

APPENDIX A

Notice of Preparation/Initial Study (NOP/IS)



COMMUNITY DEVELOPMENT
DEPARTMENT

CITY OF SACRAMENTO
CALIFORNIA

ENVIRONMENTAL PLANNING
SERVICES

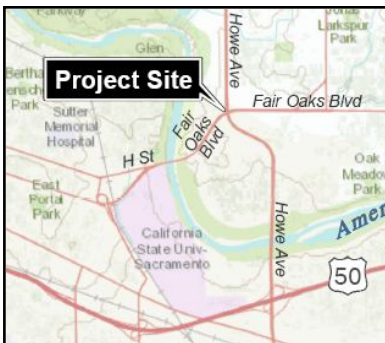
**NOTICE OF PREPARATION
FOR AN ENVIRONMENTAL IMPACT REPORT (EIR)
FOR THE CVS/PHARMACY DEVELOPMENT PROJECT**

Public Review Period: February 5, 2013 to March 8, 2013

The City of Sacramento, Community Development Department (Environmental Planning Services) will be the Lead Agency for the preparation of an Environmental Impact Report (EIR) for the CVS/pharmacy Development project (proposed project). The California Environmental Quality Act (CEQA), Section 15082, states that once a decision is made to prepare an EIR, the lead agency must prepare a Notice of Preparation (NOP) to inform all responsible agencies of that decision. The purpose of the NOP is to provide responsible agencies and interested persons with sufficient information describing the proposed project and the project's potential environmental effects to enable them to make a meaningful response as to the scope and content of the information to be included in the EIR. The responses to this NOP will help the City of Sacramento determine the scope of the EIR and ensure an appropriate level of environmental review. An Initial Study for this project can be found at:

<http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/>.

The Proposed Project



The proposed CVS/pharmacy development (proposed project) would be located at the northwest corner of Fair Oaks Boulevard and Howe Avenue (1 Cadillac Drive, Assessor Parcel Number [APN] 295-0020-004) in the City of Sacramento. The project site is approximately 6.47 acres. The site was formerly occupied by Hubacher Cadillac Dealership. Existing structures on the site total approximately 43,000 square feet and include a vehicle dealership showroom, offices, a covered service arrival area, maintenance shop, body shop, used car sales office, and paved parking. The site is currently vacant. The project site is designated as Employment Center Mid Rise in the Sacramento 2030 General Plan and is zoned as C-2-R-PUD (General Commercial, Review, Planned Unit Development). The site is surrounded by general commercial and retail uses, office uses, multi-family uses, a senior care facility (the Campus Commons Senior Center), and a hotel.

The project site would be divided into two separate parcels to accommodate the proposed project development. The proposed project involves the construction and operation of buildings that will house a retail pharmacy and other commercial uses on the project site. More specifically, CVS/pharmacy is proposing to close its existing store at 400 Howe Avenue located across the street from the project site and relocate the CVS/pharmacy to the project site. The existing CVS/pharmacy space at 400 Howe Avenue is 5,706 square feet. The proposed project includes construction and operation of a 16,500-square-foot CVS/pharmacy retail store on the project site. The relocated store to the project site would allow CVS/pharmacy to upgrade their facilities, provide additional retail area, and add a drive-through facility.

In addition to the new CVS/pharmacy, the proposed project would also include construction and operation of an approximately 50,880-square-foot commercial use, likely a grocer tenant, in a separate building that would be adjacent to the proposed CVS/pharmacy retail store on the same site. The future user of the commercial building has not been determined at this time.

The proposed project would shift the two existing north-south Cadillac Drive driveways southward for better site circulation. The northernmost driveway would be gated at the sidewalk and would provide site access only for delivery trucks. No through access would be permitted at that driveway. The southernmost driveway on north-south Cadillac Drive would permit public access to the site. The east-west Cadillac Drive driveway would be maintained in its current location, but would be reconstructed to remove the existing island.

In addition, to provide access to the site from the south, the proposed project would add a 2-lane, right-in/right-out ingress/egress access from Fair Oaks Boulevard, 234 feet west of the Fair Oaks Boulevard/Howe Avenue intersection. This new access point would cross

the 1.03-acre City-owned triangle-shaped parcel (APN 295-0010-001) located between the project site and the Howe Avenue/Fair Oaks Boulevard intersection. This parcel would be used to provide vehicular and pedestrian access to the project site via an easement or fee title conveyance.

The proposed project includes onsite parking, bike racks and lockers, and pedestrian connections directly to the site. Onsite security lighting would be provided in the parking lot and on the exterior of buildings. Onsite landscaping would consist of turf areas along the street frontages and planter boxes with trees and shrubs consistent with requirements in the City's zoning ordinance.

Initially, the CVS/pharmacy would operate approximately from the hours of 7 a.m. to 10 p.m., seven days week. However, after the CVS/pharmacy store is open, if the demand of the neighborhood warrants 24-hour operations, CVS/pharmacy would then expand operations to remain open 24 hours.

Construction of the CVS/pharmacy building, second commercial building and site improvements is expected to occur in four phases, with Phases 1-3 consisting of demolition, grading, and construction of the CVS/pharmacy building, parking lot, and site access. The total construction duration of Phases 1-3 is expected to be 28 weeks. Construction of the second commercial building is anticipated to occur at a time after completion of construction Phases 1-3. Since full site improvements and the building pad for the second commercial building would be completed during Phase 3, Phase 4 would only involve construction of the second commercial building. Phase 4 is expected to last 32 weeks.

The City of Sacramento has discretionary authority and is the lead agency for the proposed project. The proposed project requires approval of the following entitlements by the City of Sacramento:

- Approve a Special Permit to allow the operation of a drive-through with the General Commercial (C-2) zone;
- Amend the Campus Commons PUD Guidelines to allow a driveway on Fair Oaks Boulevard and to modify the signage allowances under the PUD Guidelines;
- Approve a variance to allow for decreased drive-through stacking, a reduction from the required 180 feet to the proposed 160 feet;
- Approve a tentative map; and
- Approve an access easement across APN 295-0010-001 or approve a fee-title conveyance for APN 295-0010-001.

These actions are discretionary and require environmental review pursuant to the California Environmental Quality Act (CEQA). Prior to taking action, the City would be required to approve the environmental document prepared for the project.

The EIR will evaluate the potential environmental impacts of the proposed project and recommend mitigation measures, as required. The EIR will provide a project-specific evaluation of the environmental effects of the proposed project, pursuant to Section 15161 of the CEQA Guidelines.

The City anticipates that the following technical areas will be addressed in the EIR to determine whether the project would result in any additional significant environmental effects: Greenhouse Gas Emissions and Transportation and Circulation.

The EIR will include an analysis of project alternatives. The City has determined that the project was an anticipated future project in the Master EIR for the 2030 General Plan, and that the analysis of cumulative effects, growth-inducing effects and irreversible effects set forth in the Master EIR is adequate for the project. The 2030 General Plan is available at www.sacgp.org/. The Master EIR may be viewed at: <http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/>.

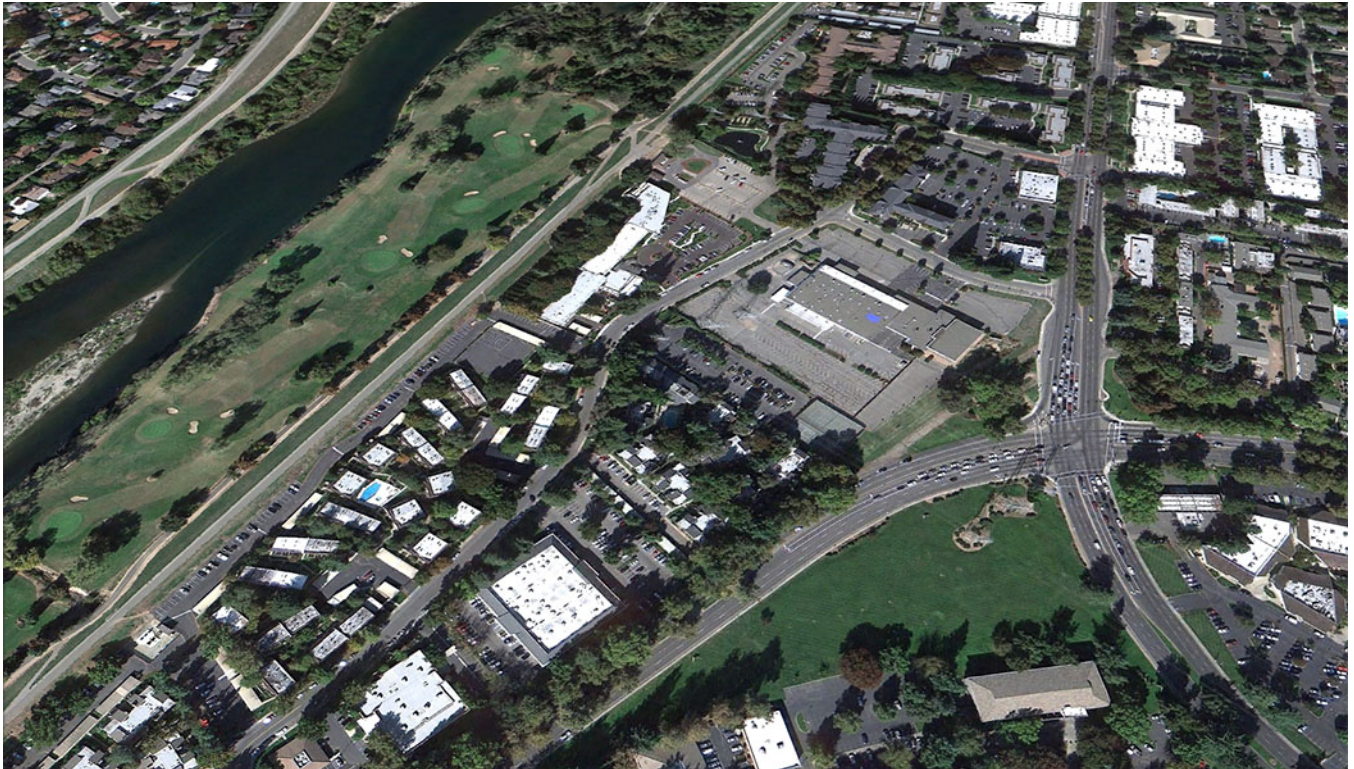
Comments on the Notice of Preparation

To ensure that the full range of issues related to this proposed project is addressed and that all significant issues are identified, written comments and suggestions concerning the scope of the proposed EIR are invited from all interested parties. Written comments must be received at the following address no later than **5:00 p.m. on March 8, 2013**.

Dana Allen, Associate Planner
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811
Phone: (916) 808-2762
Email: dallen@cityofsacramento.org

Initial Study

CVS/pharmacy Development Fair Oaks Boulevard and Howe Avenue



Prepared for:

City of Sacramento
Community Development Department
300 Richards Boulevard
Sacramento, CA 95811

AECOM

February 2013

Initial Study

CVS/pharmacy Development Fair Oaks Boulevard and Howe Avenue



Prepared by:
AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

AECOM

February 2013

TABLE OF CONTENTS

Section I - Background.....	2
Section II - Project Description	4
Section III – Environmental Checklist and Discussion	16
Land Use and Planning, Population and Housing, Agricultural Resources and Energy .	16
1. Air Quality	20
2. Biological Resources	29
3. Cultural Resources	35
4. Geology and Soils.....	39
5. Hazards	42
6. Hydrology and Water Quality	46
7. Light and Glare	49
8. Noise	53
9. Public Services	63
10. Recreation	66
11. Transportation and Circulation	68
12. Utilities and Service Systems.....	72
13. Mandatory Findings of Significance	75
Section IV - Environmental Factors Potentially Affected.....	77
Section V - Determination	78

Tables

Table AQ-1 CVS/pharmacy Daily Construction Emissions	23
Table AQ-2 CVS/pharmacy Proposed Operational Emissions	24
Table N-1 Noise Emission Levels from Construction Equipment	56
Table N-2 Comparison of Noise Modeling Results – 24-hour Average	58
Table N-3 Comparison of Noise Modeling Results – Day-Night (L _{dn}) Average	59
Table N-4 Representative Vibration Source Levels for Construction Equipment.....	61

Exhibits

Exhibit 1 Vicinity Map	5
Exhibit 2 Land Use Designations.....	6
Exhibit 3 Zoning	7
Exhibit 4 Site Plan	9
Exhibit 5 PG&E Easement.....	12
Exhibit 6 Landscaping Plan	14
Exhibit 7 CNDDDB Occurrences within 2 Miles of Project Site.....	32
Exhibit 8 Project Site Photos – Existing Conditions	51

Attachments

Attachment 1 – Air Quality Data Sheets
Attachment 2 – Tree Inventory
Attachment 3 – Native American Consultation
Attachment 4 – Traffic Data

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CVS/PHARMACY DEVELOPMENT AT FAIR OAKS AND HOWE [(P12-032)]

INITIAL STUDY FOR ANTICIPATED SUBSEQUENT PROJECTS UNDER THE 2030 GENERAL PLAN MASTER EIR

This Initial Study has been prepared by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into the following sections:

SECTION I - BACKGROUND: Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

SECTION II - PROJECT DESCRIPTION: Includes a detailed description of the proposed project.

SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION: Reviews proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Master EIR for the 2030 General Plan.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION V - DETERMINATION: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

SECTION I - BACKGROUND

Project Name and File Number: CVS/pharmacy Development at Fair Oaks
Boulevard and Howe Avenue (P12-032)

Project Location: Northwest corner of Fair Oaks Boulevard and Howe
Avenue (1 Cadillac Drive), City of Sacramento,
California (Assessor Parcel Number 295-0020-004)

Project Applicant: Josh Eisenhut, LEED AP
Armstrong Development Properties, Inc.
1375 Exposition Blvd., Suite 101
Sacramento, CA 95815
Telephone: (916) 643-9610

Project Planner: Ellen Marshall, Associate Planner
Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811
Telephone: (916) 808-5851
Email: emarshall@cityofsacramento.org

Environmental Planner: Dana Allen, Associate Planner
Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811
Telephone: (916) 808-2762
Email: dallen@cityofsacramento.org

Date Initial Study Completed: February 5, 2013

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000 *et seq.*). The Lead Agency is the City of Sacramento.

The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR and is consistent with the land use designation and the permissible densities and intensities of use for the project site as set forth in the 2030 General Plan. See CEQA Guidelines Section 15176(b) and (d).

The City has prepared the attached Initial Study to (1) review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the 2030 General Plan

Master EIR to determine their adequacy for the proposed project (see CEQA Guidelines Section 15178(b),(c)) and (2) identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or alternatives that may avoid or mitigate the identified effects to a level of insignificance, if any.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to later proposed projects as set forth in the Master EIR (CEQA Guidelines Section 15177(d)). The Master EIR mitigation measures that are identified as appropriate for the proposed project are set forth in the applicable technical sections below.

This analysis incorporates by reference the general discussion portions of the 2030 General Plan Master EIR. (CEQA Guidelines Section 15150(a)). The General Plan Master EIR is available for public review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, and on the City's web site at: www.cityofsacramento.org/dsd/planning/environmental-review/eirs/.

The City is soliciting comments of interested persons and agencies pertaining to the content of the environmental information presented in this document. Due to the time limits mandated by state law, your response must be sent at the earliest possible date, but no later than the 30-day review period ending March 6, 2013.

Please send written responses to:

Dana Allen, Associate Planner
Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811
Telephone: (916) 808-2762
Email: dallen@cityofsacramento.org

SECTION II - PROJECT DESCRIPTION

Project Location

The proposed CVS/pharmacy development (proposed project) would be located at the northwest corner of Fair Oaks Boulevard and Howe Avenue (1 Cadillac Drive, Assessor Parcel Number [APN] 295-0020-004) in the City of Sacramento. The site is surrounded by general commercial and retail uses, office uses, multi-family uses, a senior care facility (the Campus Commons Senior Center), and a hotel. The project site is designated as Employment Center Mid Rise in the Sacramento 2030 General Plan and is zoned as C-2-R-PUD (General Commercial, Review, Planned Unit Development). A project vicinity map, land use exhibit, zoning exhibit, and site plan are included as Exhibits 1–4.

The project site is approximately 6.47 acres. The site was formerly occupied by Hubacher Cadillac Dealership. Existing structures on the site total approximately 43,000 square feet and include a vehicle dealership showroom, offices, a covered service arrival area, maintenance shop, body shop, used car sales office, and paved parking. The site is currently vacant.

Adjacent to the project site is a 1.03-acre City-owned triangle-shaped parcel located between the project site and the Howe Avenue/Fair Oaks Boulevard intersection (APN 295-0010-001). The parcel contains a detention basin, mature trees, and an abandoned road right-of-way. This parcel would be used to provide vehicular and pedestrian access to the project site via an easement or fee title conveyance.

Project Description

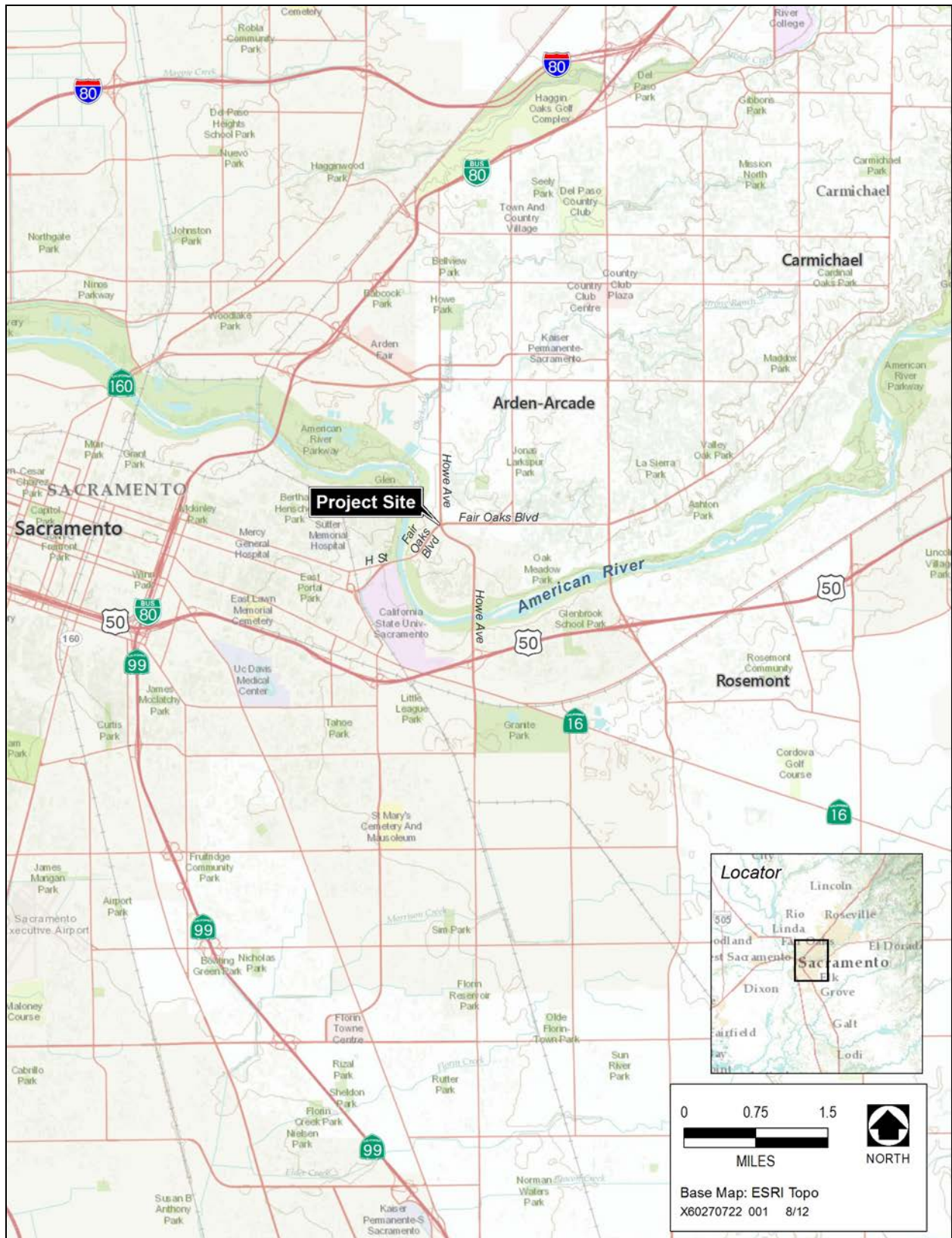
The project site would be divided into two separate parcels to accommodate the proposed project development. The proposed project involves the construction and operation of buildings that will house a retail pharmacy and other commercial uses on the project site. More specifically, CVS/pharmacy is proposing to close its existing store at 400 Howe Avenue located across the street from the project site and relocate the CVS/pharmacy to the project site. The existing CVS/pharmacy space at 400 Howe Avenue is 5,706 square feet. The proposed project includes construction and operation of a 16,500-square-foot CVS/pharmacy retail store on the project site (see Exhibit 4, Site Plan). The relocated store to the project site would allow CVS/pharmacy to upgrade their facilities, provide additional retail area, and add a drive-through facility.

The proposed CVS/pharmacy would provide health and beauty products, personal care items, gift items, beer, wine, distilled spirits, common household goods, vitamins, prescription and retail pharmaceutical products, standard and digital photo processing services, and other consumer retail items.

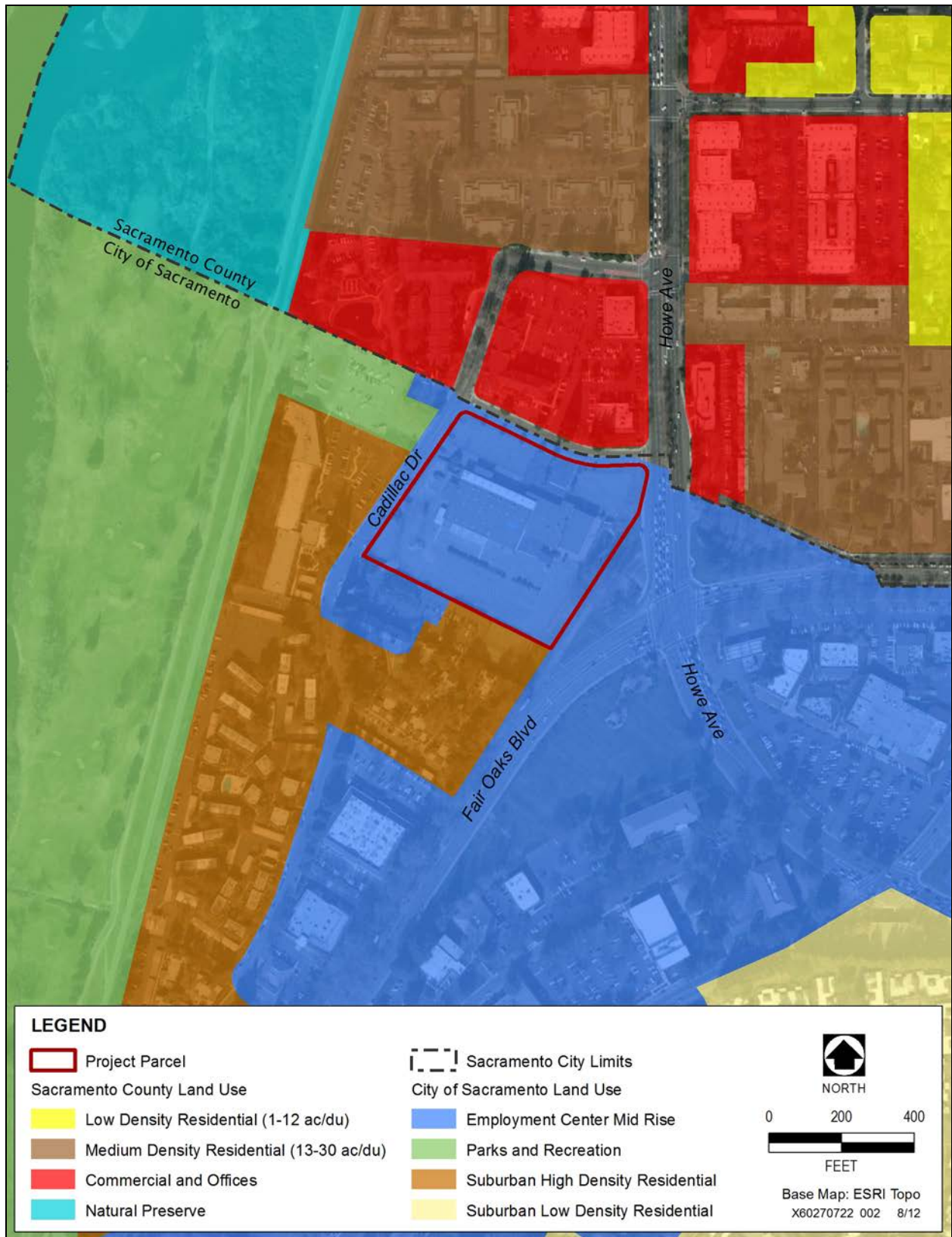
The proposed CVS/pharmacy would include a two-lane drive-through facility for prescription pharmaceuticals drop-off and pick-up only. According to the applicant, the purpose of the drive-through is to offer a convenient service for all customers, including those who are sick, injured, or the elderly who may be hindered by an ailment that discourages them from entering the store.

In addition to the new CVS/pharmacy, the proposed project would also include construction and operation of an approximately 50,880-square-foot commercial use, likely a grocer tenant, in a separate building that would be adjacent to the proposed CVS/pharmacy retail store on the same site. The future user of the commercial building has not been determined at this time.

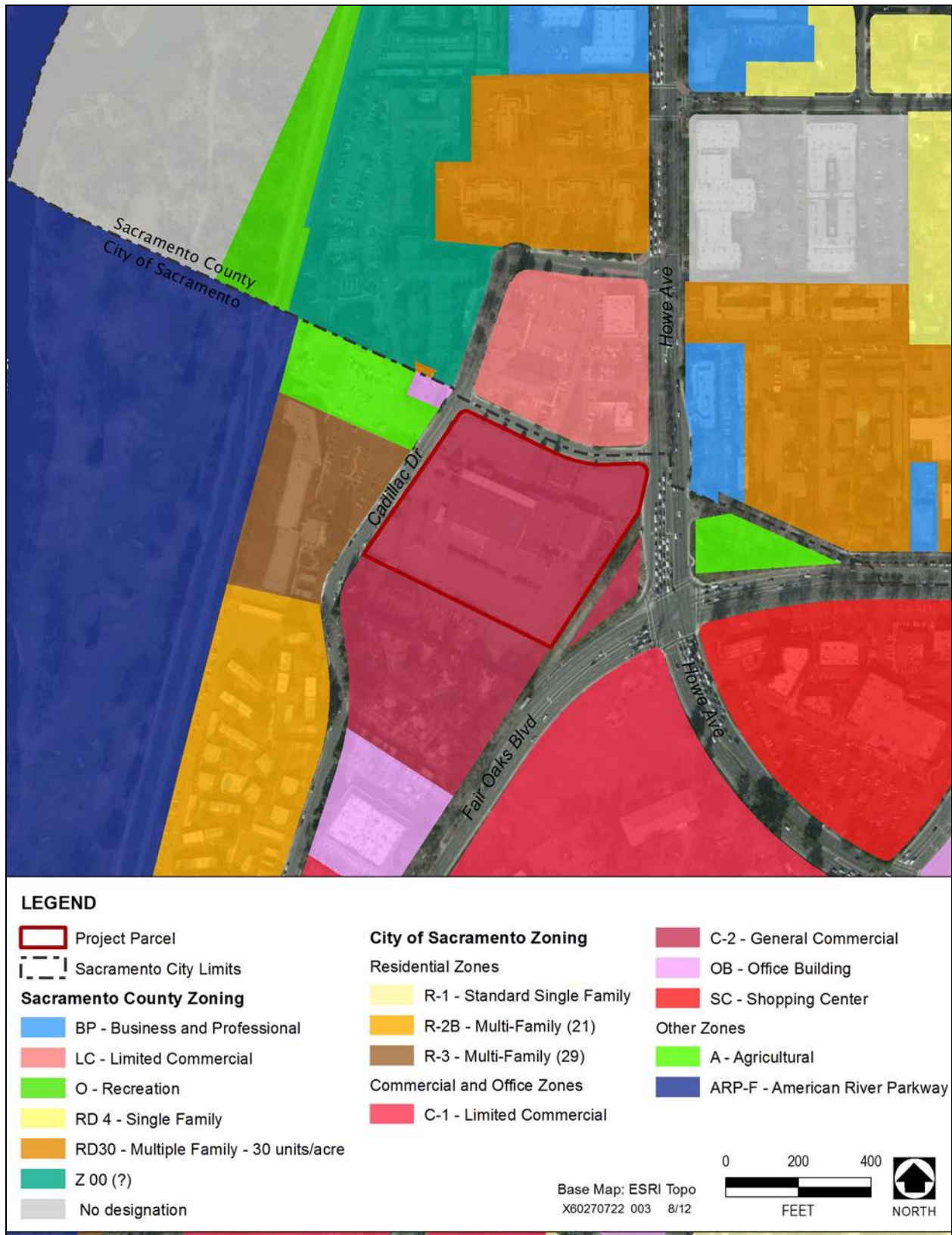
CVS/PHARMACY DEVELOPMENT AT FAIR OAKS AND HOWE (P12-032)
INITIAL STUDY



Source: AECOM 2012

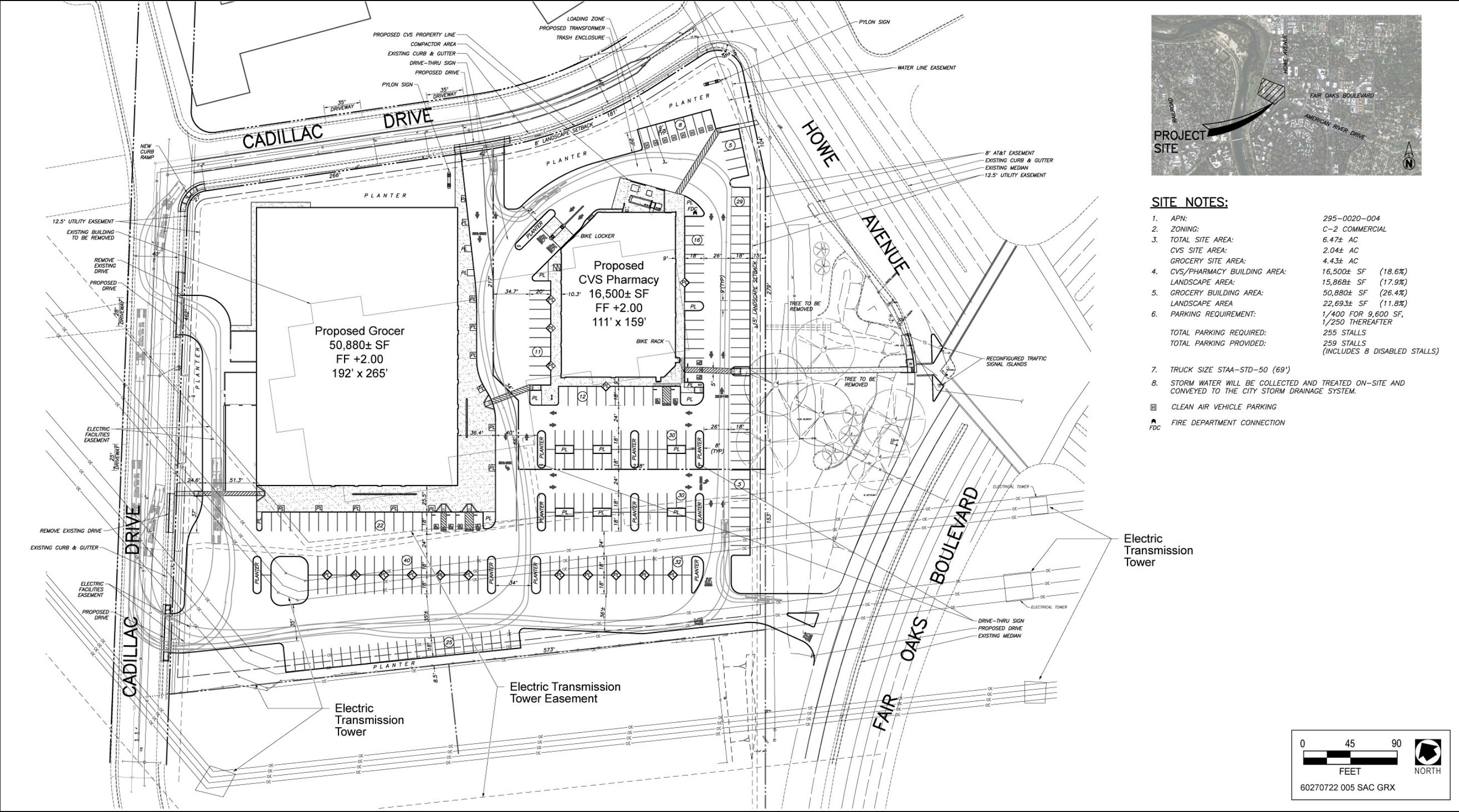


Source:



Source: City of Sacramento 2012, Sacramento County 2011

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Source: Blair, Church & Flynn 2012, adapted by AECOM 2013

Exhibit 4

Site Plan

Parking

The proposed project would be required to provide on-site parking consistent with the requirements of the City Zoning Code Parking Update (Ordinance No. 2012-043). For the proposed pharmacy use and anticipated grocery use, both considered commercial uses in an Urban District, the City zoning code requires a minimum of 0.5 parking spaces per 1,000 square feet of building. The resulting minimum parking requirement for the proposed project is 135 parking spaces. As proposed, the project would include a total of 259 parking spaces, exceeding the City minimum requirement by 124 spaces. The on-site parking would be shared between the proposed CVS/pharmacy and the second proposed commercial use.

Utilities

On the project site, currently there are underground electric facilities, water lines, sewer lines, storm drain lines, gas lines, and communication lines that serve the existing building. There is an existing 8-inch water main in Cadillac Drive, an existing 12-inch sewer main in Cadillac Drive, and existing 12-inch and 15-inch storm drain mains in Cadillac Drive. The proposed project will require reconstruction of some or all of the underground infrastructure to accommodate the project uses and to meet current building code requirements. It is anticipated that all utility connections will be made in Cadillac Drive.

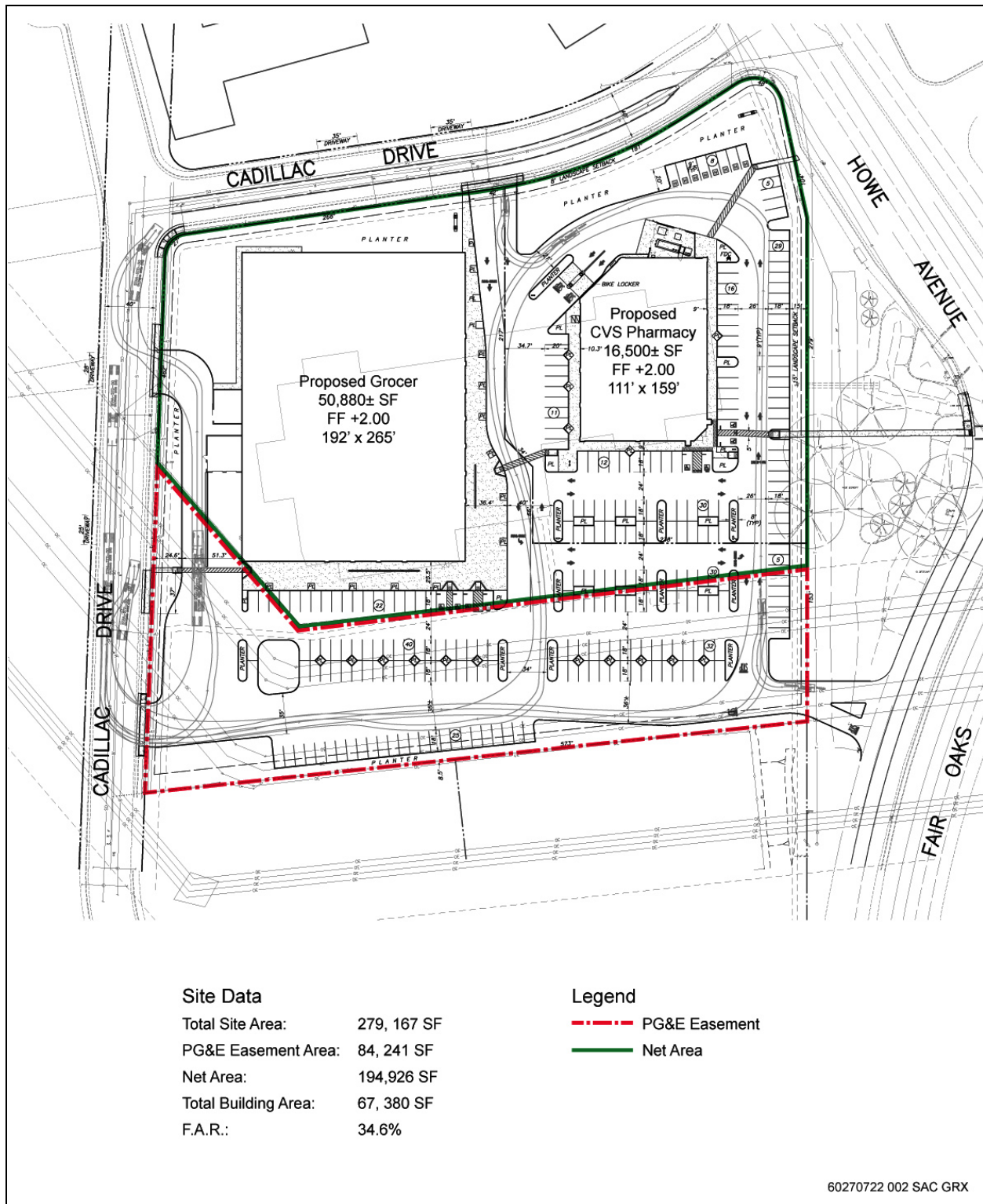
An easement for overhead power lines and transmission towers encumbers approximately 38,000 square feet in the southwest portion of the project site (see Exhibit 5, PG&E Easement). This area would be used for parking and open space uses only.

Traffic Circulation

The project site is currently accessed by vehicle from three access points on Cadillac Drive, two from north-south Cadillac Drive on the western boundary of the site, and one from east-west Cadillac Drive on the northern project boundary. The proposed project would shift the two north-south Cadillac Drive driveways southward for better site circulation. The northernmost driveway would be gated at the sidewalk and would provide site access only for delivery trucks. No through access would be permitted at that driveway. The southernmost driveway on north-south Cadillac Drive would permit public access to the site. The east-west Cadillac Drive driveway would be maintained in its current location, but would be reconstructed to remove the existing island.

In addition, to provide access to the site from the south, the proposed project would add a 2-lane, right-in/right-out ingress/egress access from Fair Oaks Boulevard, approximately 230 feet west of the Fair Oaks Boulevard/Howe Avenue intersection. This new access point would cross a 1.03-acre City-owned triangle-shaped parcel located between the project site and the Howe Avenue/Fair Oaks Boulevard intersection (APN 295-0010-001). The parcel contains a detention basin, mature trees, and an abandoned road right-of-way. This parcel would be used to provide vehicular and pedestrian access to the project site either via an easement or through fee title conveyance to the project applicant.

Regardless of the timing for securing a user for the commercial building, all on- and off-site improvements, including concrete, asphalt, and landscaping are proposed to be constructed along with the CVS/pharmacy portion of the project to ensure that proper onsite circulation is maintained.



Source: Armstrong Development Properties, Inc.; adapted by AECOM 2013

Exhibit 5

PG&E Easement

Pedestrian connections would be provided along both the Fair Oaks Boulevard and Howe Avenue frontages as well as along Cadillac Drive to encourage customers to walk to the CVS/pharmacy site from neighboring residential developments or from other businesses located in the area. A new paved pedestrian walkway would be provided connecting the project site directly to the sidewalk at the Fair Oaks Boulevard/Howe Avenue intersection. In compliance with the city zoning ordinance and the California Green Building Code, bike racks and lockers would be provided near the front entrance of the CVS/pharmacy to promote the use of alternative modes of transportation.

Site Design

Onsite security lighting would be provided in the parking lot and on the exterior of buildings. Parking lot and walkway lighting would consist of 10-foot light standards that would direct light downward. Lighting mounted to buildings would be for safety and security purposes and would also be angled downward to provide targeted illumination and prevent light spillover into adjacent areas, consistent with requirements in the City's zoning ordinance.

Onsite landscaping would consist of turf areas along the street frontages and planter boxes with trees and shrubs consistent with requirements in the City's zoning ordinance (see Exhibit 6, Landscaping Plan). Construction of the proposed project would result in the planning of more than 100 trees along the perimeter of the site, in planters adjacent to the buildings, and in planters throughout the parking lot. The proposed plantings would result in approximately 50% of the site being shaded, meeting the City's shade requirements.

Two pylon signs are proposed to be placed on the project site. One pylon sign would be at the northeast corner of the site, at the intersection of Howe Avenue and the east-west segment of Cadillac Drive. Another pylon sign would be placed along the east-west segment of Cadillac Drive at the primary entrance to the project site. The signage for the site and the buildings would be consistent with City requirements and approved by the City during the project review and approval process.

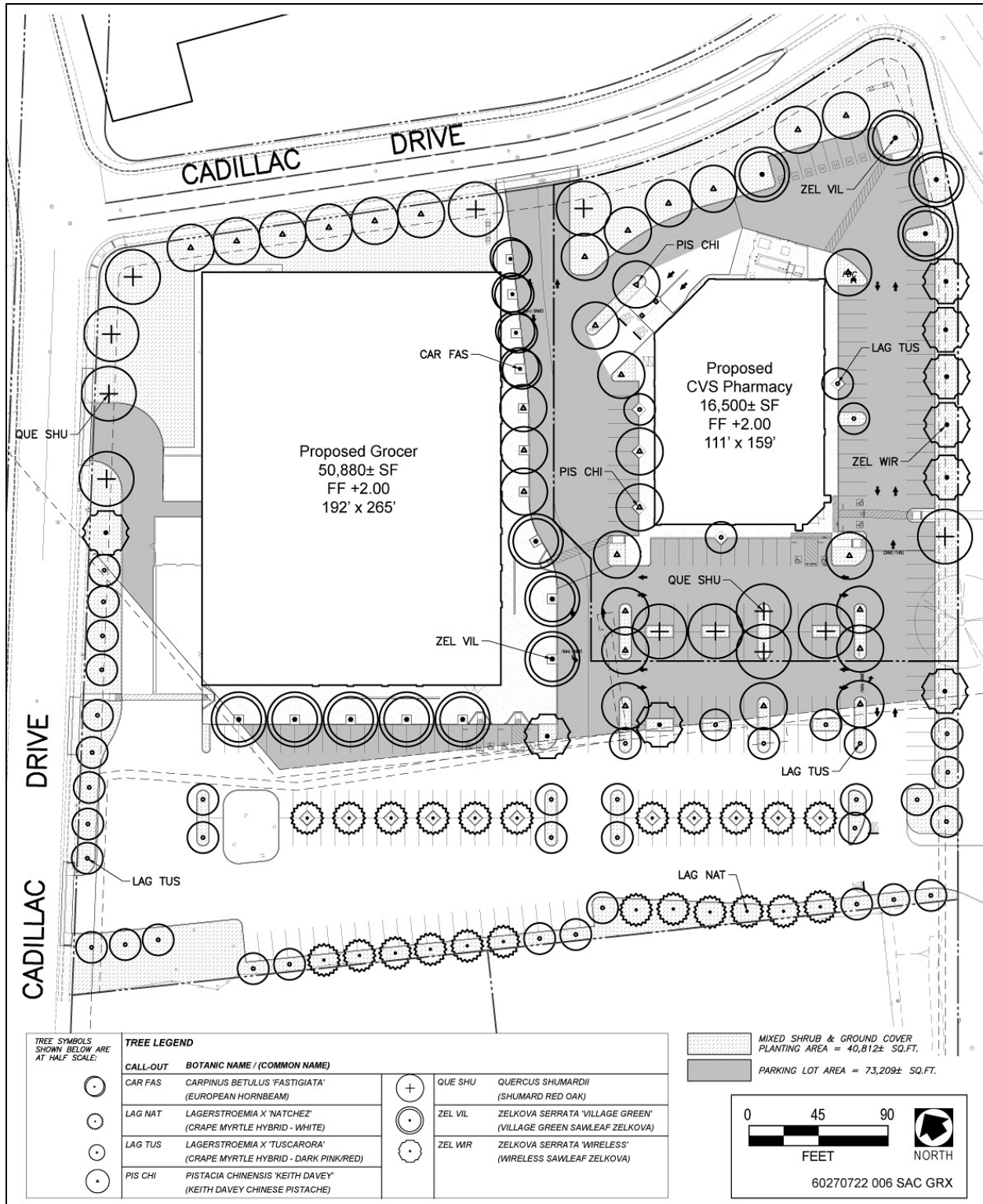
The materials used on the proposed buildings would be consistent with City design requirements and approved by the City during the project review and approval process.

Operations

Initially, the CVS/pharmacy would operate approximately from the hours of 7 a.m. to 10 p.m., seven days week. However, after the CVS/pharmacy store is open, if the demand of the neighborhood warrants 24-hour operations, CVS/pharmacy would then expand operations to remain open 24 hours.

The typical CVS/pharmacy generally has 25–30 employees on payroll. The typical number of employees staffed at a given time throughout the day is 4–12 depending on time of day and year.

The CVS/pharmacy would receive regular weekly deliveries, typically loading and unloading from a WB-50 type delivery truck. There may be as many as three of these trucks arriving at different days and times throughout the week to unload product for the store. Loading activities would occur at an at-grade loading area which would be built into the northeast side of the CVS/pharmacy building, facing the east-west segment of Cadillac Drive.



Source: Blair, Church & Flynn 2012, adapted by AECOM 2013

Exhibit 6

Landscaping Plan

The other proposed commercial use, possibly a grocer, could receive truck deliveries multiple times per day. The loading area for the other commercial building would be on the west side of the building, facing the north-south segment of Cadillac Drive. That loading area would dip below grade and would be shielded by an 8-foot-high concrete block wall.

Primary service vehicle access for heavy duty/large delivery trucks to the site would be from the ingress/egress on the east-west segment of Cadillac Drive, with secondary access permitted on the north-south segment of Cadillac Drive. Service vehicles would not be permitted to access the project site from the new proposed ingress/egress on Fair Oaks Boulevard.

Project Construction

Construction of the CVS/pharmacy building, second commercial building and site improvements is expected to occur in four phases. Phase 1, demolition and abatement of the site, is expected to last two weeks. Phase 2, mass grading of the project site and installation of underground utilities, is expected begin after completion of Phase 1 and last approximately 26 weeks. Phase 3, building of onsite project elements, including full site improvements, construction of a new vehicular site access point from Fair Oaks Boulevard, construction of the CVS/pharmacy building and pad preparation of the second commercial building would occur concurrently with Phase 2 and would have the same duration as Phase 2. The total construction duration of Phases 1-3 is expected to be 28 weeks. Construction of the second commercial building is anticipated to occur at a time after completion of construction Phases 1-3. Since full site improvements and the building pad for the second commercial building would be completed during Phase 3, Phase 4 would only involve construction of the second commercial building. Phase 4 is expected to last 32 weeks.

The exact type and number of construction equipment will be based on the contractor's judgment and what equipment is reasonably necessary to complete the project utilizing industry standard means and methods. Typical vehicles that are expected to be used include but are not limited to: scrapers, backhoes, skip loaders, water trucks, generators, and other miscellaneous equipment.

Actions

The project would require the City to take the following actions:

- Approve a Special Permit to allow the operation of a drive-through with the General Commercial (C-2) zone;
- Amend the Campus Commons PUD Guidelines to allow a driveway on Fair Oaks Boulevard and to modify the signage allowances under the PUD Guidelines;
- Approve a variance to allow for decreased drive-through stacking, a reduction from the required 180 feet to the proposed 160 feet;
- Approve a tentative map; and
- Approve an access easement across APN 295-0010-001 or approve a fee-title conveyance for APN 295-0010-001.

These actions are discretionary and require environmental review pursuant to the California Environmental Quality Act (CEQA). Prior to taking action, the City would be required to approve the environmental document prepared for the project.

SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION

LAND USE AND PLANNING, POPULATION AND HOUSING, AGRICULTURAL RESOURCES AND ENERGY

Introduction

The California Environmental Quality Act (CEQA) requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable general plans and regional plans.

When a project is inconsistent with an adopted plan, it may affect planning in the community regarding infrastructure and services, and the new demands generated by the project may result in later physical changes in response to the project.

This section of the initial study identifies the applicable land use designations, plans and policies, and permissible densities and intensities of use, and discusses any potential inconsistencies between these plans and the proposed project. This section also discusses agricultural resources and energy.

Discussion

Land Use and Planning

The project site is located in an urbanized area of Sacramento on a vacant parcel formerly occupied by the Hubacher Cadillac Dealership. As discussed above, existing urban land uses in the vicinity of the project site include general commercial and retail uses, office uses, multi-family uses, a senior care facility, and a hotel. The American River Bike Trail and Campus Commons Golf Course are located west of the project site. The American River is located approximately 900 feet west of the site.

The project site is located in the City of Sacramento, with the northern boundary of the site along the east-west segment of Cadillac Drive forming the boundary with Sacramento County. Exhibit 2 shows the City of Sacramento 2030 General Plan land use designations for the project site and vicinity to the south, and the Sacramento County General Plan land use designations to the north and east of the site. The project site is designated in the 2030 General Plan as Employment Center Mid Rise. Other lands in the immediate vicinity of the project site and within the city limits are designated by the 2030 General Plan as Employment Center Mid Rise and Suburban High Density Residential. Lands north of the project site are located within unincorporated Sacramento County and designated by the Sacramento County General Plan (2011) as Commercial and Offices and Medium Density Residential.

Exhibit 3 shows the Sacramento County and City of Sacramento zoning for the project site and vicinity. The project site is zoned by the City as C-2 (General Commercial). Other lands in the immediate vicinity of the project site and within the city limits are zoned R-2B (Multi-Family [21]), C-1 (Limited Commercial), OB (Office Building), SC (Shopping Center), and A (Agricultural). Lands north of the project site within the unincorporated area of Sacramento County are zoned BP (Business and Professional), LC (Limited Commercial), and RD30 (Multiple Family, 30 units/acre).

The project site is designated in the 2030 General Plan as Employment Center Mid Rise and zoned C-2 by the City. The 2030 General Plan describes the Employment Center Mid Rise land use designation as areas that can provide for large mixed-use office/employment centers that include mid-rise office complexes; support retail and service uses, such as restaurants, dry-cleaners, gym/fitness centers, markets, hotels, and office services (printing/copying/shipping); landscaped gathering places that include support uses; and residential uses as a supportive use to adjacent large employment centers. The minimum floor area ratio (FAR) for Employment Center Mid Rise is 0.35. The C-2 zoning code provides for the sale of commodities, or performance of services, including repair facilities, offices, small wholesale stores or distributors, and limited processing and packaging.

The project site is located in an urbanized area of Sacramento and is designated by the 2030 General Plan and zoned by the City for commercial development. The proposed project includes construction and operation of a 16,500-square-foot CVS/pharmacy retail store and an approximately 50,880-square-foot second commercial use. The proposed CVS/pharmacy would provide consumer retail items and the applicant has indicated that the second commercial use would likely be occupied by a grocer tenant. The FAR on the project site would be 0.35, consistent with the FAR requirements for the Employment Center Mid Rise. A Special Permit would be acquired to allow the operation of a drive-through pharmaceutical facility within the C-2 zone. Therefore, the proposed uses are consistent with the Employment Center Mid Rise land use designation in the Sacramento General Plan and C-2 zoning for the project site. Consequently, the project does not conflict with any applicable land use plans.

The project site is part of the current urban fabric of the Campus Commons community and the level of development in the proposed project is not dissimilar to that which previously occurred on the site; thus, the proposed project would not physically divide an established community.

There are no habitat conservation plans or natural community conservation plans covering the project site.

Based on the above, there will be no impact to land use and planning.

Population and Housing

The proposed project does not involve construction of residential land uses that would generate new residents in the city or region. Temporary construction workers serving the proposed project and the 25-30 employees required for operation of the CVS/pharmacy would reasonably be expected to come from the existing labor pool of residents in Sacramento and nearby communities. Although it is unknown how many employees would be generated by the grocery, it is reasonable to expect that these workers would also come from Sacramento and nearby communities and would not be new workers relocating to the Sacramento region. Therefore, the project would not induce direct population growth.

Growth can be induced indirectly when projects provide infrastructure with the capacity to serve other un-served properties, or when the economic activity of a proposed project can stimulate additional activity not currently planned for in the vicinity or region. In this case, underground utility infrastructure located on the project site would be connected to existing utility infrastructure in Cadillac Drive. No additional utility or urban services are required to serve the proposed project. Furthermore, the properties surrounding the project site are fully developed and the economic activity on the project site would be unlikely to stimulate redevelopment of

those properties with uses of greater intensity than currently exist. Therefore, the project will not indirectly induce population growth.

Consequently, the proposed project would not directly induce population growth in Sacramento or the region or indirectly induce population growth or development through extension of infrastructure or economic stimulus.

The project site includes vacant commercial buildings; therefore, the proposed project would not displace people or housing.

Consequently, the project will not have an impact on population and housing.

Agricultural Resources

Chapter 6.2, "Agricultural Resources," of the Master EIR evaluates the potential of development proposed under the 2030 General Plan to affect agricultural resources or operations within the city limits (Impact 6.2-1), result in land uses that are incompatible with adjacent agricultural uses (Impact 6.2-2), conflict with zoning for agricultural uses or Williamson Act contracts (Impact 6.2-3), or result in cumulative effects associated with agricultural resources in the region (Impacts 6.2-4 and 6.2-5). In addition to evaluating the effect of the 2030 General Plan on lands within the City, the 2030 General Plan Master EIR noted that to the extent the 2030 General Plan accommodates future growth within the city limits, the conversion of farmland outside the city limits is minimized (Master EIR, page 6.2-13). Policies included in the 2030 General Plan were identified to reduce impacts on agricultural resources to a less-than-significant level (see Master EIR, pages 6.2-13 to 6.2-19).

The project site and surrounding lands are located in an urbanized area of Sacramento and do not support agricultural land uses. The project site is a previously developed commercial infill site. According to the Sacramento County Important Farmland map, published by the California Department of Conservation's Division of Land Resource Protection the project site does not contain land designated as Important Farmland (i.e., Prime Farmland, Unique Farmland or Farmland of Statewide Importance) (Master EIR, Figure 6.2-1). The project site is not subject to a Williamson Act contract or zoned for agricultural uses, forestland, timberland, or as a Timberland Production Zone (Master EIR, Figure 6.2-2). The project will not result in the loss of forest land or conversion of forest land to non-forest land. Therefore, no effects on agriculture and forestry resources would occur from implementation of the proposed project.

Energy

Chapter 6.11, "Public Utilities," of the Master EIR evaluates the potential effects of the 2030 General Plan to result in the construction of new energy production facilities (Impact 6.11-9) and the potential cumulative effects associated with the continued use of electricity and natural gas in the region (Impact 6.11-10). Policies included in the 2030 General Plan were identified to reduce impacts associated with energy consumption to a less-than-significant level.

Policies U 6.1.6 through U 6.1.8 focus on promoting the use of renewable resources. Policies U 6.1.10 through U 6.1.13 encourage the spread of energy-efficient technology by offering rebates and other incentives to commercial and residential developers, and recruiting businesses that research and promote energy conservation and efficiency. The City specifically considers long-term impacts associated with energy consumption through General Plan Policies U 6.1.5 and U 6.1.12, which would allow the City to work closely with utility providers and

industries to promote and advance new energy conservation technologies. Impacts on energy from future development anticipated under the 2030 General Plan, which includes development of the project site for commercial uses, were analyzed in the Master EIR. Therefore, the proposed project would not result in any additional effects related to energy that were not evaluated in the Master EIR.

The proposed project would comply with Building Energy Efficiency Standards included in Titles 20 and 24 of the California Code of Regulations which requires new residential and nonresidential development to incorporate energy efficiency standards into project designs. In addition, the proposed project would comply with the 2010 California Green Building Code (Part 11 of Title 24) which was developed to enhance the design and construction of buildings and sustainable construction practices through planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental air quality.

Consequently, the project will not result in any energy impacts.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
1. <u>AIR QUALITY</u> <i>Would the proposal:</i>			
A) Result in construction emissions of NO _x above 85 pounds per day?		X	
B) Result in operational emissions of NO _x or ROG above 65 pounds per day?			X
C) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X	
D) Result in PM ₁₀ concentrations equal to or greater than five percent of the State ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard?		X	
E) Result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm)?			X
F) Result in exposure of sensitive receptors to substantial pollutant concentrations?			X
G) Result in TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources?			X
H) Impede the City or state efforts to meet AB32 standards for the reduction of greenhouse gas emissions?	X		

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, air quality impacts may be considered significant if construction or implementation of the proposed project would result in any of the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- construction emissions of NO_x above 85 pounds per day;

- operational emissions of NO_x or ROG above 65 pounds per day;
- violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- PM₁₀ concentrations equal to or greater than five percent of the State ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard. However, if project emissions of NO_x and ROG are below the emission thresholds given above, then the project would not result in violations of the PM₁₀ ambient air quality standards;
- CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm); or
- exposure of sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for toxic air contaminants (TAC). TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR addressed the potential effects of the 2030 General Plan on ambient air quality and the potential for exposure of people, especially sensitive receptors such as children or the elderly, to unhealthful pollutant concentrations. See Master EIR, Chapter 6.1.

Policies in the 2030 General Plan in Environmental Resources were identified as mitigating potential effects of development that could occur under the 2030 General Plan. For example, Policy ER 6.1.1 calls for the City to work with the California Air Resources Board and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to meet state and federal air quality standards; Policy ER 6.1.12 requires the City to review proposed development projects to ensure that the projects incorporate feasible measures that reduce construction and operational emissions; Policy ER 6.1.11 calls for coordination of City efforts with SMAQMD; and Policy ER 6.1.15 requires the City to give preference to contractors using reduced-emission equipment.

The Master EIR identified exposure to sources of toxic air contaminants (TAC) as a potential effect. Policies in the 2030 general Plan would reduce the effect to a less-than-significant level. The policies include ER 6.1.5, requiring consideration of current guidance provided by the Air Resources Board and SMAQMD; requiring development adjacent to stationary or mobile TAC sources to be designed with consideration of such exposure in design, landscaping and filters; as well as Policies ER 6.11.1 and ER 6.11.15, referred to above.

The Master EIR found that greenhouse gas emissions that would be generated by development consistent with the 2030 General Plan would be a significant and unavoidable cumulative impact. The discussion of greenhouse gas emissions and climate change in the 2030 General Plan Master EIR are incorporated by reference in this Initial Study. (CEQA Guidelines Section 15150)

The Master EIR identified numerous policies included in the 2030 General Plan that addressed greenhouse gas emissions and climate change. See Draft MEIR, Chapter 8, and pages 8-49 et seq. The Master EIR is available for review at the offices of Development Services Department, 300 Richards Boulevard, 3rd Floor, Sacramento, CA during normal business hours, and is also available online at <http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/>.

Policies identified in the 2030 General Plan include directives relating to sustainable development patterns and practices, and increasing the viability of pedestrian, bicycle and public transit modes. A complete list of policies addressing climate change is included in the Master EIR in Table 8-5, pages 8-50 et seq.; the Final MEIR included additional discussion of greenhouse gas emissions and climate change in response to written comments. See changes to Chapter 8 at Final MEIR pages 2-19 et seq. See also Letter 2 and response.

The project shall comply with the General Plan policies outlined above.

ANSWERS TO CHECKLIST QUESTIONS

QUESTION A

Construction of the proposed project would generate short-term, temporary air quality emissions as a result of construction activities such as demolition, site grading, building construction, asphalt paving, and application of architectural coatings. Construction-related exhaust emissions would be generated by heavy-duty construction equipment, material delivery/haul trucks, and construction worker vehicles. Ground-disturbance and building demolition activities would generate fugitive particulate matter (PM) dust emissions. Asphalt paving and architectural coating activities would generate off-gas reactive organic gas (ROG) emissions. Although these emissions would be temporary in nature, and would cease following construction of the proposed project, construction activities could constitute a significant source of air quality emissions. Accordingly, SMAQMD has established a construction-specific significance threshold of 85 pounds per day of oxides of nitrogen (lbs/day NOx). The City has accepted this threshold and has determined that projects that would generate daily construction NOx emissions in excess of 85 lbs/day would be considered to generate significant construction-related air quality emissions.

Construction emissions were modeled using the CalEEMod Version 2011.1.1 emissions model. CalEEMod allows the user to model construction (and operational) emissions based on default and/or user-defined parameters. When available, project-specific construction parameters provided by the project applicant were used to model air quality emissions. Where project-specific parameters were not available, default assumptions contained in CalEEMod were used. Default assumptions in CalEEMod are typically more conservative than user-defined parameters in order to avoid underestimating construction emissions when project-specific construction information (e.g., type of equipment, duration of use, etc.) is not available. Construction equipment required for each phase of construction was estimated using CalEEMod default assumptions. Therefore, it should be noted that the emissions estimates provided below, and in Attachment 1 represent conservative assumptions for heavy-duty construction equipment emissions, which constitute a majority of construction emissions. Table AQ-1 presents the proposed projects daily construction emissions for each construction phase and the maximum daily construction emissions (i.e., during the overlap of phases).

As shown in Table AQ-1, maximum daily construction NOx emissions resulting from the proposed project would not exceed the SMAQMD threshold of significance. However, all projects, regardless of its emissions, in the jurisdiction of the SMAQMD must implement certain

measures to keep construction emissions low. These measures are outlined in SMAQMD's Basic Construction Emission Control Practices.

Table AQ-1 CVS/pharmacy Daily Construction Emissions	
Construction Phase	NO_x Pollutant Emissions (lbs/day)
Phase 1 - Demolition	25.71
Phase 2 - Site Preparation	12.61
Phase 2 - Site Grading	13.97
Phase 3 - Building Construction	16.82
Phase 3 - Asphalt Paving	14.63
Phase 3 - Architectural Coating	2.97
Phase 4 - Building Construction	24.61
Phase 4 - Architectural Coating	2.98
Maximum Daily ¹	61.00
SMAQMD Significance Threshold	85
Notes: lbs/day = pounds per day; NO _x = oxides of nitrogen; SMAQMD = Sacramento Metropolitan Air Quality Management District.	
¹ Maximum daily emissions of NO _x occur during the overlap of Phase 2 (Site Preparation and Site Grading) and Phase 3 (Building Construction, Asphalt Paving, and Architectural Coating).	
Source: AECOM 2012	

With implementation of Mitigation Measure AQ-1 the proposed project would fulfill all the SMAQMD-required construction control practices and generate NO_x emissions less than the 85 lbs/day threshold. Therefore, the impact would be **less than significant with incorporation of mitigation**.

QUESTION B

Long-term air quality emissions would be generated from the day-to-day operations of the proposed project. Operational emissions for commercial development projects are typically distinguished as mobile- and area-source emissions. Mobile-source emissions are those generated by vehicles coming to and leaving from the proposed project site, which include customer, employee, and delivery vehicles. Area-source emissions are those associated with natural gas combustion for space and water heating, landscape maintenance activities, and periodic application of architectural coatings. The City uses operational thresholds of significance for ROG and NO_x developed by SMAQMD to evaluate land use development projects. Projects that would generate ROG or NO_x emissions that exceed 65 lbs/day would be considered to generate significant long-term operational air quality emissions.

As discussed above, CalEEMod can also model operational emissions (i.e., mobile and area sources) based on user-defined or default parameters. The proposed project's operational emissions were modeled using trip generation rates from the traffic study and land use quantities provided by the project applicant. The proposed project was modeled assuming an operational year of 2014. Table AQ-2 presents the daily proposed operational emissions.

As shown in Table AQ-2, the maximum daily operational ROG and NO_x emissions would not exceed the SMAQMD's threshold of significance. Therefore, the proposed project's operational emissions would be considered **less than significant**.

Table AQ-2		
CVS/pharmacy Proposed Operational Emissions		
Source	Pollutant Emissions (lbs/day)	
	ROG	NO_x
Proposed Project		
Area Sources	1.87	0.00
Energy Source	0.04	0.38
Mobile Sources	26.84	41.16
Total Proposed Project ¹	28.75	41.54
SMAQMD Thresholds of Significance	65	65
Notes: lbs/day = pounds per day; ROG = reactive organic gases; NO _x = oxides of nitrogen; SMAQMD = Sacramento Metropolitan Air Quality Management District.		
¹ Operational emissions represent the maximum daily emissions from either winter or summer conditions.		
Source: AECOM 2012		

QUESTIONS C AND D

The proposed project would develop a CVS/pharmacy and an adjacent commercial use that would likely be a grocery store. The proposed land uses would include emission sources associated with retail land uses (e.g., vehicle trips, natural gas combustion for space and water heating), which are not typically emission sources that would generate substantial concentrations of criteria air pollutants, PM₁₀, or PM_{2.5}. Emissions sources and activities that typically generate large concentrations of criteria air pollutants, PM₁₀, or PM_{2.5} that could exceed an ambient air quality standard include stationary sources, large numbers of idling vehicles, and earth moving activities.

Operations

The SMAQMD's operational thresholds of significance for PM₁₀ and PM_{2.5} are:

- PM₁₀: 50 µg/m³ 24-hour standard; 20 µg/m³ Annual Arithmetic Mean
- PM_{2.5}: 12 µg/m³ Annual Arithmetic Mean

The proposed project's daily operational PM₁₀ emissions would be approximately 51.17 lbs/day. These emissions would be distributed throughout the region from vehicles coming to and leaving from the proposed project site. The 51.17 lbs/day of PM₁₀ would not be generated in one specific area (i.e., the project site) or from one particular continuous emissions source. Therefore, emissions would occur over a 24-hour period and be emitted throughout a large area, both of which would allow the dispersion and dilution of emissions to avoid build-up of project-related PM₁₀ concentrations. Considering this information, it is not anticipated that the proposed project's operational emissions would generate PM₁₀ concentrations that would exceed the PM₁₀ SMAQMD, State or federal ambient air quality standard.

The proposed project's daily operational PM_{2.5} emissions would be approximately 2.20 lbs/day. These emissions would be distributed throughout the region from vehicles coming to and leaving from the proposed project site. Similar to PM₁₀, the 2.20 lbs/day PM_{2.5} would not be generated in one specific area (i.e., the project site) or from one particular continuous emissions source. Therefore, emissions would occur over a 24-hour period and be emitted throughout a

large area, both of which would allow the dispersion and dilution of emissions to avoid build-up of project-related PM_{2.5} concentrations. Considering this information, it is not anticipated that the proposed project's operational emissions would generate PM_{2.5} concentrations that would exceed the PM_{2.5} SMAQMD, State or federal ambient air quality standard.

Construction

SMAQMD has developed construction activity screening criteria and cumulative construction significance criteria for PM₁₀ and PM_{2.5}. (SMAQMD CEQA Guide, Chapter 3). If a project would implement all SMAQMD Basic Construction Emission Control Practices (as set forth in Mitigation Measure AQ-1 below) and the maximum daily disturbed area (i.e., grading, excavation, cut and fill) of the project site would not exceed 15 acres (the project site is less than 15 acres), then the project does not have the potential to exceed or contribute to the SMAQMD's concentration-based thresholds of significance for PM₁₀ and PM_{2.5} at an off-site location. Thus, the PM₁₀ and PM_{2.5} concentrations would be **less than significant**.

Therefore, with implementation of Mitigation Measure AQ-1 and the fact that the project site is less than 15 acres and, thus, will not result in a daily disturbance greater than 15 acres, the proposed project would fulfill all the SMAQMD's criteria for construction activities to not exceed the concentration-based threshold of significance for PM₁₀ and PM_{2.5}. Therefore, the impact would be **less than significant with incorporation of mitigation**.

The proposed project's vehicle traffic, in combination with existing and future regional traffic has the potential to generate concentrations of CO that could exceed the ambient air quality standards. The proposed project's potential to generate CO concentrations that exceed an ambient air quality standard are discussed in further detail in Question E.

QUESTIONS E AND F

The proposed project's customers, employees, and delivery trucks would contribute vehicle traffic to existing and future intersection volumes. The traffic study evaluated nine intersections in the proposed project's vicinity that would be affected by the proposed project's long-term operational activities. The proposed project would contribute vehicle volumes to these intersections, which could increase delays and idling. Intersections that operate at a level of service (LOS) E or F with large delays and idling have the potential to generate a CO hotspot, which is an exceedance of the 1- or 8-hour state carbon monoxide (CO) standard. CO hotspots are considered unhealthy concentrations of CO that could expose nearby sensitive receptors to substantial pollutant concentrations. This impact will discuss the potential for the proposed project to expose sensitive receptors to substantial CO concentrations. Question G will focus on the potential for the proposed project to expose sensitive receptors to substantial concentrations of TACs.

According to SMAQMD's CEQA Guide to Air Quality Assessment (Chapter 4: Operational Criteria Air Pollutant and Precursor Emissions), SMAQMD has established a two-tier screening threshold to determine if a project would have the potential to exceed the CO ambient air quality standard.

Under the first tier, a project would result in a less-than-significant impact to air quality for local CO if: 1) traffic generated by the proposed project would not result in deterioration of intersection level of service (LOS) to LOS E or F; or 2) the project would not contribute additional traffic to an intersection that already operates at LOS E or F. The SMAQMD's CEQA

Guide to Air Quality Assessment states that if the first tier of screening criteria is not met then the second tier of screening criteria shall be examined. The proposed project would not meet the requirements of the first tier evaluation. Therefore, this analysis, pursuant to SMAQMD's guidance, will use the second tier.

Under the second tier, a project would result in a less-than-significant impact if the project would: 1) not result in an affected intersection experiencing more than 31,600 vehicles per hour; 2) not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway, or other locations where horizontal or vertical mixing of air would be substantially limited; and 3) not add a mix of vehicles that would be substantially different from the County average. The second tier of analysis evaluates proposed traffic volumes against conservatively modeled screening values. Therefore, the second tier provides a more direct correlation between project parameters (i.e., intersection volumes) and potential CO hotspots (i.e., exceedance of CO ambient air quality standard).

As determined in the traffic study, under cumulative plus project peak hour conditions, the affected intersection with the highest traffic volume (i.e., Howe Avenue/Fair Oaks Boulevard) would serve approximately 7,726 vehicles during peak PM hour conditions. This cumulative plus project hourly volume is substantially less than the SMAQMD threshold of 31,600 vehicles per hour. In addition, the project area would not contribute vehicle volumes to tunnels, parking garages, bridge underpass, urban street canyons, below-grade roadways, or other locations where horizontal or vertical mixing would be substantially limited. Lastly, the proposed project would include customer and employee vehicles and to a lesser extent material delivery trucks. It is anticipated that customer and employee vehicles associated with the proposed project would be comprised of a similar vehicle mix to Sacramento County. In addition, the proposed project's material delivery truck frequency is not anticipated to be so great as to substantially change (i.e., more than 5%) the mix of vehicles at the affected intersections. Therefore, the proposed project would meet all of the SMAQMD's CO hotspot second tier screening criteria and would not generate traffic volumes that could cause CO hotspots at local intersections and would not adversely affect sensitive receptors. This impact is **less than significant**.

QUESTION G

Construction of the proposed project would result in the generation of diesel PM emissions from the use of off-road diesel equipment required for demolition, site grading, site preparation, asphalt paving, and building construction. Diesel PM has been classified as a TAC by the ARB and therefore even acute exposure could have potential health impacts. Multi-family residences are located to the south, north, and west of the proposed project site, which are considered sensitive receptors. Construction emissions would occur intermittently during a 28-week work period and during a 32-week work period. Diesel PM emissions would vary depending on what type of activities are occurring each day. For example, site grading and preparation would involve more heavy-duty construction equipment because of the mechanical force required for those activities. However, construction activities such as building construction and architectural coatings would involve less mechanic power and more manual labor that would not involve construction equipment. Hence, it can be expected that diesel PM emissions during site grading and preparation would be more than those during building construction and architectural coatings, and that construction-related diesel PM emissions would vary day-to-day. Following completion of the proposed project, all construction activities and associated diesel PM emissions would cease.

The dose to which receptors are exposed is the primary factor used to determine health risk and is a function of concentration and duration of exposure. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments that determine the health risks associated with exposure of residential receptors to TAC emissions should be based on a 70-year exposure period and health risk assessments that address the health risk associated with exposure of children to TAC emissions should be based on a 9-year exposure period (OEHHA 2003). TAC exposure to children is of special concern because children typically metabolize more air per unit of body weight in comparison to adults and can be more sensitive to toxics during development. However, health risk assessments should be limited to the period/duration of activities associated with the emissions activity (Salinas, pers. comm., 2004). As discussed above, construction activities would only occur over two separate construction phases, one for 28 weeks and another for 32 weeks. Therefore, the total exposure time where some level of construction activities and subsequent diesel PM emissions are occurring would be less than the minimum number of years recommended for a health risk assessment and less than 1% of the total exposure time for a typical health risk assessment.

Thus, because the use of off-road construction equipment would be temporary and intermittent in nature and the relatively low exposure period in combination with the dispersive properties of diesel PM (Zhu and Hinds 2002), short-term construction activities would not result in the exposure of sensitive receptors to TAC concentrations that would exceed 10 in a million cancer risks. However, all construction projects, regardless of its emissions, in the jurisdiction of the SMAQMD must implement certain measures (i.e., SMAQMD Basic Construction Measures) to keep construction emissions low.

Implementation of Mitigation Measure AQ-1 would fulfill SMAQMD's Basic Construction Mitigation Measures and reduce diesel PM emissions from heavy-duty construction equipment by limiting idling time, limiting construction vehicle speeds, and properly maintaining construction equipment. Therefore, with implementation of Mitigation Measure AQ-1, this impact would be considered **less than significant with incorporation of mitigation**.

Because the proposed project would include the demolition of an existing building, construction activities would be subject to SMAQMD Rule 902 (Asbestos). Rule 902 requires specific asbestos emissions abatement, handling, and disposal methods for projects that find asbestos materials within to-be-demolished buildings or structures. According to SMAQMD, compliance with Rule 902 would fulfill all national emissions standards for asbestos along with additional requirements, minimize the release of airborne asbestos emissions, and reduce demolition-related asbestos emissions to a less-than-significant level. The project site is not located in an area where naturally occurring asbestos are present (Churchill and Hill 2000).

Following construction of the proposed project, long-term operational emissions would also generate diesel PM emissions as a result of vehicles coming to and from the project site. However, it is not anticipated that the proposed project would involve a substantial number of diesel vehicles coming to the project site and would not generate significant diesel PM emissions from day-to-day operations that would expose nearby receptors. In addition, the proposed project is not considered a sensitive receptor and therefore would not itself expose a sensitive receptor to substantial existing TAC concentrations. Therefore, the operational activities of the proposed project would not result in exposure of sensitive receptors to TAC concentrations that would exceed 10 in a million cancer risks. As a result, the operational-related impact would be **less than significant**.

QUESTION H

The proposed project would generate greenhouse gas (GHG) emissions during construction of the proposed project as a result of heavy-duty construction equipment, material delivery trucks, and construction worker vehicles. Construction-related GHG emissions would be temporary in nature and would cease following completion of construction of the proposed project. Nevertheless, construction-related GHG emissions could still constitute as a substantial source of GHG emissions. After the proposed project is built, long-term operational GHG emissions would be generated by the day-to-day operations of the proposed project that could constitute a substantial source of GHG emissions. Because the proposed project could generate GHG emissions that could significantly impact City or state efforts to reduce GHG emissions, project generated **GHG emissions will be addressed in the EIR.**

MITIGATION MEASURES

AQ-1 Construction Activities. The project applicant shall implement all SMAQMD Basic Construction Emission Control Practices and requirements of SMAQMD Rule 403 during construction activities, including the following:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

Findings

The project may have a significant environmental effect on Air Quality, but only for GHG emissions. All additional significant environmental effects of the project relating to Air Quality can be mitigated to a **less-than-significant level**. As described above, impacts related to **GHG emissions will be addressed in the EIR.**

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
2. <u>BIOLOGICAL RESOURCES</u> Would the proposal:			
A) Create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected			X
B) Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal			X
C) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)?			X

ENVIRONMENTAL SETTING

STANDARDS OF SIGNIFICANCE

For purposes of this environmental document, an impact would be significant if any of the following conditions or potential thereof, would result with implementation of the proposed project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal; or
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

For the purposes of this document, “special-status” has been defined to include those species, which are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);

- Designated as endangered or rare, pursuant to California Fish and Game Code (Section 1901);
- Designated as fully protected, pursuant to California Fish and Game Code (Section 3511, 4700, or 5050);
- Designated as species of concern by U.S. Fish and Wildlife Service (USFWS), or as species of special concern to California Department of Fish and Game (CDFG);
- Plants or animals that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA).

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.3 of the Master EIR evaluated the effects of the 2030 General Plan on biological resources within the general plan policy area. The Master EIR identified potential impacts in terms of degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.

Policies in the 2030 General Plan were identified as mitigating the effects of development that could occur under the provisions of the 2030 General Plan. Policy 2.1.5 calls for the City to preserve the ecological integrity of creek corridors and other riparian resources; Policy ER 2.1.10 requires the City to consider the potential impact on sensitive plants for each project and to require pre-construction surveys when appropriate; and Policy 2.1.11 requires the City to coordinate its actions with those of the California Department Fish and Game, U.S. Fish and Wildlife Service, and other agencies in the protection of resources.

The Master EIR concluded that the cumulative effects of development that could occur under the 2030 General Plan would be significant and unavoidable as they related to effects on special-status plant species (Impact 6.3-2), reduction of habitat for special-status invertebrates (Impact 6.3-3), loss of habitat for special-status birds (Impact 6.3-4), loss of habitat for special-status amphibians and reptiles (Impact 6.3-5), loss of habitat for special-status mammals (Impact 6.5-6), special-status fish (Impact 6.3-7) and, in general, loss of riparian habitat, wetlands and sensitive natural communities such as elderberry savannah (Impacts 6.3-8 through 10).

