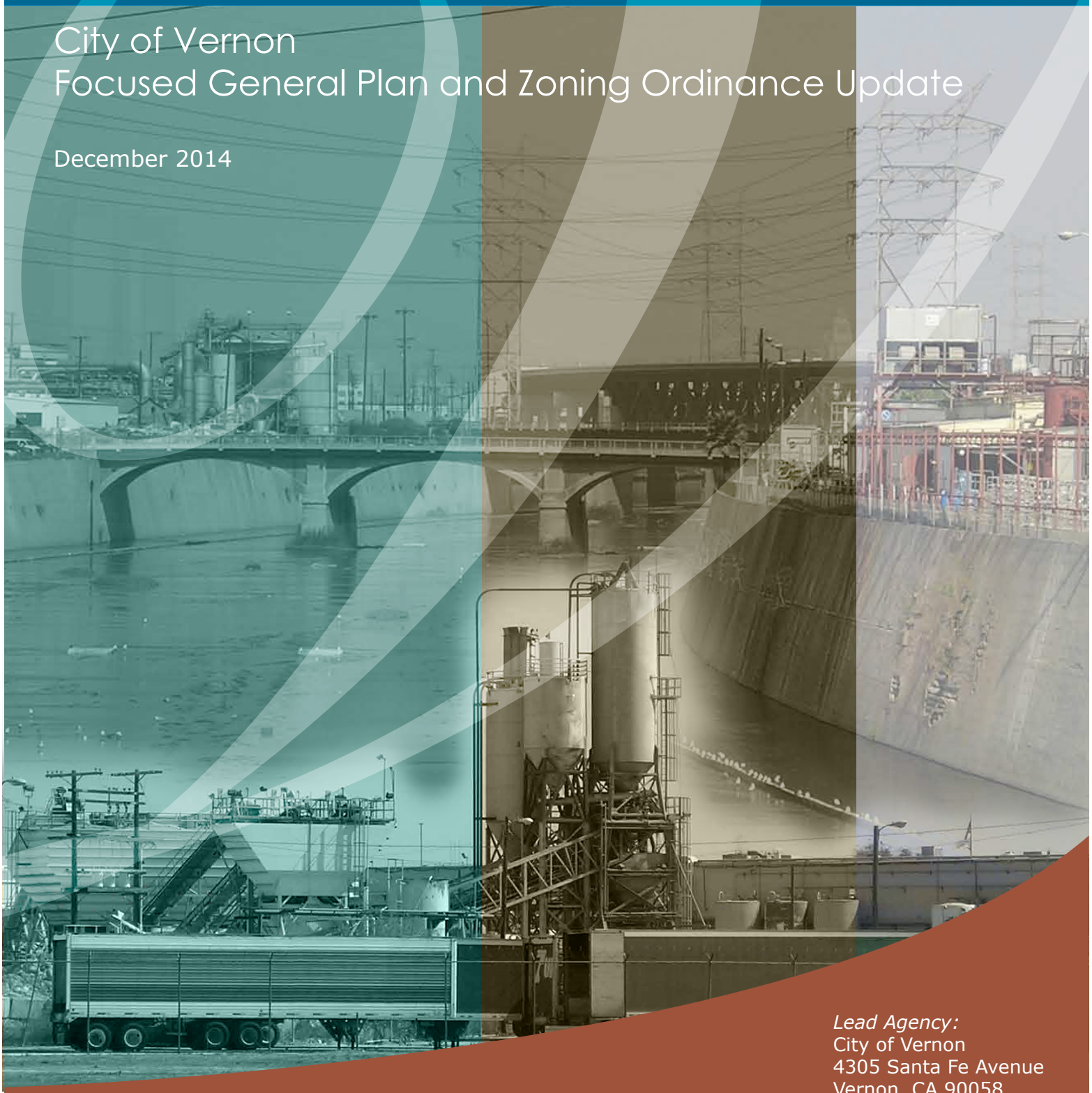
Volume 2

# Supplemental Environmental Impact Report

(State Clearinghouse No. 2007061031)

## City of Vernon
## Focused General Plan and Zoning Ordinance Update

December 2014



*Lead Agency:*
City of Vernon
4305 Santa Fe Avenue
Vernon, CA 90058

# Appendix A Notice of Preparation / Initial Study

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# DRAFT INITIAL STUDY

## City of Vernon
## Focused General Plan and Zoning Ordinance Update

September 12, 2012

**Lead Agency:**
City of Vernon
Department of Community Services & Water
4305 Santa Fe Avenue
Vernon, CA 90058

**Consultant to the Lead Agency:**
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Hogle-Ireland
Planning & Development Consulting

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# 1 Introduction

The City of Vernon (Lead Agency) adopted comprehensive updates to the City of Vernon General Plan and Zoning Ordinance on December 3, 2007. The General Plan is a comprehensive, long-range plan that guides decisions relating to land use, transportation, housing, public safety, use of open space and natural resources, parks and recreation, and noise in the community. The Zoning Ordinance implements the land use policies contained in the General Plan. In conjunction with approval of the General Plan and Zoning Ordinance in 2007, the Vernon City Council certified a Final Program Environmental Impact Report (General Plan and Zoning Ordinance EIR) (State Clearinghouse No. [SCH] 2007061031), which evaluated, at a program level of analysis, the environmental consequences of long-term implementation General Plan. The Program EIR also examined alternatives to the project and recommended mitigation measures that would reduce or avoid the project's significant impacts. The General Plan and Zoning Ordinance EIR found that the project would result in the following significant impacts that could not be fully mitigated:

- traffic on local surface streets and freeways (at both the project level and on a cumulative basis),
- cumulative air quality impacts
- cumulative utilities impacts

The City of Vernon has prepared this Initial Study for use in determining whether the impacts associated with the currently proposed General Plan Amendments, Zoning Ordinance Amendments, and Zoning Map changes (collectively referred to as the "project" or "Proposed Focused Update") were addressed in the 2007 General Plan EIR. Based on the analysis contained in this Initial Study, the City will determine whether a subsequent or supplemental EIR – or no further review pursuant to the California Environmental Quality Act (CEQA, Public Resources Code § 21000 et seq.) and the CEQA Guidelines (Government Code § 15000 et seq.) — is required.

Under CEQA, a subsequent or supplemental EIR to a previously certified EIR is required if one or more of the following circumstances arises:

(1) Substantial changes are proposed in the project which will require major revisions in the previous EIR due to the involvement of new significant environmental effects, or a substantial increase in the severity of previously identified significant effects (CEQA Guidelines, § 15162, subd. (a)(1));

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects (CEQA Guidelines, § 15162, subd. [a][2]); or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
   (a) The project will have one or more significant effects not discussed in the previous EIR;
   (b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
   (c) Mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(d) Mitigation measures or alternatives, which are considerably different from those analyzed in the certified EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative (CEQA Guidelines, §15162, subd. (3)(a)–(d), see also Pub. Resources Code, § 21166).

The lead agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

(1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and
(2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation (CEQA Guidelines, § 15163).

The 2007 General Plan and Zoning Ordinance EIR is available for review at the City of Vernon Community Services and Water Department, 4305 Santa Fe Avenue, Vernon, CA 90058.

This Initial Study concludes that a Supplemental EIR to the Vernon General Plan and Zoning Ordinance Program EIR is required for the Proposed Focused Update. Only minor additions or changes would be necessary to make the previous EIR adequately apply to the proposed project in the changed situation, as only very limited land use changes are proposed.

# 2 Project Description

## 2.1 – Project Title

City of Vernon Focused General Plan and Zoning Ordinance Update

## 2.2 – Lead Agency Name and Address

City of Vernon
4305 Santa Fe Avenue
Vernon, CA 90058

## 2.3 – Contact Person and Phone Number

S. Kevin Wilson, Director of Community Services and Water
(323)583-8811

## 2.4 – Project Location

The project applies to all parcels within the City of Vernon and the City's sphere of influence. Vernon is located in the central portion of Los Angeles County, directly south of downtown Los Angeles. Vernon is adjacent to the cities of Los Angeles, Huntington Park, Maywood, and Commerce. The City's planning area encompasses approximately 5.2 square miles. Exhibit 1 (Regional Location and Vicinity Map) illustrates the Vernon's location within Los Angeles County and its local context.

## 2.5 – Project Sponsor's Name and Address

City of Vernon
4305 Santa Fe Avenue
Vernon, CA 90058

## 2.6 – General Plan Land Use Designation

Industrial with various overlays (see Exhibit 2)

## 2.7 – Zoning District

Industrial with various overlays (see Exhibit 3)

## 2.8 – Project Description

The City of Vernon adopted a comprehensive update to the General Plan and Zoning Ordinance in 2007. A Program Environmental Impact Report (PEIR) was prepared at the time and certified by the Vernon City Council. In the past, the City has adopted and implemented land use policy that allowed for very limited housing in Vernon (restricted to existing residences) due to the unique and ubiquitous industrial nature of the City. However, in 2011 the City Council committed to implementing new good governance practices that included adopting land use policies aimed at increasing the voting populous. Specifically, the City has determined that additional properties

could be designated for residential use and has identified specific locations where new housing development would be permitted to occur. The City has drafted land use policies and zoning regulations that would allow such development to occur.

The proposed project consists of several components:

- Housing Element Update (2014-2021) to comply with State Housing Element law regarding timely updates and to include information on potential housing sites in the City by revising existing land-use policy which prohibited new housing. The Housing Element identifies two sites where residential housing could be permitted and one site where an emergency shelter could be permitted.

- Update to the Land Use Element to introduce new Overlays: Housing and Emergency Shelter.

- Update to the Land Use Element to expand commercial and trucking uses: Land Use Element policies regarding commercial and trucking and freight uses have been revised to expand where these uses can be established in the City.

- Update the Resources, Safety, and Noise Elements to comply with recently passed State laws and update pertinent information.

- Update the Implementation Plan (Appendix A) with new applicable policies related to the above revised policy changes.

- Revise the Zoning Ordinance to create implementing zoning overlays for new General Plan land use designation overlays and/or policies—Housing, Emergency Shelter, Truck and Freight Terminal Overlay—and to expand the area to which the Commercial Overlay applies. Additional clean-up items which do not affect the policy direction of the Zoning Ordinance are also included in this project.

- Potential housing project at 4675 52nd Drive. The City has received multiple proposals for a residential development at this location. The potential of locating new housing at this location is reviewed in this Initial Study.

Each of these components is discussed in more detail below. For the purposes of this Initial Study, the focused update to the Vernon General Plan and Zoning Ordinance, including the potential housing project at 4675 52nd Drive, is collectively referred to as “the project” and “the Proposed Focused Update.” The “planning area” is the area to which the project applies; this includes all parcels within the City of Vernon and its sphere of influence.

## Update to General Plan Elements

### Housing Element

The Vernon 2014-2021 Housing Element meets the very specific requirements of state law regarding the content of housing elements (Government Code, Section 65580 et seq.). State law requires that the Housing Element be updated at least every eight years, on a timeline consistent with the Regional Transportation Plan, unless extended by the legislature. Article 10.6, Section 65580–65589.8, Chapter 3 of Division 1 of Title 7 of the Government Code sets forth the legal requirements for a housing element and encourages the provision of affordable and decent housing in suitable living environments for all communities to meet statewide goals. The 2014-2021 Housing Element update is a policy document by the City of Vernon regarding its current

and projected future housing needs (as identified by the State Housing and Community Development Department, or HCD) and the Southern California Association of Governments (SCAG), and the City's goals, policies, and programs to address those identified needs. Specifically, the element details:

- Population characteristics and trends
- Employment characteristics
- The types of households in Vernon
- Special needs populations
- Housing characteristics and trends
- Constraints on the development of new housing
- Housing resources (available vacant and underutilized sites, financial resources)
- How the City will work to meet the Regional Housing Needs Assessment (RHNA) allocation assigned by SCAG and otherwise achieve housing goals

Given Vernon's status as an industrial city, the Housing Element has, in the past, promulgated the policy that no new housing will be constructed in Vernon due to the safety risks posed by the multitude of industries operating there, including many that involve the use, transport, and production of hazardous wastes. This 2014-20214 Housing Element revises that policy and identifies two potential sites for housing development that have been deemed most suitable. One of these sites is designated with a Housing Overlay in the Land Use Element. The Housing Element also addresses new State laws, including SB 2 (codified as Government Code Section 65583[a][4]), which requires jurisdictions to identify a zone in which to permit emergency (homeless) shelters by right. The Housing Element identifies an area designated with an Emergency Shelter Overlay in the General Plan and Zoning Ordinance. See Exhibit 4 for locations of both potential housing and emergency shelter sites.

Additional updates include new U.S. Census information and information to comply with SB 812 related to persons with developmental disabilities. The State Department of Housing and Community Development (HCD) will review the draft element to determine whether it meets the requirements of state law.

**Land Use Element**

The Land Use Element identifies the physical form of Vernon and how land will be used over the long term. This element sets forth the location, type, and intensity uses, and also establishes the desired mix and relationship between uses. Land use designations identify the types and nature of development permitted throughout the planning area. The goals and policies contained in this element provide the foundation for maintaining Vernon as a regional manufacturing and industrial center, while allowing for some commercial uses and public facilities. These policies were retained in this Proposed Focused Update.

In recognition of Vernon's unique status as an exclusively industrial city, the 2007 General Plan established a single land use category (Industrial) and three overlay districts: Commercial, Rendering, and Slaughtering. The Focused Update proposes to expand the area to which the Commercial Overlay applies. Also, regulations will permit ancillary commercial uses throughout the City on weekends, to be implemented by the Zoning Ordinance. In addition, two new overlay districts are proposed to be added: the Housing Overlay and the Emergency Shelter Overlay. Each of these overlay districts apply to one specific site within the City, respectively, that has been identified as most suitable for these uses. The Housing Overlay would permit up to an additional 60 units in the City of Vernon.

***Housing Overlay District***

The Housing Overlay District is proposed to apply to one vacant parcel located on the east side of the City. The Housing Overlay District is applicable only to sites that have been specifically identified by the City and determined to be the best locations for housing, given surrounding uses, proximity to services and amenities, and distance from safety hazards. Residential uses are permitted in this district with a Conditional Use Permit or other discretionary review, such as a Development Agreement, given the unique safety constraints in Vernon.

***Emergency Shelter Overlay District***

The Emergency Shelter Overlay District is proposed to apply to a single vacant parcel located in the northwest corner of the City. The Emergency Shelter Overlay District is applicable only to sites that have been specifically identified by the City and determined to be appropriate locations for emergency shelters. This District is intended to comply with requirements of Government Code Section 65583(a)(4), as discussed in the Housing Element.

**Safety Element**

The Safety Element establishes policies to protect the community from natural and human-caused hazards. The element includes a discussion of those features within or near the planning area that represent a potential danger to buildings/structures, public facilities, and infrastructure. The element establishes goals, policies, and plans to minimize dangers to residents, workers, and visitors associated with seismic hazards, flooding, and hazardous materials.

The Safety Element was updated to achieve consistency with new land use and housing policies, and to comply with AB 162, enacted in 2007 and effective in 2009. AB 162 revised multiple sections of the Government Code and requires flood risk management information to be included in the Safety Element. As part of this update, new Federal Emergency Management Agency (FEMA) flood maps were added to the Safety Element. Policies were slightly revised to reflect updated housing policy. The underlying preexisting Safety Element goals remain the same.

**Resources Element**

The Resources Element contains goals and policies that encourage conservation and management of both cultural and natural resources, including water resources, open space, energy resources, air quality, historic buildings and sites.

