble.

The Executive Summary within the initial pages of the report details the location of the pertinent findings. In this case the items of interest are less than 30 pages throughout the report.

The remaining pages contain useful information regarding other business sites (i.e. type of business, ownership) in the area and presents information that fill out the general character of the business operations in the area. A description of each Database searched and the approximate Minimum Search Distance (MSD) from the site is provided in the table below.

Table 2
Environmental Database Descriptions and Search Distances

Database	Description	MSD (miles search distance)
Federal ASTM Standard		
NPL	**National Priorities List; United States Environmental Protection Agency . The United States Environmental Protection Agency (USEPA) listing of uncontrolled or abandoned hazardous waste sites. These sites are listed as facilities qualifying for possible long-term remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act CERCLA).**	**1.500**
Proposed NPL	**Proposed National Priority List Sites**	**1.500**

CERCLIS - Comprehensive Environmental Response and Liability Information System	**Contains data on potentially hazardous waste sites that have been reported to the US EPA by states, municipalities, private companies and private persons. CERCLIS contains sites which are either proposed to or on the NPL list and sites which are in the screening and assessment phase for possible inclusion on the NPL.**	**1.000**
CERC-NFRAP Comprehensive Environmental Response, Compensation and Liability Information System	**As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" have been removed from the CERCLIS. NFRAP sites may be sites where, following an initial investigation no contamination was found, Contamination was removed quickly without the need for the site to be placed on the NPL, or the Contamination was not serous enough to require Federal Superfund Action or NPL consideration.**	**0.750**
CORRACTS	**Correction Action Report**	**1.500**
RCRIS-TSD Resource Conservation and Recovery Information System-Treatment, Storage, and Disposal Facilities.	**The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.**	**1.000**
RCRIS Lg. Quant. Gen.	**The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.**	**0.750**
RCRIS Sm. Quant Gen.	**The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.**	**0.750**
ERNS	**Emergency Response Notification System**	**0.500**
STATE ASTM STANDARD		
AWP	**California DTSC's Annual Workplan, formerly known as BEP, identified known hazardous substance sites targeted for cleanup. The source is the California Environmental Protection Agency.**	**1.500**
Cal-Sites	**Formerly known as ASPIS this database contains both known and potential hazardous substance sites. The source is the California DTSC**	**1.500**
CHMIRS	**The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e. Accidental releases or spills. The source is the California office of Emergency Services.**	**1.500**

Cortese	This database identifies public drinking water wells with detectable levels of contamination, Hazardous substances sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities of which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.	1.500
Notify 65	Proposition 65 records	1.500
Toxic Pits	Toxic pits clean up sites	1.500
State Landfill	The solid waste facilities/land fill sites records typically contain an inventory of solid waste disposal facilities or land fills in a particular state. The data come from the integrated Waste Management Board's Solid Waste Information System (SWIS) database.	1.000
WMUDS/ SWAT	The Waste Management Unit Database System is used for program tracking and Inventory of waste management units. The source is the State Water Resources Control Board.	1.000
LUST	The leaking Underground Storage tank incident reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control board Leaking Underground Storage Tank information System.	1.000
UST	The Underground storage tank database contains registered USTs. The USTs are regulated und Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data Come for the State Water Resources Control Board's Hazardous Substance Storage Container Database.	0.750
CA Bond Exp. Plan	Bond Expenditure Plan	1.500
CA FID UST	The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.	0.750
FEDERAL ASTM SUPPLEMENTAL		
Consent	Superfund (CERCLA)consent decrees	1.000
ROD	Records of Decision	1.000
Delisted NPL	National Priority List Deletions	1.000
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report	TP
HMIRS	Hazardous Materials Information Report System	TP
MLTS	Materials Licensing Tracking System	TP
Mines	Mines Master Index File	0.250
NPL Liens	Federal Superfund Liens	TP
PADS	PCB Activity Database System	TP

RAATS	**RCRA Administrative Action Tracking System**	**TP**
TRIS	**Toxic Chemical Release Inventory System**	**TP**
TSCA	**Toxic Substances Control Act**	**TP**
FTTS	**FIFRA/TSCA -FIFFRA (federal insecticide, fungicide rodenticide act)/ TSCA (Toxic Substances Control Act).**	**TP**
STATE OR LOCAL ASTM SUPPLEMENTAL		
AST	**Above Ground storage tank facilities**	**TP**
CA Cleaners	**California Cleaners Facilities**	**0.250**
CA WDS	**Waste Discharge System**	**TP**
DEED	**List of Deed Restrictions**	**TP**
CA SLIC	**Spills, Leaks Investigation & Cleanup cost recovery listing**	**0.500**
HAZNET	**The Data is extracted from the copies of hazardous waste manifests received each year b the DTSC. The source is the Department of Toxic Substance Control.**	**0.250**
San Bernardino Co. Permit	**Hazardous Materials Permits**	**0.250**
EDR PROPRIETARY DATA BASE		
Coal Gas	**Former Manufactured Gas (Coal Gas) sites**	**1.00**

TP = Target Property
NR = Not Requested at this Search Distance.
***Italic text* Sites may be listed in more than one database.**

3.2 Database Findings

The target property (TP) was not listed in any of the databases searched by EDR.

3.3 EDR File Review

The following sites are identified on the lists reviewed:

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e. accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR has revealed that there are 3 CHMIRS sites within approximately 1 mile of the target property. For detailed list see Appendix B Executive Summary page 3.

CORTESE: This data base identified public drinking water wells with detectable levels of contamination, hazardous substances sites selected for remedial action, sites with known toxic material identified through abandoned site assessment program, sites with USTs having reportable release and all solid waste disposal facilities

from which there is known migration. The source is California Environmental Protection Agency/ Office of Emergency Information.

A review of the Cortese list, as provided by EDR has revealed that there are 10 Cortese sites within approximately 1 mile of the target property. (For detailed list see Appendix B Executive Summary page 3 & 4)

- Weston E. Montgomery Fuel Located 1/2-1 Mi N of the Target Property (Equal or Higher Elevation)
- DOSH Property Located 1/2-1 Mi ENE of the Target Property (Equal or Higher elevation)
- Land Care Inc. Located 1/2-1 Mi ENE of the Target Property (Equal or Higher elevation)
- Chevron Station 20 2024 Located ½-1 Mi NW of the Target Property (Equal or Higher elevation)
- 76 Products Station # 3824 Located ½-1 Mi NW of the Target Property (Equal or Higher elevation)
- Goodyear Tire Center Located ½-1 Mi SE of the Target Property (Lower elevation)
- Exxon Service station # 3532 Located ½-1 Mi SE of the Target Property (Lower elevation)
- Firestone Tire Located ½-1 Mi SE of the Target Property (Lower elevation)
- Claremont Colleges Located 1/4-1/2 Mi WSW of the Target Property (Lower elevation)
- Pomona College Located ½-1 Mi WNW of the Target Property (Higher elevation)

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents, The Data Come from the State Water Resources Control Board Leaking Underground Storage Tank Information System. A review of the LUST list, as provided by EDR has revealed that there are 1 LUST sites within approximately 0.5 mile of the target property. (For detailed list see Appendix B Executive Summary page 4)

- Claremont Colleges Located 1/4-1/2 Mi WSW of the Target Property (Lower elevation)

HIST UST: The Historical UST Registered Database.
A review of the HIST UST list, as provided by EDR has revealed that there are 2 HIST UST sites within approximately 0.25 mile of the target property. (For detailed list see Appendix B Executive Summary page 4)

- Industrial Asphalt 1/8-1/4 Mi SSU of the Target Property(lower elevation)

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal Method. The source is the Department of toxic substance control.

A review of the HAZNET list, as provided by EDR has revealed that there are 1 HAZNET sites within approximately 0.25 mile of the target property. (For detailed list see Appendix B Executive Summary page 4& 5)

- B & G Trucking Shop 1/8 - 1/4 Mi SSE of the Target Property

Databases with no mapped sites

NPL - National Priority List
Proposed NPL - Proposed National Priority List
CERCLIS - Comprehensive Environmental Response, Compensation, and Liability Information System.
CERC-NFRAP- CERLIS No Further Remedial Action Planned
CORRACTS Corrective Action Report
RCRIS-TSD Resource Conservation and Recovery Information System
RCRIS-SQG Resource Conservation and Recovery Information System
RCRIS-LQG Resource Conservation and Recovery Information System
ERNS - Emergency Response Notification System
AWP - Annual workplan sites
Cal-Sites - Calsites Database
Notify 65 - Proposition 65 records
Toxic Pits Toxic Pits cleanup act sites
SWF/LF- Solid Waste Information System
WMUDS/SWAT - Waste Management Unit Database
CA Bond Exp. Plan- Bond Expenditure Plan
UST - Hazardous Substance Storage Container Database
CA FID UST -Facility Inv. Database
CONSENT - Superfund (CERCLA)consent Decrees
ROD - Records of Decision
Delisted NPL - National Priority List deletions
FINDS- Facility Index System
HMIRS - Hazardous Materials information reporting system
MLTS - Materials Licensing Tracking System
Mines- master index file
NPL - Liens Federal superfund liens
PADS - PCB activity Database system
RAATS- RCRA administrative action tracking system
TRIS - Toxic chemical release inventory system
TSCA - Toxic substances control Act
FTTS - FIFRA/TSCA tracking system
AST - Above ground Petroleum storage tank facilities
CLEANERS- Cleaning Facilities
CA WDS- Waste discharge System
DEED - List of deed restrictions
CA SLIC - Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
San Bernardino Co. Permit - Hazardous Materials Permits
Goal Gas - Former Manufactured Gas (coal Gas) sites.