The project shall comply with the General Plan policies outlined above.

ANSWERS TO CHECKLIST QUESTIONS

QUESTION A

The project would result in the construction and operation of a retail pharmacy, a commercial use, likely a grocer, and a paved parking lot on the 6.47-acre site. The proposed commercial uses would not create a health hazard or generate hazardous materials that could affect neighboring properties or surface areas. Disposal of solid waste or other materials from the site would comply with City requirements and be directed to the City's ongoing solid waste program and directed to the appropriate disposal facility. Thus, there would be no hazard to plant or animal communities in the project area.

QUESTIONS B AND C

Evaluation

A record search of known special status species occurrences within two miles of the project was performed using the California Natural Diversity Database (CNDDDB), which is maintained by the California Department of Fish and Game. This database provides known information about species and habitats that are of concern to both state and federal laws. After reviewing nearby occurrences from the CNDDDB, an AECOM biologist performed a field assessment of the project site on October 15, 2012.

Sensitive Habitats

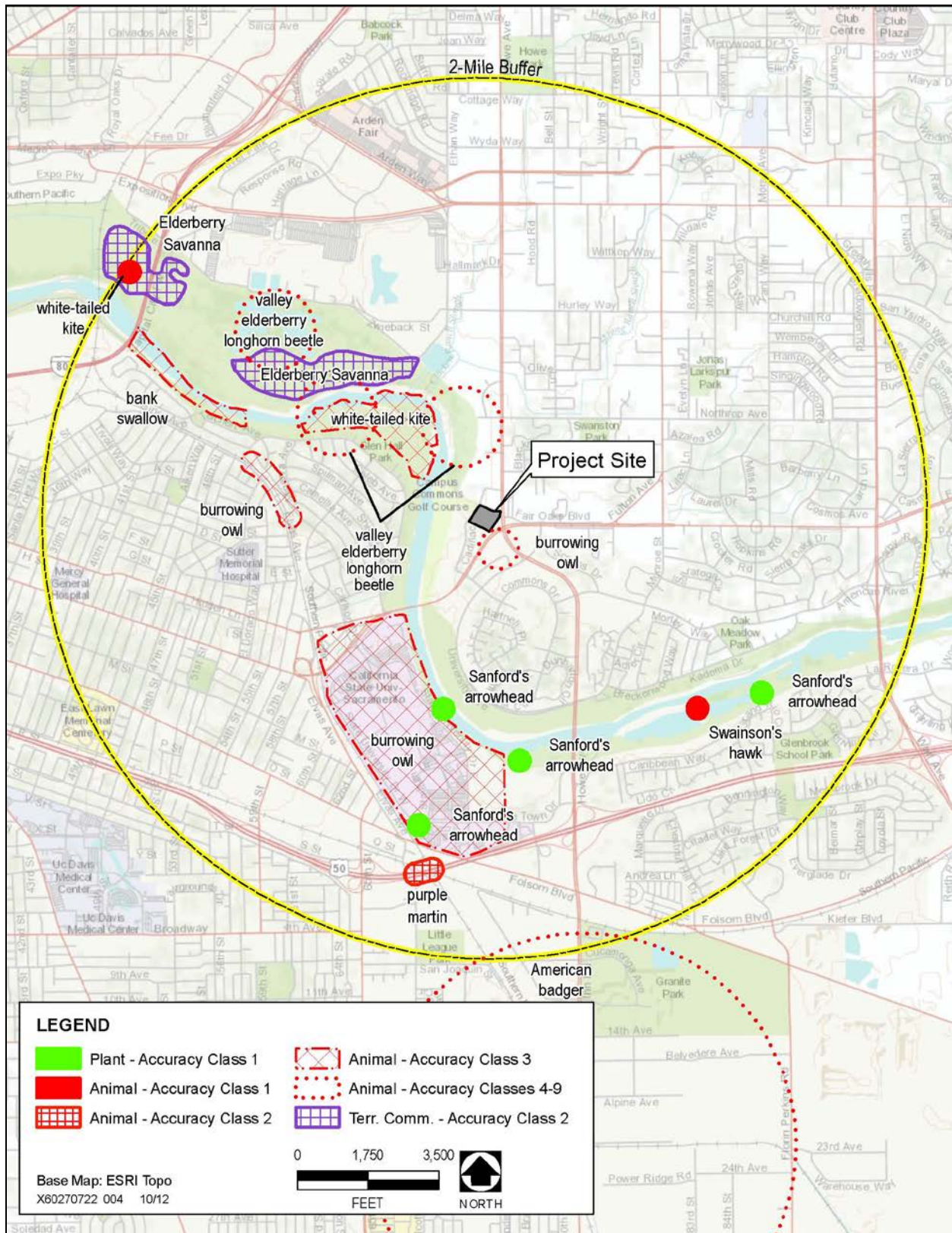
The project site is located on a previously developed infill site in an urban setting approximately 900 feet east of the American River. The American River corridor contains sensitive habitats for listed species, such as elderberry savannah; however, the proposed project site is separated from the river by the Campus Commons Golf Course, the Campus Commons Senior Center, and Cadillac Drive. As the project site was formerly used as a car dealership, it is fully developed and mostly covered with asphalt. During the field assessment, it was noted that the site has been continuously maintained. Ornamental shrubs and trees on the project site were pruned and there was no trash. A large valley oak (*Quercus lobata*) and large plane trees (*Platanus occidentalis*) were carefully examined during the site visit for evidence of raptor nests; no occupied or unoccupied raptor nests were observed in trees on or adjacent to the project site. Urban bird species, such as European starling (*Sturnus vulgaris*), American crow (*Corvus brachyrhynchos*), house finch (*Haemorrhous mexicanus*), and house sparrow (*Passer domesticus*), were prevalent in the neighborhood and two domestic cats (*Felis catus*) were observed on the project site.

A rock detention basin is on the City-owned triangle parcel between the project site and the Howe Avenue/Fair Oaks Boulevard intersection. The basin is fed by nuisance water from the surrounding urban environment and does not demonstrate hydric vegetation and is not connected to other surface waterways. The proposed project, including the proposed driveway and pedestrian pathway across the parcel, would not modify the detention basin; therefore, there would not be a need to conduct a wetland delineation or obtain a permit from the United States Army Corps of Engineers. Numerous mature coast redwood (*Sequoia sempervirens*) and plane trees are located on adjacent properties.

The proposed project would remove all existing trees on the project site to prepare the site for construction and to construct the buildings and the parking lot. As shown on Exhibit 3, Site Plan, two trees on the adjacent City-owned parcel would be removed as part of the proposed project because the trees are in poor health (see Attachment 2, Tree Inventory). Existing trees throughout planters in the parking lot would be removed. The biologist determined the trees proposed for removal are not considered sensitive habitat. The proposed project would plant over 100 new trees on the project site including crape myrtle, European hornbeam, Keith Davey Chinese Pistache, Wireless zelkova, Village Green zelkova, and shumard oak (see Exhibit 6, Landscaping Plan).

Special Status Species

The CNDDDB search yielded eight special-status species occurrences within a 2-mile radius of the project site (see Exhibit 7). These species include: Swainson's hawk (*Buteo swainsoni*),



Source: CNDDDB Sept 2012

Exhibit 7

CNDDDB Occurrences within 2 Miles of Project Site

western burrowing owl (*Athene cunicularia*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), white-tailed kite (*Elanus leucurus*), purple martin (*Progne subis*), bank swallow (*Riparia riparia*), Sanford's arrowhead (*Sagittaria sanfordii*), and American badger (*Taxidea taxus*). These species occurrences are mostly located along and within the American River corridor.

The nearest record of a special-status species to the project site is for western burrowing owl. This occurrence was approximately 190 feet south of the project site across Fair Oaks Boulevard. The species is known to have been completely extirpated at this south of Fair Oaks Boulevard site as of 2000, with the last known observation in 1974, and the site is currently maintained as a large manicured lawn in a utility corridor. Current and surrounding land use and the presence of predators, such as domestic cats, prevent western burrowing owls from using the area.

The project site is almost entirely paved, with an existing vacant building and ornamental trees and shrubs onsite. The project site does not provide suitable habitat requirements for most of the special status species identified in the CNDDDB. The proposed project would have nearly the same paved footprint as the project site under existing conditions. The addition of a driveway connecting the project site to Fair Oaks Boulevard would slightly increase the amount of pavement in the area.

The proposed driveway installation connecting the project site to Fair Oaks Boulevard, the removal of some existing onsite ornamental trees, and new ornamental tree plantings are the project activities that could affect the biological condition of the project site. The asphalted parking lots and building footprints would not change. With the exception of the removal of two unhealthy mature trees in the City-owned parcel, the mature trees and the drainage basin on the adjacent City-owned parcel would not be affected. The most likely conflicts with special status species include potential habitat for tree nesting raptors.

As previously mentioned, the site is in an urban environment. Howe Avenue and Fair Oaks Boulevard are major thoroughfares with nearly constant vehicular traffic. The golf course parking lot and entry to the senior center to the west of the project site provide further car and pedestrian disturbance. These activities would likely discourage raptors (including Swainson's hawk and white-tailed kite) from using the trees on the site or on adjacent properties as nesting habitat. There is no raptor foraging habitat in the immediate vicinity of the site.

During the site reconnaissance survey, the project site was examined for the presence of elderberry shrubs, the host plant (*Sambucus nigra* ssp. *Caerulea*) for the valley elderberry longhorn beetle; no elderberry shrubs were observed on the project site although the seeds of this plant are sometimes dispersed by birds to urban areas beside riparian corridors in the Sacramento region. The site and nearby areas are well maintained, which prevents seeds from developing into plants.

Purple martins form mud nests and typically site their nests in open spaces (Purple Martin Conservation Association, 2012). The nearest occurrence for this species is on a bridge on a railroad corridor under Highway 50, nearly two miles away. As the project site has been maintained, no mud nests were noted on the buildings on the project site.

Bank swallows inhabit colonies on sandy banks of rivers and Sanford's arrowhead occurs in natural freshwater marshes (Calflora 2012). There is no potential for either species to occur on site.

The nearest American badger occurrence is nearly two miles away, south of Highway 50. Badgers require open spaces (Stephenson and Calcarone 1999), such as grasslands, which contain populations of burrowing rodents, such as gophers or ground squirrels (Williams 1986). These open space conditions are not consistent with the conditions on the project site.

Based on the field survey results, and database and literature review, the project site does not currently support sensitive biological resources, including wetlands, and the project would have a **less-than-significant** effect on biological resources.

MITIGATION MEASURES

None required.

FINDINGS

The project would have **no additional project-specific environmental effects** relating to Biological Resources.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
3. <u>CULTURAL RESOURCES</u> Would the project:			
A) Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5?		X	
B) Directly or indirectly destroy a unique paleontological resource?		X	

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, cultural resource impacts may be considered significant if the proposed project would result in one or more of the following:

- Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5, or
- Directly or indirectly destroy a unique paleontological resource.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the potential effects of development under the 2030 General Plan on prehistoric and historic resources. See Chapter 6.4. The Master EIR identified significant and unavoidable effects on historic resources and archaeological resources.

General plan policies identified as reducing such effects call for identification of resources on project sites (Policy HCR 2.1.1), implementation of applicable laws and regulations (Policy HCR 2.1.2 and HCR 2.1.15), early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10), and encouragement of adaptive reuse of historic resources (Policy HCR 2.1.13). Demolition of historic resources is deemed a last resort. (Policy HCR 1.1.14)

The project shall comply with the General Plan policies outlined above.

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A AND B

The project site is almost entirely paved, with several existing vacant buildings and ornamental trees and shrubs onsite. The project site was formerly occupied by a Hubacher Cadillac Dealership. The existing vacant buildings on the site comprise approximately 43,000-square-foot and were constructed in 1972; they include a vehicle dealership showroom, offices, a covered service arrival area, maintenance shop, body shop, used car sales office, and paved

parking. All existing structures on the site would be demolished as part of the proposed project. The site would be developed with urban uses, involving installation of utilities, paving, and standard construction of structures.

No cultural resources were identified on the project site during the pedestrian survey. The cultural resources investigation identified no historical, archaeological, or paleontological resources on or adjacent to the project site. The project site is entirely paved. The existing vacant buildings on the site that would be demolished as part of the project were constructed in 1972 and are not of sufficient age (i.e., 45 years old or older) to potentially qualify as an historical resource pursuant to CEQA. No above-ground historically significant buildings or structures would be adversely affected by project implementation.

An abandoned road right-of-way is east of the project site, between the project site and the City-owned triangular parcel to the east. This road right-of-way is an asphalt segment measuring 516 feet in length and 18 feet wide and is aligned in a northeast/southwest direction. The road runs parallel to the proposed project site. The southern portion of the abandoned road segment connects to Fair Oaks Boulevard and the northern portion connects to Howe Avenue. The segment has been paved several times and some of the pavement has worn away. While little information is available about the roadway segment, based on the cultural resources investigation conducted for the proposed project, including a visual inspection of the segment by a qualified archaeologist, the segment appears to lack the physical integrity and known associations necessary for it to qualify as a historical resource pursuant to CEQA. Therefore, alterations to this abandoned roadway segment would not result in a substantial adverse change to a historic resource as defined in CEQA Guidelines section 15064.5.

Fair Oaks Boulevard was previously a State highway, a portion of which was relinquished to the City of Sacramento in 1955. At that time, the California Highway Commission found it was in the public interest to relinquish the State highway from the previous eastern city limit boundary (approximately 1,400 feet west of the present-day Fair Oaks Boulevard/Howe Avenue intersection) to Fulton Avenue for use as a City street.

The project site was evaluated for the presence of significant historical, archaeological, or paleontological resources. A qualified archaeologist from AECOM conducted the investigation, which included a records search of the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS), Native American consultation, and a pedestrian survey of the project site.

The NCIC records search revealed five previously recorded cultural resources within a ¼-mile radius of the project site. These resources were all within the American River Flood Control District levee system on the American River. Development of the proposed project would not occur adjacent to or on the levee and no impact to these identified resources would occur.

AECOM requested a search of the Native American Heritage Commission (NAHC) sacred lands database on October 24, 2012 to determine if any Native American cultural resources are present in or near the vicinity of the proposed project site. The NAHC response letter stated that the sacred lands database failed to indicate the presence of Native American resources in the immediate project area. The NAHC letter included a list of Native American organizations and individuals who may have knowledge of cultural resources in the project area. As requested by the NAHC, letters that included a brief description of the project and a project map were sent to each organization/individual identified on the NAHC list. As of the date of the publication of this document, there have been two responses. Marcos Guerrero, Cultural Resources Manager for

the United Auburn Indian Community of the Auburn Rancheria expressed concern due to the close proximity of the project site to known cultural sites, namely the Kadema and Sekumni villages once occupied by the Nisenan. During a follow-up call, Mr. Guerrero requested a monitor be present during any ground disturbing activity to monitor for any Native American resource discoveries (Guerrero, pers. comm., 2013). Daniel Fonseca, Cultural Director of the Shingle Springs Rancheria of Miwok Indians said no known cultural resources are present on the project site. Mr. Fonseca also requested continued consultation with the Shingle Springs Rancheria through updates as the project progresses.

As discussed in Section 6.5, Geology, of the General Plan Master EIR, the City of Sacramento is not considered sensitive or paleontological resources and the likelihood for finding something paleontologically significant would be very low (page 6.5-25). General Plan Policy HCR 2.1.15 requires compliance with protocols that protect or mitigate impacts to archeological, historic, and cultural resources, including prehistoric resources. The City also interprets this policy to address paleontological resources (General Plan Master EIR, page 6.5-25). Adherence to best management practices during construction would ensure that any paleontologically significant discoveries during construction activities would be properly addressed and mitigated.

Previous disturbance on the project site, the absence of previously recorded cultural resources, and the lack of surface indications of cultural resources does not preclude the possibility that significant subsurface cultural or paleontological resources could be discovered during project construction. Implementation of the mitigation measures identified below would ensure that impacts on significant historical, archaeological, or paleontological resources would be **less than significant with mitigation**.

MITIGATION MEASURES

CR-1 In the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during construction-related earth-moving activities, all work within 50 meters of the resources shall be halted, and the City shall consult with a qualified archeologist to assess the significance of the find. Archaeological test excavations shall be conducted by a qualified archeologist to aid in determining the nature and integrity of the find. If the find is determined to be significant by the qualified archeologist, representatives of the City and the qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation. In addition, a report shall be prepared by the qualified archeologist according to current professional standards.

CR-2 If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.

If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal 24 standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions.

In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.

- CR-3 If a human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place.

FINDINGS

All additional significant environmental effects of the project relating to Cultural Resources can be **mitigated to a less-than-significant level**.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<p>4. <u>GEOLOGY AND SOILS</u></p> <p>Would the project allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards?</p>		X	

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to geology and soils may be considered significant if the proposed project would result in the following:

- Allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.5, "Geology, Soils, and Mineral Resources," of the Master EIR evaluates the potential effects of development that could occur under the 2030 General Plan related to seismic hazards (Impact 6.5-1) geologic hazards associated with unstable soil conditions (Impact 6.5-2), and soil erosion (Impact 6.5-3). Policies included in the 2030 General Plan were identified to reduced impacts associated with geology, soils, and mineral resources to a less-than-significant level.

Policies EC 1.1.1 through EC 1.1.3 ensure that the City keeps up-to-date records of seismic conditions, implements and enforces the most current building standards, and continues to require site-specific geotechnical analyses be prepared for projects within the city and implement report recommendations. In addition, Policy ER 1.1.7 requires that necessary erosion control measures are used during site development activities for all projects in the City.

The project shall comply with the General Plan policies outlined above.

ANSWER TO CHECKLIST QUESTION

Geotechnical reports were prepared for the proposed project by Cornerstone Earth Group in 2011 and SALEM Engineering Group in 2012. Both the investigations included a field exploration program of drilling test borings and conducting a variety of laboratory tests to supplement the field data. The geotechnical reports provide site-specific recommendations pertaining to site preparation, engineered fill, utility trench backfill, drainage and landscaping, foundations, concrete floor slabs and exterior flatwork, retaining walls, soil liquefaction, seismic-induced settlement, soil cement reactivity, and pavement design as well as geotechnical observation and testing during earthwork.

Based on data contained in the geotechnical reports, the project site is generally underlain by alluvial and undocumented fill materials consisting of interbedded loose to very dense silty and sandy soils. Pavement sections on the project site consisted of approximately 2 inches of asphalt paving over 6 to 8 inches of aggregate base. The undocumented fill was generally located in the northern half of the site and ranged from approximately 1 to 5 feet below the ground surface. In addition, discontinuous layers of moderately plastic silt were also encountered in the northern portion of the site to depths ranging from about 2 to 5 feet below the ground surface. Dense to very dense sandy and silty soils were encountered in the borings at depths of 22 feet below the ground surface.

The geotechnical reports concluded that with implementation of design and construction recommendations included in the geotechnical reports, soils on the project site are capable of supporting the CVS/pharmacy retail store and adjacent commercial building. These design and construction recommendations are included as mitigation measures for the project. (Cornerstone Earth Group 2011:4, SALEM Engineering Group 2012:4.)

Groundwater was not encountered in any borings to a maximum of 24 feet below the ground surface; however, it should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. (Cornerstone Earth Group 2011:5, SALEM Engineering Group 2012:4.)

Liquefaction poses a hazard to engineered structures. Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. As such, the site was evaluated for liquefaction potential. Based on the subsurface conditions encountered, the depth to groundwater, and the low seismicity of the region, the site soils have a low potential for liquefaction under seismic conditions (SALEM Engineering Group 2012:6).

There are no known active fault traces in the project vicinity. Accordingly, the project area is not within an Alquist-Priolo Special Studies Zone. The nearest faults to the site are the Foothills Fault System, located near the base of the Sierra Nevada Mountain Range, and the Coast Ranges Sierran Block Boundary Zone, located along the base of the Coast Ranges. No known surface expression of fault traces is known to cross the site; therefore, fault rupture hazard is negligible within the site (Cornerstone Earth Group 2011:7, SALEM Engineering Group 2012:2).

The 2010 California Building Code (CBC) (adopted in 2011) applies to building design and construction in the state and is based on the federal Uniform Building Code. The 2010 CBC has been modified for California conditions with numerous more detailed or more stringent regulations. The 2010 CBC regulates the excavation of foundations and retaining walls; grading activities, including drainage and erosion control; and construction on unstable soils, such as expansive soils and areas subject to liquefaction. The City's enforcement of its Building Code (Chapter 15.20 of the City Municipal Code) ensures the project would be consistent with the CBC.

All earthmoving activities involved with the proposed project would be required to comply with the City's Grading and Erosion and Sediment Control Ordinance (Chapter 15.88 of the Municipal Code). The ordinance requires preparation of an Erosion and Sediment Control Plan designed by a professional landscape architect or civil engineer specializing in erosion control

and requires supervision on the project site during the installation of erosion and sediment control measures, and supervise implementation of the installation and maintenance of such facilities throughout the site clearing, grading and construction periods.

Because the proposed project would implement recommendations identified in the geotechnical reports prepared for the proposed project, incorporate applicable requirements of the 2010 CBC into project designs, and comply with Chapter 15.88 of the City Municipal Code, impacts related to geology, seismicity, and soils from project implementation would be **less than significant with mitigation**.

MITIGATION MEASURES

- GS-1 The project shall implement the design and construction recommendations in the Geotechnical reports prepared for the proposed project by Cornerstone Earth Group in 2011 and SALEM Engineering Group in 2012. Prior to issuance of a building permit, the City shall confirm that the construction was completed in compliance with the design and construction recommendations in these two reports.
- GS-2 The project shall comply with the 2010 CBC and the City's enforcement of its Building Code (Chapter 15.20 of the City Municipal Code) will ensure that the project is consistent with the 2010 CBC.
- GS-3 The project shall comply with the City's Grading and Erosion and Sediment Control Ordinance (Chapter 15.88 of the Municipal Code). The project applicant shall prepare an Erosion and Sediment Control Plan. The City shall supervise the project site during the installation of erosion and sediment control measures and during implementation of the installation and maintenance of such facilities throughout the site clearing, grading and construction periods.

FINDINGS

All additional significant environmental effects of the project relating to Geology and Soils can be **mitigated to a less-than-significant level**.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
5. <u>HAZARDS</u> Would the project:			
A) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?		X	
B) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials?		X	
C) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities?			X

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to hazards may be considered significant if the proposed project would result in the following:

- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities,
- Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials, or
- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.6, "Hazards and Hazardous Materials," of the Master EIR evaluates the potential effects of development that could occur under the 2030 General Plan related to exposure of people to hazards and hazardous materials during construction (Impact 6.6-1), exposure of people to hazards and hazardous materials during the life of the General Plan (Impact 6.6-2), and exposure of people to hazards associated with interference with emergency response and airport hazards during the life of the General Plan (Impact 6.6-3). Policies included in the 2030 General Plan were identified to reduced impacts related to hazards and hazardous materials to a less-than-significant level.

Policy PHS 3.1.1 requires that buildings and sites under consideration for new development or redevelopment are investigated for the presence of hazardous materials prior to development activities. Similarly, Policy PHS 3.1.2 requires that property owners of contaminated sites develop plans to investigate and manage hazardous material contamination to prevent risk to human health or the environment.

The project shall comply with the General Plan policies outlined above.

ANSWERS TO CHECKLIST QUESTIONS

QUESTION A

Implementation of the proposed project would potentially expose construction workers to existing onsite hazardous materials. The project site was formerly occupied by the Hubacher Cadillac dealership. Substantial quantities of hazardous materials, including gasoline, motor oil, cleaning solvents, paint and paint-related products were used and stored on the project site. Hazardous wastes generally included waste oil, cleaning solvents, antifreeze, transmission fluid, batteries, and paint residues and paint/metal grindings.

Cornerstone Earth Group prepared a Phase I Environmental Site Assessment (ESA) for the project site in September 2011. The Phase I ESA evaluated the present and historic uses on the project site and identifies recognized environmental conditions (RECs), which are the presence or likely presence of petroleum products or hazardous substances on the property under conditions that indicate an existing release, a past release, or a material threat of a release into structures on the property, or into the ground, groundwater, or surface water of the property. At the time the Phase I ESA was prepared, the project site included 29 in-ground hydraulic lifts, one 1,000-gallon gasoline underground storage tank (UST), one 500-gallon waste oil UST, one 500-gallon oil-water separator, and two aboveground storage tanks containing bulk oil and automatic transmission fluids. The Phase I ESA identified potential RECs associated with the USTs, in-ground hydraulic lifts, and the oil-water separator and potential RECs related to soil vapor beneath the project site from elevated concentrations of total petroleum hydrocarbons as gasoline (TPH-G). (Cornerstone Earth Group 2011.)

One 1,000-gallon gasoline UST and one 500-gallon waste oil UST were removed in accordance with Sacramento County Environmental Management District (SCEMD) permit requirements in July 2011 and the 29 in-ground hydraulic lifts and oil-water separator were removed in accordance with SCEMD permit requirements in September 2011. The SCEMD issued a No Further Action letter for the former USTs on October 11, 2011.

A second Phase I ESA prepared by Shaw Environmental in March 2012 identified RECs related to soil vapor beneath the project site from elevated concentrations of total petroleum hydrocarbons as gasoline (TPH-G) (Shaw Environmental 2012a:1-4). As a result, a Phase II ESA was prepared by Shaw Environmental in July 2012 to evaluate potential impacts associated with elevated concentrations of TPH-G. No TPH-G or volatile organic compounds (VOCs) were detected in any of the soil vapor samples; therefore, the Phase II ESA concluded that the soil vapor analytical results do not indicate a vapor intrusion risk to the project site since all samples were “non-detect” for TPH-G and VOCs. (Shaw Environmental 2012b:5.)

Wallace Kuhl and Associates (WKA) summarized the previously completed environmental-related work at the project site, including investigations associated with the removal of the 1,000-gallon gasoline UST, 500-gallon waste oil UST, the 29 in-ground hydraulic lifts, and oil-water separator. WKA's *Report of Findings of Soil Sampling and Analysis, Former Hubacher Cadillac* (September

14, 2012) documents soil sampling, soil excavation, and offsite disposal of soil stockpiles containing total petroleum hydrocarbons as hydraulic oil (TPHho). The report of findings demonstrates that the extent of hydraulic fluid-bearing soil had been adequately defined and that there are no additional contaminants of concern associated with the former uses of the project site. In addition, the report of findings determined that the remaining TPHho in the soil does not pose a threat to groundwater quality or human health. The SCEMD issued a No Further Action letter for the former hydraulic lifts and oil-water separator on September 20, 2012 after their review of the September 14, 2012 WKA report discussed above. While TPHho remains on the project site, it is 11 feet below grade surface. The project construction activities are anticipated to excavate 4-6 feet below grade surface. Consequently, the remaining TPHho would not be encountered during project construction.

Should previously unidentified hazardous materials contamination be encountered during construction activities, implementation of Mitigation Measure HAZ-1 described below would reduce impacts to a less-than-significant level by ensuring hazardous substances encountered during site preparation and construction activities would be removed and any contaminated areas would be remediated in accordance with federal, state, and local regulations. Therefore, the impact would be **less than significant with incorporation of mitigation**.

QUESTION B

A hazardous materials building survey was conducted for the Phase I ESA prepared by the Cornerstone Earth Group. The survey determined that asbestos-containing materials (ACMs) and lead-based paint were present throughout the interior and exterior dealership buildings (Cornerstone Earth Group 2011:21). Subsequently, an asbestos and lead-based paint inspection was conducted by Shaw Environmental on March 14, 2012. A California Division of Occupational Safety and Health (Cal/OSHA) Certified Asbestos Consultant and California Department of Health Services Lead-Based Paint Inspector/Assessor collected samples of suspect ACMs from floor tiles, ceiling tiles and panels, exterior stucco walls, and roof mastic and samples of suspect lead-based paint from door and window casings, concrete floors, exterior stucco walls, and downspouts. Laboratory analysis concluded that these materials contained ACMs that exceed Cal/OSHA guidelines and lead-based paints that exceeded U.S. Consumer Products Safety Commission standards (Shaw Environmental 2012c). Unmitigated demolition or renovation of structures containing ACMs and lead-based paint could create asbestos dust, lead paint chips and lead dust, which pose inhalation hazards for both construction workers and the surrounding public. In addition, collection and disposal of ACMs and lead paint debris by untrained personnel could cause asbestos and lead paint dust emissions to be transported offsite, resulting in the release of hazardous material into the environment. This impact would be significant without mitigation.

Implementation of HAZ-2 described below would reduce impacts associated with exposure to ACMs and lead-based paint to a less-than-significant level by ensuring ACMs and lead-based paint are properly removed from onsite buildings and disposed of in accordance with federal, State, and local regulations. Therefore, the impact would be **less than significant with incorporation of mitigation**.

QUESTION C

The proposed project would not require dewatering during the construction. Groundwater was encountered at approximately 24 feet below the ground surface (Cornerstone Earth Group 2011:5, SALEM Engineering Group 2012:4). The proposed project would not include construction

of belowground structures, such as basements, that could result in excavation below 24 feet. Even if groundwater levels varied and groundwater could be encountered at levels closer to the surface than 24 feet, substantial excavation is not anticipated with the construction of this project. Excavation is only needed to remove existing concrete slabs, foundations, and surface pavements, resulting in an excavation depth to 4-6 feet. This impact would be **less than significant**.

MITIGATION MEASURES

HAZ-1 Prepare and Implement a Soil Management Plan. If during site preparation and construction activities evidence of hazardous materials contamination is observed or suspected through either obvious or implied measures (i.e., stained or odorous soil), construction activities shall immediately cease in the area of the find. The project applicant shall contract with a qualified environmental professional registered in the Department of Toxic Substances Control's (DTSC's) Registered Environmental Assessor Program to assess the situation and provide guidance. If necessary, soil samples shall be collected by a qualified environmental professional prior to further work in the area. The samples shall be submitted for laboratory analysis to a State-certified laboratory under chain-of-custody procedures. The analytical methods shall be selected by the environmental professional based on the suspected contamination and consideration of historical land uses of the site and any previous analyses completed for soil samples collected in the areas. The environmental professional shall provide recommendations, as applicable, regarding soil management and worker health and safety training.

Any contaminated areas shall be remediated in accordance with recommendations made by the Sacramento County Environmental Management Department, Central Valley Regional Water Quality Control Board, California Department of Toxic Substances Control, or other appropriate Federal, state, or local regulatory agencies. Site preparation and construction activities shall not proceed until remediation is completed to the satisfaction of the Sacramento County Environmental Management Department.

HAZ-2 Remove and Dispose of Onsite ACMs and Lead-Based Paint Before Demolition of Onsite Buildings. Prior to demolition activities on the project site, the City shall ensure that ACMs and lead-based paint are properly removed by a Cal/OSHA-certified Asbestos Consultant and Lead Based Paint Inspector/Assessor in accordance with California Code of Regulations 17 Sections 36000 and 36100 (lead-based paint), Section 39658(b)(1) of the California Health and Safety Code (asbestos), and Sacramento Metropolitan Air Quality Management District Rule 902 (asbestos abatement). Friable ACM (crushable by hand) shall be disposed of as an asbestos waste at an approved facility. Non-friable ACMs shall be disposed of as a nonhazardous waste at a landfill that accepts such wastes. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal/OSHA asbestos and lead worker construction standards.

FINDINGS

All additional significant environmental effects of the project relating to Hazards can be **mitigated to a less-than-significant level**.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
6. <u>HYDROLOGY AND WATER QUALITY</u> Would the project:			
A) Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project?			X
B) Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood?			X

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to hydrology and water quality may be considered significant if the proposed project would result in one or more of the following:

- Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the Specific Plan or
- Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.7, "Hydrology and Water Quality," of the Master EIR evaluates the potential effects of development that could occur under the 2030 General Plan related to potential water quality degradation due to construction activities (Impacts 6.7-1 and 6.7-2) and exposure of people to flood risks (Impacts 6.7-3 and 6.7-4). Policies included in the 2030 General Plan were identified to reduced impacts related to hydrology and water quality to a less-than-significant level.

Policies ER 1.1.3 through ER 1.1.8 requires measures to reduce post-construction increases in runoff rates, maintains agreements for selected on-site stormwater quality facilities through the development permit process, reduces use of chemicals applied for landscape use, provides recycling programs and facilities to prevent unauthorized dumping, and provides watershed education to City staff.

Policy EC 2.1.6 requires new development to evaluate potential peak flow flood hazards and prevent on- or off-site post-project flooding, Policy ER 1.1.5 requires that there be no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event, and Policy U 4.1.5 requires new development proponents to submit drainage

studies that adhere to City stormwater design requirements and incorporate measures to prevent on- or offsite flooding.

The project shall comply with the General Plan policies outlined above.

ANSWERS TO CHECKLIST QUESTIONS

QUESTION A

The project site is currently fully paved except for a few small planting areas where there are shade trees. Under the proposed project, the entire project site would be paved with the exception of landscaped, pervious areas including 100 new trees in planter areas in the parking lot and around the perimeter of the site. After project construction, the project site would experience an increase in pervious areas due to the increased landscaping as compared to existing conditions. The new impervious areas for the new paved driveway from the project site to Fair Oaks Boulevard and the pedestrian path from the project site to Fair Oaks Boulevard would not result in an increase of impervious surface as compared to existing conditions on the site. The new driveway and pedestrian path would be balanced by the increase in pervious surface resulting from new landscaping planter boxes installed on the project site. Stormwater may encounter oil, grease, or fuel that has collected on parking lots and convey these contaminants to the storm drainage system resulting in water quality degradation.

A City-owned detention basin is located on the City-owned triangular-shaped parcel between the project site and the Howe Avenue/Fair Oaks Boulevard intersection. The basin collects stormwater runoff from the Fair Oaks Boulevard/Howe Avenue intersection. A drainage master plan was prepared for the drainage shed area (Basin 95); however, no detention basin was shown or modeled in the drainage master plan on that City parcel. The construction and operation of the proposed driveway from the project site to Fair Oaks Boulevard and the installation of a pedestrian path from the Howe Avenue/Fair Oaks Boulevard intersection to the project site would not impact the operation or hydrology of the detention basin.

Grading and earth-moving activities associated with project construction could generate sediment, erosion, and other nonpoint source pollutants in onsite stormwater, which could drain to offsite areas, degrading local water quality. In addition, non-stormwater discharges could result from the discharge or accidental spilling of hazardous substances such as fuels, oils, concrete, paints, solvents, or cleaners.

The City operates under a Phase I National Pollutant Discharge Elimination System (NPDES) permit for stormwater municipal discharges to surface waters (NPDES No. CAS082597). The permit requires that the City impose water quality and watershed protection measures for all development projects. A key component of the NPDES permit is the implementation of the Stormwater Quality Improvement Plan (SQIP). The SQIP requires new development to implement stormwater quality treatment and/or BMPs in project design for both construction and operation.

In addition, potential impacts would be minimized through compliance with the Stormwater Management and Discharge Control Ordinance (Chapter 13.16 of the City Municipal Code) and the City's Grading and Erosion and Sediment Control Ordinance (Chapter 15.88 of the City Municipal Code). In compliance with these ordinances, the project applicant would be required to prepare a Post-Construction Erosion and Sediment Control Plan and an Erosion and Sediment Control Plan, respectively. Onsite stormwater grates would collect stormwater from the site and

pass the stormwater through water-treatment cartridges before discharging the stormwater to the City's stormwater collection system.

Because the proposed project would implement requirements identified in NPDES permit, SQIP, and Chapters 13.16 and 15.88 of the City Municipal Code, the proposed project would not substantially degrade water quality or violate any water quality objectives set by the State Water Resources Control Board resulting from increases in sediments and other contaminants generated by construction and/or development of the proposed project. This impact would be **less than significant**.

QUESTION B

The project site is within an area designated by the Federal Emergency Management Agency as Zone X (FEMA 2012). This zone reflects those areas protected from the 100-year flood event by levees or other flood control structures that are subject to possible failure or overtopping during larger flood events. Therefore, the proposed project would not be located within a 100-year flood zone or expose people to or structures to significant flood risks and this impact would be **less than significant**.

MITIGATION MEASURES

None required.

FINDINGS

The project would have **no additional project-specific environmental effects** relating to Hydrology and Water Quality.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
7. <u>LIGHT AND GLARE</u> Would the proposal: A) Create a source of glare that would cause a public hazard or annoyance?		X	
B) Create a new source of light that would be cast onto oncoming traffic or residential uses?			X

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to aesthetics may be considered significant if the proposed project would result in one or more of the following:

- Create glare in such a way as to cause public hazard or annoyance for a sustained period of time or
- Create a new source of light that would be cast onto oncoming traffic or residential uses.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.13, "Urban Design and Visual Resources," of the Master EIR evaluates the potential effects of development that could occur under the 2030 General Plan associated with the creation of glare in such a way as to cause public hazard or annoyance for a sustained period of time (Impact 6.13-1) and creation of a new source of light that would be cast onto oncoming traffic or residential uses (Impact 6.13-2).

Policy ER 7.1.6 requires that new development avoid creating unsafe and incompatible glare by incorporating design features to reduce or eliminate glare. However, the Master EIR determined that future development could contribute glare in such a way as to cause public hazard or annoyance and Impact 6.13-1 was considered potentially significant. Implementation of Mitigation Measure 6.13-1, set forth below, would reduce impacts associated with the creation of glare to a less-than-significant level.

Policies included in the 2030 General Plan were identified to reduce impacts associated with the creation of a new source of light to a less-than-significant level. Policy ER 7.1.5 requires that misdirected, excessive, or unnecessary outdoor lighting be minimized and Policy LU 6.1.14 (Compatibility with Adjoining Uses) includes a requirement for lighting to be shielded and directed downward to minimize impacts on adjacent residential uses.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO PROJECT

Master EIR Mitigation Measure 6.13-1: The City shall amend the Zoning Code to prohibit new development from:

- 1) using reflective glass that exceeds 50 percent of any building surface and on the ground three floors;
- 2) using mirrored glass;
- 3) using black glass that exceeds 25 percent of any surface of a building; and,
- 4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building.

The City's zoning code has not yet been amended to include these restrictions identified in the above mitigation measure. However, City staff reviews building designs of projects to ensure designs are consistent with City standards. Also, the project will incorporate this Master EIR Mitigation Measure 6.13-1 as a project mitigation measure. See Mitigation Measure LG-1 set forth below.

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A AND B

The proposed project would construct a new CVS/pharmacy retail store and a second commercial use building on the same parcel. Development of the project site would introduce new reflective surfaces (e.g., window glazing and possibly other building materials) and night lighting into an urban area that currently contains various sources of light or glare, such as street and parking lot lights, vehicles on adjacent streets, building signage and interior lighting, and building windows. New sources of lighting would be consistent with the existing types of lighting present in the adjacent buildings and in the area. In addition, the project site was formerly occupied by a commercial use that included lighting similar to what is proposed as part of the proposed project (see Exhibit 8, Project Site Photos – Existing Conditions).

Subject to City review and approval, illuminated signage is proposed to be placed on two street-fronting sides of the CVS/pharmacy building and likely on the second commercial building. Onsite security lighting would be provided in the parking lot and on the exterior of the buildings. Parking lot and walkway lighting would consist of 10-foot light standards that would direct light downward. Lighting mounted to buildings would be for safety and security purposes and would also be angled downward to provide targeted illumination. Therefore, only minimal amounts of light would be cast onto Fair Oaks Boulevard, Howe Avenue, Cadillac Drive, and other adjacent roadways. There are multi-family residential uses to the south, a senior care facility to the west, and a hotel to the north of the project site. However, these sites are also served by their own parking lot and security lighting, and are separated from the project site by Cadillac Drive, a fence, or trees/shrubbery. These adjacent uses would not be adversely affected by lighting on the project site and impacts from lighting would be **less than significant**.

The CVS/pharmacy building is anticipated to be constructed with stucco and brick, but would also have glass windows. Although it is anticipated the second commercial building would be designed to be generally consistent with the CVS/pharmacy building and the adjacent neighborhood, the exact elevations of the building have not been determined. Architectural features could include windows, glass, or metal. Since the elevations of the second commercial building are unknown,



Proposed project site and abandoned road right-of-way, looking southwest.



Hubacher Auto Center building and parking lot.

the building's architectural features could create glare. Therefore, the impact from glare could be significant if not mitigated as provided in LG-1 below.

Implementation of Mitigation Measure LG-1 would ensure that the proposed buildings would not use reflective glass, mirrored glass, black glass or metal in such a way as to create glare on adjacent properties. With implementation of Mitigation Measure LG-1, the impact would be **less than significant**.

MITIGATION MEASURES

LG-1 The project applicant shall ensure that buildings do not use reflective glass that exceeds 50 percent of any building surface and on the ground three floors, use mirrored glass, use black glass that exceeds 25 percent of any surface of a building, or use metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building.

FINDINGS

All additional significant environmental effects of the project relating to Light and Glare can be **mitigated to a less-than-significant level**.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
8. <u>NOISE</u> Would the project:			
A) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?			X
B) Result in residential interior noise levels of 45 dBA L _{dn} or greater caused by noise level increases due to the project?			X
C) Result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance?			X
D) Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction?			X
E) Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations?			X
F) Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic?			X

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts due to noise may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- exceedance of the City's standards for incremental noise impacts, as provided in General Plan Table EC 2;
- residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project;

- construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;
- adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or
- historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The Master EIR evaluated the potential for development under the 2030 General Plan to increase noise levels in the community. New noise sources include vehicular traffic, aircraft, railways, light rail and stationary sources. Traffic increases associated with implementation of the General Plan were modeled, including roadways affected by project traffic, with maps depicting both existing and future forecast noise levels. Stationary source noise impacts were also addressed in the Master EIR, along with vibration-related effects on both people and structures.

The General Plan policies establish exterior (Policy EC 3.1.1) and interior (EC 3.1.3) noise standards. A variety of policies provide standards for the types of development envisioned in the general plan. See Policy EC 3.1.8, which requires new mixed-use, commercial and industrial development to mitigate the effects of noise from operations on adjoining sensitive land use, and Policy 3.1.9, which calls for the City to limit hours of operations for parks and active recreation areas to minimize disturbance to nearby residences. Notwithstanding application of the general plan policies, noise impacts for exterior noise levels (Impact 6.8-1) and interior noise levels (Impact 6.8-2), and vibration impacts (Impact 6.8-4) attributable to implementation of the City's General Plan were found to be significant and unavoidable.

The project shall comply with the General Plan policies outlined above.

ANSWERS TO CHECKLIST QUESTIONS**QUESTIONS A-C**Construction Noise

Construction of the CVS/pharmacy building, second commercial building and site improvements are expected to occur in four phases. Phase 1, demolition and abatement of the site, is expected to last two weeks. Phase 2, mass grading of the project site and installation of underground utilities, is expected begin after completion of Phase 1 and last approximately 26 weeks. Phase 3, building of onsite project elements, including full site improvements, construction of a new vehicular site access point from Fair Oaks Boulevard, construction of the CVS/pharmacy building and pad preparation of the second commercial building would occur concurrently with Phase 2 and would have the same duration as Phase 2. The total construction duration of Phases 1-3 is expected to be 28 weeks. Construction of the second commercial

building is anticipated to occur at a time after completion of construction Phases 1-3. Since full site improvements and the building pad for the second commercial building would be completed during Phase 3, Phase 4 would only involve construction of the second commercial building. Phase 4 is expected to last 32 weeks.

Construction activities associated with the proposed project would generate noise due to grading and construction activities. Construction associated with the proposed project would temporarily increase noise in the vicinity of the construction activities. Noise increases would result both from on-site construction activities, especially during site preparation, grading, and other earthmoving activities, as well as from construction-related vehicle traffic delivering materials to and from the construction site. Noise would be generated by equipment such as scrapers, backhoes, skip loaders, water trucks, and other miscellaneous equipment. The exact type and number of construction equipment will be based on the contractor's judgment and what equipment is reasonably necessary to complete the project, using industry standard means and methods. The project would not include construction activities that could generate significant ground vibration, such as pile driving.

Construction noise is a temporary impact. The City of Sacramento Noise Ordinance (City Code Title 8, Chapter 8.68 et seq.) exempts construction-related noise if the construction takes place between the hours of 7:00 a.m. and 6:00 p.m., on Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sunday.

A detailed inventory of construction equipment that would be used for the proposed project is not available; therefore, this analysis estimates project-related construction noise assuming that typical construction equipment would be used during construction activities. Table N-1 presents a list of noise generation levels for typical equipment types (FTA 2006). A conservative but reasonable assumption is that some of the pieces of equipment (scrapers, backhoes, skip loaders, water trucks) would operate simultaneously and continuously over at least a 1-hour period. If all of these pieces of equipment were to operate simultaneously, the combined-source noise level would be 86 dBA at a distance of 50 feet. The residences and the senior center to the south and west of the project site and the hotel north of the project site are all more than 50 feet away from project site boundary.

Construction activities for the proposed project, including hours of construction, would comply with the requirements set forth in the City of Sacramento Noise Ordinance. Because project construction would comply with the City's Noise Ordinance, the impact from construction noise would be **less than significant**.

Traffic Noise

Operational traffic noise impacts associated with increased traffic from the project were evaluated using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data provided by the project traffic engineer. To further characterize existing noise levels in the project area, noise from vehicle traffic traveling on roadways in the vicinity of the project area was modeled using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA model is based upon the Calvenno reference noise factors for automobiles, trucks (vehicles with two axles and six tires), and heavy trucks (vehicles with three or more axles); with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. Using the conservative industry accepted assumption, vehicle mix was assumed for this analysis as 97 percent automobiles, 2 percent medium trucks and 1 percent heavy trucks.

Table N-1 Noise Emission Levels from Construction Equipment	
Equipment Type	Typical Noise Level (dB) at 50 feet
Air Compressor	78
Asphalt Paver	77
Backhoe	78
Compactor	83
Concrete Breaker	82
Concrete Pump	81
Concrete Saw	90
Crane, Mobile	81
Dozer	82
Front-End Loader	79
Generator	81
Grader	85
Hoe Ram Extension	90
Jack Hammer	89
Pneumatic Tools	85
Pile Driver	101
Rock Drill	81
Scraper	84
Trucks	74–81
Water Pump	81
Notes: dB = A-weighted decibels. All equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture specified noise levels for each piece of heavy construction equipment. Source: FTA 2006	

Average daily traffic (ADT) volumes were calculated by assuming the p.m. peak hour traffic as 10 percent of ADT, based on industry standards/practice. Peak hour volumes were provided by Fehr & Peers (2012) (see Attachment 4, Traffic Data) for existing conditions, existing plus project conditions, cumulative no project conditions, and cumulative plus project conditions. To determine the relative differences between project and no-project conditions, the predicted traffic noise levels at nearest sensitive receptors from each roadway centerline were evaluated, as shown in Tables N-2 and N-3.

Traffic noise levels were predicted for existing conditions, existing plus project conditions, cumulative no project conditions, and cumulative plus project conditions. Table N-2 summarizes modeled peak hour ($L_{eq(h)}$) traffic noise levels under all predicted conditions, and Table N-3 summarizes modeled day-night (L_{dn}) average traffic noise levels under all predicted conditions.

The results in Table N-2 and Table N-3 indicate that project-related increases in traffic noise, relative to existing conditions, would be 2 dB or less for all roadway segments evaluated under all conditions.

For the peak-hour analysis, the highest forecast increase is 1.7 dB L_{eq} . According to General Plan Table EC 2, a 3-dB increase would be required to exceed the City's standards for "institutional land uses with primarily daytime and evening uses" located along roadways affected by project traffic. Although there is no City standard specifically for commercial uses, the commercial uses proposed for the site fit better with the "institutional uses" description than the "residences and buildings where people normally sleep" description as defined in Table EC-2. Because predicted traffic noise increases would be less than 3 dB, this impact is **less than significant** for the proposed project.

For the day-night averaged noise analysis, the greatest increase is forecast for Cadillac Drive between Howe Avenue and Fair Oaks Boulevard, where the senior care facility is located. Here also, the difference between the existing and existing plus project condition is less than 2 dB. Because the existing noise level at the senior care facility is between 60 and 65 dB L_{dn} , the maximum incremental increase that would be consistent with the General Plan exterior noise standards is 2 dB (see General Plan Environmental Constraints Element, Table EC 2). Because predicted traffic noise increases would be less than 2 dB, this impact is **less than significant** for the proposed project.

Stationary Source Noise

Mechanical Building Equipment: Mechanical building equipment (e.g., heating, ventilation and air conditioning systems) in use at the proposed buildings could result in noise levels of approximately 90 dB at 3 feet from the source (USEPA 1971). Typically, these mechanical equipment systems are shielded from direct public exposure, with a substantial reduction in noise transmitted to the surrounding environment. Such units are usually housed on rooftops, in equipment rooms or in exterior enclosures, but if not shielded, their operation could result in noise levels of 65 dB at 50 feet (USEPA 1971). Any existing multi-family residential dwelling located within 50 feet of such an un-shielded mechanical system could experience noise levels that exceed the City's interior noise standards. Any such occurrence would be a significant impact if not mitigated. However, residential and senior center uses to the south and west of the site are more than 50 feet from the project site. Some mechanical equipment for the project, including the HVAC equipment, would be installed on top of the buildings behind parapet walls and shielded from view at ground level. Other mechanical equipment would be installed adjacent to the buildings, but be shielded by a wall or other opaque screening. Therefore, noise from mechanical building equipment would not be a substantial noise contributor and would be a **less-than-significant impact**.

Landscape Maintenance: Landscape equipment such as leaf blowers, lawn mowers, edgers and trimmers associated with maintenance of the proposed project site would increase ambient noise levels at the residences to the south and west of the project site. Such equipment could result in noise levels that range from approximately 80 to 90 dBA at 3 feet (USEPA 1971). Based on the maximum noise level of 90 dBA at 3 feet and assuming a noise attenuation of 6 dBA per doubling of distance from the source, landscape maintenance equipment could result in exterior noise levels of approximately 65 dBA at 50 feet. Maintenance activities would be intermittent and of limited duration (e.g., less than 1 to 2 hours per day during the daytime) and would occur during daytime hours, consistent with the City's Noise Ordinance. In addition, landscape maintenance activities occurred on the project site when the site was operating as the Hubacher car dealership.

Table N-2
Comparison of Noise Modeling Results – 24-hour Average

Segment	Roadway	Segment		Noise Levels, dB Peak Hour L _{eq} at Centerlines				Number of Lanes	Distance to Roadway Centerline (Feet) ¹	Posted Speed	Adjacent Land Uses Types	Increase		
		From	To	Existing Condition	Existing Plus Project Condition	Cumulative No Project Condition	Cumulative Plus Project Condition					Existing Plus Project Condition	Cumulative Plus Project Condition	Significant?
1	Howe Ave	Enterprise Dr	Northrop Ave	68.0	68.2	68.4	68.5	6	80	35	Hotel	0.2	0.5	No
2	Howe Ave	Northrop Ave	Sierra Blvd	69.7	70.1	70.0	70.1	6	100	35	Residential	0.4	0.4	No
3	Howe Ave	Sierra Blvd	Feature Dr	70.8	71.5	71.1	70.0	6	85	35	Residential	0.7	-0.8	No
4	Howe Ave	Feature Dr	Cadillac Dr	62.7	63.3	63.0	61.8	6	290	35	Hotel	0.6	-0.9	No
5	Howe Ave	Cadillac Dr	Fair Oaks Blvd	61.2	61.7	61.5	61.6	6	450	40	Residential	0.5	0.4	No
6	Howe Ave	Fair Oaks Blvd	University Ave	62.3	63.1	62.6	62.7	6	300	40	Residential	0.7	0.4	No
7	Howe Ave	University Ave	American River Dr	68.4	69.1	68.5	68.7	6	130	40	Residential	0.7	0.3	No
8	Howe Ave	American River Dr	Swarthmore Dr	63.8	64.8	64.7	64.8	6	130	35	Residential	1.1	1.1	No
9	Fair Oaks Blvd	Bret Harte Rd	Munroe St	62.1	62.8	62.4	62.4	4	140	35	Residential	0.7	0.3	No
10	Fair Oaks Blvd	Munroe St	Howe Ave	67.6	68.3	67.9	68.0	6	100	35	Hotel	0.7	0.4	No
11	Fair Oaks Blvd	Howe Ave	Cadillac Dr	67.5	68.1	67.9	68.0	4	150	40	Residential	0.6	0.5	No
12	Fair Oaks Blvd	Cadillac Dr	Camella Ave	65.7	66.3	66.0	66.2	4	130	40	Residential	0.6	0.5	No
13	Cadillac Dr	Howe Ave	Fair Oaks Blvd	63.3	65.0	63.7	64.1	2	100	25	Hotel and Senior Center	1.7	0.7	No

Note: Where barriers are located between the roadway and adjacent residences, the predicted sound level would be approximately 3 to 5 dB less, and the distance to the contour would be approximately half the distance indicated.

¹ Distance from the nearest sensitive receptor to the roadway center line.

Source: AECOM 2012

Table N-3
Comparison of Noise Modeling Results – Day-Night (L_{dn}) Average

Segment	Roadway	Segment		Noise Levels, dB L _{dn} at Centerlines				Number of Lanes	Distance to Roadway Centerline (Feet) ¹	Posted Speed	Adjacent Land Uses Types	Increase		
		From	To	Existing Condition	Existing Plus Project Condition	Cumulative No Project Condition	Cumulative Plus Project Condition					Existing Plus Project Condition	Cumulative Plus Project Condition	Significant?
1	Howe Ave	Enterprise Dr	Northrop Ave	67.0	67.2	67.4	67.5	6	80	35	Hotel	0.2	0.5	No
2	Howe Ave	Northrop Ave	Sierra Blvd	68.7	69.1	69.0	69.1	6	100	35	Residential	0.4	0.4	No
3	Howe Ave	Sierra Blvd	Feature Dr	69.8	70.5	70.1	69.0	6	85	35	Residential	0.7	-0.8	No
4	Howe Ave	Feature Dr	Cadillac Dr	61.7	62.3	62.0	60.7	6	290	35	Hotel	0.6	-0.9	No
5	Howe Ave	Cadillac Dr	Fair Oaks Blvd	60.2	60.7	60.5	60.6	6	450	40	Residential	0.5	0.4	No
6	Howe Ave	Fair Oaks Blvd	University Ave	61.3	62.0	61.6	61.7	6	300	40	Residential	0.7	0.4	No
7	Howe Ave	University Ave	American River Dr	67.4	68.1	67.5	67.7	6	130	40	Residential	0.7	0.3	No
8	Howe Ave	American River Dr	Swarthmore Dr	62.8	63.8	63.7	63.8	6	130	35	Residential	1.1	1.1	No
9	Fair Oaks Blvd	Bret Harte Rd	Munroe St	61.1	61.7	61.3	61.4	4	140	35	Residential	0.7	0.3	No
10	Fair Oaks Blvd	Munroe St	Howe Ave	66.6	67.3	66.9	67.0	6	100	35	Hotel	0.7	0.4	No
11	Fair Oaks Blvd	Howe Ave	Cadillac Dr	66.5	67.1	66.8	67.0	4	150	40	Residential	0.6	0.5	No
12	Fair Oaks Blvd	Cadillac Dr	Camella Ave	64.7	65.3	65.0	65.1	4	130	40	Residential	0.6	0.5	No
13	Cadillac Dr	Howe Ave	Fair Oaks Blvd	62.3	64.0	62.7	63.1	2	100	25	Hotel and Senior Center	1.7	0.7	No

Note: Where barriers are located between the roadway and adjacent residences, the predicted sound level would be approximately 3 to 5 dB less, and the distance to the contour would be approximately half the distance indicated.

¹ Distance from the nearest sensitive receptor to the roadway center line.

Source: AECOM 2012

Routine landscaping activities are common in the area and would not represent a major noise disturbance. Thus, noise from landscape activities would be **less than significant**.

Deliveries and Drive-Through Facility: The project's proposed uses would generate some truck deliveries. Circulation of delivery trucks would generate noise, but the noise would be reduced by the effect of distance to the neighboring residences. Deliveries to the CVS/pharmacy building would occur on the northeast area of the site, not adjacent to residential or other sensitive uses. Residences in the project vicinity are subject to current ambient noise levels generated by traffic along Fair Oaks Boulevard and Howe Avenue. The other land use on the project site, which is a commercial use likely to be a grocer, would likely require truck deliveries, as well.

To determine typical loading area noise levels associated with the proposed project, the assumptions and reference noise levels that were presented in an environmental impact report (EIR) for a recent large retail and grocer with a substantial amount of daily delivery activity was used (Ceres 2010:4.10-16). The study shows that truck unloading activity within 250 feet of a sensitive receptor, with no intervening structures, would be 49 dBA L_{eq} for daytime, and 44 dBA L_{eq} for night time (43 dB L_{dn} and 48 dB L_{dn} , respectively). The loading area for the proposed project's potential grocer would be on the northwest portion of the site, approximately 300 feet from the senior care facility to the west of the proposed project site and the hotel located to the north (and approximately 450 feet from residential uses south of the project site, as measured at the closest point). Adding the daytime and night time noise levels of truck unloading activities to existing noise level at senior care facility would increase the existing noise level by 0.2 dB. The delivery and loading activity would not approach an exceedance of the City's interior noise standards presented in General Plan Policy EC 3.1.3 for sensitive uses since typical residential construction materials would provide attenuation of approximately 20 dB. This policy establishes an interior noise standard of 45 dBA L_{dn} for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep.

Noise would also be generated by the speakers used for communication with customers using the drive-through facility at the CVS/pharmacy. Noise level data collected at various drive-through locations in the Sacramento area was used to quantify noise levels from drive-thru vehicle trips and speaker usage (City of Sacramento 2003). That data concluded that the maximum noise levels from drive-thru speakers and vehicles parked at the speaker location were 65 dB at 25 feet and 70 dB at 5 feet (City of Sacramento 2003). Median levels were measured to be approximately 10 dB lower than maximum noise levels. The drive-through proposed at the CVS pharmacy would adjoin the building, and outdoor speakers would be enclosed within structural features of the building. Based on the estimated noise level of the speakers and attenuation of noise over the intervening distance, the noise level generated at the property line would be less than 55 dB – less than any of the exterior noise standards in the General Plan for any land uses in Table EC 1. Therefore, operational noise impacts from deliveries and the drive-through facility would be **less than significant**.

QUESTIONS D-F

Evaluation of construction vibration impacts associated with the proposed project is based on the methodology developed by the Federal Transit Administration (FTA) (Federal Transit Administration 2006).

Construction and demolition activities on the project site may result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. Groundborne vibration levels caused by various types of construction

equipment are summarized in Table N-4. The representative vibration levels identified for various construction equipment types show that sensitive receptors located close to construction activities could be exposed to groundborne vibration levels exceeding the thresholds of significance for exposing existing residential areas to peak particle velocities.

Table N-4 Representative Vibration Source Levels for Construction Equipment			
Equipment		PPV at 25 feet (in/sec)¹	Approximate Lv (VdB) at 25 feet²
Pile Driver (impact)	Upper Range	1.518	112
	Typical	0.644	104
Pile Driver (sonic)	Upper Range	0.734	105
	Typical	0.170	93
Large Bulldozer		0.089	87
Caisson Drilling		0.089	87
Jackhammer		0.035	79
Small Bulldozer		0.003	58
Notes: ¹ Where PPV is the peak particle velocity ² Where Lv is the RMS velocity expressed in vibration decibels (VdB) re 1 micro-inch/second, assuming a crest factor of 4. Source: Federal Transit Administration 2006.			

The project site is level, and no buildings have been proposed that would require unusual construction techniques such as pile-driving or using any equipment listed in Table N-4, that would cause substantial vibration. No operations have been proposed that could generate substantial levels of vibration.

The threshold for human perception is approximately 65 VdB. Vibration levels in the range of 70 to 75 VdB are often noticeable but acceptable. Beyond 80 VdB, vibration levels are often considered unacceptable by building occupants (Federal Transit Administration, 2006:7-5). The proposed project would not include significant stationary sources of ground-borne vibration, such as heavy equipment operations. Operational ground-borne vibration in the project vicinity would be generated by vehicular travel on the local roadways and access streets. In addition, there would be vibration from truck deliveries at the proposed potential grocer on the northwest portion of the project site. Typical ground-borne vibration for truck is less than 65 VdB at 50 feet (Federal Transit Administration, 2006:7-5). Therefore, truck-related vibration levels would not be perceptible by sensitive receptors near the proposed project site, as the distance from the nearest sensitive receptor to the project site, would be 300 feet. Although vehicular traffic generates ground vibration, the pneumatic tires and suspension systems attenuate the vibration forces to the point that the resulting ground vibration is almost always below the threshold of human perception. When vibration from vehicular traffic is perceptible, the cause usually can be traced to irregularities in the roadway surface such as potholes or misaligned expansion joints. Thus, construction- and operational-related vibration would result in a **less-than-significant impact**.

MITIGATION MEASURES

None required.

FINDINGS

The project would have **no additional project-specific environmental effects** relating to Noise.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<p>9. <u>PUBLIC SERVICES</u></p> <p>Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, roadway maintenance, or other governmental services beyond what was anticipated in the 2030 General Plan?</p>			X

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to public services may be considered significant if the proposed project would result in the following:

- Need for new or altered services related to fire protection, police protection, school facilities, roadway maintenance, or other governmental services beyond what was anticipated in the 2030 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.10, "Public Services," of the Master EIR evaluates the potential effects of development that could occur under the 2030 General Plan associated with the need for new or expansion of existing facilities related to the provision of police services (Impact 6.10-1) and fire protection services (Impact 6.10-2), increased demand for school services and facilities (Impacts 6.10-3 to 6.10-6), and increase demand for library services and facilities (Impacts 6.10-7 and 6.10-8). Policies included in the 2030 General Plan were identified to reduced impacts associated with public services to a less-than-significant level.

Policy PHS 1.1.1 calls for the City to prepare a Police Master Plan to address staffing needs, facility needs, deployment strategies, and service goals. Policy PHS 1.1.4 calls for development of police services and facilities as the City grows. Policies PHS 1.1.2 and PHS 1.1.3 require that the City maintain optimum staffing levels and response times in order to provide quality police services to the community. Policy PHS 1.1.7 seeks to prevent crime by implementing Crime Prevention through Environmental Design (CPTED) strategies. Policy PHS 1.1.8 requires development projects to contribute fees for police protection services and facilities.

Policy PHS 2.1.1 calls for the City to prepare a Fire Master Plan to address staffing needs, facility needs, and service goals. Policies PHS 2.1.2 and PHS 2.1.3 require that the City maintain appropriate emergency response times and staffing levels to ensure optimum fire protection in the community. Policy PHS 2.2.4 would ensure that adequate water supplies, pressure, and infrastructure are available in infill and newly developing areas. Lastly, Policy PHS 2.1.11 requires development projects to contribute fees for fire protection services and facilities.

Policies ERC 1.1.2 through ERC 1.1.5 ensure that adequate school facilities are provided to serve the total anticipated student enrollment in the City. Policy ERC 3.1.1 requires that adequate library services and facilities are maintained for all residents.

The project shall comply with the General Plan policies outlined above.

ANSWER TO CHECKLIST QUESTION

Impacts on public services from future development anticipated under the 2030 General Plan, including development of the project site for commercial uses, were evaluated in the Master EIR, and that discussion is hereby incorporated by reference (Master EIR, pages 6.10-11 to 6.10-12, 6.10-23 to 6.10-24, and 6.10-41 to 6.10-45). The Master EIR determined that implementation of general plan policies would ensure adequate public services are provided to serve increased demands within the City. Therefore, the proposed project would not result in impacts on public services not evaluated in the Master EIR or result in the need for public services and facilities beyond what was anticipated in the 2030 General Plan. Potential effects on specific public services are discussed further below.

The City of Sacramento Police Department would provide police protection services to the proposed project. The project site is approximately 4.8 miles south of the North Area Substation. The project site is currently served by the City of Sacramento Police Department and was served by the Police Department when the project site was being used as the Hubacher Cadillac Dealership. The proposed project would not generate an increase in demand for police protection services beyond the demand that currently exists. Construction of a new station or expansion of an existing facility would not be required to continue provision of police protection services by the Sacramento Police Department. The proposed project would implement CPTED principles, such as maximizing visibility of parking areas and building entrances and prohibiting entry or access using window locks, dead bolts, and interior door hinges, in the design of commercial buildings. Furthermore, the project applicant would be required to pay fair share fees for the necessary police services as a result of project implementation.

The Sacramento Fire Department would provide fire protection services to the proposed project. The project site is 1.5 miles south of Fire Station 17. The project site is currently served by the City of Sacramento Fire Department and was served by the Fire Department when the project site was being used as the Hubacher Cadillac Dealership. The proposed project would not generate an increase in demand for fire protection services beyond what currently exists. Construction of a new fire station or expansion of an existing station would not be required to continue provision of fire protection services by the Sacramento Fire Department. The proposed project would incorporate California Fire Code standards, including requirements related to fire flow, fire department access, and automatic sprinkler systems, and other applicable requirements of the CBC into building designs. Furthermore, the project applicant would be required to pay fair share fees for the necessary fire services as a result of project implementation.

Because the proposed project would not result in the need for new police protection and fire protection facilities beyond what was anticipated in the 2030 General Plan, this impact would be **less than significant**.

The proposed project does not involve construction of residential land uses that would generate new residents. Therefore, the proposed project would not result in the need for new school services or necessitate the construction of new school facilities or other public facilities or

services such as libraries. The proposed project would not create any new public roadways or create the need for additional roadway maintenance. **No impact.**

MITIGATION MEASURES

None required.

FINDINGS

The project would have **no additional project-specific environmental effects** relating to Public Services.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
10. RECREATION Would the project: A) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities?			X
B) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2030 General Plan?			X

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to recreation may be considered significant if the proposed project would result in the following:

- Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities or
- Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2030 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.9, "Parks and Open Space," of the Master EIR evaluates the potential effects of development that could occur under the 2030 General Plan associated with the increased use of existing recreational facilities (Impact 6.9-1) and need for construction or expansion of existing parks and recreational facilities beyond what was anticipated in the 2030 General Plan (Impact 6.9-2). Policies included in the 2030 General Plan were identified to reduced impacts associated with parks and recreational facilities to a less-than-significant level.

Policy ERC 2.1.1 requires the City to develop and maintain a complete system of public parks and open space areas throughout Sacramento, Policy ERC 2.2.2 ensures that the development of parks and recreation facilities keeps pace with development and growth within the City, and Policy ERC 2.2.3 identifies service level goals. Policy ERC 2.4.1 also requires the City to maintain service levels to provide linear parks/parkways and trails/bikeways in accordance with the City of Sacramento Parks and Recreation Master Plan adopted policies. Policy ERC 2.5.4 requires the City to fund the costs of acquisition and development of neighborhood and community parks and community and recreation facilities through land dedication, in lieu fees, and/or development impact fees.

In addition, the Master EIR identifies applicable regulations that will further ensure impacts on parks and recreational facilities are reduced to a less-than-significant level. Chapter 18.44, "Park

Development Impact Fee,” of the City's municipal code imposes a park development fee on residential and nonresidential development within the City. Fees collected pursuant to Chapter 18.44 are primarily used to finance the construction of park facilities and address the impacts on existing parks caused by new residents or employees generated from development in the City.

The project shall comply with the General Plan policies outlined above.

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A AND B

Impacts on recreation from future development anticipated under the 2030 General Plan, including development of the project site for commercial uses, were evaluated in the Master EIR, and that discussion is hereby incorporated by reference (Master EIR, pages 6.9-19 to 6.9-20). The Master EIR determined that implementation of general plan policies would ensure adequate parks and recreational facilities are provided to serve increased demands within the City. Therefore, the proposed project would not result in impacts on parks and recreational facilities not evaluated in the Master EIR or result in the need for construction or expansion of recreational facilities beyond what was anticipated in the 2030 General Plan. Potential effects on specific parks or recreation facilities are discussed further below.

The proposed project would construct a new CVS/pharmacy retail store and a second commercial use building on the same site and does not involve construction of residential land uses that would generate new residents in Sacramento or in other ways increase demands for parks or recreation facilities. The proposed project would be subject to park development impact fees pursuant to Chapter 18.44 of the City's municipal code. The City would determine the park development impact fee at the time of development and payment of the fees is required at the time of application for building permits. Park development impact fees are used by the City to finance construction of new neighborhood and community parks and address the impacts on existing parks caused by development in the City. Based on the lack of increased demand and the payment of park development impact fees there is no evidence that this project would adversely affect the capacity or physical conditions of local parks and recreation facilities. Further, no aspect of this project would cause or accelerate the physical deterioration of area parks and recreation facilities, and would not create the need for construction or expansion of parks or recreation facilities. This impact would be **less than significant**.

MITIGATION MEASURES

None required.

FINDINGS

The project would have **no additional project-specific environmental effects** relating to Recreation.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
11. <u>TRANSPORTATION AND CIRCULATION</u>			
Would the project:			
A) Roadway segments: degrade peak period Level of Service (LOS) from A, B, C or D (without the project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the Volume to Capacity Ratio (V/C ratio) by 0.02 or more?	X		
B) Intersections: degrade peak period level of service from A, B, C or D (without project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the peak period average vehicle delay by five (5) seconds or more?	X		
C) Freeway facilities: off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway; project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service; project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility; or the expected ramp queue is greater than the storage capacity?	X		
D) Transit: adversely affect public transit operations or fail to adequately provide for access to public transit?	X		
E) Bicycle facilities: adversely affect bicycle travel, bicycle paths or fail to adequately provide for access by bicycle?	X		
F) Pedestrian: adversely affect pedestrian travel, pedestrian paths or fail to adequately provide for access by pedestrians?	X		

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts resulting from changes in transportation or circulation may be considered significant if construction and/or implementation of the Proposed Project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

Roadway Segments

- the traffic generated by a project degrades peak period Level of Service (LOS) from A,B,C or D (without the project) to E or F (with project) or
- the LOS (without project) is E or F, and project generated traffic increases the Volume to Capacity Ratio (V/C ratio) by 0.02 or more.

Intersections

- the traffic generated by a project degrades peak period level of service from A, B, C or D (without project) to E or F (with project) or
- the LOS (without project) is E or F, and project generated traffic increases the peak period average vehicle delay by five seconds or more.

Freeway Facilities

Caltrans considers the following to be significant impacts.

- off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway;
- project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service;
- project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility; or
- the expected ramp queue is greater than the storage capacity.

Transit

- adversely affect public transit operations or
- fail to adequately provide for access to public transit.

Bicycle Facilities

- adversely affect bicycle travel, bicycle paths or
- fail to adequately provide for access by bicycle.

Pedestrian Circulation

- adversely affect pedestrian travel, pedestrian paths or

- fail to adequately provide for access by pedestrians.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Transportation and circulation were discussed in the Master EIR in Chapter 6.12. Various modes of travel were included in the analysis, including vehicular, transit, bicycle, pedestrian, and aviation components. The analysis included consideration of roadway capacity and identification of levels of service, and effects of the 2030 General Plan on the public transportation system. Provisions of the 2030 General Plan that provide substantial guidance include Goal Mobility 1.1, calling for a transportation system that is effectively planned, managed, operated and maintained, promotion of multimodal choices (Policy M 1.2.1), identification of level of service standards (Policy M 1.2.2), development of a fair share funding system for Caltrans facilities (Policy M 1.5.6) and development of complete streets (Goal M 4.2).

While the general plan includes numerous policies that direct the development of the City's transportation system, the Master EIR concluded that the general plan development would result in significant and unavoidable effects. See Impacts 6.12-1, 6.12-8 (roadway segments in the City), Impacts 6.12-2, 6.12-9 (roadway segments in neighboring jurisdictions), and Impacts 6.12-3, 6.12-10 (freeway segments).

The project shall comply with the General Plan policies outlined above.

ANSWERS TO CHECKLIST QUESTIONS

QUESTIONS A AND B

The existing level of service (LOS) on Howe Avenue between Fair Oaks Boulevard and Cadillac Drive is LOS D (City of Sacramento 2009:6.12-76). The proposed project would generate 5,459 daily trips, 186 during the AM peak hour and 475 during the PM peak hour (see Attachment 4, Traffic Data). The increase in trips could result in intersection or segment LOS degrading from D to E or F. In addition, the proposed vehicular driveway from the project site to Fair Oaks Boulevard would place an ingress/egress point approximately 250 feet west of the Fair Oaks Boulevard/Howe Avenue intersection. This intersection has a dedicated right turn from southbound Howe Avenue to westbound Fair Oaks Boulevard. Traffic from this right turn merges with traffic from westbound Fair Oaks Boulevard. Traffic attempting to enter the project site from the proposed driveway to Fair Oaks Boulevard would slow along Fair Oaks Boulevard, possibly creating a hazard with traffic accelerating from the southbound Howe Avenue to westbound Fair Oaks Boulevard turning movement. Project traffic exiting from the proposed driveway could cause slowing along Fair Oaks Boulevard and could cause a safety hazard. In addition, ingress and egress to and from the project site at the proposed driveway to Fair Oaks Boulevard could cause slowing of traffic and traffic congestion at the Fair Oaks Boulevard/Howe Avenue intersection. Increased traffic and slowing and merging of traffic at the proposed driveway could cause degradation of the intersection's LOS. Such an impact could be significant. Because the proposed project could generate traffic and alter traffic patterns that could significantly impact the LOS at the intersection of Fair Oaks Boulevard and Howe Avenue, **this issue will be addressed in the EIR.**

QUESTION C

The project site is approximately 1.5 miles north of Highway 50. Traffic generated by the proposed project could affect local roadway volumes, intersection queuing, and traffic patterns. The

increase in daily vehicle trips and peak hour trips could affect highway onramp and offramp queuing and level of service on the mainline. Because the proposed project could generate significant impacts related to highway onramp and offramp queuing and level of service on Highway 50, **this issue will be addressed in the EIR.**

QUESTION D

The Sacramento Regional Transit District (RT) provides public transit service within the project area. The following summarizes RT bus routes adjacent to the proposed project site:

- Route 82 provides daily bus service connecting the University/65th Street Station light rail station and bus stop to the American River College Transit Center, and provides access to the project site via Fair Oaks Boulevard and Howe Avenue.
- Route 87 provides daily bus service connecting University/65th Street Station light rail station and bus stop to the Marconi/Arcade light rail station and bus stop, and provides access to the project site via Fair Oaks Boulevard and Howe Avenue.

The proposed project could generate additional ridership for public transit along the existing routes operated by RT. The additional ridership could be substantial in relation to existing ridership, and **this issue will be addressed in the EIR.**

QUESTIONS E AND F

There are existing sidewalks adjacent to the project site along Cadillac Drive. There is also a sidewalk along Howe Avenue from Cadillac Drive to the intersection of Howe Avenue and Fair Oaks Boulevard. Pedestrian access to the project site would be available via three driveways along Cadillac Drive. In addition, the proposed project would provide a new paved pedestrian walkway directly from the project site to the existing sidewalk at the Fair Oaks Boulevard/Howe Avenue intersection. This additional pedestrian access point would enable increased pedestrian access to the project site. The proposed project would not remove existing sidewalks or otherwise impede pedestrian travel or access to the project site. The proposed project would include walkways around both proposed buildings allowing pedestrians to safely access the retail pharmacy and retail grocer.

There are no dedicated bike lanes adjacent to the project site, although bicycles could access the project site via the existing roadway network. Bicycles could access the project site directly via the three driveways along Cadillac Drive.

The proposed project could change pedestrian and bicycle access to the project site and in the immediate vicinity. Therefore, **this issue will be addressed in the EIR**

MITIGATION MEASURES

None.

FINDINGS

The project may have a significant environmental effect on Transportation and Circulation. As described above, impacts related to traffic circulation at the intersection of Fair Oaks Boulevard and Howe Avenue, as well as on Highway 50, including on- and off-ramps. Transit, pedestrian, and bicycle facilities could also be affected by the proposed project. Therefore, all of the traffic issues **will be addressed in the EIR.**

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
12. UTILITIES AND SERVICE SYSTEMS Would the project: A) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments? B) Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts?			<div style="text-align: center;">X</div> <div style="text-align: center;">X</div>

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to utilities and service systems may be considered significant if the proposed project would result in the following:

- Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments or
- Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Chapter 6.11, "Public Utilities," of the Master EIR evaluates the effects of development that could occur under the 2030 General Plan on public utilities, including increased demand for potable water supplies (Impact 6.11-1), water supply diversion and water treatment facilities (Impact 6.11-2), sewer and storm drainage infrastructure (Impact 6.11-3), wastewater treatment facilities (Impacts 6.11-4 and 6.11-5), solid waste disposal (Impacts 6.11-7 and 6.11-8), and electrical and natural gas infrastructure (Impacts 6.11-9 and 6.11-10). Policies included in the 2030 General Plan were identified to reduced impacts associated with increased demand for potable water supplies, sewer and storm drainage infrastructure, solid waste disposal, and electricity and natural gas infrastructure to a less-than-significant level. However, no mitigation is available to reduce impacts related to expansion water supply diversion, water treatment facilities, and wastewater treatment plant facilities to a less-than-significant level and these impacts would be significant and unavoidable.

Policies U 1.1.1, 1.1.2, and U 1.1.5 ensure that the City provides and maintains adequate water services, establishes and maintains level of service standards for these services, and ensure new facilities are phased in conjunction with development. Policy U 1.1.6 requires that new development provides adequate facilities or pays its fair share of the cost for facilities to provide services without affecting current service levels. Policy U 2.1.3 would ensure the City provides

sufficient funding to meet the projected water demand, Policy U 2.1.9 would prevent the City from granting building permits without sufficient water supply capacity.

Policies U 1.1.1 through U 1.1.3 ensures that there is sufficient capacity to accommodate increased wastewater and stormwater flows through buildout of the General Plan, Policies U 1.1.5 through U 1.1.8 ensures that the City provides and maintains adequate wastewater and stormwater drainage services, Policy U 3.1.2 establishes and maintains level of service standards, Policy U 3.1.3 provides sustainable facilities and services and ensures new facilities are phased in conjunction with development, and U 3.1.4 prioritizes infill areas for infrastructure improvements. Policy U 4.1.1 requires the City to ensure that all new drainage facilities are adequately sized to accommodate stormwater runoff. In addition, Policy U 1.1.6 requires that new development provides adequate facilities or pays its fair share of the cost for facilities to provide services without affecting current service levels.