The project proposes limited changes associated with the Focused General Plan update for the Resources Element. Specifically, the information related to the Urban Water Management Plan (UWMP) applicable to the City was updated to reflect information in the most recently adopted UWMP (2010). Additionally, a policy was added related to AB 32, the Global Warming Solutions Act of 2006 and SB 375 (2008), to consult with regional governmental groups to coordinate land use, circulation, and infrastructure planning. Additional changes were made to achieve consistency regarding the City's housing policy, specifically the policy change to permit housing in very limited locations in the City rather than prohibiting new housing. The underlying preexisting Resources Element goals remain the same.

**Noise Element**

The Noise Element focuses on minimizing community noise by identifying its sources and assessing alternative methods to reduce impacts. The element establishes policies to abate noise and reduce the detrimental health effects associated with excessive noise levels. The element identifies noise standards and land use compatibility guidelines to be used in the assessment of development proposals to protect noise-sensitive land uses from excessive noise.

The project proposes limited changes to the Noise Element to reflect revised housing policy. The underlying preexisting Noise Element goals remain the same.

### Implementation Plan

The General Plan includes a comprehensive Implementation Plan that provides direction for translating goals and policies to specific actions. The Implementation Plan serves as a basis for making future programming decisions related to the assignment of staff and the expenditure of City funds. The Implementation Plan identifies individual program responsibility, funding sources, and a timeframe for completion. A limited number of new actions were added to the Implementation Plan to correlate with new policies in the General Plan.

## Update to Zoning Ordinance and Zoning Map

Updates to the Zoning Ordinance and Zoning Map (Exhibit 3) are largely intended to achieve consistency between the revisions proposed in the Focused General Plan update and the Zoning Ordinance. Additional policy changes include: 1) expanding the Commercial Overlay zone and permitting ancillary commercial on weekends throughout the City, 2) establishing a new Truck and Freight Terminal Overlay District to certain areas of the City, and providing related development standards, and 3) completing minor clean up of language in the Ordinance to facilitate its interpretation.

### General Plan Consistency and Commercial Overlay Expansion

The City prepared revisions to the Zoning Ordinance to achieve consistency with Land Use Element Overlay Districts, goals, policies, and implementation measures specified in the General Plan. These revisions include a new Housing Overlay District and Emergency Shelter Overlay District in both the Zoning Ordinance and the Zoning Map, and related use, development, and site planning standards for these new overlays. Additional changes include revisions to commercial uses policy, as indicated in the General Plan Land Use Element. These changes are reflected in the proposed amendments to the Zoning Ordinance with the revisions to regulations for ancillary commercial uses (permitted on weekends) and expansion of the Commercial Overlay on the Zoning Map. Additional regulations are included for parking and loading standards for different types of commercial uses.

### Truck and Freight Terminal Overlay Zoning District

The City proposes to establish a new Zoning Overlay District. This overlay would correlate to the new Truck and Freight Overlay in the General Plan. The Truck and Freight Terminal Overlay District as proposed is represented in Exhibit 3. Development standards, including site planning standards and allowable uses, are included in the Zoning Ordinance amendments. Whereas truck and freight terminals would not be allowed elsewhere in the City, this amendment proposes to allow these uses, subject to development standards and a Conditional Use Permit, within the new Truck and Freight Terminal Overlay District.

### Clean Up Items

Section 26.2.3, Definitions, of the Zoning Ordinance is proposed to be updated to increase clarity in interpretation and implement the above policy changes. The definitions of community facilities, floor-area ratio, freight terminal, incidental use, retail use, slaughtering, truck terminal, and warehouse use will be updated, and definitions will be added for hazardous waste facility, indoor recycling facility, outdoor recycling facility, solid waste facility, and trade school.

Section 26.4.1 - Zones, Permitted Uses, Development Standards, and Site Planning Standards is proposed to be updated with the following changes:

1) additional uses permitted by right were added

2) uses permitted with a conditional use permit were added or revised
3) buffer requirements for acutely hazardous materials within 500 feet of a school are added
4) screening of outdoor storage activities modified; clarifications on water usage requirements for conditional use permits
5) interpretations by the Community Services Director regarding measurements and exceptions to standards
6) clarifications on parking access, parking space size, vehicle maneuvering, and street dedication
7) extension of amortization of nonconforming outdoor activities and storage to 2020
8) other minor clarification and typographical changes

### Proposed Residential Project at 4675 52nd Drive

To institute good governance practices, including expansion of the voting population in Vernon, the City has identified a site at 4675 52nd Drive as possibly appropriate for new housing development. This is the only location in the City that is proposed to be designated with the Housing Overlay District as part of the Focused General Plan update. The parcel is owned by the City of Vernon and would be developed by a yet-to-be determined developer, if this project, including General Plan and Zoning Ordinance amendments, is approved. To meet good governance agreed-upon deadlines for achieving new housing development in Vernon, the City issued a Request for Proposals on April 19, 2012 for development proposals for new housing on this 2.06-acre site. Project proposals were received in July 2012, all proposing exclusively residential use and yielding between 31 and 61 total units. Three development proposals will be considered; these three proposals will provide the framework for environmental analysis in this Initial Study. However, potential unit yield of the three proposed projects to be considered is 35 to 45 units, consistent with the City policy direction for this site. All development proposals include provisions for on-site open space/amenities, buffering (through setbacks) from the adjacent railroad spur, and on-site parking.

No permitted activities or approved actions will occur related to any potential residential development on this site until and if General Plan and Zoning Ordinance amendments are completed and this CEQA review process has been completed.

## *2.9 – Project Objectives*

This update is being pursued so that the City's General Plan and Zoning Ordinance are consistent with State law and consistent with each other, and to provide policy direction for additional housing sites within the City to forward City policy to expand the voting population in Vernon.

Other objectives of the General Plan remain unchanged. Specifically, the City's intent is to continue to support the ongoing industrial character of the City, while recognizing the changing industrial environment throughout the United States and globally, and to respond appropriately.

## *2.10 – Surrounding Land Uses*

The project applies to all parcels within the City of Vernon and its sphere of influence. Vernon is adjacent to the cities of Los Angeles, Huntington Park, Maywood, and Commerce. Surrounding uses in these cities include residential, commercial, and industrial uses.

With regard to proposed General Plan land use changes and related consistency Zoning Map changes, the two new General Plan Overlay Districts are applied to one parcel each. The proposed Housing Overlay site is at the southeast edge of the City, on vacant site. To the south, in the City

of Maywood, are residential uses in the form of single-family and multi-family housing. To the west and north are vacant parcels; the Los Angeles River lies farther north. To the east are industrial uses.

The Emergency Shelter Overlay District is located near the intersection of Alameda Street and E. 25th Street, near the Alameda Corridor freight rail line. The site is currently vacant. Surrounding uses include residential, public utility (Alameda Corridor), and wholesale commercial uses.

The Commercial Overlay District is proposed to be expanded to include additional parcels along Soto Street, as well as properties on Slauson Avenue and Atlantic Boulevard. Surrounding uses are generally industrial in nature, with a limited number of commercial uses. Additionally, the potential expansion of the Commercial Overlay District would be adjacent to the Maywood Elementary School, located in the adjacent City of Maywood.

The Zoning Map has an additional proposed amendment: the Truck and Freight Terminal Overlay District. This overlay would apply to a northern portion of the City, as indicated in Exhibit 3. Surrounding uses are general industrial in nature, as well as rail yards and rail lines. The Los Angeles River borders much of this proposed Overlay District.

## *2.11 – Environmental Setting*

The City of Vernon is located in the central portion of Los Angeles County, directly southeast of downtown Los Angeles. Vernon is adjacent to the cities of Los Angeles, Huntington Park, Maywood, and Commerce. Vernon is connected to the regional rail lines via the Alameda Corridor, which is the primary connection between the ports of Los Angeles and Long Beach and the rail yards located in Vernon, Commerce, and downtown Los Angeles. A portion of the Hobart Yard, an intermodal facility where large shipping containers are transferred from railroad cars to trucks and vice versa, is also located in Vernon.

The corporate limits of the City of Vernon encompass approximately 5.2 square miles, extending generally from Alameda Street and the Alameda Corridor on the west to the I-710 freeway to the east, and the cities of Maywood and Huntington Park on the south and the cities of Los Angeles and Commerce to the north. A portion of unincorporated Los Angeles County is located in the planning area that includes primarily industrial uses and portions of the Los Angeles River. Lands within Vernon largely have been developed with industrial uses since incorporation in 1905. Close to 50,000 employees commute into Vernon daily to work in the 1,200 manufacturing, warehousing, industrial, and transportation-related businesses. As of 2010, Vernon had only 31 residences and a population of 112 persons.

## *2.12 – Required Approvals*

- The City Council must approve a General Plan Amendment that incorporates the focused updates into the current General Plan.
- The City Council must approve a Zone Text Amendment to create and implement the Housing Overlay, Emergency Shelter Overlay, Truck and Freight Terminal Overlay, and expansion of the Commercial Overlay, as well as other focused amendments to facilitate implementation and ease interpretation of the Zoning Ordinance.
- The City Council must approve a Zoning Map Amendment to apply the Housing Overlay, Emergency Shelter Overlay, Truck and Freight Terminal Overlay, and expansion of the Commercial Overlay to the Zoning Map.
- The City Council must approve a Development Agreement related to 4675 52nd Drive prior to approval of building permits for a proposed project on this site.

## 2.13 – Other Public Agencies Whose Approval Is Required

The State of California, Department of Housing and Community Development will review the Housing Element for compliance with State law and indicate whether the adopted Element is consistent with State Housing Element Law (Article 10.6 of the Government Code).

## Assumptions

The environmental analysis contained in this Initial Study is based on the following assumptions:

1. **Project Specific Environmental Review:** In the City of Vernon, all development proposals that are considered "projects" under CEQA are subject to an environmental review process to determine the level of impact and to impose appropriate mitigation measures, if needed, to avoid significant impacts. The only potential housing development project which this Initial Study will review is applicable to development at 4675 52nd Drive, where housing is anticipated in the near future.

2. **Purpose and Focus of this Initial Study for the Focused General Plan and Zoning Ordinance Environmental Review:** Other than providing environmental review for a potential housing development at 4675 52nd Drive, this project would not authorize any plans for construction of new uses, or redevelopment of any properties to produce new uses. The proposed project is an update to existing policy documents. No other direct environmental impacts, besides those discussed for 4675 52nd Drive, therefore, would occur. In addition to assessing impacts related to a potential housing development at 4675 52nd Drive, then, the purpose of the environmental assessment is to determine whether there are any peculiar types of impacts that could occur as an indirect result of the Housing Element strategies and other amendments to the General Plan and Zoning Ordinance.

   Because the City certified a Program EIR in 2007 for a comprehensive update of the General Plan and Zoning Ordinance, the analysis in this Initial Study tiers upon this prior Program EIR for the purpose of determining whether a Subsequent or Supplemental EIR is required, or an Addendum to the prior Program EIR.