3.4 Historical Aerial Photographs
EPI reviewed aerial photographs depicting the development of the vicinity and the site. The Aerial photographs reviewed were dated from 1953 to 1994. Historical photographs are found in Appendix F.

3.5 USGS 7.5 Minute Topographic Maps
Current and historic maps were searched for the area of the site. The Topographic maps reviewed were dated 1903, 1944, 1954, 1967, 1973 and 1981 with photo revisions. Topographic maps are found in Appendix D.

3.6 Sanborn Maps
The San Born Map report revealed fire insurance maps depicting the target property at the specified address, the Site (Upland Wes) was not identified.

4.0 SITE RECONNAISSANCE

4.1 Site Reconnaissance
Site reconnaissance was performed in May 2001. The site was walked and photographed. The site is generally matching street grade around the perimeter and has minor amounts of vegetation. Photographs are supplied in Appendix E - Site Photographs.

4.2 Structures and Pavement
The site does not have any prominent structures or pavement.

4.3 Sumps, Pits, and Drains
No engineered drainage off site was seen indicating that all water probably percolates into the subsurface under light rain conditions and otherwise follows the general topography under heavy rain conditions.

4.4 Vegetation
The vegetation consists of sparse grasses, shrubs and trees.

4.5 Storage Tanks and Drums
No storage structures or drums were noted in the site visit or history.

4.6 Site Discharges
No site discharges were noted.

4.7 Solid Waste
Very small amounts of dumping of wood, bottles and other common refuse has occurred at various parts of the site. The quality of the material appears to be of an inert nature according to the report.

4.8 Odors
At the times of site visits no odors were noted.

4.9 Potential Asbestos Containing Material
The site as observed has not been verified as not containing asbestos material.

4.10 Groundwater Wells
Groundwater is estimated to be 125 feet deep as an average. The site does overlay an aquifer that will vary in depth depending on the time of year and recharge conditions.

4.11 Polychlorinated Biphenyls
There is no reason to believe PCBs are in evidence at the site based on site history.

4.12 Adjoining Property Observations
The adjoining properties were visually examined from public access right of ways to make a cursory assessment of the current land use and its potential for recognized environmental conditions which may have impact on the subject site. Reconnaissance of the adjoining properties was performed by view land use from legal boundaries or by walking upon the adjoining properties that were legally accessible. The adjoining properties to the Site area are as follows:

- North: Aggregate pit area
- East: Commercial operations
- South: Railroad Right of Way
- West: Residential Development

5.0 FINDINGS

5.1 Summary of Findings
Environmental Profiles, Inc. performed a Phase I ESA for Vulcan Materials's Upland West property. The ESA was performed in conformance with the scope and limitations of ASTM Practice E 1527-00.

5.2 Physical Setting
The site is approximately 38.7 acres in size and is located in a sparsely developed mixed use area. The area was intended to be used as a gravel mining area but activity has been minimal in that regard.

5.3 Site Observations
Based on records reviewed, interviews and site inspection Environmental Profiles summaries the following site conditions as being of potential environmental concern:

- Aerial photographs indicate that the site was mined and backfilled with inert rubble or some from of engineered backfill on the northeastern 1/4 of the site.

- Minor surface dumping has occurred at the site.

5.4 Permitting Issues
There were no permitting issues that were found in the course of the study.

6.0 CONCLUSIONS AND RECOMMENDATIONS

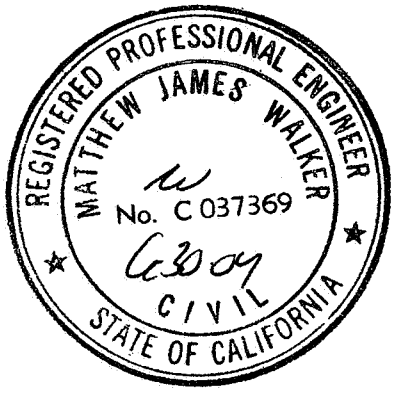
Based on the findings present in this report, Environmental Profiles, Inc. recommends the following minimum Phase II activities:

1) The chief consideration in this review is to determine if the material placed into the pit has the potential to contain asbestos, lead or other leachable material that may have compromised the filled excavation.

This is believed to be an unlikely situation based on the supervision of the site backfill by the previous operators. Procurement of physical samples may be prudent on a random basis and only in the oldest (center) area of the exposed pit. Sample procurement would be most applicable in the central area of the site as that area was the first and oldest filled.

Should you have any questions or comments, please call for discussion between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday.

Matthew J. Walker
California Civil Engineer 37369



ENVIRONMENTAL PROFILES, INC.

Site Assessments * Remedial Investigation Feasibility Studies * Soil and Water Sample Collection * Compaction Testing

REPORT

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

EPI PROJECT No. 120802.SI1

Site Location:

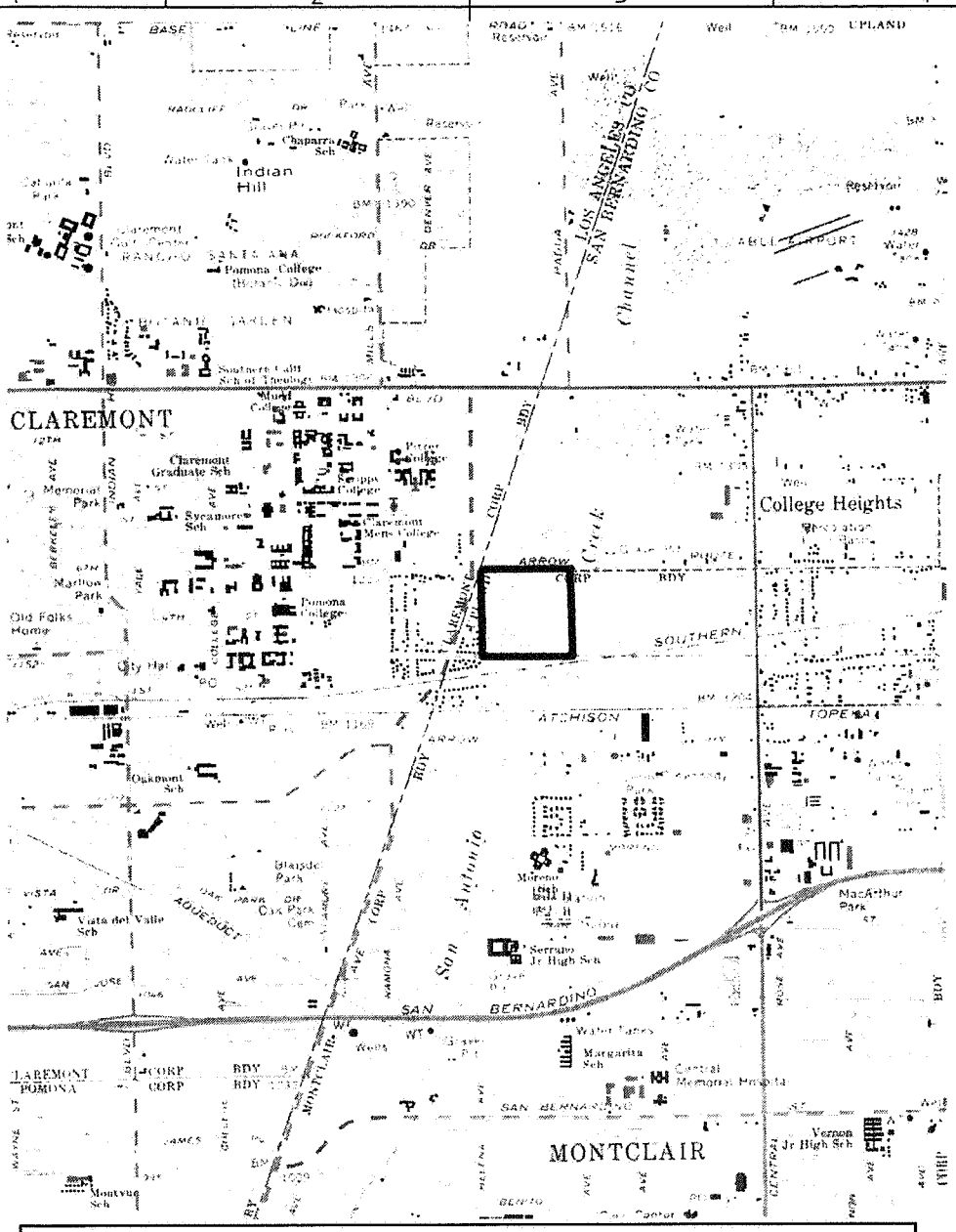
Upland West Vulcan Materials Site
Upland, California 91786