Policies U 5.1.1 through U 5.1.4 as well as Assembly Bill 939, which mandates the reduction of solid waste disposal at landfills, and Sacramento Regional Solid Waste Authority Business Recycling Ordinance ensure that solid waste and recycling facilities are adequately provided throughout the city to help reduce the amount of waste sent to landfills. The programs provided through Policies U 5.1.5 to U 5.1.13 are designed to ensure the City continues to provide recycling and clean-up services for its residents and businesses. Many of these programs are already in place, and continue to promote waste diversion, which will help reduce waste flow to landfills.

Polices related to energy are addressed in the “Land Use and Planning, Population and Housing, Agricultural Resources, and Energy,” discussion above.

The project shall comply with the General Plan policies outlined above.

ANSWERS TO CHECKLIST QUESTIONS

QUESTION A

Impacts on utilities and services systems from future development anticipated under the 2030 General Plan, which includes development of the project site for commercial uses, were evaluated in the Master EIR, and that discussion is hereby incorporated by reference (Master EIR, pages 6.11-32 to 6.11-39, 6.11-57 to 6.11-62, and 6.11-75 to 6.11-77).

The Master EIR determined that the City’s existing water right permits and contracts would be sufficient to meet the total water demand projected for future development. In addition, future wastewater flows generated by the City are accounted for in wastewater conveyance and treatment master plans prepared by the Sacramento County Regional Sanitation District.

The City has also determined that existing landfills would have sufficient capacity to serve growth in the General Plan and implementation of other programs would reduce solid waste entering landfills.

Because the anticipated demands for utilities and service system at the project site have been considered in long-range planning for such services by the City, this impact would be **less than significant**.

QUESTION B

There are existing underground water transmission lines, sewer pipelines, storm drains, electrical lines, and communication lines on the project site. An existing 8-inch water main, a 12-inch sewer main, and 12-inch and 15-inch storm drains are located within Cadillac Drive. It is anticipated that all onsite utility infrastructure would connect to existing utility infrastructure in Cadillac Drive and that this infrastructure is adequately sized to serve the project's needs. Therefore, the proposed project would not require the construction of new utilities or the expansion of existing utilities and this impact would be **less than significant**.

MITIGATION MEASURES

None required.

FINDINGS

The project would have **no additional project-specific environmental effects** relating to Utilities and Service Systems.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
13. <u>MANDATORY FINDINGS OF SIGNIFICANCE</u>			
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?		X	
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.)			X
C.) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X

Answers to Checklist Questions

QUESTION A

The project would not result in elimination of sensitive habitats or the loss of wildlife. There are no identified cultural or historic resources on the project site. The proposed project would construct features that would affect the abandoned roadway alignment in the City-owned parcel to the east of the project site. The proposed project would construct a driveway from the project site to Fair Oaks Boulevard and a concrete pedestrian walkway that would cross the abandoned roadway alignment. However, the analysis above determined that the abandoned roadway alignment is not an important example of the major periods of California history. If previously unidentified cultural or historic resources are discovered on the project site during construction, proposed mitigation measures CR-1, CR-2 and CR-3 would ensure that discovery of unknown resources during project development would be identified and appropriate steps taken regarding treatment. Thus, this potential impact would be **less than significant**.

QUESTION B

The proposed project is consistent with the general plan and zoning land use designations for the project site. The development proposed would contribute to cumulative effects that have been identified and evaluated in the Master EIR prepared and certified for the 2030 General Plan. **No additional significant effects** have been identified for the project.

QUESTION C

The proposed project would develop the project site with commercial uses including a CVS pharmacy and a grocery. None of the activities proposed would adversely affect human beings. Project impacts relating to air quality and hazards have been considered in the initial study. **No significant adverse effects** on human beings have been identified.

MITIGATION MEASURES

None required.

FINDINGS

The project would have **no additional project-specific environmental effects** relating to Mandatory Findings of Significance.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by this project.

	Agriculture		Land Use and Planning
X	Air Quality		Light and Glare
	Biological Resources		Noise
	Cultural Resources		Public Services
	Energy and Mineral Resources		Recreation
	Geology and Soils	X	Transportation/Circulation
	Greenhouse Gas Emissions		Utilities and Service Systems
	Hazards and Hazardous Materials		Population and Housing
	Hydrology and Water Quality		Mandatory Findings of Significance

SECTION V - DETERMINATION

On the basis of the initial study:

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project **may** have additional significant environmental effects not previously examined in the Master EIR related to GHG emissions and Transportation/Circulation. A focused EIR shall be prepared which shall incorporate by reference the Master EIR and analyze only the GHG emissions and Transportation/Circulation project-specific significant environmental effects and any new or additional mitigation measures or alternatives that were not identified and analyzed in the Master EIR. Mitigation measures from the Master EIR will be applied to the project as appropriate. (CEQA Guidelines Section 15178(c))

Signature

Date

Printed Name

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ATTACHMENT 1

Air Quality Data Sheets

CVS Pharmacy - Construction (P1-P3)
Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Pharmacy/Drugstore with Drive Thru	16.5	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 3.5

Utility Company Sacramento Municipal Utility District

Climate Zone 6

Precipitation Freq (Days) 58

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - PD construction schedule

Grading - project site

Demolition -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	21.78	60.97	43.55	0.07	10.69	4.39	12.12	0.43	4.39	4.82	0.00	6,986.83	0.00	0.80	0.00	7,003.73
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	21.78	60.97	43.55	0.07	5.24	4.39	6.67	0.43	4.39	4.82	0.00	6,986.83	0.00	0.80	0.00	7,003.73
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.1 Mitigation Measures Construction

3.2 Demolition - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.17	0.00	5.17	0.00	0.00	0.00						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04		1,476.12		0.18		1,479.88
Total	2.00	13.91	9.51	0.02	5.17	1.04	6.21	0.00	1.04	1.04		1,476.12		0.18		1,479.88

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.14	11.46	8.07	0.02	5.39	0.38	5.77	0.06	0.38	0.45		1,859.82		0.06		1,860.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.06	0.64	0.00	0.13	0.00	0.13	0.00	0.00	0.01		100.82		0.01		100.94
Total	1.21	11.52	8.71	0.02	5.52	0.38	5.90	0.06	0.38	0.46		1,960.64		0.07		1,961.92

3.2 Demolition - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.17	0.00	5.17	0.00	0.00	0.00						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04	0.00	1,476.12		0.18		1,479.88
Total	2.00	13.91	9.51	0.02	5.17	1.04	6.21	0.00	1.04	1.04	0.00	1,476.12		0.18		1,479.88

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.14	11.46	8.07	0.02	0.06	0.38	0.45	0.06	0.38	0.45		1,859.82		0.06		1,860.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.06	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.01		100.82		0.01		100.94
Total	1.21	11.52	8.71	0.02	0.06	0.38	0.46	0.06	0.38	0.46		1,960.64		0.07		1,961.92

3.3 Site Preparation - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	1.72	12.58	8.68	0.01		0.81	0.81		0.81	0.81		1,402.64		0.15		1,405.88
Total	1.72	12.58	8.68	0.01	0.00	0.81	0.81	0.00	0.81	0.81		1,402.64		0.15		1,405.88

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.32	0.00	0.07	0.00	0.07	0.00	0.00	0.00		50.41		0.00		50.47
Total	0.03	0.03	0.32	0.00	0.07	0.00	0.07	0.00	0.00	0.00		50.41		0.00		50.47

3.3 Site Preparation - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	1.72	12.58	8.68	0.01		0.81	0.81		0.81	0.81	0.00	1,402.64		0.15		1,405.88
Total	1.72	12.58	8.68	0.01	0.00	0.81	0.81	0.00	0.81	0.81	0.00	1,402.64		0.15		1,405.88

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00		50.41		0.00		50.47
Total	0.03	0.03	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00		50.41		0.00		50.47

3.4 Grading - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.81	0.00	0.81	0.41	0.00	0.41						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04		1,476.12		0.18		1,479.88
Total	2.00	13.91	9.51	0.02	0.81	1.04	1.85	0.41	1.04	1.45		1,476.12		0.18		1,479.88

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.06	0.64	0.00	0.13	0.00	0.13	0.00	0.00	0.01		100.82		0.01		100.94
Total	0.07	0.06	0.64	0.00	0.13	0.00	0.13	0.00	0.00	0.01		100.82		0.01		100.94

3.4 Grading - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.81	0.00	0.81	0.41	0.00	0.41						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04	0.00	1,476.12		0.18		1,479.88
Total	2.00	13.91	9.51	0.02	0.81	1.04	1.85	0.41	1.04	1.45	0.00	1,476.12		0.18		1,479.88

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.06	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.01		100.82		0.01		100.94
Total	0.07	0.06	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.01		100.82		0.01		100.94

3.5 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04		1,945.40		0.20		1,949.52
Total	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04		1,945.40		0.20		1,949.52

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.05	0.45	0.40	0.00	0.03	0.01	0.04	0.00	0.01	0.02		79.76		0.00		79.81
Worker	0.03	0.03	0.32	0.00	0.07	0.00	0.07	0.00	0.00	0.00		50.41		0.00		50.47
Total	0.08	0.48	0.72	0.00	0.10	0.01	0.11	0.00	0.01	0.02		130.17		0.00		130.28

3.5 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04	0.00	1,945.40		0.20		1,949.52
Total	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04	0.00	1,945.40		0.20		1,949.52

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.05	0.45	0.40	0.00	0.00	0.01	0.02	0.00	0.01	0.02		79.76		0.00		79.81
Worker	0.03	0.03	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00		50.41		0.00		50.47
Total	0.08	0.48	0.72	0.00	0.00	0.01	0.02	0.00	0.01	0.02		130.17		0.00		130.28

3.6 Paving - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20		1,408.52		0.21		1,412.88
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20		1,408.52		0.21		1,412.88

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.10	1.15	0.00	0.23	0.01	0.24	0.01	0.01	0.01		181.48		0.01		181.69
Total	0.12	0.10	1.15	0.00	0.23	0.01	0.24	0.01	0.01	0.01		181.48		0.01		181.69

3.6 Paving - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20	0.00	1,408.52		0.21		1,412.88
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20	0.00	1,408.52		0.21		1,412.88

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.10	1.15	0.00	0.01	0.01	0.01	0.01	0.01	0.01		181.48		0.01		181.69
Total	0.12	0.10	1.15	0.00	0.01	0.01	0.01	0.01	0.01	0.01		181.48		0.01		181.69

3.7 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.74					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10
Total	13.23	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00		10.08		0.00		10.09
Total	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00		10.08		0.00		10.09

3.7 Architectural Coating - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.74					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10
Total	13.23	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00		10.08		0.00		10.09
Total	0.01	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00		10.08		0.00		10.09

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

CVS Pharmacy - Construction (P1-P3)
Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Pharmacy/Drugstore with Drive Thru	16.5	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 3.5

Utility Company Sacramento Municipal Utility District

Climate Zone 6

Precipitation Freq (Days) 58

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - PD construction schedule

Grading - project site

Demolition -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	21.78	61.00	43.36	0.07	10.69	4.39	12.13	0.43	4.39	4.82	0.00	6,933.23	0.00	0.80	0.00	6,950.10
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	21.78	61.00	43.36	0.07	5.24	4.39	6.67	0.43	4.39	4.82	0.00	6,933.23	0.00	0.80	0.00	6,950.10
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.1 Mitigation Measures Construction

3.2 Demolition - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.17	0.00	5.17	0.00	0.00	0.00						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04		1,476.12		0.18		1,479.88
Total	2.00	13.91	9.51	0.02	5.17	1.04	6.21	0.00	1.04	1.04		1,476.12		0.18		1,479.88

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.22	11.74	8.94	0.02	5.39	0.39	5.78	0.06	0.39	0.45		1,852.60		0.06		1,853.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.06	0.57	0.00	0.13	0.00	0.13	0.00	0.00	0.01		87.20		0.01		87.31
Total	1.29	11.80	9.51	0.02	5.52	0.39	5.91	0.06	0.39	0.46		1,939.80		0.07		1,941.17

3.2 Demolition - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.17	0.00	5.17	0.00	0.00	0.00						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04	0.00	1,476.12		0.18		1,479.88
Total	2.00	13.91	9.51	0.02	5.17	1.04	6.21	0.00	1.04	1.04	0.00	1,476.12		0.18		1,479.88

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.22	11.74	8.94	0.02	0.06	0.39	0.45	0.06	0.39	0.45		1,852.60		0.06		1,853.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.06	0.57	0.00	0.00	0.00	0.01	0.00	0.00	0.01		87.20		0.01		87.31
Total	1.29	11.80	9.51	0.02	0.06	0.39	0.46	0.06	0.39	0.46		1,939.80		0.07		1,941.17

3.3 Site Preparation - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	1.72	12.58	8.68	0.01		0.81	0.81		0.81	0.81		1,402.64		0.15		1,405.88
Total	1.72	12.58	8.68	0.01	0.00	0.81	0.81	0.00	0.81	0.81		1,402.64		0.15		1,405.88

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.29	0.00	0.07	0.00	0.07	0.00	0.00	0.00		43.60		0.00		43.65
Total	0.03	0.03	0.29	0.00	0.07	0.00	0.07	0.00	0.00	0.00		43.60		0.00		43.65

3.3 Site Preparation - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	1.72	12.58	8.68	0.01		0.81	0.81		0.81	0.81	0.00	1,402.64		0.15		1,405.88
Total	1.72	12.58	8.68	0.01	0.00	0.81	0.81	0.00	0.81	0.81	0.00	1,402.64		0.15		1,405.88

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.03	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00		43.60		0.00		43.65
Total	0.03	0.03	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00		43.60		0.00		43.65

3.4 Grading - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.81	0.00	0.81	0.41	0.00	0.41						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04		1,476.12		0.18		1,479.88
Total	2.00	13.91	9.51	0.02	0.81	1.04	1.85	0.41	1.04	1.45		1,476.12		0.18		1,479.88

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.06	0.57	0.00	0.13	0.00	0.13	0.00	0.00	0.01		87.20		0.01		87.31
Total	0.07	0.06	0.57	0.00	0.13	0.00	0.13	0.00	0.00	0.01		87.20		0.01		87.31

3.4 Grading - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.81	0.00	0.81	0.41	0.00	0.41						0.00
Off-Road	2.00	13.91	9.51	0.02		1.04	1.04		1.04	1.04	0.00	1,476.12		0.18		1,479.88
Total	2.00	13.91	9.51	0.02	0.81	1.04	1.85	0.41	1.04	1.45	0.00	1,476.12		0.18		1,479.88

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.06	0.57	0.00	0.00	0.00	0.01	0.00	0.00	0.01		87.20		0.01		87.31
Total	0.07	0.06	0.57	0.00	0.00	0.00	0.01	0.00	0.00	0.01		87.20		0.01		87.31

3.5 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04		1,945.40		0.20		1,949.52
Total	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04		1,945.40		0.20		1,949.52

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.06	0.46	0.47	0.00	0.03	0.01	0.04	0.00	0.01	0.02		79.29		0.00		79.35
Worker	0.03	0.03	0.29	0.00	0.07	0.00	0.07	0.00	0.00	0.00		43.60		0.00		43.65
Total	0.09	0.49	0.76	0.00	0.10	0.01	0.11	0.00	0.01	0.02		122.89		0.00		123.00

3.5 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04	0.00	1,945.40		0.20		1,949.52
Total	2.20	16.33	10.77	0.02		1.04	1.04		1.04	1.04	0.00	1,945.40		0.20		1,949.52

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.06	0.46	0.47	0.00	0.00	0.01	0.02	0.00	0.01	0.02		79.29		0.00		79.35
Worker	0.03	0.03	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00		43.60		0.00		43.65
Total	0.09	0.49	0.76	0.00	0.00	0.01	0.02	0.00	0.01	0.02		122.89		0.00		123.00

3.6 Paving - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20		1,408.52		0.21		1,412.88
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20		1,408.52		0.21		1,412.88

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.03	0.00	0.23	0.01	0.24	0.01	0.01	0.01		156.95		0.01		157.15
Total	0.12	0.11	1.03	0.00	0.23	0.01	0.24	0.01	0.01	0.01		156.95		0.01		157.15

3.6 Paving - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20	0.00	1,408.52		0.21		1,412.88
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	2.32	14.52	9.76	0.02		1.20	1.20		1.20	1.20	0.00	1,408.52		0.21		1,412.88

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.03	0.00	0.01	0.01	0.01	0.01	0.01	0.01		156.95		0.01		157.15
Total	0.12	0.11	1.03	0.00	0.01	0.01	0.01	0.01	0.01	0.01		156.95		0.01		157.15

3.7 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.74					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10
Total	13.23	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00		8.72		0.00		8.73
Total	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00		8.72		0.00		8.73

3.7 Architectural Coating - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.74					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10
Total	13.23	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00		8.72		0.00		8.73
Total	0.01	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00		8.72		0.00		8.73

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

CVS Pharmacy - Construction (P1-P3)
Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Pharmacy/Drugstore with Drive Thru	16.5	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 3.5

Utility Company Sacramento Municipal Utility District

Climate Zone 6

Precipitation Freq (Days) 58

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - PD construction schedule

Grading - project site

Demolition -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2013	0.64	3.14	2.22	0.00	0.12	0.21	0.33	0.03	0.21	0.24	0.00	333.61	333.61	0.04	0.00	334.36
Total	0.64	3.14	2.22	0.00	0.12	0.21	0.33	0.03	0.21	0.24	0.00	333.61	333.61	0.04	0.00	334.36

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2013	0.64	3.14	2.22	0.00	0.08	0.21	0.29	0.03	0.21	0.24	0.00	333.61	333.61	0.04	0.00	334.36
Total	0.64	3.14	2.22	0.00	0.08	0.21	0.29	0.03	0.21	0.24	0.00	333.61	333.61	0.04	0.00	334.36

3.2 Demolition - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	6.69	6.69	0.00	0.00	6.71
Total	0.01	0.07	0.05	0.00	0.03	0.01	0.04	0.00	0.01	0.01	0.00	6.69	6.69	0.00	0.00	6.71

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.06	0.04	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	8.42	8.42	0.00	0.00	8.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.00	0.00	0.42
Total	0.01	0.06	0.04	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	8.83	8.83	0.00	0.00	8.85

3.2 Demolition - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	6.69	6.69	0.00	0.00	6.71
Total	0.01	0.07	0.05	0.00	0.03	0.01	0.04	0.00	0.01	0.01	0.00	6.69	6.69	0.00	0.00	6.71

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.42	8.42	0.00	0.00	8.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.00	0.00	0.42
Total	0.01	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.83	8.83	0.00	0.00	8.85

3.3 Site Preparation - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.11	0.82	0.56	0.00		0.05	0.05		0.05	0.05	0.00	82.69	82.69	0.01	0.00	82.88
Total	0.11	0.82	0.56	0.00	0.00	0.05	0.05	0.00	0.05	0.05	0.00	82.69	82.69	0.01	0.00	82.88

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.70	2.70	0.00	0.00	2.70
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.70	2.70	0.00	0.00	2.70

3.3 Site Preparation - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.11	0.82	0.56	0.00		0.05	0.05		0.05	0.05	0.00	82.69	82.69	0.01	0.00	82.88
Total	0.11	0.82	0.56	0.00	0.00	0.05	0.05	0.00	0.05	0.05	0.00	82.69	82.69	0.01	0.00	82.88

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.70	2.70	0.00	0.00	2.70
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.70	2.70	0.00	0.00	2.70

3.4 Grading - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.05	0.00	0.05	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.13	0.90	0.62	0.00		0.07	0.07		0.07	0.07	0.00	87.02	87.02	0.01	0.00	87.24
Total	0.13	0.90	0.62	0.00	0.05	0.07	0.12	0.03	0.07	0.10	0.00	87.02	87.02	0.01	0.00	87.24

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.39	5.39	0.00	0.00	5.40
Total	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.39	5.39	0.00	0.00	5.40

3.4 Grading - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.05	0.00	0.05	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.13	0.90	0.62	0.00		0.07	0.07		0.07	0.07	0.00	87.02	87.02	0.01	0.00	87.24
Total	0.13	0.90	0.62	0.00	0.05	0.07	0.12	0.03	0.07	0.10	0.00	87.02	87.02	0.01	0.00	87.24

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.39	5.39	0.00	0.00	5.40
Total	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.39	5.39	0.00	0.00	5.40

3.5 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.14	1.06	0.70	0.00		0.07	0.07		0.07	0.07	0.00	114.68	114.68	0.01	0.00	114.93
Total	0.14	1.06	0.70	0.00		0.07	0.07		0.07	0.07	0.00	114.68	114.68	0.01	0.00	114.93

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.69	4.69	0.00	0.00	4.69
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.70	2.70	0.00	0.00	2.70
Total	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.39	7.39	0.00	0.00	7.39

3.5 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.14	1.06	0.70	0.00		0.07	0.07		0.07	0.07	0.00	114.68	114.68	0.01	0.00	114.93
Total	0.14	1.06	0.70	0.00		0.07	0.07		0.07	0.07	0.00	114.68	114.68	0.01	0.00	114.93

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.69	4.69	0.00	0.00	4.69
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.70	2.70	0.00	0.00	2.70
Total	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.39	7.39	0.00	0.00	7.39

3.6 Paving - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.15	0.10	0.00		0.01	0.01		0.01	0.01	0.00	12.77	12.77	0.00	0.00	12.81
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.15	0.10	0.00		0.01	0.01		0.01	0.01	0.00	12.77	12.77	0.00	0.00	12.81

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.49	1.49	0.00	0.00	1.50
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.49	1.49	0.00	0.00	1.50

3.6 Paving - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.15	0.10	0.00		0.01	0.01		0.01	0.01	0.00	12.77	12.77	0.00	0.00	12.81
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.15	0.10	0.00		0.01	0.01		0.01	0.01	0.00	12.77	12.77	0.00	0.00	12.81

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.49	1.49	0.00	0.00	1.50
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.49	1.49	0.00	0.00	1.50

3.7 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.19					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.83	3.83	0.00	0.00	3.84
Total	0.20	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.83	3.83	0.00	0.00	3.84

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.00	0.12
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.00	0.12

3.7 Architectural Coating - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.19					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.83	3.83	0.00	0.00	3.84
Total	0.20	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.83	3.83	0.00	0.00	3.84

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.00	0.12
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.00	0.12

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

CVS Pharmacy Construction (P4)
Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Supermarket	50.88	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 3.5

Utility Company Sacramento Municipal Utility District

Climate Zone 6

Precipitation Freq (Days) 58

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - PD construction schedule; overlapped bldg const and arch coatings in 2013 for conservative emissions estimates

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	21.00	27.55	20.51	0.04	0.32	1.93	2.25	0.01	1.93	1.94	0.00	3,247.02	0.00	0.47	0.00	3,256.85
2014	20.54	25.72	19.90	0.04	0.32	1.74	2.06	0.01	1.74	1.75	0.00	3,244.55	0.00	0.43	0.00	3,253.53
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	21.00	27.55	20.51	0.04	0.01	1.93	1.94	0.01	1.93	1.94	0.00	3,247.02	0.00	0.47	0.00	3,256.85
2014	20.54	25.72	19.90	0.04	0.01	1.74	1.75	0.01	1.74	1.75	0.00	3,244.55	0.00	0.43	0.00	3,253.53
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.1 Mitigation Measures Construction

3.2 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.54	23.27	16.29	0.03		1.61	1.61		1.61	1.61		2,561.58		0.41		2,570.13
Total	4.54	23.27	16.29	0.03		1.61	1.61		1.61	1.61		2,561.58		0.41		2,570.13

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.13	1.21	1.07	0.00	0.07	0.04	0.11	0.01	0.04	0.04		212.70		0.01		212.83
Worker	0.11	0.09	1.02	0.00	0.21	0.01	0.21	0.01	0.01	0.01		161.31		0.01		161.50
Total	0.24	1.30	2.09	0.00	0.28	0.05	0.32	0.02	0.05	0.05		374.01		0.02		374.33

3.2 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.54	23.27	16.29	0.03		1.61	1.61		1.61	1.61	0.00	2,561.58		0.41		2,570.13
Total	4.54	23.27	16.29	0.03		1.61	1.61		1.61	1.61	0.00	2,561.58		0.41		2,570.13

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.13	1.21	1.07	0.00	0.01	0.04	0.04	0.01	0.04	0.04		212.70		0.01		212.83
Worker	0.11	0.09	1.02	0.00	0.01	0.01	0.01	0.01	0.01	0.01		161.31		0.01		161.50
Total	0.24	1.30	2.09	0.00	0.02	0.05	0.05	0.02	0.05	0.05		374.01		0.02		374.33

3.2 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46		2,561.58		0.37		2,569.39
Total	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46		2,561.58		0.37		2,569.39

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.12	1.10	0.95	0.00	0.07	0.03	0.11	0.01	0.03	0.04		213.53		0.01		213.65
Worker	0.10	0.08	0.93	0.00	0.21	0.01	0.21	0.01	0.01	0.01		158.53		0.01		158.70
Total	0.22	1.18	1.88	0.00	0.28	0.04	0.32	0.02	0.04	0.05		372.06		0.02		372.35

3.2 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46	0.00	2,561.58		0.37		2,569.39
Total	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46	0.00	2,561.58		0.37		2,569.39

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.12	1.10	0.95	0.00	0.01	0.03	0.04	0.01	0.03	0.04		213.53		0.01		213.65
Worker	0.10	0.08	0.93	0.00	0.01	0.01	0.01	0.01	0.01	0.01		158.53		0.01		158.70
Total	0.22	1.18	1.88	0.00	0.02	0.04	0.05	0.02	0.04	0.05		372.06		0.02		372.35

3.3 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	15.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10
Total	16.20	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.19	0.00	0.04	0.00	0.04	0.00	0.00	0.00		30.25		0.00		30.28
Total	0.02	0.02	0.19	0.00	0.04	0.00	0.04	0.00	0.00	0.00		30.25		0.00		30.28

3.3 Architectural Coating - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	15.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10
Total	16.20	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		30.25		0.00		30.28
Total	0.02	0.02	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00		30.25		0.00		30.28

3.3 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	15.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04		282.03
Total	16.16	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04		282.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	0.04	0.00	0.04	0.00	0.00	0.00		29.72		0.00		29.76
Total	0.02	0.02	0.18	0.00	0.04	0.00	0.04	0.00	0.00	0.00		29.72		0.00		29.76

3.3 Architectural Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	15.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03
Total	16.16	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00		29.72		0.00		29.76
Total	0.02	0.02	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00		29.72		0.00		29.76

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

CVS Pharmacy Construction (P4)
Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Supermarket	50.88	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 3.5

Utility Company Sacramento Municipal Utility District

Climate Zone 6

Precipitation Freq (Days) 58

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - PD construction schedule; overlapped bldg const and arch coatings in 2013 for conservative emissions estimates

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	21.01	27.58	20.56	0.03	0.32	1.93	2.25	0.01	1.93	1.94	0.00	3,219.88	0.00	0.47	0.00	3,229.71
2014	20.55	25.74	19.96	0.03	0.32	1.74	2.06	0.01	1.74	1.76	0.00	3,217.71	0.00	0.43	0.00	3,226.69
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	21.01	27.58	20.56	0.03	0.01	1.93	1.94	0.01	1.93	1.94	0.00	3,219.88	0.00	0.47	0.00	3,229.71
2014	20.55	25.74	19.96	0.03	0.01	1.74	1.76	0.01	1.74	1.76	0.00	3,217.71	0.00	0.43	0.00	3,226.69
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.1 Mitigation Measures Construction

3.2 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.54	23.27	16.29	0.03		1.61	1.61		1.61	1.61		2,561.58		0.41		2,570.13
Total	4.54	23.27	16.29	0.03		1.61	1.61		1.61	1.61		2,561.58		0.41		2,570.13

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.15	1.24	1.24	0.00	0.07	0.04	0.11	0.01	0.04	0.04		211.44		0.01		211.59
Worker	0.11	0.10	0.92	0.00	0.21	0.01	0.21	0.01	0.01	0.01		139.52		0.01		139.69
Total	0.26	1.34	2.16	0.00	0.28	0.05	0.32	0.02	0.05	0.05		350.96		0.02		351.28

3.2 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.54	23.27	16.29	0.03		1.61	1.61		1.61	1.61	0.00	2,561.58		0.41		2,570.13
Total	4.54	23.27	16.29	0.03		1.61	1.61		1.61	1.61	0.00	2,561.58		0.41		2,570.13

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.15	1.24	1.24	0.00	0.01	0.04	0.04	0.01	0.04	0.04		211.44		0.01		211.59
Worker	0.11	0.10	0.92	0.00	0.01	0.01	0.01	0.01	0.01	0.01		139.52		0.01		139.69
Total	0.26	1.34	2.16	0.00	0.02	0.05	0.05	0.02	0.05	0.05		350.96		0.02		351.28

3.2 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46		2,561.58		0.37		2,569.39
Total	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46		2,561.58		0.37		2,569.39

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.13	1.12	1.12	0.00	0.07	0.03	0.11	0.01	0.03	0.04		212.20		0.01		212.34
Worker	0.10	0.09	0.83	0.00	0.21	0.01	0.21	0.01	0.01	0.01		137.05		0.01		137.21
Total	0.23	1.21	1.95	0.00	0.28	0.04	0.32	0.02	0.04	0.05		349.25		0.02		349.55

3.2 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46	0.00	2,561.58		0.37		2,569.39
Total	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46	0.00	2,561.58		0.37		2,569.39

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.13	1.12	1.12	0.00	0.01	0.03	0.04	0.01	0.03	0.04		212.20		0.01		212.34
Worker	0.10	0.09	0.83	0.00	0.01	0.01	0.01	0.01	0.01	0.01		137.05		0.01		137.21
Total	0.23	1.21	1.95	0.00	0.02	0.04	0.05	0.02	0.04	0.05		349.25		0.02		349.55

3.3 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	15.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10
Total	16.20	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.17	0.00	0.04	0.00	0.04	0.00	0.00	0.00		26.16		0.00		26.19
Total	0.02	0.02	0.17	0.00	0.04	0.00	0.04	0.00	0.00	0.00		26.16		0.00		26.19

3.3 Architectural Coating - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	15.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10
Total	16.20	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00		26.16		0.00		26.19
Total	0.02	0.02	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00		26.16		0.00		26.19

3.3 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	15.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04		282.03
Total	16.16	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04		282.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.16	0.00	0.04	0.00	0.04	0.00	0.00	0.00		25.70		0.00		25.73
Total	0.02	0.02	0.16	0.00	0.04	0.00	0.04	0.00	0.00	0.00		25.70		0.00		25.73

3.3 Architectural Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	15.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03
Total	16.16	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		25.70		0.00		25.73
Total	0.02	0.02	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		25.70		0.00		25.73

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

CVS Pharmacy Construction (P4)
Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Supermarket	50.88	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 3.5

Utility Company Sacramento Municipal Utility District

Climate Zone 6

Precipitation Freq (Days) 58

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - PD construction schedule; overlapped bldg const and arch coatings in 2013 for conservative emissions estimates

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2013	0.46	1.47	1.10	0.00	0.01	0.10	0.11	0.00	0.10	0.10	0.00	158.01	158.01	0.02	0.00	158.49
2014	0.54	0.68	0.53	0.00	0.01	0.05	0.05	0.00	0.05	0.05	0.00	77.55	77.55	0.01	0.00	77.76
Total	1.00	2.15	1.63	0.00	0.02	0.15	0.16	0.00	0.15	0.15	0.00	235.56	235.56	0.03	0.00	236.25

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2013	0.46	1.47	1.10	0.00	0.00	0.10	0.10	0.00	0.10	0.10	0.00	158.01	158.01	0.02	0.00	158.49
2014	0.54	0.68	0.53	0.00	0.00	0.05	0.05	0.00	0.05	0.05	0.00	77.55	77.55	0.01	0.00	77.76
Total	1.00	2.15	1.63	0.00	0.00	0.15	0.15	0.00	0.15	0.15	0.00	235.56	235.56	0.03	0.00	236.25

3.2 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.27	1.36	0.95	0.00		0.09	0.09		0.09	0.09	0.00	135.91	135.91	0.02	0.00	136.36
Total	0.27	1.36	0.95	0.00		0.09	0.09		0.09	0.09	0.00	135.91	135.91	0.02	0.00	136.36

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.07	0.07	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	11.25	11.25	0.00	0.00	11.26
Worker	0.01	0.01	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.77	7.77	0.00	0.00	7.78
Total	0.02	0.08	0.12	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	19.02	19.02	0.00	0.00	19.04

3.2 Building Construction - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.27	1.36	0.95	0.00		0.09	0.09		0.09	0.09	0.00	135.91	135.91	0.02	0.00	136.36
Total	0.27	1.36	0.95	0.00		0.09	0.09		0.09	0.09	0.00	135.91	135.91	0.02	0.00	136.36

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.25	11.25	0.00	0.00	11.26
Worker	0.01	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.77	7.77	0.00	0.00	7.78
Total	0.02	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.02	19.02	0.00	0.00	19.04

3.2 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.11	0.58	0.42	0.00		0.04	0.04		0.04	0.04	0.00	61.56	61.56	0.01	0.00	61.75
Total	0.11	0.58	0.42	0.00		0.04	0.04		0.04	0.04	0.00	61.56	61.56	0.01	0.00	61.75

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.12	5.12	0.00	0.00	5.12
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46	3.46	0.00	0.00	3.46
Total	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.58	8.58	0.00	0.00	8.58

3.2 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.11	0.58	0.42	0.00		0.04	0.04		0.04	0.04	0.00	61.56	61.56	0.01	0.00	61.75
Total	0.11	0.58	0.42	0.00		0.04	0.04		0.04	0.04	0.00	61.56	61.56	0.01	0.00	61.75

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.12	5.12	0.00	0.00	5.12
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46	3.46	0.00	0.00	3.46
Total	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.58	8.58	0.00	0.00	8.58

3.3 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.17					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.81	2.81	0.00	0.00	2.81
Total	0.18	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.81	2.81	0.00	0.00	2.81

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27

3.3 Architectural Coating - 2013

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.17					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.81	2.81	0.00	0.00	2.81
Total	0.18	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.81	2.81	0.00	0.00	2.81

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.27

3.3 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.42					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	6.76	6.76	0.00	0.00	6.78
Total	0.43	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	6.76	6.76	0.00	0.00	6.78

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.00	0.00	0.65
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.00	0.00	0.65

3.3 Architectural Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.42					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	6.76	6.76	0.00	0.00	6.78
Total	0.43	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	6.76	6.76	0.00	0.00	6.78

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.00	0.00	0.65
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.00	0.00	0.65

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

CVS Pharmacy
Construction Air Quality and Greenhouse Gas Emissions

Emissions Source	Pounds/day						Total MT CO ₂ e
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}	
Phase 1 - Demolition	2	13.91	9.51	0.02	6.21	1.04	6.71
	1.29	11.8	9.51	0.02	0.46	0.46	8.85
<i>Demolition Subtotal</i>	3.29	25.71	19.02	0.04	6.67	1.5	15.56
Phase 2 - Site Preparation	1.72	12.58	8.68	0.01	0.81	0.81	82.88
	0.03	0.03	0.29	0	0.07	0	2.7
<i>Site Preparation Subtotal</i>	1.75	12.61	8.97	0.01	0.88	0.81	85.58
Phase 2 - Grading	2	13.91	9.51	0.02	1.85	1.45	87.24
	0.07	0.06	0.57	0	0.13	0.01	5.4
<i>Grading Subtotal</i>	2.07	13.97	10.08	0.02	1.98	1.46	92.64
Phase 3 - Building Construction	2.2	16.33	10.77	0.02	1.04	1.04	114.93
	0.09	0.49	0.76	0	0.11	0.02	7.39
<i>Building Construction Subtotal</i>	2.29	16.82	11.53	0.02	1.15	1.06	122.32
Phase 3 - Asphalt Paving	2.32	14.52	9.76	0.02	1.2	1.2	12.81
	0.12	0.11	1.03	0	0.24	0.01	1.5
<i>Asphalt Paving Subtotal</i>	2.44	14.63	10.79	0.02	1.44	1.21	14.31
Phase 3 - Architectural Coating	13.23	2.96	1.94	0	0.27	0.27	3.84
	0.01	0.01	0.06	0	0.01	0	0.12
<i>Architectural Coating Subtotal</i>	13.24	2.97	2	0	0.28	0.27	3.96
Phase 4 - Building Construction	4.54	23.27	16.29	0.03	1.61	1.61	198.11
	0.26	1.34	2.16	0	0.05	0.05	27.62
<i>Building Construction Subtotal</i>	4.8	24.61	18.45	0.03	1.66	1.66	225.73
Phase 4 - Architectural Coating	16.2	2.96	1.94	0	0.27	0.27	9.59
	0.02	0.02	0.17	0	0.04	0	0.92
<i>Architectural Coating Subtotal</i>	16.22	2.98	2.11	0	0.31	0.27	10.51
Maximum Daily	21.79	61.00	43.37	0.07	5.73	4.81	570.61

Notes: Maximum daily emissions occur during the overlap of Phase 2 and Phase 3.

CVS Pharmacy
Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Pharmacy/Drugstore with Drive Thru	16.5	1000sqft
Supermarket	50.88	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Utility Company	Sacramento Municipal Utility District
Climate Zone	6	Precipitation Freq (Days)	58		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Phase 1 (Demolition); Phase 2 (Site Preparation and Grading); Phase 3 (Building Construction)

Demolition -

Grading - Added 7.2 acres for project site grading. Default used for site preparation.

Mobile Land Use Mitigation -

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.04	0.38	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18
Mobile	26.84	39.42	186.74	0.24	49.84	1.28	51.12	0.87	1.28	2.15		24,071.07		1.06		24,093.37
Total	28.75	39.80	187.06	0.24	49.84	1.28	51.15	0.87	1.28	2.18		24,531.45		1.07	0.01	24,556.55

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.04	0.38	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18
Mobile	26.84	39.42	186.74	0.24	49.84	1.28	51.12	0.87	1.28	2.15		24,071.07		1.06		24,093.37
Total	28.75	39.80	187.06	0.24	49.84	1.28	51.15	0.87	1.28	2.18		24,531.45		1.07	0.01	24,556.55

3.0 Construction Detail

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	26.84	39.42	186.74	0.24	49.84	1.28	51.12	0.87	1.28	2.15		24,071.07		1.06		24,093.37
Unmitigated	26.84	39.42	186.74	0.24	49.84	1.28	51.12	0.87	1.28	2.15		24,071.07		1.06		24,093.37
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Pharmacy/Drugstore with Drive Thru	1,454.64	1,454.64	1454.64	1,677,702	1,677,702
Supermarket	5,201.97	5,201.97	5201.97	5,983,350	5,983,350
Total	6,656.61	6,656.61	6,656.61	7,661,052	7,661,052

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Pharmacy/Drugstore with Drive Thru	10.80	7.30	7.30	7.50	73.50	19.00
Supermarket	10.80	7.30	7.30	6.50	74.50	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.04	0.38	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18
NaturalGas Unmitigated	0.04	0.38	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Pharmacy/Drugstore with Drive Thru	255.411	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00		30.05		0.00	0.00	30.23
Supermarket	3657.78	0.04	0.36	0.30	0.00		0.00	0.03		0.00	0.03		430.33		0.01	0.01	432.95
Total		0.04	0.39	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Pharmacy/Drugstore with Drive Thru	0.255411	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00		30.05		0.00	0.00	30.23
Supermarket	3.65778	0.04	0.36	0.30	0.00		0.00	0.03		0.00	0.03		430.33		0.01	0.01	432.95
Total		0.04	0.39	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.43					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.44					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.43					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.44					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

7.0 Water Detail

CVS Pharmacy
Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Pharmacy/Drugstore with Drive Thru	16.5	1000sqft
Supermarket	50.88	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Utility Company	Sacramento Municipal Utility District
Climate Zone	6	Precipitation Freq (Days)	58		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Phase 1 (Demolition); Phase 2 (Site Preparation and Grading); Phase 3 (Building Construction)

Demolition -

Grading - Added 7.2 acres for project site grading. Default used for site preparation.

Mobile Land Use Mitigation -

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.04	0.38	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18
Mobile	24.44	41.16	202.77	0.22	49.84	1.30	51.14	0.87	1.30	2.17		21,560.15		1.20		21,585.41
Total	26.35	41.54	203.09	0.22	49.84	1.30	51.17	0.87	1.30	2.20		22,020.53		1.21	0.01	22,048.59

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.04	0.38	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18
Mobile	24.44	41.16	202.77	0.22	49.84	1.30	51.14	0.87	1.30	2.17		21,560.15		1.20		21,585.41
Total	26.35	41.54	203.09	0.22	49.84	1.30	51.17	0.87	1.30	2.20		22,020.53		1.21	0.01	22,048.59

3.0 Construction Detail

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	24.44	41.16	202.77	0.22	49.84	1.30	51.14	0.87	1.30	2.17		21,560.15		1.20		21,585.41
Unmitigated	24.44	41.16	202.77	0.22	49.84	1.30	51.14	0.87	1.30	2.17		21,560.15		1.20		21,585.41
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Pharmacy/Drugstore with Drive Thru	1,454.64	1,454.64	1454.64	1,677,702	1,677,702
Supermarket	5,201.97	5,201.97	5201.97	5,983,350	5,983,350
Total	6,656.61	6,656.61	6,656.61	7,661,052	7,661,052

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Pharmacy/Drugstore with Drive Thru	10.80	7.30	7.30	7.50	73.50	19.00
Supermarket	10.80	7.30	7.30	6.50	74.50	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.04	0.38	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18
NaturalGas Unmitigated	0.04	0.38	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Pharmacy/Drugstore with Drive Thru	255.411	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00		30.05		0.00	0.00	30.23
Supermarket	3657.78	0.04	0.36	0.30	0.00		0.00	0.03		0.00	0.03		430.33		0.01	0.01	432.95
Total		0.04	0.39	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Pharmacy/Drugstore with Drive Thru	0.255411	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00		30.05		0.00	0.00	30.23
Supermarket	3.65778	0.04	0.36	0.30	0.00		0.00	0.03		0.00	0.03		430.33		0.01	0.01	432.95
Total		0.04	0.39	0.32	0.00		0.00	0.03		0.00	0.03		460.38		0.01	0.01	463.18

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.43					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.44					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.43					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.44					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	1.87	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

7.0 Water Detail

CVS Pharmacy
Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Pharmacy/Drugstore with Drive Thru	16.5	1000sqft
Supermarket	50.88	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Utility Company	Sacramento Municipal Utility District
Climate Zone	6	Precipitation Freq (Days)	58		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - Phase 1 (Demolition); Phase 2 (Site Preparation and Grading); Phase 3 (Building Construction)

Demolition -

Grading - Added 7.2 acres for project site grading. Default used for site preparation.

Mobile Land Use Mitigation -

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	677.31	677.31	0.03	0.01	682.12
Mobile	4.25	7.31	35.82	0.04	7.37	0.23	7.61	0.16	0.23	0.39	0.00	3,690.48	3,690.48	0.18	0.00	3,694.33
Waste						0.00	0.00		0.00	0.00	68.32	0.00	68.32	4.04	0.00	153.12
Water						0.00	0.00		0.00	0.00	0.00	11.01	11.01	0.23	0.01	17.60
Total	4.60	7.38	35.88	0.04	7.37	0.23	7.62	0.16	0.23	0.40	68.32	4,378.80	4,447.12	4.48	0.02	4,547.17

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	677.31	677.31	0.03	0.01	682.12
Mobile	4.25	7.31	35.82	0.04	7.37	0.23	7.61	0.16	0.23	0.39	0.00	3,690.48	3,690.48	0.18	0.00	3,694.33
Waste						0.00	0.00		0.00	0.00	68.32	0.00	68.32	4.04	0.00	153.12
Water						0.00	0.00		0.00	0.00	0.00	22.03	22.03	0.45	0.01	35.21
Total	4.60	7.38	35.88	0.04	7.37	0.23	7.62	0.16	0.23	0.40	68.32	4,389.82	4,458.14	4.70	0.02	4,564.78

3.0 Construction Detail

3.1 Mitigation Measures Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.25	7.31	35.82	0.04	7.37	0.23	7.61	0.16	0.23	0.39	0.00	3,690.48	3,690.48	0.18	0.00	3,694.33
Unmitigated	4.25	7.31	35.82	0.04	7.37	0.23	7.61	0.16	0.23	0.39	0.00	3,690.48	3,690.48	0.18	0.00	3,694.33
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Pharmacy/Drugstore with Drive Thru	1,454.64	1,454.64	1454.64	1,677,702	1,677,702
Supermarket	5,201.97	5,201.97	5201.97	5,983,350	5,983,350
Total	6,656.61	6,656.61	6,656.61	7,661,052	7,661,052

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Pharmacy/Drugstore with Drive Thru	10.80	7.30	7.30	7.50	73.50	19.00
Supermarket	10.80	7.30	7.30	6.50	74.50	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	601.09	601.09	0.03	0.01	605.44
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	601.09	601.09	0.03	0.01	605.44
NaturalGas Mitigated	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	76.22	76.22	0.00	0.00	76.68
NaturalGas Unmitigated	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	76.22	76.22	0.00	0.00	76.68
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Pharmacy/Drugstore with Drive Thru	93225	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	4.97	4.97	0.00	0.00	5.01
Supermarket	1.33509e+006	0.01	0.07	0.05	0.00		0.00	0.00		0.00	0.00	0.00	71.25	71.25	0.00	0.00	71.68
Total		0.01	0.07	0.05	0.00		0.00	0.00		0.00	0.00	0.00	76.22	76.22	0.00	0.00	76.69

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Pharmacy/Drugstore with Drive Thru	93225	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	4.97	4.97	0.00	0.00	5.01
Supermarket	1.33509e+006	0.01	0.07	0.05	0.00		0.00	0.00		0.00	0.00	0.00	71.25	71.25	0.00	0.00	71.68
Total		0.01	0.07	0.05	0.00		0.00	0.00		0.00	0.00	0.00	76.22	76.22	0.00	0.00	76.69

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Pharmacy/Drugstore with Drive Thru	214005					53.90	0.00	0.00	54.29
Supermarket	2.17258e+006					547.19	0.03	0.01	551.15
Total						601.09	0.03	0.01	605.44

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Pharmacy/Drugstore with Drive Thru	214005					53.90	0.00	0.00	54.29
Supermarket	2.17258e+006					547.19	0.03	0.01	551.15
Total						601.09	0.03	0.01	605.44

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.08					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.26					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.08					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.26					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					22.03	0.45	0.01	35.21
Unmitigated					11.01	0.23	0.01	17.60
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Pharmacy/Drugstore with Drive Thru	1.16238 / 0.712429					2.23	0.04	0.00	3.26
Supermarket	6.27189 / 0.193976					8.79	0.19	0.00	14.34
Total						11.02	0.23	0.00	17.60

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Pharmacy/Drugstore with Drive Thru	1.16238 / 0.712429					4.45	0.07	0.00	6.52
Supermarket	6.27189 / 0.193976					17.58	0.38	0.01	28.69
Total						22.03	0.45	0.01	35.21

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					68.32	4.04	0.00	153.12
Unmitigated					68.32	4.04	0.00	153.12
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Pharmacy/Drugstore with Drive Thru	49.62					10.07	0.60	0.00	22.57
Supermarket	286.96					58.25	3.44	0.00	130.54
Total						68.32	4.04	0.00	153.11

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Pharmacy/Drugstore with Drive Thru	49.62					10.07	0.60	0.00	22.57
Supermarket	286.96					58.25	3.44	0.00	130.54
Total						68.32	4.04	0.00	153.11

9.0 Vegetation

CVS Pharmacy
Proposed Project Operational Emissions Summary

Daily Summer (lbs/day)						
Emissions Source	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	1.87					
Energy	0.04	0.38	0.32		0.03	0.03
Mobile	26.84	39.42	188.74	0.24	51.12	2.15
Daily Winter (lbs/day)						
Emissions Source	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	1.87					
Energy	0.04	0.38	0.32		0.03	0.03
Mobile	26.44	41.16	202.77	0.22	51.14	2.17
Maximum Daily (lbs/day)						
Emissions Source	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	1.87	0	0	0	0	0
Energy	0.04	0.38	0.32	0	0.03	0.03
Mobile	26.84	41.16	202.77	0.24	51.14	2.17
Total	28.75	41.54	203.09	0.24	51.17	2.20

CVS Pharmacy
Operational Greenhouse Gas Emissions

Emissions Source	Proposed Project (MT CO₂e/yr)
Area	-
Energy	682
Mobile	3,694
Waste	153
Water	18
Total	4,547

ATTACHMENT 2

Tree Inventory



April 14, 2008

Mr. George Julian
Hubacher
1 Cadillac Drive
Sacramento, CA 95825

RE: Tree Inventory and Analysis @ Howe Ave & Fair Oaks Intersection

Dear Mr. Julian:

As you requested and required by the City of Sacramento, I have inspected and inventoried the trees at 1 Cadillac Drive near the corner of Fair Oaks and Howe Ave. Below I have outlined my findings in relation to the overall condition of the tree.

Tree #: 778

Species: *Quercus lobata* (Valley Oak)

Trunk Diameter: 41.4 inches

Canopy Radius: 39 feet

Root-Zone: Lawn

Trunk: Excellent

Limbs: Good, some bark inclusion at main branch union.

Foliage: Good, typical for species.

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Good

General Comments:

May want to consider a "Cobra" support system in canopy along with tip-weight reduction pruning if area underneath canopy will be frequently used.

Tree #: 779

Species: *Platanus acerifolia* (Plane Tree)

Trunk Diameter: 41.1 inches

Canopy Radius: 29 feet

Root-Zone: Lawn and Landscaping

Trunk: Poor. Large cavity from ground to about 8 feet up trunk

Limbs: Good

Foliage: Good

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Poor. Due to trunk cavity.

General Comments:

Tree should be removed and replaced.

Tree #: 780

Species: *Platanus acerifolia* (Plane Tree)

Trunk Diameter: 36.4 inches

Canopy Radius: 25 feet

Root-Zone: Landscaping

Trunk: Poor. Large cavity.

Limbs: Average. Decay in south lateral

Foliage: Good.

Canopy/Crown: Well balanced, but has major decay in lower south lateral.

3737 American Way, Hayward, CA 94545
1741 Leslie Street San Mateo, CA 94402
3207 Fitzgerald Road, Rancho Cordova, CA 95742

Phone: 1.888.969.8733
Fax: 510.881.5268
Web: www.arborwell.com



Overall Health/Vigor: Poor. Due to trunk cavity.

General Comments:

Tree should be removed and replaced.

Tree #: 781

Species: *Platanus acerifolia* (Plane Tree)

Trunk Diameter: 40 inches

Canopy Radius: 32 feet

Root-Zone: Landscaping

Trunk: Good

Limbs: Good

Foliage: Good

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Good

General Comments:

Tree could use some tip-weight reduction pruning, but is in good health with good structure.

Tree #: 782

Species: *Lagerstroemia indica* (Crape Myrtle)

Trunk Diameter: 4.7 inches

Canopy Radius: 7 feet

Root-Zone: Lawn

Trunk: Excellent

Limbs: Good

Foliage: Excellent

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Excellent

General Comments:

Healthy and typical for species.

Tree #: 783

Species: *Lagerstroemia indica* (Crape Myrtle)

Trunk Diameter: 4.3 inches

Canopy Radius: 8 feet

Root-Zone: Lawn

Trunk: Good

Limbs: Good

Foliage: Excellent

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Good

General Comments:

Healthy and typical for species.

Tree #: 784

Species: *Quercus lobata* (Valley Oak)

Trunk Diameter: 3.8 inches

Canopy Radius: 10 feet

Root-Zone: Landscaping

Trunk: Average. Leaning to south.

Limbs: Average

Foliage: Good, typical for species.

Canopy/Crown: Out of balance to the south. Tree has a dominant lean in that direction away from surrounding larger trees.

Overall Health/Vigor: Average

3737 American Way, Hayward, CA 94545
1741 Leslie Street San Mateo, CA 94402
3207 Fitzgerald Road, Rancho Cordova, CA 95742

Phone: 1.888.969.8733
Fax: 510.881.5208
Web: www.arborwell.com

General Comments:

Tree very healthy, but has poor structure.

Tree #: 785

Species: *Quercus lobata* (Valley Oak)

Trunk Diameter: 4.5 inches

Canopy Radius: 9 feet

Root-Zone: Landscaping

Trunk: Good

Limbs: Good

Foliage: Good

Canopy/Crown: Slightly out of balance to south, but overall structure good

Overall Health/Vigor: Good

General Comments:

Tree very healthy, slightly out of balance.

Tree #: 786

Species: *Quercus lobata* (Valley Oak)

Trunk Diameter: 4.2 inches

Canopy Radius: 12 feet

Root-Zone: Landscaping

Trunk: Excellent

Limbs: Good

Foliage: Good

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Good

General Comments:

Healthy and typical for species.

Tree #: 787

Species: *Lagerstroemia indica* (Crape Myrtle)

Trunk Diameter: 5.8 inches

Canopy Radius: 10 feet

Root-Zone: Landscaping

Trunk: Excellent

Limbs: Excellent

Foliage: Excellent

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Excellent

General Comments:

Healthy and typical for species.

Tree #: 788

Species: *Lagerstroemia indica* (Crape Myrtle)

Trunk Diameter: 4.9 inches

Canopy Radius: 9 feet

Root-Zone: Landscaping

Trunk: Excellent

Limbs: Good

Foliage: Excellent

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Excellent

General Comments:

Healthy and typical for species.

Tree #: 789

Species: *Lagerstroemia indica* (Crape Myrtle)

Trunk Diameter: 5.2 inches

Canopy Radius: 9 feet

Root-Zone: Landscaping

Trunk: Excellent

Limbs: Excellent

Foliage: Excellent

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Excellent

General Comments:

Healthy and typical for species.

Tree #: 790

Species: *Lagerstroemia indica* (Crape Myrtle)

Trunk Diameter: 4.5 inches

Canopy Radius: 5 feet

Root-Zone: Landscaping

Trunk: Good

Limbs: Good

Foliage: Good

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Good

General Comments:

Healthy and typical for species.

Tree #: 791

Species: *Platanus acerifolia* (Plane Tree)

Trunk Diameter: 20.2 inches

Canopy Radius: 19 feet

Root-Zone: Lawn

Trunk: Excellent

Limbs: Good, some bark inclusion at main branch union.

Foliage: Good, typical for species.

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Good

General Comments:

Healthy and typical for species.

Tree #: 792

Species: *Platanus acerifolia* (Plane Tree)

Trunk Diameter: 18.5 inches

Canopy Radius: 19 feet

Root-Zone: Lawn

Trunk: Good

Limbs: Good

Foliage: Good

Canopy/Crown: Well balanced with overall structure good

Overall Health/Vigor: Good

General Comments:

Healthy and typical for species.

Tree #: 793



Species: *Platanus acerifolia* (Plane Tree)
Trunk Diameter: 19 inches
Canopy Radius: 19 feet
Root-Zone: Lawn
Trunk: Good
Limbs: Good
Foliage: Good
Canopy/Crown: Well balanced with overall structure good
Overall Health/Vigor: Good
General Comments:
Healthy and typical for species.

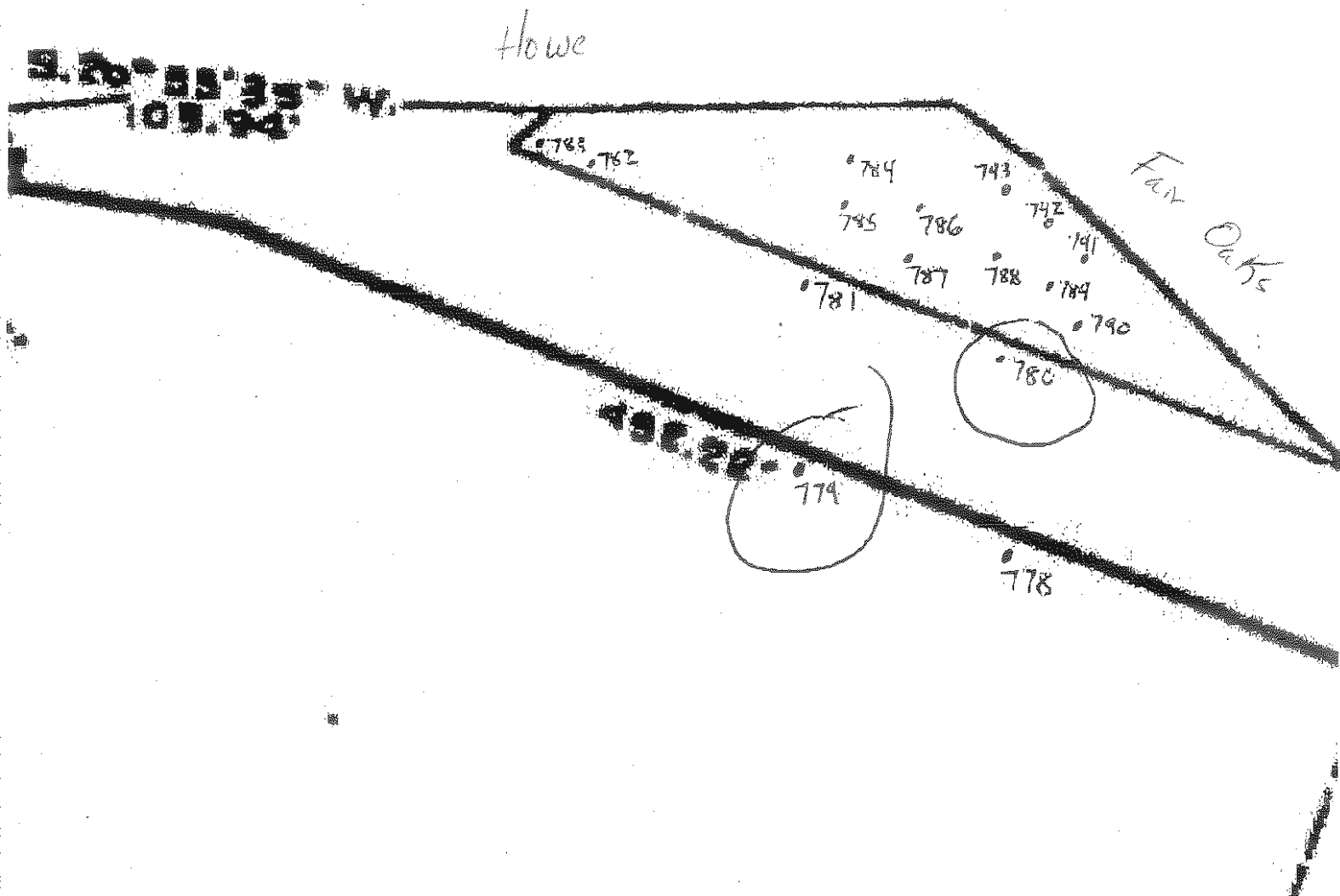
Limiting Conditions

Analysis of these trees was visual in nature only. There was no root-crown excavation conducted which would be the only way to assess the condition of the root system accurately.

If there are further questions in regards to these trees please feel free to contact me.

Best Regards,

Greg Rogers
ISA Certified Arborist, #WE-3127



ATTACHMENT 3

Native American Consultation



AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

October 24, 2012

Debbie Pilas-Treadway
Native American Heritage Commission
915 Capitol Mall
Room 364
Sacramento, CA 95814

RE: CVS Pharmacy Development

Dear Ms. Pilas-Treadway:

AECOM is conducting cultural resources studies on behalf of the City of Sacramento, located on the East Sacramento U.S.G.S. 7.5-minute Topographical Quadrangle map, T8 North, R5 East, Section 64. A copy of this map is provided in the attachment.

We would appreciate any information you can provide regarding prehistoric, historic, or ethnographic Native American land-use. We are also requesting a search of the Sacred Lands files for the project area and its vicinity. We are also interested in obtaining a list of Native American representatives and organizations that might have an interest in the proposed project or the archaeological investigations being proposed.

Please send via mail or facsimile a listing of local Native American groups or representatives, and the results of the Sacred Lands file search at your earliest convenience, so that we may contact appropriate individuals and account for their potential concerns in the planning process.

If you have any questions or comments feel free to contact me at my office. I can be reached by email at anna.starkey@aecom.com, or by phone at 916-414-1607. I look forward to hearing from you soon.

Sincerely,

A handwritten signature in blue ink that reads "aStarkey". The signature is written in a cursive, flowing style.

Anna Starkey
Archaeologist

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390



November 6, 2012

Anna Starkey
Aecom
2020 L. St. # 400
Sacramento, CA 95811

Sent by Fax: 916-414-5850
Number of Pages: 2

Re: CVS Pharmacy, City of Sacramento, Sacramento County

Dear Ms. Starkey:

A record search of the sacred land 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 others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. 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 of 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) 653-4038.

Sincerely,

A handwritten signature in black ink, appearing to read "Debbie Pilas-Treadway".

Debbie Pilas-Treadway
Environmental Specialist III

**Native American Contacts
Sacramento County
November 5, 2012**

Rose Enos
15310 Bancroft Road Maidu
Auburn , CA 95603 Washoe
(530) 878-2378

Shingle Springs Band of Miwok Indians
Daniel Fonseca
P.O. Box 1340 Miwok
Shingle Springs , CA 95682 Maidu
(530) 676-8010
(530) 676-8033 Fax

April Wallace Moore
19630 Placer Hills Road Nisenan - So Maidu
Colfax , CA 95713 Konkow
530-637-4279 Washoe

T si-Akim Maidu
Eileen Moon, Vice Chairperson
1239 East Main St. Maidu
Grass Valley , CA 95945
(530) 477-0711

Colfax-Todds Valley Consolidated Tribe
Judith Marks
1068 Silverton Circle Miwok
Lincoln , Cali 95648 Maidu
916-670-5714
916-434-7876 - home

T'Si-akim Maidu
P.O. Box 1316 Maidu
Colfax , CA 95713
akimmaidu@att.net
(530) 383-7234

Shingle Springs Band of Miwok Indians
Sam Daniels, Vice Chairperson
P.O. Box 1340 Miwok
Shingle Springs , CA 95682 Maidu
(530) 676-8010
(530) 676-8033 Fax

United Auburn Indian Community of the Auburn Rancheria
David Keyser, Chairperson
10720 Indian Hill Road Maidu
Auburn , CA 95603 Miwok
530-883-2390
530-883-2380 - Fax

Shingle Springs Band of Miwok Indians
Nicholas Fonseca, Chairperson
P.O. Box 1340 Miwok
Shingle Springs , CA 95682 Maidu
nfonseca@ssband.org
(530) 676-8010
(530) 676-8033 Fax

United Auburn Indian Community of the Auburn Rancheria
Marcos Guerrero, Tribal Preservation Committee
10720 Indian Hill Road Maidu
Auburn , CA 95603 Miwok
mguerrero@auburnrancheria.com
530-883-2364
530-883-2320 - 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 regard to cultural resources for the proposed CVS Pharmacy Development, Sacramento County



AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

November 30, 2012

Rose Enos
15310 Bancroft Road
Auburn, CA
95603

Subject: CVS/pharmacy development (proposed project)

Dear Ms. Bancroft,

AECOM is conducting cultural resources studies on behalf of the City of Sacramento, located on the East Sacramento U.S.G.S. 7.5-minute Topographical Quadrangle map, T8 North, R5 East, Section 64. A copy of this map is provided in the attachment.

The proposed CVS/pharmacy development would be located at the northwest corner of Fair Oaks Boulevard and Howe Avenue (1 Cadillac Drive, Assessor Parcel Number [APN] 295-0020-004) in the City of Sacramento. The project site is approximately 6.47 acres. The project site was formerly occupied by a Hubacher Cadillac Dealership. The site is currently vacant. The project site would be divided into two separate parcels to accommodate the proposed project development. The proposed project involves the construction and operation of buildings that will house a retail pharmacy and other commercial uses on the project site.

AECOM has researched the archaeological literature and records and conducted an archaeological survey for the proposed project. Results of the records search at the North Central Information Center and the archaeological survey failed to identify archaeological resources within the project site. A search of the Sacred Land files by the Native American Heritage Commission (NACH) in October 2012 also failed to indicate the presence of Native American sacred sites in the immediate Project vicinity.

If you know of any traditional cultural properties or values (e.g., burial sites, religious sites, or gathering sites) within the project area shown on the enclosed map, or if you have any concerns regarding Native American issues related to the overall project, please contact me at (916) 414-1607 or by mail, expressing your concerns at your earliest convenience; you may also contact me at anna.starkey@aecom.com

Your project comments and concerns are important to us. I look forward to hearing from you in the near future.

Sincerely,

Anna Starkey
Archaeologist



AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

November 30, 2012

Shingle Springs Band of Miwok Indians
Daniel Fonseca
P.O. Box 1340
Shingle Springs, CA
95682

Subject: CVS/pharmacy development (proposed project)

Dear Mr. Fonseca,

AECOM is conducting cultural resources studies on behalf of the City of Sacramento, located on the East Sacramento U.S.G.S. 7.5-minute Topographical Quadrangle map, T8 North, R5 East, Section 64. A copy of this map is provided in the attachment.

The proposed CVS/pharmacy development would be located at the northwest corner of Fair Oaks Boulevard and Howe Avenue (1 Cadillac Drive, Assessor Parcel Number [APN] 295-0020-004) in the City of Sacramento. The project site is approximately 6.47 acres. The project site was formerly occupied by a Hubacher Cadillac Dealership. The site is currently vacant. The project site would be divided into two separate parcels to accommodate the proposed project development. The proposed project involves the construction and operation of buildings that will house a retail pharmacy and other commercial uses on the project site.

AECOM has researched the archaeological literature and records and conducted an archaeological survey for the proposed project. Results of the records search at the North Central Information Center and the archaeological survey failed to identify archaeological resources within the project site. A search of the Sacred Land files by the Native American Heritage Commission (NACH) in October 2012 also failed to indicate the presence of Native American sacred sites in the immediate Project vicinity.

If you know of any traditional cultural properties or values (e.g., burial sites, religious sites, or gathering sites) within the project area shown on the enclosed map, or if you have any concerns regarding Native American issues related to the overall project, please contact me at (916) 414-1607 or by mail, expressing your concerns at your earliest convenience; you may also contact me at anna.starkey@aecom.com

Your project comments and concerns are important to us. I look forward to hearing from you in the near future.

Sincerely,

Anna Starkey
Archaeologist



AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

April Wallace Moore
19630 Placer Hills Road
Colfax, CA
95713

Subject: CVS/pharmacy development (proposed project)

Dear Ms. Moore,

AECOM is conducting cultural resources studies on behalf of the City of Sacramento, located on the East Sacramento U.S.G.S. 7.5-minute Topographical Quadrangle map, T8 North, R5 East, Section 64. A copy of this map is provided in the attachment.

The proposed CVS/pharmacy development would be located at the northwest corner of Fair Oaks Boulevard and Howe Avenue (1 Cadillac Drive, Assessor Parcel Number [APN] 295-0020-004) in the City of Sacramento. The project site is approximately 6.47 acres. The project site was formerly occupied by a Hubacher Cadillac Dealership. The site is currently vacant. The project site would be divided into two separate parcels to accommodate the proposed project development. The proposed project involves the construction and operation of buildings that will house a retail pharmacy and other commercial uses on the project site.

AECOM has researched the archaeological literature and records and conducted an archaeological survey for the proposed project. Results of the records search at the North Central Information Center and the archaeological survey failed to identify archaeological resources within the project site. A search of the Sacred Land files by the Native American Heritage Commission (NACH) in October 2012 also failed to indicate the presence of Native American sacred sites in the immediate Project vicinity.

If you know of any traditional cultural properties or values (e.g., burial sites, religious sites, or gathering sites) within the project area shown on the enclosed map, or if you have any concerns regarding Native American issues related to the overall project, please contact me at (916) 414-1607 or by mail, expressing your concerns at your earliest convenience; you may also contact me at anna.starkey@aecom.com

Your project comments and concerns are important to us. I look forward to hearing from you in the near future.

Sincerely,

Anna Starkey
Archaeologist



AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

T si-Akim Maidu
Eileen Moon, Vice President
1239 East Main St.
Grass Valley, CA
95945

Subject: CVS/pharmacy development (proposed project)

Dear Ms. Moon,

AECOM is conducting cultural resources studies on behalf of the City of Sacramento, located on the East Sacramento U.S.G.S. 7.5-minute Topographical Quadrangle map, T8 North, R5 East, Section 64. A copy of this map is provided in the attachment.

The proposed CVS/pharmacy development would be located at the northwest corner of Fair Oaks Boulevard and Howe Avenue (1 Cadillac Drive, Assessor Parcel Number [APN] 295-0020-004) in the City of Sacramento. The project site is approximately 6.47 acres. The project site was formerly occupied by a Hubacher Cadillac Dealership. The site is currently vacant. The project site would be divided into two separate parcels to accommodate the proposed project development. The proposed project involves the construction and operation of buildings that will house a retail pharmacy and other commercial uses on the project site.

AECOM has researched the archaeological literature and records and conducted an archaeological survey for the proposed project. Results of the records search at the North Central Information Center and the archaeological survey failed to identify archaeological resources within the project site. A search of the Sacred Land files by the Native American Heritage Commission (NACH) in October 2012 also failed to indicate the presence of Native American sacred sites in the immediate Project vicinity.

If you know of any traditional cultural properties or values (e.g., burial sites, religious sites, or gathering sites) within the project area shown on the enclosed map, or if you have any concerns regarding Native American issues related to the overall project, please contact me at (916) 414-1607 or by mail, expressing your concerns at your earliest convenience; you may also contact me at anna.starkey@aecom.com

Your project comments and concerns are important to us. I look forward to hearing from you in the near future.

Sincerely,

Anna Starkey
Archaeologist



AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

T si-Akim Maidu
P.O. Box 1316
Colfax, CA
95713

Subject: CVS/pharmacy development (proposed project)

To whom it may concern,

AECOM is conducting cultural resources studies on behalf of the City of Sacramento, located on the East Sacramento U.S.G.S. 7.5-minute Topographical Quadrangle map, T8 North, R5 East, Section 64. A copy of this map is provided in the attachment.

The proposed CVS/pharmacy development would be located at the northwest corner of Fair Oaks Boulevard and Howe Avenue (1 Cadillac Drive, Assessor Parcel Number [APN] 295-0020-004) in the City of Sacramento. The project site is approximately 6.47 acres. The project site was formerly occupied by a Hubacher Cadillac Dealership. The site is currently vacant. The project site would be divided into two separate parcels to accommodate the proposed project development. The proposed project involves the construction and operation of buildings that will house a retail pharmacy and other commercial uses on the project site.

AECOM has researched the archaeological literature and records and conducted an archaeological survey for the proposed project. Results of the records search at the North Central Information Center and the archaeological survey failed to identify archaeological resources within the project site. A search of the Sacred Land files by the Native American Heritage Commission (NACH) in October 2012 also failed to indicate the presence of Native American sacred sites in the immediate Project vicinity.

If you know of any traditional cultural properties or values (e.g., burial sites, religious sites, or gathering sites) within the project area shown on the enclosed map, or if you have any concerns regarding Native American issues related to the overall project, please contact me at (916) 414-1607 or by mail, expressing your concerns at your earliest convenience; you may also contact me at anna.starkey@aecom.com

Your project comments and concerns are important to us. I look forward to hearing from you in the near future.

Sincerely,

Anna Starkey
Archaeologist



AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

Colfax-Todds Valley Consolidated Tribe
Judith Marks
1068 Silverton Circle
Lincoln, CA
95648

Subject: CVS/pharmacy development (proposed project)

Dear Ms. Marks,

AECOM is conducting cultural resources studies on behalf of the City of Sacramento, located on the East Sacramento U.S.G.S. 7.5-minute Topographical Quadrangle map, T8 North, R5 East, Section 64. A copy of this map is provided in the attachment.

The proposed CVS/pharmacy development would be located at the northwest corner of Fair Oaks Boulevard and Howe Avenue (1 Cadillac Drive, Assessor Parcel Number [APN] 295-0020-004) in the City of Sacramento. The project site is approximately 6.47 acres. The project site was formerly occupied by a Hubacher Cadillac Dealership. The site is currently vacant. The project site would be divided into two separate parcels to accommodate the proposed project development. The proposed project involves the construction and operation of buildings that will house a retail pharmacy and other commercial uses on the project site.

AECOM has researched the archaeological literature and records and conducted an archaeological survey for the proposed project. Results of the records search at the North Central Information Center and the archaeological survey failed to identify archaeological resources within the project site. A search of the Sacred Land files by the Native American Heritage Commission (NACH) in October 2012 also failed to indicate the presence of Native American sacred sites in the immediate Project vicinity.

If you know of any traditional cultural properties or values (e.g., burial sites, religious sites, or gathering sites) within the project area shown on the enclosed map, or if you have any concerns regarding Native American issues related to the overall project, please contact me at (916) 414-1607 or by mail, expressing your concerns at your earliest convenience; you may also contact me at anna.starkey@aecom.com

Your project comments and concerns are important to us. I look forward to hearing from you in the near future.

Sincerely,

Anna Starkey
Archaeologist



AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

United Auburn Indian Community of the Auburn Rancheria
Marcos Guerrero, Tribal Preservation Committee
10720 Indian Hill Road
Auburn, CA
95603

Subject: CVS/pharmacy development (proposed project)

Dear Mr. Guerrero,

AECOM is conducting cultural resources studies on behalf of the City of Sacramento, located on the East Sacramento U.S.G.S. 7.5-minute Topographical Quadrangle map, T8 North, R5 East, Section 64. A copy of this map is provided in the attachment.

The proposed CVS/pharmacy development would be located at the northwest corner of Fair Oaks Boulevard and Howe Avenue (1 Cadillac Drive, Assessor Parcel Number [APN] 295-0020-004) in the City of Sacramento. The project site is approximately 6.47 acres. The project site was formerly occupied by a Hubacher Cadillac Dealership. The site is currently vacant. The project site would be divided into two separate parcels to accommodate the proposed project development. The proposed project involves the construction and operation of buildings that will house a retail pharmacy and other commercial uses on the project site.

AECOM has researched the archaeological literature and records and conducted an archaeological survey for the proposed project. Results of the records search at the North Central Information Center and the archaeological survey failed to identify archaeological resources within the project site. A search of the Sacred Land files by the Native American Heritage Commission (NACH) in October 2012 also failed to indicate the presence of Native American sacred sites in the immediate Project vicinity.

If you know of any traditional cultural properties or values (e.g., burial sites, religious sites, or gathering sites) within the project area shown on the enclosed map, or if you have any concerns regarding Native American issues related to the overall project, please contact me at (916) 414-1607 or by mail, expressing your concerns at your earliest convenience; you may also contact me at anna.starkey@aecom.com

Your project comments and concerns are important to us. I look forward to hearing from you in the near future.

Sincerely,

Anna Starkey
Archaeologist



SHINGLE SPRINGS RANCHERIA
P.O. BOX 1340; SHINGLE SPRINGS, CA 95682
(530) 676-8010; FAX (530) 676-3582

December 11, 2012

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

RE: CVS/Pharmacy Development (Proposed Project)

Dear Anna Starkey

Thank you for your letter dated for November 30, 2012 seeking information regarding the proposed CVS Pharmacy Development Project that is located in Sacramento County. Based on the information provided, the Shingle Springs Band of Miwok Indians not aware of any known cultural resources on this site. However, SSR would like to have continued consultation through updates, as the project progresses this will foster a greater communication between the Tribe and your agency.

SSR would also like to request any and all completed record searches and or surveys that were done in or around the project area up to and including environmental, archaeological and cultural reports.

If during the progress of the project new information or human remains are found we would like to be able to go over our process with you that we currently have in place to protect such important and sacred artifacts (especially near rivers and streams).

Please contact the following individuals if such finds are made:

Andrew Godsey, Assistant Cultural Resource Director / NAI
Office: (530) 698-1403 agodsey@ssband.org

And copy all communications to:

Angela Rivera, Administrative Assistant anrivera@ssband.org Office: (530) 698-1557

Thank you for providing us with this notice and opportunity to comment.

Sincerely,

Daniel Fonseca
Cultural Resource Director
Tribal Historic Preservation Officer (THPO)
Most Likely Descendent (MLD)

From: [Marcos Guerrero](#)
To: [Starkey, Anna](#)
Subject: CVS/Pharmacy Development
Date: Thursday, December 13, 2012 11:47:29 AM

Hello Anna,

Thank you for the letter regarding the CVS/Pharmacy Development. Has the arch survey been completed? Will there be any testing done?

The tribe has a concern about this project due to its close proximity to Kadema and Sekumni.

Marcos Guerrero, RPA
Cultural Resources Manager
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA 95603
Office: (530) 883-2364
Cell: (916) 300-8792
Fax: (530) 885-5476

Nothing in this e-mail is intended to constitute an electronic signature for purposes of the Electronic Signatures in Global and National Commerce Act (E-Sign Act), 15, U.S.C. §§ 7001 to 7006 or the Uniform Electronic Transactions Act of any state or the federal government unless a specific statement to the contrary is included in this e-mail.

Project Name: CVS/pharmacy Fair Oaks and Howe

Project Number: 60270722

Telephone Contact Report

CONFIDENTIAL

Call Participants: Marcos Guerrero

Title: Cultural Resources Manager

Initiated by: Anna Starkey, AECOM

Organization: United Auburn Indian
Community of the Auburn
Rancheria

Phone Number: (530) 883-2364

Location:

Subject: CVS/Pharmacy Development

Date/Time: 1-3-2013

Discussion Item(s): Marcos and I discussed his concerns from an email sent on 12-13-12 regarding the project's close proximity to Kadema and Sekumni. Those are known village sites located along the American River within a few miles of the project. His concerns are that the original buildings and pavement were built prior to the laws that are now in place to protect cultural resources and that there is a high potential that there may be a site underneath the built environment. He has requested that a monitor is on site during ground disturbing activities.

Action Item(s): Relay request to the City of Sacramento (CEQA lead agency) and project applicant. Incorporate record of correspondence into the Initial Study.