**Exhibit 1:**
**Regional Context and Vicinity Map**

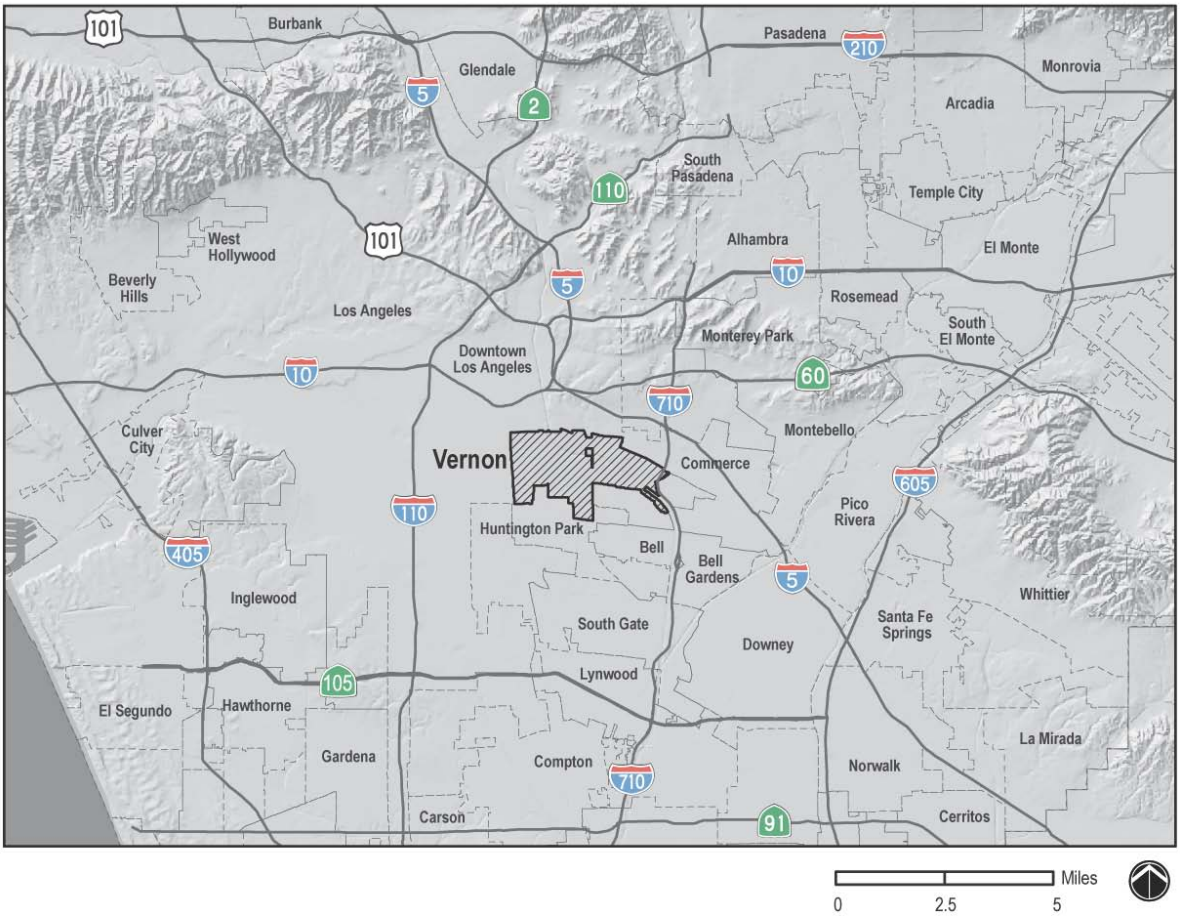

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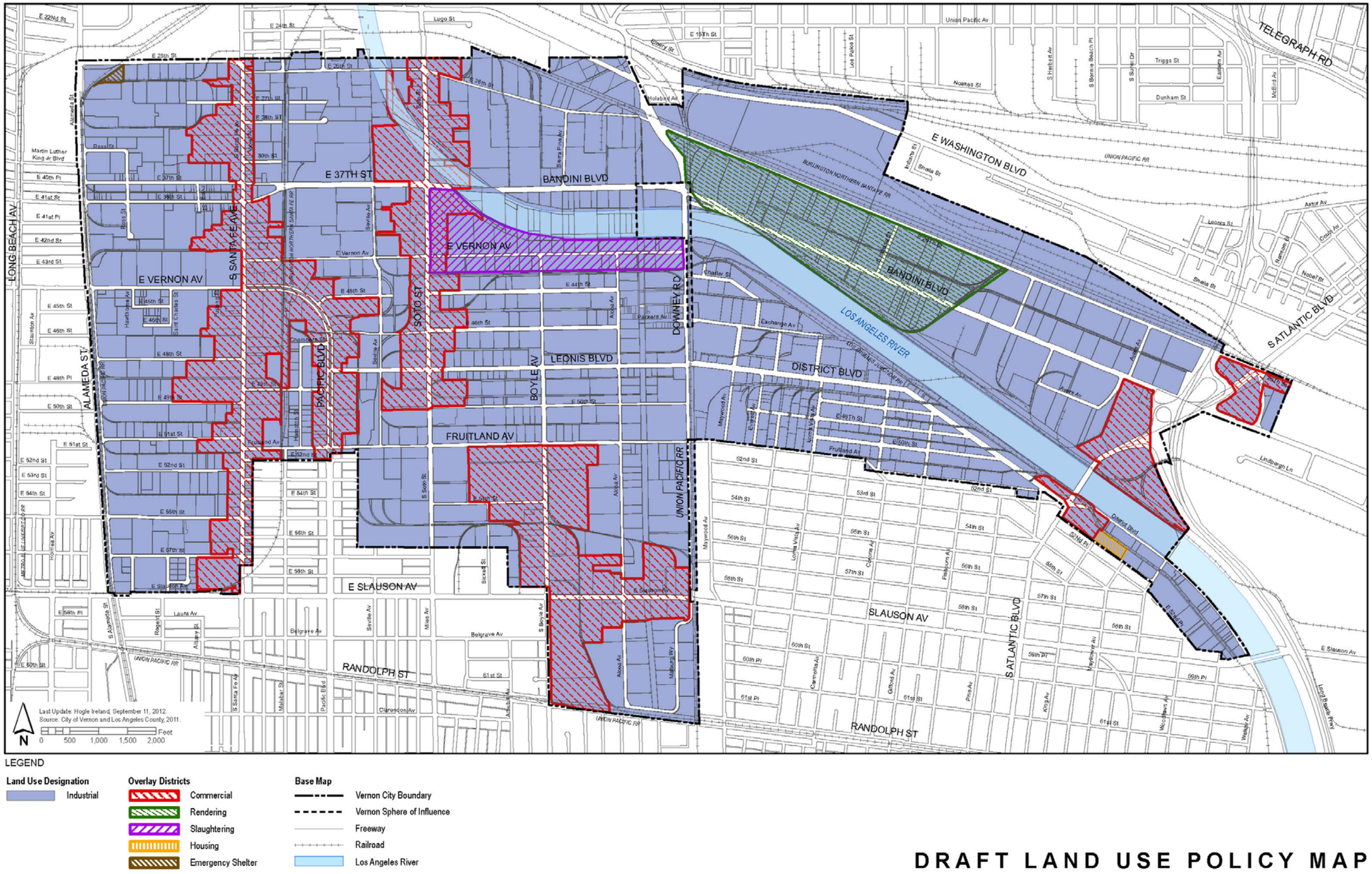
**Exhibit 2: Proposed General Plan Land Use Map**




LEGEND

**Land Use Designation**
- Industrial

**Overlay Districts**
- Commercial
- Rendering
- Slaughtering
- Housing
- Emergency Shelter

**Base Map**
- Vernon City Boundary
- Vernon Sphere of Influence
- Freeway
- Railroad
- Los Angeles River

**DRAFT LAND USE POLICY MAP**

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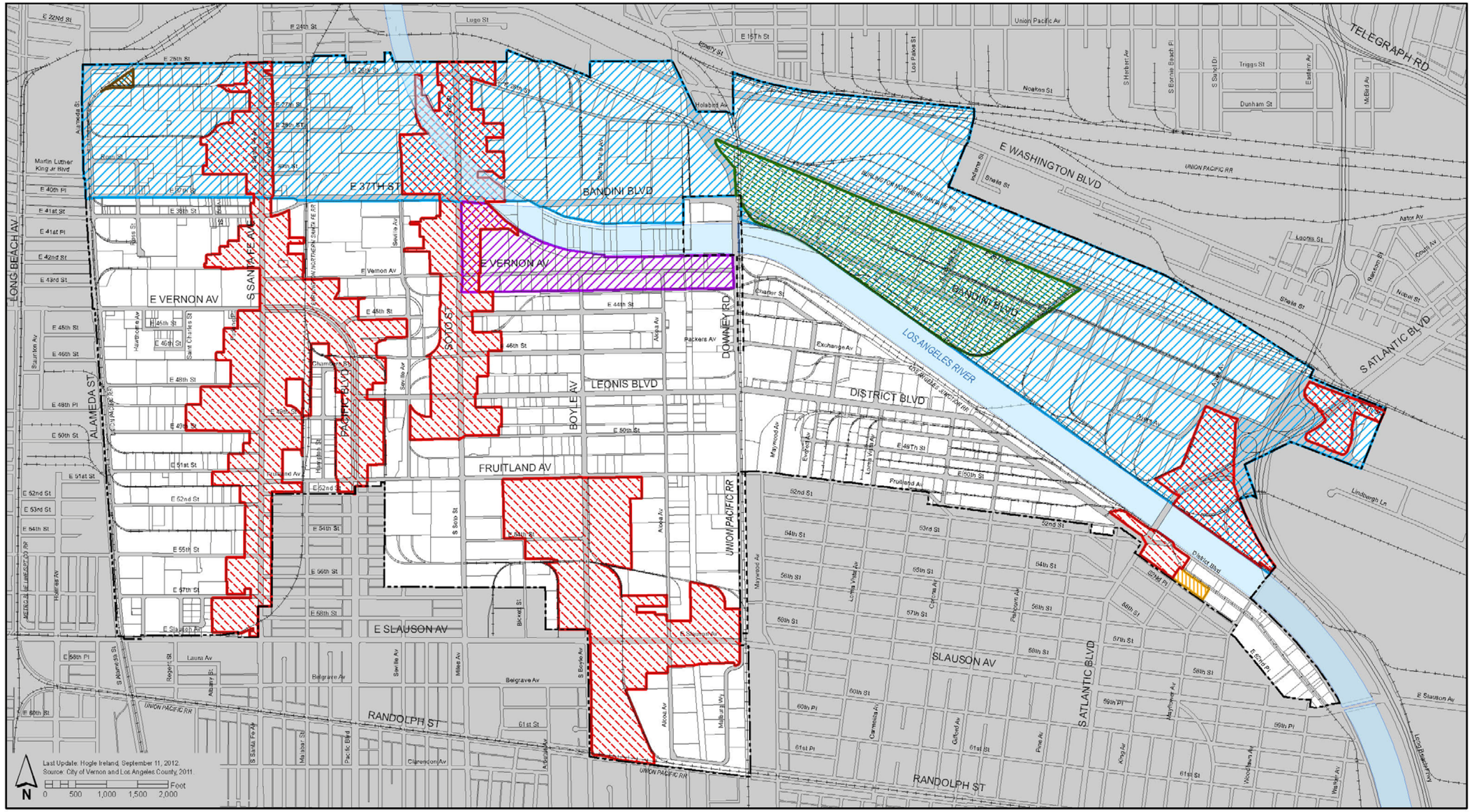
**Exhibit 3: Proposed Zoning Map**




LEGEND

**Zone**
- Industrial

**Overlay Districts**
- Commercial
- Rendering
- Slaughtering
- Trucking and Freight Terminal
- Housing
- Emergency Shelter

**Base Map**
- Vernon City Boundary
- Vernon Sphere of Influence
- Freeway
- Railroad
- Los Angeles River

**DRAFT ZONING MAP**

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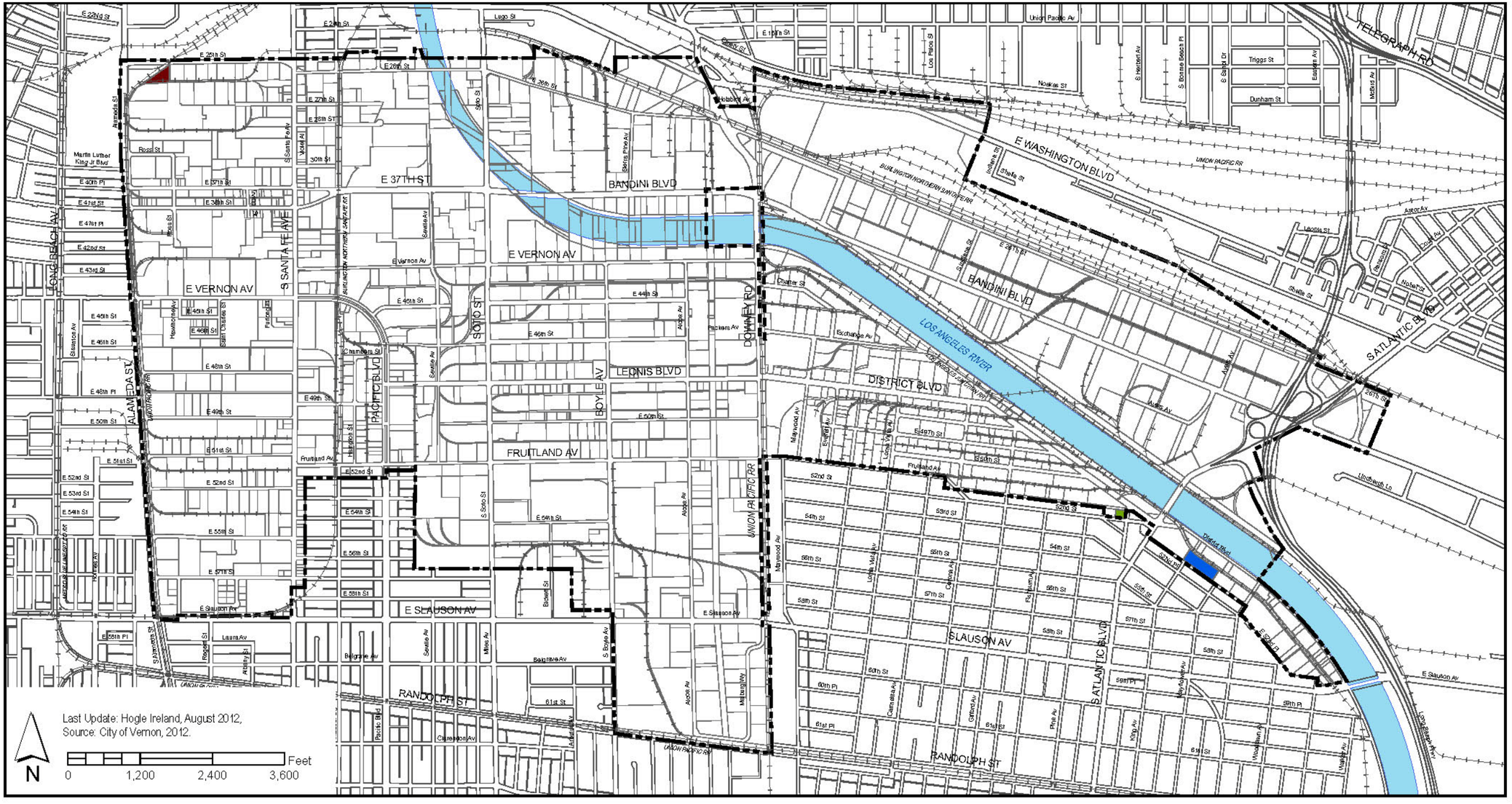
**Exhibit 4: Proposed Housing Sites**




LEGEND

**Housing Sites**

- General Plan and Zoning Housing Overlay District
- Site for Housing Consideration
- General Plan and Zoning Emergency Shelter Overlay District

**City Boundaries**

- Vernon City Boundary
- Vernon Sphere of Influence

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# 3 Determination

## 3.1 – *Environmental Factors Potentially Affected*

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a 'Potentially Significant Impact' as defined by the checklist on the following pages. (Note: If any box is checked, an Environmental Impact Report must be prepared).

| | | | | | |
|---|---|---|---|---|---|
| ☐ | Aesthetics | ☐ | Agriculture Resources | ☑ | Air Quality |
| ☐ | Biological Resources | ☐ | Cultural Resources | ☐ | Geology /Soils |
| ☑ | Greenhouse Gas Emissions | ☑ | Hazards & Hazardous Materials | ☐ | Hydrology / Water Quality |
| ☐ | Land Use / Planning | ☐ | Mineral Resources | ☑ | Noise |
| ☐ | Population / Housing | ☐ | Public Services | ☐ | Recreation |
| ☑ | Transportation/Traffic | ☐ | Utilities / Service Systems | ☑ | Mandatory Findings of Significance |

## 3.2 – *Determination*

| | |
|---|---|
| ☐ | I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. |
| ☐ | I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. |
| ☐ | I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. |
| ☑ | I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. A SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. |
| ☐ | I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. |

S. Kevin Wilson, Director of Community Services and Water

8-11-12
Date

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## 4.1 – Aesthetics

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☐ | ☑ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view from a state scenic highway? | ☐ | ☐ | ☐ | ☑ |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | ☐ | ☐ | ☐ | ☑ |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☐ | ☑ |

a-d) **No Impact.** Potential impacts to scenic vistas within the City of Vernon were previously analyzed in the Vernon General Plan and Zoning Ordinance EIR. The analysis concluded that no impact would result since no scenic vistas, scenic resources, or state scenic highways are located in the City. In addition to land use changes proposed in the General Plan, the Proposed Focused Update includes revisions to the Zoning Ordinance to introduce development standards concerning lots sizes, building intensity, setbacks, building height limitations for the proposed new zoning district overlays. These standards are intended to provide for quality design of proposed development, as well as ensure compatibility with existing surrounding development. The Proposed Focused Update does not propose any changes to the Zoning Ordinance which would remove or revise existing development standards to reduce light and glare impacts. Impacts of the Proposed Focused Update would be similar to those identified in the General Plan EIR, and no new impact would occur.

With regard to the proposed development at 4675 52nd Drive, surrounding land uses to the west, east, and north consist of industrial businesses. Residential uses (single- and multi-family) are located across the street to the south in the City of Maywood. Proposed development at this site would be two to three stories in height; a proposal for a three-story development has a graduating height which increases from the street edge towards the back of the property. Two proposals would be limited to two stories in height. Given the industrial natural of other existing land uses in the area, a proposed housing development on this site, of relatively consistent scale

with nearby residential uses, would be consistent with the aesthetic condition at nearby residential uses relative to scale.

The development proposals all aim to provide clear pedestrian-orientation toward the 52nd Drive boundary, with ground floor entrances and limited parking and driveway interruptions. The development projects as proposed would be compatible with existing conditions relative to adjacent residential uses, and no scenic vistas would be impacted. All development proposals include landscaping, building articulation, and varied architectural materials. The proposed designs would complement buildings on surrounding properties and provide open space amenities in the form of courtyards and child play areas.

The project site is in a developed urban area that is currently well illuminated. Sources of illumination include freestanding streetlights, light fixtures on buildings, pole-mounted lights, traffic signals, and vehicle headlights. The project will be required to adhere to existing development standards to regulate light and glare, which would also be reviewed during the discretionary review process for the development project. The proposed development projects would have no adverse aesthetic impacts.

No new or substantially more severe impacts would occur with implementation of the Proposed Focused Update.