Prepared For:

Vulcan Materials
3200 San Fernando Road
Los Angeles, California
attn: Michael Linton

September 5, 2002

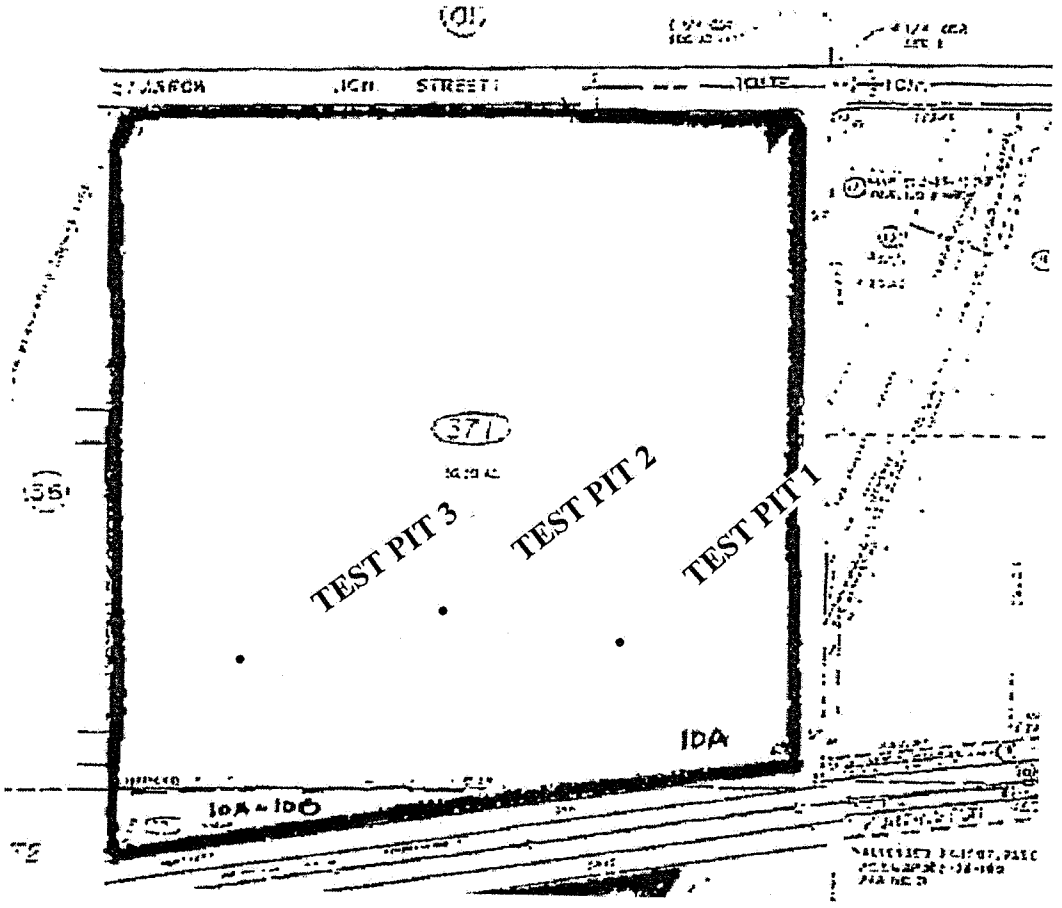
5480 Katella Avenue, Suite 211, Los Alamitos, CA 90720-2834 * * * (562)493-2190 * * * FAX (562)430-5177



U.S.G.S Map Ontario Quadrangle 1967 Photorevised 1981

Environmental Profiles, Inc. 5480 Katella Avenue, Suite 211 Los Alamitos, CA			(562) 493-2190 Fax (562) 430-5177
Date 9/6/02		Job 120802	Not to Scale
Vulcan Materials - Calmat Division	Location: Upland, West California		
	Engineer: Matthew Walker		

Figure 2 – Parcel Map



Legend

Blue – Subject property

• TEST PIT 3

Environmental Profiles, Inc.
5480 Katella Avenue, Suite 211, Los Alamitos, CA 90720-2823 • • (562)493-2190 • • Fax (562)430-5177

Project: Upland West		Job# 120802
Location: Upland, California		
Date: 8/1/2002	Drawing By: supplied by Calmat	Engineer: Matthew J. Walker

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EXECUTIVE SUMMARY

Environmental Profiles, Incorporated, has performed a Phase II Environmental Site Assessment (ESA) on the Vulcan Materials (VMC) property known as the Upland West property located in Upland, California. Upland West consists of two parcels of land (1007-391-001, 1007-721-01) that VMC is removing from inventory. The two parcels total an area of 37.8 acres and lies within an area bounded by Arrow Route on the north, Huntington Drive on the south, Monte Vista Avenue on the east and Padua Avenue on the west.

The ESA was performed to verify several items of interest noted in the previously released Phase I report of August 1, 2002. The scope of service, objectives, extent and limitations of the services and this report are described in more detail in the text of this report.

Environmental Profiles, Inc. conducted test excavation and laboratory analysis for asbestos and lead for this ESA between August 1, 2002 and August 19, 2002.

All parcels are currently undeveloped and have no surface cover other than minor vegetation. During the investigation and site visit the following site conditions was explored:

- Excavation and testing of fill area on the southern portion of the site to the south center portion of the site. Test trenching was performed to a maximum depth of 25 feet below grade to obtain samples for laboratory analysis for asbestos and lead.

1.0 INTRODUCTION

1.1 Purpose and Limitations

Vulcan Materials retained Environmental Profiles, Inc. to perform a Phase II Environmental Site Assessment (ESA) for the site known as Upland West, located in Upland, California. The site is comprised of 37.8 acres of land that was purchased for an aggregate mining operation. Upon completion of the mining operations the site was backfilled with inert construction debris on the northeastern 1/3 of the site. The location of the site is depicted on Figure 1 - Area Diagram and Figure 2 - Parcel Diagram.

The material was accepted was concrete and other construction rubble that dated into the 1960's. The Phase I report raised the question of the character of the fill and material in regard to asbestos or lead containing fill.

1.2 Scope of Services

To satisfy the concerns raised in the August 1, 2002 Phase I ESA Vulcan Materials Company (VMC) elected to perform an investigation of the subject site. The investigation consisted of the following activities:

- Excavation of three test trenches to a depth of 30 feet to procure soils samples and observe fill conditions
- Laboratory analysis of the samples for asbestos and lead
- Preparation of a report to present findings

1.3 Disclaimer

This report has been prepared for the exclusive use of Vulcan Materials Company (VMC) in accordance with the standards of the environmental consulting industry at the time the services were performed. A task order agreement between VMC and EPI issued in August 2002 details the assignment.

This work has been performed for the sole purpose of assisting in the evaluation of the subsurface fill at the site. This report is governed by the specific scope of work authorized by VMC. The findings are presented herein are based on the observations of current site conditions.

The conclusions presented herein are not necessarily indicative of future conditions or operation practices on this property. The scope of work commissioned for this project does not represent an exhaustive study, but rather a reasonable inquiry consistent with good commercial practice.

2.0 SITE DESCRIPTION

2.1 Location and Vicinity Characteristics

The Upland West location consists of two contiguous parcels of land. The area totals 37.8 acres. It lies within an area bounded by Arrow Route on the North, Huntington Drive on the South, Padua Avenue on the West and Monte Vista on the East. Figure 2 - Parcel map shows the parcels.

The site consists of the following three parcels of land:

Table 1 - Parcel Description
Upland East

Parcel Number	Description	Size (Acres)
1007-391-001	Grade level, bare soil surface, sparse vegetation	36.3
1007-721-01	Grade level, bare soil surface, sparse vegetation	1.5
	Total acreage	37.8

The parcels are matched with the surrounding grade with the exception of a flat bottomed pit area on the south and a mound of construction debris on the western perimeter. The bare surface appears to be largely manufactured fill that was spread as top cover. The site is predominantly free of refuse. Some minor household type debris have appeared on the western perimeter. No water or ponding areas were in evidence on the parcels.