Distribution

ATTACHMENT 4

Traffic Data

PROJECT TRIP GENERATION

Land Use	Quantity	ITE Land Use Code	Trip Rate ¹			Trips						
			Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour			PM Peak Hour		
							In	Out	Tot	In	Out	Tot
Supermarket	50.88 ksf	850	102.24	3.59	11.22	5,202	112	71	183	291	280	571
Pharmacy w/ drive-thru	16.5 ksf	881	88.16	2.66	10.35	1,455	25	19	44	85	86	171
Gross Trips						6,657	137	90	227	376	366	742
Pass-by Trips						-1,198	-25	-16	-41	-135	-132	-267
New Trips						5,459	112	74	186	241	234	475

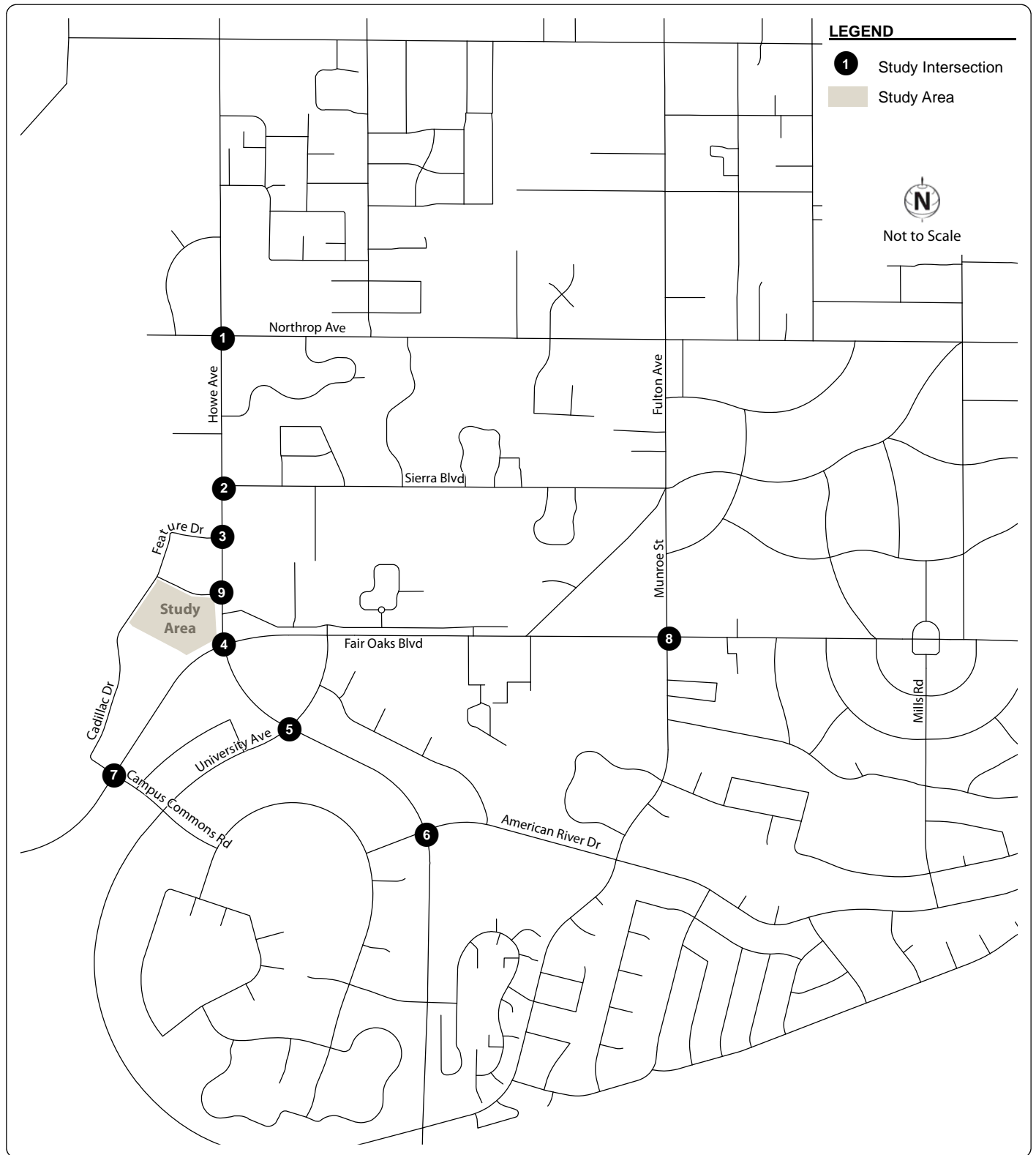
Notes:

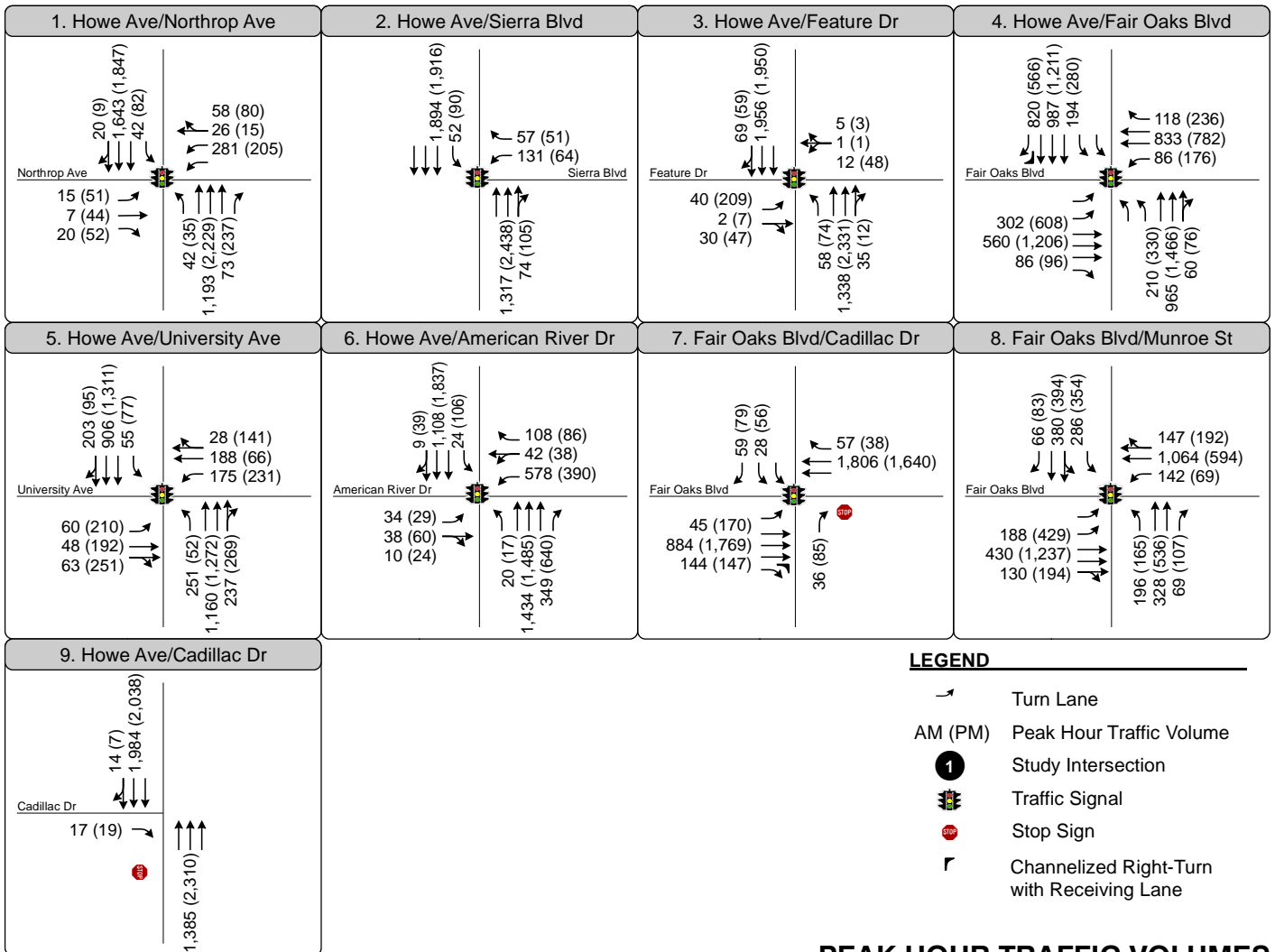
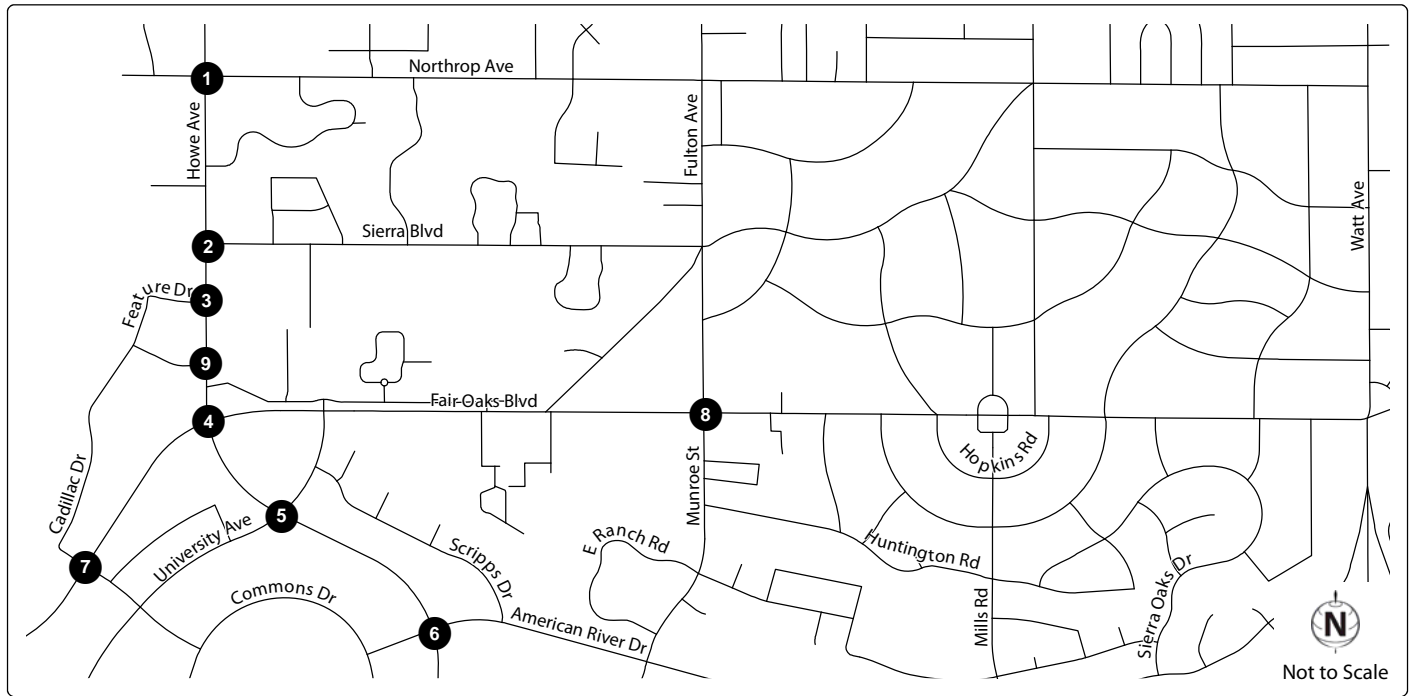
¹ Trip rates from *Trip Generation* (ITE, 2008). Fitted curve equation used to estimate PM peak hour trips for Supermarket. All other trip estimates based on average trip rates (due to lack of fitted curve equations or poor R-squared values).

² Pass-by of 36% for Supermarket and Pharmacy during PM peak hour based on *Trip Generation Handbook, 4th Edition* (ITE, 2004). Pass-by for AM and daily conditions conservatively assumed to be 18%.

ksf = thousand square feet.

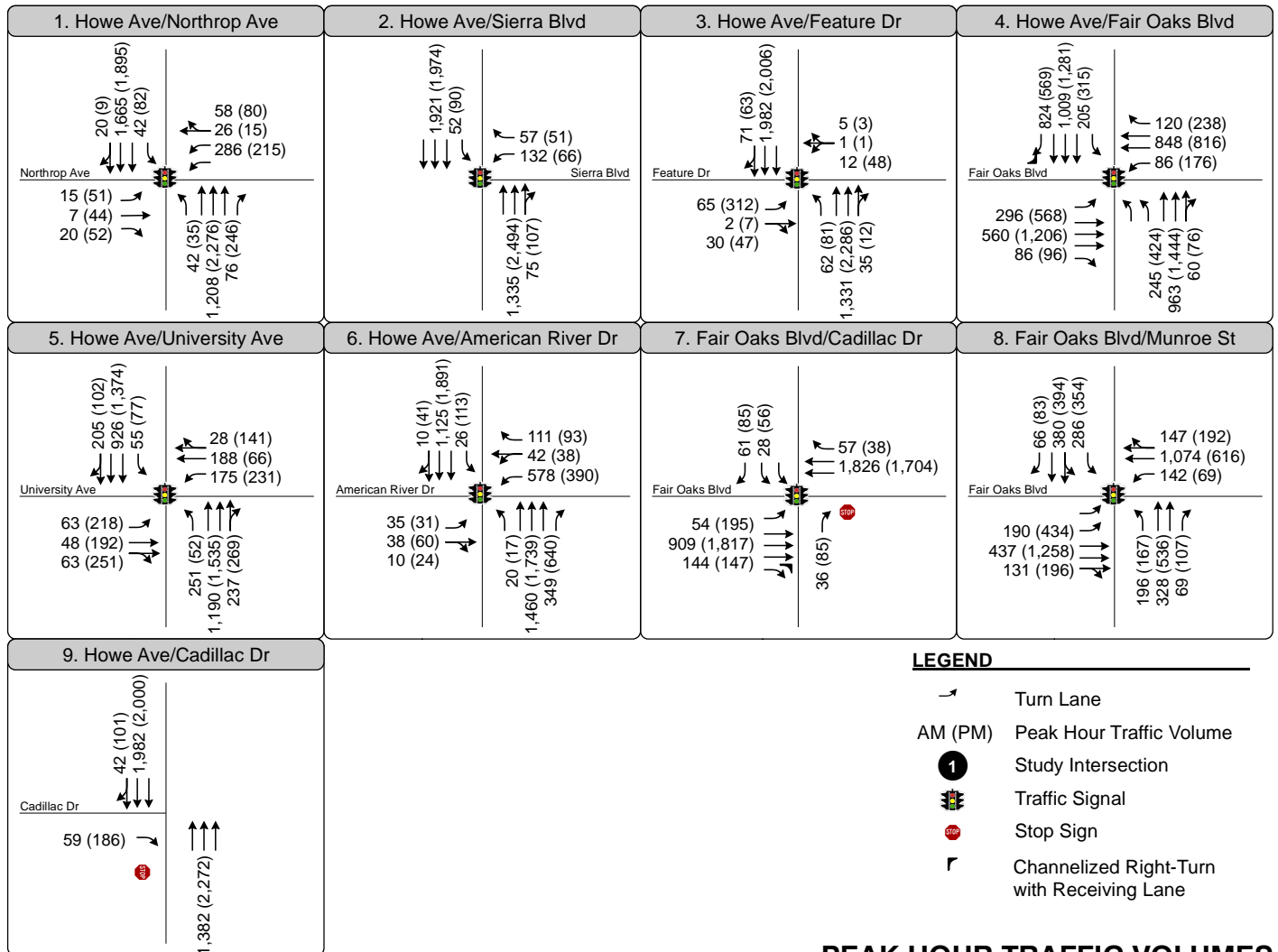
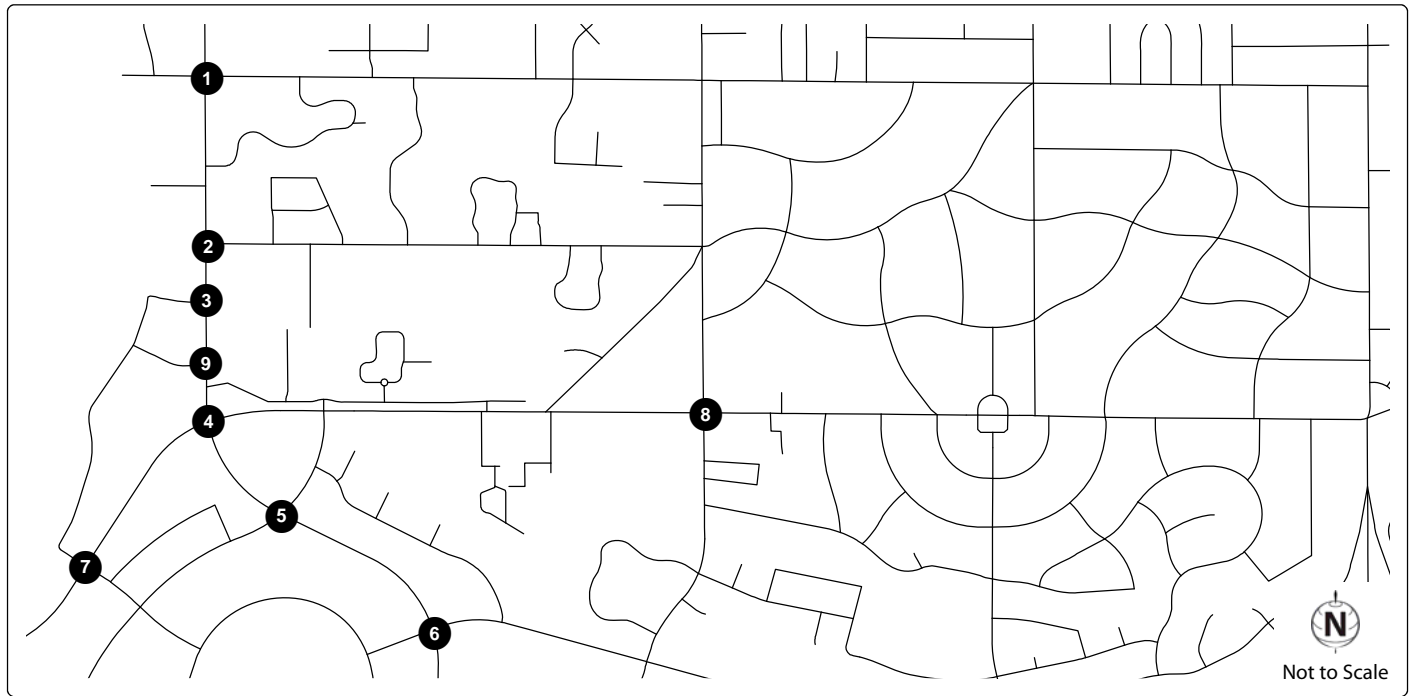
Source: Fehr & Peers Associates, 2012





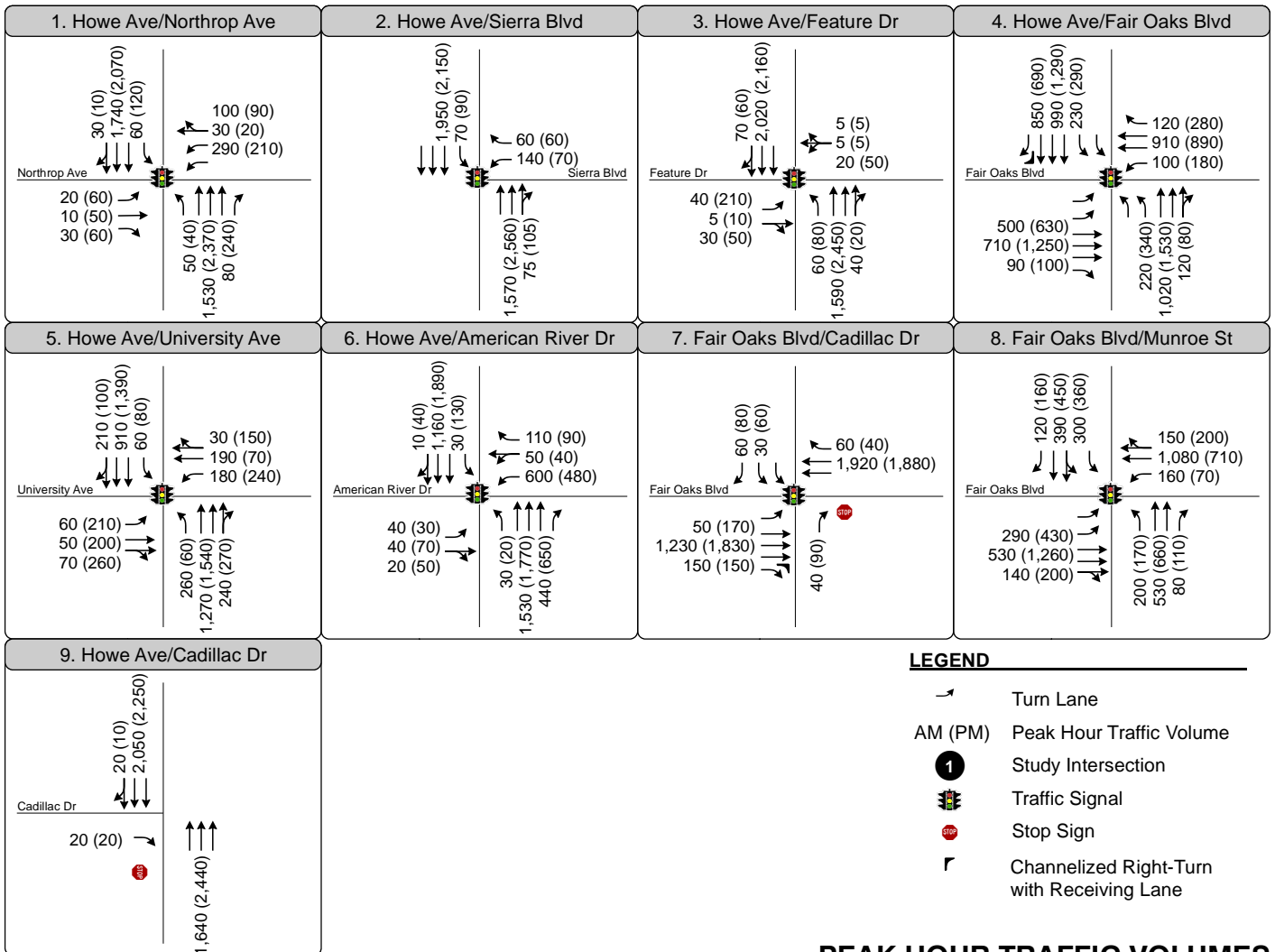
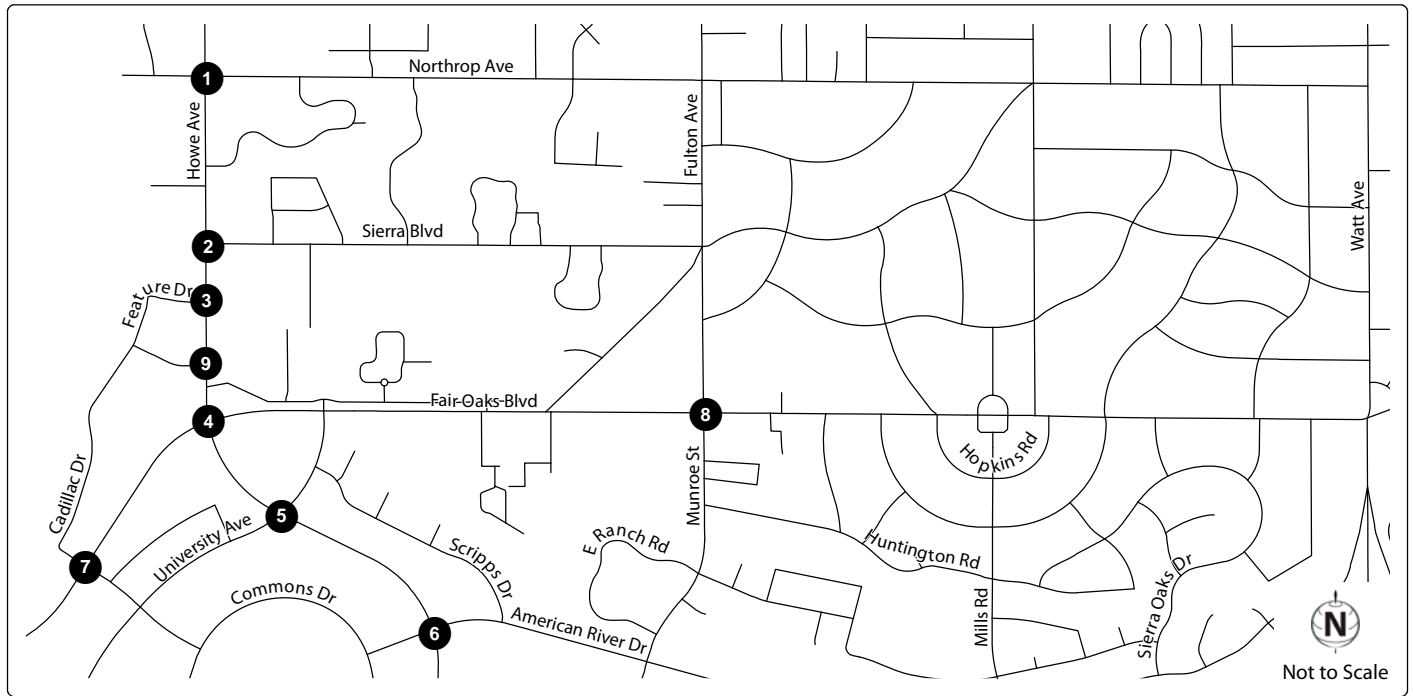
**PEAK HOUR TRAFFIC VOLUMES
AND LANE CONFIGURATIONS -
EXISTING CONDITIONS**

FIGURE 5.9-2



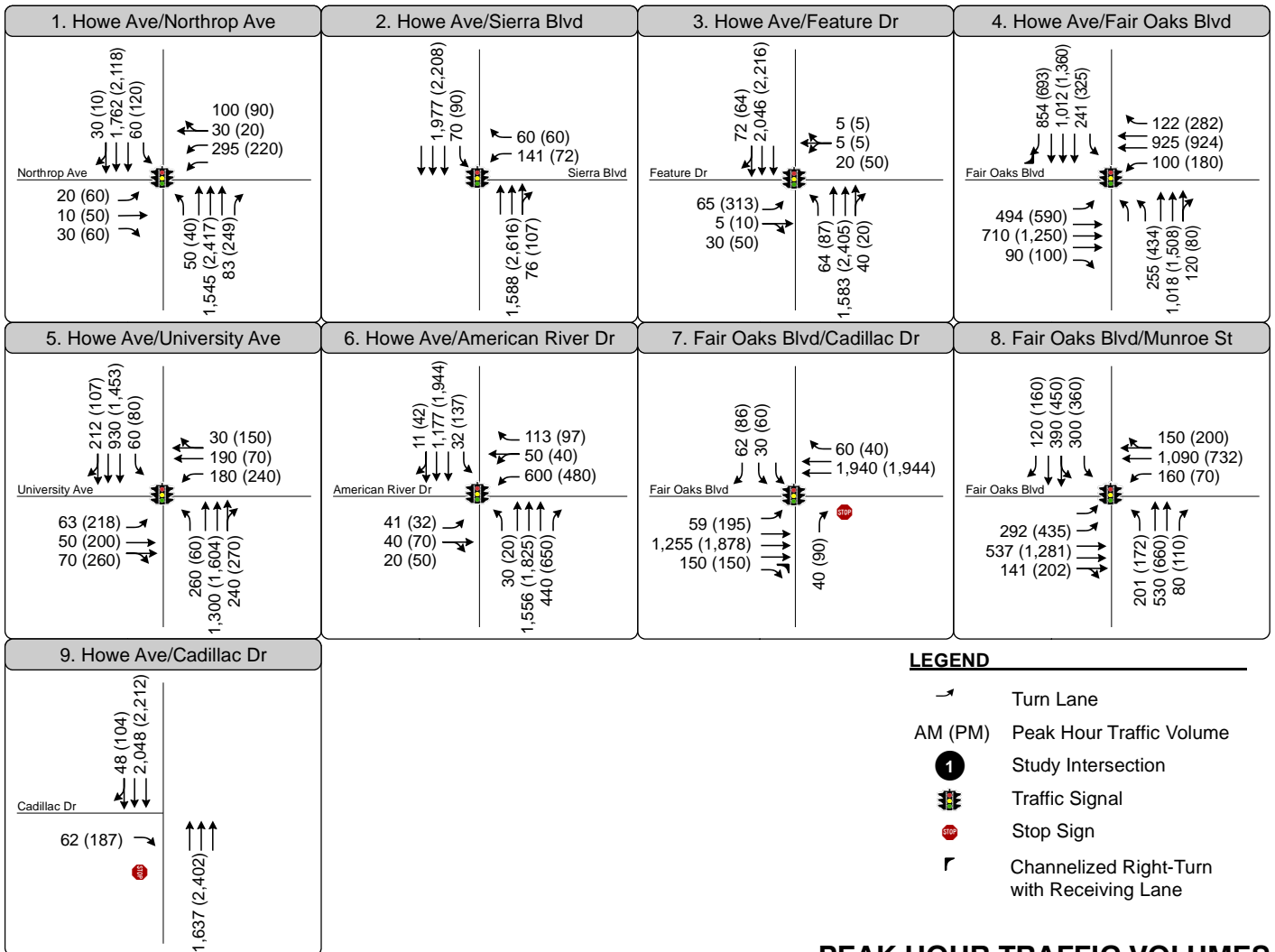
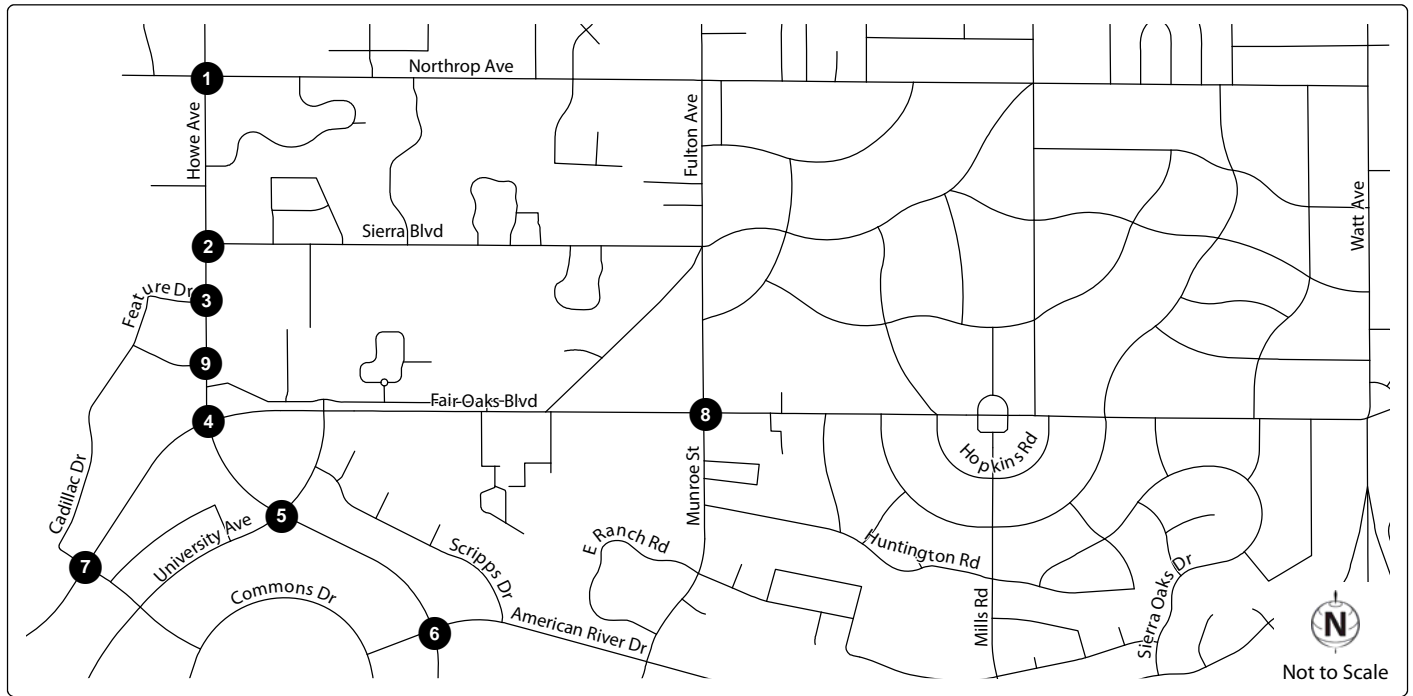
**PEAK HOUR TRAFFIC VOLUMES
AND LANE CONFIGURATIONS -
EXISTING PLUS PROJECT CONDITIONS**

FIGURE 5.9-6



**PEAK HOUR TRAFFIC VOLUMES
AND LANE CONFIGURATIONS -
CUMULATIVE NO PROJECT CONDITIONS**

FIGURE 5.9-7



**PEAK HOUR TRAFFIC VOLUMES
AND LANE CONFIGURATIONS -
CUMULATIVE PLUS PROJECT CONDITIONS**

FIGURE 5.9-8

APPENDIX B

Comments Received on NOP/IS

Dana Allen, Associate Planner
Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811
Telephone: (916) 808-2762
Email: dallen@cityofsacramento.org

RE: CVS/pharmacy Development

Dear Ms. Allen:

Thank you for the opportunity to review the CVS/pharmacy Development.

The analysis and significance determinations for short-term (construction) and long-term (operational) Air Quality impact in the initial study appear consistent with the SMAQMD CEQA Guide to Air Quality Assessment. Should the project undergo major changes in size or design, please re-evaluate these determinations.

The District notes that the proposed project may alter traffic flow and increase congestion at the intersection of Howe Avenue and Fair Oaks Boulevard and connecting roadway segments. Please include analysis and discussion of impacts to Air Quality associated with the potential increase in congestion.

The District notes that the proposed project includes a new driveway from Fair Oaks Boulevard into the project site. Please take bicycle and pedestrian user safety into consideration when developing the final design for the driveway.

Construction projects are subject to all applicable SMAQMD rules that may be in effect at the time of construction. An attachment outlining some of those rules is provided for you information and convenience. For details regarding all SMAQMD rules please refer www.airquality.org or call Compliance Assistance at (916) 874-4884.

Please contact me if there are any questions regarding these comments.

Regards,


JJ Hurley
Associate Air Quality Analyst

Attachment

c: Larry Robinson, Sacramento Metropolitan AQMD



SACRAMENTO AREA BICYCLE ADVOCATES

March 7, 2013

Dana Allen, Associate Planner
Community Development Department
City of Sacramento
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811-0218
dallen@cityofsacramento.org

Subject: Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the proposed CVS Pharmacy at Fair Oaks Boulevard and Howe Avenue

Dear Ms. Allen:

Thank you for the opportunity to comment on the subject NOP. The proposed project would be sited in an Urban district according to the City's General Plan. Bicycling and walking are common modes of travel in the surrounding neighborhoods, particularly because of the proximity of Sacramento State University and the American River Parkway bike path.

We note that the site plan in the project's initial study differs in some respects (e.g. location of entrances and exits between the project site and adjacent streets, locations of bike parking) from the site plan included with the NOP. We request that the EIR clarify these and other aspects of the site plan.

We request that the EIR address the following issues in its analysis of project impacts and benefits on transportation, circulation, and parking:

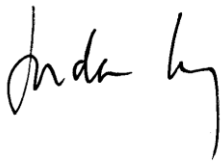
- Adequacy of bicycle parking facilities (i.e. quantities of short-term and long-term bike parking, bike parking designs, and locations of bike parking relative to building entrances) at the proposed pharmacy building and the proposed grocery building in compliance with the City's updated bicycle parking requirements (Ordinance No. 2012-043), and
- Adequacy of pedestrian and bicyclist safety features at the external intersections connecting the site to the surrounding streets.

We are particularly concerned about impacts on bicycle traffic along Fair Oaks Boulevard caused by the proposed right-in, right-out entrance to the project site. This entrance must be designed to protect bicyclists along Fair Oaks Boulevard from turning vehicles entering and exiting the project site.

SABA works to ensure that bicycling is safe, convenient, and desirable for everyday transportation. Bicycling is the healthiest, cleanest, cheapest, quietest, most energy efficient, and least congesting form of transportation.

Thank you for considering our comments and requests.

Sincerely,

A handwritten signature in black ink, appearing to read "Jordan Lang". The signature is written in a cursive, flowing style.

Jordan Lang
Project Analyst

CCs:

Ed Cox, Sacramento Alternatives Modes Coordinator (ecox@cityofsacramento.org)

Joseph Hurley, SMAQMD (jhurley@airquality.org)



3/8/2013

VIA EMAIL

Dana Allen, Associate Planner
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

**RE: Notice of Preparation of a Draft Environmental Impact Report for the
CVS/Pharmacy Development Project**

Dear Ms. Allen:

Thank you for the opportunity to comment on the CVS/Pharmacy Development Project (CVS) NOP. We hope the following comments will encourage the City of Sacramento to evaluate the potential impacts to public health that may be caused by the proposed development.

WALKSacramento asks that the environmental impact report for the CVS/Pharmacy Development Project consider the health and safety impacts to people resulting from the CVS site plan and its relationship to the surrounding land uses and street network. Public health is affected by our transportation system and the facilities and access provided to pedestrians. For the public and their elected representatives to make informed conclusions and decisions regarding new development, the full impacts to the health and safety of people must be evaluated. The analysis should include vehicle miles travelled, vehicle collisions, walking mode share, pedestrian hazards and safety. Alternatives and mitigations for impacts to health and safety should also be identified.

Transportation systems and land-use patterns that rely on the automobile for mobility and access have a harmful impact on health. With extensive use of cars for everyday travel, most people lead sedentary, physically inactive lives, and as a result, there have been dramatic changes in the health of Americans. More than two-thirds of American adults are overweight. Rates continue to increase for diseases associated with a sedentary lifestyle, such as diabetes, heart disease, cancer, and high blood pressure. People in communities where there are few or inconvenient options for walking and biking are at greater risk for obesity and chronic diseases. In Sacramento County, only 37% of adults achieve the Centers for Disease Control and Prevention recommended minimum for physical activity.

Because of high vehicle speeds, many roads are hazardous for pedestrians and bicyclists. The roads are so unsafe that people use vehicles for travel even when the distances are short. In fact, a national study found that 25% of all car trips are less than one mile. High levels of vehicle traffic lead to more collisions, causing injuries and

deaths. Despite many advances in vehicle and road safety design, automobile crashes are so common today that they are the leading cause of death of children aged 1-24.

The CVS is proposed for a location that has several large multi-family complexes and senior living complexes, a hotel, and commercial and retail uses within walking distances. A pedestrian-friendly site plan in conjunction with appropriate street crossings and pedestrian facilities could encourage more daily physical activity for residents and employees in the vicinity of the CVS. However, a site plan and street network that prioritizes high-speed travel by automobile will have negative impacts to health due to increased vehicle-pedestrian collisions and by discouraging walking.

The California Environmental Quality Act (CEQA) has made protection of the human environment and the health and safety of the people a priority. The California Public Resources Code and the Code of Regulations (CCR) each include language that considers impacts on the health and safety of people.

The intent of the California State Legislature to protect human health is stated in Public Resource Code §21000 (b) *"It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man."*

CCR 15126.2 Consideration and Discussion of Significant Environmental Effects, provides that short-term and long-term effects of the project are to be considered by environmental impact reports and *"the discussion should include . . . health and safety problems caused by the physical changes"*.

Public Resource Code §21083 states that the Office of Planning and Research shall develop guidelines for implementation, including criteria for determining if a project may have a significant effect on the environment. One of the conditions under which such a determination of significance would be made is if *"the environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly."*

At the local level, the Public Health and Human Services section of the 2030 Sacramento General Plan speaks to the importance of good health for people in the City of Sacramento. Goal PHS 5.1 is to *"Improve the provision of human services and promote public health and safety."* Policy PHS 5.1.7 Healthy Communities reads *"The City shall encourage the planning of new communities and revitalization of existing urban areas to achieve improvements in overall public health by encouraging walkable neighborhoods, access to recreation and open space, healthy foods, medical services, and public transit."* [emphasis added]

Thank you for your consideration of these comments and recommendations. If you have questions or need additional information, please contact us at (916) 446-9255 or either cholm@walksacramento.org or tduarte@walksacramento.org.

Sincerely,

Chris Holm
Project Analyst

Teri Duarte, MPH
Executive Director

APPENDIX C

Climate Action Plan Consistency Review Checklist

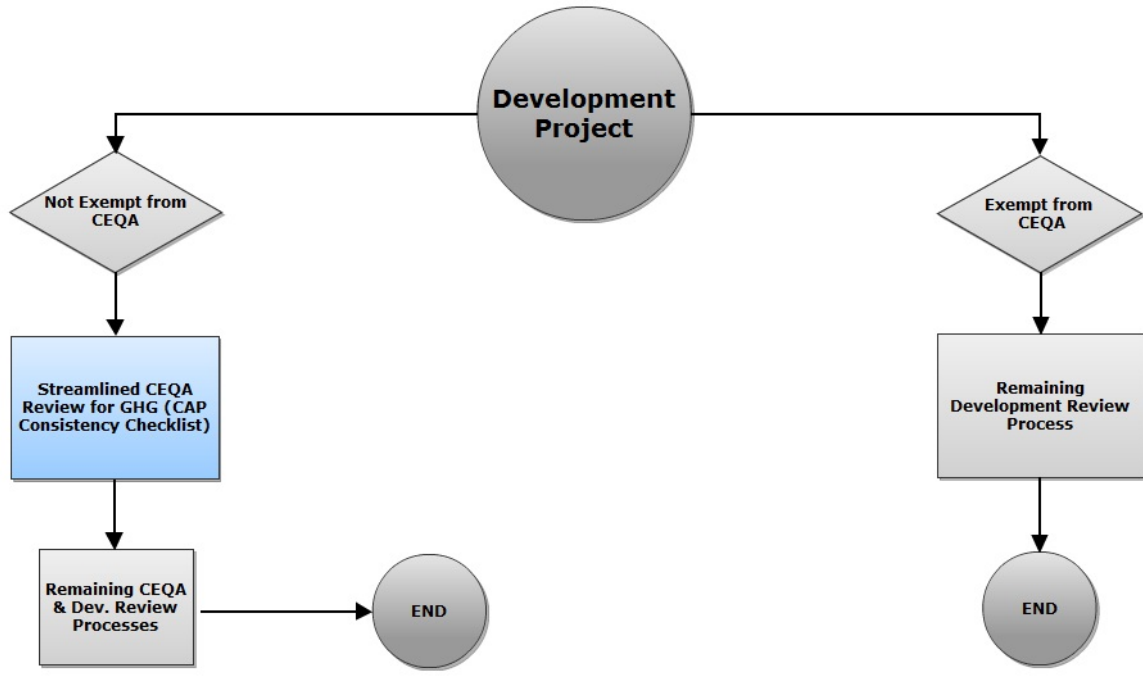
CLIMATE ACTION PLAN – CONSISTENCY REVIEW CHECKLIST

The purpose of the Climate Action Plan Consistency Review Checklist (CAP Consistency Review Checklist) is to provide a streamlined review process for proposed new development projects which are subject to environmental review pursuant to the California Environmental Quality Act (CEQA) for greenhouse gas emissions (GHGs).

CEQA Guidelines require the analysis of GHGs and potential climate change impacts from new development. The Sacramento Climate Action Plan qualifies under section 15183.5 of the CEQA Guidelines as a plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to development projects. This allows projects that demonstrate consistency with the CAP to be eligible for this streamlining procedure. Projects that demonstrate consistency with the CAP and the Sacramento 2030 General Plan may be able to answer “No additional significant environmental effect” in the City’s initial study checklist.

The diagram below shows the context for the CAP Consistency Review Checklist within the planning review process framework.

Streamlined Review of GHG Emissions in Development Projects





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CLIMATE ACTION PLAN – CONSISTENCY REVIEW CHECKLIST

Application Submittal Requirements

1. The CAP Consistency Review Checklist is required only for proposed new development projects which are subject to CEQA review.
2. If required, the CAP Consistency Review Checklist must be submitted in addition to the basic set of requirements set forth in the Universal Application and the Planning Application Submittal Matrix.
3. All items listed to show that proposed project meets the requirements of the Checklist should also be listed in project description and shown on the submitted plans.

Application Information

Name of Applicant: Armstrong Development Properties, Inc.

Address: 1375 Exposition Blvd., Suite 101, Sacramento, CA 95815

Phone: (916) 643-9610 E-mail: _____

Address of Property: 1 Cadillac Drive, Sacramento, CA 95825

APN of Property: 295-0020-004, 295-0010-001

Applicant is owner of subject property ☒ Yes ☐ No. If no, complete following and the attached letter of agency.

Name of Owner: _____

Address: _____

Phone: _____ E-Mail: _____



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CAP Consistency Checklist Form for Projects that are Not Exempt from CEQA

Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	No	NA*
1. Is the proposed project consistent with the land use and urban form designation, allowable floor area ratio (FAR) and/or density standards in the City's 2030 General Plan?	X		
<p>Please explain how proposed project meets this requirement, or how it does not. If "not applicable", explain why this requirement does not apply.</p> <p>Please refer to Item 1 on page 4-11 in the CVS/pharmacy Development Draft EIR (August 2014).</p>			
2. Would the project reduce average vehicle miles traveled (VMT) per capita of the proposed residents, employees, and/or visitors to the project by a minimum of 35% compared to the statewide average?	X		
<p>Please explain how proposed project meets this requirement. If "not applicable", explain why this was not required. If project does not meet this requirement, see Directions for filling out CAP Consistency Review Checklist for alternatives to meeting checklist requirements.</p> <p>Please refer to Item 2 on page 4-11 in the CVS/pharmacy Development Draft EIR (August 2014).</p> <p>(Attach a copy of the VMT model input and output. Record the model and version here _____)</p>			
3. Would the project incorporate traffic calming measures? <i>(Examples of traffic calming measures include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers.)</i>			X
<p>Please explain how the proposed project meets this requirement (list traffic calming measures). If project does not meet this requirement, explain why. If "not applicable", explain why traffic calming measures were not required.</p> <p>Please refer to Item 3 on page 4-12 in the CVS/pharmacy Development Draft EIR (August 2014).</p>			



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Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	No	NA*
4. Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan?	X		
<p>Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required. If project does not meet Pedestrian Master Plan Requirements, explain why.</p> <p>Please refer to Item 4 on page 4-12 in the CVS/pharmacy Development Draft EIR (August 2014).</p>			
5. Would the project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen?	X		X
<p>Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required. If project does not meet Bikeway Master Plan Requirements, explain why.</p> <p>Please refer to Item 5 on page 4-13 in the CVS/pharmacy Development Draft EIR (August 2014).</p>			
6. For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., photovoltaic systems) that would generate at least a minimum of 15% of the project's total energy demand on-site? (CAP Actions: 3.4.1 and 3.4.2)	X		
<p>Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required. If project does not meet requirements, see DIRECTIONS FOR FILLING OUT CAP CONSISTENCY REVIEW CHECKLIST re: alternatives to meeting checklist requirements.</p> <p>Please refer to Item 6 on page 4-13 in the CVS/pharmacy Development Draft EIR (August 2014).</p> <p>Attach a copy of the CalEEMod input and output. Record the model and version here _____.</p> <p>Do NOT select the "use historical" box in CalEEMod for energy demand analysis related to this requirement.</p>			

Note: All of the above Checklist items should also be listed in project description and shown on the submitted plans.





DIRECTIONS FOR FILLING OUT CAP CONSISTENCY REVIEW CHECKLIST

General Plan Consistency

1. Is the proposed project consistent with the land use and urban form designation, allowable floor area ratio (FAR) and/or density standards in the City's [2030 General Plan](#)?

Refer to the 2030 General Plan, Land Use and Urban Form Designations and Development Standards starting on page 2-29. If a project is not fully consistent with the General Plan, the project still may qualify for consistency with the CAP, but this determination will need to be closely coordinated with the City. The City will determine whether the proposed land uses under consideration could be found consistent with the growth projections and assumptions used to develop the GHG emissions inventory and projections in the CAP.

Sustainable Land Use

2. Would the project reduce average vehicle miles traveled (VMT) per capita of the proposed residents, employees, and/or visitors to the project by a minimum of 35% compared to the statewide average? (Applicable CAP Action: 1.1.1)

The statewide VMT/capita in 2009 was 8,937 VMT/capita/year, which is approximately 24.5 VMT/capita/day^{1,2}. A 35% reduction below the 2009 statewide average would be 5,809 VMT/capita/year, or about 15.9 VMT/capita/day.

Steps to Determine if Proposed Project is Consistent with CAP Action 1.1.1:

Step 1: Consult VMT/Capita Screening Map:

The map below can be used as a quick screening tool to determine whether or not a proposed project is likely to meet the 35% reduction standard based on its geographic location.

If the proposed project is located in the green area of the map, it can be assumed to have a VMT/capita/day below 16, and no further action related to VMT is necessary. If the proposed project is located within one of the red areas, or in a white area adjacent to any red parcel, it cannot be assumed to achieve the standard, and further analysis is required to show that the project is below 16 VMT/capita/day. Proceed to Step 2, and estimate the project VMT using one of the computer modeling tools below.

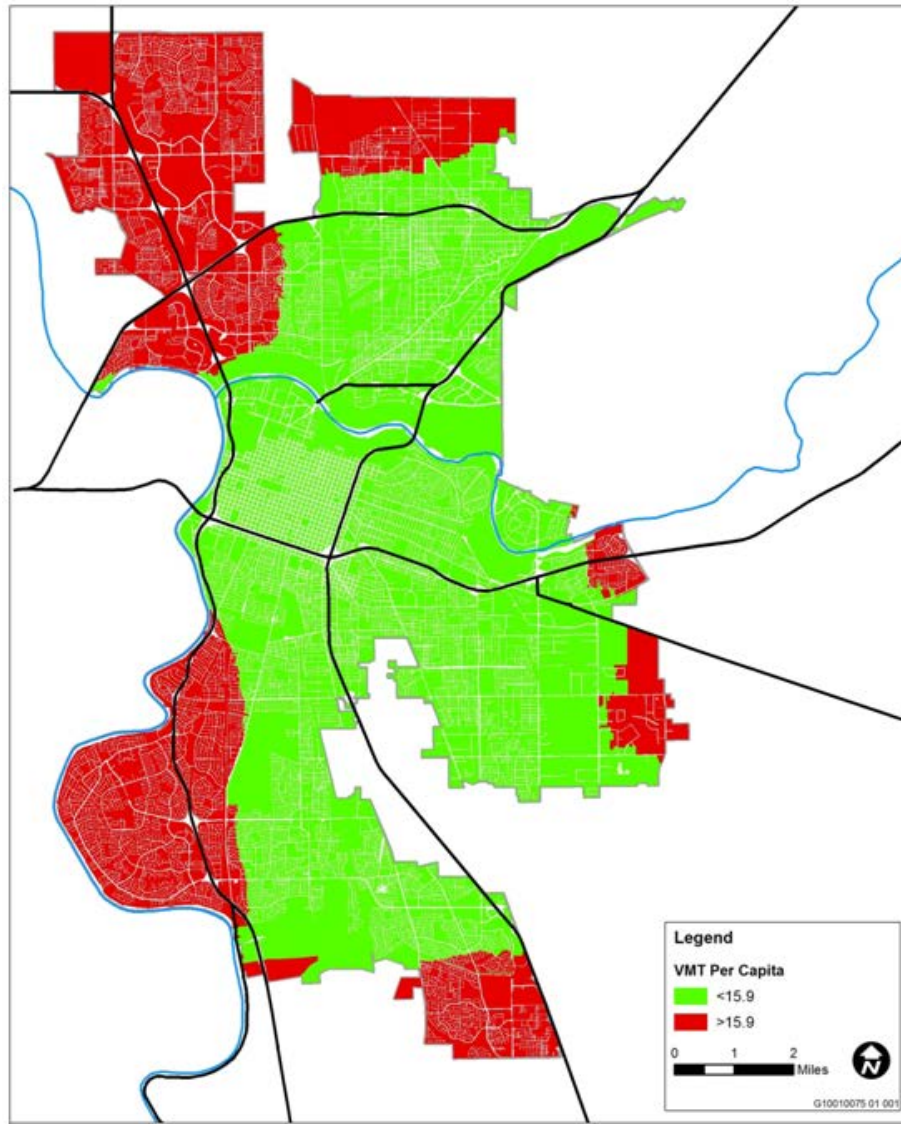
¹ Federal Highway Administration. 2009. Table VM-2 - Highway Statistics 2009. <http://www.fhwa.dot.gov/policyinformation/statistics/2009/vm2.cfm>.

² U.S. Census Bureau, 2005-2009 American Community Survey.

http://factfinder.census.gov/servlet/ACSSAFFacts?_event=Search&_lang=en&_sse=on&geo_id=04000US06&_state=04000US06

Exhibit 1: City of Sacramento Residential Daily VMT/Capita, 2008 Base Year

Source: SACOG, SACSIM Model, 2012.



Step 2: VMT Modeling

Download one of computer modeling tools from the following links and follow the user guide for the tool that you have selected. Select the year 2020 as the year of project operation and compare the modeled VMT/capita/day with the City's standard of 15.9 VMT/capita/day. If the result of the computer modeling supports the project's consistency with the City's VMT/capita standard, then the project is considered to comply with CAP Action 1.1.1. If the project's estimated VMT/capita exceeds the City's standard of 15.9, proceed to Step 3.



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[California Emission Estimator Model](#) (CalEEMod 2013.2 or most recent version)

CalEEMod is a statewide land use emissions computer model that provides a comprehensive estimate of development project criteria pollutants and GHG emissions associated with both construction and operations from a variety of land use project types.

[Sketch 7 VMT Estimation Tool](#) (Version 2.0 or most recent version)

The Sketch 7 model is a web-based, parcel-level, scenario planning tool that allows users to input land uses and project attributes such as demographic data, design, density, quality of public transit, mix of land uses, and other planning-related features. Sketch 7 estimates VMT/capita and other environmental indicators based on region-specific parameters, local land use plans and the SACSIM model. Sketch 7 also accounts for the interaction of the project's proposed land uses with the surrounding land uses.

Step 3: Additional Mitigation and Further Analysis

If the proposed project does not pass Steps 1 and 2, additional mitigation from another category (such as building energy efficiency) can be substituted as long as this GHG reduction does not “double count” GHG reductions already taken by the CAP. In other words, mitigation will be necessary to reduce GHG emissions from the project beyond what is already accounted for in the CAP (to avoid double-counting).

Step 3(a) - Determine the increment of total VMT by which the project exceeds the City's 15.9 VMT/capita/day standard. For example, if the project would result in 18 VMT/capita/day and proposes to accommodate 400 new residents, the increment that the project would exceed the City's standard would be 306,600 VMT, which equals: $(18 - 15.9 \text{ VMT/capita/day}) * 400 \text{ residents} * 365 \text{ days/year}$.

Step 3(b) - Convert VMT into metric tons carbon dioxide equivalent per year (MT CO₂e/year) by use of a vehicle emission factor. The City recommends using an emission factor of 0.000452 MT CO₂e/VMT, which was obtained from the California Air Resources Board's (ARB's) Mobile-Source Emission Factor Model (EMFAC) and was used to develop the City's GHG inventory in its CAP. In the above example, the project would be required to mitigate approximately 139 MT CO₂e/year through additional mitigation.

Additional mitigation may include individual measures or a combination of:

- Compliance with Tier 2 Energy Efficiency Standards per California Green Building Standards Code (CALGreen)
- Generation of greater than 15% of the project's energy on-site through installation of solar panels or other on-site renewable energy technology
- Other land use (e.g., additional amenities), transportation, bicycle, or pedestrian improvements that would reduce VMT not already accounted for in Sketch 7 modeling under Step 2.

The applicant should provide documentation (e.g., [California Emissions Estimator Model \[CalEEMod\]](#)) that the combination of mitigation selected would achieve the equivalent GHG emission reduction necessary to close the gap between the proposed project's VMT/capita/day and the City's standard of 15.9 VMT/capita/day. If the project applicant can present equivalent mitigation as defined by this section, the City would consider the project consistent with CAP Action 1.1.1. If the project applicant could not identify sufficient surplus mitigation to reduce equivalent project-generated GHG emissions, the project would not be consistent with CAP Action 1.1.1.

Mobility

3. Would the project incorporate traffic calming measures? (Applicable CAP Action: 2.1.1)

List the traffic calming measures that have been incorporated into the project. These may include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers.

Traffic calming measures included as part of the project shall be listed in the project description and shown on the plans. The project proponent and City staff should consult with staff in the Department of Public Works-Transportation Division to verify that traffic calming measures in the project description are adequate and in compliance with the City's Street Design Standards.

If the proposed project does not include any roadway or facility improvements, traffic calming measures may not apply. For example, certain infill projects may not result in on-street or transportation facility improvements because sufficient infrastructure already exists

4. Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan? (Applicable CAP Action: 2.2.1)

List the pedestrian facilities and connections to public transportation that have been included in the proposed project on the Checklist. These may include, but are not limited to: sidewalks on both sides of streets, marked crosswalks, count-down signal timers, curb extensions, median islands, transit shelters, street lighting.

Pedestrian facilities included as part of the project shall also be listed in the project description and shown on the plans.

The project proponent and City staff should consult with Department of Public Works-Transportation Division staff to verify that pedestrian facilities in the project description are consistent with the [Pedestrian Master Plan](#). As in the previous example, if "not applicable", an explanation shall be documented in the Checklist. The "Pedestrian Review Process Guide" ([Appendix A to the Master Plan](#)) will be used to determine consistency, as follows:

- For typical infill development projects where existing streets will serve the site (no new streets are proposed): the level of pedestrian improvements necessary to determine Pedestrian Master Plan consistency will be measured according to the "Basic, Upgrade or Premium" categories defined in Appendix A to the Pedestrian Master Plan, which are based on project location, surrounding land uses, proximity to transit, etc. If the proposed project does not include the minimum level of improvements per the assigned category for the project's location, the project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.
- For new "greenfield" projects and/or larger infill development projects where new streets are proposed as part of the project, the following will apply:
 - "Basic, Upgrade or Premium" levels of improvement will be required based on the proposed project's location and context, where applicable, consistent with the criteria defined in the Master Plan. If the proposed project does not include the minimum level of improvements per the assigned category, the



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project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.

- The “Pedestrian Smart Growth Scorecard” (Appendix A to the Master Plan) will be required to be completed for the project, and a minimum score of 3 or better will need to be achieved. If the proposed project cannot achieve the minimum score, changes to the proposed project may be required, and/or the project may be required as a condition of approval to include certain improvements such that the average score will meet 3 or better. (Note: an Excel version of the Pedestrian Smart Growth Scorecard is available, to assist in automating the rating & scoring process)

5. Would the project incorporate bicycle facilities consistent with the City’s Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen? (Applicable CAP Action: 2.3.1)

List the bicycle facilities that are incorporated into the proposed project on the Checklist. In addition, list bicycle facilities in the project description, and show on the plans. These include, but are not limited to: Class I bike trails and Class II bike lanes connecting the project site to an existing bike network and transit stations, bike parking [bike racks, indoor secure bike parking, bike lockers], end-of-trip facilities at non-residential land uses [showers, lockers]).

The project proponent and City staff should consult with staff in the Transportation Division of the Department of Public Works to verify that such facilities in the project description are consistent with the [Bikeway Master Plan](#) and meet or exceed Zoning Code and CALGreen standards. Generally, the following guidelines will be used:

- If existing on-street and off-street bikeways are already present and determined to be consistent with the Bikeway Master Plan, no additional on-street bikeways will be required. Check the “not applicable” box if appropriate. However, on-site facilities shall still be required to meet or exceed minimum Zoning and CALGreen requirements.
- If not applicable, fully document the reasons why using the Checklist.
- If on-street bicycle facilities are not present or are only partially consistent with the Master Plan, the project will be required as a condition of approval to construct or pay for its fair-share of on-street and/or off-street bikeways described in the Master Plan, in addition to meeting or exceeding minimum on-site facilities.
- In some cases, a combination of new or upgraded on-street and off-street bikeways may be used to determine consistency with the Master Plan, at the discretion of the Department of Public Works-Transportation Division staff.

Energy Efficiency and Renewable Energy

6. For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., solar photovoltaic, solar water heating etc.) that would generate at least 15% of the project’s total energy demand? (CAP Actions: 3.4.1 and 3.4.2)

For projects of the minimum size specified in this measure, a commitment in the project description or in a mitigation measure that the project shall generate a minimum of 15% of the project’s energy demand on-site is sufficient to demonstrate consistency with this measure. However, the project description or mitigation measure should specify the



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intended renewable energy technology to be used (e.g. solar photovoltaic, solar water heating, wind, etc.) and estimated size of the systems to meet project demand based on the project description.

“Total energy demand” refers to the energy (electricity and natural gas) consumed by the built environment (including HVAC systems, water heating systems, and lighting systems) as well as uses that are independent of the construction of buildings, such as office equipment and other plug-ins.

Applicants may estimate the total energy demand of their projects using California Emissions Estimator Model (CalEEMod 2013.2), the same software used to estimate greenhouse gas emissions. **For CalEEMod estimates of energy demand to meet this specific requirement, the user should NOT select the “use historical” box, otherwise they will be “double-counting” emissions reductions that have already been counted.** CalEEMod outputs for electricity demand are provided in annual kWh, and natural gas demand is provided in annual kBtu.

The energy demand estimate by CalEEMod is based on two datasets:

- The California Commercial End Use Survey (CEUS);
- The Residential Appliance Saturation Survey (RASS)

CalEEMod takes energy use intensity data (above) and forecasts energy demand based on climate zone, land use subtype (such as “hospital”, “arena”, or “apartments, mid rise”), building area, and the number of buildings or units. This is an appropriate level of analysis for use at the planning submittal stage, but it may not provide an accurate picture of actual project energy demand because it does not factor project specifics such as building design.

Therefore, the applicant is advised (but not required) to run a more comprehensive energy simulation once project-specific details are known: basic building design, square-footage, building envelope, lighting design (at least rudimentary), and the mechanical system (at least minimally zoned). Some of the energy simulation programs that are appropriate for this level of analysis include: DOE 2.2, Trace 700, and Energy Pro.

The U.S. DOE maintains a list of energy simulation programs that are available.

http://apps1.eere.energy.gov/buildings/tools_directory/subjects.cfm/pagename=subjects/pagename_menu=whole_building_analysis/pagename_submenu=energy_simulation

The applicant may then work with City staff to revise the estimate and make a final determination regarding the size of the PV system that is required.

Substitutions: Projects may substitute a quantity of energy efficiency for renewable energy, as long as the substituted GHG reduction does not “double count” GHG reductions already taken by the CAP. In other words, substitutions must reduce GHG emissions from the project beyond what is already accounted for in the CAP (to avoid double-counting).

Additional mitigation may include individual measures or a combination of:

- Compliance with Tier 2 Energy Efficiency Standards per California Green Building Standards Code (CALGreen)
- Other land use (e.g., additional amenities), transportation, bicycle, or pedestrian improvements that would reduce VMT not already accounted for in Sketch 7 modeling under Step 2.



APPENDIX D

Trip Generation Memorandum and Transportation and
Circulation Technical Appendix



TECHNICAL MEMORANDUM

Date: June 9, 2014
To: Aelita Milatzo – City of Sacramento
From: John Gard – Fehr & Peers
Subject: ***Trip Generation Comparison for Proposed Retail Center at Howe Avenue/Fair Oaks Boulevard Intersection in the City of Sacramento***

RS12-3046

Fehr & Peers has completed a comparison of how the proposed project's trip generation compares to the trip generation estimate prepared in the Draft EIR Transportation and Circulation chapter.

Trip Generation Estimate from DEIR Transportation Chapter

Table 1 shows the gross trip generation of the proposed project based on trip rates published in *Trip Generation, 8th Edition* (Institute of Transportation Engineers, 2008). Adjustments to the trip generation totals were made to reflect "pass-by" trips, which enter the site en-route to a different primary destination. After accounting for pass-by trips, the proposed project is expected to generate approximately 5,460 new daily vehicle trips with 186 trips during the AM peak hour and 475 trips during the PM peak hour.

TABLE 1 PROJECT TRIP GENERATION (FROM DEIR)												
Land Use	Quantity	ITE Land Use Code	Trip Rate ¹			Trips						
			Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour			PM Peak Hour		
							In	Out	Tot	In	Out	Tot
Supermarket	50.88 ksf	850	102.24	3.59	11.22	5,202	112	71	183	291	280	571
Pharmacy w/ drive-thru	16.5 ksf	881	88.16	2.66	10.35	1,455	25	19	44	85	86	171
Gross Trips						6,657	137	90	227	376	366	742
Pass-by Trips						-1,198	-25	-16	-41	-135	-132	-267
New Trips						5,459	112	74	186	241	234	475
Notes: ¹ Trip rates from <i>Trip Generation</i> (ITE, 2008). Fitted curve equation used to estimate PM peak hour trips for Supermarket. All other trip estimates based on average trip rates (due to lack of fitted curve equations or poor R-squared values). ² Pass-by of 36% for Supermarket and Pharmacy during PM peak hour based on <i>Trip Generation Handbook, 4th Edition</i> (ITE, 2004). Pass-by for AM and daily conditions conservatively assumed to be 18%. ksf = thousand square feet.												

According to the most recent project site plan (last updated May 23, 2014) and information provided by the City of Sacramento, the proposed project would consist of the following land uses:

- 27,870 square-foot Grocery Store
- 16,900 square-foot Pharmacy with Drive-Through Window
- 1,500 square-foot Fast Food Restaurant with Drive-Through Window
- 19,900 square feet of General Retail

Table 2 shows the gross trip generation of the proposed project based on trip rates published in *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012). After accounting for pass-by trips, the proposed project is expected to generate approximately 4,757 new daily vehicle trips with 175 trips during the AM peak hour and 374 trips during the PM peak hour.

Land Use	Quantity	ITE Land Use Code	Trip Rate ¹			Trips						
			Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour			PM Peak Hour		
							In	Out	Tot	In	Out	Tot
Supermarket	27.87 ksf	850	102.24	3.40	10.86	2,849	59	36	95	155	148	303
Pharmacy w/ drive-thru	16.9 ksf	881	96.91	3.45	9.91	1,638	30	28	58	84	83	167
Fast Food Restaurant w/ drive-thru	1.5 ksf	934	496.12	45.42	32.65	744	35	33	68	25	24	49
Retail	19.9 ksf	820	42.70	0.96	3.71	850	12	7	19	36	38	74
Gross Trips						6,081	136	104	240	300	293	593
Pass-by Trips ²						-1,324	-36	-29	-65	-111	-108	-219
New Trips						4,757	100	75	175	189	185	374

Notes:

¹ Trip rates from *Trip Generation* (ITE, 2012). Fitted curve equation used to estimate PM peak hour trips for Supermarket. All other trip estimates based on average trip rates (due to lack of fitted curve equations, poor R-squared values, or small land use quantity which would have caused an overestimate of trips had the equation been used).

² All pass-by data based on *Trip Generation Handbook, 4th Edition* (ITE, 2004). Pass-by of 36% for Supermarket and Pharmacy during PM peak hour. Pass-by for AM and daily conditions conservatively assumed to be 18%. 50% of trips for fast-food restaurant assumed to be pass-by for all analysis periods. Pass-by of 34% for retail during PM peak hour. Pass-by for AM and daily conditions conservatively assumed to be 17%.

ksf = thousand square feet.

Trip Generation Comparison

Table 3 compares the number of gross and new vehicle trips the project would generate according to the DEIR Transportation and Circulation chapter, and based on the current land uses. The gross trip estimate is relevant to the site access evaluation because gross trips include both new trips and pass-by trips made to the site. The new trip estimate is also relevant because it represents project-added traffic to adjacent study intersections.

TABLE 3 TRIP GENERATION COMPARISON			
Scenario	Daily	AM Peak Hour	PM Peak Hour
Gross Trips			
DEIR	6,657	227	742
Currently Proposed Land Uses	6,081	240	593
Difference (Percent Change vs. DEIR)	- 576 (-9%)	13 (-6%)	-149 (-20%)
New Trips			
DEIR	5,459	186	475
Currently Proposed Land Uses	4,757	175	374
Difference (Percent Change vs. DEIR)	702 (-13%)	11 (-6%)	101 (-21%)
Notes: These values include both inbound and outbound trips.			

It is apparent from Table 3 that the proposed land uses result in a net reduction in gross trips and new trips when compared to the trip generation estimates presented in the DEIR Transportation and Circulation chapter. This is most noticeable during the weekday PM peak hour, which features both substantial adjacent street traffic volumes and the site's greatest weekday peak hour trip generation. During the PM peak hour, the proposed uses generate about 20 percent fewer gross and new trips when compared to the estimates in the DEIR. This occurs primarily due to the replacement of grocery store square footage with less intensive general retail.

Therefore, since the proposed land uses generate fewer trips than the uses analyzed in the DEIR, the transportation conclusions pertaining to off-site traffic impacts and access needs in the DEIR would be unchanged. In reviewing the detailed analysis results in the DEIR, it is unlikely that this reduction would change the significance of any of the identified impacts or lessen the type of mitigation that is required.