## 4.2 – Agriculture and Forest Resources

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☑ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☑ |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))? | ☐ | ☐ | ☐ | ☑ |
| d) Result in loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☑ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☑ |

a-b) **No Impact.** The City of Vernon is an urbanized city, fully built out, and comprised of virtually all industrial uses, with a few commercial and residential uses scattered throughout the city. Based upon a review of maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, the project study area does not contain any land designated as "Prime Farmland," "Unique Farmland," or "Farmland of Statewide Importance."[1] As such, no impact would occur. No Williamson Act contracts are active for any

[1] California Department of Conservation. Farmland Mapping and Monitoring Program, 2008. The City of Vernon is indicated within "Area Not Mapped" in 2010 maps of Los Angeles County.

property within Vernon.[2] All properties within Vernon are zoned Industrial; certain properties have additional overlay districts applied. Neither the Industrial zone nor any overlays are intended for agricultural uses. No new or substantially more severe impacts would occur with implementation of the Proposed Update than as identified in the 2007 General Plan and Zoning Ordinance Program EIR. No impact would occur.

c-d) **No Impact.** No timberland exists within the planning area. This condition precludes the possibility of conflicts with forest land zoning or loss of forest land as a result of implementation. Therefore, no impacts would result from the Proposed Focused Update. No new or substantially more severe impacts would occur with implementation of the Proposed Focused Update than as identified in the 2007 General Plan and Zoning Ordinance Program EIR.

e) **No Impact.** Given the existing industrial and built-out nature of Vernon, the project would not result in any conversion of farmland or forestland to another use. No new or substantially more severe impacts would occur with implementation of the Proposed Focused Update than as identified in the 2007 General Plan and Zoning Ordinance Program EIR.

[2] California Department of Conservation. Williamson Act Program, 2007.

## *4.3 – Air Quality*

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

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☑ | ☐ |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☑ | ☐ | ☐ | ☐ |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | ☑ | ☐ | ☐ | ☐ |
| d) Expose sensitive receptors to substantial pollutant concentrations? | ☑ | ☐ | ☐ | ☐ |
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☑ | ☐ |

a) **Less than Significant Impact.**

c-d) **Potential Significant Impact.** As identified in the Vernon General Plan and Zoning Ordinance EIR, over the long term, implementation of General Plan policies could result in an increase in criteria pollutant emissions primarily due to related motor vehicle trips. Stationary sources and area sources—including emissions from natural gas combustion, landscape equipment, and solvents from surface coatings—would result in lesser quantities of criteria pollutant emissions.

Stationary sources and diesel-fueled mobile sources would also generate emissions of toxic air contaminants (TACs) including diesel particulate matter that could pose a health risk. While implementation of the Proposed Focused Update would likely have less than significant air quality impacts, the General Plan Amendment and Zoning Map Amendment propose changes in the land use designation of specific parcels (with introduction of two new General Plan overlay districts and three new Zoning Districts, and revisions to another existing overlay district, as applied in

Exhibits 2 and 3), and allowance of new uses that could result in an increase in development intensity, and a corresponding increase in vehicle trips and traffic that could trigger potentially significant air quality impacts. As such, implementation of the Proposed Update could result in a new significant air quality impact or a substantial increase in the severity of a previously identified air quality impact. Furthermore, the 2007 Vernon General Plan and Zoning Ordinance Program EIR, while finding project-related impacts regarding air quality less than significant, found cumulative air quality impacts significant and unavoidable. Therefore, potential air quality impacts will be fully analyzed within a Supplemental EIR to the Vernon General Plan and Zoning Ordinance EIR to be prepared for the proposed Focused Update.

e) **Less than Significant Impact.** As indicated in the Initial Study completed for the 2007 Vernon General Plan and Zoning Ordinance Program EIR, the majority of development anticipated to occur in Vernon would be predominantly industrial. New development associated with the Proposed Focused Amendments may be industrial, commercial, or residential in nature. Each new development will be required to comply with the South Coast Air Quality Management District's guidelines regarding odor control. In addition, the proposed Zoning Ordinance includes additional requirements to prohibit the emission of noxious odors into the outside air. Any impact associated with the Proposed Focused Update, would, as such, be beneficial, given the City's proposed measures to constrain odors from businesses.

The proposed residential development project at 4675 52$^{nd}$ Drive, given its residential nature, would not involve any uses associated with odor complaints, as indicated in the CEQA Air Quality Handbook (such as agricultural operations, wastewater treatment plants, landfills, and some industrial operations). Compliance with existing regulations will ensure that impact will be less than significant. The proposed Emergency Shelter Overlay would likewise have no odor-producing uses.

With regard to the proposed Trucking and Freight Overlay District, odors may be associated with diesel trucking activities; however, existing uses already generate/attract significant diesel truck traffic. Odors associated with new trucking or freight terminals constructed pursuant to revised zoning policy are not anticipated to be noticeable or significant relative to existing conditions.

Expanded areas of the Commercial Overlay District are not anticipated to have more significant odor impacts than existing industrial uses have; odor impacts are likely to be less with commercial uses than industrial. No new or substantially more severe impacts would occur with implementation of the Proposed Update than those identified in the 2007 General Plan and Zoning Ordinance Program EIR.

## 4.4 – Biological Resources

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☐ | ☐ | ☐ | ☑ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service? | ☐ | ☐ | ☐ | ☑ |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ☑ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ☐ | ☑ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☑ |

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

a-f) **No Impact.** As indicated in the Initial Study completed for the 2007 Vernon General Plan and Zoning Ordinance Program EIR, Vernon is a fully built-out community, and no native habitat remains. Given the industrial nature of the majority of the city, no unique biological resources or habitat conservation areas are located within the planning area. No species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, are known to exist within the Planning Area. According to the federal National Wetlands Inventory, the project site does not contain any wetlands and the proposed project would not disturb any offsite wetlands.[3] The Los Angeles River, where it runs through Vernon, is concrete lined and does not function as riparian habitat. The City of Vernon does not have any adopted tree preservation ordinance or other policies protecting biological resources. Vernon does not contain any Habitat Conservation Plan[4], Natural Community Conservation Plan[5], or other approved local, regional or state habitat conservation plan. No impact will occur. No new or substantially more severe impact would occur with implementation of the Proposed Focused Update.

[3] United States Fish and Wildlife Service. National Wetlands Inventory. <http://107.20.228.18/Wetlands/WetlandsMapper.html#> [Accessed August 16, 2012]
[4] United States Fish and Wildlife Service. Conservation Plans and Agreements Database. <http://ecos.fws.gov/conserv_plans/public.jsp> [Accessed August 16, 2012]
[5] California Department of Fish and Game. California Natural Community Conservation Planning. <http://www.dfg.ca.gov/habcon/nccp/> [Accessed August 16, 2012]

## 4.5 – Cultural Resources

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5? | ☐ | ☐ | ☑ | ☐ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5? | ☐ | ☐ | ☑ | ☐ |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☐ | ☑ |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☐ | ☐ | ☑ |

a-b) **Less than Significant Impact.** As indicated in the Initial Study associated with the 2007 Vernon General Plan and Zoning Ordinance Program EIR, Vernon is largely built out and does not contain any known archaeological resources. Industrial uses have been the predominant land use in the City since the early 1900s. Vernon contains many industrial buildings that house diverse industries, some of which also display architecture of distinct periods and styles, as indicated in the General Plan Resources Element.

Adoption of the Proposed Focused Update will not result in any action that will directly cause the elimination or alteration of any building that may have historic significance. The General Plan Resources Element contains policies that work to protect potentially historic buildings and sites; the focused update would not revise or remove any of these policies. No buildings are located at 4675 52nd Drive housing site. Given that the site was previously developed and graded for past developments, any buried archaeological resources would have already been uncovered or destroyed at the time of initial development of the site. Impacts related to historical and archaeological resources for the Proposed Focused Update would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR; impacts would be less than significant.

c-d) **No Impact.** Given the highly built out and industrial character of Vernon, no buried paleontological resources or human remains or cemeteries are anticipated to be disturbed by the proposed project. Existing law (Section 7050.5 of the California Health and Safety Code and Sections 5097.94 and 5097.98 of the Public Resources Code) requires the protection and proper treatment of any prehistoric or historic artifacts or human remains encountered during excavation activities. Implementation of General Plan and Zoning Ordinance policy and standards and application of existing law on an individual project basis will allow any potential paleontological resources or human remains uncovered to be properly treated.

With regard to the potential housing development at 4675 52nd Drive, since the project site was developed in the past (although it is vacant now as all buildings have been demolished), no paleontological resources or human remains or cemeteries are anticipated to be disturbed by the proposed project. Any buried paleontological resources or human remains likely would have been uncovered or destroyed at that time of initial development of the site. In the unlikely event that paleontological resources or human remains are uncovered, existing regulatory procedures pursuant to Section 7050.5 of the California Health and Safety Code and Sections 5097.94 and 5097.98 of the Public Resources Code would be required, and impacts to resources and/or human remains would be avoided. No impact will occur with application of these existing regulations.

Impacts of the Proposed Update would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR; no impact would occur.

## 4.6 – Geology and Soils

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | ☐ | ☐ | ☑ | ☐ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☑ | ☐ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☑ | ☐ |
| iv) Landslides? | ☐ | ☐ | ☐ | ☑ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☑ | ☐ |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☐ | ☑ | ☐ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property? | ☐ | ☐ | ☑ | ☐ |

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

a.i) **Less than Significant Impact.** No portion of Vernon is traversed by a known fault, as delineated on the Alquist-Priolo Earthquake Fault Zoning Map.[6] As concluded in the 2007 Vernon General Plan and Zoning Ordinance Program EIR, the potential for surface fault rupture is considered to be low. Impacts of the Proposed Focused Update would be similar to those identified in the prior Program EIR and would be less than significant.

a.ii) **Less than Significant Impact.** As noted above in a.i), the California Department of Conservation reports no known faults in Vernon. However, the proposed project and all future development proposed pursuant to General Plan land use policy and Zoning Ordinance standards will be subject to ground shaking impacts should a major earthquake occur in the future in the surrounding seismically active Southern California region. The Safety Element of the General Plan indicates that the Las Ciengas Fault runs along the northeast boundary of the City. Furthermore, blind thrust faults may be located in the vicinity. Blind thrust faults lack superficial ground features normally associated with thrust faults that have recently experienced seismic activity. Potential impacts include injury or loss of life and property damage.

Buildings and structures proposed pursuant to the General Plan and Zoning Ordinance will be subject to the seismic design criteria of the California Building Code (CBC) and any project-specific design requirements. Adherence to these requirements will reduce the potential of the building from collapsing during an earthquake, thereby minimizing injury and loss of life. Although structures may be damaged during earthquakes, adherence to seismic design requirements will minimize damage to property and structures because the structure would be designed not to collapse. The CBC is intended to provide minimum requirements to prevent major structural failure and loss of life. Adherence to existing regulations will reduce the risk of loss, injury, and death; impacts of the Proposed Focused Update would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR, and would be less than significant.

a.iii) **Less than Significant Impact.** As indicated in the 2007 General Plan and Zoning Ordinance Program EIR, portions of the south and eastern sectors of the City are susceptible to liquefaction.[7,8] However, all development occurring pursuant to the updated General Plan and Zoning Ordinance will be constructed in compliance with the CBC, and will incorporate all seismic safety features as required. New development will consist primarily of new industrial buildings that replace existing, older structures; the new structures will incorporate improved seismic safety features and thus, a beneficial effect of improving seismic safety may result. The City enforces stringent safety criteria for new construction, including site-specific soils investigation and the use of engineering techniques specific to each site that overcomes any potential

[6] California State Department of Conservation. California Geological Survey, Alquist-Priolo Earthquake Fault Zone Maps. Los Angeles Quadrangle, January 1, 1977. Other portions of the city not mapped.
[7] California Resources Agency, Department of Conservation. State of California Seismic Hazard Zones, South Gate Quadrangle. March 25, 1999.
[8] California Resources Agency, Department of Conservation. State of California Seismic Hazard Zones, Los Angeles Quadrangle. March 25, 1999.

geotechnical constraints. The proposed project would not modify any of these existing standards and regulations, and impacts of the Proposed Focused Update would be similar to those identified in the General Plan EIR and would be less than significant.

a.iv) **No Impact.** The City of Vernon is virtually flat. No portion of the planning area is indicated to be within a State of California Seismic Hazard Zone landslide zone of required investigation.[9,10] The proposed residential project at 4675 52nd Drive would be constructed on a flat site with no potential for landslides. Impacts of the Proposed Focused Update would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR; no impact would occur.

b) **Less than Significant Impact.** The Initial Study for the 2007 General Plan and Zoning Ordinance Program EIR indicated that proposed new construction pursuant to General Plan land use policy could result in grading and earthwork that would expose soils, increasing the chance for soil erosion. Implementation of the Proposed Focused Update would not change any of these conditions or result in more significant impacts, as no new areas that were previously undeveloped would have new potential for development. Only the allowed uses on these sites and other procedural requirements have been revised by the Proposed Focused Update.

With regard to 4675 52nd Drive, future housing construction on this site is subject to SCAQMD Rule 403 and the erosion control requirements of the CBC to prevent wind-blown and stormwater-related erosion. Rule 403 will minimize wind-blown erosion by requiring stabilization of disturbed soils during construction activities through measures as such daily watering. Required erosion control plans will ensure that measures are implemented at project sites to prevent or minimize erosion due to rain, ensuring that downstream water bodies are protected from sedimentation. Projects will continue to be subject to standard erosion control and engineering techniques set forth in the Municipal Code, including National Pollution Discharge Elimination System (NPDES) requirements. Impacts of the Proposed Focused Update would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

c-d) **Less than Significant Impact.** As indicated above in a.i – a.iv), the Proposed Focused Update would result in less than significant impacts. The Initial Study for the 2007 General Plan and Zoning Ordinance Program EIR noted that the City requires geotechnical investigations for all new development in seismic and geologic hazard areas. Where development would be proposed on a geologic unit or soil that is unstable or located on expansive soil, the applicant will be required to use specific engineering and construction standards and must comply with the City and state building codes. With regard to development at 4675 52nd Drive, a project-specific geotechnical investigation would be required, consistent with standard City procedures. The recommendations of the geotechnical report will be implemented during site preparation and grading. The CBC requires special design considerations for foundations of structures built on soils with expansion indices greater than 20. The CBC also includes a requirement that any City-approved recommendations contained in the soil report be made conditions of the building permit. Compliance with existing CBC regulations would limit hazard impacts arising from unstable soils to less than significant. Impacts related to on- or off-site landslide, lateral spreading, subsidence, liquefaction, collapse, or expansive soils would be less than significant with implementation of the proposed geotechnical recommendations. Impacts of the Proposed Focused Update would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

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[9] California Resources Agency, Department of Conservation. State of California Seismic Hazard Zones, South Gate Quadrangle. March 25, 1999.
[10] California Resources Agency, Department of Conservation. State of California Seismic Hazard Zones, Los Angeles Quadrangle. March 25, 1999.

e) **No Impact.** New development would be required to connect to public sewer service pursuant to City policies. No impact would occur. No new or substantially more severe impacts would occur with implementation of the Proposed Focused Update.

## 4.7 – Greenhouse Gas Emissions

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☑ | ☐ | ☐ | ☐ |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☑ | ☐ | ☐ | ☐ |

a-b) **Potentially Significant Impact.** While implementation of the Proposed Focused Update would likely have less than significant greenhouse gas emission impacts, the General Plan and Zoning Amendments propose changes in the land use designation/zoning of specific parcels (as indicated in Exhibits 2 and 3) that would result in a potential increase in development intensity and a corresponding increase in vehicle trips and traffic, which could have potentially significant greenhouse gas emission impacts. As such, implementation of the Proposed Focused Update could result in a new significant impact. Therefore, potential greenhouse gas emission impacts will be fully addressed within a Supplemental EIR to the 2007 Vernon General Plan and Zoning Ordinance Program EIR to be prepared for the Proposed Focused Update.