2.2 Investigation Purpose and Scope

The purpose of the investigation was to give a representative sampling of the subsurface conditions at the site in the oldest fill areas of the property. The scope included three test pits or trenches to a maximum depth of 30 feet.

2.3 Investigation Design

Backfill operations in previously mined areas are generally items of interest in an environmental study. For that reason it was recommended that a limited Phase II investigation be performed to verify subsurface conditions. The following assumptions were made:

- Trenching would be performed from east to west in the southern unfilled area of the site. This area was chosen to intercept the oldest fill areas.
- Trenching by means of a track excavator with a wide bucket would allow offer the greatest latitude for excavation activities in what was anticipated to be a loosely consolidated soil condition.
- Three trenches would be dug to a maximum depth of thirty feet to observe subsurface conditions. The trenches would be photographed and backfilled as they were dug.
- Prior to trenching the site would be cleared by USA[1] notification and safety meetings on site.

[1] Underground Service Alert (USA) provides a free service to mark utility locations. The service requires 72 hour notice. Initial notifications were made on August 8, 2002. A site meeting was held on August 16, 2002.

3.0 FIELD ACTIVITIES

3.1 USA Notifications

USA Underground Service Alert located no utilities in the immediate area of the test trenching. No utilities were noted in the site area.

3.2 Trenching

At 12:00 p.m. on August 19, 2002 a Caterpillar 325 track excavator was delivered to the southern entrance to the site. After a safety briefing excavation was begun on Test Pit 1. Test Pit 1 was located in the approximate southeast corner of the site. Test pits 2 and 3 were located progressively closer to the western end of the site and were placed 250 feet apart. The trenches varied from 24 to 30 feet in depth. All were backfilled prior to moving to the next location.

4.0 OBSERVATIONS

4.1 Site Stratigraphy

Subsurface conditions were very similar over the entire site. The general condition is as follows:

TEST PIT 1

- From surface to a maximum of 24', fill soil varying in color and composition. Origin of soil appears to be clean soil that may have been removed from construction sites for reasons of geotechnical incompatibility (too rocky).

TEST PIT 2

- From surface to a maximum of 28', fill soil varying in color and composition. Origin of soil appears to be clean soil that may have been removed from construction sites for reasons of geotechnical incompatibility (too rocky).

TEST PIT 3

- From surface to a maximum of 30', fill and native soil intercepted on slope of mined pit, soil varying in color and composition. Origin of soil appears to be clean soil that may have been removed from construction sites for reasons of geotechnical incompatibility (too rocky).

Appendix A - Test Pit Photographs includes a photograph of each pit.

4.2 Soil Conditions

In each test pit the soil was observed to be free of odor or significant debris. Small amounts of concrete or inert rubble were encountered. The soil origin appeared to be largely top cover that may have been remove from other projects in the area and used as fill on for the mined area of Upland West.

4.3 Laboratory Analysis

Two samples were taken from each test pit at depths of approximately 5 feet below grade surface to 25 feet below grade surface. The samples were analyzed for lead, asbestos and heavy oils. The analysis indicates that no contaminants were found at levels that are of concern. The results are presented in Appendix B - Laboratory Results.

5.0 DISCUSSION

The purpose of the purpose of the testing was to perform laboratory testing to determine if the fill presented obvious problems with the contaminants of interest. The test program indicates the site is not impacted by the contaminants of concern in the areas tested.

The comments and conclusions presented are limited to the area of study only utilizing presently accepted engineering and analytical techniques and practices. If you have any questions, comments or require additional information regarding this project, please contact the undersigned at (562) 493-2190 during normal business hours.

Matthew J. Walker
California Civil Engineer 37369



Appendix I: Public Service and Utility Agency Certifications and Correspondence

SB 610 PUBLIC WATER SUPPLIER CERTIFICATION

The City of Upland (City) is the agency responsible for retail water supply to the proposed College Park (Project). We have prepared the attached Water Supply Assessment for the subject project as required by Sections 10910 and 10911 of the State of California Water Code.

Based on this assessment, we certify that the information and findings included therein fairly represent the City's ability to meet the long-term water supply requirements of the City of Upland, including build-out of the Project. There is sufficient water available to meet the demands of the City of Upland at build-out, through normal, dry, and multiple-dry years, through 2024. The water supply capabilities and planned enhancements that would apply to the Project are documented and accounted for in Inland Empire Utilities Agency's Urban Water Management Plan adopted in December 2000, and the attached Water Supply Assessment.

This certification is based upon data maintained as public records by the City of Upland, the Inland Empire Utilities Agency, the Metropolitan Water District of Southern California, the Court appointed Watermasters for Six Basin and Chino Basin, the Cucamonga County Water District, the California Department of Water Resources, and the corporate records of the San Antonio Water Company.

This certification does not constitute a guarantee that water will be available on a constant basis as supply is subject to emergencies, natural disasters or other events not under the control of City. Water service is also subject to payment of applicable fees and completion of certain improvements, which may be determined to apply to the Project.

This certification is non-transferable and expires upon termination of parcel map or tentative map. This certification is non-binding during a declared water shortage or emergency.

Rob Turner

Rob Turner, Public Works Director
City of Upland

2/2/04

Date Approved

Emilie Johnson - RE: Will Serve Letter

From: "Burrtec" <burrtec@burrtec.com>
To: "Kevin Shannon" <KShannon@brandman.com>
Date: 12/10/2003 12:53 PM
Subject: RE: Will Serve Letter

Kevin,

Attached please find the responses to your questions. We estimate the generation for the various uses to be approximately 127 tons per month.

If you have any other questions, please do not hesitate to contact us.

Please answer the following questions:

Please describe the location, name and any type of solid waste facilities that would serve the project area.

> The solid waste facility utilized for City of Upland material is the West Valley Material Recovery Facility located at 13373 Napa Street in Fontana. The facility provides solid waste and recycling processing.

Please detail the remaining capacities (in both years and permitted tonnage) at these facilities as well as the average daily tonnage received at these facilities.

> The West Valley MRF is permitted for 5,000 TPD and has sufficient capacity to handle the proposed development in the City of Upland.

Who would provide transportation of waste generated in the project area to the solid waste disposal facilities described above?

> Burrtec Waste Industries will provide collection services for refuse and recyclables in the project area under a franchise agreement with the City of Upland.

Currently, are there any improvement or expansion plans for disposal facilities serving the project area? What are the projected design capacities and the completion dates?

> No improvements or expansion is planned at the present time.

Would the proposed project substantially affect or shorten the life span of the facilities serving the project area? What mitigation measures do you suggest to reduce potential impacts on solid waste disposal services and facilities?

> No impact.

Are there any other site-specific issues you are aware of?

> None

Please provide us with a contact name and address in the event that additional information is required.

> Eric D. Herbert, Vice President, Burrtec Waste Industries, Inc.
> 9890 Cherry Ave, Fontana, CA 92335
> (909) 429-4200
> (909) 429-4290 – fax
> Burrtec@burrtec.com (e-mail)

November 3, 2003

Emilie Johnson, AICP, REA
Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA. 92602

Subject: RFI - College Park Project, Upland, CA. located on the SWC of Monte Vista Avenue and Arrow Route

Dear Ms Johnson:

In response to you letter requesting information, please find the attached question and answer sheet and associated maps.

Should you have any questions regarding the comments provided, please feel free to contact the person(s) who made the comment(s). The names and telephone numbers are listed in Item 9 of the response form.

Sincerely,

Rosemary Hoerning, PE
Deputy City Engineer

Attached

November 3, 2003

1. What are the locations, sizes, and capacities of the principal sewage/wastewater lines serving the project area?

   Currently, there is no sewer serving the project area. The nearest sewer line available is an 18" Westside Interceptor line per plan number SS-8631 located in Huntington Dr just s/o the project site. (Steve Gapuzan)

2. What is the quality of water provided to the project area?

   All water delivered to the existing facilities meets the State and Federal Water Quality Standards. (Jim Moody)

3. What is the capacity and location of water supply facilities serving the project area? What is the distance from the project boundary to the nearest water line?

   A) An existing 10-inch water main located in Arrow Rte. The end of the water main is approximately 2,100 feet west of Central Avenue in Arrow Rte. (Jim Moody)

   B) There are no water facilities in place to serve the project site at this time. (Jim Moody)

4. Are there any plans for expansion of the sewage conveyance system? If so, please indicate the design capacity of the improvements and projected completion date.