TRANSPORTATION AND CIRCULATION

TECHNICAL APPENDIX

CONTENTS

- Appendix A: Intersection Level of Service Technical Calculations
- Appendix B: Queue Length Technical Calculations
- Appendix C: Howe Avenue and Fair Oaks Boulevard Throughput
- Appendix D: Traffic Counts
- Appendix E: Trip Generation Memorandum

APPENDIX A:

INTERSECTION LEVEL OF SERVICE TECHNICAL CALCULATIONS

- Existing Conditions
- Existing Plus Project
- Existing Plus Project, Mitigation Measures
- Cumulative No Project
- Cumulative Plus Project
- Cumulative Plus Project, Mitigation Measures

EXISTING CONDITIONS

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Conditions
AM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	44	40	90.9%	56.8	6.0	E
	Through	1192	1339	112.3%	11.9	2.5	B
	Right Turn	72	77	106.7%	10.0	2.0	A
	Subtotal	1308	1456	111.3%	13.0	2.4	B
SB	Left Turn	44	42	95.5%	62.5	9.9	E
	Through	1644	1620	98.5%	10.5	2.8	B
	Right Turn	20	15	76.0%	11.5	7.1	B
	Subtotal	1708	1677	98.2%	11.8	2.7	B
EB	Left Turn	16	17	105.0%	53.9	9.1	D
	Through	8	6	80.0%	44.0	42.4	D
	Right Turn	20	20	102.0%	24.7	7.7	C
	Subtotal	44	44	99.1%	39.7	7.0	D
WB	Left Turn	280	270	96.6%	56.7	4.0	E
	Through	28	26	92.9%	48.5	12.5	D
	Right Turn	60	70	116.7%	18.6	5.0	B
	Subtotal	368	366	99.6%	48.8	3.6	D
Total		3428	3542	103.3%	16.5	2.3	B

Intersection 2

Howe Ave/Sierra Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1316	1343	102.0%	8.4	2.6	A
	Right Turn	76	68	88.9%	8.2	4.0	A
	Subtotal	1392	1410	101.3%	8.4	2.6	A
SB	Left Turn	52	48	92.3%	69.5	11.6	E
	Through	1896	1867	98.5%	23.3	13.5	C
	Right Turn						
	Subtotal	1948	1915	98.3%	24.5	13.5	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	132	118	89.4%	94.9	37.6	F
	Through						
	Right Turn	56	56	100.0%	9.1	2.7	A
	Subtotal	188	174	92.6%	66.6	23.6	E
Total		3528	3500	99.2%	20.1	9.1	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Conditions
AM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	60	54	90.0%	61.2	13.9	E
	Through	1340	1355	101.1%	11.8	1.9	B
	Right Turn	36	29	80.0%	13.6	4.6	B
	Subtotal	1436	1438	100.1%	13.8	1.6	B
SB	Left Turn						
	Through	1956	1941	99.2%	19.6	2.8	B
	Right Turn	68	79	116.5%	22.7	4.8	C
	Subtotal	2024	2020	99.8%	19.7	2.7	B
EB	Left Turn	40	37	92.0%	55.6	17.2	E
	Through	4	2	60.0%	17.9	33.9	B
	Right Turn	32	29	91.3%	26.3	6.4	C
	Subtotal	76	68	90.0%	40.8	8.4	D
WB	Left Turn	12	13	110.0%	33.4	33.0	C
	Through						
	Right Turn	4	4	110.0%	14.3	22.2	B
	Subtotal	16	18	110.0%	27.5	20.0	C
Total		3552	3544	99.8%	17.8	1.9	B

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1384	1398	101.0%	2.9	0.3	A
	Right Turn						
	Subtotal	1384	1398	101.0%	2.9	0.3	A
SB	Left Turn						
	Through	1984	1950	98.3%	7.4	1.0	A
	Right Turn	16	14	87.5%	7.9	6.7	A
	Subtotal	2000	1964	98.2%	7.4	1.0	A
EB	Left Turn						
	Through						
	Right Turn	16	18	110.0%	59.8	46.8	F
	Subtotal	16	18	110.0%	59.8	46.8	F
WB	Left Turn						
	Through						
	Right Turn	48	43	90.0%	12.8	4.2	B
	Subtotal	48	43	90.0%	12.8	4.2	B
Total		3448	3423	99.3%	5.9	0.7	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Conditions
AM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	212	230	108.5%	58.9	12.5	E
	Through	964	984	102.0%	44.6	8.7	D
	Right Turn	60	60	99.3%	41.1	14.4	D
	Subtotal	1236	1273	103.0%	46.9	6.6	D
SB	Left Turn	196	212	108.0%	67.8	9.9	E
	Through	988	932	94.3%	49.7	5.7	D
	Right Turn	820	796	97.1%	14.8	2.7	B
	Subtotal	2004	1940	96.8%	37.3	5.0	D
EB	Left Turn	304	307	101.1%	61.1	7.7	E
	Through	560	567	101.3%	35.1	4.8	D
	Right Turn	88	81	92.3%	13.1	2.9	B
	Subtotal	952	956	100.4%	41.5	4.3	D
WB	Left Turn	88	73	82.7%	73.5	12.2	E
	Through	832	1063	127.7%	38.8	3.7	D
	Right Turn	120	115	95.7%	13.3	2.7	B
	Subtotal	1040	1250	120.2%	38.4	3.6	D
Total		5232	5419	103.6%	40.6	3.1	D

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	252	245	97.1%	76.3	18.5	E
	Through	1160	1170	100.8%	23.5	12.0	C
	Right Turn	236	238	100.7%	24.1	14.4	C
	Subtotal	1648	1652	100.2%	31.4	11.7	C
SB	Left Turn	56	47	84.3%	82.6	19.7	F
	Through	908	913	100.5%	34.5	8.5	C
	Right Turn	204	208	102.0%	32.5	10.1	C
	Subtotal	1168	1168	100.0%	36.1	7.8	D
EB	Left Turn	60	66	110.7%	57.0	8.8	E
	Through	48	54	111.7%	51.8	8.9	D
	Right Turn	64	56	87.5%	18.7	6.7	B
	Subtotal	172	176	102.3%	43.6	5.6	D
WB	Left Turn	176	167	94.8%	52.9	15.5	D
	Through	188	172	91.3%	50.3	6.8	D
	Right Turn	28	30	105.7%	43.8	12.4	D
	Subtotal	392	368	93.9%	51.1	9.2	D
Total		3380	3364	99.5%	35.7	6.0	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Conditions
AM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	20	20	98.0%	80.0	29.0	E
	Through	1436	1356	94.5%	23.8	2.1	C
	Right Turn	348	344	99.0%	5.8	1.1	A
	Subtotal	1804	1720	95.4%	20.7	1.6	C
SB	Left Turn	24	26	110.0%	56.1	11.5	E
	Through	1108	985	88.9%	24.4	6.0	C
	Right Turn	8	8	100.0%	13.8	13.0	B
	Subtotal	1140	1020	89.4%	25.1	6.1	C
EB	Left Turn	36	34	93.3%	54.8	11.9	D
	Through	40	41	103.0%	50.2	18.8	D
	Right Turn	12	13	110.0%	23.2	22.5	C
	Subtotal	88	88	100.0%	46.9	8.4	D
WB	Left Turn	580	607	104.7%	49.6	13.6	D
	Through	44	44	100.0%	49.2	20.8	D
	Right Turn	108	116	107.0%	30.0	17.9	C
	Subtotal	732	767	104.8%	46.7	14.8	D
Total		3764	3595	95.5%	28.3	4.0	C

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	36	35	97.8%	0.9	0.2	A
	Subtotal	36	35	97.8%	0.9	0.2	A
SB	Left Turn	28	28	100.0%	31.9	11.1	C
	Through						
	Right Turn	60	63	104.7%	21.0	4.8	C
	Subtotal	88	91	103.2%	24.2	4.4	C
EB	Left Turn	44	48	110.0%	50.7	10.9	D
	Through	884	887	100.4%	4.5	1.6	A
	Right Turn	144	133	92.5%	7.3	0.4	A
	Subtotal	1072	1069	99.7%	7.0	1.7	A
WB	Left Turn						
	Through	1808	1751	96.8%	12.5	5.5	B
	Right Turn	56	61	109.3%	10.1	2.9	B
	Subtotal	1864	1812	97.2%	12.5	5.4	B
Total		3060	3007	98.3%	10.7	3.8	B

Level Of Service Computation Report

Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Fair Oaks Boulevard / Munroe Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.758
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 94 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Split Phase			Split Phase			Protected			Protected				
Rights:	Include			Include			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	1	0	1	2	0	2	1	0

Volume Module:

Base Vol:	196	328	69	286	380	66	188	430	130	142	1064	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	328	69	286	380	66	188	430	130	142	1064	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	196	328	69	286	380	66	188	430	130	142	1064	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	328	69	286	380	66	188	430	130	142	1064	147
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	328	69	315	380	66	207	430	130	142	1064	147

Saturation Flow Module:

Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.36	1.64	1.00	2.00	2.30	0.70	1.00	1.76	0.24
Final Sat.:	1500	3000	1500	2038	2462	1500	3000	3455	1045	1500	2636	364

Capacity Analysis Module:

Vol/Sat:	0.13	0.11	0.05	0.15	0.15	0.04	0.07	0.12	0.12	0.09	0.40	0.40
Crit Volume:	196			232			103			606		
Crit Moves:	****			****			****			****		

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Conditions
PM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	36	38	105.6%	67.2	12.6	E
	Through	2228	2105	94.5%	32.1	3.1	C
	Right Turn	236	233	98.8%	26.4	2.7	C
	Subtotal	2500	2376	95.1%	32.1	3.0	C
SB	Left Turn	84	82	98.1%	64.9	12.0	E
	Through	1848	1858	100.6%	15.4	2.4	B
	Right Turn	8	10	130.0%	13.4	10.8	B
	Subtotal	1940	1951	100.6%	17.6	1.9	B
EB	Left Turn	52	51	97.7%	68.3	16.0	E
	Through	44	37	83.6%	64.4	17.9	E
	Right Turn	52	51	98.5%	26.1	4.2	C
	Subtotal	148	139	93.8%	51.4	9.8	D
WB	Left Turn	204	192	93.9%	58.6	5.2	E
	Through	16	17	107.5%	67.1	27.3	E
	Right Turn	80	77	96.5%	28.2	5.3	C
	Subtotal	300	286	95.3%	50.7	3.5	D
Total		4888	4752	97.2%	27.8	2.0	C

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2440	2301	94.3%	15.2	2.7	B
	Right Turn	104	106	102.3%	12.8	3.6	B
	Subtotal	2544	2408	94.6%	15.1	2.7	B
SB	Left Turn	92	86	93.5%	94.9	14.0	F
	Through	1916	2014	105.1%	33.1	21.1	C
	Right Turn						
	Subtotal	2008	2100	104.6%	35.6	20.7	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	64	57	89.4%	92.2	44.9	F
	Through						
	Right Turn	52	46	89.2%	20.8	4.9	C
	Subtotal	116	104	89.3%	59.6	22.0	E
Total		4668	4611	98.8%	25.5	11.1	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Conditions
PM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	76	66	87.4%	62.9	10.4	E
	Through	2332	2223	95.3%	34.1	9.4	C
	Right Turn	12	7	56.7%	25.3	17.8	C
	Subtotal	2420	2296	94.9%	35.0	9.3	C
SB	Left Turn						
	Through	1952	1960	100.4%	34.4	7.6	C
	Right Turn	60	49	81.3%	47.1	12.6	D
	Subtotal	2012	2008	99.8%	34.7	7.5	C
EB	Left Turn	208	184	88.3%	166.1	61.0	F
	Through	8	7	90.0%	163.8	113.1	F
	Right Turn	48	42	88.3%	109.5	58.0	F
	Subtotal	264	233	88.3%	156.3	61.9	F
WB	Left Turn	48	51	106.7%	48.0	11.9	D
	Through						
	Right Turn	4	4	90.0%	20.9	25.3	C
	Subtotal	52	55	105.4%	46.7	12.4	D
Total		4748	4593	96.7%	41.2	8.4	D

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2312	2213	95.7%	5.8	1.8	A
	Right Turn						
	Subtotal	2312	2213	95.7%	5.8	1.8	A
SB	Left Turn						
	Through	2040	2029	99.5%	16.6	4.5	C
	Right Turn	8	6	75.0%	13.2	14.0	B
	Subtotal	2048	2035	99.4%	16.6	4.5	C
EB	Left Turn						
	Through						
	Right Turn	20	16	80.0%	105.1	76.8	F
	Subtotal	20	16	80.0%	105.1	76.8	F
WB	Left Turn						
	Through						
	Right Turn	108	112	103.7%	89.0	65.8	F
	Subtotal	108	112	103.7%	89.0	65.8	F
Total		4488	4376	97.5%	13.3	4.3	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Conditions
PM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	332	304	91.4%	120.5	17.1	F
	Through	1468	1432	97.6%	118.4	24.0	F
	Right Turn	76	76	100.5%	131.6	32.2	F
	Subtotal	1876	1812	96.6%	119.4	22.7	F
SB	Left Turn	280	276	98.7%	103.8	9.4	F
	Through	1212	1239	102.2%	79.5	9.4	E
	Right Turn	568	554	97.5%	30.7	6.9	C
	Subtotal	2060	2069	100.4%	69.7	8.7	E
EB	Left Turn	608	566	93.0%	164.4	29.3	F
	Through	1208	1220	101.0%	78.5	16.2	E
	Right Turn	96	101	105.4%	51.6	16.5	D
	Subtotal	1912	1887	98.7%	102.7	18.6	F
WB	Left Turn	176	176	100.0%	92.8	8.0	F
	Through	784	754	96.1%	70.4	8.5	E
	Right Turn	236	222	94.2%	30.6	10.5	C
	Subtotal	1196	1152	96.3%	66.3	7.0	E
Total		7044	6920	98.2%	91.1	6.2	F

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	52	51	97.7%	95.0	18.2	F
	Through	1472	1402	95.3%	54.3	26.7	D
	Right Turn	268	249	93.0%	66.7	34.6	E
	Subtotal	1792	1702	95.0%	57.3	27.1	E
SB	Left Turn	76	77	101.1%	93.4	32.1	F
	Through	1312	1285	97.9%	43.5	7.5	D
	Right Turn	96	91	94.6%	40.2	10.0	D
	Subtotal	1484	1452	97.9%	46.0	8.5	D
EB	Left Turn	212	216	102.1%	49.4	15.0	D
	Through	192	180	94.0%	53.3	14.8	D
	Right Turn	252	262	104.1%	39.2	14.5	D
	Subtotal	656	659	100.5%	46.4	14.4	D
WB	Left Turn	232	240	103.3%	45.8	5.7	D
	Through	68	68	99.4%	51.2	10.6	D
	Right Turn	140	145	103.7%	36.8	11.0	D
	Subtotal	440	452	102.8%	43.7	3.9	D
Total		4372	4266	97.6%	50.3	12.5	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Conditions
PM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	16	19	120.0%	57.2	24.1	E
	Through	1684	1687	100.2%	20.8	1.5	C
	Right Turn	640	661	103.3%	13.8	4.6	B
	Subtotal	2340	2368	101.2%	19.2	2.4	B
SB	Left Turn	108	104	95.9%	74.2	17.3	E
	Through	1836	1863	101.5%	21.7	2.9	C
	Right Turn	40	41	103.0%	22.7	5.0	C
	Subtotal	1984	2008	101.2%	24.6	3.3	C
EB	Left Turn	28	27	95.7%	116.1	55.4	F
	Through	60	69	114.7%	105.6	40.2	F
	Right Turn	24	24	98.3%	90.6	57.1	F
	Subtotal	112	119	106.4%	104.2	46.8	F
WB	Left Turn	392	372	95.0%	53.4	4.6	D
	Through	40	34	84.0%	51.4	18.9	D
	Right Turn	88	87	99.1%	25.1	3.3	C
	Subtotal	520	493	94.8%	48.4	5.0	D
Total		4956	4988	100.6%	26.4	2.8	C

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	84	92	110.0%	1.2	0.4	A
	Subtotal	84	92	110.0%	1.2	0.4	A
SB	Left Turn	56	57	101.4%	32.9	7.0	C
	Through						
	Right Turn	80	88	109.5%	20.1	6.4	C
	Subtotal	136	144	106.2%	25.0	5.9	C
EB	Left Turn	172	172	100.0%	55.5	14.9	E
	Through	1768	1795	101.5%	11.3	6.3	B
	Right Turn	148	154	104.1%	11.6	3.3	B
	Subtotal	2088	2121	101.6%	15.0	7.2	B
WB	Left Turn						
	Through	1640	1590	97.0%	19.7	3.0	B
	Right Turn	40	43	107.0%	16.0	4.6	B
	Subtotal	1680	1633	97.2%	19.6	3.0	B
Total		3988	3991	100.1%	16.9	4.1	B

Level Of Service Computation Report

Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Fair Oaks Boulevard / Munroe Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.772
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Split Phase			Split Phase			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	1	0	1	2	0	2	1	0	

Volume Module:

Base Vol:	165	536	107	354	394	83	429	1237	194	69	594	192
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	165	536	107	354	394	83	429	1237	194	69	594	192
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	165	536	107	354	394	83	429	1237	194	69	594	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	536	107	354	394	83	429	1237	194	69	594	192
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	165	536	107	389	394	83	472	1237	194	69	594	192

Saturation Flow Module:

Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.49	1.51	1.00	2.00	2.59	0.41	1.00	1.51	0.49
Final Sat.:	1500	3000	1500	2237	2263	1500	3000	3890	610	1500	2267	733

Capacity Analysis Module:

Vol/Sat:	0.11	0.18	0.07	0.17	0.17	0.06	0.16	0.32	0.32	0.05	0.26	0.26
Crit Volume:	268			261			236			393		
Crit Moves:	****			****			****			****		

EXISTING PLUS PROJECT

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
AM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	44	43	97.3%	65.6	10.5	E
	Through	1208	1291	106.9%	11.4	1.4	B
	Right Turn	76	73	96.3%	9.7	2.4	A
	Subtotal	1328	1407	106.0%	12.9	1.4	B
SB	Left Turn	44	34	78.2%	61.2	15.5	E
	Through	1664	1657	99.6%	12.1	4.5	B
	Right Turn	20	20	98.0%	14.9	14.0	B
	Subtotal	1728	1711	99.0%	13.2	4.2	B
EB	Left Turn	16	14	90.0%	51.8	23.5	D
	Through	8	9	115.0%	55.0	31.3	D
	Right Turn	20	21	104.0%	36.3	13.4	D
	Subtotal	44	44	100.9%	48.7	8.7	D
WB	Left Turn	288	273	94.9%	58.3	11.7	E
	Through	28	29	102.9%	38.8	10.8	D
	Right Turn	60	56	92.7%	21.6	4.5	C
	Subtotal	376	358	95.1%	51.2	9.4	D
Total		3476	3520	101.3%	17.4	3.1	B

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1336	1401	104.9%	12.1	3.0	B
	Right Turn	76	77	101.1%	11.4	5.0	B
	Subtotal	1412	1478	104.7%	12.1	2.9	B
SB	Left Turn	52	64	123.8%	64.6	13.8	E
	Through	1920	1919	99.9%	37.7	16.4	D
	Right Turn						
	Subtotal	1972	1983	100.6%	38.5	15.8	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	132	116	87.9%	105.4	46.3	F
	Through						
	Right Turn	56	62	111.4%	14.1	9.3	B
	Subtotal	188	178	94.9%	74.0	37.0	E
Total		3572	3640	101.9%	29.7	10.5	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
AM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	64	69	108.1%	60.7	11.2	E
	Through	1332	1376	103.3%	13.3	2.6	B
	Right Turn	36	30	83.3%	14.1	5.1	B
	Subtotal	1432	1475	103.0%	15.6	2.2	B
SB	Left Turn						
	Through	1984	1938	97.7%	24.7	2.3	C
	Right Turn	72	71	98.9%	32.7	10.3	C
	Subtotal	2056	2009	97.7%	24.9	2.4	C
EB	Left Turn	64	54	85.0%	49.8	6.9	D
	Through	4	3	70.0%	16.9	25.7	B
	Right Turn	32	34	105.0%	27.9	10.3	C
	Subtotal	100	91	90.8%	41.0	6.1	D
WB	Left Turn	12	10	80.0%	45.0	17.8	D
	Through						
	Right Turn	4	6	150.0%	14.5	18.8	B
	Subtotal	16	16	97.5%	32.3	13.0	C
Total		3604	3590	99.6%	21.5	2.1	C

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1384	1432	103.5%	3.0	0.2	A
	Right Turn						
	Subtotal	1384	1432	103.5%	3.0	0.2	A
SB	Left Turn						
	Through	1984	1936	97.6%	10.0	2.3	A
	Right Turn	44	44	100.9%	9.2	3.2	A
	Subtotal	2028	1980	97.7%	10.0	2.3	A
EB	Left Turn						
	Through						
	Right Turn	60	66	110.0%	68.9	30.3	F
	Subtotal	60	66	110.0%	68.9	30.3	F
WB	Left Turn						
	Through						
	Right Turn	48	48	99.2%	14.1	5.5	B
	Subtotal	48	48	99.2%	14.1	5.5	B
Total		3520	3526	100.2%	8.3	1.7	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
AM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	244	241	98.9%	66.8	6.5	E
	Through	964	1004	104.2%	50.4	7.5	D
	Right Turn	60	68	114.0%	47.8	10.9	D
	Subtotal	1268	1314	103.6%	53.4	6.1	D
SB	Left Turn	208	202	97.3%	78.2	9.3	E
	Through	1008	1043	103.5%	56.1	6.7	E
	Right Turn	824	772	93.7%	18.6	3.9	B
	Subtotal	2040	2018	98.9%	44.0	6.0	D
EB	Left Turn	328	347	105.7%	62.9	8.8	E
	Through	560	580	103.6%	36.1	4.3	D
	Right Turn	88	73	83.2%	12.7	2.7	B
	Subtotal	976	1000	102.5%	43.6	3.6	D
WB	Left Turn	88	74	83.6%	82.3	12.0	F
	Through	848	1082	127.6%	48.0	3.5	D
	Right Turn	120	120	99.7%	15.6	2.4	B
	Subtotal	1056	1275	120.8%	46.9	3.2	D
Total		5340	5608	105.0%	46.8	3.1	D

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	252	263	104.4%	76.3	13.1	E
	Through	1192	1220	102.4%	18.4	6.3	B
	Right Turn	236	216	91.7%	21.0	9.6	C
	Subtotal	1680	1700	101.2%	27.6	6.5	C
SB	Left Turn	56	50	90.0%	71.9	15.6	E
	Through	928	967	104.2%	39.7	11.4	D
	Right Turn	204	236	115.7%	36.7	12.7	D
	Subtotal	1188	1254	105.5%	40.4	11.5	D
EB	Left Turn	64	56	86.9%	55.3	15.5	E
	Through	48	56	117.5%	51.0	11.9	D
	Right Turn	64	60	94.4%	19.7	9.8	B
	Subtotal	176	172	98.0%	41.2	8.7	D
WB	Left Turn	176	167	95.0%	46.9	8.0	D
	Through	188	194	103.0%	48.9	8.0	D
	Right Turn	28	25	88.6%	36.8	18.0	D
	Subtotal	392	386	98.4%	47.1	7.0	D
Total		3436	3512	102.2%	35.1	6.9	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
AM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	20	21	106.0%	79.4	30.3	E
	Through	1460	1372	94.0%	24.5	3.3	C
	Right Turn	348	347	99.8%	6.6	1.4	A
	Subtotal	1828	1741	95.2%	21.6	2.8	C
SB	Left Turn	28	26	91.4%	79.8	22.8	E
	Through	1124	1076	95.7%	29.7	5.8	C
	Right Turn	12	11	93.3%	23.7	16.6	C
	Subtotal	1164	1113	95.6%	30.8	5.8	C
EB	Left Turn	36	41	114.4%	57.7	11.3	E
	Through	40	35	87.0%	45.3	9.7	D
	Right Turn	12	8	66.7%	12.1	5.9	B
	Subtotal	88	84	95.5%	48.9	7.9	D
WB	Left Turn	580	608	104.9%	54.7	26.1	D
	Through	44	46	104.5%	56.7	30.4	E
	Right Turn	112	124	110.7%	35.4	22.9	D
	Subtotal	736	778	105.8%	51.7	25.6	D
Total		3816	3716	97.4%	31.4	6.7	C

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	36	34	95.6%	0.9	0.2	A
	Subtotal	36	34	95.6%	0.9	0.2	A
SB	Left Turn	28	22	80.0%	30.6	8.1	C
	Through						
	Right Turn	60	69	115.3%	20.4	5.2	C
	Subtotal	88	92	104.1%	22.7	4.6	C
EB	Left Turn	56	48	85.0%	50.0	9.9	D
	Through	908	941	103.7%	4.1	1.0	A
	Right Turn	144	136	94.2%	7.5	0.5	A
	Subtotal	1108	1124	101.5%	6.4	1.0	A
WB	Left Turn						
	Through	1828	1736	95.0%	13.3	3.6	B
	Right Turn	56	47	84.3%	10.0	3.3	A
	Subtotal	1884	1784	94.7%	13.2	3.6	B
Total		3116	3034	97.4%	10.8	2.4	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
AM Peak Hour

Intersection 10

Project Dwy/Fair Oaks Blvd

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	24	25	105.0%	59.9	31.8	F
	Subtotal	24	25	105.0%	59.9	31.8	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1856	1765	95.1%	6.7	1.2	A
	Right Turn	92	83	90.4%	6.7	1.0	A
	Subtotal	1948	1848	94.9%	6.7	1.2	A
Total		1972	1873	95.0%	7.4	1.1	A

Level Of Service Computation Report

Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Fair Oaks Boulevard / Munroe Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.762
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 96 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Split Phase			Split Phase			Protected			Protected				
Rights:	Include			Include			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	1	0	1	2	0	2	1	0

Volume Module:

Base Vol:	196	328	69	286	380	66	190	437	131	142	1074	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	196	328	69	286	380	66	190	437	131	142	1074	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	196	328	69	286	380	66	190	437	131	142	1074	147
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	328	69	286	380	66	190	437	131	142	1074	147
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	328	69	315	380	66	209	437	131	142	1074	147

Saturation Flow Module:

Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.36	1.64	1.00	2.00	2.31	0.69	1.00	1.76	0.24
Final Sat.:	1500	3000	1500	2038	2462	1500	3000	3462	1038	1500	2639	361

Capacity Analysis Module:

Vol/Sat:	0.13	0.11	0.05	0.15	0.15	0.04	0.07	0.13	0.13	0.09	0.41	0.41
Crit Volume:	196			232			104				611	
Crit Moves:	****			****			****				****	

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
PM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	36	32	88.9%	72.3	22.5	E
	Through	2276	2053	90.2%	30.7	4.1	C
	Right Turn	248	219	88.4%	25.7	3.5	C
	Subtotal	2560	2304	90.0%	30.8	4.0	C
SB	Left Turn	84	76	90.0%	68.4	12.9	E
	Through	1896	1865	98.4%	16.2	4.1	B
	Right Turn	8	8	100.0%	15.3	8.1	B
	Subtotal	1988	1948	98.0%	18.2	3.8	B
EB	Left Turn	52	44	85.4%	59.7	10.9	E
	Through	44	49	111.8%	72.4	16.7	E
	Right Turn	52	53	102.3%	23.6	8.5	C
	Subtotal	148	147	99.2%	51.3	7.7	D
WB	Left Turn	216	216	100.2%	60.2	5.7	E
	Through	16	12	77.5%	65.2	23.5	E
	Right Turn	80	78	98.0%	25.2	5.5	C
	Subtotal	312	307	98.5%	51.4	4.4	D
Total		5008	4707	94.0%	27.5	3.2	C

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2496	2239	89.7%	13.5	3.1	B
	Right Turn	108	87	80.4%	13.3	3.7	B
	Subtotal	2604	2326	89.3%	13.5	3.0	B
SB	Left Turn	92	92	99.6%	86.6	15.8	F
	Through	1976	2006	101.5%	22.3	12.5	C
	Right Turn						
	Subtotal	2068	2098	101.4%	25.3	11.4	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	68	66	97.1%	82.2	27.4	F
	Through						
	Right Turn	52	60	114.6%	16.3	4.4	B
	Subtotal	120	126	104.7%	51.9	18.5	D
Total		4792	4549	94.9%	20.1	6.9	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
PM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	80	70	87.0%	72.3	15.1	E
	Through	2288	2089	91.3%	22.4	4.1	C
	Right Turn	12	11	93.3%	25.5	13.8	C
	Subtotal	2380	2170	91.2%	24.1	4.3	C
SB	Left Turn						
	Through	2008	1943	96.8%	27.5	10.5	C
	Right Turn	64	55	86.3%	36.3	16.2	D
	Subtotal	2072	1998	96.4%	27.7	10.6	C
EB	Left Turn	312	200	64.1%	861.5	267.1	F
	Through	8	7	85.0%	841.8	260.6	F
	Right Turn	48	33	69.2%	835.0	273.8	F
	Subtotal	368	240	65.2%	857.3	268.0	F
WB	Left Turn	48	45	94.2%	88.7	24.0	F
	Through						
	Right Turn	4	4	100.0%	46.1	80.6	D
	Subtotal	52	49	94.6%	86.2	20.9	F
Total		4872	4458	91.5%	70.4	15.4	E

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2272	2063	90.8%	4.2	0.3	A
	Right Turn						
	Subtotal	2272	2063	90.8%	4.2	0.3	A
SB	Left Turn						
	Through	2000	1932	96.6%	24.4	9.1	C
	Right Turn	100	107	106.8%	27.7	11.8	D
	Subtotal	2100	2038	97.1%	24.6	9.1	C
EB	Left Turn						
	Through						
	Right Turn	188	78	41.3%	612.6	334.7	F
	Subtotal	188	78	41.3%	612.6	334.7	F
WB	Left Turn						
	Through						
	Right Turn	108	114	105.2%	71.4	28.5	F
	Subtotal	108	114	105.2%	71.4	28.5	F
Total		4668	4292.4	92.0%	24.3	5.5	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
PM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	424	396	93.4%	135.7	18.8	F
	Through	1444	1373	95.1%	123.2	15.7	F
	Right Turn	76	75	98.9%	138.4	28.2	F
	Subtotal	1944	1844	94.9%	126.7	15.3	F
SB	Left Turn	340	308	90.6%	116.0	18.9	F
	Through	1280	1162	90.8%	98.8	14.9	F
	Right Turn	568	529	93.2%	42.3	11.9	D
	Subtotal	2188	1999	91.4%	86.5	14.4	F
EB	Left Turn	656	500	76.3%	252.9	23.1	F
	Through	1208	1160	96.0%	128.8	21.5	F
	Right Turn	96	89	92.9%	103.8	16.3	F
	Subtotal	1960	1750	89.3%	163.1	21.0	F
WB	Left Turn	176	173	98.2%	110.2	34.8	F
	Through	816	797	97.7%	89.7	12.5	F
	Right Turn	240	233	97.2%	35.3	12.6	D
	Subtotal	1232	1203	97.7%	82.7	15.1	F
Total		7324	6796	92.8%	116.3	8.2	F

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	52	41	78.5%	109.9	47.3	F
	Through	1536	1495	97.3%	72.4	45.9	E
	Right Turn	268	267	99.6%	83.1	45.0	F
	Subtotal	1856	1803	97.1%	74.8	45.5	E
SB	Left Turn	76	70	92.6%	96.0	27.0	F
	Through	1376	1233	89.6%	46.2	9.0	D
	Right Turn	104	99	95.0%	42.9	13.3	D
	Subtotal	1556	1402	90.1%	48.5	9.9	D
EB	Left Turn	220	212	96.2%	57.6	16.2	E
	Through	192	193	100.6%	62.4	19.3	E
	Right Turn	252	277	109.8%	45.9	15.4	D
	Subtotal	664	682	102.7%	54.2	15.8	D
WB	Left Turn	232	245	105.5%	46.2	6.5	D
	Through	68	70	103.5%	47.8	7.9	D
	Right Turn	140	148	106.0%	32.8	5.5	C
	Subtotal	440	464	105.4%	42.2	3.7	D
Total		4516	4350	96.3%	59.4	21.2	E

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
PM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	16	15	92.5%	98.5	62.9	F
	Through	1740	1801	103.5%	22.4	2.4	C
	Right Turn	640	645	100.8%	13.0	3.8	B
	Subtotal	2396	2460	102.7%	20.2	2.8	C
SB	Left Turn	112	101	90.4%	89.2	20.8	F
	Through	1892	1779	94.0%	21.7	3.1	C
	Right Turn	40	41	102.0%	23.3	5.0	C
	Subtotal	2044	1921	94.0%	25.4	2.8	C
EB	Left Turn	32	34	106.3%	95.8	36.3	F
	Through	60	67	112.0%	92.1	28.4	F
	Right Turn	24	20	81.7%	56.6	33.6	E
	Subtotal	116	121	104.1%	86.1	28.7	F
WB	Left Turn	392	403	102.9%	56.6	8.1	E
	Through	40	41	102.0%	62.6	14.7	E
	Right Turn	92	84	91.3%	25.4	9.4	C
	Subtotal	524	528	100.8%	52.2	8.0	D
Total		5080	5030	99.0%	27.2	2.8	C

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	84	90	106.7%	1.3	0.3	A
	Subtotal	84	90	106.7%	1.3	0.3	A
SB	Left Turn	56	54	95.7%	46.7	16.3	D
	Through						
	Right Turn	84	82	98.1%	20.0	7.4	B
	Subtotal	140	136	97.1%	30.8	9.3	C
EB	Left Turn	196	192	97.8%	80.2	22.5	F
	Through	1816	1718	94.6%	23.0	11.0	C
	Right Turn	148	163	110.0%	8.6	3.4	A
	Subtotal	2160	2072	95.9%	27.1	10.8	C
WB	Left Turn						
	Through	1704	1604	94.1%	26.2	6.0	C
	Right Turn	40	42	105.0%	18.6	6.0	B
	Subtotal	1744	1646	94.4%	26.0	6.0	C
Total		4128	3944	95.5%	26.1	5.6	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project
PM Peak Hour

Intersection 10

Project Dwy/Fair Oaks Blvd

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	92	92	100.4%	25.6	8.4	D
	Subtotal	92	92	100.4%	25.6	8.4	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1652	1550	93.8%	5.4	0.7	A
	Right Turn	248	238	96.0%	5.2	1.1	A
	Subtotal	1900	1788	94.1%	5.4	0.7	A
Total		1992	1881	94.4%	6.4	0.9	A

Level Of Service Computation Report

Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Fair Oaks Boulevard / Munroe Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.781
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	104	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Split Phase			Split Phase			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	1	1	1	0	1	2	0	2	1	0	

Volume Module:														
Base Vol:	167	536	107	354	394	83	434	1258	196	69	616	192		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	167	536	107	354	394	83	434	1258	196	69	616	192		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	167	536	107	354	394	83	434	1258	196	69	616	192		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	167	536	107	354	394	83	434	1258	196	69	616	192		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	167	536	107	389	394	83	477	1258	196	69	616	192		

Saturation Flow Module:														
Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lanes:	1.00	2.00	1.00	1.49	1.51	1.00	2.00	2.60	0.40	1.00	1.52	0.48		
Final Sat.:	1500	3000	1500	2237	2263	1500	3000	3893	607	1500	2287	713		

Capacity Analysis Module:														
Vol/Sat:	0.11	0.18	0.07	0.17	0.17	0.06	0.16	0.32	0.32	0.05	0.27	0.27		
Crit Volume:	268			261			239			404				
Crit Moves:	****			****			****			****				

EXISTING PLUS PROJECT

MITIGATION MEASURES

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	44	46	103.6%	50.0	4.9	D
	Through	1208	1245	103.1%	11.0	2.5	B
	Right Turn	76	74	97.4%	7.6	1.6	A
	Subtotal	1328	1365	102.8%	12.1	2.4	B
SB	Left Turn	44	43	97.3%	61.7	8.8	E
	Through	1664	1682	101.1%	10.6	1.5	B
	Right Turn	20	22	112.0%	12.3	8.3	B
	Subtotal	1728	1747	101.1%	11.9	1.7	B
EB	Left Turn	16	14	90.0%	51.8	15.1	D
	Through	8	8	105.0%	62.0	33.5	E
	Right Turn	20	20	98.0%	20.8	10.1	C
	Subtotal	44	42	96.4%	42.4	9.0	D
WB	Left Turn	288	269	93.3%	52.7	6.5	D
	Through	28	23	82.9%	39.4	18.5	D
	Right Turn	60	63	105.3%	15.3	5.2	B
	Subtotal	376	355	94.5%	45.2	6.6	D
Total		3476	3510	101.0%	15.7	2.1	B

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1336	1359	101.7%	9.5	2.2	A
	Right Turn	76	80	105.8%	8.6	2.9	A
	Subtotal	1412	1440	102.0%	9.5	2.2	A
SB	Left Turn	52	51	97.7%	61.3	8.8	E
	Through	1920	1973	102.8%	22.5	9.0	C
	Right Turn						
	Subtotal	1972	2024	102.6%	23.4	9.0	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	132	114	86.1%	66.2	14.2	E
	Through						
	Right Turn	56	56	100.0%	7.4	2.2	A
	Subtotal	188	170	90.2%	46.6	11.6	D
Total		3572	3633	101.7%	19.1	5.9	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	64	58	90.0%	54.2	10.1	D
	Through	1332	1315	98.7%	10.7	1.2	B
	Right Turn	36	33	92.2%	9.9	3.2	A
	Subtotal	1432	1406	98.2%	12.5	1.5	B
SB	Left Turn						
	Through	1984	1995	100.5%	20.7	2.2	C
	Right Turn	72	73	101.7%	25.6	3.9	C
	Subtotal	2056	2068	100.6%	20.9	2.2	C
EB	Left Turn	64	66	102.5%	53.6	10.8	D
	Through	4	1	30.0%	24.9	33.1	C
	Right Turn	32	33	103.8%	27.4	9.1	C
	Subtotal	100	100	100.0%	45.2	8.4	D
WB	Left Turn	12	12	103.3%	38.8	19.4	D
	Through						
	Right Turn	4	5	130.0%	8.9	16.4	A
	Subtotal	16	18	110.0%	30.0	17.1	C
Total		3604	3591	99.6%	18.3	1.6	B

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1384	1431	103.4%	2.8	0.2	A
	Right Turn						
	Subtotal	1384	1431	103.4%	2.8	0.2	A
SB	Left Turn						
	Through	1984	1908	96.2%	14.5	1.4	B
	Right Turn	44	48	109.1%	24.8	5.2	C
	Subtotal	2028	1956	96.4%	14.7	1.4	B
EB	Left Turn						
	Through						
	Right Turn	60	46	77.3%	916.2	737.5	F
	Subtotal	60	46	77.3%	916.2	737.5	F
WB	Left Turn						
	Through						
	Right Turn	48	46	95.0%	16.8	4.0	C
	Subtotal	48	46	95.0%	16.8	4.0	C
Total		3520	3479	98.8%	19.6	4.8	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	244	217	88.9%	74.6	44.8	E
	Through	964	950	98.6%	23.3	2.8	C
	Right Turn	60	66	110.7%	22.2	4.3	C
	Subtotal	1268	1234	97.3%	32.7	10.1	C
SB	Left Turn	208	198	95.0%	74.2	9.1	E
	Through	1008	1036	102.8%	39.8	4.3	D
	Right Turn	824	822	99.8%	34.0	4.1	C
	Subtotal	2040	2056	100.8%	40.9	3.6	D
EB	Left Turn	328	338	103.0%	82.7	26.7	F
	Through	560	525	93.7%	37.6	3.7	D
	Right Turn	88	82	93.2%	9.8	2.3	A
	Subtotal	976	945	96.8%	51.6	11.1	D
WB	Left Turn	88	76	86.8%	71.2	13.6	E
	Through	848	818	96.5%	65.5	8.8	E
	Right Turn	120	121	101.0%	13.8	2.0	B
	Subtotal	1056	1016	96.2%	59.7	7.6	E
Total		5340	5250	98.3%	44.7	3.8	D

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	252	254	100.6%	71.2	12.2	E
	Through	1192	1142	95.8%	46.1	6.4	D
	Right Turn	236	230	97.5%	48.9	6.4	D
	Subtotal	1680	1626	96.8%	50.3	5.7	D
SB	Left Turn	56	52	92.1%	56.0	17.9	E
	Through	928	906	97.7%	13.9	2.3	B
	Right Turn	204	209	102.4%	14.7	2.9	B
	Subtotal	1188	1167	98.2%	15.8	2.1	B
EB	Left Turn	64	62	96.3%	60.0	14.2	E
	Through	48	42	88.3%	53.6	14.5	D
	Right Turn	64	66	103.1%	17.2	6.6	B
	Subtotal	176	170	96.6%	41.0	5.6	D
WB	Left Turn	176	172	97.5%	46.6	5.0	D
	Through	188	160	85.1%	53.7	9.7	D
	Right Turn	28	28	100.0%	36.0	11.8	D
	Subtotal	392	360	91.7%	48.7	4.7	D
Total		3436	3322	96.7%	37.5	2.9	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	20	23	114.0%	85.0	28.4	F
	Through	1460	1456	99.7%	23.8	3.1	C
	Right Turn	348	367	105.4%	5.8	1.0	A
	Subtotal	1828	1846	101.0%	21.0	2.8	C
SB	Left Turn	28	26	91.4%	53.6	15.8	D
	Through	1124	1120	99.6%	14.1	2.2	B
	Right Turn	12	8	70.0%	10.1	11.1	B
	Subtotal	1164	1154	99.1%	14.9	2.0	B
EB	Left Turn	36	30	82.2%	68.7	19.4	E
	Through	40	42	105.0%	69.2	20.5	E
	Right Turn	12	8	66.7%	36.9	34.9	D
	Subtotal	88	80	90.5%	67.3	17.5	E
WB	Left Turn	580	584	100.8%	64.2	21.0	E
	Through	44	43	97.3%	67.8	23.5	E
	Right Turn	112	109	97.1%	40.5	19.3	D
	Subtotal	736	736	100.0%	61.0	20.2	E
Total		3816	3815	100.0%	27.9	5.5	C

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	36	31	85.6%	0.8	0.1	A
	Subtotal	36	31	85.6%	0.8	0.1	A
SB	Left Turn	28	28	101.4%	38.3	14.3	D
	Through						
	Right Turn	60	64	106.0%	22.8	6.0	C
	Subtotal	88	92	104.5%	27.8	7.5	C
EB	Left Turn	56	62	111.4%	48.0	7.6	D
	Through	908	864	95.1%	4.9	1.7	A
	Right Turn	144	131	91.1%	7.5	0.4	A
	Subtotal	1108	1057	95.4%	7.7	2.2	A
WB	Left Turn						
	Through	1828	1772	96.9%	13.2	3.9	B
	Right Turn	56	43	77.1%	9.9	2.9	A
	Subtotal	1884	1815	96.3%	13.1	3.8	B
Total		3116	2995	96.1%	11.5	3.1	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 10

Project Dwy/Fair Oaks Blvd

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	24	20	83.3%	68.7	48.1	F
	Subtotal	24	20	83.3%	68.7	48.1	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1856	1790	96.4%	4.9	0.4	A
	Right Turn	92	98	107.0%	3.4	0.9	A
	Subtotal	1948	1888	96.9%	4.8	0.4	A
Total		1972	1908	96.8%	5.5	0.4	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	36	30	83.3%	73.8	19.4	E
	Through	2276	2052	90.2%	33.2	4.2	C
	Right Turn	248	223	90.0%	28.2	4.7	C
	Subtotal	2560	2305	90.0%	33.3	4.0	C
SB	Left Turn	84	86	101.9%	70.0	10.6	E
	Through	1896	1879	99.1%	15.5	2.6	B
	Right Turn	8	11	135.0%	16.3	13.3	B
	Subtotal	1988	1975	99.4%	17.8	2.6	B
EB	Left Turn	52	56	108.5%	59.3	9.9	E
	Through	44	42	95.5%	65.4	7.8	E
	Right Turn	52	53	102.3%	33.9	10.2	C
	Subtotal	148	152	102.4%	52.6	5.9	D
WB	Left Turn	216	233	108.0%	59.3	5.7	E
	Through	16	14	90.0%	43.3	24.2	D
	Right Turn	80	74	93.0%	27.5	8.0	C
	Subtotal	312	322	103.2%	51.1	4.0	D
Total		5008	4754	94.9%	28.7	2.8	C

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2496	2312	92.6%	14.3	3.3	B
	Right Turn	108	96	88.5%	13.7	1.4	B
	Subtotal	2604	2408	92.5%	14.3	3.2	B
SB	Left Turn	92	92	100.0%	84.6	11.7	F
	Through	1976	2058	104.1%	26.6	14.2	C
	Right Turn						
	Subtotal	2068	2150	103.9%	29.0	13.8	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	68	65	95.3%	90.5	27.1	F
	Through						
	Right Turn	52	49	94.6%	19.7	7.9	B
	Subtotal	120	114	95.0%	60.3	19.9	E
Total		4792	4672	97.5%	22.2	7.8	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	80	78	98.0%	89.6	25.1	F
	Through	2288	2202	96.2%	41.4	6.6	D
	Right Turn	12	10	80.0%	40.1	15.9	D
	Subtotal	2380	2290	96.2%	42.9	6.8	D
SB	Left Turn						
	Through	2008	1956	97.4%	39.7	8.4	D
	Right Turn	64	59	91.9%	51.3	9.4	D
	Subtotal	2072	2015	97.2%	40.1	8.4	D
EB	Left Turn	312	210	67.3%	849.6	209.8	F
	Through	8	4	55.0%	725.1	187.4	F
	Right Turn	48	29	60.0%	807.2	186.3	F
	Subtotal	368	243	66.1%	843.8	205.8	F
WB	Left Turn	48	50	105.0%	66.0	40.1	E
	Through						
	Right Turn	4	4	110.0%	14.8	26.5	B
	Subtotal	52	55	105.4%	63.3	40.2	E
Total		4872	4603	94.5%	84.2	12.8	F

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2272	2150	94.6%	5.8	1.4	A
	Right Turn						
	Subtotal	2272	2150	94.6%	5.8	1.4	A
SB	Left Turn						
	Through	2000	1952	97.6%	25.7	6.9	D
	Right Turn	100	89	89.2%	35.1	12.0	E
	Subtotal	2100	2042	97.2%	26.1	7.0	D
EB	Left Turn						
	Through						
	Right Turn	188	14	7.7%	2529.4	2297.4	F
	Subtotal	188	14	7.7%	2529.4	2297.4	F
WB	Left Turn						
	Through						
	Right Turn	108	86	79.6%	256.9	239.1	F
	Subtotal	108	86	79.6%	256.9	239.1	F
Total		4668	4292	92.0%	26.9	7.6	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	424	398	93.8%	195.0	59.7	F
	Through	1444	1424	98.6%	116.3	20.9	F
	Right Turn	76	68	90.0%	136.9	25.1	F
	Subtotal	1944	1890	97.2%	133.9	23.5	F
SB	Left Turn	340	266	78.2%	120.9	24.5	F
	Through	1280	1116	87.2%	100.8	30.8	F
	Right Turn	568	495	87.2%	69.7	18.5	E
	Subtotal	2188	1877	85.8%	95.1	22.7	F
EB	Left Turn	656	620	94.5%	161.4	31.6	F
	Through	1208	1250	103.5%	74.3	20.2	E
	Right Turn	96	101	105.4%	52.7	21.1	D
	Subtotal	1960	1971	100.6%	100.7	23.6	F
WB	Left Turn	176	174	98.9%	121.6	31.8	F
	Through	816	811	99.4%	101.0	48.2	F
	Right Turn	240	223	93.0%	35.7	9.4	D
	Subtotal	1232	1208	98.1%	93.0	38.5	F
Total		7324	6946	94.8%	106.4	14.5	F

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	52	52	100.0%	66.9	21.7	E
	Through	1536	1456	94.8%	37.4	14.6	D
	Right Turn	268	281	104.8%	52.7	14.9	D
	Subtotal	1856	1789	96.4%	40.8	14.4	D
SB	Left Turn	76	68	89.5%	88.5	12.6	F
	Through	1376	1228	89.2%	28.8	3.3	C
	Right Turn	104	90	86.2%	29.3	7.3	C
	Subtotal	1556	1386	89.0%	31.8	3.9	C
EB	Left Turn	220	248	112.9%	56.4	5.2	E
	Through	192	204	106.3%	56.0	4.5	E
	Right Turn	252	248	98.3%	46.6	9.6	D
	Subtotal	664	700	105.4%	52.7	3.8	D
WB	Left Turn	232	211	91.0%	47.2	5.6	D
	Through	68	67	98.2%	51.5	11.6	D
	Right Turn	140	130	92.9%	36.3	26.6	D
	Subtotal	440	408	92.7%	43.8	9.2	D
Total		4516	4282	94.8%	40.0	6.4	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	16	13	80.0%	84.0	36.2	F
	Through	1740	1718	98.7%	29.1	4.3	C
	Right Turn	640	640	100.1%	19.4	4.9	B
	Subtotal	2396	2371	99.0%	26.8	4.4	C
SB	Left Turn	112	108	96.8%	50.8	12.8	D
	Through	1892	1757	92.9%	12.1	1.8	B
	Right Turn	40	41	102.0%	11.6	5.2	B
	Subtotal	2044	1906	93.2%	14.4	2.4	B
EB	Left Turn	32	37	115.0%	72.2	30.9	E
	Through	60	68	112.7%	67.7	21.3	E
	Right Turn	24	19	78.3%	35.1	23.2	D
	Subtotal	116	123	106.2%	64.8	22.3	E
WB	Left Turn	392	396	100.9%	57.9	8.5	E
	Through	40	44	110.0%	61.7	9.0	E
	Right Turn	92	87	94.3%	29.1	7.5	C
	Subtotal	524	526	100.5%	53.4	8.2	D
Total		5080	4927	97.0%	25.9	3.3	C

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	84	86	102.9%	1.1	0.2	A
	Subtotal	84	86	102.9%	1.1	0.2	A
SB	Left Turn	56	59	105.0%	41.5	8.4	D
	Through						
	Right Turn	84	91	108.1%	21.1	6.0	C
	Subtotal	140	150	106.9%	28.7	6.6	C
EB	Left Turn	196	193	98.4%	70.2	16.7	E
	Through	1816	1840	101.3%	17.3	5.9	B
	Right Turn	148	153	103.2%	13.7	2.0	B
	Subtotal	2160	2186	101.2%	21.7	6.0	C
WB	Left Turn						
	Through	1704	1599	93.8%	22.5	6.2	C
	Right Turn	40	38	96.0%	16.2	5.9	B
	Subtotal	1744	1637	93.9%	22.3	6.2	C
Total		4128	4059	98.3%	21.8	5.4	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 10

Project Dwy/Fair Oaks Blvd

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	96	93	97.1%	26.3	7.4	D
	Subtotal	96	93	97.1%	26.3	7.4	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1652	1556	94.2%	4.5	0.2	A
	Right Turn	248	236	95.2%	3.7	0.3	A
	Subtotal	1900	1792	94.3%	4.4	0.2	A
Total		1996	1885	94.4%	5.5	0.4	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
E+P, Dual EB Left at Howe/Feature
PM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	80	74	92.0%	77.3	11.3	E
	Through	2288	2108	92.1%	42.3	7.8	D
	Right Turn	12	12	96.7%	46.6	18.4	D
	Subtotal	2380	2193	92.2%	43.5	7.5	D
SB	Left Turn						
	Through	2008	1971	98.1%	39.5	8.4	D
	Right Turn	64	68	106.9%	46.9	12.5	D
	Subtotal	2072	2039	98.4%	39.7	8.4	D
EB	Left Turn	312	321	102.9%	108.8	41.1	F
	Through	8	6	75.0%	112.7	80.6	F
	Right Turn	48	49	101.7%	71.7	42.6	E
	Subtotal	368	376	102.2%	104.1	40.8	F
WB	Left Turn	48	46	95.0%	83.5	98.9	F
	Through						
	Right Turn	4	2	50.0%	40.8	74.9	D
	Subtotal	52	48	91.5%	84.5	99.4	F
Total		4872	4656	95.6%	47.1	7.9	D

CUMULATIVE NO PROJECT

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative No Project
AM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	52	41	79.2%	55.5	18.4	E
	Through	1532	1528	99.7%	16.6	2.4	B
	Right Turn	80	71	89.0%	12.4	1.9	B
	Subtotal	1664	1640	98.6%	17.4	2.4	B
SB	Left Turn	60	60	100.0%	54.0	8.5	D
	Through	1740	1725	99.1%	15.5	3.1	B
	Right Turn	32	28	87.5%	13.7	7.0	B
	Subtotal	1832	1813	99.0%	16.8	3.0	B
EB	Left Turn	20	16	80.0%	57.8	26.4	E
	Through	12	12	103.3%	50.8	26.7	D
	Right Turn	32	37	116.3%	29.9	5.8	C
	Subtotal	64	66	102.5%	42.6	8.3	D
WB	Left Turn	292	289	98.9%	57.8	8.9	E
	Through	32	30	92.5%	45.8	13.6	D
	Right Turn	100	104	103.6%	21.4	4.6	C
	Subtotal	424	422	99.5%	47.9	6.7	D
Total		3984	3941	98.9%	20.8	2.1	C

Intersection 2

Howe Ave/Sierra Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1572	1477	94.0%	10.1	2.5	B
	Right Turn	76	84	110.0%	9.8	4.3	A
	Subtotal	1648	1561	94.7%	10.0	2.6	A
SB	Left Turn	72	62	86.7%	70.1	16.1	E
	Through	1952	1996	102.2%	39.2	15.1	D
	Right Turn						
	Subtotal	2024	2058	101.7%	40.1	14.7	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	140	119	85.1%	122.4	40.8	F
	Through						
	Right Turn	60	66	109.3%	10.6	3.1	B
	Subtotal	200	185	92.4%	82.9	27.5	F
Total		3872	3804	98.2%	29.8	8.5	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative No Project
AM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	60	63	104.7%	65.2	13.6	E
	Through	1592	1512	94.9%	13.5	1.9	B
	Right Turn	40	37	93.0%	14.5	3.8	B
	Subtotal	1692	1612	95.2%	15.6	1.9	B
SB	Left Turn						
	Through	2020	2063	102.1%	23.8	2.1	C
	Right Turn	72	70	97.8%	29.5	7.7	C
	Subtotal	2092	2134	102.0%	23.9	2.1	C
EB	Left Turn	40	34	86.0%	54.6	13.1	D
	Through	4	8	190.0%	39.2	30.8	D
	Right Turn	32	28	87.5%	31.7	12.1	C
	Subtotal	76	70	92.1%	45.6	8.5	D
WB	Left Turn	20	17	86.0%	51.7	20.7	D
	Through	4	4	90.0%	31.5	29.2	C
	Right Turn	4	5	130.0%	11.1	13.0	B
	Subtotal	28	26	92.9%	44.2	12.9	D
Total		3888	3841	98.8%	20.9	1.1	C

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1640	1570	95.7%	2.8	0.3	A
	Right Turn						
	Subtotal	1640	1570	95.7%	2.8	0.3	A
SB	Left Turn						
	Through	2052	2062	100.5%	9.3	2.3	A
	Right Turn	20	13	66.0%	7.1	2.8	A
	Subtotal	2072	2075	100.2%	9.3	2.3	A
EB	Left Turn						
	Through						
	Right Turn	20	18	88.0%	61.6	28.6	F
	Subtotal	20	18	88.0%	61.6	28.6	F
WB	Left Turn						
	Through						
	Right Turn	52	48	92.3%	21.9	7.3	C
	Subtotal	52	48	92.3%	21.9	7.3	C
Total		3784	3711	98.1%	7.0	1.5	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative No Project
AM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	220	214	97.5%	78.4	9.9	E
	Through	1020	1001	98.1%	59.1	8.1	E
	Right Turn	120	127	106.0%	65.5	10.4	E
	Subtotal	1360	1342	98.7%	62.8	7.2	E
SB	Left Turn	232	252	108.6%	84.1	5.4	F
	Through	992	997	100.5%	58.0	8.1	E
	Right Turn	852	850	99.8%	17.5	4.1	B
	Subtotal	2076	2099	101.1%	44.7	5.8	D
EB	Left Turn	500	481	96.2%	76.8	7.6	E
	Through	712	708	99.4%	37.3	3.1	D
	Right Turn	92	88	96.1%	15.2	3.1	B
	Subtotal	1304	1277	97.9%	50.6	4.1	D
WB	Left Turn	100	84	84.4%	79.0	7.7	E
	Through	912	852	93.5%	63.8	6.6	E
	Right Turn	120	110	91.7%	12.2	1.8	B
	Subtotal	1132	1047	92.5%	59.6	5.3	E
Total		5872	5765	98.2%	52.9	2.4	D

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	260	249	95.8%	79.3	8.1	E
	Through	1272	1257	98.8%	18.7	4.6	B
	Right Turn	240	259	107.8%	21.9	7.6	C
	Subtotal	1772	1765	99.6%	27.7	5.3	C
SB	Left Turn	60	58	96.0%	69.8	18.1	E
	Through	912	955	104.7%	32.0	8.5	C
	Right Turn	212	200	94.5%	27.3	7.9	C
	Subtotal	1184	1213	102.4%	33.0	8.1	C
EB	Left Turn	60	57	94.7%	50.7	6.0	D
	Through	52	51	97.7%	56.9	12.9	E
	Right Turn	72	66	91.7%	23.4	8.6	C
	Subtotal	184	174	94.3%	42.4	8.7	D
WB	Left Turn	180	174	96.7%	49.0	9.3	D
	Through	192	184	96.0%	52.1	9.2	D
	Right Turn	32	28	88.8%	40.8	8.8	D
	Subtotal	404	387	95.7%	50.2	7.7	D
Total		3544	3538	99.8%	32.6	3.6	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative No Project
AM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	32	22	68.8%	73.3	25.6	E
	Through	1532	1411	92.1%	25.7	3.3	C
	Right Turn	440	439	99.7%	7.4	1.2	A
	Subtotal	2004	1872	93.4%	21.9	2.7	C
SB	Left Turn	32	30	95.0%	68.7	16.4	E
	Through	1160	1128	97.2%	27.4	4.9	C
	Right Turn	12	5	40.0%	19.8	23.0	B
	Subtotal	1204	1163	96.6%	28.5	4.9	C
EB	Left Turn	40	39	97.0%	66.6	13.7	E
	Through	40	50	126.0%	53.9	10.3	D
	Right Turn	20	20	98.0%	31.6	20.0	C
	Subtotal	100	109	108.8%	54.1	9.3	D
WB	Left Turn	600	617	102.8%	61.9	14.4	E
	Through	52	50	96.2%	63.3	15.1	E
	Right Turn	112	112	100.0%	39.5	14.4	D
	Subtotal	764	779	101.9%	58.9	14.5	E
Total		4072	3922	96.3%	32.0	3.8	C

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	40	32	79.0%	0.9	0.1	A
	Subtotal	40	32	79.0%	0.9	0.1	A
SB	Left Turn	32	26	80.0%	32.8	12.6	C
	Through						
	Right Turn	60	64	106.0%	22.1	5.1	C
	Subtotal	92	89	97.0%	25.8	5.3	C
EB	Left Turn	52	49	93.8%	50.9	6.6	D
	Through	1232	1267	102.8%	5.0	1.2	A
	Right Turn	152	156	102.4%	7.8	0.5	A
	Subtotal	1436	1471	102.5%	6.8	1.1	A
WB	Left Turn						
	Through	1920	1853	96.5%	14.8	4.8	B
	Right Turn	60	59	98.0%	13.4	6.2	B
	Subtotal	1980	1912	96.5%	14.8	4.8	B
Total		3548	3504	98.7%	11.6	3.2	B

Level Of Service Computation Report

Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Fair Oaks Boulevard / Munroe Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.853
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	155	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Split Phase			Split Phase			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	1	0	1	2	0	2	1	0	

Volume Module:													
Base Vol:	200	530	80	300	390	120	290	530	140	160	1080	150	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	200	530	80	300	390	120	290	530	140	160	1080	150	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	200	530	80	300	390	120	290	530	140	160	1080	150	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	200	530	80	300	390	120	290	530	140	160	1080	150	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	200	530	80	330	390	120	319	530	140	160	1080	150	

Saturation Flow Module:												
Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.38	1.62	1.00	2.00	2.37	0.63	1.00	1.76	0.24
Final Sat.:	1500	3000	1500	2063	2438	1500	3000	3560	940	1500	2634	366

Capacity Analysis Module:												
Vol/Sat:	0.13	0.18	0.05	0.16	0.16	0.08	0.11	0.15	0.15	0.11	0.41	0.41
Crit Volume:	265			240			160			615		
Crit Moves:	****			****			****			****		

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative No Project
PM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	40	29	73.0%	83.6	22.0	F
	Through	2372	2076	87.5%	43.5	7.4	D
	Right Turn	240	200	83.5%	35.9	5.7	D
	Subtotal	2652	2306	87.0%	43.4	7.3	D
SB	Left Turn	120	120	100.0%	86.2	27.5	F
	Through	2072	1927	93.0%	48.6	40.7	D
	Right Turn	12	9	73.3%	96.0	132.7	F
	Subtotal	2204	2056	93.3%	50.8	40.1	D
EB	Left Turn	60	58	97.3%	82.4	50.8	F
	Through	52	53	101.5%	70.1	14.8	E
	Right Turn	60	64	107.3%	50.5	23.6	D
	Subtotal	172	176	102.1%	66.7	23.1	E
WB	Left Turn	212	208	98.3%	96.0	61.4	F
	Through	20	19	96.0%	57.9	27.9	E
	Right Turn	92	92	100.4%	37.0	32.3	D
	Subtotal	324	320	98.8%	76.5	50.4	E
Total		5352	4857	90.8%	49.2	22.1	D

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2560	2343	91.5%	15.7	3.1	B
	Right Turn	104	93	89.2%	16.7	5.3	B
	Subtotal	2664	2436	91.4%	15.7	3.2	B
SB	Left Turn	92	77	83.5%	101.5	22.3	F
	Through	2152	2116	98.3%	78.5	29.4	E
	Right Turn						
	Subtotal	2244	2192	97.7%	79.3	28.8	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	72	61	85.0%	125.1	35.7	F
	Through						
	Right Turn	60	46	76.0%	21.5	7.9	C
	Subtotal	132	107	80.9%	81.0	22.8	F
Total		5040	4735	93.9%	46.4	13.8	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative No Project
PM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	80	74	93.0%	67.9	12.1	E
	Through	2452	2230	90.9%	34.2	8.5	C
	Right Turn	20	18	88.0%	33.4	16.4	C
	Subtotal	2552	2322	91.0%	35.2	8.2	D
SB	Left Turn						
	Through	2160	2022	93.6%	44.8	5.7	D
	Right Turn	60	63	104.7%	45.9	7.8	D
	Subtotal	2220	2085	93.9%	44.8	5.6	D
EB	Left Turn	212	199	94.0%	175.5	56.0	F
	Through	12	10	80.0%	154.7	93.9	F
	Right Turn	52	45	86.2%	123.4	56.4	F
	Subtotal	276	254	91.9%	166.2	55.9	F
WB	Left Turn	52	41	79.2%	115.8	77.9	F
	Through	4	6	140.0%	114.0	60.6	F
	Right Turn	4	8	200.0%	91.2	81.4	F
	Subtotal	60	55	91.3%	114.1	76.7	F
Total		5108	4715	92.3%	47.4	4.9	D

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2440	2233	91.5%	5.9	1.2	A
	Right Turn						
	Subtotal	2440	2233	91.5%	5.9	1.2	A
SB	Left Turn						
	Through	2252	2118	94.0%	19.6	6.5	C
	Right Turn	12	7	60.0%	10.2	10.8	B
	Subtotal	2264	2125	93.9%	19.6	6.5	C
EB	Left Turn						
	Through						
	Right Turn	20	16	78.0%	98.8	73.8	F
	Subtotal	20	16	78.0%	98.8	73.8	F
WB	Left Turn						
	Through						
	Right Turn	112	114	102.1%	87.2	49.5	F
	Subtotal	112	114	102.1%	87.2	49.5	F
Total		4836	4488	92.8%	14.5	2.8	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative No Project
PM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	340	294	86.4%	137.6	13.8	F
	Through	1532	1426	93.1%	139.5	16.0	F
	Right Turn	80	71	89.0%	152.0	18.1	F
	Subtotal	1952	1791	91.8%	139.6	14.5	F
SB	Left Turn	292	285	97.7%	107.9	15.9	F
	Through	1292	1226	94.9%	85.8	14.0	F
	Right Turn	692	614	88.7%	34.3	8.9	C
	Subtotal	2276	2125	93.4%	73.9	12.7	E
EB	Left Turn	632	554	87.7%	210.6	29.1	F
	Through	1252	1184	94.6%	106.0	23.6	F
	Right Turn	100	97	97.2%	82.2	24.1	F
	Subtotal	1984	1836	92.5%	136.4	23.7	F
WB	Left Turn	180	175	97.3%	94.2	19.5	F
	Through	892	817	91.6%	71.6	10.1	E
	Right Turn	280	251	89.6%	33.5	6.2	C
	Subtotal	1352	1243	92.0%	66.9	7.8	E
Total		7564	6995	92.5%	105.9	5.8	F

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	60	58	96.7%	145.6	37.1	F
	Through	1540	1380	89.6%	123.4	39.0	F
	Right Turn	272	246	90.6%	144.7	42.0	F
	Subtotal	1872	1684	90.0%	127.3	39.0	F
SB	Left Turn	80	74	92.0%	153.0	91.3	F
	Through	1392	1285	92.3%	63.2	24.2	E
	Right Turn	100	99	98.8%	53.9	24.9	D
	Subtotal	1572	1458	92.7%	67.2	27.9	E
EB	Left Turn	212	212	99.8%	80.0	28.9	E
	Through	200	189	94.6%	74.8	18.9	E
	Right Turn	260	247	94.9%	66.4	33.0	E
	Subtotal	672	648	96.4%	72.9	22.8	E
WB	Left Turn	240	231	96.2%	46.4	5.6	D
	Through	72	77	107.2%	53.7	11.1	D
	Right Turn	152	162	106.3%	38.4	11.4	D
	Subtotal	464	470	101.2%	44.8	4.3	D
Total		4580	4259	93.0%	88.9	22.6	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative No Project
PM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	20	11	54.0%	75.8	37.7	E
	Through	1772	1793	101.2%	24.7	2.0	C
	Right Turn	652	666	102.1%	15.7	2.8	B
	Subtotal	2444	2470	101.0%	22.5	2.1	C
SB	Left Turn	132	119	90.0%	127.7	43.3	F
	Through	1892	1784	94.3%	21.1	1.8	C
	Right Turn	40	39	98.0%	23.6	5.2	C
	Subtotal	2064	1942	94.1%	27.6	2.8	C
EB	Left Turn	32	32	98.8%	174.3	118.3	F
	Through	72	70	97.8%	188.4	121.1	F
	Right Turn	52	36	69.2%	145.1	118.3	F
	Subtotal	156	138	88.5%	174.7	117.7	F
WB	Left Turn	480	480	99.9%	111.1	39.4	F
	Through	40	42	105.0%	110.1	36.8	F
	Right Turn	92	90	97.4%	73.8	41.2	E
	Subtotal	612	611	99.9%	105.5	39.7	F
Total		5276	5160	97.8%	38.6	5.8	D

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	92	94	102.2%	1.2	0.3	A
	Subtotal	92	94	102.2%	1.2	0.3	A
SB	Left Turn	60	60	99.3%	44.0	7.9	D
	Through						
	Right Turn	80	80	100.0%	19.4	4.9	B
	Subtotal	140	140	99.7%	29.8	4.2	C
EB	Left Turn	172	162	94.2%	63.2	18.3	E
	Through	1832	1777	97.0%	10.6	6.8	B
	Right Turn	152	156	102.6%	5.1	1.4	A
	Subtotal	2156	2095	97.2%	14.3	7.2	B
WB	Left Turn						
	Through	1880	1704	90.7%	25.5	7.2	C
	Right Turn	40	40	99.0%	21.2	6.9	C
	Subtotal	1920	1744	90.8%	25.4	7.2	C
Total		4308	4073	94.5%	19.4	4.4	B

Level Of Service Computation Report

Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Fair Oaks Boulevard / Munroe Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.869
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	174	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Split Phase			Split Phase			Protected			Protected				
Rights:	Include			Include			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	1	0	1	2	0	2	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	170	660	110	360	450	160	430	1260	200	70	710	200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	170	660	110	360	450	160	430	1260	200	70	710	200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	170	660	110	360	450	160	430	1260	200	70	710	200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	660	110	360	450	160	430	1260	200	70	710	200
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	170	660	110	396	450	160	473	1260	200	70	710	200

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.40	1.60	1.00	2.00	2.59	0.41	1.00	1.56	0.44
Final Sat.:	1500	3000	1500	2106	2394	1500	3000	3884	616	1500	2341	659

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.11	0.22	0.07	0.19	0.19	0.11	0.16	0.32	0.32	0.05	0.30	0.30
Crit Volume:	330			282			237			455		
Crit Moves:	****			****			****			****		

CUMULATIVE PLUS PROJECT

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
AM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	52	50	96.2%	69.3	19.7	E
	Through	1544	1534	99.4%	15.1	2.4	B
	Right Turn	84	86	101.9%	11.0	1.4	B
	Subtotal	1680	1670	99.4%	16.5	2.3	B
SB	Left Turn	60	62	102.7%	70.9	13.5	E
	Through	1764	1722	97.6%	27.9	19.2	C
	Right Turn	32	29	91.3%	34.7	31.7	C
	Subtotal	1856	1813	97.7%	29.5	19.1	C
EB	Left Turn	20	14	68.0%	73.0	44.3	E
	Through	12	12	103.3%	61.2	22.0	E
	Right Turn	32	26	81.3%	38.7	20.7	D
	Subtotal	64	52	81.3%	57.2	19.6	E
WB	Left Turn	296	272	91.8%	98.0	52.5	F
	Through	32	28	88.8%	57.8	31.3	E
	Right Turn	100	84	83.6%	39.5	35.7	D
	Subtotal	428	384	89.6%	81.9	45.1	F
Total		4028	3918	97.3%	29.1	11.4	C

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1588	1576	99.2%	12.9	2.9	B
	Right Turn	76	70	92.1%	15.8	4.7	B
	Subtotal	1664	1646	98.9%	13.1	2.9	B
SB	Left Turn	72	68	94.4%	63.6	11.7	E
	Through	1976	2003	101.4%	64.7	7.9	E
	Right Turn						
	Subtotal	2048	2071	101.1%	64.6	7.6	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	140	123	87.7%	101.8	22.5	F
	Through						
	Right Turn	60	66	109.3%	11.6	3.3	B
	Subtotal	200	188	94.2%	71.6	20.8	E
Total		3912	3905	99.8%	43.2	4.5	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
AM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	64	62	96.9%	62.6	12.5	E
	Through	1584	1484	93.7%	15.4	1.7	B
	Right Turn	40	40	100.0%	15.5	4.2	B
	Subtotal	1688	1586	93.9%	17.2	1.7	B
SB	Left Turn						
	Through	2048	1977	96.5%	26.8	1.5	C
	Right Turn	72	65	90.6%	41.6	17.3	D
	Subtotal	2120	2042	96.3%	27.3	1.9	C
EB	Left Turn	64	71	111.3%	53.2	5.0	D
	Through	4	8	190.0%	34.7	34.6	C
	Right Turn	32	33	102.5%	29.9	11.5	C
	Subtotal	100	112	111.6%	45.5	6.2	D
WB	Left Turn	20	13	64.0%	50.6	15.0	D
	Through	4	9	220.0%	32.7	28.8	C
	Right Turn	4	6	140.0%	15.4	22.1	B
	Subtotal	28	27	97.1%	38.5	11.8	D
Total		3936	3767	95.7%	23.6	1.4	C

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1636	1531	93.6%	2.8	0.3	A
	Right Turn						
	Subtotal	1636	1531	93.6%	2.8	0.3	A
SB	Left Turn						
	Through	2048	1958	95.6%	11.6	2.3	B
	Right Turn	48	54	111.7%	13.5	4.7	B
	Subtotal	2096	2012	96.0%	11.6	2.3	B
EB	Left Turn						
	Through						
	Right Turn	64	66	103.1%	102.2	55.7	F
	Subtotal	64	66	103.1%	102.2	55.7	F
WB	Left Turn						
	Through						
	Right Turn	52	44	85.4%	21.6	10.4	C
	Subtotal	52	44	85.4%	21.6	10.4	C
Total		3848	3653	94.9%	9.7	2.1	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
AM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	256	231	90.2%	82.1	12.1	F
	Through	1020	934	91.6%	57.5	6.3	E
	Right Turn	120	124	103.0%	62.4	10.2	E
	Subtotal	1396	1289	92.3%	62.4	6.2	E
SB	Left Turn	244	235	96.2%	85.8	10.7	F
	Through	1012	960	94.9%	64.8	5.2	E
	Right Turn	856	794	92.8%	21.8	3.8	C
	Subtotal	2112	1989	94.2%	50.0	4.5	D
EB	Left Turn	528	520	98.5%	81.4	14.5	F
	Through	712	756	106.1%	38.1	6.0	D
	Right Turn	92	88	95.7%	16.6	4.2	B
	Subtotal	1332	1364	102.4%	53.3	8.1	D
WB	Left Turn	100	80	80.4%	79.9	14.3	E
	Through	924	887	96.0%	77.7	13.9	E
	Right Turn	124	110	88.7%	15.4	3.4	B
	Subtotal	1148	1077	93.8%	71.3	11.6	E
Total		5988	5719	95.5%	57.4	3.7	E

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	260	261	100.3%	76.7	14.1	E
	Through	1300	1212	93.2%	19.2	5.0	B
	Right Turn	240	234	97.3%	20.4	6.1	C
	Subtotal	1800	1706	94.8%	28.1	4.6	C
SB	Left Turn	60	62	104.0%	70.1	26.1	E
	Through	932	946	101.5%	34.8	9.5	C
	Right Turn	212	194	91.3%	31.1	8.4	C
	Subtotal	1204	1202	99.8%	36.0	8.9	D
EB	Left Turn	64	60	93.1%	55.6	14.2	E
	Through	52	43	82.3%	53.0	10.1	D
	Right Turn	72	74	103.3%	14.7	7.1	B
	Subtotal	188	177	94.0%	37.9	9.1	D
WB	Left Turn	180	162	90.0%	45.8	6.1	D
	Through	192	173	90.2%	50.5	8.7	D
	Right Turn	32	27	85.0%	35.2	17.2	D
	Subtotal	404	362	89.7%	47.3	6.4	D
Total		3596	3447	95.9%	33.2	4.2	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
AM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	32	30	95.0%	72.4	14.0	E
	Through	1556	1448	93.0%	26.8	2.5	C
	Right Turn	440	444	100.8%	8.1	2.0	A
	Subtotal	2028	1922	94.8%	23.2	2.1	C
SB	Left Turn	32	28	86.3%	70.9	15.8	E
	Through	1176	1098	93.3%	30.5	3.9	C
	Right Turn	12	10	80.0%	24.3	16.6	C
	Subtotal	1220	1135	93.0%	31.3	3.8	C
EB	Left Turn	40	38	95.0%	60.9	19.7	E
	Through	40	36	89.0%	55.0	7.0	D
	Right Turn	20	25	124.0%	20.8	10.8	C
	Subtotal	100	98	98.4%	48.1	5.6	D
WB	Left Turn	600	625	104.2%	74.7	54.2	E
	Through	52	46	89.2%	87.0	68.0	F
	Right Turn	112	111	99.3%	55.5	45.8	E
	Subtotal	764	783	102.5%	72.6	53.4	E
Total		4112	3938	95.8%	35.9	10.7	D

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	40	35	88.0%	0.9	0.1	A
	Subtotal	40	35	88.0%	0.9	0.1	A
SB	Left Turn	32	36	113.8%	38.4	6.3	D
	Through						
	Right Turn	64	56	86.9%	22.1	6.9	C
	Subtotal	96	92	95.8%	28.6	3.6	C
EB	Left Turn	60	60	100.7%	49.8	7.3	D
	Through	1256	1274	101.4%	6.0	1.2	A
	Right Turn	152	146	95.8%	8.1	0.7	A
	Subtotal	1468	1480	100.8%	8.0	1.3	A
WB	Left Turn						
	Through	1940	1788	92.2%	15.0	3.9	B
	Right Turn	60	57	94.7%	11.4	3.2	B
	Subtotal	2000	1845	92.3%	14.9	3.9	B
Total		3604	3452	95.8%	12.1	2.5	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
AM Peak Hour

Intersection 10

Project Dwy/Fair Oaks Blvd

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	24	27	113.3%	73.2	30.1	F
	Subtotal	24	27	113.3%	73.2	30.1	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1972	1862	94.4%	7.3	1.6	A
	Right Turn	92	81	88.3%	7.5	2.7	A
	Subtotal	2064	1943	94.1%	7.3	1.6	A
Total		2088	1970	94.3%	8.2	1.9	A

Level Of Service Computation Report

Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Fair Oaks Boulevard / Munroe Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.857
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 160 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Split Phase			Split Phase			Protected			Protected				
Rights:	Include			Include			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	1	0	1	2	0	2	1	0

Volume Module:

Base Vol:	201	530	80	300	390	120	292	537	141	160	1090	150
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	201	530	80	300	390	120	292	537	141	160	1090	150
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	201	530	80	300	390	120	292	537	141	160	1090	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	530	80	300	390	120	292	537	141	160	1090	150
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	201	530	80	330	390	120	321	537	141	160	1090	150

Saturation Flow Module:

Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.38	1.62	1.00	2.00	2.38	0.62	1.00	1.76	0.24
Final Sat.:	1500	3000	1500	2063	2438	1500	3000	3564	936	1500	2637	363

Capacity Analysis Module:

Vol/Sat:	0.13	0.18	0.05	0.16	0.16	0.08	0.11	0.15	0.15	0.11	0.41	0.41
Crit Volume:	265			240			161			620		
Crit Moves:	****			****			****			****		

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
PM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	40	40	101.0%	71.5	14.0	E
	Through	2416	2001	82.8%	36.1	3.5	D
	Right Turn	248	210	84.8%	30.0	3.9	C
	Subtotal	2704	2252	83.3%	36.2	3.5	D
SB	Left Turn	120	102	85.0%	89.9	11.4	F
	Through	2120	1962	92.5%	51.5	22.7	D
	Right Turn	12	6	53.3%	49.4	63.1	D
	Subtotal	2252	2070	91.9%	53.4	22.1	D
EB	Left Turn	60	59	98.0%	99.5	41.8	F
	Through	52	61	117.7%	69.1	18.8	E
	Right Turn	60	55	92.0%	49.9	18.8	D
	Subtotal	172	175	101.9%	72.8	18.7	E
WB	Left Turn	220	195	88.5%	92.1	33.7	F
	Through	20	24	120.0%	99.8	132.6	F
	Right Turn	92	79	86.1%	30.9	9.0	C
	Subtotal	332	298	89.8%	73.9	26.3	E
Total		5460	4795	87.8%	47.2	12.5	D

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2616	2226	85.1%	15.7	1.9	B
	Right Turn	108	98	90.4%	13.5	2.1	B
	Subtotal	2724	2323	85.3%	15.6	1.8	B
SB	Left Turn	92	77	83.9%	110.9	30.7	F
	Through	2208	2090	94.7%	93.3	23.4	F
	Right Turn						
	Subtotal	2300	2168	94.2%	93.9	23.5	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	72	62	86.1%	120.3	26.7	F
	Through						
	Right Turn	60	58	96.7%	21.6	6.3	C
	Subtotal	132	120	90.9%	71.6	16.4	E
Total		5156	4611	89.4%	53.7	9.9	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
PM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	88	89	100.9%	84.3	20.9	F
	Through	2404	2129	88.6%	23.8	6.0	C
	Right Turn	20	14	72.0%	26.4	10.1	C
	Subtotal	2512	2232	88.9%	26.2	5.9	C
SB	Left Turn						
	Through	2216	1977	89.2%	49.4	6.9	D
	Right Turn	64	49	76.9%	63.1	15.4	E
	Subtotal	2280	2026	88.9%	49.7	7.0	D
EB	Left Turn	312	187	60.0%	1072.9	351.2	F
	Through	12	6	53.3%	972.9	310.4	F
	Right Turn	52	28	54.6%	1018.8	313.7	F
	Subtotal	376	222	59.0%	1064.7	344.9	F
WB	Left Turn	52	52	99.2%	84.7	19.4	F
	Through	4	6	150.0%	100.1	68.8	F
	Right Turn	4	3	80.0%	28.2	35.1	C
	Subtotal	60	61	101.3%	86.0	19.4	F
Total		5228	4541	86.9%	86.5	14.0	F

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2404	2121	88.2%	4.4	0.7	A
	Right Turn						
	Subtotal	2404	2121	88.2%	4.4	0.7	A
SB	Left Turn						
	Through	2212	2006	90.7%	34.7	6.7	D
	Right Turn	104	90	86.5%	35.5	9.9	E
	Subtotal	2316	2096	90.5%	34.7	6.7	D
EB	Left Turn						
	Through						
	Right Turn	188	53	28.1%	4700.6	3324.9	F
	Subtotal	188	53	28.1%	4700.6	3324.9	F
WB	Left Turn						
	Through						
	Right Turn	112	111	98.9%	90.2	41.5	F
	Subtotal	112	111	98.9%	90.2	41.5	F
Total		5020	4381	87.3%	64.0	11.5	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
PM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	436	382	87.5%	142.9	17.5	F
	Through	1508	1364	90.5%	136.5	21.9	F
	Right Turn	80	63	78.5%	154.3	25.7	F
	Subtotal	2024	1808	89.3%	138.5	20.3	F
SB	Left Turn	348	315	90.6%	138.0	12.0	F
	Through	1360	1149	84.5%	115.7	13.6	F
	Right Turn	692	573	82.8%	54.8	9.5	D
	Subtotal	2400	2037	84.9%	102.1	12.3	F
EB	Left Turn	680	523	76.9%	253.1	22.0	F
	Through	1252	1216	97.1%	135.5	22.6	F
	Right Turn	100	103	103.2%	112.1	23.1	F
	Subtotal	2032	1842	90.6%	167.6	22.7	F
WB	Left Turn	180	154	85.3%	118.8	26.0	F
	Through	924	825	89.3%	125.2	29.4	F
	Right Turn	284	273	96.1%	39.0	6.1	D
	Subtotal	1388	1252	90.2%	105.8	22.5	F
Total		7844	6939	88.5%	129.1	7.8	F

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	60	48	80.7%	177.9	69.6	F
	Through	1604	1445	90.1%	127.6	61.1	F
	Right Turn	272	227	83.4%	146.2	67.3	F
	Subtotal	1936	1720	88.9%	131.5	61.9	F
SB	Left Turn	80	77	96.0%	124.2	48.9	F
	Through	1452	1243	85.6%	52.5	13.2	D
	Right Turn	108	97	90.0%	48.7	12.4	D
	Subtotal	1640	1417	86.4%	56.1	15.3	E
EB	Left Turn	220	219	99.6%	84.3	38.2	F
	Through	200	196	97.8%	78.0	32.5	E
	Right Turn	260	254	97.8%	64.7	28.9	E
	Subtotal	680	669	98.4%	75.2	32.6	E
WB	Left Turn	240	256	106.7%	57.3	8.8	E
	Through	72	64	88.3%	56.2	19.2	E
	Right Turn	152	151	99.2%	41.8	18.1	D
	Subtotal	464	470	101.4%	52.7	9.0	D
Total		4720	4277	90.6%	88.1	29.6	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
PM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	20	16	80.0%	90.8	54.1	F
	Through	1824	1842	101.0%	26.1	3.6	C
	Right Turn	652	664	101.8%	16.0	2.7	B
	Subtotal	2496	2522	101.0%	23.8	3.1	C
SB	Left Turn	136	118	86.5%	113.5	41.8	F
	Through	1944	1750	90.0%	23.0	3.2	C
	Right Turn	44	31	70.9%	21.7	7.9	C
	Subtotal	2124	1899	89.4%	28.7	5.4	C
EB	Left Turn	32	32	101.3%	164.3	93.7	F
	Through	72	68	93.9%	140.4	80.2	F
	Right Turn	52	44	85.4%	102.2	74.3	F
	Subtotal	156	144	92.6%	134.2	80.6	F
WB	Left Turn	480	478	99.6%	102.9	55.9	F
	Through	40	39	98.0%	106.5	50.5	F
	Right Turn	96	85	88.3%	84.9	81.7	F
	Subtotal	616	602	97.7%	100.0	58.3	F
Total		5392	5167	95.8%	37.5	7.5	D

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	92	95	103.5%	1.3	0.3	A
	Subtotal	92	95	103.5%	1.3	0.3	A
SB	Left Turn	60	50	84.0%	65.2	22.3	E
	Through						
	Right Turn	88	79	89.5%	23.2	7.0	C
	Subtotal	148	129	87.3%	38.8	12.6	D
EB	Left Turn	196	183	93.3%	110.0	58.0	F
	Through	1880	1808	96.2%	40.1	37.3	D
	Right Turn	152	145	95.3%	20.6	25.5	C
	Subtotal	2228	2136	95.9%	44.5	37.5	D
WB	Left Turn						
	Through	1944	1688	86.9%	27.2	6.8	C
	Right Turn	40	35	88.0%	19.8	7.2	B
	Subtotal	1984	1724	86.9%	27.0	6.7	C
Total		4452	4084	91.7%	35.4	17.8	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
PM Peak Hour

Intersection 10

Project Dwy/Fair Oaks Blvd

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	96	97	100.8%	34.4	14.9	D
	Subtotal	96	97	100.8%	34.4	14.9	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1892	1617	85.5%	5.6	0.8	A
	Right Turn	248	222	89.7%	5.6	1.4	A
	Subtotal	2140	1839	85.9%	5.6	0.8	A
Total		2236	1936	86.6%	7.0	1.3	A

Level Of Service Computation Report

Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Fair Oaks Boulevard / Munroe Street

Cycle (sec):	100	Critical Vol./Cap.(X):	0.878
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Split Phase			Split Phase			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	2	0	1	1	1	0	1	2	0	2	1	0	

Volume Module:													
Base Vol:	172	660	110	360	450	160	435	1281	202	70	732	200	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	172	660	110	360	450	160	435	1281	202	70	732	200	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	172	660	110	360	450	160	435	1281	202	70	732	200	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	172	660	110	360	450	160	435	1281	202	70	732	200	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00	
Final Volume:	172	660	110	396	450	160	479	1281	202	70	732	200	

Saturation Flow Module:												
Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.40	1.60	1.00	2.00	2.59	0.41	1.00	1.57	0.43
Final Sat.:	1500	3000	1500	2106	2394	1500	3000	3887	613	1500	2356	644

Capacity Analysis Module:												
Vol/Sat:	0.11	0.22	0.07	0.19	0.19	0.11	0.16	0.33	0.33	0.05	0.31	0.31
Crit Volume:	330			282			239					466
Crit Moves:	****			****			****					****