## 4.8 – Hazards and Hazardous Materials

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☑ | ☐ | ☐ | ☐ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☑ | ☐ | ☐ | ☐ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☑ | ☐ | ☐ | ☐ |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☑ | ☐ | ☐ | ☐ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☑ |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☑ |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☑ | ☐ |

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☐ | ☑ |

a-c) **Potentially Significant Impact.** Hazardous materials are routinely used and transported throughout Vernon on the local streets and via rail. Current and future uses will continue to be exposed to hazards from the routine use, disposal, and transport of hazardous materials. In addition, future development could produce hazardous materials and waste. Because of the new potentially significant impact associated with these issues, hazardous materials will be fully addressed within a Supplemental EIR to the 2007 Vernon General Plan and Zoning Ordinance Program EIR to be prepared for the Proposed Focused Update.

d) **Potentially Significant Impact.** Several sites within Vernon are included on the Department of Toxic Substances Control Hazardous Waste and Substance List (Cortese List of hazardous materials sites). Redevelopment of industrial sites has the potential to result in discovery of contaminated soils and other hazardous materials. Because of the new potentially significant impact associated with these issues, hazardous waste sites will be fully addressed within a Supplemental EIR to the 2007 Vernon General Plan and Zoning Ordinance Program EIR to be prepared for the Proposed Focused Update.

e-f) **No Impact.** No airport land use plan applies within the planning area. The nearest airport is Compton Airport, located approximately eight miles to the south. No changes associated with the Proposed Focused Update would impact air traffic. No adverse impacts associated with airport operations would result. No new or substantially more severe impacts would occur with implementation of the Proposed Update than as identified in the 2007 General Plan and Zoning Ordinance Program EIR.

g) **Less than Significant Impact.** The project proposes no changes to the City's Standardized Emergency Management System (SEMS) Multi-Hazard Functional Plan (MHFP), and thus would not impair implementation of the SEMS or MHFP. Proposed development under the Proposed Focused Update would be subject to review by the City of Vernon Police and Fire Departments for compliance with emergency response standards and adopted emergency response plans. Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

h) **No Impact.** The City of Vernon is a fully built-out community and does not contain nor is adjacent to any wildlands. Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR; no impact would occur.

## 4.9 – Hydrology and Water Quality

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Violate any water quality standards or waste discharge requirements? | ☐ | ☐ | ☑ | ☐ |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | ☐ | ☐ | ☑ | ☐ |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | ☐ | ☐ | ☑ | ☐ |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | ☐ | ☐ | ☑ | ☐ |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☑ | ☐ |
| f) Otherwise substantially degrade water quality? | ☐ | ☐ | ☑ | ☐ |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ☐ | ☐ | ☑ | ☐ |

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | ☐ | ☐ | ☑ | ☐ |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | ☐ | ☐ | ☑ | ☐ |
| j) Inundation by seiche, tsunami, or mudflow? | ☐ | ☐ | ☐ | ☑ |

a) **Less than Significant.** As analyzed in the 2007 General Plan and Zoning Ordinance Program EIR, implementation of existing regulations and General Plan policies would ensure that water quality standards and waste discharge requirements are not violated.

As a co-permittee under Los Angeles County's MS4 National Pollutant Discharge Elimination System (NPDES) permit, the City is required to implement all pertinent regulations of the program to control pollution discharges from new development. These regulations reduce pollutant loading through the implementation of Best Management Practices (BMPs) and other control measures that minimize or eliminate pollutants from urban runoff, thereby protecting downstream water resources. BMPs implemented to address commercial pollutant sources generally involve maintenance of storm drain facilities, parking lots, vegetated areas, and educational programs. Violations of water quality standards due to urban runoff can be prevented through the continued implementation of existing regional water quality regulations. The proposed project, including revisions to the General Plan and Zoning Ordinance, would not interfere with the implementation of NPDES water quality regulations and standards.

The proposed residential development project at 4675 52nd Drive would disturb approximately 2.06 acres of land and therefore will be subject to National Pollutant Discharge Elimination System (NPDES) permit requirements during construction activities, in addition to standard NPDES operational requirements. The proposed project will require submittal of a Storm Water Pollution Prevention Plan (SWPPP), which will include BMPs to protect water quality during construction activities. The City will require BMPs as listed in the California Stormwater Quality Association's California Storm Water Best Management Practice Handbooks. These measures, which include resident/owner education, activity restrictions, parking lot sweeping, basin inspection, landscaping, roof runoff controls, efficient irrigation, slope and channel protection, storm drain signage, trash racks, and trash storage areas, will reduce pollutants in storm water runoff and reduce non-storm water discharges to the City's stormwater drainage through controlling the discharge of pollutants. Operational BMPs will be identified in a Stormwater Runoff Management Plan that will be submitted to the City for review and approval. Impacts related to violation of water quality standards will be less than significant with implementation of these existing regulations.

Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

b) **Less than Significant Impact.** Water service for Vernon is provided by three service providers: City of Vernon Water Department, California Water Service Company (Cal Water) - East Los Angeles District, and Maywood Mutual Water Company Number 3. Some of the water supplied within the planning area comes from groundwater wells. The General Plan Amendment and Zoning Map propose changes in the land use designation of specific parcels (with introduction of two new General Plan overlay districts, expansion of another overlay district, and three new Zoning Overlay Districts as illustrated in Exhibits 2 and 3); allowance of new uses could result in an increase in development intensity.

However, the proposed allowed new uses would likely use substantially less water than industrial uses, which are, in general, considered to be high-intensity water users. Based on water demand factors provided in the 2010 *Urban Water Management Plan* for Cal Water's East Los Angeles District, the year 2015 projected water demand at a metered service of a multifamily residential development is 2.8 acre-feet/year. The projected demand for the average metered industrial user is 20.9 acre-feet/year.[11] Given that proposed residential uses and commercial uses will in general consume far less water annually that the average industrial use (approximately 2.9 acre-feet/year and 1.0 acre-feet per/year, respectively), impact of the land use changes will be less than significant.

The project site at 4675 52nd Drive is served by Maywood Mutual Water Company Number 3. As of August 2012, Maywood Mutual Water Company Number 3 had an adjudicated supply of 1,400 acre-feet and a demand of approximately 1,350 acre-feet, with a residual supply of at least 50 acre-feet of water.[12] This would be more than ample to accommodate the proposed development at 4675 52nd Drive. Impacts would be similar and less severe than those identified in the 2007 General Plan and Zoning Ordinance Program EIR, and would continue to be less than significant.

c) **Less than Significant Impact.** A significant impact would occur if the proposed project substantially altered the drainage pattern of an existing stream or river so that erosion or siltation would result. No natural, non-concrete lined rivers traverse the City of Vernon. The Los Angeles River is a significant water feature; however, it is fully concrete lined and its course would not be altered in any way via the project. The project involves no changes to this flood control channel.

With regard to future development project proposed pursuant to Land Use and Housing Element policy, site drainage plans are required by the City of Vernon and would be reviewed by the City. Erosion and siltation reduction measures would be required during construction consistent with an approved Stormwater Pollution Prevention Plan (SWPPP) to demonstrate compliance with the City's NPDES permit. With regard to 4675 52nd Drive in particular, no substantial grading is proposed to the relatively flat site; thus, drainage patterns would not be disrupted. Erosion and siltation reduction measures would be required. At the completion of construction, the project would consist of impervious surfaces and landscaped areas, and would therefore not be prone to substantial erosion. Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

d-e) **Less than Significant Impact.** As was previously discussed in Section 4.9.c above, the proposed project would not result in an alteration of the drainage pattern or increase in flows that would result in flooding on or off site because the City of Vernon is fully developed with buildings, pavement, and other impervious surfaces. Any new development would be required to comply

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[11] California Water Service Company. *2010 Urban Water Management Plan - East Los Angeles District.* Table 3.3-3: Projected 2015 Water Deliveries.

[12] Telephone communication with Bob Roth, City of Maywood Municipal Water District 3 engineer, August 30, 2012.

with NPDES regulations. The existing storm drain system is adequate to accommodate stormwater runoff. Impacts would be similar to or less than those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

f) **Less than Significant Impact.** All future development projects pursuant to General Plan and Zoning Ordinance policy will be required to comply with water quality requirements of the U.S. EPA, Los Angeles RWQCB, and the City of Vernon. Compliance with existing requirements would reduce water quality impacts to a less-than-significant level. Impacts would be similar to those identified in the General Plan and Zoning Ordinance EIR and would be less than significant.

g-h) **Less than Significant Impact.** As indicated in the General Plan Safety Element, no portion of the planning area lies within a 100-year flood zone. A very small portion of the City in the southeastern corner is identified by FEMA to be within a 500-year flood zone; this area does include the Housing Overlay and proposed development at 4675 52$^{nd}$ Drive. Since no areas of the City are located within a 100-year flood zone, impacts associated with the project related to housing or flood hazard area structures would be less than significant. No new or more severe impacts than those identified in the 2007 General Plan and Zoning Ordinance Program EIR would occur.

i) **Less than Significant Impact.** As indicated in the General Plan Safety Element, nearly all of Vernon lies within the potential inundation areas for Hansen Dam and/or Sepulveda Dam, which are located more than 20 miles northwest of the City. In the unlikely event that a catastrophic earthquake causes the collapse of either of these dams, water and debris would flow to and then generally along the Los Angeles River in a fairly narrow stream before spreading out over a swath of the coastal plain several miles wide, including Vernon. In this case, the flow would take 8 to 19 hours to reach the City. As such, risk to human life is minimal as the long delay should give ample time for emergency responders to respond. Procedures are outlined in the City's SEMS Multi-Hazard Functional Plan (MHFP). Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

j) **No Impact.** The City of Vernon lies approximately 12 miles from the Pacific Ocean and therefore is not subject to tsunamis. No large water bodies exist in the City that would present seiche hazards. Topography in the City is virtually flat. No natural features exist that would create mudflows. Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

## 4.10 – Land Use and Planning

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☑ |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☑ | ☐ |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | ☐ | ☐ | ☐ | ☑ |

a) **No Impact.** The proposed project would not physically divide an established community. Citywide, the General Plan and Zoning Ordinance updates will continue to allow the recycling of established industrial uses to new industrial uses and commercial uses. The Housing Element also identifies two sites where housing could be considered, and one site which could accommodate a potential emergency shelter. At a single site at 4975 52nd Drive, residential uses will be permitted via the proposed Housing Overlay, pursuant to the proposed General Plan and Zoning maps. At the northwest corner of the City, the Emergency Shelter Overlay will apply to a single property.

The site at 4975 52nd Drive is surrounded by residential uses to the south (in the City of Maywood) and industrial uses to the north. Given that the site is located at Vernon's south border, the proposed project will not divide an established industrial community. The project does not propose construction of any roadway, flood control channel, or other structure that would physically divide any portion of the community. Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR; no impact will occur.

b) **Less than Significant Impact.** The proposed project involves focused updates of the General Plan and Zoning Ordinance, with these objectives: 1) allow for a limited number of new housing units pursuant to the City's good governance initiative, 2) expand allowed uses in the north part of Vernon by creating a new Trucking and Freight Overlay, 3) extend the Commercial Overlay District to allow additional commercial development to support industrial users and permit ancillary commercial uses on weekends, and 4) provide clarifications in the Zoning Ordinance text. The intent of the simultaneous General Plan and Zoning Ordinance updates is to provide for consistency between the two documents. No other agency has jurisdiction over land use issues in Vernon. Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

c) **No Impact.** As discussed in Checklist Response 4.4.f above, the planning area is not part of any habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. As such, no impact will occur. No new or substantially more severe impacts would occur with implementation of the Proposed Focused Update.

## 4.11 – Mineral Resources

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☑ |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | ☐ | ☐ | ☐ | ☑ |

a-b) **No Impact.** The City is a fully urbanized area with predominantly industrial uses. As indicated in the Initial Study for the General Plan and Zoning Ordinance EIR, no mineral resource areas exist in Vernon. The City's General Plan does not identify any locally important mineral resources, and there are no known mining operations within the city or its immediate vicinity. Development pursuant to the proposed project will not result in the loss of a known mineral resource. No impact will result. No new or substantially more severe impacts would occur with implementation of the Proposed Focused Update.

## 4.12 – Noise

Would the project result in:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☑ | ☐ | ☐ | ☐ |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | ☑ | ☐ | ☐ | ☐ |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | ☑ | ☐ | ☐ | ☐ |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | ☑ | ☐ | ☐ | ☐ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☑ |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☑ |

a-d) **Potentially Significant Impact.** The 2007 General Plan and Zoning Ordinance Program EIR analyzed potential noise impacts related to new development permitted under the General Plan and found potential impacts to be less than significant with implementation of General Plan policies and EIR mitigation measures. The proposed project includes changes to land use designations of specific parcels (shown in Exhibits 2 and 3) that could result in an increase in development intensity and new sensitive receptors. The potential development projects resulting from these proposed land use designation changes, including proposed residential development at 4675 52nd Drive and an emergency shelter, could trigger potentially significant noise impacts not

previously analyzed in the 2007 Program EIR. Therefore, noise impacts, both short-term and long-term, will be further analyzed in the Supplemental EIR to be prepared for the Proposed Focused Update.

e-f) **No Impact.** As indicated in the Initial Study completed for the 2007 General Plan and Zoning Ordinance Program EIR, no part of Vernon is located within an area covered by an airport land use plan, and no part of the City is located within the vicinity of a private airstrip. The nearest airport is in Compton, approximately eight miles to the south. Thus, adoption and implementation of the Proposed Focused Update will not result in airport noise impacts on people residing or working within the Planning Area. No new or substantially more severe impacts would occur with implementation of the Proposed Focused Update.

## 4.13 – Population and Housing

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☑ | ☐ |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☑ |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☑ |

a) **Less than Significant Impact.** The proposed General Plan Amendment includes goals, policies, and implementation programs that will allow for very limited housing development at specific locations. While the City has had a long-standing policy to prohibit any new residential uses due to extensive industrial operations throughout Vernon, the City's good governance initiative and the Regional Housing Needs Allocation of two units have led the City to propose two overlay zones that will allow limited housing. Between 20 and 61 new units could be accommodated, as well as an emergency shelter. The emergency (homeless) shelter would not house permanent residents.

With implementation of this policy, the Vernon Planning Area has the potential to accommodate a population of approximately 328 residents[13] at build out; this represents more almost a tripling of the current estimated population of 112 (2010 Census). This level of growth has not yet been accounted for in regional planning documents, as the City's good governance initiative and efforts to increase the voting populace in Vernon are recent changes. These changes will be reflected in future regional planning documents. Thus, while the potential tripling of the local population may seem significant in percentage terms, the actual population increase in real numbers is small. The potential increase is directly responsive to the City's good governance policy to increase the local populace and foster fair voting procedures. Also, in terms of secondary impacts associated with the anticipated population increase, the analysis in this Initial Study indicates that the new housing and residents will not create significant environmental impacts.

[13] This population projection assumes 60 units, pursuant to proposed land use policy, and extrapolates based on existing (2010) household size, which is estimated at 3.6 persons per household.

b-c) **No Impact.** The recycling of uses permitted by land use policy would not remove any existing housing. The City owns virtually all of the existing housing in Vernon and has indicated its intention to retain the units. The Housing Element includes policies that provide for the retention of the existing 31 housing units in the City that are economically and physically sound. Proposed development at 2675 52nd Drive would take place on an existing vacant parcel and would not displace housing or people. Implementation of the Proposed Focused Update would not displace substantial numbers of existing housing or people. Impacts would be similar to or less than those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

## 4.14 – Public Services

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

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Fire protection? | ☐ | ☐ | ☑ | ☐ |
| b) Police protection? | ☐ | ☐ | ☑ | ☐ |
| c) Schools? | ☐ | ☐ | ☑ | ☐ |
| d) Parks? | ☐ | ☐ | ☑ | ☐ |
| e) Other public facilities? | ☐ | ☐ | ☑ | ☐ |

a-b) **Less than Significant Impact.** As indicated in the Initial Study completed for the 2007 General Plan and Zoning Ordinance Program EIR, development pursuant to proposed General Plan policy and zoning regulations will not substantially increase the business population in Vernon since limited vacant land exists. New development will consist of the recycling of development on existing properties. This condition continues to be true for the Proposed Focused Update. As a general practice, City staff examines each development application to determine site-specific fire protection and other safety needs. City staff will review the site plan for any potential development at 4675 52nd Drive and ensure it meets emergency access requirements.