   The project site is located in the Southwest Quadrant in unincorporated lands of San Bernardino County. Boyle Engineering did a sewer/ master plan study back in 1999 for this area. According to the study, the City of Claremont cannot accept additional flow coming into their sewer system. Connecting to their current sewer system is not a viable option per Claremont's City Engineer's letter dated Oct 15, 1998. Also, the City of Montclair mentioned that their current capacity in the system would be maxed out at build out condition. Therefore, additional sewage generated by the proposed project would have to be conveyed to the Westside Interceptor. The potential sewage generation amount is about 0.3 MGD for the Southwest Quadrant. There are currently no plans to expand the sewage conveyance system in this area. (Steve Gapuzan)

5. Are there any plans for expansion of the water system? If so, please indicate the design capacity of the improvements and projected completion date.

   Not at this time. (Jim Moody)

6. Are the existing facilities adequate to maintain an adequate level of service throughout the project area? If not, what additional facilities are needed?

   A) No. (Jim Moody)

   B) Additional water distribution pipelines will need to be constructed to deliver water to the west of the existing San Antonio flood Control Channel located approximately 2,100 feet west of Central Avenue in Arrow Rte. (Jim Moody)

   C) Refer to (1) above – There are no existing sewer facilities within the limits of the project. The developer will have to construct sewer mains from their project to connect to the existing 18-inch main along the east side of the San Antonio Channel. This city sewer main is of adequate capacity to accept sewage flows to accept flows from this site.

   It might be necessary to construct a lift station or force main if gravity system is not feasible. Careful surveying and planning is needed. (Steve Gapuzan)

November 3, 2003

* Southwest Quadrant is the area bounded by Benson Ave on the East, City of Montclair on the South, City of Claremont on the West, and 13th St on the North. It is about 772 acres. (Boyle Engineering, 1999)

7. Do you foresee any adverse impacts on your service as a result of the proposed project? What mitigation measures would you suggest or require to reduce the potential impacts?

   The various project studies will need to be prepared and all appropriate infrastructures will need to be constructed to support the development. (Rosemary Hoerning)

8. Are there any other site-specific issues you are aware of?

   A Traffic Study will need to be prepared. A Hydrology Study will need to be prepared. (Rosemary Hoerning)

9. Please provide us with a contact name and phone number in the event that additional information is required.

   Steve Gapuzan, Environmental Quality Administrator, 909-931-4270

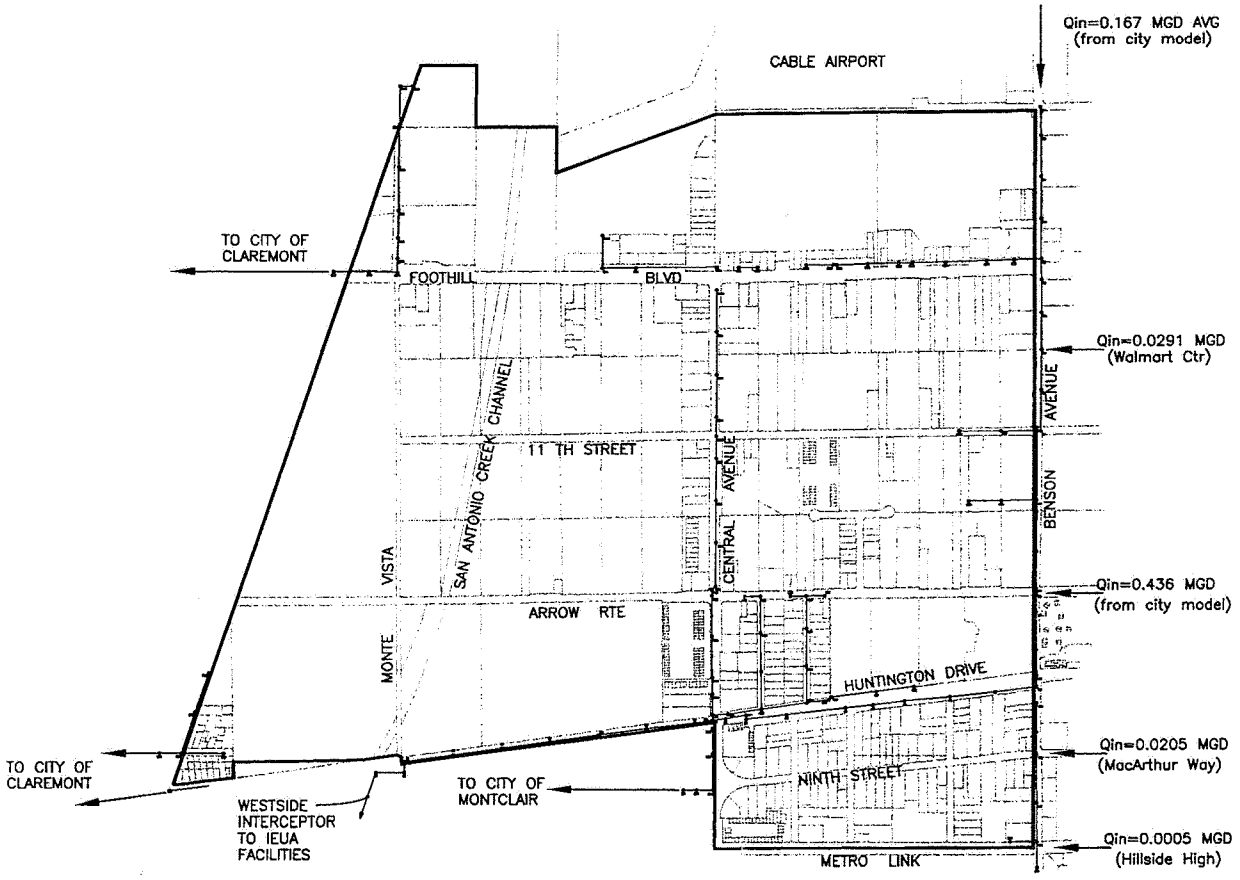
   Jim Moody, Water Operations Manager, 909-931-4245

   Alex Qishta, Senior Engineer (Traffic Engineering), 909-931-4272

   Rosemary Hoerning, Deputy City Engineer, 909-931-4260

Attachments:

1) City of Upland Southwest Quadrant Sewer Study & Master Plan , Figure 3-3R2
   Boyle Engineering, February 1999
2) City of Upland Southwest Quadrant Sewer Study & Master Plan , Figure 3-1
   Boyle Engineering, December 1998