CUMULATIVE PLUS PROJECT

MITIGATION MEASURES

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	52	51	98.5%	63.9	13.3	E
	Through	1544	1536	99.5%	20.1	5.2	C
	Right Turn	84	84	100.0%	14.0	4.8	B
	Subtotal	1680	1672	99.5%	21.1	5.0	C
SB	Left Turn	60	66	110.0%	82.7	15.4	F
	Through	1764	1706	96.7%	53.3	32.3	D
	Right Turn	32	22	70.0%	97.1	90.9	F
	Subtotal	1856	1794	96.7%	54.8	31.9	D
EB	Left Turn	20	19	94.0%	116.2	94.1	F
	Through	12	10	86.7%	67.8	30.3	E
	Right Turn	32	37	115.0%	58.2	26.9	E
	Subtotal	64	66	103.1%	83.2	65.3	F
WB	Left Turn	296	279	94.3%	96.6	48.6	F
	Through	32	37	115.0%	68.1	22.1	E
	Right Turn	100	106	105.6%	36.6	15.1	D
	Subtotal	428	422	98.5%	78.6	35.2	E
Total		4028	3954	98.2%	43.0	17.3	D

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1588	1624	102.3%	13.3	2.3	B
	Right Turn	76	67	88.4%	12.0	4.0	B
	Subtotal	1664	1691	101.6%	13.3	2.2	B
SB	Left Turn	72	70	96.7%	65.0	5.3	E
	Through	1976	1966	99.5%	69.9	7.1	E
	Right Turn						
	Subtotal	2048	2036	99.4%	69.8	6.9	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	140	132	94.3%	128.4	54.8	F
	Through						
	Right Turn	60	62	102.7%	12.7	4.8	B
	Subtotal	200	194	96.8%	92.3	41.4	F
Total		3912	3920	100.2%	46.4	2.9	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	64	66	102.5%	55.8	7.1	E
	Through	1584	1554	98.1%	12.0	1.5	B
	Right Turn	40	33	82.0%	11.4	4.3	B
	Subtotal	1688	1653	97.9%	13.8	1.6	B
SB	Left Turn						
	Through	2048	1951	95.3%	29.5	2.5	C
	Right Turn	72	62	85.6%	39.0	9.1	D
	Subtotal	2120	2012	94.9%	29.8	2.7	C
EB	Left Turn	64	62	96.9%	54.2	12.6	D
	Through	4	4	90.0%	15.8	18.9	B
	Right Turn	32	29	90.0%	29.4	9.9	C
	Subtotal	100	94	94.4%	44.9	7.9	D
WB	Left Turn	20	17	84.0%	44.1	22.3	D
	Through	4	2	50.0%	20.9	31.9	C
	Right Turn	4	4	110.0%	13.9	19.4	B
	Subtotal	28	23	82.9%	44.9	20.8	D
Total		3936	3783	96.1%	23.3	1.8	C

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1636	1565	95.6%	2.8	0.2	A
	Right Turn						
	Subtotal	1636	1565	95.6%	2.8	0.2	A
SB	Left Turn						
	Through	2048	1842	90.0%	15.7	1.5	C
	Right Turn	48	40	82.5%	24.0	7.9	C
	Subtotal	2096	1882	89.8%	15.8	1.6	C
EB	Left Turn						
	Through						
	Right Turn	64	30	46.9%	933.4	470.4	F
	Subtotal	64	30	46.9%	933.4	470.4	F
WB	Left Turn						
	Through						
	Right Turn	52	45	86.9%	20.3	5.7	C
	Subtotal	52	45	86.9%	20.3	5.7	C
Total		3848	3522	91.5%	16.8	2.9	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	256	239	93.4%	71.4	23.6	E
	Through	1020	1057	103.6%	26.7	5.0	C
	Right Turn	120	122	102.0%	28.5	8.0	C
	Subtotal	1396	1418	101.6%	34.7	6.0	C
SB	Left Turn	244	231	94.8%	78.3	7.9	E
	Through	1012	1043	103.1%	53.7	5.5	D
	Right Turn	856	752	87.9%	39.3	4.8	D
	Subtotal	2112	2026	95.9%	51.2	5.2	D
EB	Left Turn	528	484	91.7%	210.0	47.5	F
	Through	712	705	99.0%	70.7	31.5	E
	Right Turn	92	98	107.0%	47.5	31.9	D
	Subtotal	1332	1288	96.7%	121.4	37.1	F
WB	Left Turn	100	89	88.8%	84.1	35.9	F
	Through	924	827	89.5%	95.6	41.8	F
	Right Turn	124	112	90.3%	14.3	5.3	B
	Subtotal	1148	1028	89.5%	86.3	39.3	F
Total		5988	5760	96.2%	69.0	6.9	E

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	260	253	97.2%	91.9	27.3	F
	Through	1300	1363	104.8%	52.1	9.2	D
	Right Turn	240	238	99.0%	52.9	8.0	D
	Subtotal	1800	1853	103.0%	57.7	11.0	E
SB	Left Turn	60	54	90.0%	50.7	17.6	D
	Through	932	940	100.9%	14.8	2.7	B
	Right Turn	212	214	101.1%	13.8	4.5	B
	Subtotal	1204	1208	100.4%	16.2	2.9	B
EB	Left Turn	64	54	83.8%	48.1	10.7	D
	Through	52	47	90.0%	51.3	9.6	D
	Right Turn	72	76	105.6%	22.3	12.2	C
	Subtotal	188	176	93.8%	37.9	6.6	D
WB	Left Turn	180	180	100.0%	47.9	5.1	D
	Through	192	207	107.7%	53.6	11.8	D
	Right Turn	32	40	123.8%	42.8	22.9	D
	Subtotal	404	426	105.5%	50.5	7.9	D
Total		3596	3664	101.9%	42.2	6.2	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	32	28	86.3%	78.3	15.6	E
	Through	1556	1589	102.1%	27.0	2.2	C
	Right Turn	440	443	100.6%	8.5	1.7	A
	Subtotal	2028	2060	101.6%	23.7	2.1	C
SB	Left Turn	32	27	85.0%	52.1	18.5	D
	Through	1176	1173	99.8%	16.0	3.5	B
	Right Turn	12	8	66.7%	9.8	11.8	A
	Subtotal	1220	1208	99.0%	16.7	3.3	B
EB	Left Turn	40	36	90.0%	65.7	14.1	E
	Through	40	37	92.0%	62.7	11.5	E
	Right Turn	20	22	110.0%	36.4	25.9	D
	Subtotal	100	95	94.8%	56.6	11.1	E
WB	Left Turn	600	615	102.5%	101.2	55.8	F
	Through	52	53	101.5%	104.7	54.0	F
	Right Turn	112	105	93.6%	79.6	57.9	E
	Subtotal	764	773	101.2%	98.5	55.7	F
Total		4112	4136	100.6%	36.2	9.2	D

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	40	48	120.0%	0.9	0.1	A
	Subtotal	40	48	120.0%	0.9	0.1	A
SB	Left Turn	32	31	97.5%	32.8	9.6	C
	Through						
	Right Turn	64	61	95.6%	18.3	5.8	B
	Subtotal	96	92	96.3%	23.8	4.0	C
EB	Left Turn	60	60	100.0%	46.6	4.7	D
	Through	1256	1242	98.9%	4.8	1.4	A
	Right Turn	152	168	110.3%	3.3	0.5	A
	Subtotal	1468	1470	100.1%	6.3	1.6	A
WB	Left Turn						
	Through	1940	1747	90.1%	14.2	4.4	B
	Right Turn	60	52	87.3%	10.5	4.8	B
	Subtotal	2000	1800	90.0%	14.1	4.4	B
Total		3604	3410	94.6%	10.8	2.8	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 10

Project Dwy/Fair Oaks Blvd

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	24	24	98.3%	66.8	30.4	F
	Subtotal	24	24	98.3%	66.8	30.4	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1972	1770	89.8%	4.3	0.2	A
	Right Turn	92	85	92.2%	3.1	1.5	A
	Subtotal	2064	1855	89.9%	4.2	0.2	A
Total		2088	1878	90.0%	4.9	0.3	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 1

Howe Ave/Northrop Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	40	36	90.0%	74.5	14.1	E
	Through	2416	2002	82.9%	41.6	4.1	D
	Right Turn	248	220	88.9%	30.4	3.7	C
	Subtotal	2704	2259	83.5%	41.0	3.9	D
SB	Left Turn	120	110	91.7%	87.3	11.8	F
	Through	2120	1988	93.8%	43.8	10.7	D
	Right Turn	12	10	80.0%	120.0	96.5	F
	Subtotal	2252	2108	93.6%	46.3	10.9	D
EB	Left Turn	60	56	93.3%	77.3	20.7	E
	Through	52	51	98.5%	79.5	26.1	E
	Right Turn	60	58	96.0%	66.1	26.6	E
	Subtotal	172	165	95.8%	75.2	19.5	E
WB	Left Turn	220	203	92.4%	86.9	23.5	F
	Through	20	15	76.0%	75.3	34.2	E
	Right Turn	92	87	94.8%	32.3	7.6	C
	Subtotal	332	306	92.0%	70.5	14.0	E
Total		5460	4837	88.6%	46.2	6.3	D

Intersection 2

Howe Ave/Sierra Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2616	2293	87.6%	15.4	1.5	B
	Right Turn	108	101	93.3%	15.8	3.0	B
	Subtotal	2724	2394	87.9%	15.4	1.5	B
SB	Left Turn	92	74	80.0%	154.8	14.6	F
	Through	2208	2026	91.8%	110.8	16.4	F
	Right Turn						
	Subtotal	2300	2100	91.3%	112.3	16.1	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	72	56	77.8%	173.1	60.6	F
	Through						
	Right Turn	60	73	121.3%	20.4	4.6	C
	Subtotal	132	129	97.6%	86.4	28.9	F
Total		5156	4622	89.7%	61.4	7.6	E

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	88	69	78.6%	145.2	163.9	F
	Through	2404	2203	91.6%	43.1	3.8	D
	Right Turn	20	18	90.0%	43.6	11.2	D
	Subtotal	2512	2290	91.2%	45.1	4.8	D
SB	Left Turn						
	Through	2216	2024	91.3%	51.4	3.3	D
	Right Turn	64	56	86.9%	57.9	8.8	E
	Subtotal	2280	2079	91.2%	51.6	3.2	D
EB	Left Turn	312	196	62.9%	1103.1	234.3	F
	Through	12	7	60.0%	1066.7	294.2	F
	Right Turn	52	27	51.5%	1048.4	260.6	F
	Subtotal	376	230	61.3%	1097.6	237.5	F
WB	Left Turn	52	50	95.4%	78.7	37.8	E
	Through	4	4	100.0%	18.1	26.2	B
	Right Turn	4	4	90.0%	78.5	91.6	E
	Subtotal	60	57	95.3%	78.9	37.5	E
Total		5228	4657	89.1%	100.2	14.6	F

Intersection 4

Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	2404	2140	89.0%	4.9	0.6	A
	Right Turn						
	Subtotal	2404	2140	89.0%	4.9	0.6	A
SB	Left Turn						
	Through	2212	1854	83.8%	15.9	2.1	C
	Right Turn	104	94	90.4%	23.4	6.4	C
	Subtotal	2316	1948	84.1%	16.2	2.2	C
EB	Left Turn						
	Through						
	Right Turn	188	91	48.3%	1941.0	2168.5	F
	Subtotal	188	91	48.3%	1941.0	2168.5	F
WB	Left Turn						
	Through						
	Right Turn	112	129	115.4%	248.7	153.5	F
	Subtotal	112	129	115.4%	248.7	153.5	F
Total		5020	4308	85.8%	50.2	20.6	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 5

Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	436	395	90.6%	174.2	51.9	F
	Through	1508	1421	94.2%	132.1	17.9	F
	Right Turn	80	80	100.0%	154.1	21.8	F
	Subtotal	2024	1896	93.7%	142.3	13.6	F
SB	Left Turn	348	268	76.9%	121.2	18.1	F
	Through	1360	1151	84.6%	96.1	19.1	F
	Right Turn	692	531	76.7%	79.5	17.4	E
	Subtotal	2400	1949	81.2%	95.1	18.2	F
EB	Left Turn	680	574	84.4%	207.0	41.0	F
	Through	1252	1265	101.0%	98.2	26.1	F
	Right Turn	100	95	95.2%	79.4	26.3	E
	Subtotal	2032	1934	95.2%	129.6	29.7	F
WB	Left Turn	180	150	83.6%	108.1	33.2	F
	Through	924	829	89.7%	120.7	43.2	F
	Right Turn	284	280	98.6%	33.3	6.6	C
	Subtotal	1388	1260	90.7%	100.1	32.7	F
Total		7844	7039	89.7%	118.0	10.5	F

Intersection 6

Howe Ave/University Ave

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	60	49	82.0%	75.3	21.9	E
	Through	1604	1522	94.9%	60.3	27.6	E
	Right Turn	272	254	93.4%	77.3	32.3	E
	Subtotal	1936	1825	94.3%	63.0	27.5	E
SB	Left Turn	80	67	84.0%	93.2	23.5	F
	Through	1452	1236	85.2%	30.0	7.8	C
	Right Turn	108	87	80.7%	25.3	5.7	C
	Subtotal	1640	1391	84.8%	32.7	8.1	C
EB	Left Turn	220	220	100.2%	50.4	6.9	D
	Through	200	203	101.4%	56.1	9.6	E
	Right Turn	260	269	103.4%	50.6	18.1	D
	Subtotal	680	692	101.8%	52.4	10.8	D
WB	Left Turn	240	237	98.8%	47.6	7.8	D
	Through	72	58	81.1%	53.9	18.9	D
	Right Turn	152	164	107.9%	36.9	14.9	D
	Subtotal	464	460	99.1%	45.0	9.8	D
Total		4720	4367	92.5%	49.4	11.0	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 7

Howe Ave/American River Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	20	20	100.0%	71.2	11.9	E
	Through	1824	1826	100.1%	34.0	3.7	C
	Right Turn	652	657	100.7%	21.6	5.4	C
	Subtotal	2496	2502	100.3%	31.1	4.0	C
SB	Left Turn	136	114	83.8%	51.7	15.6	D
	Through	1944	1771	91.1%	13.6	1.8	B
	Right Turn	44	38	86.4%	14.2	7.5	B
	Subtotal	2124	1923	90.5%	15.9	1.9	B
EB	Left Turn	32	34	105.0%	79.7	24.3	E
	Through	72	72	100.0%	79.8	18.1	E
	Right Turn	52	48	93.1%	50.4	18.3	D
	Subtotal	156	154	98.7%	70.5	18.0	E
WB	Left Turn	480	474	98.8%	91.9	35.6	F
	Through	40	37	92.0%	95.2	36.6	F
	Right Turn	96	105	109.2%	54.0	31.8	D
	Subtotal	616	616	100.0%	85.7	34.4	F
Total		5392	5196	96.4%	33.2	5.1	C

Intersection 8

Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	92	81	87.8%	1.1	0.2	A
	Subtotal	92	81	87.8%	1.1	0.2	A
SB	Left Turn	60	47	78.0%	40.8	15.7	D
	Through						
	Right Turn	88	84	95.9%	21.2	4.5	C
	Subtotal	148	131	88.6%	28.1	5.0	C
EB	Left Turn	196	177	90.2%	78.4	30.1	E
	Through	1880	1830	97.3%	20.2	16.4	C
	Right Turn	152	159	104.7%	8.8	5.5	A
	Subtotal	2228	2166	97.2%	24.0	16.0	C
WB	Left Turn						
	Through	1944	1674	86.1%	21.7	2.8	C
	Right Turn	40	31	77.0%	19.0	6.6	B
	Subtotal	1984	1705	85.9%	21.6	2.8	C
Total		4452	4082	91.7%	22.6	8.5	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 10

Project Dwy/Fair Oaks Blvd

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	96	92	95.4%	32.9	7.6	D
	Subtotal	96	92	95.4%	32.9	7.6	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1892	1630	86.2%	5.1	0.2	A
	Right Turn	248	202	81.6%	4.3	1.0	A
	Subtotal	2140	1833	85.6%	5.0	0.2	A
Total		2236	1924	86.1%	6.3	0.3	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Dual EB Left at Howe/Feature
PM Peak Hour

Intersection 3

Howe Ave/Feature Dr

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	88	76	86.4%	101.6	25.1	F
	Through	2404	2154	89.6%	40.8	4.5	D
	Right Turn	20	14	68.0%	42.4	19.7	D
	Subtotal	2512	2244	89.3%	42.9	4.6	D
SB	Left Turn						
	Through	2216	1961	88.5%	53.0	4.0	D
	Right Turn	64	60	93.1%	68.9	9.0	E
	Subtotal	2280	2020	88.6%	53.5	4.0	D
EB	Left Turn	312	275	88.1%	250.9	239.0	F
	Through	12	9	76.7%	212.0	250.5	F
	Right Turn	52	52	100.0%	215.3	234.1	F
	Subtotal	376	336	89.4%	244.8	238.6	F
WB	Left Turn	52	41	78.5%	65.6	28.0	E
	Through	4	6	140.0%	43.6	39.1	D
	Right Turn	4	6	140.0%	25.3	36.1	C
	Subtotal	60	52	86.7%	62.0	23.5	E
Total		5228	4652	89.0%	61.9	18.5	E

APPENDIX B:

QUEUE LENGTH TECHNICAL CALCULATIONS

- Existing Conditions
- Existing Plus Project
- Existing Plus Project, Mitigation Measures
- Cumulative No Project
- Cumulative Plus Project
- Cumulative Plus Project, Mitigation Measures

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Existing Conditions
AM Peak Hour

Intersection 2 Howe Ave/Sierra Blvd Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,330	442	315	687	342	672	314	1	0

Intersection 3 Howe Ave/Feature Dr Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	35	14	69	23	79	40	1	0

Intersection 4 Howe Ave/Cadillac Dr Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	17	7	40	12	34	10	0	0

Intersection 5 Howe Ave/Fair Oaks Blvd Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	91	22	159	50	157	51	0	0
SB	Right Turn	180	160	79	514	171	537	137	0	1

Intersection 8 Cadillac Dr/Fair Oaks Blvd Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	33	11	65	19	64	16	0	0
EB	Left Turn	160	41	16	78	24	74	25	0	0
	Through	741	47	17	117	31	138	44	1	0

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Existing Conditions
PM Peak Hour

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,330	498	231	760	290	717	269	9	0

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	300	26	300	26	300	26	72	36

Intersection 4 Howe Ave / Cadillac Dr

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	20	11	50	22	57	15	0	0

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	338	103	605	146	574	107	2	12
SB	Right Turn	180	338	107	757	115	651	36	0	6

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	43	16	71	28	72	27	0	0
EB	Left Turn	160	118	26	187	19	177	14	7	0
	Through	1,500	140	79	354	201	414	201	3	1

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Existing Plus Project
AM Peak Hour

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,330	665	311	1036	501	958	351	3	3

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	47	10	91	23	90	22	1	0

Intersection 4 Howe Ave / Cadillac Dr

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	62	15	112	28	107	22	0	0

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	108	24	168	43	172	47	0	0
SB	Right Turn	180	275	122	669	146	627	68	0	2

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	33	10	63	22	68	20	0	0
EB	Left Turn	160	41	7	82	16	84	21	0	0
	Through	741	41	16	100	31	106	29	0	0

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Existing Plus Project
PM Peak Hour

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,330	373	233	613	345	571	272	5	0

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	940	13	940	11	965	28	85	166

Intersection 4 Howe Ave / Cadillac Dr

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	360	10	390	15	388	19	0	93

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	410	82	663	93	593	65	12	0
SB	Right Turn	180	486	36	805	29	220	0	0	2

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	40	8	84	17	90	19	0	0
EB	Left Turn	160	69	78	428	206	464	243	0	0
	Through	1,500	490	262	1004	399	1198	373	18	10

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
AM Peak Hour

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,330	418	214	710	298	673	278	2	0

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	58	13	99	22	100	25	3	0

Intersection 4 Howe Ave/Cadillac Dr EBR

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	67	15	123	25	115	21	0	0

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	117	62	173	71	169	65	1	0
SB	Right Turn	180	257	56	435	135	444	135	23	0

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	160	48	14	84	21	82	26	0	0
	Through	741	48	24	111	47	113	49	1	0

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Existing Plus Project, Mitigation 5.9-1
PM Peak Hour

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,330	424	150	704	197	688	206	5	0

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	939	4	983	13	975	15	85	86

Intersection 4 Howe Ave/Cadillac Dr EBR

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	360	3	387	4	383	3	0	95

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	399	142	553	196	526	169	40	0
SB	Right Turn	180	454	131	642	134	612	39	19	0

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	50	10	92	19	87	17	0	0
EB	Left Turn	160	138	16	194	24	178	11	12	0
	Through	1,500	270	188	574	281	591	256	6	0

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Existing Plus Project, Dual EB Left at Howe/Feature
PM Peak Hour

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	291	85	392	62	396	73	64	14

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Cumulative No Project
AM Peak Hour

Intersection 2 Howe Ave/Sierra Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,247	769	323	1116	444	1063	358	1	2

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	37	10	76	18	71	14	0	0

Intersection 4 Howe Ave/Cadillac Dr

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	20	8	53	20	54	25	0	0

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	113	24	200	70	219	96	0	0
SB	Right Turn	180	214	128	602	197	573	107	0	2

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	31	8	63	20	66	27	0	0
EB	Left Turn	160	41	10	88	22	97	30	0	0
	Through	741	54	21	142	44	157	45	1	0

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Cumulative No Project
PM Peak Hour

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,247	1066	262	1362	335	1256	282	20	13

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	364	358	68	400	79	405	34	78	46

Intersection 4 Howe Ave/Cadillac Dr EBR

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	18	8	44	16	45	16	0	0

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	384	86	645	94	598	78	1	0
SB	Right Turn	180	371	21	805	18	220	0	0	1

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	41	9	80	19	82	20	0	0
EB	Left Turn	160	133	21	209	28	216	12	8	0
	Through	1,500	217	156	441	262	452	201	9	1

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
AM Peak Hour

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,330	1208	169	1455	249	1344	330	3	14

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	64	20	110	35	113	25	6	0

Intersection 4 Howe Ave/Cadillac Dr EBR

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	71	15	118	31	109	23	0	0

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	120	29	211	64	250	91	0	0
SB	Right Turn	180	323	94	779	143	661	35	0	2

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	37	16	69	28	64	25	0	0
EB	Left Turn	160	51	9	99	24	102	33	0	0
	Through	741	69	22	158	52	170	60	2	0

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Cumulative Plus Project
PM Peak Hour

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,330	1146	178	1470	222	1305	159	27	13

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	936	18	963	13	966	25	86	87

Intersection 4 Howe Ave / Cadillac Dr

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	356	7	385	14	380	17	0	95

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	430	95	669	124	601	102	9	0
SB	Right Turn	180	542	71	810	72	687	13	0	3

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	40	12	74	21	71	16	0	0
EB	Left Turn	160	323	216	662	429	690	399	0	3
	Through	1,500	677	218	1214	234	1191	227	28	20

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,247	1189	207	1483	340	1327	211	4	14

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	57	15	101	32	106	37	3	0

Intersection 4 Howe Ave/Cadillac Dr EBR

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	133	32	225	57	204	43	0	9

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	128	40	191	67	199	63	0	0
SB	Right Turn	135	382	92	668	152	606	105	21	0

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	30	12	63	29	72	24	0	0
EB	Left Turn	160	47	19	89	29	104	44	0	0
	Through	1,500	71	36	164	75	180	81	2	0

Intersection 2 Howe Ave/Sierra Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Through	1,330	1164	174	1457	198	1329	103	34	49

Intersection 3 Howe Ave/Feature Dr

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	364	785	5	968	17	968	24	85	86

Intersection 4 Howe Ave/Cadillac Dr EBR

Unsignalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Right Turn	190	353	14	372	27	371	28	0	97

Intersection 5 Howe Ave/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
NB	Left Turn	280	392	55	588	153	569	49	20	0
SB	Right Turn	135	571	77	680	61	638	12	26	0

Intersection 8 Cadillac Dr/Fair Oaks Blvd

Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Right Turn	120	43	14	86	25	89	24	0	0
EB	Left Turn	160	220	134	446	331	450	318	10	9
	Through	713	410	314	869	587	862	527	17	9

SimTraffic Post-Processor
Average Results from 10 Runs
Queue Length

Howe/Fair Oaks Retail EIR
Cumulative Plus Project, Dual EB Left at Howe/Feature
PM Peak Hour

Intersection 3

Howe Ave/Feature Dr

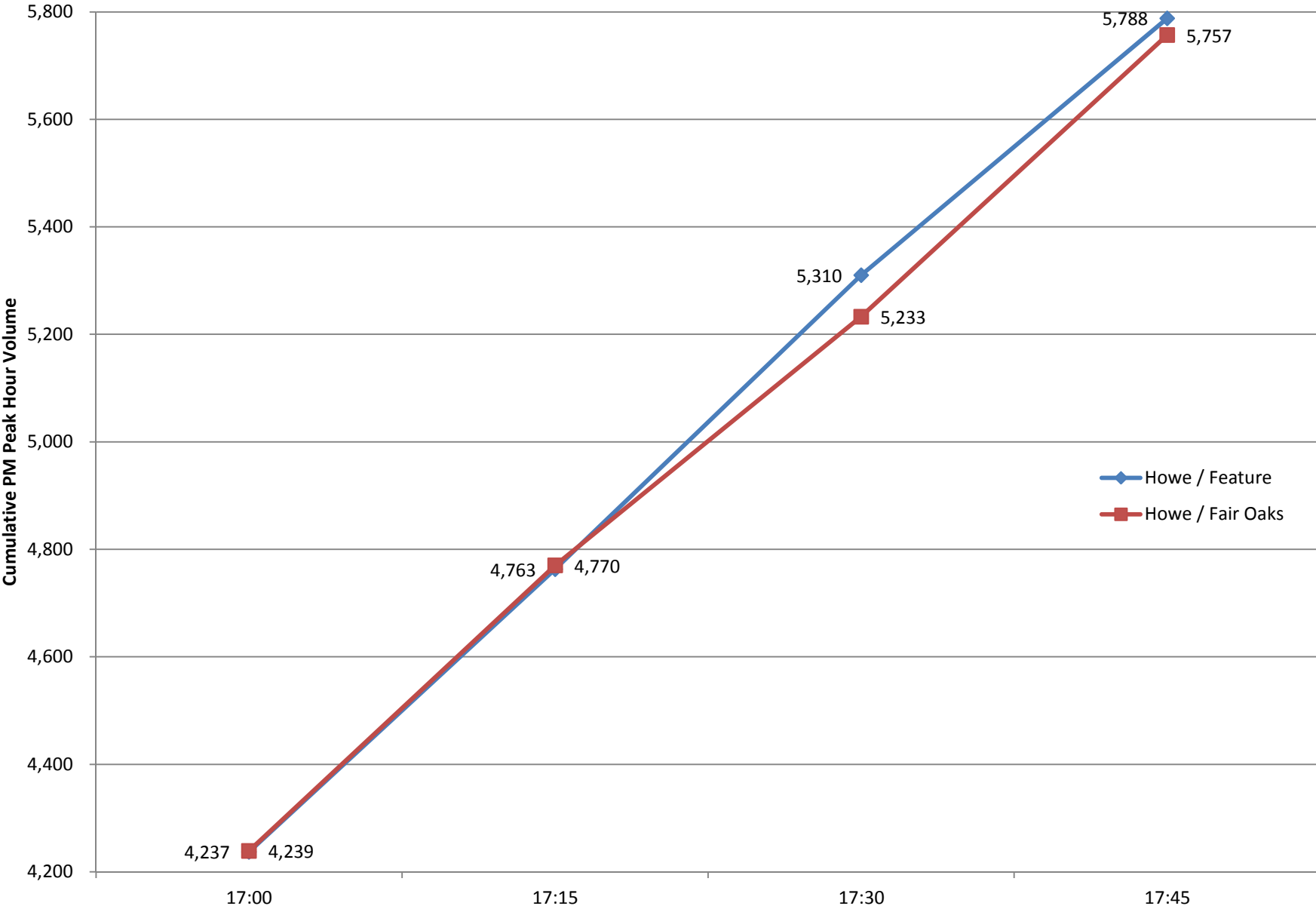
Signalized

Direction	Movement	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time %	
			Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	120	681	154	774	147	745	127	78	67

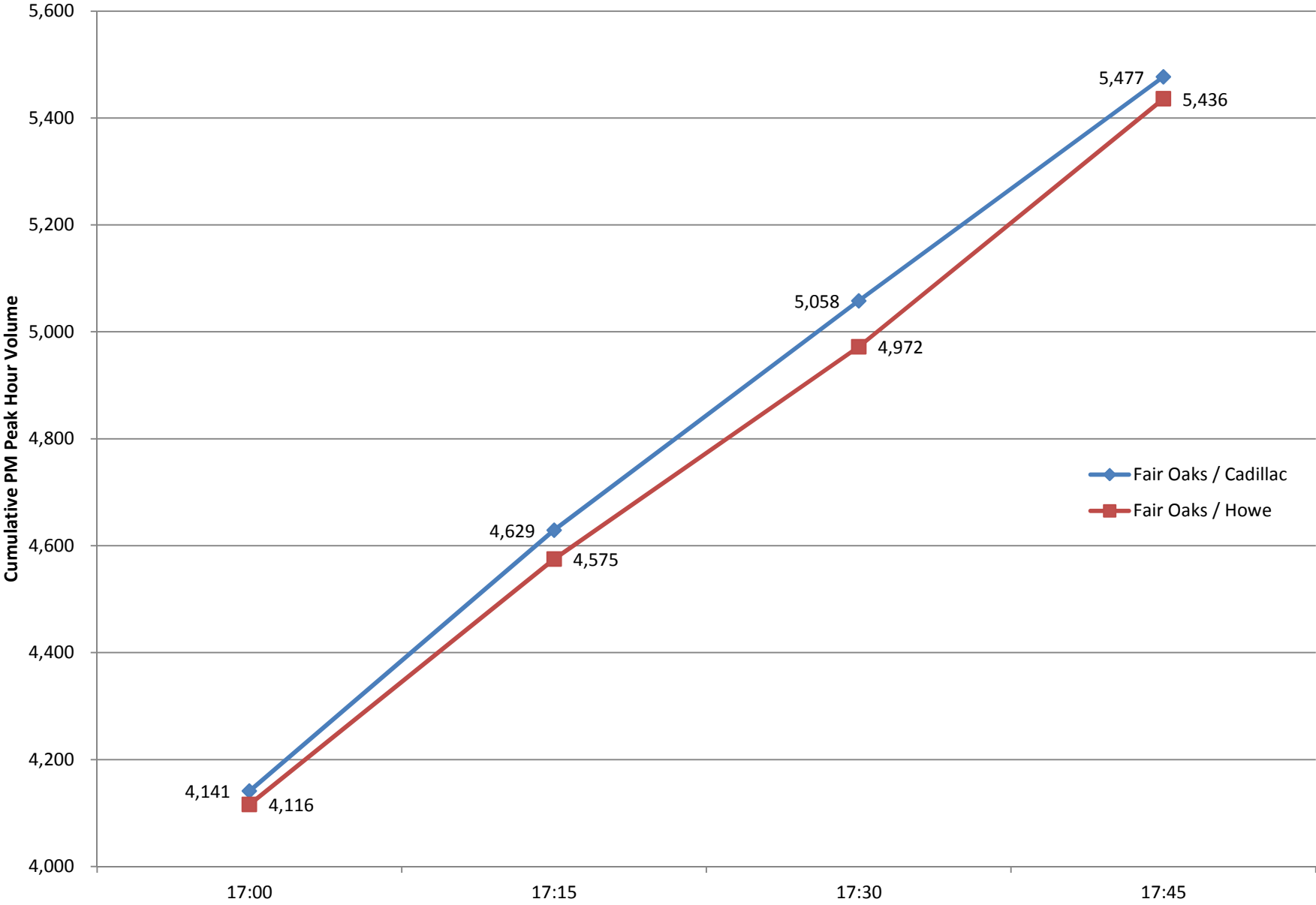
APPENDIX C:

HOWE AVENUE AND FAIR OAKS BOULEVARD THROUGHPUT

Southbound Howe Avenue Throughput



Eastbound Fair Oaks Boulevard Throughput



APPENDIX D:

TRAFFIC COUNTS

- Howe / Northrop
- Howe / Sierra
- Howe / Feature
- Howe / Cadillac
- Howe / Fair Oaks
- Howe / University
- Howe / American River
- Fair Oaks / Cadillac
- Fair Oaks / Munroe

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 1

Groups Printed- Unshifted

	Howe Avenue Southbound					Northrop Avenue Westbound					Howe Avenue Northbound					Northrop Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00	3	260	4	0	267	36	1	20	0	57	8	141	14	2	165	2	3	3	0	8	497
07:15	1	348	2	0	351	55	2	9	0	66	10	240	14	5	269	2	2	7	0	11	697
07:30	11	367	3	1	382	65	3	25	0	93	8	267	15	4	294	3	1	3	0	7	776
07:45	5	469	7	1	482	69	8	17	0	94	8	339	24	4	375	4	2	6	0	12	963
Total	20	1444	16	2	1482	225	14	71	0	310	34	987	67	15	1103	11	8	19	0	38	2933
08:00	10	387	5	0	402	85	11	15	0	111	12	268	21	6	307	2	2	1	0	5	825
08:15	13	491	6	2	512	62	4	14	0	80	13	293	16	8	330	5	1	6	0	12	934
08:30	14	429	2	1	446	65	3	12	0	80	9	293	12	6	320	4	2	7	0	13	859
08:45	6	313	2	0	321	35	6	14	0	55	13	315	23	1	352	8	2	5	0	15	743
Total	43	1620	15	3	1681	247	24	55	0	326	47	1169	72	21	1309	19	7	19	0	45	3361
15:00	15	361	4	2	382	38	8	20	0	66	12	451	48	2	513	12	3	7	0	22	983
15:15	17	360	2	3	382	26	4	18	0	48	11	490	51	4	556	19	2	8	0	29	1015
15:30	26	424	1	8	459	43	2	10	0	55	7	447	49	8	511	7	4	13	0	24	1049
15:45	14	379	0	9	402	44	2	14	0	60	8	411	43	2	464	6	5	11	0	22	948
Total	72	1524	7	22	1625	151	16	62	0	229	38	1799	191	16	2044	44	14	39	0	97	3995
16:00	25	431	2	5	463	30	5	19	0	54	8	483	42	8	541	5	2	4	0	11	1069
16:15	22	364	3	1	390	28	3	19	0	50	14	494	56	3	567	8	4	11	0	23	1030
16:30	23	421	5	2	451	31	1	19	0	51	9	528	54	2	593	7	15	14	0	36	1131
16:45	16	438	2	3	459	54	3	15	0	72	5	546	58	4	613	9	8	12	0	29	1173
Total	86	1654	12	11	1763	143	12	72	0	227	36	2051	210	17	2314	29	29	41	0	99	4403
17:00	18	442	2	7	469	52	3	25	0	80	14	514	61	3	592	17	16	14	0	47	1188
17:15	29	442	1	4	476	33	6	22	0	61	11	590	59	3	663	15	10	15	0	40	1240
17:30	19	525	4	4	552	66	3	18	0	87	5	465	59	2	531	10	10	11	0	31	1201
17:45	26	489	2	1	518	36	3	20	0	59	5	505	58	6	574	7	2	12	0	21	1172
Total	92	1898	9	16	2015	187	15	85	0	287	35	2074	237	14	2360	49	38	52	0	139	4801
Grand Total	313	8140	59	54	8566	953	81	345	0	1379	190	8080	777	83	9130	152	96	170	0	418	19493
Apprch %	3.7	95	0.7	0.6		69.1	5.9	25	0		2.1	88.5	8.5	0.9		36.4	23	40.7	0		
Total %	1.6	41.8	0.3	0.3	43.9	4.9	0.4	1.8	0	7.1	1	41.5	4	0.4	46.8	0.8	0.5	0.9	0	2.1	

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

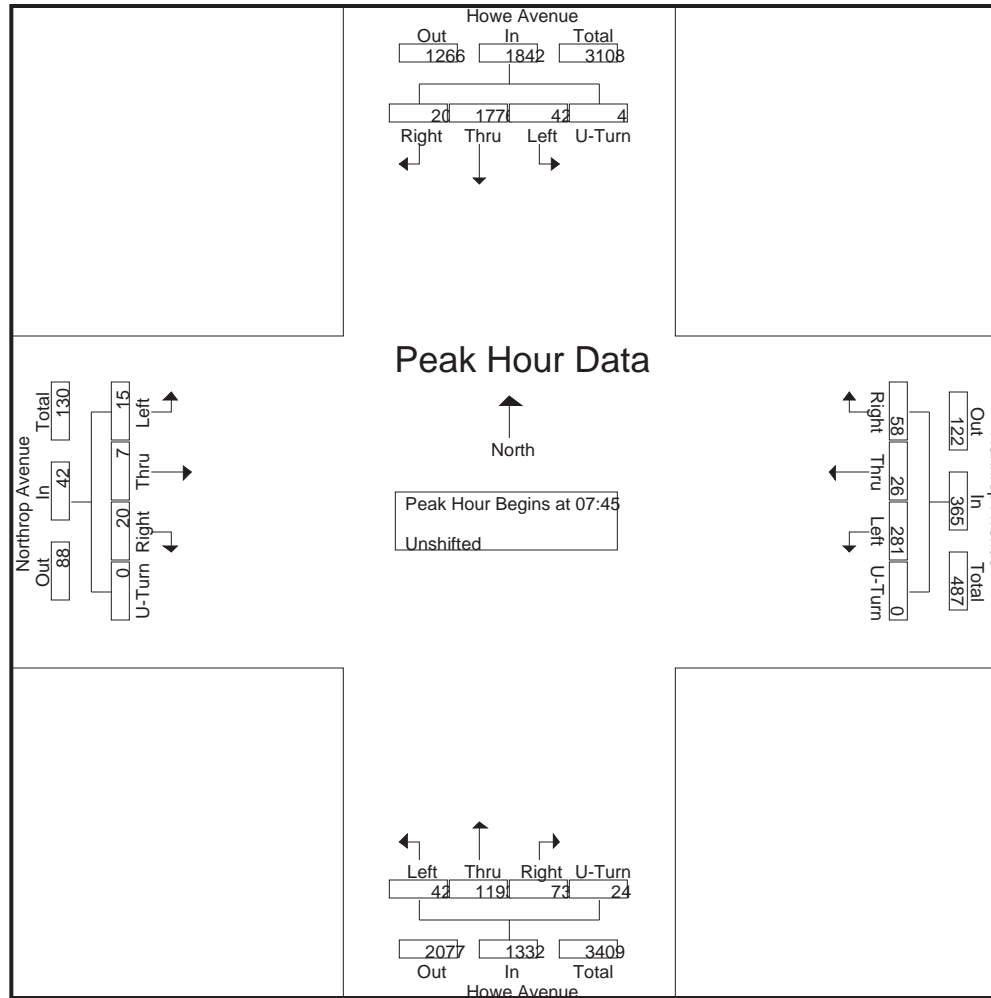
	Howe Avenue Southbound					Northrop Avenue Westbound					Howe Avenue Northbound					Northrop Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	5	469	7	1	482	69	8	17	0	94	8	339	24	4	375	4	2	6	0	12	963
08:00	10	387	5	0	402	85	11	15	0	111	12	268	21	6	307	2	2	1	0	5	825
08:15	13	491	6	2	512	62	4	14	0	80	13	293	16	8	330	5	1	6	0	12	934
08:30	14	429	2	1	446	65	3	12	0	80	9	293	12	6	320	4	2	7	0	13	859
Total Volume	42	1776	20	4	1842	281	26	58	0	365	42	1193	73	24	1332	15	7	20	0	42	3581
% App. Total	2.3	96.4	1.1	0.2		77	7.1	15.9	0		3.2	89.6	5.5	1.8		35.7	16.7	47.6	0		
PHF	.750	.904	.714	.500	.899	.826	.591	.853	.000	.822	.808	.880	.760	.750	.888	.750	.875	.714	.000	.808	.930

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

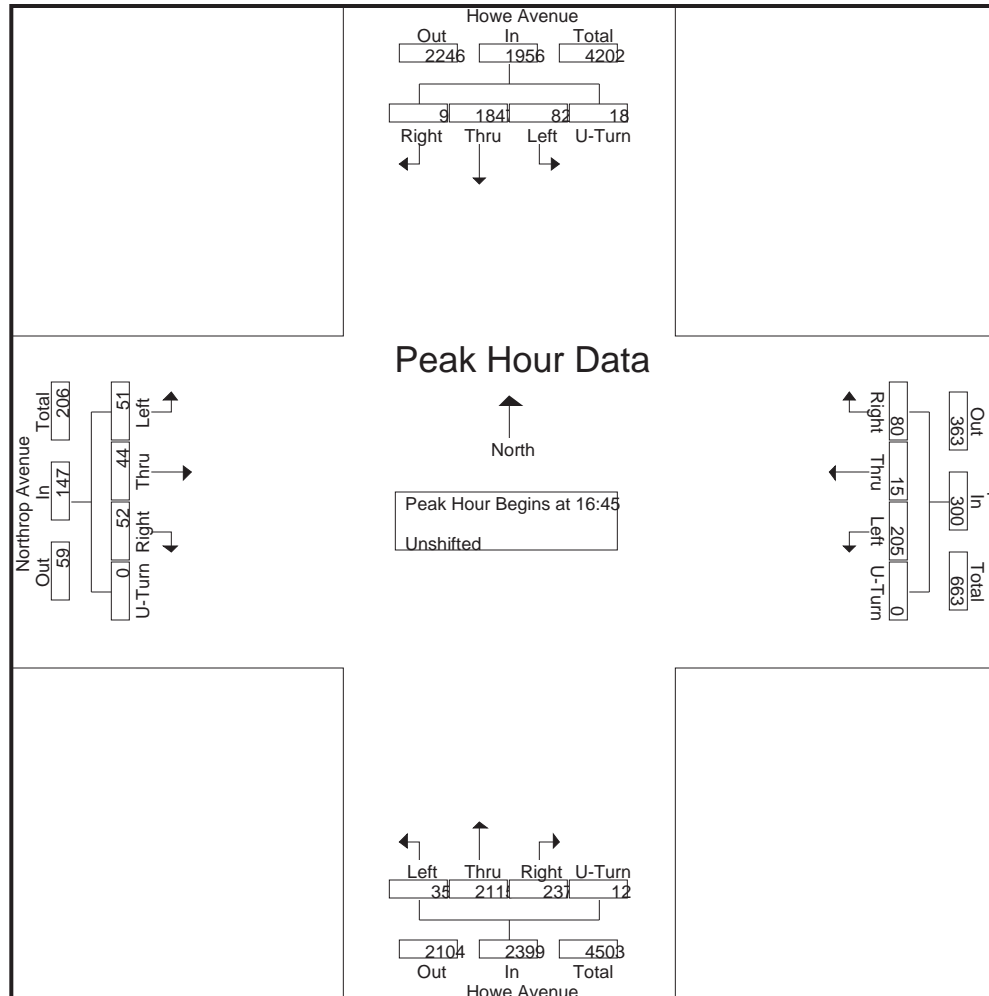
	Howe Avenue Southbound					Northrop Avenue Westbound					Howe Avenue Northbound					Northrop Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	16	438	2	3	459	54	3	15	0	72	5	546	58	4	592	17	16	14	0	47	1188
17:00	18	442	2	7	469	52	3	25	0	80	14	514	61	3	592	15	10	15	0	40	1240
17:15	29	442	1	4	476	33	6	22	0	61	11	590	59	3	663	10	10	11	0	31	1201
17:30	19	525	4	4	552	66	3	18	0	87	5	465	59	2	531	10	10	11	0	31	1201
Total Volume	82	1847	9	18	1956	205	15	80	0	300	35	2115	237	12	2399	51	44	52	0	147	4802
% App. Total	4.2	94.4	0.5	0.9		68.3	5	26.7	0		1.5	88.2	9.9	0.5		34.7	29.9	35.4	0		
PHF	.707	.880	.563	.643	.886	.777	.625	.800	.000	.862	.625	.896	.971	.750	.905	.750	.688	.867	.000	.782	.968

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 1

Groups Printed- Bank 1

	Howe Avenue Southbound					Northrop Avenue Westbound					Howe Avenue Northbound					Northrop Avenue Eastbound							
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	0	1	0	2	1	5	0	0	0	5	0	0	0	2	0	0	0	0	5	0	9	6	15
07:15	0	1	0	1	1	4	0	0	4	4	0	0	1	0	1	0	0	0	1	0	6	6	12
07:30	0	2	0	0	2	2	1	0	1	3	0	1	0	1	1	0	1	0	1	1	3	7	10
07:45	0	2	0	0	2	3	1	0	1	4	1	2	0	0	3	0	0	0	1	0	2	9	11
Total	0	6	0	3	6	14	2	0	6	16	1	3	1	3	5	0	1	0	8	1	20	28	48
08:00	0	3	1	0	4	1	2	1	1	4	1	1	2	2	4	0	0	0	1	0	4	12	16
08:15	0	3	0	4	3	4	2	1	0	7	0	2	0	0	2	0	0	0	6	0	10	12	22
08:30	0	6	0	3	6	7	0	0	4	7	0	1	0	3	1	0	0	0	3	0	13	14	27
08:45	0	1	0	0	1	0	2	0	1	2	0	0	1	2	1	0	0	1	0	1	3	5	8
Total	0	13	1	7	14	12	6	2	6	20	1	4	3	7	8	0	0	1	10	1	30	43	73
15:00	2	3	0	0	5	0	1	1	0	2	0	4	3	1	7	1	0	0	1	1	2	15	17
15:15	0	0	0	0	0	1	0	0	0	1	0	6	0	0	6	0	1	0	4	1	4	8	12
15:30	0	5	0	1	5	1	0	0	2	1	0	0	0	0	0	0	0	0	2	0	5	6	11
15:45	0	3	0	0	3	1	0	1	1	2	0	5	0	0	5	0	0	0	5	0	6	10	16
Total	2	11	0	1	13	3	1	2	3	6	0	15	3	1	18	1	1	0	12	2	17	39	56
16:00	0	3	0	0	3	0	0	0	3	0	2	0	0	2	2	0	0	0	2	0	7	5	12
16:15	0	2	0	1	2	2	0	0	0	2	0	4	1	0	5	1	0	0	2	1	3	10	13
16:30	0	2	0	1	2	0	0	0	0	0	0	3	1	0	4	0	1	0	0	1	1	7	8
16:45	2	5	0	0	7	1	2	0	3	3	0	1	1	0	2	0	1	0	2	1	5	13	18
Total	2	12	0	2	14	3	2	0	6	5	2	8	3	2	13	1	2	0	6	3	16	35	51
17:00	0	1	0	0	1	1	0	0	0	1	0	7	1	0	8	0	0	0	1	0	1	10	11
17:15	0	2	0	1	2	2	1	2	2	5	0	2	0	1	2	0	0	1	3	1	7	10	17
17:30	0	4	0	0	4	4	1	2	5	7	0	4	1	2	5	0	1	0	1	1	8	17	25
17:45	0	0	0	0	0	1	0	0	1	1	0	2	2	1	4	0	0	0	1	0	3	5	8
Total	0	7	0	1	7	8	2	4	8	14	0	15	4	4	19	0	1	1	6	2	19	42	61
Grand Total	4	49	1	14	54	40	13	8	29	61	4	45	14	17	63	2	5	2	42	9	102	187	289
Apprch %	7.4	90.7	1.9			65.6	21.3	13.1			6.3	71.4	22.2			22.2	55.6	22.2					
Total %	2.1	26.2	0.5		28.9	21.4	7	4.3		32.6	2.1	24.1	7.5		33.7	1.1	2.7	1.1		4.8	35.3	64.7	

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

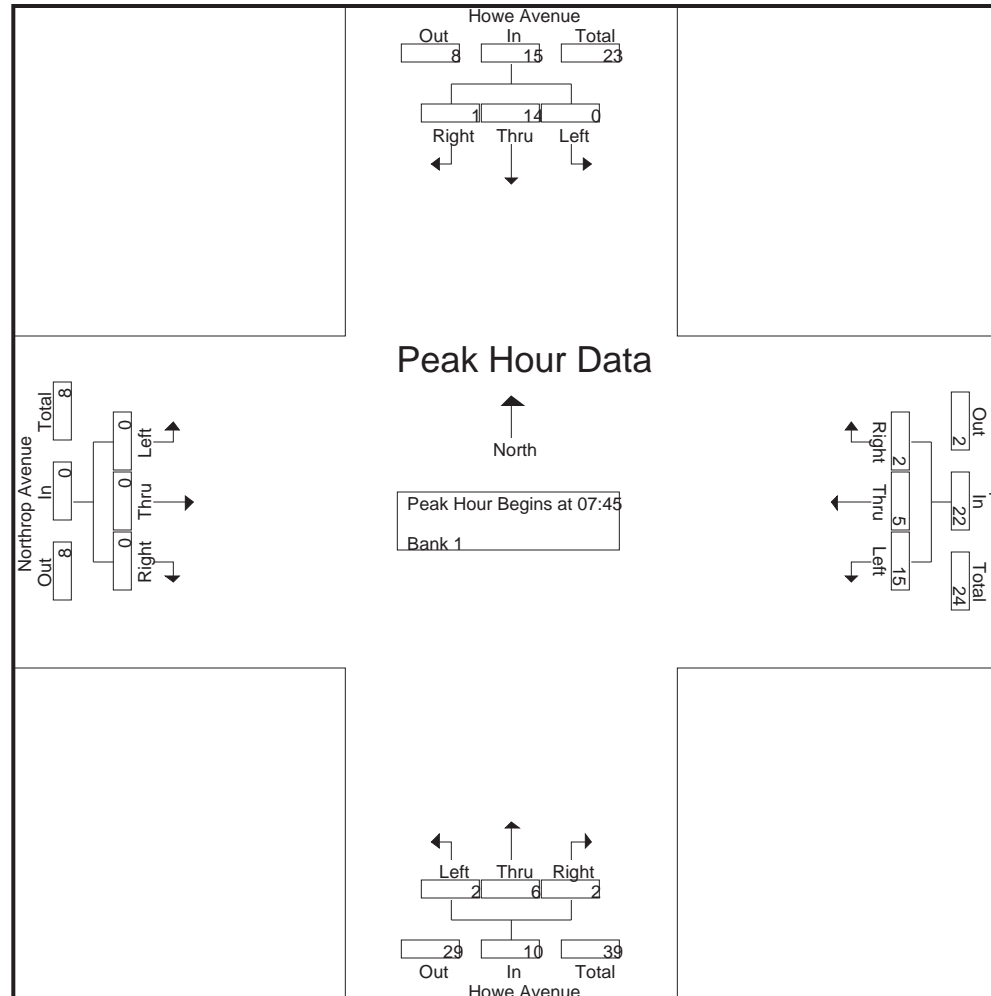
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Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	0	2	0	2	3	1	0	4	1	2	0	3	0	0	0	0	9
08:00	0	3	1	4	1	2	1	4	1	1	2	4	0	0	0	0	12
08:15	0	3	0	3	4	2	1	7	0	2	0	2	0	0	0	0	12
08:30	0	6	0	6	7	0	0	7	0	1	0	1	0	0	0	0	14
Total Volume	0	14	1	15	15	5	2	22	2	6	2	10	0	0	0	0	47
% App. Total	0	93.3	6.7		68.2	22.7	9.1		20	60	20		0	0	0		
PHF	.000	.583	.250	.625	.536	.625	.500	.786	.500	.750	.250	.625	.000	.000	.000	.000	.839

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

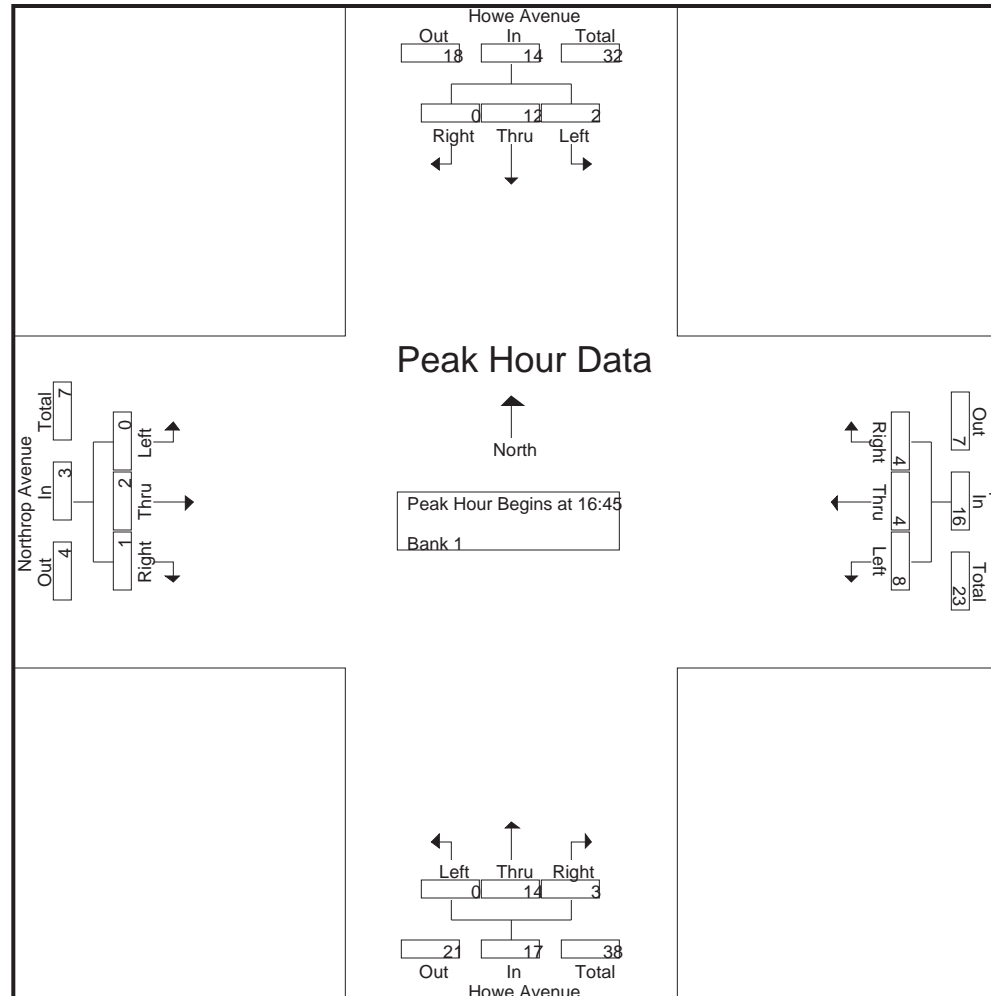
	Howe Avenue Southbound				Northrop Avenue Westbound				Howe Avenue Northbound				Northrop Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:45																	
16:45	2	5	0	7	1	2	0	3	0	1	1	2	0	1	0	1	13
17:00	0	1	0	1	1	0	0	1	0	7	1	8	0	0	0	0	10
17:15	0	2	0	2	2	1	2	5	0	2	0	2	0	0	1	1	10
17:30	0	4	0	4	4	1	2	7	0	4	1	5	0	1	0	1	17
Total Volume	2	12	0	14	8	4	4	16	0	14	3	17	0	2	1	3	50
% App. Total	14.3	85.7	0		50	25	25		0	82.4	17.6		0	66.7	33.3		
PHF	.250	.600	.000	.500	.500	.500	.500	.571	.000	.500	.750	.531	.000	.500	.250	.750	.735

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-004 Howe-Northrop
Site Code : 00000000
Start Date : 9/11/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra
Site Code : 00000000
Start Date : 9/11/2012
Page No : 1

Groups Printed- Unshifted

	Howe Avenue Southbound					Sierra Blvd Westbound					Howe Avenue Northbound					Eastbound				
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00	2	299	0	1	302	16	0	6	0	22	0	173	7	0	180	0	0	0	0	504
07:15	3	399	0	1	403	22	0	15	0	37	0	256	14	0	270	0	0	0	0	710
07:30	12	441	0	0	453	35	0	20	0	55	0	304	18	0	322	0	0	0	0	830
07:45	26	496	0	2	524	31	0	19	0	50	0	348	30	0	378	0	0	0	0	952
Total	43	1635	0	4	1682	104	0	60	0	164	0	1081	69	0	1150	0	0	0	0	2996
08:00	9	487	0	1	497	43	0	12	0	55	0	324	16	0	340	0	0	0	0	892
08:15	6	568	0	4	578	26	0	14	0	40	0	327	12	0	339	0	0	0	0	957
08:30	11	476	0	1	488	31	0	12	0	43	0	318	16	0	334	0	0	0	0	865
08:45	10	315	0	2	327	22	0	12	0	34	0	343	11	0	354	0	0	0	0	715
Total	36	1846	0	8	1890	122	0	50	0	172	0	1312	55	0	1367	0	0	0	0	3429
15:00	11	375	0	3	389	13	0	12	0	25	0	526	20	0	546	0	0	0	0	960
15:15	17	365	0	4	386	17	0	9	0	26	0	545	26	0	571	0	0	0	0	983
15:30	14	426	0	8	448	19	0	14	0	33	0	468	27	0	495	0	0	0	0	976
15:45	15	392	0	5	412	25	0	13	0	38	0	445	22	0	467	0	0	0	0	917
Total	57	1558	0	20	1635	74	0	48	0	122	0	1984	95	0	2079	0	0	0	0	3836
16:00	15	428	0	7	450	18	0	11	0	29	0	535	25	0	560	0	0	0	0	1039
16:15	11	387	0	2	400	18	0	12	0	30	0	531	24	0	555	0	0	0	0	985
16:30	14	427	0	3	444	16	0	14	0	30	0	625	30	0	655	0	0	0	0	1129
16:45	25	463	0	9	497	22	0	12	0	34	0	591	30	0	621	0	0	0	0	1152
Total	65	1705	0	21	1791	74	0	49	0	123	0	2282	109	0	2391	0	0	0	0	4305
17:00	16	384	0	2	402	13	0	17	0	30	0	564	22	0	586	0	0	0	0	1018
17:15	27	497	0	5	529	14	0	10	0	24	0	640	20	0	660	0	0	0	0	1213
17:30	22	572	0	3	597	15	0	12	0	27	0	529	33	0	562	0	0	0	0	1186
17:45	21	527	0	2	550	16	0	8	0	24	0	548	20	0	568	0	0	0	0	1142
Total	86	1980	0	12	2078	58	0	47	0	105	0	2281	95	0	2376	0	0	0	0	4559
Grand Total	287	8724	0	65	9076	432	0	254	0	686	0	8940	423	0	9363	0	0	0	0	19125
Apprch %	3.2	96.1	0	0.7		63	0	37	0		0	95.5	4.5	0		0	0	0		
Total %	1.5	45.6	0	0.3	47.5	2.3	0	1.3	0	3.6	0	46.7	2.2	0	49	0	0	0	0	

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

	Howe Avenue Southbound					Sierra Blvd Westbound					Howe Avenue Northbound					Eastbound				
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 07:45																				
07:45	26	496	0	2	524	31	0	19	0	50	0	348	30	0	378	0	0	0	0	952
08:00	9	487	0	1	497	43	0	12	0	55	0	324	16	0	340	0	0	0	0	892
08:15	6	568	0	4	578	26	0	14	0	40	0	327	12	0	339	0	0	0	0	957
08:30	11	476	0	1	488	31	0	12	0	43	0	318	16	0	334	0	0	0	0	865
Total Volume	52	2027	0	8	2087	131	0	57	0	188	0	1317	74	0	1391	0	0	0	0	3666
% App. Total	2.5	97.1	0	0.4		69.7	0	30.3	0		0	94.7	5.3	0		0	0	0		
PHF	.500	.892	.000	.500	.903	.762	.000	.750	.000	.855	.000	.946	.617	.000	.920	.000	.000	.000	.000	.958

All Traffic Data

(916) 771-8700

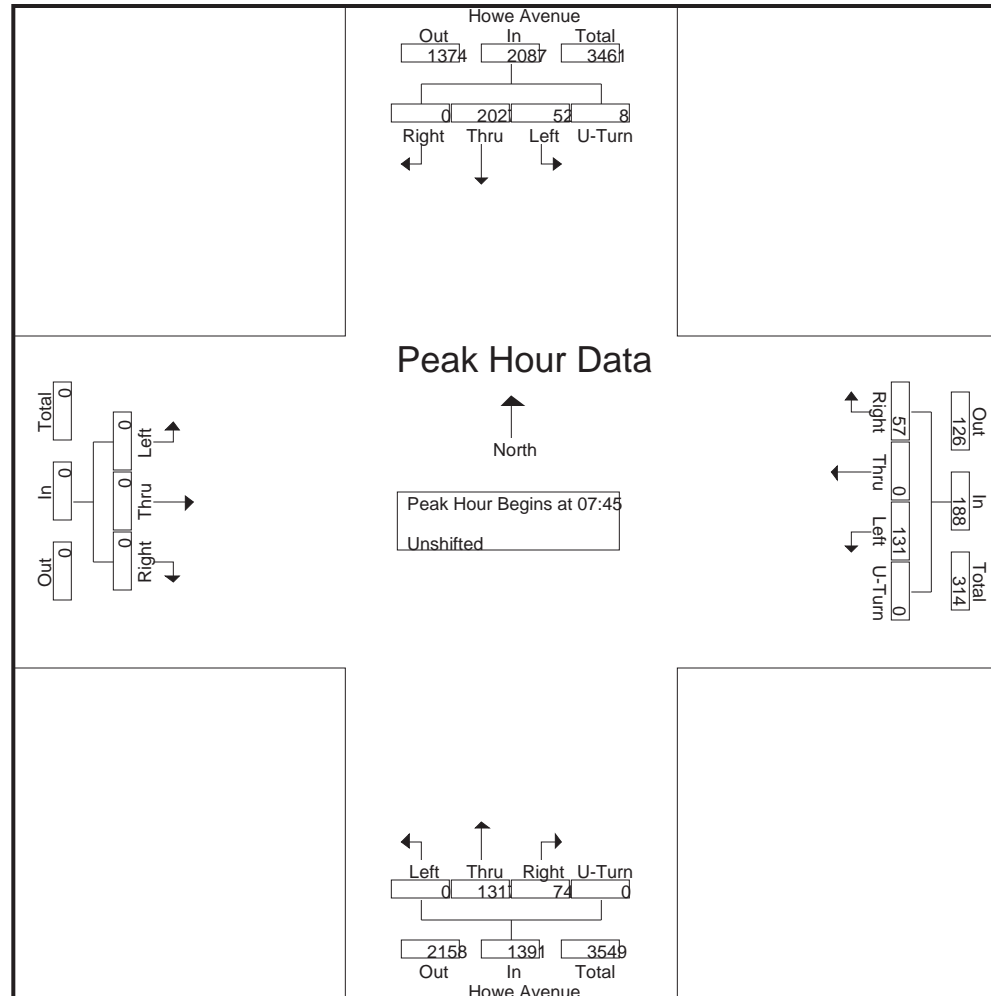
City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra

Site Code : 00000000

Start Date : 9/11/2012

Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

	Howe Avenue Southbound					Sierra Blvd Westbound					Howe Avenue Northbound					Eastbound				
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 16:45																				
16:45	25	463	0	9	497	22	0	12	0	34	0	591	30	0	621	0	0	0	0	1152
17:00	16	384	0	2	402	13	0	17	0	30	0	564	22	0	586	0	0	0	0	1018
17:15	27	497	0	5	529	14	0	10	0	24	0	640	20	0	660	0	0	0	0	1213
17:30	22	572	0	3	597	15	0	12	0	27	0	529	33	0	562	0	0	0	0	1186
Total Volume	90	1916	0	19	2025	64	0	51	0	115	0	2324	105	0	2429	0	0	0	0	4569
% App. Total	4.4	94.6	0	0.9		55.7	0	44.3	0		0	95.7	4.3	0		0	0	0		
PHF	.833	.837	.000	.528	.848	.727	.000	.750	.000	.846	.000	.908	.795	.000	.920	.000	.000	.000	.000	.942

All Traffic Data

(916) 771-8700

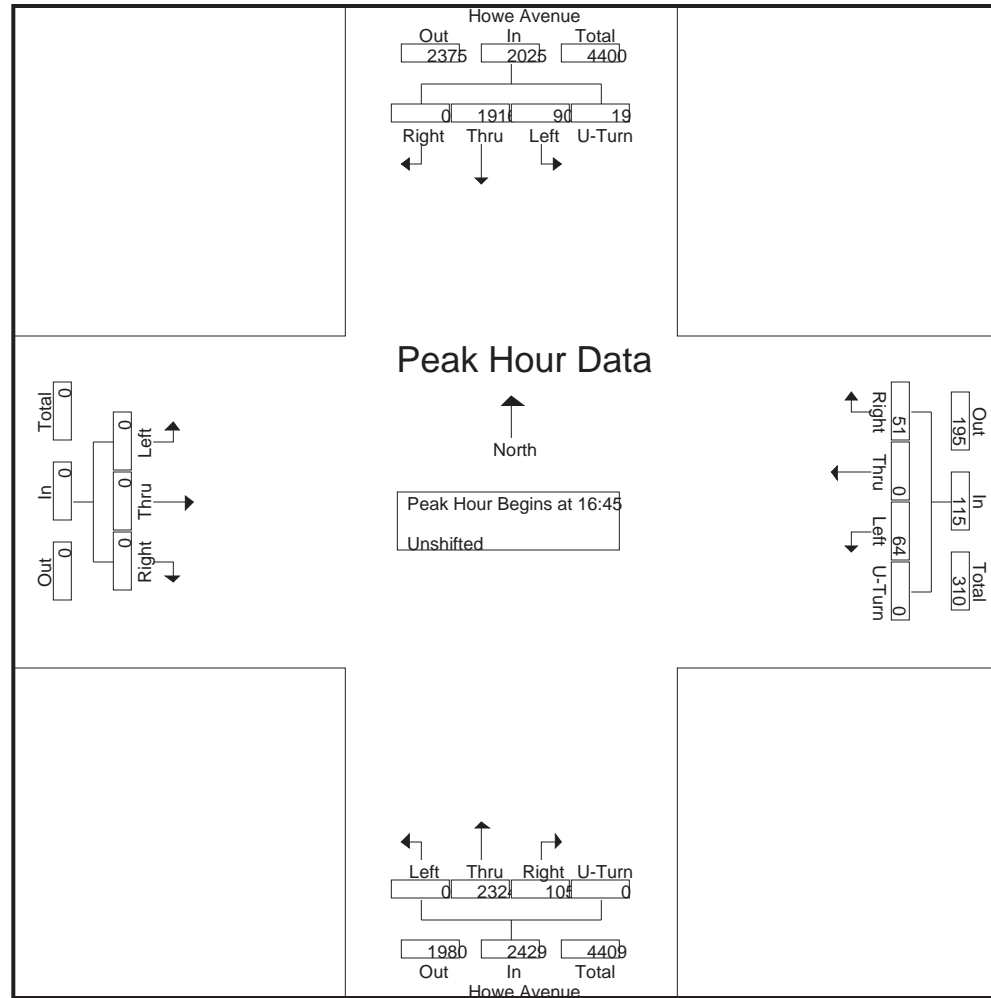
City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra

Site Code : 00000000

Start Date : 9/11/2012

Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra
Site Code : 00000000
Start Date : 9/11/2012
Page No : 1

Groups Printed- Bank 1

	Howe Avenue Southbound					Sierra Blvd Westbound					Howe Avenue Northbound					Eastbound				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	0	1	0	0	1	1	0	0	3	1	0	0	0	0	0	0	0	0	0	3	2	5
07:15	0	4	0	0	4	0	0	0	3	0	0	4	0	0	4	0	0	0	0	3	8	11
07:30	0	4	0	3	4	1	0	0	2	1	0	1	0	2	1	0	0	0	0	7	6	13
07:45	0	2	0	1	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	3	4	7
Total	0	11	0	4	11	4	0	0	10	4	0	5	0	2	5	0	0	0	0	16	20	36
08:00	0	3	0	0	3	1	0	0	0	1	0	2	0	1	2	0	0	0	0	1	6	7
08:15	0	2	0	2	2	0	0	0	1	0	0	1	0	2	1	0	0	0	0	5	3	8
08:30	0	8	0	1	8	0	0	0	0	0	0	0	0	3	0	0	0	0	0	4	8	12
08:45	0	3	0	3	3	3	0	0	3	3	0	1	0	1	1	0	0	0	0	7	7	14
Total	0	16	0	6	16	4	0	0	4	4	0	4	0	7	4	0	0	0	0	17	24	41
15:00	1	0	0	5	1	0	0	1	6	1	0	1	2	2	3	0	0	0	0	13	5	18
15:15	2	0	0	0	2	0	0	0	2	0	0	3	0	0	3	0	0	0	0	2	5	7
15:30	0	0	0	1	0	1	0	0	2	1	0	0	2	2	2	0	0	0	0	5	3	8
15:45	3	0	0	1	3	1	0	0	1	1	0	5	1	1	6	0	0	0	0	3	10	13
Total	6	0	0	7	6	2	0	1	11	3	0	9	5	5	14	0	0	0	0	23	23	46
16:00	1	0	0	4	1	0	0	0	5	0	0	0	0	4	0	0	0	0	0	13	1	14
16:15	1	0	0	1	1	2	0	0	2	2	0	6	1	1	7	0	0	0	0	4	10	14
16:30	0	0	0	1	0	0	0	0	2	0	0	3	0	1	3	0	0	0	0	4	3	7
16:45	2	0	0	1	2	2	0	0	4	2	0	5	0	2	5	0	0	0	0	7	9	16
Total	4	0	0	7	4	4	0	0	13	4	0	14	1	8	15	0	0	0	0	28	23	51
17:00	1	1	0	1	2	0	0	0	1	0	0	7	0	0	7	0	0	0	0	2	9	11
17:15	1	0	0	1	1	0	0	0	0	0	0	1	0	2	1	0	0	0	0	3	2	5
17:30	0	0	0	2	0	0	0	0	5	0	0	5	0	1	5	0	0	0	0	8	5	13
17:45	0	1	0	3	1	0	0	0	2	0	0	4	1	0	5	0	0	0	0	5	6	11
Total	2	2	0	7	4	0	0	0	8	0	0	17	1	3	18	0	0	0	0	18	22	40
Grand Total	12	29	0	31	41	14	0	1	46	15	0	49	7	25	56	0	0	0	0	102	112	214
Apprch %	29.3	70.7	0			93.3	0	6.7			0	87.5	12.5			0	0	0				
Total %	10.7	25.9	0		36.6	12.5	0	0.9		13.4	0	43.8	6.2		50	0	0	0	0	47.7	52.3	

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

	Howe Avenue Southbound				Sierra Blvd Westbound				Howe Avenue Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8
07:30	0	4	0	4	1	0	0	1	0	1	0	1	0	0	0	0	6
07:45	0	2	0	2	2	0	0	2	0	0	0	0	0	0	0	0	4
08:00	0	3	0	3	1	0	0	1	0	2	0	2	0	0	0	0	6
Total Volume	0	13	0	13	4	0	0	4	0	7	0	7	0	0	0	0	24
% App. Total	0	100	0		100	0	0		0	100	0		0	0	0		
PHF	.000	.813	.000	.813	.500	.000	.000	.500	.000	.438	.000	.438	.000	.000	.000	.000	.750

All Traffic Data

(916) 771-8700

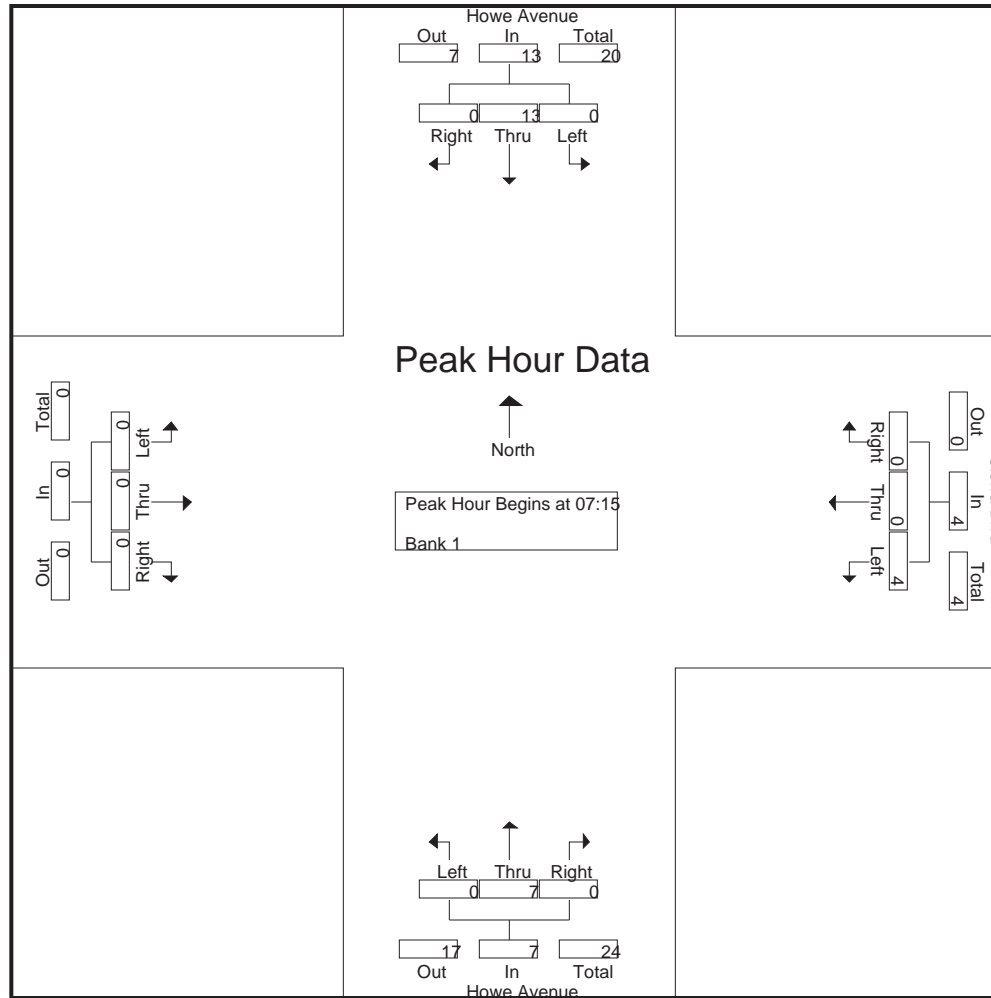
City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra

Site Code : 00000000

Start Date : 9/11/2012

Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

	Howe Avenue Southbound				Sierra Blvd Westbound				Howe Avenue Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:15																	
16:15	1	0	0	1	2	0	0	2	0	6	1	7	0	0	0	0	10
16:30	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
16:45	2	0	0	2	2	0	0	2	0	5	0	5	0	0	0	0	9
17:00	1	1	0	2	0	0	0	0	0	7	0	7	0	0	0	0	9
Total Volume	4	1	0	5	4	0	0	4	0	21	1	22	0	0	0	0	31
% App. Total	80	20	0		100	0	0		0	95.5	4.5		0	0	0		
PHF	.500	.250	.000	.625	.500	.000	.000	.500	.000	.750	.250	.786	.000	.000	.000	.000	.775

All Traffic Data

(916) 771-8700

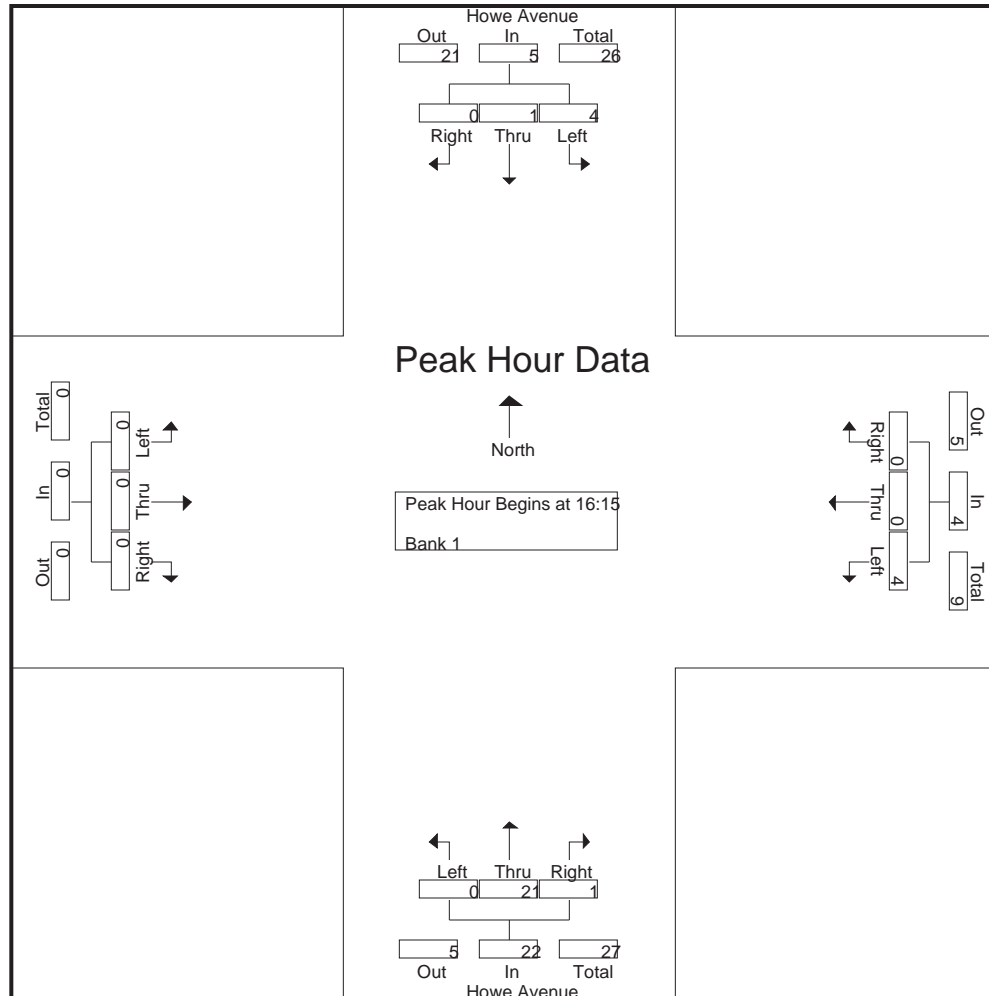
City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-003 Howe-Sierra