Vernon maintains its own fire and police departments, and as part of the budgeting process each year provides funding to ensure that services adequately meet any changing needs in the City. Therefore, the potential impact on fire and police services will continue to reviewed with each development proposal and annually. Through existing practices and procedures, the City will be able to meet and maintain acceptable service ratios. Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR, and would be less than significant.

c) **Less than Significant Impact.** The only school located in Vernon is Vernon City Elementary School. Maywood Elementary School is located close by in the City of Maywood. Both schools are located within the Los Angeles Unified School District. Proposed residential development completed pursuant to General Plan and Zoning Ordinance policy would be limited to the Housing Overlay (limited to potential housing sites identified in the Housing Element and consistent with Land Use policy). The proposed residential project will result in incremental population growth and potential associated growth in students within the Los Angeles Unified School District. In accordance with the California Government Code, standard school facility impact fees will be paid to offset any incremental impacts of the proposed project. With the payment of the fee, impacts to school facilities would be less than significant. Given the limited scale of the proposed

residential land use changes, impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR and would be less than significant.

d-e) **Less than Significant Impact.** The proposed project would introduce a new Housing Overlay in the General Plan and Zoning Ordinance. The overlay would allow for a limited number of new housing units (maximum of 60 potential units total). The proposed residential project at 4675 52nd Drive will result in population growth that would incrementally impact recreation facilities, given the potential 35 to 45 new housing units that could be supported on the site. Each of the proposed development schemes the City has received provides for on-site open space areas for use by future residents. The City has no other existing recreation facilities. As such, it can be assumed that other existing recreation facilities in neighboring jurisdictions would potentially be utilized by the proposed project's residents.

As part of the good governance reform measures, the Vernon City Council adopted a Resolution (2011-149) on August 25, 2011 which established a fund for Regional Community Recreational Facilities and Environmental and Community Benefit Fund. A total of $3.2 million has been set aside in the 2012-2013 City budget for the fund and for funding regional recreational facilities. Negotiations have been ongoing between Vernon officials and representatives from the City of Huntington Park and Los Angeles County (relative to the unincorporated community of Boyle Heights). While the City does not have a process to assess parks fees due to the limited potential for new housing in the City, any potential impact on recreational facilities in neighboring jurisdictions resulting from increasing the residential population of Vernon by up to 60 new housing units would be addressed through this existing fund, and would be less than significant.

Impacts to any other public facilities, such as libraries, would similarly be less than significant since the limited increase in population is not of a size that would required the expansion of existing or construction of new public facilities. Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR.

## *4.15 – Recreation*

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☑ | ☐ |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☑ | ☐ |

a) **Less than Significant Impact.** Refer to the discussion in Section 4.14d) above. Impacts to recreation would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR, and would be less than significant.

b) **Less Than Significant Impact.** The project, through new land use policies and the potential development at 4675 52nd Drive, would incrementally increase the local population and therefore potentially impact surrounding and regional parks. However, given the project scale and limited allowance for new residential units in the City, and further provided that the City will require on-site open space for any new housing projects, the project does not necessitate the construction of new parks. Any expansion or new construction of recreation facilities would be subject to its own environmental review pursuant to CEQA. Impacts would be less than significant.

## 4.16 – Transportation and Traffic

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | ☑ | ☐ | ☐ | ☐ |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | ☑ | ☐ | ☐ | ☐ |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | ☐ | ☐ | ☐ | ☑ |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ☑ |
| e) Result in inadequate emergency access? | ☐ | ☐ | ☑ | ☐ |

| | | | | |
|---|---|---|---|---|
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | ☐ | ☐ | ☑ | ☐ |

a-b) **Potentially Significant Impact.** The 2007 General Plan and Zoning Ordinance Program EIR identified impacts on traffic on local surface streets and freeways as significant and unavoidable at the program and cumulative levels. Mitigation was included to reduce impacts, including: 1) conducting a study to determine if an Automated Traffic Surveillance and Control System (ATSAC) would be a beneficial and cost-effective method for the City to operate and maintain; 2) coordination with local jurisdictions, rail companies, and Metropolitan Transportation Authority regarding transportation improvements; 3) coordination with Caltrans and other local government associations regarding I-710 freeway improvements; 4) Soto Street widening and right-of-way dedications to meet Circulation and Infrastructure Element goals; and 5) capacity enhancements at Santa Fe Avenue and 38th Street. However, full implementation of these measures would be contingent upon actions by outside agencies or funding that has not yet been secured; as such, impacts were found to be significant and unavoidable.

The proposed project includes General Plan and Zoning Map amendments to establish a Truck and Freight Terminal Overlay district, expand the boundaries of the Commercial Overlay district, permit housing at 4675 52nd Drive, accommodate emergency housing within the Emergency Housing Overlay, and permit housing at identified sites in the Housing Element (as shown in Exhibits 2, 3, and 4). Over the long term, development pursuant to land use policy and zoning regulations could result in an increase in development intensity and a corresponding increase in vehicle trips and traffic in certain areas of Vernon. Accordingly, potentially new or substantially more severe significant transportation impacts could occur with the adoption of the General Plan and Zoning Ordinance/Map Amendments that will need to be further analyzed in a Supplemental EIR to be prepared for the Proposed Focused Update.

c) **No Impact.** No airport land use plan applies to any area of Vernon. The nearest airport is Compton Airport, which is located approximately eight miles to the south. Implementation of the Proposed Update would have no effect on air traffic patterns at Compton Airport. No impact would occur. No new or substantially more severe impacts would occur.

d) **No Impact.** The Proposed Focused Update does not propose any changes to the General Plan Circulation and Infrastructure Element. The existing Zoning Ordinance includes planning and project design standards intended to address such issues as traffic hazards for individual development proposals. The Proposed Focused Update includes additional language to ensure truck maneuvering does not occur near driveways to limit potential traffic hazards. No changes are proposed to roadways beyond those considered in the 2007 General Plan and Zoning Ordinance Program EIR. Minor edits to the Zoning Ordinance would increase traffic safety in the vicinity of development sites. No new or substantially more severe impacts would occur as a result of project adoption and implementation.

e) **Less Than Significant Impact.** As indicated in d) above, no changes are proposed to the Circulation and Infrastructure Elements, and revisions to the Zoning Ordinance regarding parking and loading are intended to enhance traffic safety and emergency access. With regard to the proposed residential development project at 4675 52nd Drive, project access will be via 52nd Drive. Through review of the project site plan, the City will confirm that turning radii for emergency vehicles accessing the site and are adequate serve the use. Therefore, the project

would have less than significant impacts on the provision of adequate emergency access. No new or substantially more severe impacts would occur with implementation of the Proposed Focused Update.

f) **Less than Significant Impact.** The Proposed Focused Update does not include any proposed revisions to the Circulation and Infrastructure Elements. As noted in the Initial Study for the 2007 General Plan and Zoning Ordinance Program EIR, the General Plan includes policies to coordinate transportation access and public transit. No changes are proposed to these policies. Thus, the Proposed Focused Update would not conflict with such policies, and no impact would occur. No new or substantially more severe impacts would occur with implementation of the Proposed Focused Update.

## 4.17 – Utilities and Service Systems

Would the project:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | ☐ | ☐ | ☑ | ☐ |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☑ | ☐ |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☑ | ☐ |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | ☐ | ☐ | ☑ | ☐ |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☑ | ☐ |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | ☐ | ☐ | ☑ | ☐ |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ☑ | ☐ |

a) **Less than Significant Impact.** All new development will be required to comply with wastewater treatment requirements set forth by Regional Water Quality Control Board, Los Angeles Region and Sanitation Districts of Los Angeles County. As indicated in the Initial Study completed for the 2007 General Plan and Zoning Ordinance Program EIR, impacts would be less than significant. With regard to proposed development at 4675 52nd Drive, the project would involve replacing a vacant lot (formerly occupied by an industrial user) with residential dwelling units. The proposed residential units will discharge common wastewater from lavatory and kitchen activities. Such discharges will not require upgrades or new technology to be installed at the wastewater treatment facility to ensure continued compliance with wastewater discharge requirements. Impacts will be similar and no more severe than those identified in the 2007 General Plan and Zoning Ordinance Program EIR, and would continue to be less than significant.

b,c,e) **Less than Significant Impact.** As indicated in the Initial Study completed for the 2007 General Plan and Zoning Ordinance Program EIR, new development pursuant to General Plan land use policy could intensify some uses on properties. However, the City will require that each individual project be adequately served by water, sewer, and drainage improvements, and connection fees for regional facilities would be paid. Connection fees contribute to construction of new regional systems and facilities as need to accommodate growth. Impact would continue to be less than significant.

d) **Less than Significant Impact.** Three water agencies supply water to properties in Vernon: the City of Vernon Water Department, California Water Service Company (Cal Water) - East Los Angeles District, and Maywood Mutual Water Company Number 3. Industrial businesses will continue to be the preponderant water users in Vernon, consistent with current land use policy. However, proposed General Plan land use policy changes would allow for some conversion of industrial to commercial and residential uses, including the proposed multifamily residential development at 4675 52nd Drive. Based on water demand factors provided in the 2010 *Urban Water Management Plan* for Cal Water's East Los Angeles District, the year 2015 projected water demand at a metered service of a multifamily residential development is 2.8 acre-feet/year. The projected demand for the average metered industrial user is 20.9 acre-feet/year.[14] As indicated in 4.9b) above, given that a commercial or residential use will consume far less water annually that the average industrial use, impact of the land use changes will be less than significant. Furthermore, the project site at 4675 52nd Drive is served by Maywood Mutual Water Company Number 3. As of August 2012, Maywood Mutual Water Company Number 3 had an adjudicated supply of 1,400 acre-feet, and a demand of approximately 1,350 acre-feet, with a residual supply of at least 50 acre-feet of water.[15] This would be more than ample to accommodate the proposed development at 4675 52nd Drive, given water usage estimates. Impacts would be similar and less severe than those identified in the 2007 General Plan and Zoning Ordinance Program EIR, and would continue to be less than significant.

f-g) **Less than Significant Impact.** All development pursuant to General Plan policy and the Zoning Ordinance will be required to comply with federal, state, and local statutes and regulations related to the disposal of solid waste. With regard to waste volume, the very limited allowance for residential use at 4675 52nd Drive (as opposed to industrial) under the proposed General Plan Amendment is not anticipated to generate significant additional solid waste; in fact, the residential use would generate less waste. As concluded in the 2007 Vernon General Plan and Zoning Ordinance Program EIR, long-term implementation of land use policy less than significant

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[14] California Water Service Company. *2010 Urban Water Management Plan - East Los Angeles District.* Table 3.3-3: Projected 2015 Water Deliveries.

[15] Telephone communication with Bob Roth, City of Maywood Municipal Water District 3 engineer, August 30, 2012.

impacts relative to solid waste. Impacts would be similar to those identified in the 2007 Program EIR, and would be less than significant.

## 4.18 – Mandatory Findings of Significance

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ☐ | ☐ | ☑ | ☐ |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? | ☑ | ☐ | ☐ | ☐ |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☑ | ☐ | ☐ | ☐ |

a) **Less Than Significant Impact.** As discussed in Section 4.4, Biological Resources and Section 4.5, Cultural Resources, the Proposed Update does not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, 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. Impacts would be similar to those identified in the 2007 General Plan and Zoning Ordinance Program EIR, and would be less than significant.

b) **Potentially Significant Impact.** While significant cumulative growth impacts relative to air quality, greenhouse gas emissions, noise, and transportation are not anticipated due to implementation of the General Plan Amendments, Zoning Map and Zoning Ordinance revisions, or the proposed project at 4675 52nd Drive, new significant or substantially more severe cumulative impacts in these areas could occur as a result of the Proposed Focused Update, which propose changes in the land use designation of specific parcels. These changes could result in an increase in development intensity and resulting increase in air quality impacts, greenhouse gas emissions, the exposure of persons to hazards and hazardous materials, the exposure of persons to noise, and transportation system impacts. Accordingly, such impacts could be potentially new or

substantially more severe significant impacts and will be analyzed in a Supplemental EIR to be prepared for the Proposed Focused Update.

c) **Potentially Significant Impact.** As discussed in Section 4.3 Air Quality, Section 4.7 Greenhouse Gas Emissions, Section 4.8 Hazards and Hazardous Materials, Section 4.12 Noise, and Section 4.16 Transportation/Traffic, potential impacts in these areas could create new or substantially more severe environmental effects that would adversely affect human beings. Such effects will be analyzed in a Supplemental EIR to be prepared for the Proposed Focused Update.

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# 5 References

## *5.1 – List of Preparers*

City of Vernon (Lead Agency)
Dept. of Community Services & Water
4305 Santa Fe Avenue
Vernon, CA 90058

Contact: S. Kevin Wilson, Director of Community Services and Water

Hogle-Ireland (Environmental Analysis)
630 N. Rosemead Blvd., Suite 150
Pasadena, CA 91107

- Laura Stetson, AICP, Senior Vice President
- Genevieve Sharrow, Associate Project Manager II

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ORIGINAL FILED

SEP 12 2012

LOS ANGELES, COUNTY CLERK

# Notice of Preparation

To:

From:
City of Vernon
Dept. of Community Services & Water
4305 Santa Fe Avenue
Vernon, CA 90058

**Subject: Notice of Preparation of a Draft Supplemental Environmental Impact Report (SEIR)**

The City of Vernon will be the Lead Agency under the California Environmental Quality Act (CEQA) and will prepare a Supplemental Environmental Impact Report (EIR) for the proposed project identified below. The City of Vernon is requesting input from government agencies, other organizations, and others regarding the scope and content of the environmental information to be included in the SEIR. Responsible and trustee agencies are requested to indicate their statutory responsibilities in connection with the proposed project. Public agencies receiving this Notice of Preparation may need to consider the SEIR prepared by the City of Vernon if they need to issue permits or other approvals for the proposed project. A copy of the Initial Study—including detailed project description, location, and potential environmental effects—is attached and also can be found on the City's website: http://www.cityofvernon.org/.

**Project Location:** The City of Vernon is located in the central portion of Los Angeles County, directly south of downtown Los Angeles. Vernon is adjacent to the cities of Los Angeles, Huntington Park, Maywood, and Commerce. Refer to Exhibit 1 in the attached Initial Study.

**Project Description:** The proposed project consists of: 1) a comprehensive update to the Vernon General Plan Housing Element; 2) a related revision to the Land Use Element to introduce a new Housing Overlay and Emergency Shelter Overlay, and to expand the Commercial Overlay; 3) revisions to the Land Use, Noise, Safety, and Natural Resources Elements to be respond to newly adopted State law; and 4) focused revisions to the Vernon Zoning Ordinance (Title 26 of the Municipal Code) and Zoning Map, including introduction of a Housing Overlay, Emergency Shelter Overlay, and Truck and Freight Terminal Overlay; expansion of the Commercial Overlay and revisions to allowable commercial uses; and minor edits to clarify other provisions. Refer to the project description in the Initial Study for further information.