CITY OF UPLAND
SOUTHWEST QUADRANT
SEWER STUDY & MASTER PLAN

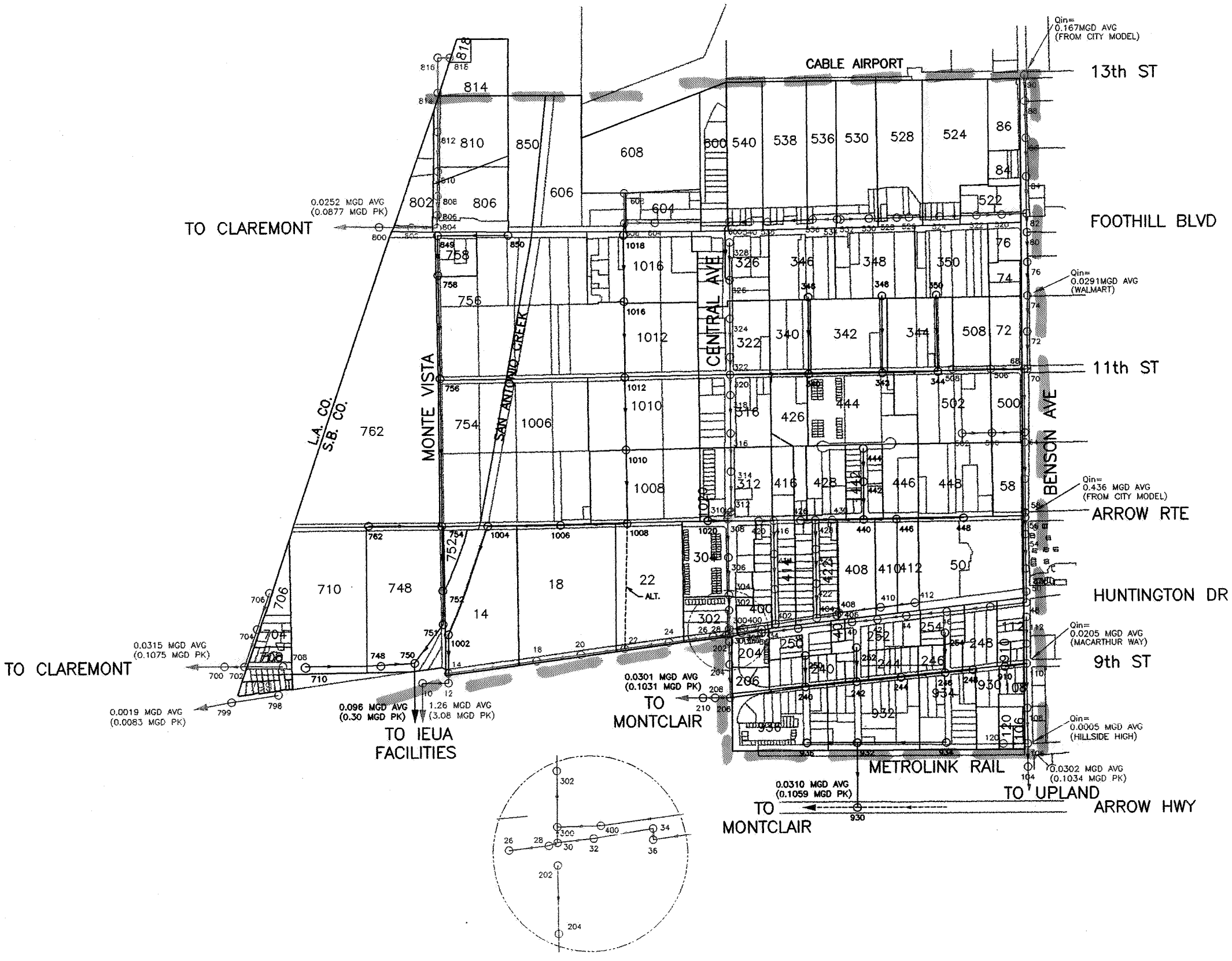
EXISTING SEWER SYSTEM

OCU0620000	DECEMBER 1998	FIGURE 3-1

Boyle Engineering Corporation

LEGEND

- STUDY AREA BOUNDARY
- EXISTING SEWERS
- PROPOSED SEWERS
- 206 — SUB–TRIBUTARY AREAS AREA & NO.



SCALE 1"=1000'

CITY OF UPLAND
SOUTHWEST QUADRANT
SEWER STUDY & MASTER PLAN

RECOMMENDED SEWER SYSTEM

OCU0620000	FEBRUARY 1999	FIGURE 3–3R2

Boyle Engineering Corporation

Inland Empire
UTILITIES AGENCY*

6075 Kimball Avenue • Chino, CA 91710
P.O. Box 9020 • Chino Hills, CA 91709
TEL (909) 993-1600 • FAX (909) 597-8875
www.ieua.org
* A Municipal Water District

October 8, 2003

Ms. Emilie Johnson, AICP, REA
Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602

Subject: Upland – College Park Project

Dear Ms. Johnson:

Thank you for the opportunity to provide input on the preparation of an Environmental Impact Report (EIR) for the College Park Project in Upland, California. Inland Empire Utilities Agency (IEUA) provides four basic services that you should be aware of. These services include: importation of supplemental water supplies for local member use; Domestic and Industrial wastewater treatment and conveyance; Water basin management; and distribution of recycled water supplies.

Generally, IEUA provides conveyance facilities where two or more of our member agency's flows come together. Each local agency is required to operate individual collection systems. Treatment is provided at a number of Water Reclamation Facilities located throughout the IEUA. Currently the IEUA operates five treatment facilities with a sixth (RP-5) scheduled to be brought into service by January 2003. These facilities include RP-1, RP-2, RP-4, Carbon Canyon Wastewater Reclamation Facility, Upland Satellite Plant and the new RP-5. Access to capacity in the Regional System is based on the collection of an equivalent dwelling unit fee (EDU), sufficient capacity in the system having been provided based on member agencies growth forecasts and sufficient revenues available to build needed facilities.

Currently, IEUA is involved with providing supplemental water supplies to Upland. IEUA acts as a wholesale agency for the importation of other water supplies through the Southern California Metropolitan Water District (MWD). Treatment and distribution of this water is the responsibility of the member agencies. In addition, IEUA is constructing a distribution system to provide recycled water to projects such as yours. The City of Upland can give you more information on the availability and planning of their portion of the system; however, it might make sense to separate irrigation and domestic water

Printed on Recycled Papers

John L. Anderson, President | Terry Catlin, Vice President | Angel Santiago, Secretary/Treasurer | Wyatt L. Troxel, Director | Gene Koopman, Director | Richard W. Atwater, Chief Executive Officer General Manager

supplies so that when recycled water becomes available a simple connection can be made to help alleviate increased dependence on outside water supplies.

If you have any further questions, please feel free to contact me at your convenience.

Respectfully,

Matthew A. Poeske, P.E.
Planning Department

MP/mp:tc

Attachment: Responses to September 2, 2003 letter

c. Gary Hackney, IEUA

G:\PP\MATT\College Park Project Response1.doc

RESPONSES

1. What are the locations, sizes and capacities of the principal sewage / wastewater lines serving the project area?

The Montclair Interceptor is the primary regional trunk sewer that services the project area. The Montclair / Westside Interceptor Diversion is generally located near Roswell Avenue and Grand Avenue in Montclair. The pipe size ranges from 18-36 inches along its length of 39,476 feet. Its minimum capacity is roughly 3.2 mgd.

A diversion structure connects the Westside Interceptor with the Montclair interceptor, allowing Upland and Montclair flows to bypass to CCWRF, providing relief capacity for the Montclair Interceptor and RP-1.

The Westside Interceptor System consists of the Westside Interceptor (pipe size: 10-24 inches, length: 24,117 feet, minimum capacity: 1.3-2.5 mgd) and the Westside Interceptor Relief (pipe size: 15-54 inches, length: 39,970 feet, minimum capacity: 6.2 mgd).

2. What is the location, name and present capacity of the wastewater treatment plant(s) that receives effluent generated in the area?

Regional Plant No. 1 (RP-1) is located at 2450 E. Philadelphia Avenue in the City of Ontario. Its current capacity is rated at 44 mgd.

Carbon Canyon Water Reclamation Facility (CCWRF) is located at 14950 Telephone Avenue in the City of Chino. Its current capacity is rated at 10 mgd. This capacity may be increased by diverting recycled flows to a new RP-5 (15 mgd) to 12 mgd. Flows at CCWRF may also be bypassed to RP-2 (5.1 mgd) or to RP-5 once it is brought into service. RP-5 will replace RP-2 and is anticipated to be in service by 2004.

3. What is the service area/population served by this treatment plant(s)?

According to SCAG census tract data for 2000, RP-1 serves approximately 340,000 people in the Northern Service Area. CCWRF serves approximately 70,000 people in the Chino/Chino Hills area.

4. Are there any plans for expansion of the sewage conveyance system or the treatment capacity for the project area? If so, please indicate the design capacity of the improvements and projected completion date.

Currently there are no plans for expansion of the Regional Sewage Conveyance system that would serve the proposed project. RP-1 is planned for an ultimate capacity at 60 mgd, which will be done in phases. CCWRF is planned to provide an ultimate treatment capacity of 22 mgd.

5. Are the existing facilities sufficient to maintain an adequate level of service throughout the project area? If not, what additional facilities will be needed?

Yes, existing facilities are sufficient to maintain adequate level of service in the project area.

6. Do you foresee any adverse impacts on your service as a result of the proposed project?

No adverse impacts can be noted at this time; however, it is important that development be coordinated with the City's EDU forecast so that sufficient capacity is allocated for your development.

7. Are there any site-specific issues you are aware of?

No site-specific issues can be noted at this time.

8. Please provide us with a contact name and phone number in the event that additional information is required.

Matthew A. Poeske
6075 Kimball Ave., Bldg A
Chino, CA. 91710
(909) 993-1723
(909) 597-8702 Fax
mpoeske@IEUA.org

The Gas Company

A Sempra Energy utility℠

September 11, 2003 SBD 123-2, 124-4, LA 32-4

Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602

Attention: Mr. Brandman

Re: College Park Project, Upland

Dear Mr. Brandman:

Thank you for inquiring about the availability of natural gas for your project. We are pleased to inform you that Southern California Gas Company has facilities in the area where the above-named project is proposed. Gas service to the project could be provided from nearest existing gas facilities: 2" main located at Claremont Blvd. and 6th Street. The service would be in accordance with the Company's policies and extension rules on file with the California Public Utilities Commission at the time contractual arrangements are made.

This letter is not a contractual commitment to serve the proposed project, but is only provided as an informational service. The availability of natural gas service is based upon conditions of gas supply and regulatory agencies. As a public utility, Southern California Gas Company is under the jurisdiction of the California Public Utilities Commission. Our ability to serve can also be affected by actions of federal regulatory agencies. Should these agencies take any action, which affects gas supply, or the conditions under which service is available, gas service will be provided in accordance with revised conditions. This letter is also provided without considering any conditions or non-utility laws and regulations (such as environmental regulations) which could affect actual construction of a main or service line extension (for example, if hazardous wastes were encountered in the process of installing the line). Those, of course, can only be determined around the time contractual arrangements are made and construction is begun.