Site Code : 00000000

Start Date : 9/11/2012

Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature
Site Code : 00000000
Start Date : 2/22/2012
Page No : 1

Groups Printed- Unshifted

	Howe Avenue Southbound					Driveway Westbound					Howe Avenue Northbound					Feature Drive Eastbound							
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	1	329	8	0	338	0	0	2	0	2	8	187	4	1	199	2	0	7	1	9	2	548	550
07:15	0	395	7	0	402	1	0	0	1	1	1	240	2	0	243	7	0	3	0	10	1	656	657
07:30	0	495	9	0	504	2	0	0	3	2	6	264	8	1	278	9	0	2	0	11	4	795	799
07:45	0	529	12	0	541	4	0	4	1	8	12	383	17	0	412	10	0	11	0	21	1	982	983
Total	1	1748	36	0	1785	7	0	6	5	13	27	1074	31	2	1132	28	0	23	1	51	8	2981	2989
08:00	0	458	24	0	482	2	0	1	3	3	13	317	10	4	340	12	0	7	0	19	7	844	851
08:15	0	463	17	0	480	2	1	0	0	3	22	329	7	1	358	6	1	5	2	12	3	853	856
08:30	0	467	16	0	483	4	0	0	0	4	11	291	1	1	303	12	1	7	1	20	2	810	812
08:45	0	354	15	0	369	1	0	0	1	1	13	295	3	1	311	13	0	8	0	21	2	702	704
Total	0	1742	72	0	1814	9	1	1	4	11	59	1232	21	7	1312	43	2	27	3	72	14	3209	3223
15:00	0	407	14	0	421	3	0	0	1	3	24	527	1	1	552	41	0	10	0	51	2	1027	1029
15:15	0	458	14	0	472	2	1	0	4	3	18	543	4	5	565	33	2	13	2	48	11	1088	1099
15:30	0	445	19	0	464	0	0	0	0	0	19	510	5	2	534	23	0	10	2	33	4	1031	1035
15:45	0	414	21	0	435	3	0	0	2	3	20	591	5	1	616	18	0	6	1	24	4	1078	1082
Total	0	1724	68	0	1792	8	1	0	7	9	81	2171	15	9	2267	115	2	39	5	156	21	4224	4245
16:00	0	436	27	0	463	5	0	1	1	6	17	565	0	3	582	33	0	15	1	48	5	1099	1104
16:15	0	491	14	0	505	3	0	0	2	3	11	633	5	1	649	29	1	9	1	39	4	1196	1200
16:30	0	462	16	0	478	22	1	0	3	23	17	550	4	1	571	61	0	9	1	70	5	1142	1147
16:45	0	497	12	0	509	7	0	1	1	8	29	599	5	2	633	41	3	15	1	59	4	1209	1213
Total	0	1886	69	0	1955	37	1	2	7	40	74	2347	14	7	2435	164	4	48	4	216	18	4646	4664
17:00	0	474	15	0	489	10	0	0	1	10	11	579	3	3	593	54	2	11	1	67	5	1159	1164
17:15	0	505	16	0	521	9	0	2	3	11	17	604	0	4	621	53	2	12	1	67	8	1220	1228
17:30	0	530	15	0	545	5	0	0	2	5	20	617	3	2	640	46	2	12	3	60	7	1250	1257
17:45	0	469	11	0	480	1	1	1	5	3	18	601	3	4	622	19	0	8	4	27	13	1132	1145
Total	0	1978	57	0	2035	25	1	3	11	29	66	2401	9	13	2476	172	6	43	9	221	33	4761	4794
Grand Total	1	9078	302	0	9381	86	4	12	34	102	307	9225	90	38	9622	522	14	180	22	716	94	19821	19915
Apprch %	0	96.8	3.2			84.3	3.9	11.8			3.2	95.9	0.9			72.9	2	25.1					
Total %	0	45.8	1.5		47.3	0.4	0	0.1		0.5	1.5	46.5	0.5		48.5	2.6	0.1	0.9		3.6	0.5	99.5	

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature
Site Code : 00000000
Start Date : 2/22/2012
Page No : 2

	Howe Avenue Southbound				Driveway Westbound				Howe Avenue Northbound				Feature Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	0	529	12	541	4	0	4	8	12	383	17	412	10	0	11	21	982
08:00	0	458	24	482	2	0	1	3	13	317	10	340	12	0	7	19	844
08:15	0	463	17	480	2	1	0	3	22	329	7	358	6	1	5	12	853
08:30	0	467	16	483	4	0	0	4	11	291	1	303	12	1	7	20	810
Total Volume	0	1917	69	1986	12	1	5	18	58	1320	35	1413	40	2	30	72	3489
% App. Total	0	96.5	3.5		66.7	5.6	27.8		4.1	93.4	2.5		55.6	2.8	41.7		
PHF	.000	.906	.719	.918	.750	.250	.313	.563	.659	.862	.515	.857	.833	.500	.682	.857	.888

All Traffic Data

(916) 771-8700

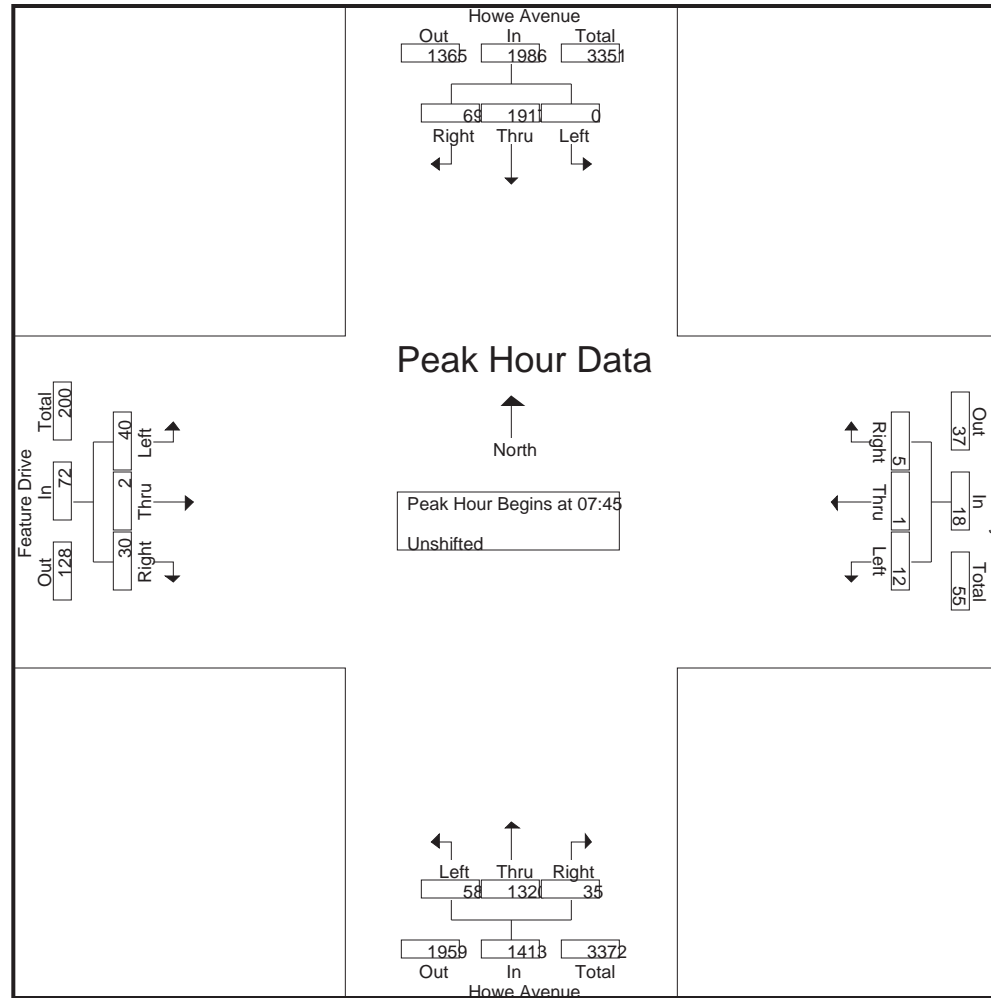
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature

Site Code : 00000000

Start Date : 2/22/2012

Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature
Site Code : 00000000
Start Date : 2/22/2012
Page No : 4

	Howe Avenue Southbound				Driveway Westbound				Howe Avenue Northbound				Feature Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:45																	
16:45	0	497	12	509	7	0	1	8	29	599	5	633	41	3	15	59	1209
17:00	0	474	15	489	10	0	0	10	11	579	3	593	54	2	11	67	1159
17:15	0	505	16	521	9	0	2	11	17	604	0	621	53	2	12	67	1220
17:30	0	530	15	545	5	0	0	5	20	617	3	640	46	2	12	60	1250
Total Volume	0	2006	58	2064	31	0	3	34	77	2399	11	2487	194	9	50	253	4838
% App. Total	0	97.2	2.8		91.2	0	8.8		3.1	96.5	0.4		76.7	3.6	19.8		
PHF	.000	.946	.906	.947	.775	.000	.375	.773	.664	.972	.550	.971	.898	.750	.833	.944	.968

All Traffic Data

(916) 771-8700

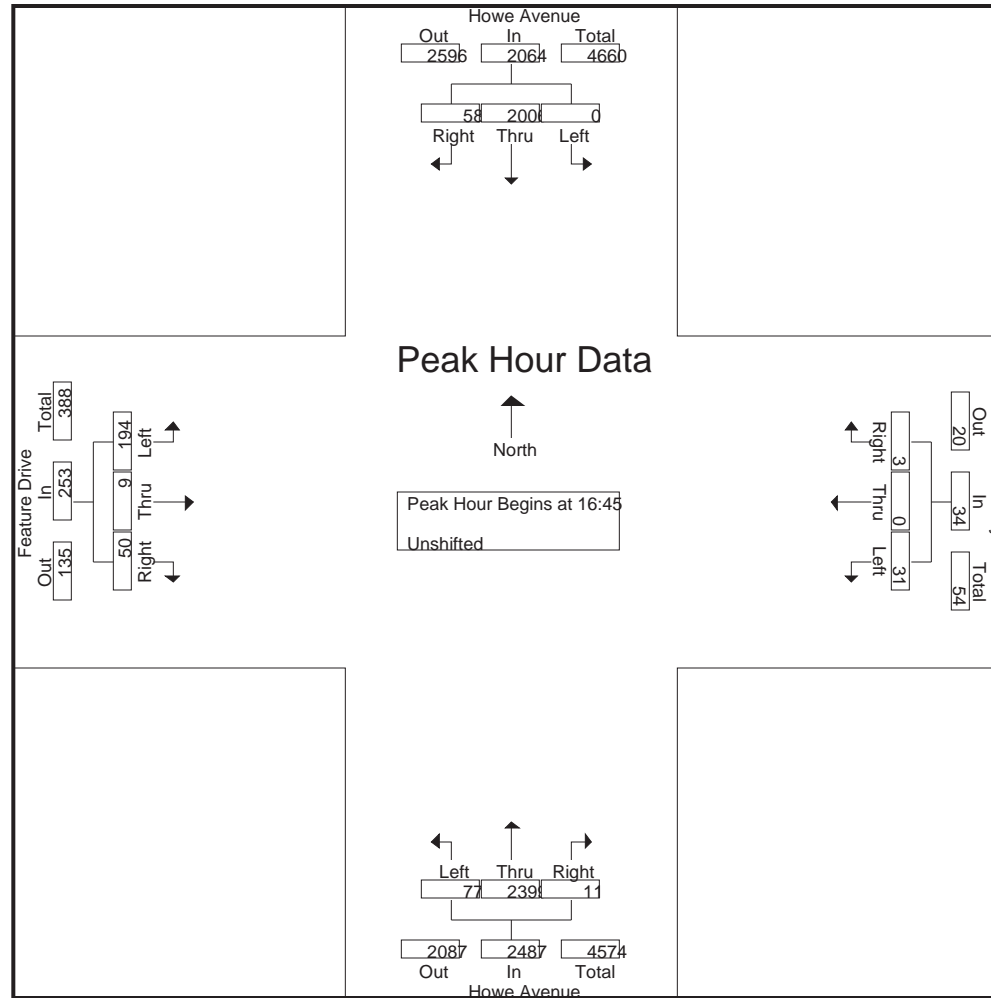
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature

Site Code : 00000000

Start Date : 2/22/2012

Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature
Site Code : 00000000
Start Date : 2/22/2012
Page No : 1

Groups Printed- Bank 1

	Howe Avenue Southbound				Driveway Westbound				Howe Avenue Northbound				Feature Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
07:30	0	0	2	2	1	0	0	1	0	0	0	0	0	0	0	0	3
07:45	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	3
Total	0	3	4	7	1	0	0	1	0	1	1	2	0	0	0	0	10
08:15	0	2	1	3	1	0	0	1	0	0	0	0	0	0	0	0	4
08:30	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	4	3	7	1	0	0	1	0	0	0	0	0	0	0	0	8
15:00	0	1	0	1	0	1	0	1	0	4	0	4	0	0	0	0	6
15:15	0	3	1	4	0	0	0	0	0	2	0	2	0	0	0	0	6
15:30	0	1	0	1	0	1	0	1	0	2	0	2	0	0	0	0	4
15:45	0	2	0	2	0	0	0	0	1	3	0	4	0	1	0	1	7
Total	0	7	1	8	0	2	0	2	1	11	0	12	0	1	0	1	23
16:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
16:15	0	2	0	2	0	0	0	0	0	2	0	2	1	0	0	1	5
16:30	0	2	0	2	0	0	0	0	0	2	0	2	2	1	0	3	7
16:45	0	1	0	1	0	0	0	0	0	2	0	2	1	0	0	1	4
Total	0	5	0	5	0	0	0	0	0	7	0	7	4	1	0	5	17
17:00	0	1	0	1	1	0	0	1	0	3	0	3	0	0	0	0	5
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
17:30	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
17:45	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
Total	0	1	1	2	1	0	1	2	0	4	0	4	0	2	0	2	10
Grand Total	0	20	9	29	3	2	1	6	1	23	1	25	4	4	0	8	68
Apprch %	0	69	31		50	33.3	16.7		4	92	4		50	50	0		
Total %	0	29.4	13.2	42.6	4.4	2.9	1.5	8.8	1.5	33.8	1.5	36.8	5.9	5.9	0	11.8	

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature
Site Code : 00000000
Start Date : 2/22/2012
Page No : 2

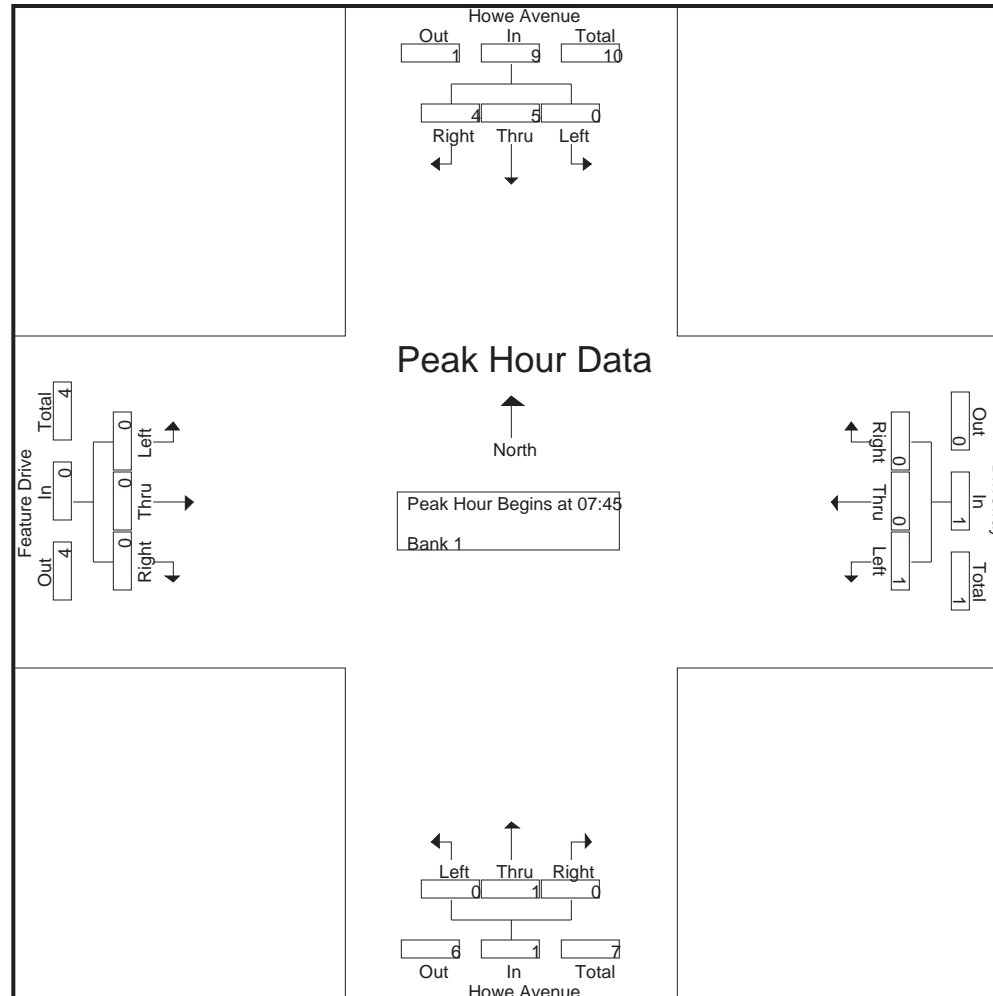
	Howe Avenue Southbound				Driveway Westbound				Howe Avenue Northbound				Feature Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	3
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	2	1	3	1	0	0	1	0	0	0	0	0	0	0	0	4
08:30	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	5	4	9	1	0	0	1	0	1	0	1	0	0	0	0	11
% App. Total	0	55.6	44.4		100	0	0		0	100	0		0	0	0		
PHF	.000	.625	.500	.563	.250	.000	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000	.688

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature
Site Code : 00000000
Start Date : 2/22/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature
Site Code : 00000000
Start Date : 2/22/2012
Page No : 4

	Howe Avenue Southbound				Driveway Westbound				Howe Avenue Northbound				Feature Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 15:00																	
15:00	0	1	0	1	0	1	0	1	0	4	0	4	0	0	0	0	6
15:15	0	3	1	4	0	0	0	0	0	2	0	2	0	0	0	0	6
15:30	0	1	0	1	0	1	0	1	0	2	0	2	0	0	0	0	4
15:45	0	2	0	2	0	0	0	0	1	3	0	4	0	1	0	1	7
Total Volume	0	7	1	8	0	2	0	2	1	11	0	12	0	1	0	1	23
% App. Total	0	87.5	12.5		0	100	0		8.3	91.7	0		0	100	0		
PHF	.000	.583	.250	.500	.000	.500	.000	.500	.250	.688	.000	.750	.000	.250	.000	.250	.821

All Traffic Data

(916) 771-8700

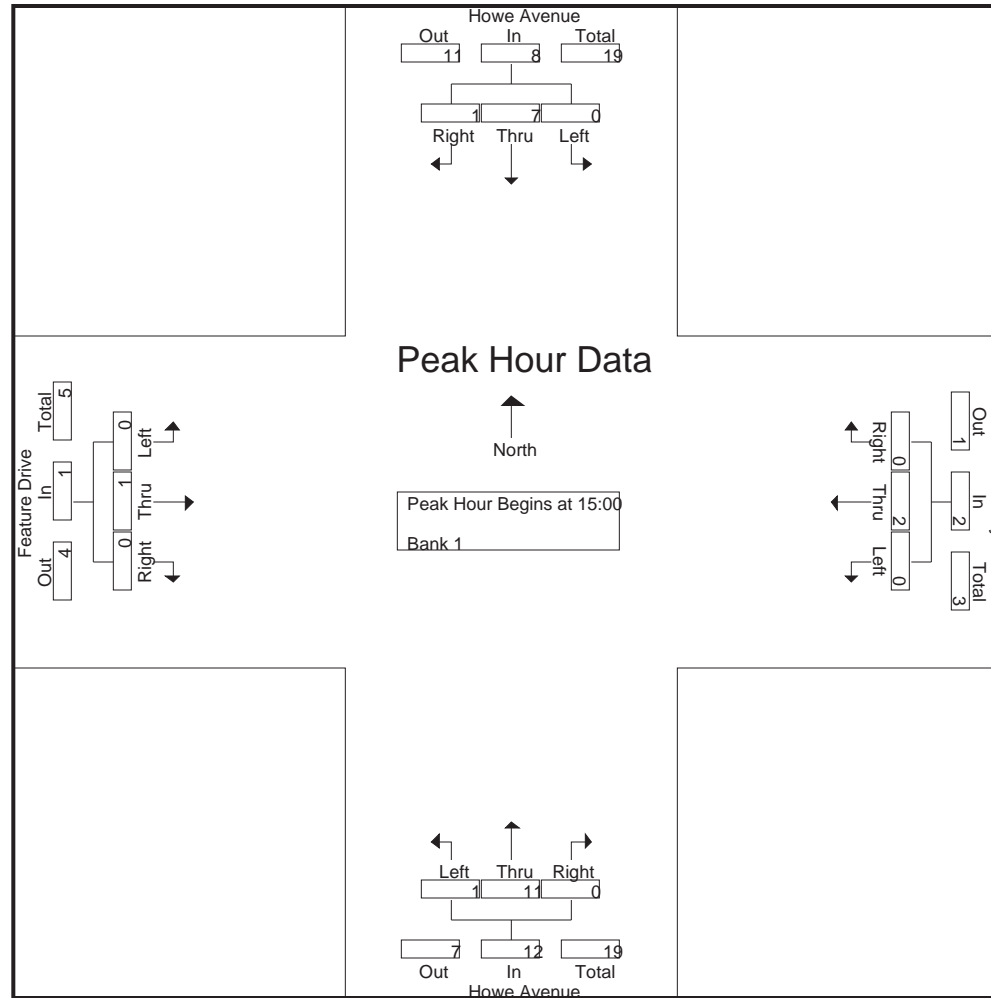
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-001 Howe-Feature

Site Code : 00000000

Start Date : 2/22/2012

Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac
Site Code : 00000000
Start Date : 2/22/2012
Page No : 1

Groups Printed- Unshifted

	Howe Avenue Southbound					Westbound					Howe Avenue Northbound					Cadillac Drive Eastbound							
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	0	336	4	0	340	0	0	0	0	0	0	198	0	0	198	0	0	3	0	3	0	541	541
07:15	0	406	3	0	409	0	0	0	0	0	0	243	0	0	243	0	0	1	0	1	0	653	653
07:30	0	481	1	0	482	0	0	0	0	0	0	284	0	0	284	0	0	2	2	2	2	768	770
07:45	0	553	4	0	557	0	0	0	0	0	0	404	0	0	404	0	0	6	1	6	1	967	968
Total	0	1776	12	0	1788	0	0	0	0	0	0	1129	0	0	1129	0	0	12	3	12	3	2929	2932
08:00	0	471	8	0	479	0	0	0	0	0	0	354	0	0	354	0	0	5	0	5	0	838	838
08:15	0	457	2	0	459	0	0	0	0	0	0	360	0	0	360	0	0	4	1	4	1	823	824
08:30	0	490	0	0	490	0	0	0	0	0	0	313	0	0	313	0	0	2	1	2	1	805	806
08:45	0	364	5	0	369	0	0	0	0	0	0	316	0	0	316	0	0	3	1	3	1	688	689
Total	0	1782	15	0	1797	0	0	0	0	0	0	1343	0	0	1343	0	0	14	3	14	3	3154	3157
15:00	0	415	5	0	420	0	0	0	0	0	0	530	0	0	530	0	0	14	0	14	0	964	964
15:15	0	464	3	0	467	0	0	0	0	0	0	577	0	0	577	0	0	12	1	12	1	1056	1057
15:30	0	466	5	0	471	0	0	0	0	0	0	556	0	0	556	0	0	13	1	13	1	1040	1041
15:45	0	441	5	0	446	0	0	0	0	0	0	583	0	0	583	0	0	7	0	7	0	1036	1036
Total	0	1786	18	0	1804	0	0	0	0	0	0	2246	0	0	2246	0	0	46	2	46	2	4096	4098
16:00	0	427	5	0	432	0	0	0	0	0	0	618	0	0	618	0	0	11	5	11	5	1061	1066
16:15	0	482	4	0	486	0	0	0	0	0	0	627	0	0	627	0	0	5	5	5	5	1118	1123
16:30	0	503	2	0	505	0	0	0	0	0	0	588	0	0	588	0	0	6	1	6	1	1099	1100
16:45	0	486	2	0	488	0	0	0	0	0	0	600	0	0	600	0	0	4	2	4	2	1092	1094
Total	0	1898	13	0	1911	0	0	0	0	0	0	2433	0	0	2433	0	0	26	13	26	13	4370	4383
17:00	0	541	1	0	542	0	0	0	0	0	0	653	0	0	653	0	0	7	3	7	3	1202	1205
17:15	0	487	2	0	489	0	0	0	0	0	0	576	0	0	576	0	0	2	0	2	0	1067	1067
17:30	0	512	3	0	515	0	0	0	0	0	0	650	0	0	650	0	0	4	0	4	0	1169	1169
17:45	0	504	2	0	506	0	0	0	0	0	0	610	0	0	610	0	0	5	0	5	0	1121	1121
Total	0	2044	8	0	2052	0	0	0	0	0	0	2489	0	0	2489	0	0	18	3	18	3	4559	4562
Grand Total	0	9286	66	0	9352	0	0	0	0	0	0	9640	0	0	9640	0	0	116	24	116	24	19108	19132
Apprch %	0	99.3	0.7			0	0	0			0	100	0			0	0	100					
Total %	0	48.6	0.3		48.9	0	0	0		0	0	50.5	0		50.5	0	0	0.6		0.6	0.1	99.9	

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac
Site Code : 00000000
Start Date : 2/22/2012
Page No : 2

	Howe Avenue Southbound				Westbound				Howe Avenue Northbound				Cadillac Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	0	553	4	557	0	0	0	0	0	404	0	404	0	0	6	6	967
08:00	0	471	8	479	0	0	0	0	0	354	0	354	0	0	5	5	838
08:15	0	457	2	459	0	0	0	0	0	360	0	360	0	0	4	4	823
08:30	0	490	0	490	0	0	0	0	0	313	0	313	0	0	2	2	805
Total Volume	0	1971	14	1985	0	0	0	0	0	1431	0	1431	0	0	17	17	3433
% App. Total	0	99.3	0.7		0	0	0		0	100	0		0	0	100		
PHF	.000	.891	.438	.891	.000	.000	.000	.000	.000	.886	.000	.886	.000	.000	.708	.708	.888

All Traffic Data

(916) 771-8700

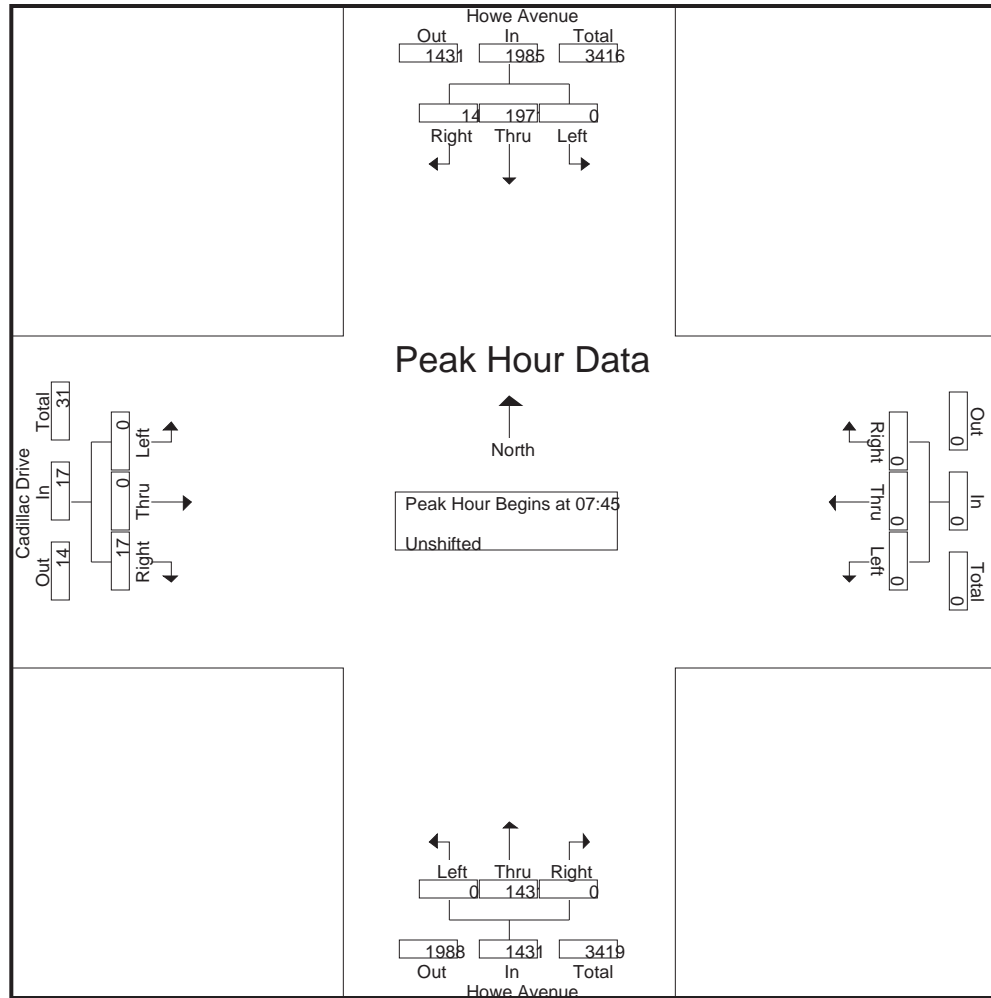
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac

Site Code : 00000000

Start Date : 2/22/2012

Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac
Site Code : 00000000
Start Date : 2/22/2012
Page No : 4

	Howe Avenue Southbound				Westbound				Howe Avenue Northbound				Cadillac Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 17:00																	
17:00	0	541	1	542	0	0	0	0	0	653	0	653	0	0	7	7	1202
17:15	0	487	2	489	0	0	0	0	0	576	0	576	0	0	2	2	1067
17:30	0	512	3	515	0	0	0	0	0	650	0	650	0	0	4	4	1169
17:45	0	504	2	506	0	0	0	0	0	610	0	610	0	0	5	5	1121
Total Volume	0	2044	8	2052	0	0	0	0	0	2489	0	2489	0	0	18	18	4559
% App. Total	0	99.6	0.4		0	0	0		0	100	0		0	0	100		
PHF	.000	.945	.667	.946	.000	.000	.000	.000	.000	.953	.000	.953	.000	.000	.643	.643	.948

All Traffic Data

(916) 771-8700

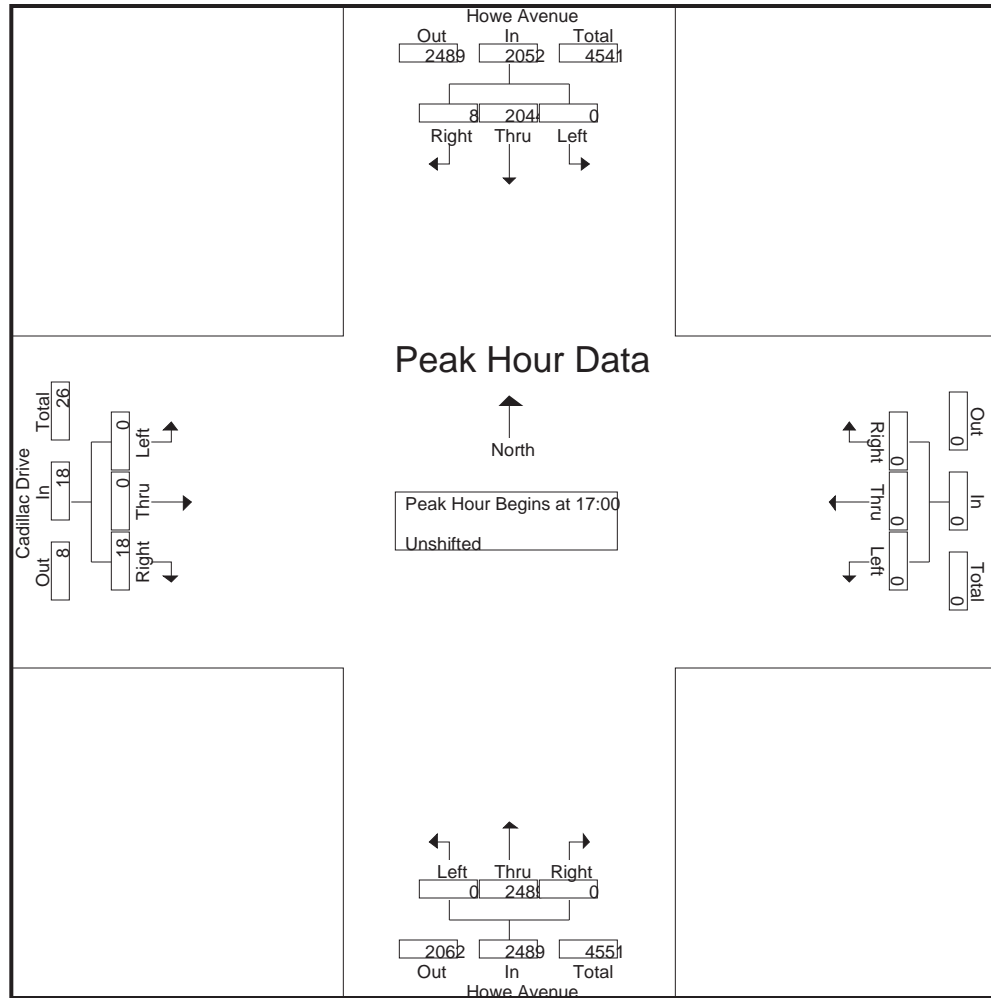
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac

Site Code : 00000000

Start Date : 2/22/2012

Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac
Site Code : 00000000
Start Date : 2/22/2012
Page No : 1

Groups Printed- Bank 1

	Howe Avenue Southbound				Westbound				Howe Avenue Northbound				Cadillac Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:15	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	2	1	3	0	0	0	0	0	1	0	1	0	0	0	0	4
08:15	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	4
15:00	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
15:15	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	3
15:30	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
15:45	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
Total	0	4	1	5	0	0	0	0	0	8	0	8	0	0	0	0	13
16:15	0	2	0	2	0	0	0	0	0	2	0	2	1	0	0	1	5
16:30	0	2	0	2	0	0	0	0	0	2	0	2	1	0	0	1	5
16:45	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	5	0	5	0	0	0	0	0	5	0	5	2	0	0	2	12
17:00	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0	5
17:15	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17:30	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8
Grand Total	0	18	3	21	0	0	0	0	0	18	0	18	2	0	0	2	41
Apprch %	0	85.7	14.3		0	0	0		0	100	0		100	0	0		
Total %	0	43.9	7.3	51.2	0	0	0	0	0	43.9	0	43.9	4.9	0	0	4.9	

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac
Site Code : 00000000
Start Date : 2/22/2012
Page No : 2

	Howe Avenue Southbound				Westbound				Howe Avenue Northbound				Cadillac Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	4	1	5	0	0	0	0	0	1	0	1	0	0	0	0	6
% App. Total	0	80	20		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.250	.625	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.750

All Traffic Data

(916) 771-8700

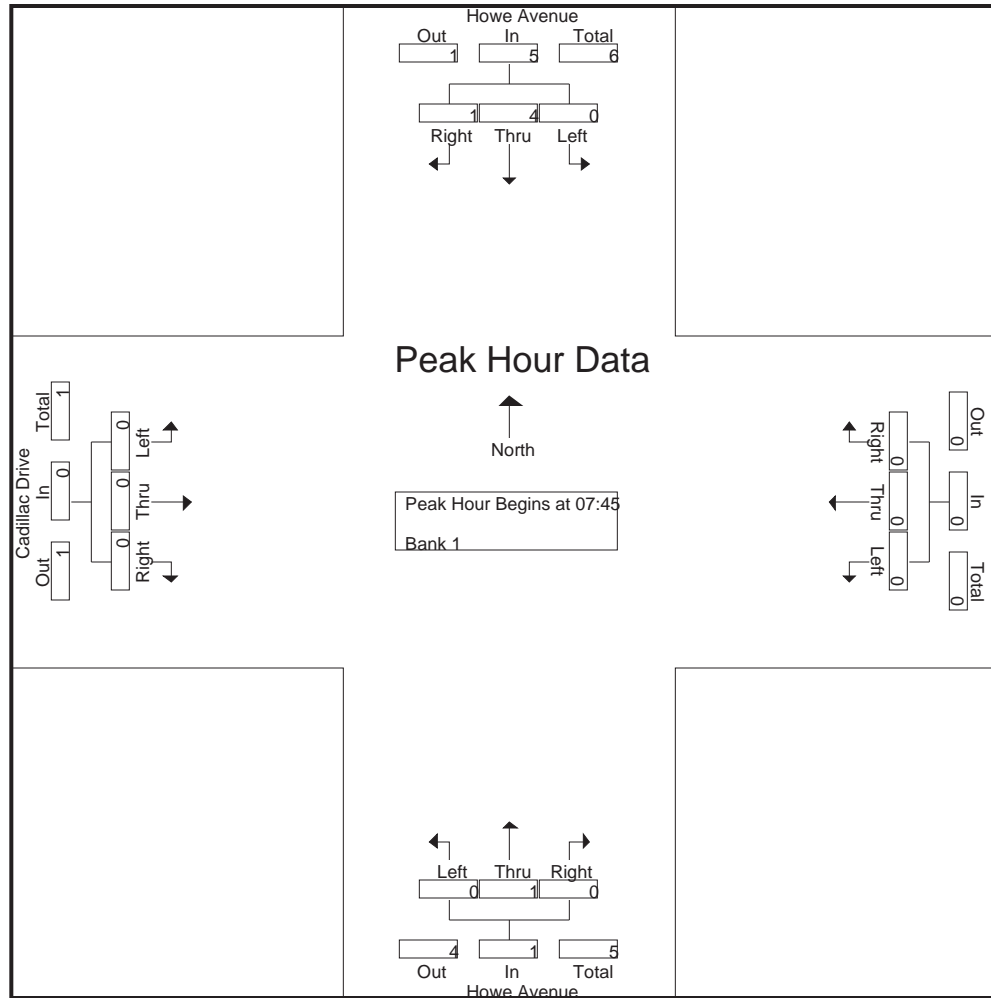
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac

Site Code : 00000000

Start Date : 2/22/2012

Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac
Site Code : 00000000
Start Date : 2/22/2012
Page No : 4

	Howe Avenue Southbound				Westbound				Howe Avenue Northbound				Cadillac Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:15																	
16:15	0	2	0	2	0	0	0	0	0	2	0	2	1	0	0	1	5
16:30	0	2	0	2	0	0	0	0	0	2	0	2	1	0	0	1	5
16:45	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
17:00	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0	5
Total Volume	0	7	0	7	0	0	0	0	0	8	0	8	2	0	0	2	17
% App. Total	0	100	0		0	0	0		0	100	0		100	0	0		
PHF	.000	.875	.000	.875	.000	.000	.000	.000	.000	.667	.000	.667	.500	.000	.000	.500	.850

All Traffic Data

(916) 771-8700

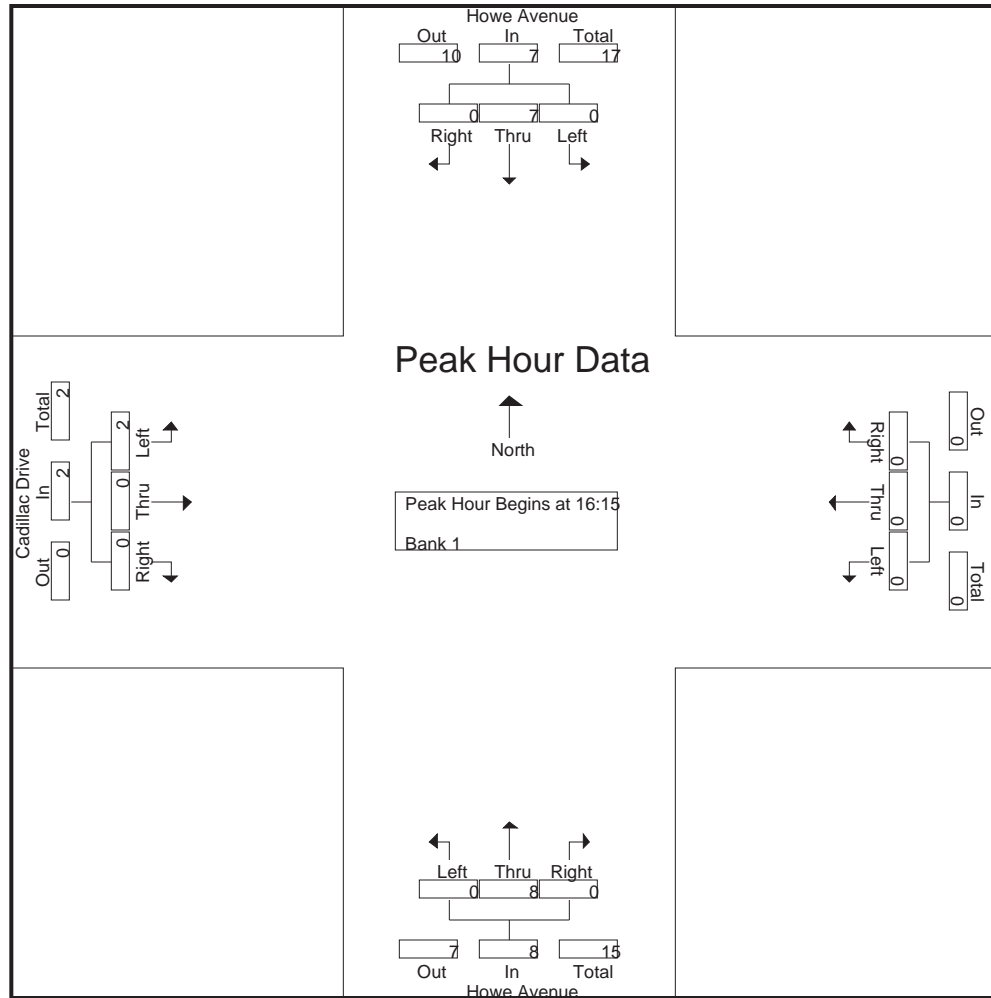
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-002 Howe-Cadillac

Site Code : 00000000

Start Date : 2/22/2012

Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 1

Groups Printed- Unshifted

	Howe Avenue Southbound					Fair Oaks Boulevard Westbound					Howe Avenue Northbound					Fair Oaks Boulevard Eastbound							
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	9	184	135	2	328	16	168	22	1	206	36	119	8	0	163	49	72	10	0	131	3	828	831
07:15	23	233	163	0	419	17	181	19	2	217	40	160	2	2	202	58	68	26	5	152	9	990	999
07:30	38	242	198	4	478	21	208	23	1	252	65	201	6	0	272	58	90	19	3	167	8	1169	1177
07:45	41	301	219	5	561	25	232	35	1	292	49	278	13	0	340	92	145	28	2	265	8	1458	1466
Total	111	960	715	11	1786	79	789	99	5	967	190	758	29	2	977	257	375	83	10	715	28	4445	4473
08:00	52	234	180	2	466	16	217	30	1	263	57	222	13	2	292	85	160	28	1	273	6	1294	1300
08:15	56	222	202	7	480	21	202	24	2	247	58	257	15	2	330	68	135	18	2	221	13	1278	1291
08:30	45	230	219	7	494	24	182	29	0	235	46	208	19	0	273	57	120	12	2	189	9	1191	1200
08:45	45	193	136	2	374	24	171	26	2	221	55	194	12	0	261	79	134	15	3	228	7	1084	1091
Total	198	879	737	18	1814	85	772	109	5	966	216	881	59	4	1156	289	549	73	8	911	35	4847	4882
15:00	54	225	111	0	390	52	161	51	1	264	55	317	16	4	388	174	246	29	6	449	11	1491	1502
15:15	84	296	122	2	502	31	157	49	1	237	55	324	22	3	401	176	257	18	10	451	16	1591	1607
15:30	56	282	115	2	453	37	134	58	0	229	38	327	23	4	388	168	217	18	3	403	9	1473	1482
15:45	71	239	149	0	459	44	148	58	0	250	49	355	26	2	430	190	271	26	3	487	5	1626	1631
Total	265	1042	497	4	1804	164	600	216	2	980	197	1323	87	13	1607	708	991	91	22	1790	41	6181	6222
16:00	60	272	128	1	460	32	124	65	1	221	53	347	24	2	424	159	234	20	4	413	8	1518	1526
16:15	54	232	163	0	449	38	156	33	3	227	74	362	27	3	463	188	254	20	3	462	9	1601	1610
16:30	72	284	134	0	490	44	178	59	1	281	49	335	24	2	408	164	337	32	4	533	7	1712	1719
16:45	78	304	132	3	514	39	212	53	1	304	90	378	21	5	489	151	307	28	5	486	14	1793	1807
Total	264	1092	557	4	1913	153	670	210	6	1033	266	1422	96	12	1784	662	1132	100	16	1894	38	6624	6662
17:00	56	317	149	1	522	37	196	65	1	298	112	404	18	2	534	146	268	18	3	432	7	1786	1793
17:15	74	306	151	0	531	56	196	59	1	311	79	349	13	2	441	147	294	18	5	459	8	1742	1750
17:30	45	267	151	0	463	34	197	57	0	288	69	391	14	2	474	135	246	16	3	397	5	1622	1627
17:45	58	320	146	4	524	31	176	60	0	267	72	351	19	5	442	179	260	25	5	464	14	1697	1711
Total	233	1210	597	5	2040	158	765	241	2	1164	332	1495	64	11	1891	607	1068	77	16	1752	34	6847	6881
Grand Total	1071	5183	3103	42	9357	639	3596	875	20	5110	1201	5879	335	42	7415	2523	4115	424	72	7062	176	28944	29120
Apprch %	11.4	55.4	33.2			12.5	70.4	17.1			16.2	79.3	4.5			35.7	58.3	6					
Total %	3.7	17.9	10.7		32.3	2.2	12.4	3		17.7	4.1	20.3	1.2		25.6	8.7	14.2	1.5		24.4	0.6	99.4	

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 2

	Howe Avenue Southbound				Fair Oaks Boulevard Westbound				Howe Avenue Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	41	301	219	561	25	232	35	292	49	278	13	340	92	145	28	265	1458
08:00	52	234	180	466	16	217	30	263	57	222	13	292	85	160	28	273	1294
08:15	56	222	202	480	21	202	24	247	58	257	15	330	68	135	18	221	1278
08:30	45	230	219	494	24	182	29	235	46	208	19	273	57	120	12	189	1191
Total Volume	194	987	820	2001	86	833	118	1037	210	965	60	1235	302	560	86	948	5221
% App. Total	9.7	49.3	41		8.3	80.3	11.4		17	78.1	4.9		31.9	59.1	9.1		
PHF	.866	.820	.936	.892	.860	.898	.843	.888	.905	.868	.789	.908	.821	.875	.768	.868	.895

All Traffic Data

(916) 771-8700

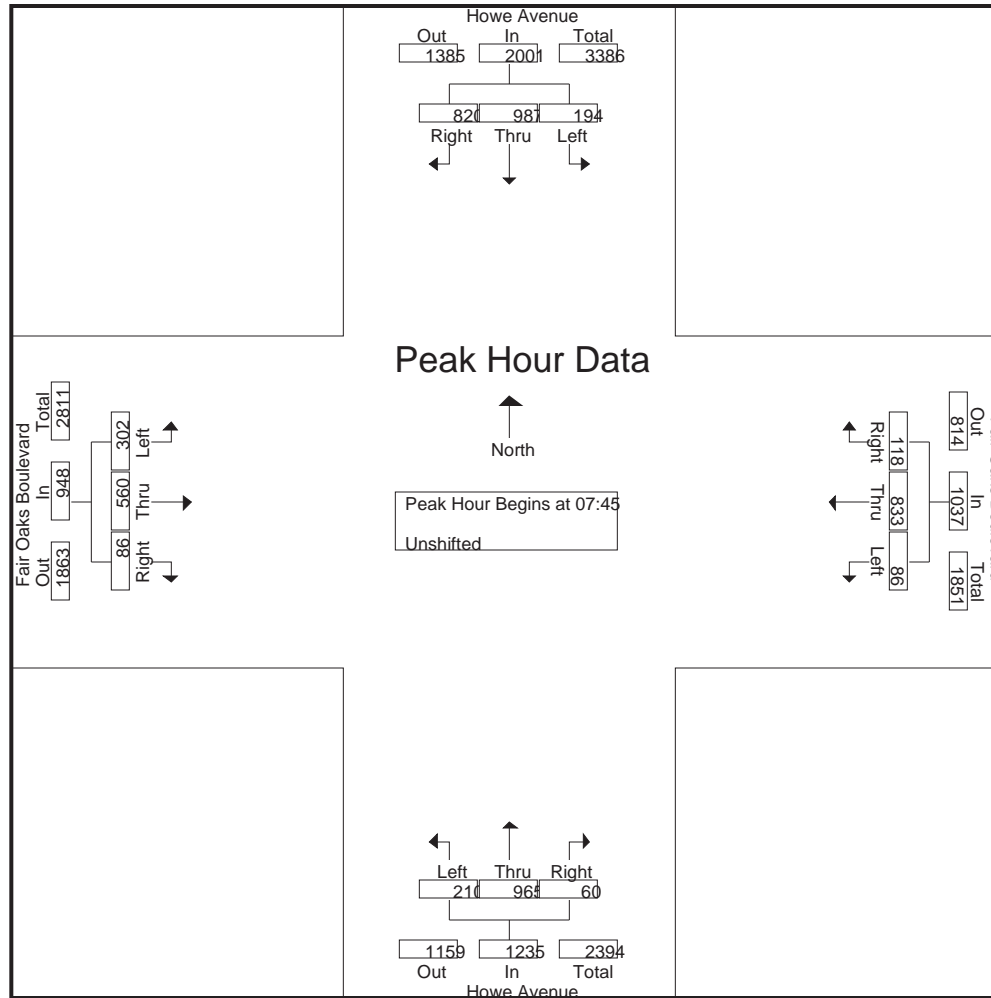
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks

Site Code : 00000000

Start Date : 2/22/2012

Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 4

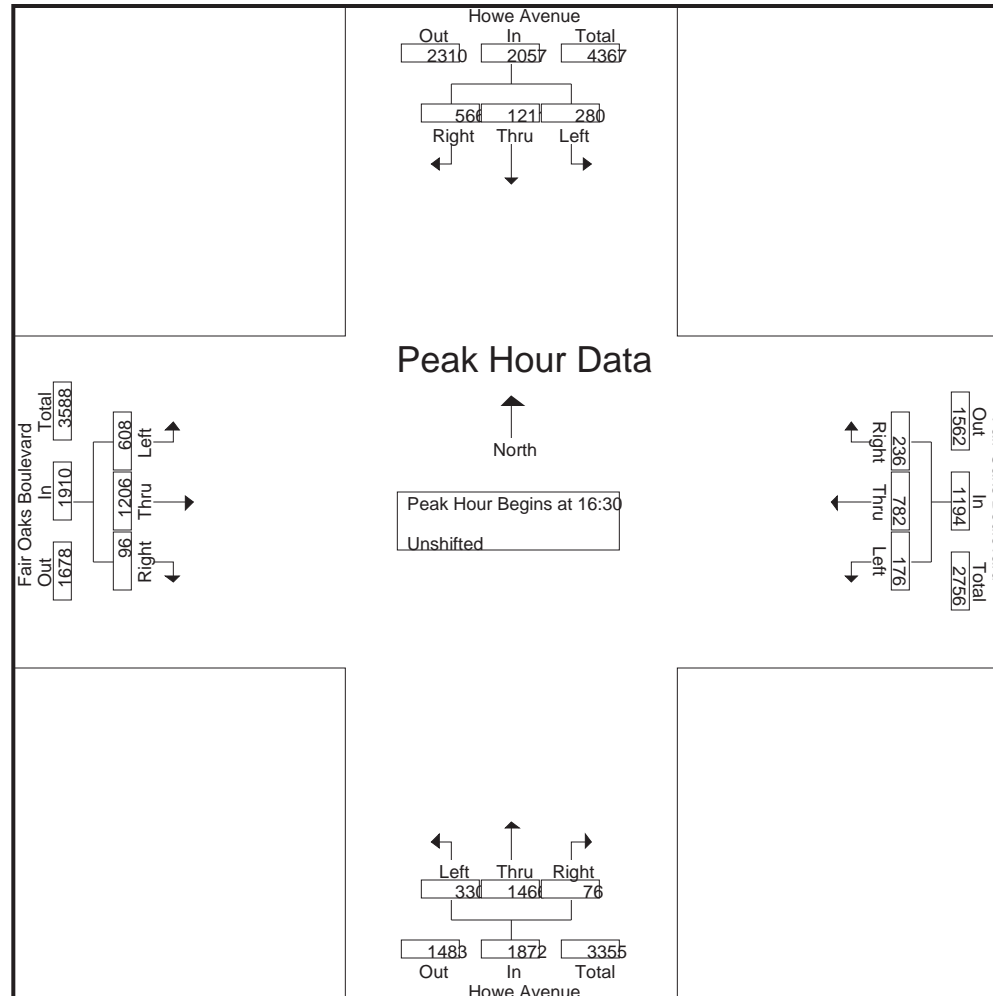
	Howe Avenue Southbound				Fair Oaks Boulevard Westbound				Howe Avenue Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	72	284	134	490	44	178	59	281	49	335	24	408	164	337	32	533	1712
16:45	78	304	132	514	39	212	53	304	90	378	21	489	151	307	28	486	1793
17:00	56	317	149	522	37	196	65	298	112	404	18	534	146	268	18	432	1786
17:15	74	306	151	531	56	196	59	311	79	349	13	441	147	294	18	459	1742
Total Volume	280	1211	566	2057	176	782	236	1194	330	1466	76	1872	608	1206	96	1910	7033
% App. Total	13.6	58.9	27.5		14.7	65.5	19.8		17.6	78.3	4.1		31.8	63.1	5		
PHF	.897	.955	.937	.968	.786	.922	.908	.960	.737	.907	.792	.876	.927	.895	.750	.896	.981

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 1

Groups Printed- Bank 1

	Howe Avenue Southbound				Fair Oaks Boulevard Westbound				Howe Avenue Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:15	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
07:45	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	3
Total	0	2	0	2	0	3	0	3	0	1	0	1	0	0	0	0	6
08:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:15	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
08:30	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
08:45	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	3	0	3	0	4	0	4	0	0	0	0	0	0	0	0	7
15:00	0	1	0	1	0	0	0	0	0	4	0	4	0	1	0	1	6
15:15	0	0	0	0	0	1	0	1	0	1	0	1	0	2	0	2	4
15:30	0	0	0	0	1	3	0	4	0	0	0	0	0	1	0	1	5
15:45	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
Total	0	1	0	1	1	4	0	5	0	7	0	7	0	5	0	5	18
16:00	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2	3
16:15	0	0	1	1	0	0	0	0	0	1	0	1	0	1	0	1	3
16:30	0	4	0	4	0	0	0	0	0	1	0	1	0	1	0	1	6
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	4	1	5	0	0	0	0	1	2	0	3	0	5	0	5	13
17:00	0	5	0	5	0	3	0	3	0	1	0	1	0	0	0	0	9
17:15	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
17:30	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
17:45	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
Total	0	6	0	6	0	4	0	4	0	2	0	2	0	2	0	2	14
Grand Total	0	16	1	17	1	15	0	16	1	12	0	13	0	12	0	12	58
Apprch %	0	94.1	5.9		6.2	93.8	0		7.7	92.3	0		0	100	0		
Total %	0	27.6	1.7	29.3	1.7	25.9	0	27.6	1.7	20.7	0	22.4	0	20.7	0	20.7	

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 2

	Howe Avenue Southbound				Fair Oaks Boulevard Westbound				Howe Avenue Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	3
08:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:15	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
08:30	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
Total Volume	0	4	0	4	0	4	0	4	0	1	0	1	0	0	0	0	9
% App. Total	0	100	0		0	100	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	1.000	.000	1.000	.000	.250	.000	.250	.000	.000	.000	.000	.750

All Traffic Data

(916) 771-8700

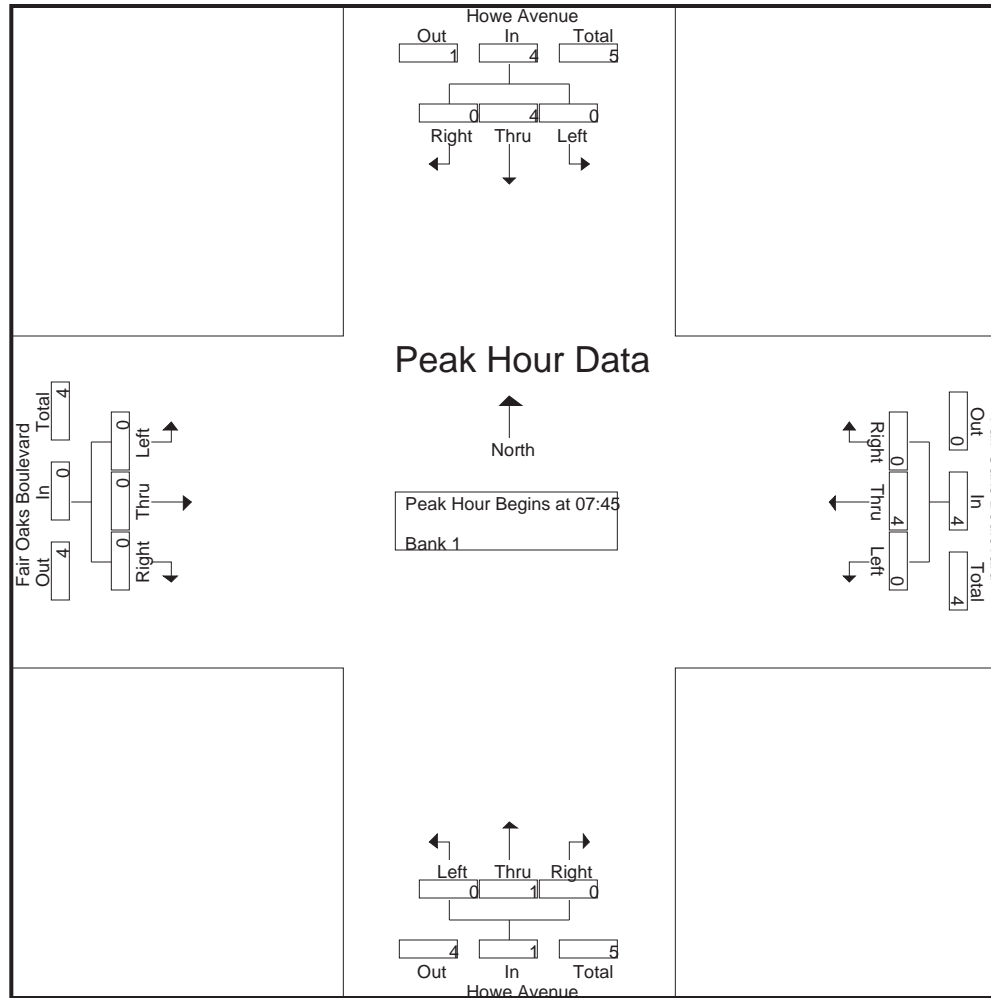
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks

Site Code : 00000000

Start Date : 2/22/2012

Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 4

	Howe Avenue Southbound				Fair Oaks Boulevard Westbound				Howe Avenue Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:15																	
16:15	0	0	1	1	0	0	0	0	0	1	0	1	0	1	0	1	3
16:30	0	4	0	4	0	0	0	0	0	1	0	1	0	1	0	1	6
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
17:00	0	5	0	5	0	3	0	3	0	1	0	1	0	0	0	0	9
Total Volume	0	9	1	10	0	3	0	3	0	3	0	3	0	3	0	3	19
% App. Total	0	90	10		0	100	0		0	100	0		0	100	0		
PHF	.000	.450	.250	.500	.000	.250	.000	.250	.000	.750	.000	.750	.000	.750	.000	.750	.528

All Traffic Data

(916) 771-8700

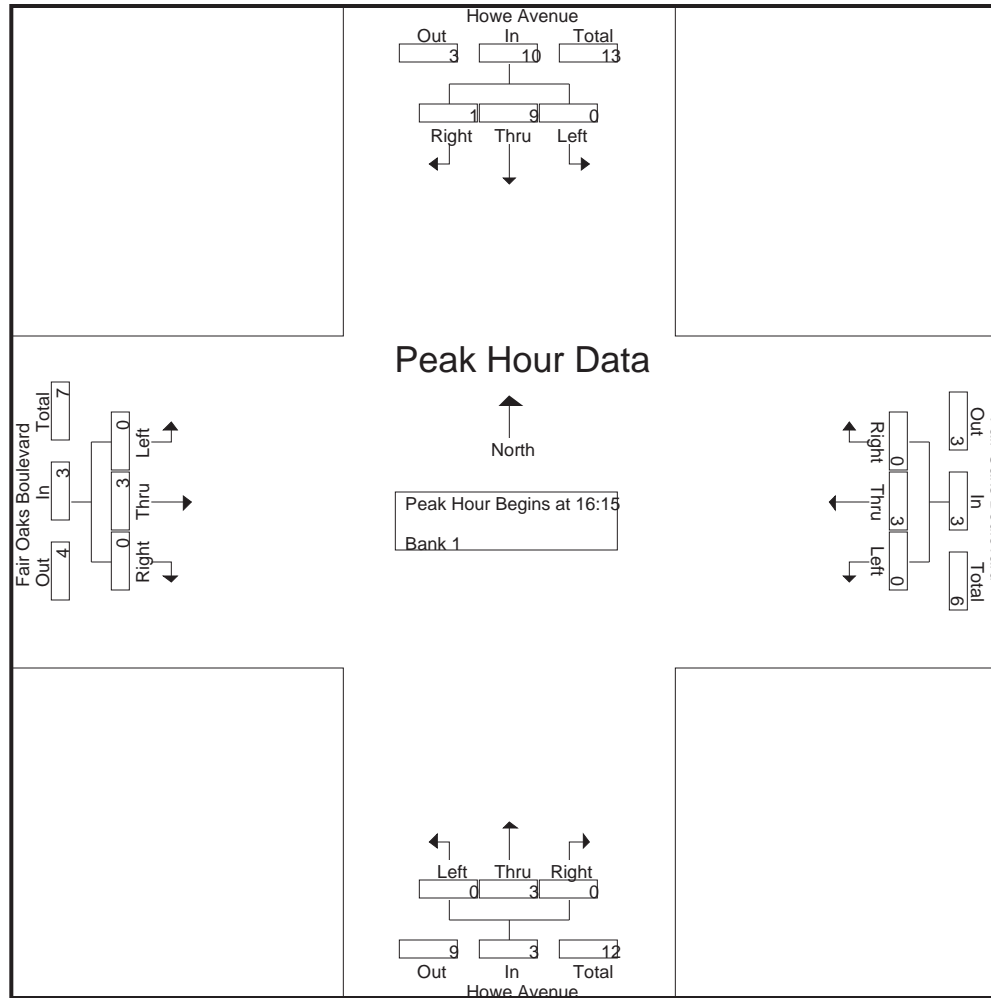
City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-003 Howe-Fair Oaks

Site Code : 00000000

Start Date : 2/22/2012

Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 1

Groups Printed- Unshifted

	Howe Avenue Southbound					University Avenue Westbound					Howe Avenue Northbound					University Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00	6	133	21	0	160	21	12	3	0	36	33	172	24	0	229	6	2	10	0	18	443
07:15	8	181	21	0	210	37	17	5	0	59	42	220	31	0	293	9	8	11	0	28	590
07:30	6	228	28	3	265	42	37	9	0	88	42	264	45	0	351	10	8	12	0	30	734
07:45	15	238	39	1	293	35	49	8	0	92	58	319	50	0	427	18	3	10	0	31	843
Total	35	780	109	4	928	135	115	25	0	275	175	975	150	0	1300	43	21	43	0	107	2610
08:00	10	227	48	5	290	39	33	8	0	80	61	291	63	0	415	14	22	15	0	51	836
08:15	16	199	61	2	278	58	51	7	0	116	76	249	64	1	390	13	11	18	0	42	826
08:30	14	242	55	4	315	43	55	5	0	103	56	301	60	0	417	15	12	20	0	47	882
08:45	14	199	53	5	271	33	62	8	0	103	51	286	53	0	390	21	15	21	0	57	821
Total	54	867	217	16	1154	173	201	28	0	402	244	1127	240	1	1612	63	60	74	0	197	3365
15:00	13	279	12	2	306	66	21	29	0	116	19	276	67	2	364	50	31	60	0	141	927
15:15	19	278	25	4	326	60	23	23	0	106	24	288	58	0	370	41	20	50	0	111	913
15:30	17	252	23	3	295	59	27	21	1	108	28	296	55	2	381	46	30	29	0	105	889
15:45	20	250	53	7	330	63	36	18	0	117	24	268	64	0	356	47	39	46	0	132	935
Total	69	1059	113	16	1257	248	107	91	1	447	95	1128	244	4	1471	184	120	185	0	489	3664
16:00	21	264	37	3	325	52	25	30	0	107	27	295	59	0	381	60	39	61	0	160	973
16:15	22	266	21	4	313	26	22	16	0	64	18	280	66	0	364	45	49	40	0	134	875
16:30	19	236	29	12	296	52	26	28	0	106	12	283	67	0	362	61	52	55	0	168	932
16:45	25	253	27	6	311	42	32	35	0	109	18	306	38	0	362	68	61	39	0	168	950
Total	87	1019	114	25	1245	172	105	109	0	386	75	1164	230	0	1469	234	201	195	0	630	3730
17:00	19	182	37	6	244	63	24	55	0	142	12	245	58	0	315	83	67	83	0	233	934
17:15	17	367	23	4	411	46	22	32	0	100	15	383	71	0	469	41	29	54	0	124	1104
17:30	20	305	14	2	341	57	10	28	0	95	16	338	73	0	427	53	50	61	0	164	1027
17:45	21	314	21	6	362	65	10	26	0	101	13	306	67	2	388	33	46	53	0	132	983
Total	77	1168	95	18	1358	231	66	141	0	438	56	1272	269	2	1599	210	192	251	0	653	4048
Grand Total	322	4893	648	79	5942	959	594	394	1	1948	645	5666	1133	7	7451	734	594	748	0	2076	17417
Apprch %	5.4	82.3	10.9	1.3		49.2	30.5	20.2	0.1		8.7	76	15.2	0.1		35.4	28.6	36	0		
Total %	1.8	28.1	3.7	0.5	34.1	5.5	3.4	2.3	0	11.2	3.7	32.5	6.5	0	42.8	4.2	3.4	4.3	0	11.9	

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

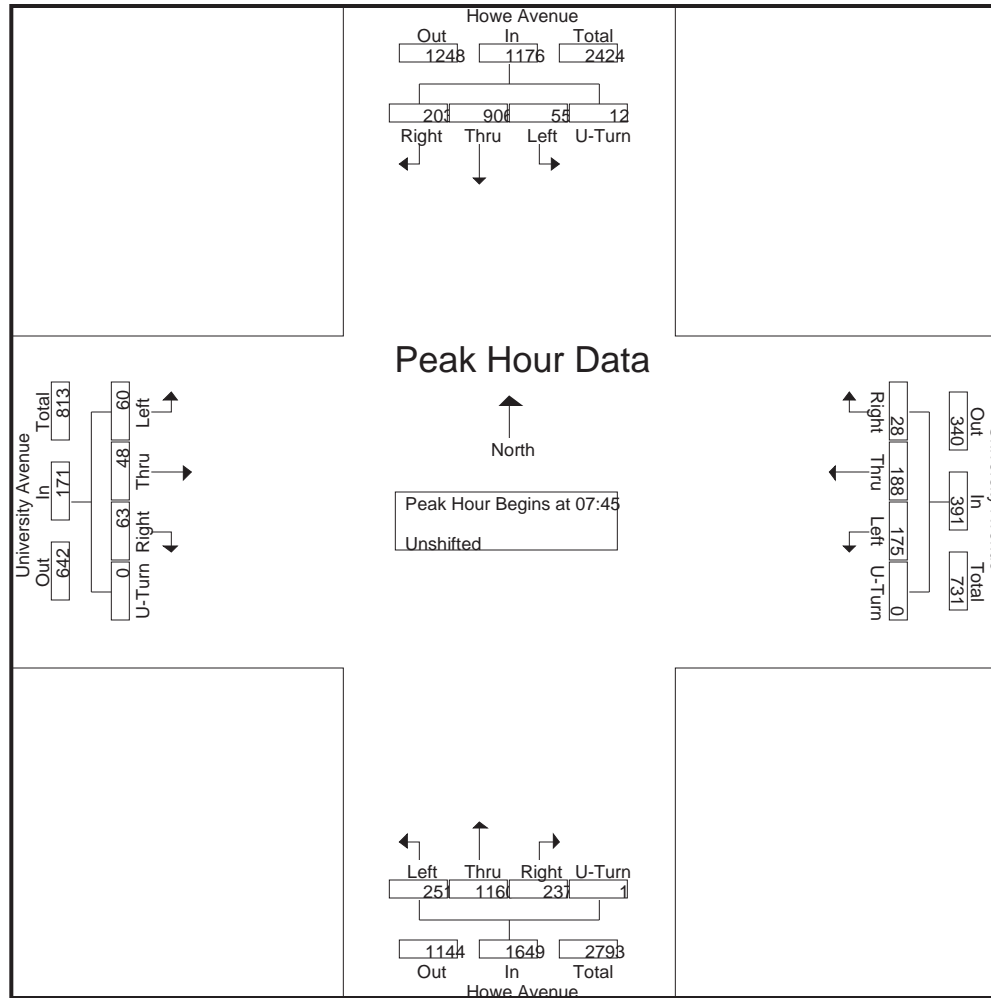
	Howe Avenue Southbound					University Avenue Westbound					Howe Avenue Northbound					University Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	15	238	39	1	293	35	49	8	0	92	58	319	50	0	427	18	3	10	0	31	843
08:00	10	227	48	5	290	39	33	8	0	80	61	291	63	0	415	14	22	15	0	51	836
08:15	16	199	61	2	278	58	51	7	0	116	76	249	64	1	390	13	11	18	0	42	826
08:30	14	242	55	4	315	43	55	5	0	103	56	301	60	0	417	15	12	20	0	47	882
Total Volume	55	906	203	12	1176	175	188	28	0	391	251	1160	237	1	1649	60	48	63	0	171	3387
% App. Total	4.7	77	17.3	1		44.8	48.1	7.2	0		15.2	70.3	14.4	0.1		35.1	28.1	36.8	0		
PHF	.859	.936	.832	.600	.933	.754	.855	.875	.000	.843	.826	.909	.926	.250	.965	.833	.545	.788	.000	.838	.960

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

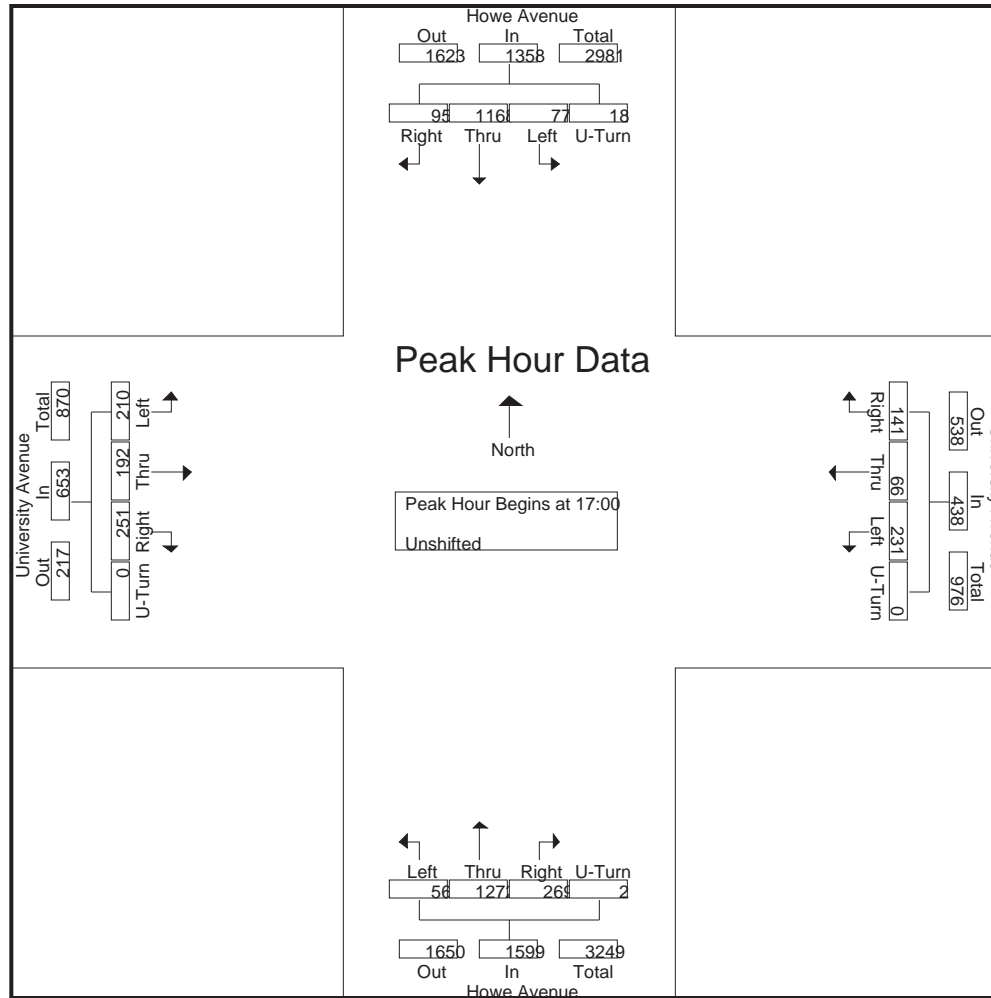
	Howe Avenue Southbound					University Avenue Westbound					Howe Avenue Northbound					University Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	19	182	37	6			24	55		142						83	67	83		233	
17:15	17	367	23	4	411	46	22	32	0	100	15	383	71	0	469	41	29	54	0	124	1104
17:30	20	305	14	2	341	57	10	28	0	95	16	338	73	0	427	53	50	61	0	164	1027
17:45	21	314	21	6	362	65	10	26	0	101	13	306	67	2	388	33	46	53	0	132	983
Total Volume	77	1168	95	18	1358	231	66	141	0	438	56	1272	269	2	1599	210	192	251	0	653	4048
% App. Total	5.7	86	7	1.3		52.7	15.1	32.2	0		3.5	79.5	16.8	0.1		32.2	29.4	38.4	0		
PHF	.917	.796	.642	.750	.826	.888	.688	.641	.000	.771	.875	.830	.921	.250	.852	.633	.716	.756	.000	.701	.917

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 1

Groups Printed- Bank 1

	Howe Avenue Southbound					University Avenue Westbound					Howe Avenue Northbound					University Avenue Eastbound							
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2
07:15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	0	1	1	2	3
07:30	0	0	0	1	0	0	1	0	1	1	1	0	0	1	1	1	0	0	0	1	3	3	6
07:45	0	0	0	0	0	0	0	2	1	2	0	1	1	0	2	0	2	0	0	2	1	6	7
Total	0	1	0	1	1	0	1	2	2	3	1	2	1	2	4	1	3	1	0	5	5	13	18
08:00	0	0	0	3	0	0	0	0	1	0	0	0	0	2	0	1	1	0	0	2	6	2	8
08:15	0	1	0	8	1	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	10	2	12
08:30	0	0	0	0	0	0	2	0	0	2	0	0	0	2	0	0	1	0	2	1	4	3	7
08:45	0	0	0	4	0	0	2	0	1	2	0	1	0	0	1	0	2	0	0	2	5	5	10
Total	0	1	0	15	1	0	5	0	4	5	0	1	0	4	1	1	4	0	2	5	25	12	37
15:00	0	1	0	3	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	5	2	7
15:15	0	0	0	2	0	0	0	0	2	0	0	1	0	1	1	0	0	0	0	0	5	1	6
15:30	1	1	0	0	2	0	0	0	1	0	0	1	1	2	2	0	1	0	1	1	4	5	9
15:45	0	2	0	0	2	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	7	7
Total	1	4	0	5	5	1	0	0	3	1	0	6	1	4	7	0	2	0	2	2	14	15	29
16:00	0	0	0	2	0	1	1	0	1	2	0	0	0	2	0	0	0	0	1	0	6	2	8
16:15	0	1	0	0	1	1	1	0	0	2	0	2	0	1	2	0	0	0	0	0	1	5	6
16:30	1	0	0	3	1	1	0	1	1	2	0	0	0	0	0	0	1	0	1	1	5	4	9
16:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	1	3	3	3	6
Total	1	1	0	5	2	3	2	1	4	6	0	2	0	3	2	0	4	0	3	4	15	14	29
17:00	0	0	1	8	1	0	1	0	0	1	0	1	0	0	1	0	1	1	0	2	8	5	13
17:15	0	0	0	0	0	1	2	0	0	3	0	0	0	1	0	0	0	0	1	0	2	3	5
17:30	0	0	0	2	0	0	1	0	1	1	0	0	0	1	0	0	1	0	1	1	5	2	7
17:45	0	0	0	4	0	0	0	0	1	0	0	1	0	0	1	1	1	0	0	2	5	3	8
Total	0	0	1	14	1	1	4	0	2	5	0	2	0	2	2	1	3	1	2	5	20	13	33
Grand Total	2	7	1	40	10	5	12	3	15	20	1	13	2	15	16	3	16	2	9	21	79	67	146
Apprch %	20	70	10			25	60	15			6.2	81.2	12.5			14.3	76.2	9.5					
Total %	3	10.4	1.5		14.9	7.5	17.9	4.5		29.9	1.5	19.4	3		23.9	4.5	23.9	3		31.3	54.1	45.9	