Please provide your written comments, including specific statutory responsibilities of your agency, as applicable. If you are not a public agency with any statutory responsibility concerning this project, please identify your environmental concerns and any suggested ways to avoid or reduce the impacts that may pertain to this project. Written comments must be received at the earliest possible date, but no later than 30 days after the receipt of this notice. The NOP comment period runs from September 13, 2012 through October 15, 2012. A scoping meeting for agency representatives and the public will be held on September 26, 2012 at 9:00 A.M. at City Hall Council Chamber, 4305 Santa Fe Avenue, Vernon, CA 90058.

Please send your responses and the name of the contact person to:

S. Kevin Wilson, Director of Community Services & Water
4305 Santa Fe Ave. Vernon, CA 90058
Email: kwilson@ci.vernon.ca.us
Telephone: (323) 583-8811

**Project Title:** City of Vernon Focused General Plan and Zoning Ordinance Update

Date: 8-11-12

Signature

Title: Director of Community Services & Water

Print Form

*Appendix C*

# Notice of Completion & Environmental Document Transmittal

*Mail to:* State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
*For Hand Delivery/Street Address:* 1400 Tenth Street, Sacramento, CA 95814

**SCH #**

**Project Title:** City of Vernon Focused General Plan and Zoning Ordinance Update

Lead Agency: City of Vernon — Contact Person: S. Kevin Wilson
Mailing Address: 4305 Santa Fe Ave. — Phone: 323-583-8811
City: Vernon — Zip: 90058 — County: Los Angeles

**Project Location:** County: All parcels in Vernon — City/Nearest Community: City of Vernon
Cross Streets: N/A; entire City — Zip Code: 90058
Longitude/Latitude (degrees, minutes and seconds): ____° ____′ ____″ N / ____° ____′ ____″ W Total Acres: ____
Assessor's Parcel No.: N/A; entire City — Section: ____ Twp.: ____ Range: ____ Base: ____
Within 2 Miles: State Hwy #: I-710, I-5, I-10 — Waterways: Los Angeles River
Airports: none — Railways: UP, BNSF — Schools: LA USD

**Document Type:**

CEQA: ☒ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec
☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ____ Other: ____
NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other: ____

**Local Action Type:**

☒ General Plan Update
☒ General Plan Amendment
☒ General Plan Element
☐ Community Plan
☐ Specific Plan
☐ Master Plan
☒ Planned Unit Development
☐ Site Plan
☒ Rezone
☐ Prezone
☐ Use Permit
☐ Land Division (Subdivision, etc.)
☐ Annexation
☐ Redevelopment
☐ Coastal Permit
☐ Other: ____

**Development Type:**

☒ Residential: Units 35-45 Acres 2.06
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

**Project Issues Discussed in Document:**

☐ Aesthetic/Visual
☐ Agricultural Land
☒ Air Quality
☐ Archeological/Historical
☐ Biological Resources
☐ Coastal Zone
☐ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☐ Geologic/Seismic
☐ Minerals
☒ Noise
☐ Population/Housing Balance
☐ Public Services/Facilities
☐ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☐ Soil Erosion/Compaction/Grading
☐ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☐ Vegetation
☐ Water Quality
☐ Water Supply/Groundwater
☐ Wetland/Riparian
☐ Growth Inducement
☐ Land Use
☒ Cumulative Effects
☒ Other: Greenhouse gases

**Present Land Use/Zoning/General Plan Designation:**

Industrial land use; largely industrial zoning

**Project Description:** *(please use a separate page if necessary)*

The proposed project consists of: 1) a comprehensive update to the Vernon General Plan Housing Element; 2) a related revision to the Land Use Element to introduce a new Housing Overlay and Emergency Shelter Overlay, and to expand the Commercial Overlay; 3) revisions to the Land Use, Noise, Safety, and Resources Elements to respond to newly adopted State Law; and 4) focused revisions to the Vernon Zoning Ordinance and Zoning Map, including introduction of a Housing Overlay, Emergency Shelter Overlay, and Truck and Freight Terminal Overlay; expansion of the Commercial Overlay and revisions to allowable commercial uses; and minor edits to clarify other provisions.

*Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.*

## Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

X Air Resources Board
____ Boating & Waterways, Department of
____ California Emergency Management Agency
____ California Highway Patrol
X Caltrans District #7
____ Caltrans Division of Aeronautics
____ Caltrans Planning
____ Central Valley Flood Protection Board
____ Coachella Valley Mtns. Conservancy
____ Coastal Commission
____ Colorado River Board
____ Conservation, Department of
____ Corrections, Department of
____ Delta Protection Commission
____ Education, Department of
____ Energy Commission
X Fish & Game Region #5
____ Food & Agriculture, Department of
____ Forestry and Fire Protection, Department of
____ General Services, Department of
X Health Services, Department of
X Housing & Community Development
____ Native American Heritage Commission

____ Office of Historic Preservation
____ Office of Public School Construction
____ Parks & Recreation, Department of
____ Pesticide Regulation, Department of
____ Public Utilities Commission
X Regional WQCB #4
____ Resources Agency
____ Resources Recycling and Recovery, Department of
____ S.F. Bay Conservation & Development Comm.
____ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
____ San Joaquin River Conservancy
____ Santa Monica Mtns. Conservancy
____ State Lands Commission
____ SWRCB: Clean Water Grants
____ SWRCB: Water Quality
____ SWRCB: Water Rights
____ Tahoe Regional Planning Agency
____ Toxic Substances Control, Department of
____ Water Resources, Department of

____ Other: _____
____ Other: _____

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**Local Public Review Period (to be filled in by lead agency)**

Starting Date September 13, 2012 Ending Date October 15, 2012

---

**Lead Agency (Complete if applicable):**

Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: _____

Applicant: _____
Address: _____
City/State/Zip: _____
Phone: _____

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**Signature of Lead Agency Representative:** _____ **Date:** 9-11-12

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Print Form

# Summary Form for Electronic Document Submittal

**Form F**

Lead agencies may include 15 hardcopies of this document when submitting electronic copies of Environmental Impact Reports, Negative Declarations, Mitigated Negative Declarations, or Notices of Preparation to the State Clearinghouse (SCH). The SCH also accepts other summaries, such as EIR Executive Summaries prepared pursuant to CEQA Guidelines Section 15123. Please include one copy of the Notice of Completion Form (NOC) with your submission and attach the summary to each electronic copy of the document.

SCH #: _____

Project Title: City of Vernon Focused General Plan and Zoning Ordinance Update

Lead Agency: City of Vernon

Contact Name: S. Kevin Wilson

Email: KWilson@ci.vernon.ca.us Phone Number: 323-583-8811

Project Location: City of Vernon , Los Angeles County
*City* *County*

Project Decription (Proposed actions, location, and/or consequences).

The proposed project consists of: 1) a comprehensive update to the Vernon General Plan Housing Element; 2) a related revision to the Land Use Element to introduce a new Housing Overlay (and permit a potential housing development at 4675 52nd St.) and an Emergency Shelter Overlay; 3) revisions to the Land Use, Noise, Safety, and Resources Elements to respond to newly adopted State Law; and 4) focused revisions to the Vernon Zoning Ordinance and Zoning Map, including introduction of a Housing Overlay, an Emergency Shelter Overlay, and a Truck and Freight Terminal Overlay; expansion of the Commercial Overlay and revisions to allowable commercial uses; and minor edits to clarify other provisions.

Identify the project's significant or potentially significant effects and briefly describe any proposed mitigation measures that would reduce or avoid that effect.

Based on the findings of the Initial Study, the City has identified topics for further analysis in a Supplemental Environmental Impact Report (Supplemental EIR to the 2007 Vernon General Plan and Zoning Ordinance EIR, State Clearinghouse No. 2007061031). Other impact issues were found to have no effects or would result in less than significant impacts. No mitigation measures were proposed in the Initial Study.

Potentially significant effects identified that will be further analyzed in the SEIR are: Air Quality, Greenhouse Gas Emissions, Hazards & Hazardous Materials, Noise, and Transportation/Traffic.

If applicable, describe any of the project's areas of controversy known to the Lead Agency, including issues raised by agencies and the public.

Provide a list of the responsible or trustee agencies for the project.

City of Vernon

# Vernon General Plan and Zoning Ordinance Update

## Supplemental EIR Scoping Meeting

# Purpose of the Scoping Meeting

To determine the scope and content of the environmental information to be included in the Supplemental Environmental Impact Report

# Supplemental EIR

- General Plan and Zoning Ordinance EIR certified in 2007
- Supplemental EIR (SEIR) CEQA Guidelines 15162
  - Minor additions or changes would be necessary to make the previous EIR adequately apply to the proposed project in the changed situation

# Project Description

## General Plan Amendments

- Housing Element amendment
  - 2014-2021 State-required update
  - Good governance: Allow up to 60 more units in the City
- Land Use Element amendments
  - *new* Housing Overlay
  - *new* Emergency Shelter Overlay
  - *expanded* Commercial Overlay
- Noise, Safety, & Resources Element amendments
  - AB 162, SB 244, SB 375, and updates relevant information

# Project Description

## Other Components

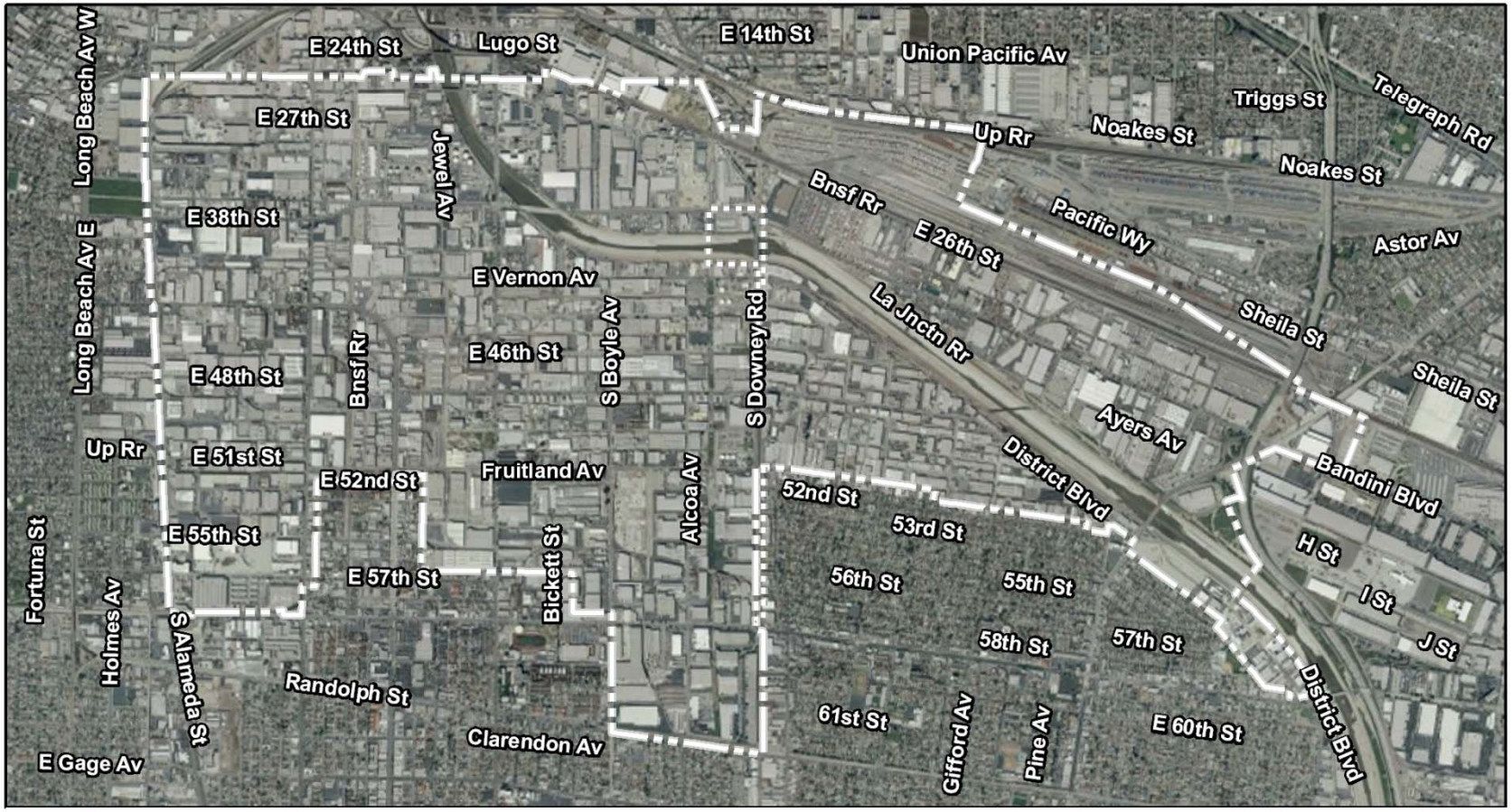
- Zoning Ordinance and Map Amendments
  - Achieve consistency with General Plan amendments
    - *new* Housing Overlay, *new* Emergency Shelter Overlay, *expanded* Commercial Overlay
  - *new* Truck and Freight Terminal Overlay District
  - Allow ancillary commercial uses on weekends

# Project Description

## Other Components

- 4675 52nd Street proposed housing development
  - 2.06-acre City-owned site
  - Anticipated 35-45 units