If you need assistance choosing the appropriate gas equipment for your project, or would like to discuss the most effective applications of energy efficiency techniques, please contact your area Project Manager at (909) 335-7867.

Thank you again for choosing clean, reliable, and safe natural gas, your best energy value.

Sincerely,

Steve Dunivin
Technical Services Supervisor

cc: Chino District, Project Manager

Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

September 2, 2003

Steve Adams, Captain
City of Upland
Police Department
1499 W. 13th Street
Upland, CA 91786

SUBJECT: College Park Project, Upland, CA

Dear Captain Adams:

The City of Upland will be coordinating the preparation of an Environmental Impact Report (EIR) for the proposed College Park project. The proposed project site is located in the western portion of the City of Upland southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The project site is vacant and currently being filled and compacted as a separate project. Regional freeway access to the site is provided by the San Bernardino Freeway (I-10) and the Foothill Freeway (SR 210). Major arterial access to the site is provided by Mills Avenue, Claremont Boulevard, Foothill Boulevard (SR 66), Arrow Route, Arrow Highway, and Monte Vista Avenue (see attached site location and site plan).

Preparation of the College Park EIR requires a clear and documented understanding of the level of service provided by various organizations and agencies. It is our understanding that your agency or organization would serve the proposed project. Therefore, we would greatly appreciate a written response to this letter. Enclosed for your use is a self-addressed stamped envelope.

The project site comprises approximately 38.69 acres. The proposed project is a mixed-use development consisting of three components: commercial, residential, and recreational. The commercial component of the project contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential component of the project contains 50 single-family detached dwelling units and 448 multi-family attached dwelling units. The recreational component contains a greenbelt/recreational area. Two phases of development are proposed. The first phase would include the retail center (containing quick serve restaurants, other retail uses, and a service station/mini-mart), garden office building, greenbelt/recreation area, all of the single-family detached dwelling units, and 50% (224 dwelling units) of the multi-family attached dwelling units. The second phase would include the hotel and the remainder (224 dwelling units) of the multi-family attached dwelling units. Additional project features include pedestrian access to the Claremont Colleges and pedestrian and bicycle linkages to the Montclair Metrolink Station and Transcenter.

220 Commerce, Suite 200, Irvine, CA 92602 714 . 508 . 4100 FAX 714 . 508 . 4110
Inland Empire 909.884.2255 Bay Area 925.830.2733 Kern County 661.334.2755
www.brandman.com EMAIL mba@brandman.com

Please answer the following questions:

Identify the police station(s) that would provide protection in the project area. Please indicate the station name/number and street address?

Upland Police Department Headquarters
1499 West 13th Street
Upland, CA

What is the approximate response time of patrol units to emergency calls throughout the project area?

Average response time for emergency calls in calendar year 2002 is 4 minutes 23 seconds. Our officers presently do not respond to calls for service in the project area.

What is your average response time throughout the rest of your jurisdiction?

Average response time for emergency calls in calendar year 2002 is 4 minutes 23 seconds.

On a 24-hour basis, how many sworn officers are available at stations(s) to respond to calls within the project area? Throughout your jurisdiction?

A minimum of six and a supervisor at all times.

Describe the number and types of vehicles, as well as any special equipment available at the station(s) responding to the project area (such as helicopters or K-9 units).

Patrol officers, K-9, motor officers, SWAT, helicopters, detectives, crime prevention, code enforcement, narcotics officers, chaplains.

Currently, are the existing facilities, manpower and equipment adequate to maintain a sufficient level of service throughout your jurisdiction? If not, what additional facilities, manpower and equipment may be needed?

Five additional patrol officers have been requested to serve the project area.

Describe the number and types of vehicles and special equipment available throughout your jurisdiction.

23 - Patrol Calls
5 - Motorcycles
10 - Detective Cars
1 - SWAT Rescue Vehicle
3 - Pick Up Trucks

Please explain any mutual assistance that you engage in with either the County or other adjacent cities?

We work with any city or county law enforcement agency upon request. Emergency responses are immediate and planned events are responded to accordingly

What principal crimes are reported throughout your jurisdiction?

We are subject to reports of crimes of any nature. No jurisdiction is immune. Auto theft, auto burglary, residential burglary and domestic violence are prevalent.

Do you anticipate any adverse impacts as a result of the proposed project? If so, what mitigation measures would you recommend to reduce potential impacts on police service?

Increased population, both residential and transient, will be difficult to serve at present standards without additional officers.

Thank you in advance for your timely response. If you would like an electronic copy of this letter sent to your office or have any other questions regarding this inquiry, please contact me at 714.508.4100 or e-mail ejohnson@brandman.com.

Sincerely,

MICHAEL BRANDMAN ASSOCIATES

Emilie Johnson, AICP, REA
Project Manager

ELJ:kbs:ap

H:\client (PN-JN)\0519\05190004\Will Serve Letters\05190004_Upland Police WSL.doc

Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

September 2, 2003

Steve Cary, Assistant Superintendent of Business Services
Upland Unified School District
390 North Euclid Avenue
Upland, CA 91786

SUBJECT: College Park Project, Upland, CA

Dear Mr. Cary:

The City of Upland will be coordinating the preparation of an Environmental Impact Report (EIR) for the proposed College Park project. The proposed project site is located in the western portion of the City of Upland southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The project site is vacant and currently being filled and compacted as a separate project. Regional freeway access to the site is provided by the San Bernardino Freeway (I-10) and the Foothill Freeway (SR 210). Major arterial access to the site is provided by Mills Avenue, Claremont Boulevard, Foothill Boulevard (SR 66), Arrow Route, Arrow Highway, and Monte Vista Avenue (see attached site location and site plan).

Preparation of the College Park EIR requires a clear and documented understanding of the level of service provided by various organizations and agencies. It is our understanding that your agency or organization would serve the proposed project. Therefore, we would greatly appreciate a written response to this letter. Enclosed for your use is a self-addressed stamped envelope.

The project site comprises approximately 38.69 acres. The proposed project is a mixed-use development consisting of three components: commercial, residential, and recreational. The commercial component of the project contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential component of the project contains 50 single-family detached dwelling units and 448 multi-family attached dwelling units. The recreational component contains a greenbelt/recreational area. Two phases of development are proposed. The first phase would include the retail center (containing quick serve restaurants, other retail uses, and a service station/mini-mart), garden office building, greenbelt/recreation area, all of the single-family detached dwelling units, and 50% (224 dwelling units) of the multi-family attached dwelling units. The second phase would include the hotel and the remainder (224 dwelling units) of the multi-family attached dwelling units. Additional project features include pedestrian access to the Claremont Colleges and pedestrian and bicycle linkages to the Montclair Metrolink Station and Transcenter.

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Inland Empire 909.884.2255 Bay Area 925.830.2733 Kern County 661.334.2755
www.brandman.com EMAIL mba@brandman.com

Please answer the following questions:

List the names and locations (addresses and major cross streets) of the schools serving the project area, their approximate distance to the project area, and the level of service at which they are presently operating.

Cabrillo Elementary K-6th 1562 W. 11th St. Corner 11th & Benson
Upland Jr. High 7-8th 444 E. 11th Street 11th & Foothill
Upland High 9-12th 565 W. 11th Street SanAntonio Blvd., & Foothill Blvd.

Will the proposed project create a need for expansion of facilities or changes in staffing? If so, please give a brief description.

Additional Classrooms, Restrooms, Cafeteria Capacity, locker spaces & support facilities to accomodate added students

What adopted student generation factors (number of students per household) do you use to estimate the number of students from a project like this?

State Average of .7/housing unit

What problem, if any, do you foresee in accommodating students by the proposed project?

Limited land available on school sites for necessary expansion

What school impact fees do you currently charge?

State statutory fee of $2.14/sq ft.

Will students attend classes in other nearby school districts? If so, what are the names of the other nearby Districts? Should this questionnaire be sent to them also?

Students will attend Upland Unified School District

Please provide us with a contact name and phone number in the event that additional information is required.

Steve Cary
Assistant Superintendent of Business Services
(909)949-7870 ext. 222

Appendix I: Public Service and Utility Agency Certifications and Correspondence

Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

September 2, 2003

Lou Steslicki, Fire Marshall
Fire Department
P.O. Box 460
Upland, CA 91785

SUBJECT: College Park Project, Upland, CA

Dear Mr. Steslicki:

The City of Upland will be coordinating the preparation of an Environmental Impact Report (EIR) for the proposed College Park project. The proposed project site is located in the western portion of the City of Upland southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The project site is vacant and currently being filled and compacted as a separate project. Regional freeway access to the site is provided by the San Bernardino Freeway (I-10) and the Foothill Freeway (SR 210). Major arterial access to the site is provided by Mills Avenue, Claremont Boulevard, Foothill Boulevard (SR 66), Arrow Route, Arrow Highway, and Monte Vista Avenue (see attached site location and site plan).