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

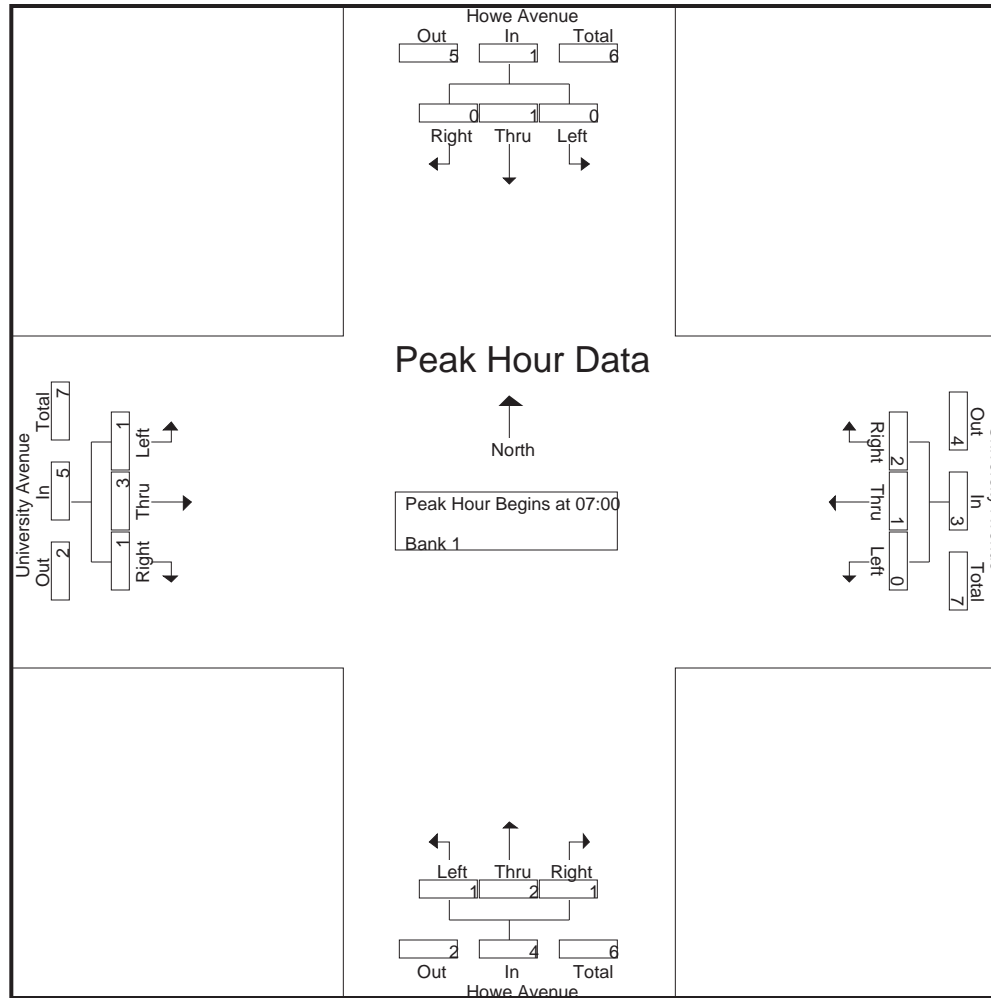
	Howe Avenue Southbound				University Avenue Westbound				Howe Avenue Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00																	
07:00	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
07:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
07:30	0	0	0	0	0	1	0	1	1	0	0	1	1	0	0	1	3
07:45	0	0	0	0	0	0	2	2	0	1	1	2	0	2	0	2	6
Total Volume	0	1	0	1	0	1	2	3	1	2	1	4	1	3	1	5	13
% App. Total	0	100	0		0	33.3	66.7		25	50	25		20	60	20		
PHF	.000	.250	.000	.250	.000	.250	.250	.375	.250	.500	.250	.500	.250	.375	.250	.625	.542

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

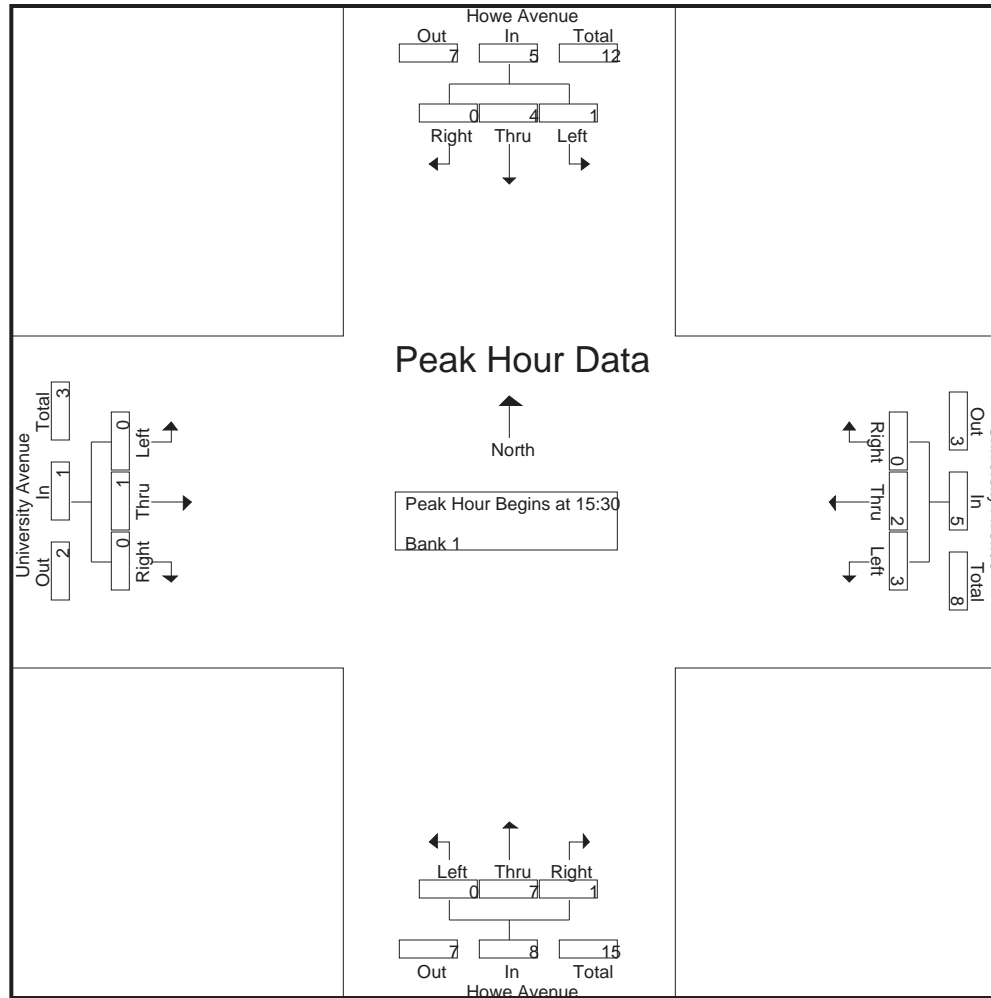
	Howe Avenue Southbound				University Avenue Westbound				Howe Avenue Northbound				University Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 15:30																	
15:30	1	1	0	2	0	0	0	0	0	1	1	2	0	1	0	1	5
15:45	0	2	0	2	1	0	0	1	0	4	0	4	0	0	0	0	7
16:00	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
16:15	0	1	0	1	1	1	0	2	0	2	0	2	0	0	0	0	5
Total Volume	1	4	0	5	3	2	0	5	0	7	1	8	0	1	0	1	19
% App. Total	20	80	0		60	40	0		0	87.5	12.5		0	100	0		
PHF	.250	.500	.000	.625	.750	.500	.000	.625	.000	.438	.250	.500	.000	.250	.000	.250	.679

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-001 Howe-University
Site Code : 00000000
Start Date : 9/11/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 1

Groups Printed- Unshifted

	Howe Avenue Southbound					American River Drive Westbound					Howe Avenue Northbound					American River Drive Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00	3	160	1	0	164	72	5	8	0	85	3	236	52	2	293	2	10	2	0	14	556
07:15	6	236	3	0	245	113	4	20	0	137	3	275	55	2	335	3	10	2	0	15	732
07:30	10	273	4	2	289	123	6	30	0	159	4	303	74	0	381	12	18	2	0	32	861
07:45	2	264	3	1	270	156	13	24	0	193	2	386	82	0	470	7	11	0	0	18	951
Total	21	933	11	3	968	464	28	82	0	574	12	1200	263	4	1479	24	49	6	0	79	3100
08:00	12	262	3	0	277	168	14	37	0	219	1	356	123	0	480	12	9	1	0	22	998
08:15	4	284	2	2	292	131	5	27	0	163	11	364	83	0	458	6	12	5	0	23	936
08:30	6	298	1	0	305	123	10	20	0	153	6	328	61	0	395	9	6	4	0	19	872
08:45	5	250	2	1	258	76	10	17	0	103	6	366	101	2	475	9	13	3	0	25	861
Total	27	1094	8	3	1132	498	39	101	0	638	24	1414	368	2	1808	36	40	13	0	89	3667
15:00	13	369	13	1	396	82	16	18	0	116	5	352	129	1	487	11	9	5	0	25	1024
15:15	29	284	16	10	339	97	21	21	0	139	3	320	122	1	446	5	14	2	0	21	945
15:30	31	289	15	6	341	87	25	33	1	146	5	301	103	1	410	6	16	4	0	26	923
15:45	30	303	13	9	355	78	18	15	1	112	1	311	108	0	420	10	14	2	0	26	913
Total	103	1245	57	26	1431	344	80	87	2	513	14	1284	462	3	1763	32	53	13	0	98	3805
16:00	28	326	12	5	371	87	11	17	0	115	4	350	147	1	502	3	11	8	0	22	1010
16:15	18	303	16	3	340	87	11	17	0	115	3	313	126	0	442	6	9	3	0	18	915
16:30	17	295	9	4	325	77	16	21	1	115	2	320	156	1	479	9	16	4	0	29	948
16:45	25	323	15	0	363	71	14	21	3	109	2	332	141	1	476	10	16	4	0	30	978
Total	88	1247	52	12	1399	322	52	76	4	454	11	1315	570	3	1899	28	52	19	0	99	3851
17:00	20	298	12	5	335	112	9	20	1	142	0	288	143	1	432	11	19	6	0	36	945
17:15	35	547	12	2	596	99	7	18	0	124	6	523	248	0	777	5	18	8	0	31	1528
17:30	27	421	9	0	457	91	10	24	0	125	5	369	145	1	520	5	10	6	0	21	1123
17:45	24	428	6	2	460	88	12	24	0	124	6	305	104	1	416	8	13	4	0	25	1025
Total	106	1694	39	9	1848	390	38	86	1	515	17	1485	640	3	2145	29	60	24	0	113	4621
Grand Total	345	6213	167	53	6778	2018	237	432	7	2694	78	6698	2303	15	9094	149	254	75	0	478	19044
Apprch %	5.1	91.7	2.5	0.8		74.9	8.8	16	0.3		0.9	73.7	25.3	0.2		31.2	53.1	15.7	0		
Total %	1.8	32.6	0.9	0.3	35.6	10.6	1.2	2.3	0	14.1	0.4	35.2	12.1	0.1	47.8	0.8	1.3	0.4	0	2.5	

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

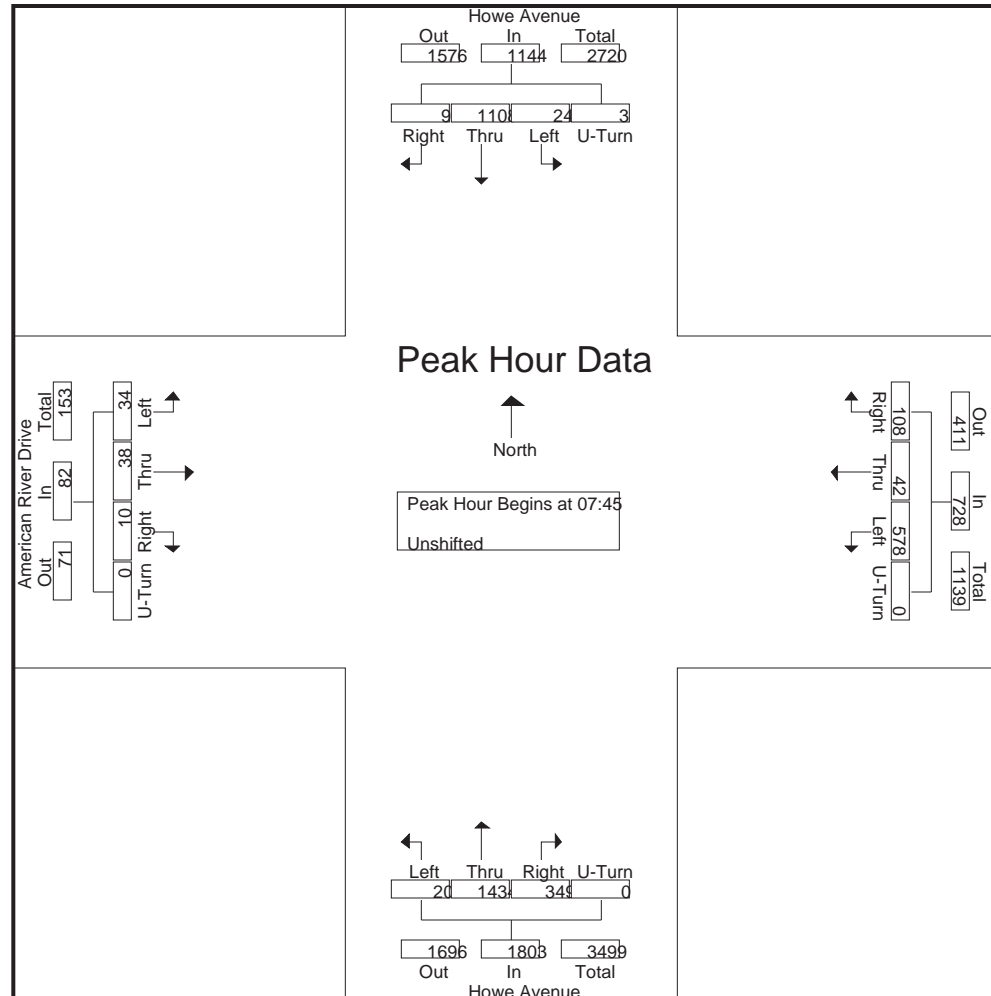
	Howe Avenue Southbound					American River Drive Westbound					Howe Avenue Northbound					American River Drive Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	2	264	3	1	270	156	13	24	0	193	2	386	82	0	470	7	11	0	0	18	951
08:00	12	262	3	0	277	168	14	37	0	219	1	356	123	0	480	12	9	1	0	22	998
08:15	4	284	2	2	292	131	5	27	0	163	11	364	83	0	458	6	12	5	0	23	936
08:30	6	298	1	0	305	123	10	20	0	153	6	328	61	0	395	9	6	4	0	19	872
Total Volume	24	1108	9	3	1144	578	42	108	0	728	20	1434	349	0	1803	34	38	10	0	82	3757
% App. Total	2.1	96.9	0.8	0.3		79.4	5.8	14.8	0		1.1	79.5	19.4	0		41.5	46.3	12.2	0		
PHF	.500	.930	.750	.375	.938	.860	.750	.730	.000	.831	.455	.929	.709	.000	.939	.708	.792	.500	.000	.891	.941

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

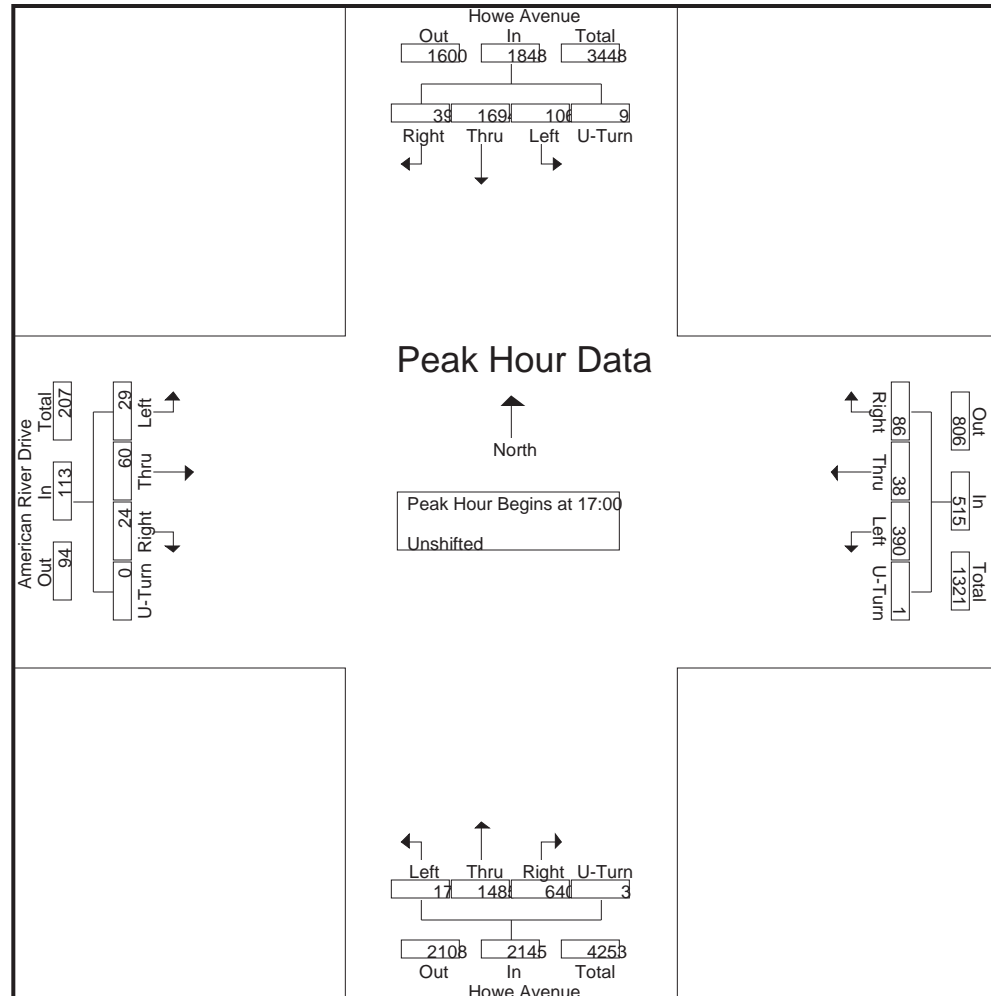
	Howe Avenue Southbound					American River Drive Westbound					Howe Avenue Northbound					American River Drive Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	20	298	12	5		112			1	142				1		11	19			36	
17:15	35	547	12	2	596	99	7	18	0	124	6	523	248	0	777	5	18	8	0	31	1528
17:30	27	421	9	0	457	91	10	24	0	125	5	369	145	1	520	5	10	6	0	21	1123
17:45	24	428	6	2	460	88	12	24	0	124	6	305	104	1	416	8	13	4	0	25	1025
Total Volume	106	1694	39	9	1848	390	38	86	1	515	17	1485	640	3	2145	29	60	24	0	113	4621
% App. Total	5.7	91.7	2.1	0.5		75.7	7.4	16.7	0.2		0.8	69.2	29.8	0.1		25.7	53.1	21.2	0		
PHF	.757	.774	.813	.450	.775	.871	.792	.896	.250	.907	.708	.710	.645	.750	.690	.659	.789	.750	.000	.785	.756

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 1

Groups Printed- Bank 1

	Howe Avenue Southbound					American River Drive Westbound					Howe Avenue Northbound					American River Drive Eastbound							
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
07:15	0	1	0	3	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	2	5
07:30	0	0	0	1	0	0	1	1	0	2	0	0	0	0	0	0	0	0	1	0	2	2	4
07:45	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	3	0	6	3	1	1	1	0	3	0	1	0	0	1	0	0	0	1	0	7	7	14
08:00	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	2
08:30	0	0	0	4	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	5	1	6
08:45	0	0	0	1	0	0	4	0	1	4	1	1	0	0	2	0	0	0	0	0	2	6	8
Total	0	0	0	6	0	0	5	0	3	5	1	1	0	0	2	0	0	0	0	0	9	7	16
15:00	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2	3
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	2
15:30	0	0	0	2	0	0	0	0	1	0	0	1	0	0	1	0	0	0	1	0	4	1	5
15:45	0	2	0	2	2	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	2	5	7
Total	1	2	0	5	3	0	0	0	1	0	0	3	1	1	4	0	1	0	2	1	9	8	17
16:00	0	2	0	1	2	0	0	2	0	2	0	0	0	0	0	0	1	0	1	1	2	5	7
16:15	0	2	0	2	2	0	1	0	0	1	0	1	0	0	1	1	1	0	0	2	2	6	8
16:30	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	4	5
16:45	0	0	0	4	0	0	1	0	1	1	0	1	0	0	1	0	0	0	1	0	6	2	8
Total	1	6	0	7	7	0	2	2	1	4	0	2	0	0	2	1	3	0	3	4	11	17	28
17:00	0	0	0	2	0	0	1	0	2	1	0	1	0	0	1	0	1	0	0	1	4	3	7
17:15	0	0	1	2	1	0	0	1	0	1	0	0	0	0	0	0	1	0	1	1	3	3	6
17:30	0	0	0	0	0	0	2	0	1	2	0	0	0	0	0	0	0	0	1	0	2	2	4
17:45	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	1	2	3
Total	0	0	1	4	1	0	3	2	4	5	0	2	0	0	2	0	2	0	2	2	10	10	20
Grand Total	2	11	1	28	14	1	11	5	9	17	1	9	1	1	11	1	6	0	8	7	46	49	95
Apprch %	14.3	78.6	7.1			5.9	64.7	29.4			9.1	81.8	9.1			14.3	85.7	0					
Total %	4.1	22.4	2		28.6	2	22.4	10.2		34.7	2	18.4	2		22.4	2	12.2	0	14.3		48.4	51.6	

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

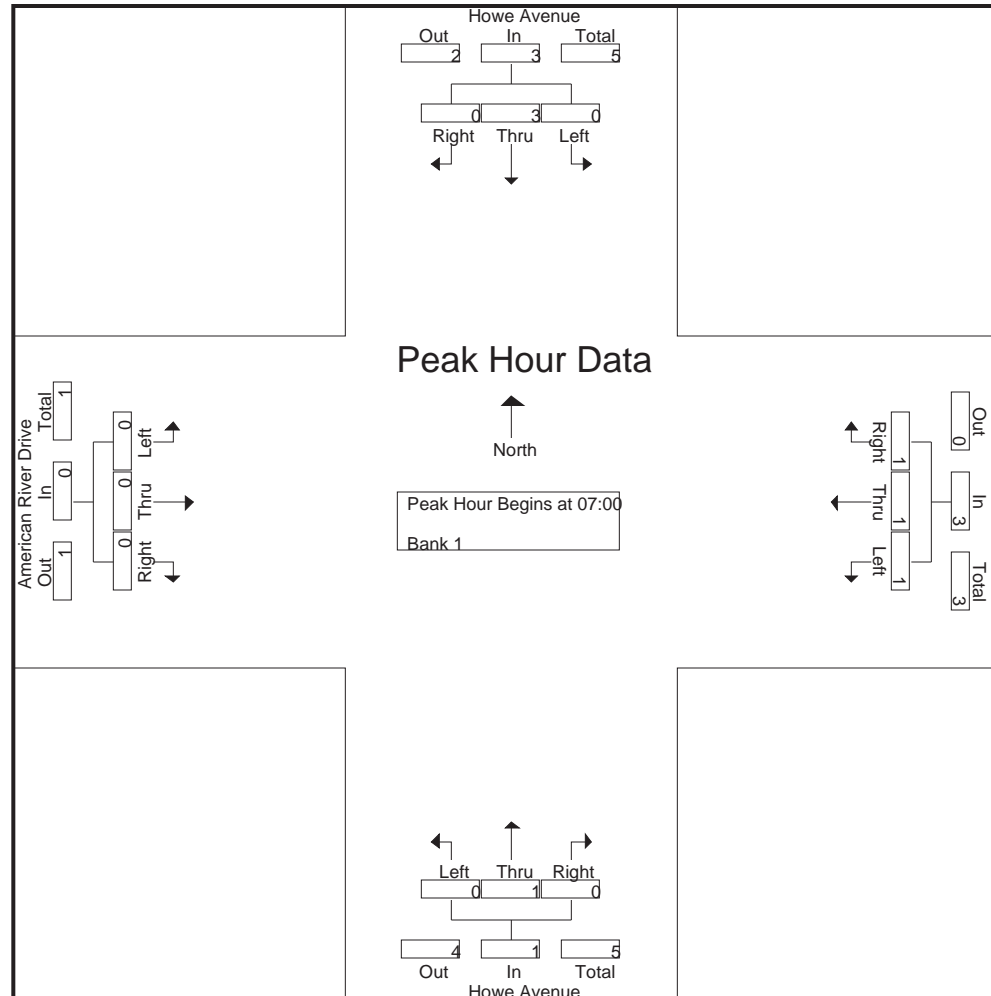
	Howe Avenue Southbound				American River Drive Westbound				Howe Avenue Northbound				American River Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00																	
07:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:30	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	2
07:45	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
Total Volume	0	3	0	3	1	1	1	3	0	1	0	1	0	0	0	0	7
% App. Total	0	100	0		33.3	33.3	33.3		0	100	0		0	0	0		
PHF	.000	.750	.000	.750	.250	.250	.250	.375	.000	.250	.000	.250	.000	.000	.000	.000	.875

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

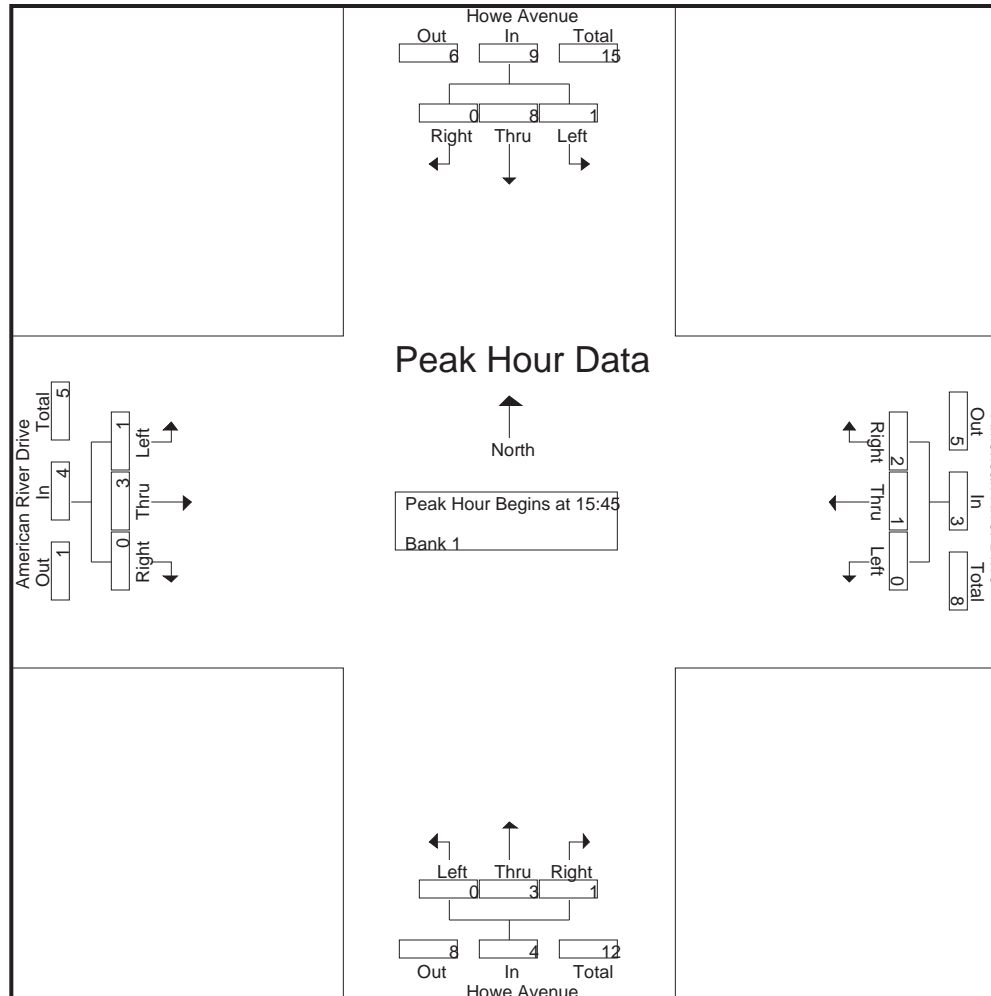
	Howe Avenue Southbound				American River Drive Westbound				Howe Avenue Northbound				American River Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 15:45																	
15:45	0	2	0	2	0	0	0	0	0	2	1	3	0	0	0	0	5
16:00	0	2	0	2	0	0	2	2	0	0	0	0	0	1	0	1	5
16:15	0	2	0	2	0	1	0	1	0	1	0	1	1	1	0	2	6
16:30	1	2	0	3	0	0	0	0	0	0	0	0	0	1	0	1	4
Total Volume	1	8	0	9	0	1	2	3	0	3	1	4	1	3	0	4	20
% App. Total	11.1	88.9	0		0	33.3	66.7		0	75	25		25	75	0		
PHF	.250	1.000	.000	.750	.000	.250	.250	.375	.000	.375	.250	.333	.250	.750	.000	.500	.833

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-002 Howe-American River
Site Code : 00000000
Start Date : 9/11/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 1

Groups Printed- Unshifted

	Cadillac Drive Southbound					Fair Oaks Boulevard Westbound					Campus Commons Road Northbound					Fair Oaks Boulevard Eastbound							
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	6	0	14	0	20	0	315	9	0	324	0	0	10	3	10	3	131	10	2	144	5	498	503
07:15	9	0	7	0	16	0	381	10	0	391	0	0	3	0	3	3	126	19	1	148	1	558	559
07:30	3	0	17	0	20	0	434	10	0	444	0	0	5	6	5	7	170	24	2	201	8	670	678
07:45	8	0	18	0	26	0	511	14	0	525	0	0	10	5	10	9	244	33	5	286	10	847	857
Total	26	0	56	0	82	0	1641	43	0	1684	0	0	28	14	28	22	671	86	10	779	24	2573	2597
08:00	10	0	11	1	21	0	446	13	0	459	0	0	8	5	8	14	253	43	2	310	8	798	806
08:15	5	0	10	1	15	0	439	20	0	459	0	0	6	6	6	9	195	33	5	237	12	717	729
08:30	5	0	20	0	25	0	426	10	0	436	0	0	12	3	12	13	174	35	2	222	5	695	700
08:45	8	0	11	0	19	0	345	17	0	362	0	0	17	2	17	12	218	38	1	268	3	666	669
Total	28	0	52	2	80	0	1656	60	0	1716	0	0	43	16	43	48	840	149	10	1037	28	2876	2904
15:00	11	0	11	2	22	0	303	15	0	318	0	0	23	8	23	24	453	34	5	511	15	874	889
15:15	12	0	13	3	25	0	311	11	0	322	0	0	15	6	15	14	388	38	8	440	17	802	819
15:30	10	0	9	0	19	0	308	18	0	326	0	0	28	2	28	16	408	32	1	456	3	829	832
15:45	15	0	12	0	27	0	296	12	0	308	0	0	17	1	17	21	427	36	3	484	4	836	840
Total	48	0	45	5	93	0	1218	56	0	1274	0	0	83	17	83	75	1676	140	17	1891	39	3341	3380
16:00	21	0	17	2	38	0	314	14	0	328	0	0	15	3	15	22	420	28	2	470	7	851	858
16:15	9	0	23	1	32	0	379	4	0	383	0	0	14	5	14	27	408	39	3	474	9	903	912
16:30	16	0	13	3	29	0	347	5	0	352	0	0	30	3	30	50	499	42	1	591	7	1002	1009
16:45	10	0	24	0	34	0	429	10	0	439	0	0	15	4	15	38	426	32	4	496	8	984	992
Total	56	0	77	6	133	0	1469	33	0	1502	0	0	74	15	74	137	1753	141	10	2031	31	3740	3771
17:00	15	0	22	2	37	0	430	8	0	438	0	0	22	1	22	41	414	34	1	489	4	986	990
17:15	15	0	20	1	35	0	413	15	0	428	0	0	18	3	18	41	455	39	3	535	7	1016	1023
17:30	14	0	24	1	38	0	427	13	0	440	0	0	16	3	16	29	399	33	3	461	7	955	962
17:45	7	0	21	0	28	0	332	11	0	343	0	0	13	1	13	30	399	42	2	471	3	855	858
Total	51	0	87	4	138	0	1602	47	0	1649	0	0	69	8	69	141	1667	148	9	1956	21	3812	3833
Grand Total	209	0	317	17	526	0	7586	239	0	7825	0	0	297	70	297	423	6607	664	56	7694	143	16342	16485
Apprch %	39.7	0	60.3			0	96.9	3.1			0	0	100			5.5	85.9	8.6					
Total %	1.3	0	1.9		3.2	0	46.4	1.5		47.9	0	0	1.8		1.8	2.6	40.4	4.1		47.1	0.9	99.1	

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 2

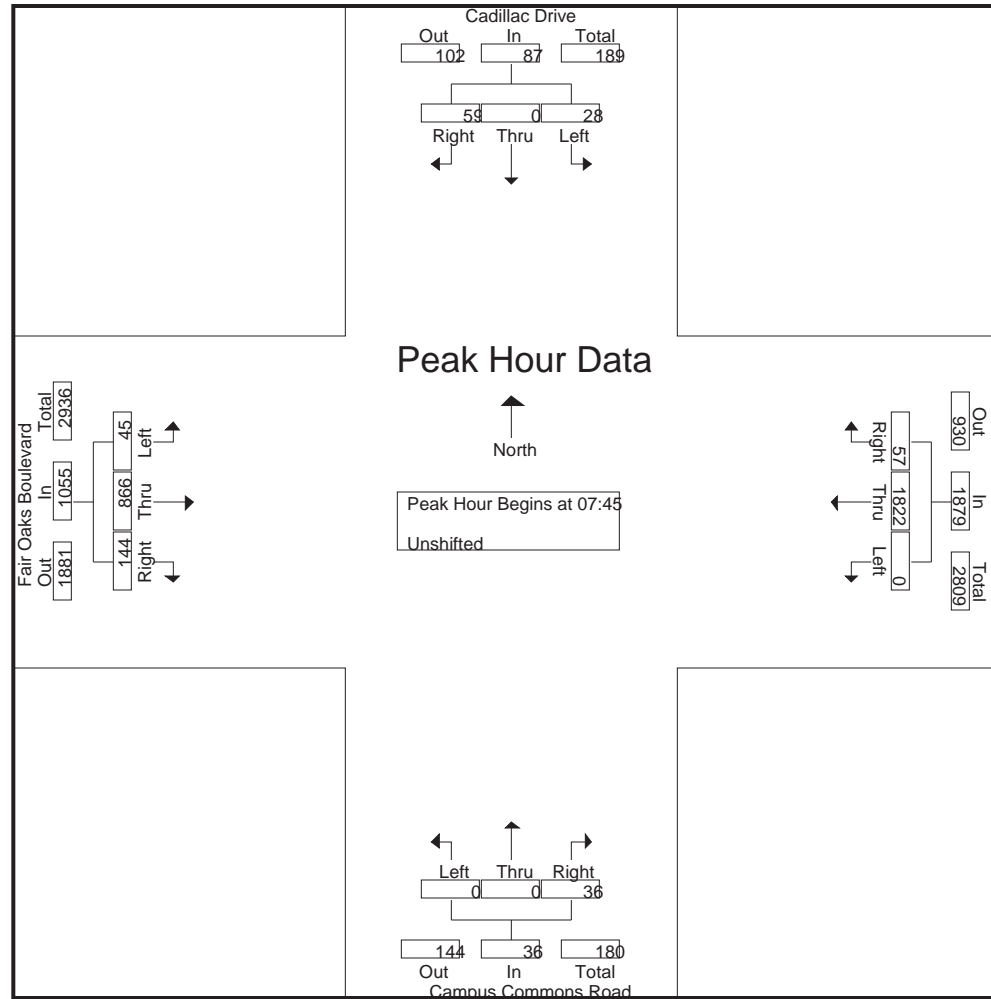
	Cadillac Drive Southbound				Fair Oaks Boulevard Westbound				Campus Commons Road Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	8	0	18	26	0	511	14	525	0	0	10	10	9	244	33	286	847
08:00	10	0	11	21	0	446	13	459	0	0	8	8	14	253	43	310	798
08:15	5	0	10	15	0	439	20	459	0	0	6	6	9	195	33	237	717
08:30	5	0	20	25	0	426	10	436	0	0	12	12	13	174	35	222	695
Total Volume	28	0	59	87	0	1822	57	1879	0	0	36	36	45	866	144	1055	3057
% App. Total	32.2	0	67.8		0	97	3		0	0	100		4.3	82.1	13.6		
PHF	.700	.000	.738	.837	.000	.891	.713	.895	.000	.000	.750	.750	.804	.856	.837	.851	.902

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 4

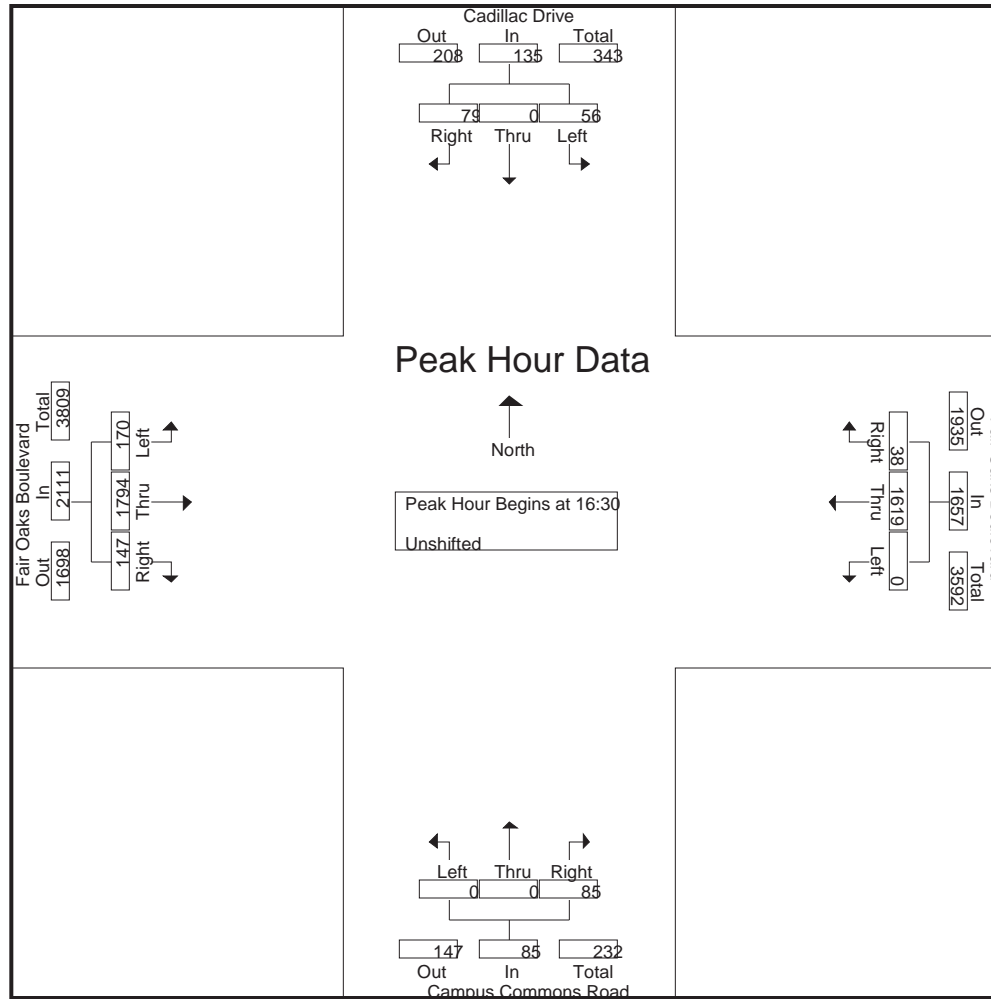
	Cadillac Drive Southbound				Fair Oaks Boulevard Westbound				Campus Commons Road Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	16	0	13	29	0	347	5	352	0	0	30	30	50	499	42	591	1002
16:45	10	0	24	34	0	429	10	439	0	0	15	15	38	426	32	496	984
17:00	15	0	22	37	0	430	8	438	0	0	22	22	41	414	34	489	986
17:15	15	0	20	35	0	413	15	428	0	0	18	18	41	455	39	535	1016
Total Volume	56	0	79	135	0	1619	38	1657	0	0	85	85	170	1794	147	2111	3988
% App. Total	41.5	0	58.5		0	97.7	2.3		0	0	100		8.1	85	7		
PHF	.875	.000	.823	.912	.000	.941	.633	.944	.000	.000	.708	.708	.850	.899	.875	.893	.981

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 1

Groups Printed- Bank 1

	Cadillac Drive Southbound				Fair Oaks Boulevard Westbound				Campus Commons Road Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:15	0	0	1	1	0	3	0	3	0	0	0	0	0	0	0	0	4
07:30	0	1	3	4	0	1	0	1	0	0	0	0	0	0	0	0	5
07:45	0	0	3	3	1	2	0	3	0	0	0	0	0	1	0	1	7
Total	0	1	7	8	1	6	0	7	0	0	0	0	0	1	0	1	16
08:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:15	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:30	0	0	0	0	0	3	0	3	0	0	0	0	0	0	1	1	4
08:45	0	0	1	1	0	3	0	3	0	0	0	0	2	0	0	2	6
Total	0	0	1	1	0	8	0	8	0	0	0	0	2	1	1	4	13
15:00	0	0	0	0	0	0	0	0	1	1	1	3	0	2	0	2	5
15:15	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
15:30	0	0	1	1	1	3	0	4	0	0	0	0	0	7	0	7	12
15:45	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
Total	0	0	1	1	1	6	0	7	1	3	1	5	0	12	0	12	25
16:00	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
16:15	1	0	0	1	0	2	0	2	0	0	0	0	0	1	0	1	4
16:30	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	2	3
16:45	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	2	1	1	4	0	5	0	5	0	0	0	0	1	2	0	3	12
17:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17:15	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
17:30	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
17:45	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	2
Total	0	1	0	1	0	1	0	1	0	4	0	4	0	1	0	1	7
Grand Total	2	3	10	15	2	26	0	28	1	7	1	9	3	17	1	21	73
Apprch %	13.3	20	66.7		7.1	92.9	0		11.1	77.8	11.1		14.3	81	4.8		
Total %	2.7	4.1	13.7	20.5	2.7	35.6	0	38.4	1.4	9.6	1.4	12.3	4.1	23.3	1.4	28.8	

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 2

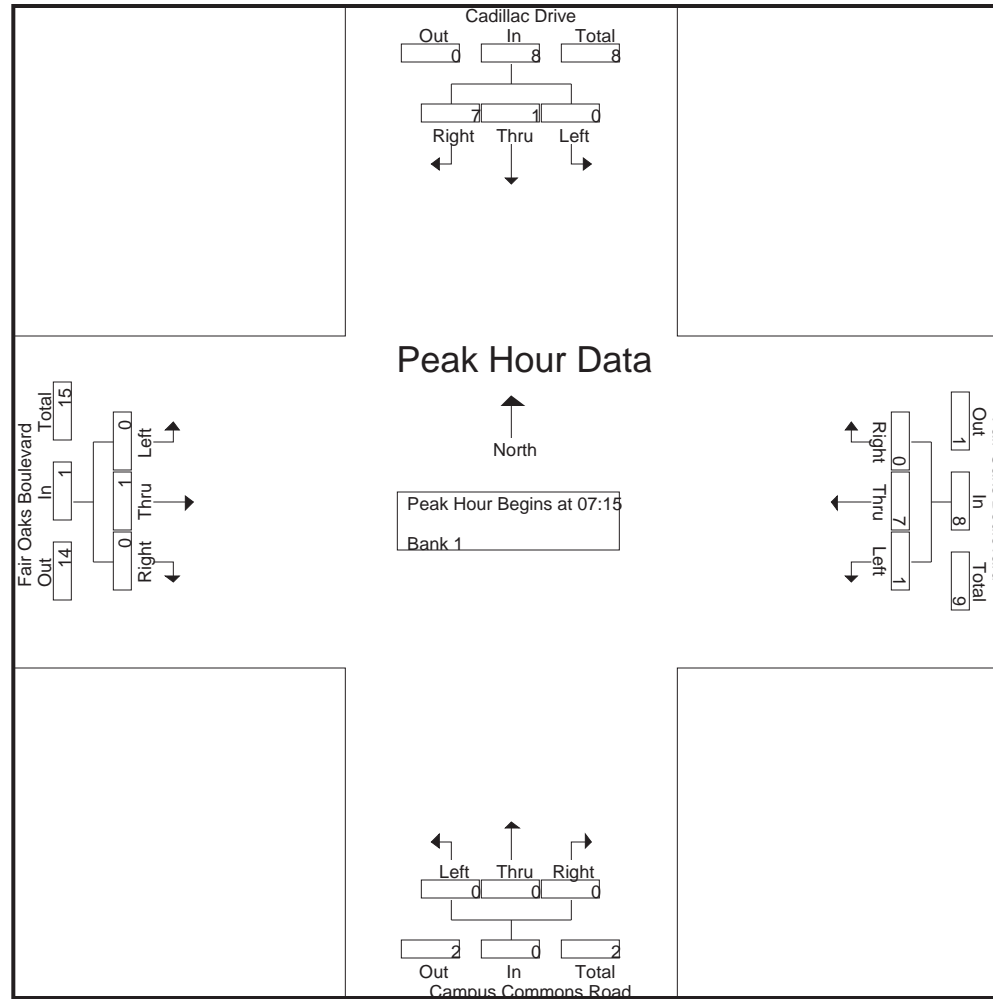
	Cadillac Drive Southbound				Fair Oaks Boulevard Westbound				Campus Commons Road Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	0	0	1	1	0	3	0	3	0	0	0	0	0	0	0	0	4
07:30	0	1	3	4	0	1	0	1	0	0	0	0	0	0	0	0	5
07:45	0	0	3	3	1	2	0	3	0	0	0	0	0	1	0	1	7
08:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	1	7	8	1	7	0	8	0	0	0	0	0	1	0	1	17
% App. Total	0	12.5	87.5		12.5	87.5	0		0	0	0		0	100	0		
PHF	.000	.250	.583	.500	.250	.583	.000	.667	.000	.000	.000	.000	.000	.250	.000	.250	.607

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 4

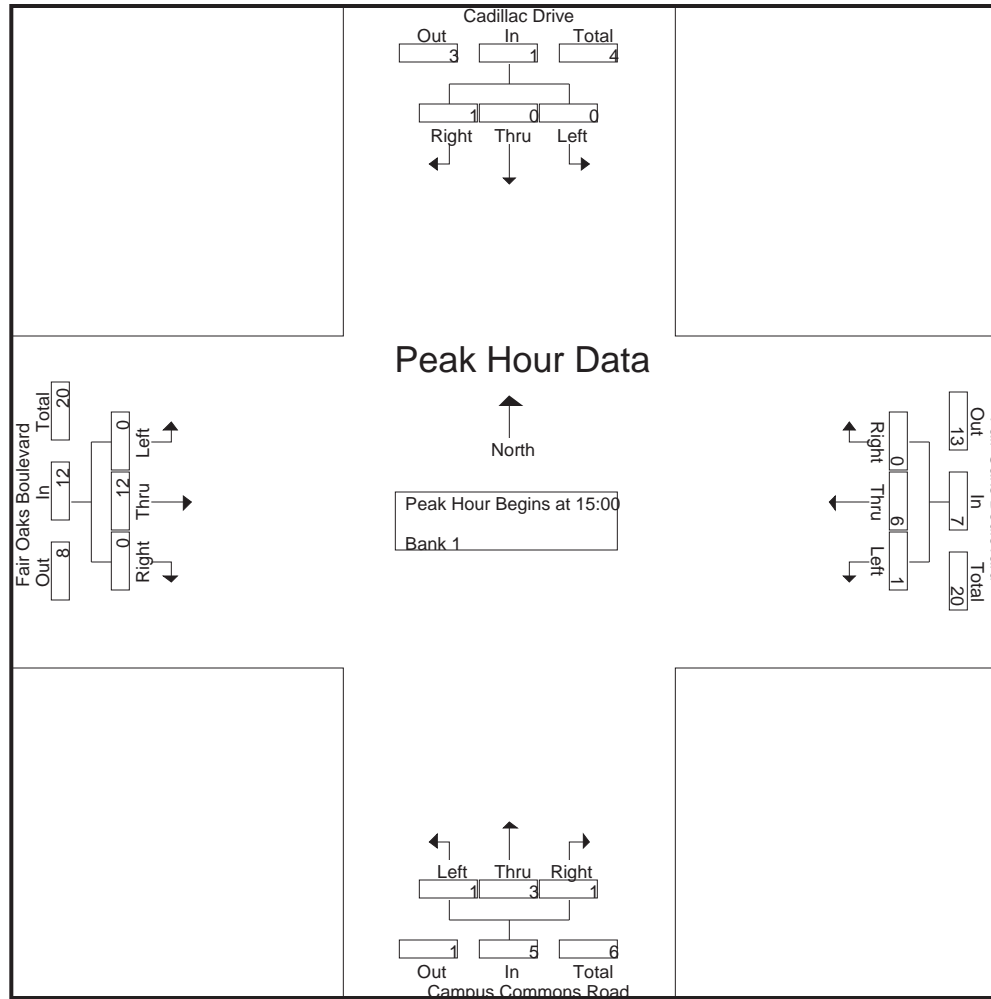
	Cadillac Drive Southbound				Fair Oaks Boulevard Westbound				Campus Commons Road Northbound				Fair Oaks Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 15:00																	
15:00	0	0	0	0	0	0	0	0	1	1	1	3	0	2	0	2	5
15:15	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
15:30	0	0	1	1	1	3	0	4	0	0	0	0	0	7	0	7	12
15:45	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
Total Volume	0	0	1	1	1	6	0	7	1	3	1	5	0	12	0	12	25
% App. Total	0	0	100		14.3	85.7	0		20	60	20		0	100	0		
PHF	.000	.000	.250	.250	.250	.500	.000	.438	.250	.375	.250	.417	.000	.429	.000	.429	.521

All Traffic Data

(916) 771-8700

City of Sacramento
Bicycles on Bank 1

File Name : 12-7065-004 Cadillac-Fair Oaks
Site Code : 00000000
Start Date : 2/22/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento

Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks

Site Code : 00000000

Start Date : 9/11/2012

Page No : 1

Groups Printed- Bank 1

	Munroe Street Southbound					Fair Oaks Blvd Westbound					Munroe Street Northbound					Fair Oaks Blvd Eastbound							
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	0	1	0	0	0	0	3	0	0	0	1	1	1	0	1	0	6	1	11	2	13
07:15	0	0	0	1	0	0	0	0	4	0	1	0	0	5	1	0	0	0	2	0	12	1	13
07:30	0	1	1	4	2	0	1	0	1	1	0	0	1	1	1	0	0	0	2	0	8	4	12
07:45	0	1	0	1	1	0	1	0	0	1	0	0	0	0	0	0	0	1	1	1	2	3	5
Total	0	2	1	7	3	0	2	0	8	2	1	0	2	7	3	0	1	1	11	2	33	10	43
08:00	0	0	0	2	0	0	1	0	4	1	0	0	0	0	0	0	2	0	0	2	6	3	9
08:15	0	0	2	0	2	0	0	0	1	0	0	0	0	1	0	0	0	0	2	0	4	2	6
08:30	0	0	4	1	4	0	0	0	0	0	0	0	0	2	0	0	1	0	1	1	4	5	9
08:45	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	0	7	0	7
Total	0	0	6	4	6	0	1	0	6	1	0	0	0	3	0	0	3	0	8	3	21	10	31
15:00	0	0	0	1	0	0	2	1	2	3	0	0	0	3	0	0	0	0	0	0	6	3	9
15:15	0	0	0	0	0	0	1	0	1	1	0	0	0	3	0	0	1	0	0	1	4	2	6
15:30	0	0	0	7	0	0	0	0	5	0	0	1	0	1	1	0	0	0	2	0	15	1	16
15:45	0	1	0	1	1	0	4	0	0	4	0	0	0	0	0	0	1	0	3	1	4	6	10
Total	0	1	0	9	1	0	7	1	8	8	0	1	0	7	1	0	2	0	5	2	29	12	41
16:00	0	1	0	1	1	0	0	0	0	0	0	1	0	2	1	0	1	0	1	1	4	3	7
16:15	0	1	1	0	2	0	1	0	1	1	0	1	0	4	1	0	1	0	0	1	5	5	10
16:30	0	0	0	2	0	0	2	0	0	2	0	0	0	3	0	0	0	0	1	0	6	2	8
16:45	0	0	0	3	0	0	2	0	3	2	0	0	0	4	0	0	1	0	3	1	13	3	16
Total	0	2	1	6	3	0	5	0	4	5	0	2	0	13	2	0	3	0	5	3	28	13	41
17:00	0	1	0	0	1	0	4	0	1	4	0	0	0	5	0	0	0	0	3	0	9	5	14
17:15	0	0	0	0	0	0	0	0	1	0	0	0	0	6	0	0	0	0	2	0	9	0	9
17:30	0	0	2	0	2	0	0	0	2	0	0	0	0	7	0	0	0	0	0	0	9	2	11
17:45	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	2	1	3
Total	0	1	2	1	3	0	4	0	4	4	0	0	0	19	0	0	1	0	5	1	29	8	37
Grand Total	0	6	10	27	16	0	19	1	30	20	1	3	2	49	6	0	10	1	34	11	140	53	193
Apprch %	0	37.5	62.5			0	95	5			16.7	50	33.3			0	90.9	9.1			72.5	27.5	
Total %	0	11.3	18.9		30.2	0	35.8	1.9		37.7	1.9	5.7	3.8		11.3	0	18.9	1.9	20.8				

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

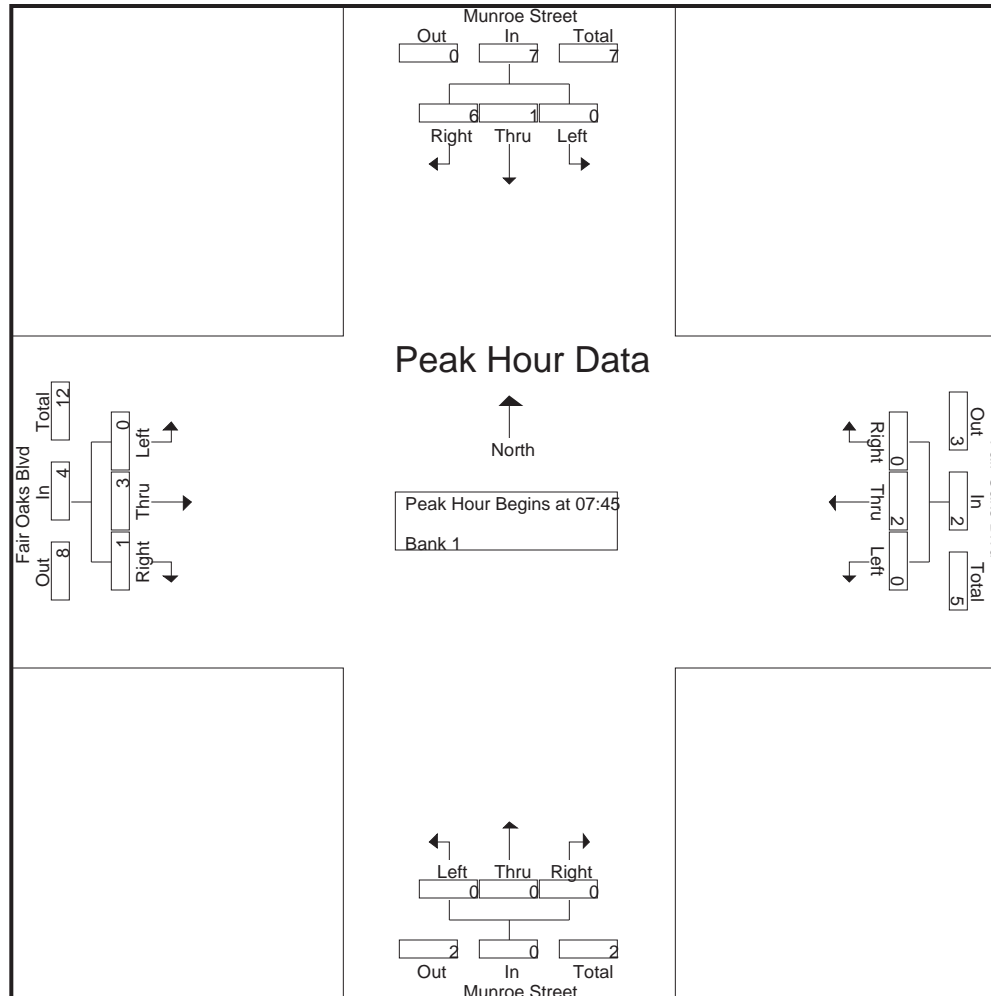
	Munroe Street Southbound				Fair Oaks Blvd Westbound				Munroe Street Northbound				Fair Oaks Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45																	
07:45	0	1	0	1	0	1	0	1	0	0	0	0	0	0	1	1	3
08:00	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
08:15	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30	0	0	4	4	0	0	0	0	0	0	0	0	0	1	0	1	5
Total Volume	0	1	6	7	0	2	0	2	0	0	0	0	0	3	1	4	13
% App. Total	0	14.3	85.7		0	100	0		0	0	0		0	75	25		
PHF	.000	.250	.375	.438	.000	.500	.000	.500	.000	.000	.000	.000	.000	.375	.250	.500	.650

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks
Site Code : 00000000
Start Date : 9/11/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

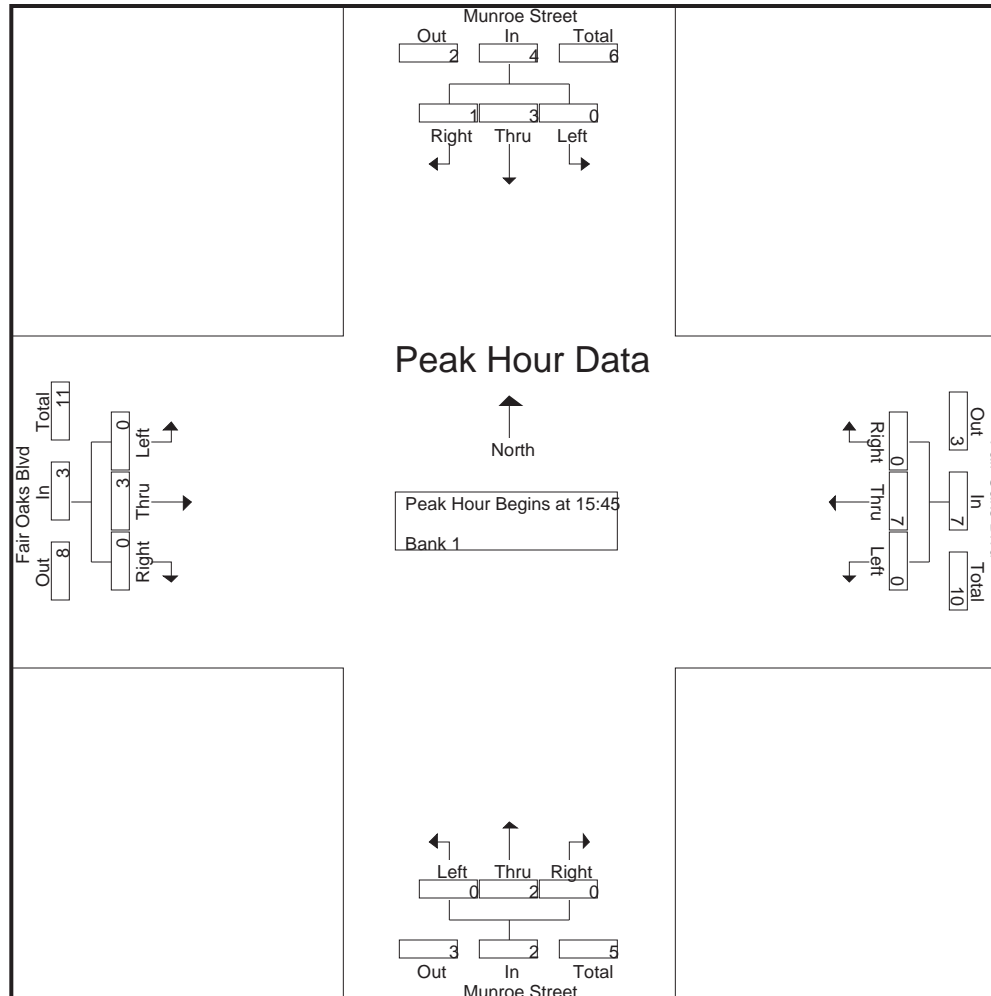
	Munroe Street Southbound				Fair Oaks Blvd Westbound				Munroe Street Northbound				Fair Oaks Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 15:45																	
15:45	0	1	0	1	0	4	0	4	0	0	0	0	0	1	0	1	6
16:00	0	1	0	1	0	0	0	0	0	1	0	1	0	1	0	1	3
16:15	0	1	1	2	0	1	0	1	0	1	0	1	0	1	0	1	5
16:30	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	3	1	4	0	7	0	7	0	2	0	2	0	3	0	3	16
% App. Total	0	75	25		0	100	0		0	100	0		0	100	0		
PHF	.000	.750	.250	.500	.000	.438	.000	.438	.000	.500	.000	.500	.000	.750	.000	.750	.667

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks
Site Code : 00000000
Start Date : 9/11/2012
Page No : 5



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks
Site Code : 00000000
Start Date : 9/11/2012
Page No : 1

Groups Printed- Unshifted

	Munroe Street Southbound					Fair Oaks Blvd Westbound					Munroe Street Northbound					Fair Oaks Blvd Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00	44	56	15	0	115	20	157	29	0	206	25	45	8	3	81	20	55	10	5	90	492
07:15	86	89	5	1	181	22	234	33	1	290	27	59	16	4	106	22	86	19	3	130	707
07:30	93	103	10	4	210	23	210	21	0	254	49	67	10	5	131	32	107	24	1	164	759
07:45	96	100	16	2	214	47	261	43	0	351	44	94	22	9	169	62	130	35	1	228	962
Total	319	348	46	7	720	112	862	126	1	1101	145	265	56	21	487	136	378	88	10	612	2920
08:00	70	112	12	0	194	32	282	45	0	359	51	77	16	14	158	44	121	37	1	203	914
08:15	67	73	19	0	159	44	257	24	1	326	68	88	15	14	185	40	79	30	2	151	821
08:30	53	95	19	3	170	19	264	35	0	318	33	69	16	4	122	42	100	28	3	173	783
08:45	36	59	15	3	113	34	204	44	0	282	41	89	11	1	142	57	90	13	5	165	702
Total	226	339	65	6	636	129	1007	148	1	1285	193	323	58	33	607	183	390	108	11	692	3220
15:00	70	102	28	3	203	23	154	39	0	216	52	87	19	5	163	85	198	45	3	331	913
15:15	62	85	24	2	173	32	178	45	1	256	54	96	32	7	189	95	231	45	6	377	995
15:30	83	77	13	0	173	30	186	57	0	273	53	76	24	3	156	82	216	35	4	337	939
15:45	73	80	23	1	177	16	149	34	1	200	44	125	18	2	189	94	217	45	3	359	925
Total	288	344	88	6	726	101	667	175	2	945	203	384	93	17	697	356	862	170	16	1404	3772
16:00	81	71	21	3	176	16	175	36	1	228	34	102	21	2	159	103	265	22	3	393	956
16:15	89	110	13	2	214	16	170	41	1	228	35	112	28	2	177	118	266	41	3	428	1047
16:30	86	94	17	1	198	18	155	43	2	218	43	125	20	5	193	119	292	39	2	452	1061
16:45	78	92	18	1	189	14	140	52	2	208	37	131	32	4	204	96	323	58	4	481	1082
Total	334	367	69	7	777	64	640	172	6	882	149	470	101	13	733	436	1146	160	12	1754	4146
17:00	101	97	22	3	223	13	148	53	3	217	49	137	27	6	219	99	322	63	3	487	1146
17:15	89	111	26	3	229	24	151	44	1	220	36	143	28	6	213	115	300	34	1	450	1112
17:30	82	96	16	2	196	31	163	31	1	226	53	159	23	4	239	102	237	47	6	392	1053
17:45	76	82	14	0	172	15	152	42	2	211	51	114	21	3	189	118	219	37	3	377	949
Total	348	386	78	8	820	83	614	170	7	874	189	553	99	19	860	434	1078	181	13	1706	4260
Grand Total	1515	1784	346	34	3679	489	3790	791	17	5087	879	1995	407	103	3384	1545	3854	707	62	6168	18318
Apprch %	41.2	48.5	9.4	0.9		9.6	74.5	15.5	0.3		26	59	12	3		25	62.5	11.5	1		
Total %	8.3	9.7	1.9	0.2	20.1	2.7	20.7	4.3	0.1	27.8	4.8	10.9	2.2	0.6	18.5	8.4	21	3.9	0.3	33.7	

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks
Site Code : 00000000
Start Date : 9/11/2012
Page No : 2

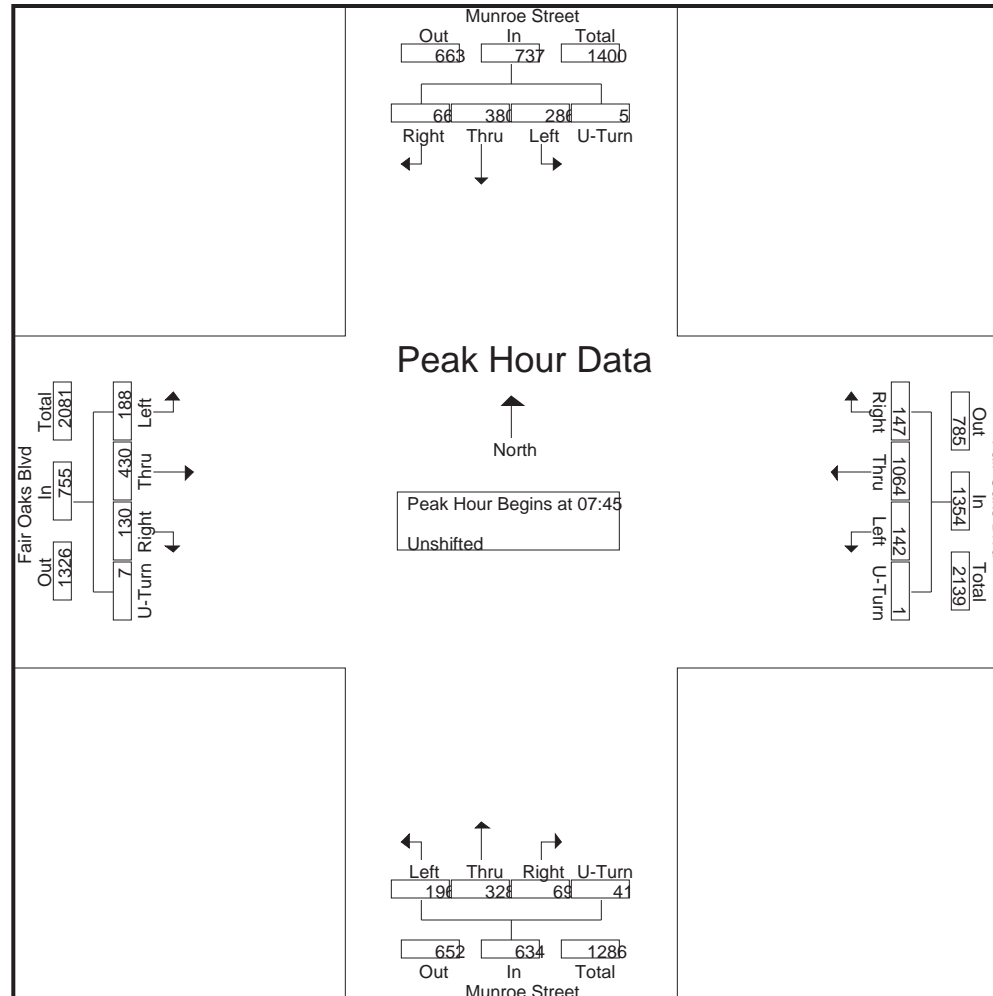
	Munroe Street Southbound					Fair Oaks Blvd Westbound					Munroe Street Northbound					Fair Oaks Blvd Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	96	100	16	2	214	47	261	43	0	351	44	94	22	9	169	62	130	35	1	228	962
08:00	70	112	12	0	194	32	282	45	0	359	51	77	16	14	158	44	121	37	1	203	914
08:15	67	73	19	0	159	44	257	24	1	326	68	88	15	14	185	40	79	30	2	151	821
08:30	53	95	19	3	170	19	264	35	0	318	33	69	16	4	122	42	100	28	3	173	783
Total Volume	286	380	66	5	737	142	1064	147	1	1354	196	328	69	41	634	188	430	130	7	755	3480
% App. Total	38.8	51.6	9	0.7		10.5	78.6	10.9	0.1		30.9	51.7	10.9	6.5		24.9	57	17.2	0.9		
PHF	.745	.848	.868	.417	.861	.755	.943	.817	.250	.943	.721	.872	.784	.732	.857	.758	.827	.878	.583	.828	.904

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks
Site Code : 00000000
Start Date : 9/11/2012
Page No : 3



All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks
Site Code : 00000000
Start Date : 9/11/2012
Page No : 4

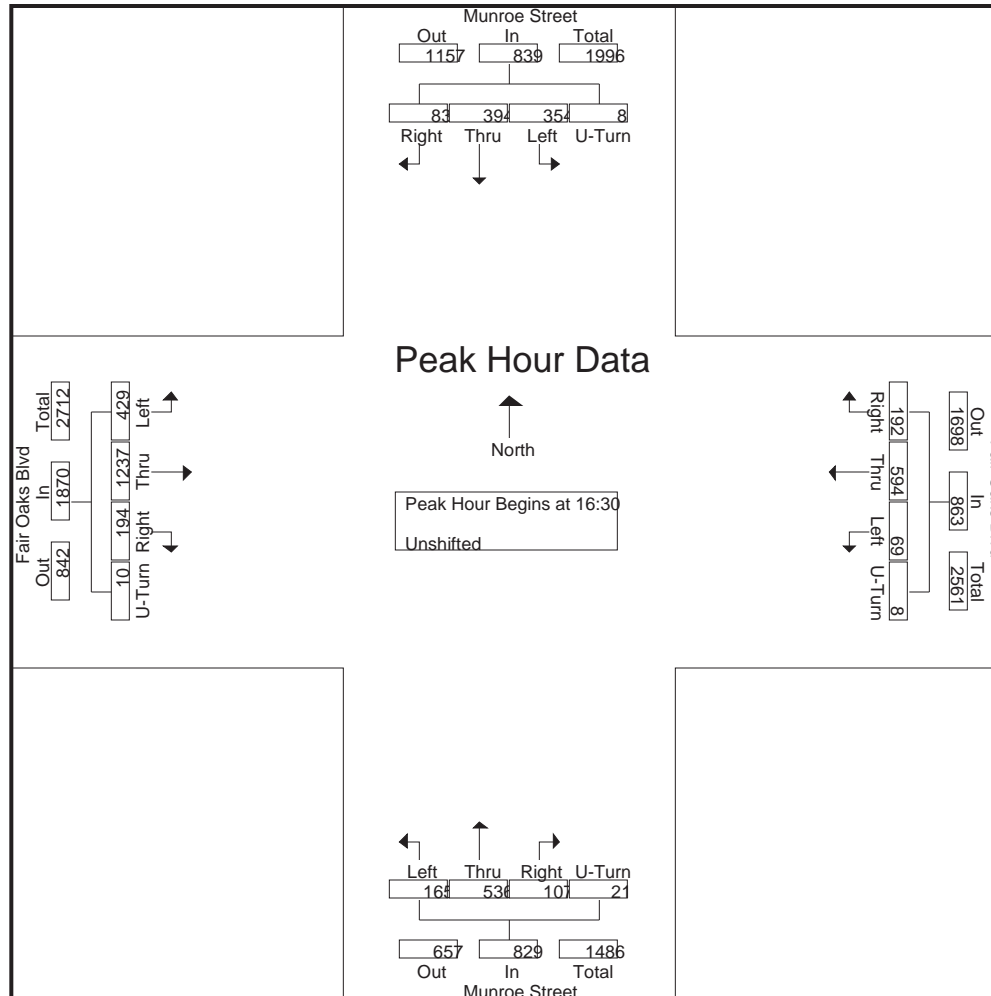
	Munroe Street Southbound					Fair Oaks Blvd Westbound					Munroe Street Northbound					Fair Oaks Blvd Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	86	94	17	1	198	18	155									119					
16:45	78	92	18	1	189	14	140	52	2	208	37	131	32	4	204	96	323	58	4	481	1082
17:00	101	97	22	3	223	13	148	53	3	217	49	137	27	6	219	99	322	63	3	487	1146
17:15	89	111	26	3	229	24	151	44	1	220	36	143	28	6	213	115	300	34	1	450	1112
Total Volume	354	394	83	8	839	69	594	192	8	863	165	536	107	21	829	429	1237	194	10	1870	4401
% App. Total	42.2	47	9.9	1		8	68.8	22.2	0.9		19.9	64.7	12.9	2.5		22.9	66.1	10.4	0.5		
PHF	.876	.887	.798	.667	.916	.719	.958	.906	.667	.981	.842	.937	.836	.875	.946	.901	.957	.770	.625	.960	.960

All Traffic Data

(916) 771-8700

City of Sacramento
Pedestrians and Bicycles on Bank 1

File Name : 12-7393-005 Munroe-Fair Oaks
Site Code : 00000000
Start Date : 9/11/2012
Page No : 5



APPENDIX E:

TRIP GENERATION MEMORANDUM



DEPARTMENT OF
PUBLIC WORKS

TRANSPORTATION DIVISION

CITY OF SACRAMENTO
CALIFORNIA

915 I STREET, ROOM 2000
SACRAMENTO, CA
95814-2816

PH. (916) 808-5307
FAX (916) 808-8404

MEMORANDUM

Date: March 18, 2013
To: Samar Hajeer, Senior Engineer, Traffic Engineering
From: Aelita Milatzo, Assistant Engineer, Traffic Engineering

Subject: CVS Pharmacy (P12-032) Trip Generation

This memorandum compares the project trip generation estimates used in the Transportation Section of the DEIR, which used the ITE Trip Generation, 8th Edition with trip generation estimate using the newly published Trip Generation, 9th Edition. It must be noted that the latest 9th Edition was not published at the time of the study.

According to the Draft Environmental Impact Report, the AM and PM peak hour trip generation of the proposed project was estimated using trip generation data contained in *Trip Generation* (8th Edition, Institute of Transportation Engineers, 2008). Adjustments to the ITE trip generation estimates were made to account for the pass-by trips, which enter the site on route to a different primary destination (Table 5.4 in the DEIR).

The results of the project trip generation per *Trip Generation* (8th Edition, Institute of Transportation Engineers, 2008) are provided in the **Table 1** below. Using the same methodology the project trip generation estimates using ITE Trip Generation, 9th Edition is presented in Table 2 below.

According to Tables 1 and 2, it is clear that using the ITE Trip Generation, 9th edition, overall, the project would generate fewer trips during peak hours than what was used in the traffic analysis provided in the DEIR. Therefore, the analysis is considered valid and all mitigation measures proposed will be sufficient to mitigate the impacts to the level that was analyzed within the DEIR.

TABLE 1
PROJECT TRIP GENERATION- ITE 8TH EDITION

Land Use	Quantity	ITE Land Use Code	Trip Rate ¹			Trips						
			Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour			PM Peak Hour		
							In	Out	Tot	In	Out	Tot
Supermarket	50.88 ksf	850	102.24	3.59	11.22	5,202	112	71	183	291	280	571
Pharmacy w/ drive-thru	16.5 ksf	881	88.16	2.66	10.35	1,455	25	19	44	85	86	171
Gross Trips						6,657	137	90	227	376	366	742
Pass-by Trips						-1,198	-25	-16	-41	-135	-132	-267
New Trips						5,459	112	74	186	241	234	475

Notes:

¹ Trip rates from *Trip Generation* (ITE, 2008). Fitted curve equation used to estimate PM peak hour trips for Supermarket. All other trip estimates based on average trip rates (due to lack of fitted curve equations or poor R-squared values).

² Pass-by of 36% for Supermarket and Pharmacy during PM peak hour based on *Trip Generation Handbook, 4th Edition* (ITE, 2004). Pass-by for AM and daily conditions conservatively assumed to be 18%.

ksf = thousand square feet.

TABLE 2
PROJECT TRIP GENERATION- ITE 9TH EDITION

Land Use	Quantity	ITE Land Use Code	Trip Rate ¹			Trips						
			Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour			PM Peak Hour		
							In	Out	Tot	In	Out	Tot
Supermarket	50.88 ksf	850	102.24	3.4	9.48	5,202	107	66	173	241	231	472
Pharmacy w/ drive-thru	16.5 ksf	881	96.91	3.45	9.91	1,599	30	27	57	82	82	164
Gross Trips						6,801	137	93	230	323	313	636
Pass-by Trips						-1,224	25	16	-41	116	113	-229
New Trips						5,577	112	77	189	207	200	407

Notes:

¹ Trip rates from *Trip Generation* (ITE, 9th Edition). Fitted curve equation used to estimate PM peak hour trips for Supermarket. All other trip estimates based on average trip rates (due to lack of fitted curve equations or poor R-squared values).

² Pass-by of 36% for Supermarket and Pharmacy during PM peak hour based on *Trip Generation Handbook, 4th Edition* (ITE, 2004). Pass-by for AM and daily conditions conservatively assumed to be 18%.

ksf = thousand square feet.