Preparation of the College Park EIR requires a clear and documented understanding of the level of service provided by various organizations and agencies. It is our understanding that your agency or organization would serve the proposed project. Therefore, we would greatly appreciate a written response to this letter. Enclosed for your use is a self-addressed stamped envelope.

The project site comprises approximately 38.69 acres. The proposed project is a mixed-use development consisting of three components: commercial, residential, and recreational. The commercial component of the project contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential component of the project contains 50 single-family detached dwelling units and 448 multi-family attached dwelling units. The recreational component contains a greenbelt/recreational area. Two phases of development are proposed. The first phase would include the retail center (containing quick serve restaurants, other retail uses, and a service station/mini-mart), garden office building, greenbelt/recreation area, all of the single-family detached dwelling units, and 50% (224 dwelling units) of the multi-family attached dwelling units. The second phase would include the hotel and the remainder (224 dwelling units) of the multi-family attached dwelling units. Additional project features include pedestrian access to the Claremont Colleges and pedestrian and bicycle linkages to the Montclair Metrolink Station and Transcenter.

220 Commerce, Suite 200, Irvine, CA 92602 714 . 508 . 4100 FAX 714 . 508 . 4110
Inland Empire 909.884.2255 Bay Area 925.830.2733 Kern County 661.334.2755
www.brandman.com EMAIL mba@brandman.com

Please answer the following questions:

Identify the fire station(s) that would provide protection in the project area. Please indicate the station name/number and street address. *Fire station 163, 1350 N. Benson Avenue, Upland, CA, 91786*

What is the approximate response time of patrol units to emergency calls throughout the project area? *Approximately 5-6 minutes*

What is your average response time throughout the rest of your jurisdiction? *Approximately 5 minutes*

On a 24-hour basis, how many personnel are available at stations(s) to respond to calls within the project area? Throughout your jurisdiction? *4-personnel at fire station 163, 11-personnel throughout our service area.*

Describe the number and types of vehicles, as well as any special equipment available at the station(s) responding to the project area. *(1) One KME quint/truck with a 75-foot aerial ladder responding from fire station 163, (1) KME Type 1 fire engine responding from fire station 161, (1) one Pierce Type 1 fire engine responding from fire station 162.*

Currently, are the existing facilities, manpower and equipment adequate to maintain a sufficient level of service throughout your jurisdiction? If not, what additional facilities, manpower and equipment may be needed? *The Upland Fire department does not have adequate equipment and staffing to maintain an adequate level of staffing. Additional equipment and staffing required would be an additional fire engine with staffing of 4-personnel located at fire station 163. To optimize resources, the ladder truck would be relocated to fire station 161.*

Describe the number and types of vehicles and special equipment available throughout your jurisdiction. *2-fire engines, 1-ladder truck*

Please explain any mutual assistance that you engage in with either the County or other adjacent cities? *The Upland Fire Department has mutual aid agreements with: Montclair FD, Ontario FD, Los Angeles County FD, Rancho Cucamonga FD.*

Do you anticipate any adverse impacts as a result of the proposed project? If so, what mitigation measures would you recommend to reduce potential impacts on fire service? *Based on the proposed development for the area in question, the fire department anticipates a significant increase in the demand for fire and emergency medical services. Proposed high-density residential developments create additional increases for service that require additional fire department staffing, equipment, and training. The Upland Fire Department Fire Prevention Bureau (FPB) is currently staffed by (1) one Fire Marshal, (1) Deputy Fire Marshal, and (1) one half time plan checker/building inspector and is not able to meet its inspection goals due to this limited staffing. The inspection and code enforcement demand placed on the FBP by the proposed development within the area in question would require the Upland Fire Department to hire at least (1) one additional full-time fire inspector.*

Thank you in advance for your timely response. If you would like an electronic copy of this letter sent to your office or have any other questions regarding this inquiry, please contact me at 714.508.4100 or e-mail ejohnson@brandman.com.

Sincerely,

MICHAEL BRANDMAN ASSOCIATES

Emilie Johnson, AICP, REA
Project Manager

ELJ:kbs:ap

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Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

September 2, 2003

Michael A. Whyte
Project Manager – Inland Empire
Southern California Edison, Economic & Business Development
2244 Walnut Grove Ave., G.O.1, Room 186
Rosemead, CA 91770

SUBJECT: College Park Project, Upland, CA

Dear Mr. Whyte:

The City of Upland will be coordinating the preparation of an Environmental Impact Report (EIR) for the proposed College Park project. The proposed project site is located in the western portion of the City of Upland southwest of the intersection of W. Arrow Route and Monte Vista Avenue. The project site is vacant and currently being filled and compacted as a separate project. Regional freeway access to the site is provided by the San Bernardino Freeway (I-10) and the Foothill Freeway (SR 210). Major arterial access to the site is provided by Mills Avenue, Claremont Boulevard, Foothill Boulevard (SR 66), Arrow Route, Arrow Highway, and Monte Vista Avenue (see attached site location and site plan).

Preparation of the College Park EIR requires a clear and documented understanding of the level of service provided by various organizations and agencies. It is our understanding that your agency or organization would serve the proposed project. Therefore, we would greatly appreciate a written response to this letter. Enclosed for your use is a self-addressed stamped envelope.

The project site comprises approximately 38.69 acres. The proposed project is a mixed-use development consisting of three components: commercial, residential, and recreational. The commercial component of the project contains a service station/mini mart, a retail center, a hotel, and a garden office building. The residential component of the project contains 50 single-family detached dwelling units and 448 multi-family attached dwelling units. The recreational component contains a greenbelt/recreational area. Two phases of development are proposed. The first phase would include the retail center (containing quick serve restaurants, other retail uses, and a service station/mini-mart), garden office building, greenbelt/recreation area, all of the single-family detached dwelling units, and 50% (224 dwelling units) of the multi-family attached dwelling units. The second phase would include the hotel and the remainder (224 dwelling units) of the multi-family attached dwelling units. Additional project features include pedestrian access to the Claremont Colleges and pedestrian and bicycle linkages to the Montclair Metrolink Station and Transcenter.

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www.brandman.com EMAIL mba@brandman.com

From: <Michael.Whyte@sce.com>
To: <kshannon@brandman.com>
Date: 1/7/04 10:34AM
Subject: Re: College Park Project, Upland CA

The City of Upland is coordinating an EIR for the proposed College Park project, 38.69 acres southwest of W. Arrow Route and Monte Vista Ave. in the west part of the City.

Michael Brandman Associates (environmental services) is working with the City, and would like information on the following:

1. Please describe the location and type of any electrical facilities within or surrounding the project area. Are there any electrical easements on the project site?

   Response: The location of SCE facilities, Transmission and Distribution, are on the Northern side of Arrow Route above your future Project, as well as on the eastern side of Monte Vista, across from the Project.

2. Currently are there any improvement or expansion plans for electrical facilities serving the project area?

   Response: No.

3. What are the current demands for the project site?

   Response: None.

4. Do you foresee any adverse impacts as a result of the proposed project? What mitigation measure do you suggest to reduce the potential impacts on electrical service and facilities?

   Response: No.

Thanks for your patience -- please let me know if you need anything else. Remind the developer that incentives are available for energy-efficient design:

http://www.sce.com/sc3/011_reb_off/011c_nc/011c2_non_res/011c2a_save_by_des.htm

Thanks,
Michael A. Whyte
Project Manager -- Inland Empire
Southern California Edison, Economic & Business Development
2244 Walnut Grove Ave., G.O.1, Room 186
Rosemead, CA 91770
626/302-3364, FAX 626/302-5669

Upland Public Library
450 North Euclid Avenue
Upland, CA 91786-4732
Telephone (909) 931-4200
Facsimile (909) 931-4209

College Park Project EIR

1. Identify the library facilities near the project.

Upland Public Library
450 N. Euclid Ave.
Upland

2. Currently, are the existing facilities sufficient to meet the needs of the proposed project?

No. We are near or at capacity in terms of space for materials and staff to meet the needs of our current users. There are long wait times for new materials, to use the library's computers and for assistance. We routinely have to turn away patrons from our children's programs due to overcrowding.

3. Do you anticipate any adverse impacts as a result on the proposed project? If so, what mitigation measures would you recommend to reduce potential impacts on library services.

The adverse impacts are even longer delays in providing materials and services; more people turned away from programs and greater stress for the staff.

Mitigation measures would be to increase library funding to enable the library to hire more staff, purchase more library materials and computers and to enlarge the library.