# Planning Area

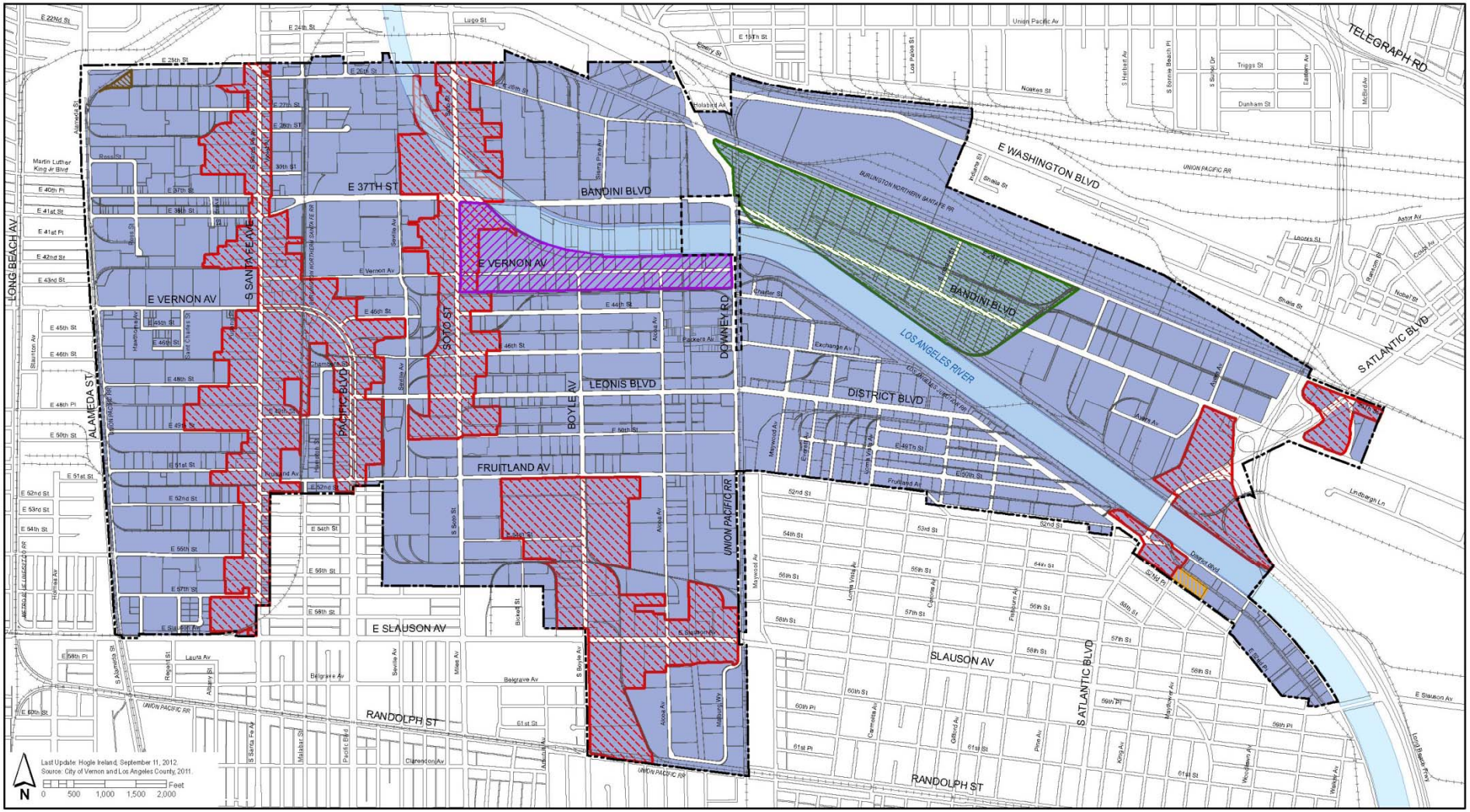


# Draft Land Use Map

**Land Use Designation**
- Industrial

**Overlay Districts**
- Commercial
- Rendering
- Slaughtering
- Housing
- Emergency Shelter

**Base Map**
- Vernon City Boundary
- Vernon Sphere of Influence
- Freeway
- Railroad
- Los Angeles River

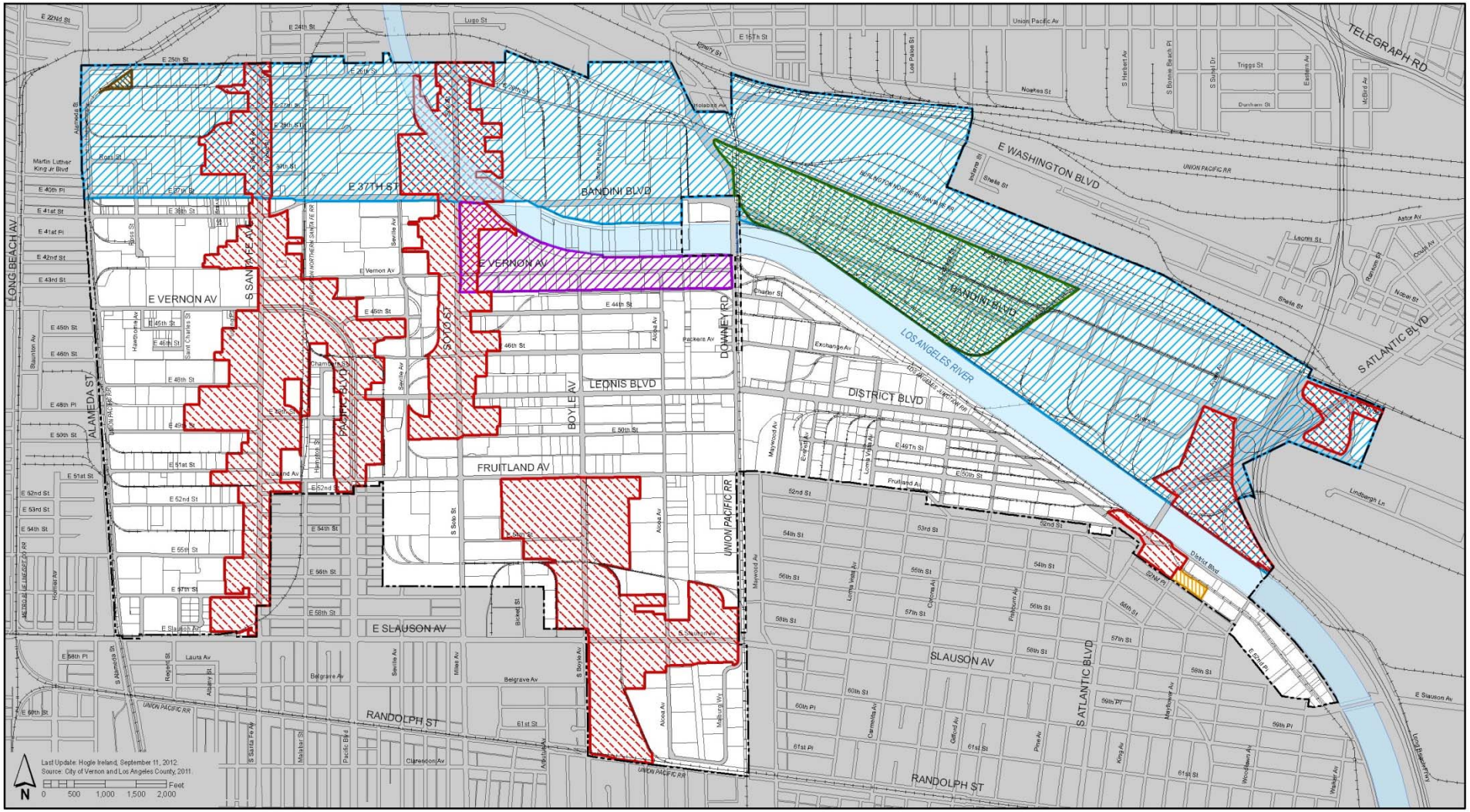


# Draft Zoning Map

**Zone**
- Industrial

**Overlay Districts**
- Commercial
- Rendering
- Slaughtering
- Trucking and Freight Terminal
- Housing
- Emergency Shelter

**Base Map**
- Vernon City Boundary
- Vernon Sphere of Influence
- Freeway
- Railroad
- Los Angeles River



# Project Description

## General Plan (Proposed) Land Use Capacity

- No net increase in industrial building square footage or employment projections
- Potential modest increase in commercial development
- Permit an additional 60 units of housing (Estimated 216 additional residents)

# Purpose of the EIR

- Public disclosure of the environmental consequences of a proposed project or plan
- Identify mitigation measures and examine alternatives to reduce or avoid potentially significant impacts
- Planning tool to assist decision-makers in evaluating benefits/disadvantages of the proposed General Plan and Zoning Code amendments

# SEIR Process and Schedule

| Milestones | Estimated Completion Dates |
|---|---|
| Scoping Process | September 26, 2012 |
| Draft EIR Distributed for Public Review & Comment (45 days) | Late November 2012 |
| End of Draft EIR Public Review Period | January 2013 |
| Prepare Responses to Comments on DEIR | January 2013 |
| Prepare Final EIR Certification Documents | January 2013 |
| Public Hearings/Final Certification | February 2013 |

# Topics Included in the SEIR

- Air Quality
- Greenhouse Gases
- Hazards/Hazardous Materials
- Noise
- Transportation/Traffic
- Cumulative and Growth Inducing Impacts
- Alternatives
- Irreversible Environmental Changes

# Focus of Requested Comments on Scope of the EIR

- Specific kinds of impacts of concern—e.g. traffic congestion at particular locations, local greenhouse gas emissions, noise or hazardous conditions from specific sources, etc.

# Focus of Requested Comments on Scope of the EIR

- Specific concerns about effectiveness of existing City policies and planning and engineering programs that deal with environmental protection and protection from hazards

# Focus of Requested Comments on Scope of the EIR

- Suggestions about ways to improve or change City policies and programs to better address specific environmental concerns

# Focus of Requested Comments on Scope of the EIR

- **Air Quality/GHG:** Industrial uses and transportation sources
- **Hazards and Hazardous Materials:** Industrial uses; active earthquake faults
- **Noise:** Business/industrial noise; traffic and train noise
- **Transportation/Traffic:** Automobile and truck traffic; train impacts

# Vernon General Plan and Zoning Ordinance Update

## Supplemental EIR Scoping Meeting

**DEPARTMENT OF TRANSPORTATION**
DISTRICT 7, OFFICE OF REGIONAL PLANNING
IGR/CEQA BRANCH
100 MAIN STREET, MS # 16
LOS ANGELES, CA 90012-3606
PHONE: (213) 897-0219
FAX: (213) 897-1337

RECEIVED
SEP 25 2012
Community Services

*Flex your power!*
*Be energy efficient!*

September 20, 2012

Mr. Kevin Wilson
City of Vernon
4305 Santa Fe Ave
Vernon, CA 90058

Re: IGR/CEQA No. 120916ZJ-NOP/IS
City of Vernon General Plan
and Zoning Ordinance Update
Vic. LA-5/710-VAR, SCH#2007061031

Dear Mr. Wilson:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the City of Vernon General Plan and Zoning Ordinance Update. Based on the information received, we have the following comments:

To fully evaluate the potential impacts to the State Highway System at the General Plan build-out, a traffic study is necessary and should be prepared prior to preparing the Draft Environmental Impact Report (DEIR). The traffic study should include the following information:

1. Analysis of Interstate 5 (I-5) and Interstate 710 (I-710) freeways, including all affected on/off ramps.

2. Trip generation, trip distribution, mode choice, and trip assignment.

3. Traffic volumes and level-of-service calculations for major, Including existing, project, cumulative, and project plus cumulative traffic analysis.

4. An analysis of future transportation infrastructure improvements, including improvement to the mainline freeway and freeway on/off-ramps.

5. The General Plan should include an analysis of goods movement activities within the City, such as trucking operations and rail freight operations. It should also include intermodal rail freight/trucking operations, retail and manufacturing warehouse distribution facilities, and a summary of origin and destination. The Goods Movement activities should also include current level of operation and future system capacity.

6. Transportation Corridor Studies that may involve implementing congestion pricing for trucks using new local highway facilities such as along the I-710 Freeway corridor should be included in the Vernon General Plan.

For additional information on Caltrans criteria for the preparation of traffic impact analysis, please refer the traffic consultant to the Department's traffic study guide Website:

http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

If you have any questions regarding our comments, please call project coordinator Zeron Jefferson at (213) 897-0219. Please refer to record number 120916/ZJ.

Sincerely,

DiAnna Watson
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

**NATIVE AMERICAN HERITAGE COMMISSION**
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

RECEIVED
OCT 01 2012
Community Services

September 26, 2012

Mr. S. Kevin Wilson Planner
**City of Vernon**
4305 Santa Fe Avenue
Vernon, CA 90058

Re: SCH#2007061031; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR); for the "**Focused General Plan and Zoning Ordinance Update Project;**" located in the City of Vernon; Los Angeles County, California

Dear Mr. Wilson:

The Native American Heritage Commission (NAHC) is the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources pursuant to California Public Resources Code §21070 and affirmed by the Third Appellate Court in the case of EPIC v. Johnson (1985: 170 Cal App. 3rd 604).

This letter includes state and federal statutes relating to Native American historic properties or resources of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9. This project is also subject to California Government Code Section 65352.3 *et seq.*

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. The NAHC recommends that the lead agency request that the NAHC do a Sacred Lands File search as part of the careful planning for the proposed project.

The NAHC "Sacred Sites,' as defined by the Native American Heritage Commission and the California Legislature in California Public Resources Code §§5097.94(a) and 5097.96. Items in the NAHC Sacred Lands Inventory are confidential and exempt from the Public Records Act pursuant to California Government Code §6254 (r ).

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway.

Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the attached list of Native American contacts, to see if your proposed project might impact Native American cultural resources and to obtain their recommendations concerning the proposed project. Pursuant to CA Public Resources Code § 5097.95, the NAHC requests cooperation from other public agencies in order that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties, including archaeological studies. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and California Public Resources Code Section 21083.2 (Archaeological Resources) that requires documentation, data recovery of cultural resources, construction to avoid sites and the possible use of covenant easements to protect sites.

Furthermore, the NAHC if the proposed project is under the jurisdiction of the statutes and regulations of the National Environmental Policy Act (e.g. NEPA; 42 U.S.C. 4321-43351). Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

Confidentiality of "historic properties of religious and cultural significance" should also be considered as protected by California Government Code §6254( r) and may also be protected under Section 304 of he NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity.

Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for inadvertent discovery of human remains mandate the processes to be followed in the event of a discovery of human remains in a project location other than a 'dedicated cemetery'.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

Finally, when Native American cultural sites and/or Native American burial sites are prevalent within the project site, the NAHC recommends 'avoidance' of the site as referenced by CEQA Guidelines Section 15370(a).

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List

**Native American Contacts**
**Los Angeles County**
**September 26, 2012**

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th St, Rm. 403
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Gabrielino Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net

(909) 262-9351 - cell

Ti'At Society/Inter-Tribal Council of Pimu
Cindi M. Alvitre, Chairwoman-Manisar
3094 Mace Avenue, Apt. B Gabrielino
Costa Mesa, , CA 92626
calvitre@yahoo.com
(714) 504-2468 Cell

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
**gtongva@verizon.net**
562-761-6417 - voice
562-761-6417- fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Private Address Gabrielino Tongva
,
**tattnlaw@gmail.com**
310-570-6567

Gabrielino-Tongva Tribe
Bernie Acuna
1875 Century Pk East #1500 Gabrielino
Los Angeles , CA 90067
(619) 294-6660-work
(310) 428-5690 - cell
(310) 587-0170 - FAX
bacuna1@gabrieinotribe.org

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 -FAX

Gabrielino-Tongva Tribe
Linda Candelaria, Chairwoman
1875 Century Pk East #1500 Gabrielino
Los Angeles , CA 90067
lcandelaria1@gabrielinoTribe.org
626-676-1184- cell
(310) 587-0170 - FAX

**This list is current only as of the date of this document.**

**Distribution of this list does not relieve any person of the 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 applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2007061031; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Focused General Plan and Zoning Ordinance Update; located in the City of Vernon; Los Angeles County, California.**

**Native American Contacts**
**Los Angeles County**
**September 26, 2012**

Gabrieleno Band of Mission Indians
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
(626) 926-4131
gabrielenoindians@yahoo.com

**This list is current only as of the date of this document.**

**Distribution of this list does not relieve any person of the 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 applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2007061031; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Focused General Plan and Zoning Ordinance Update; located in the City of Vernon; Los Angeles County, California.**

STATE OF CALIFORNIA Edmund G. Brown Jr., *Governor*

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013

September 21, 2012

S. Kevin Wilson
City of Vernon
4305 Santa Fe Avenue
Vernon, CA 90058

Dear Mr. Wilson:

Re: SCH# 2007061031 Focused General Plan and Zoning Ordinance Update

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings in California.

The Commission Rail Crossings Engineering Section (RCES) is in receipt of the *Notice of Preparation (NOP)* from the State Clearinghouse for the proposed City of Vernon (City) Focused General Plan and Zoning Ordinance Update project. Previously on June 26 and October 5, 2007, RCES issued two (2) comment letters on the matter.

RCES recommends that the City add language to the General Plan so that any future development adjacent to or near the shared railroad/light rail right-of-way is planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way and compliance with the Americans with Disabilities Act. Mitigation measures to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and continuous vandal resistant fencing or other appropriate barriers to limit the access of trespassers onto the railroad right-of-way.

If you have any questions, please contact Ken Chiang at 213-576-7076, email at ykc@cpuc.ca.gov.

Sincerely,

Ken Chiang, PE
Utilities Engineer
Rail Crossings Engineering Section
Consumer Protection & Safety Division

C: State Clearinghouse

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

RECEIVED
OCT 09 2012
Community Services

October 3, 2012

S. Kevin Wilson
Director of Community Servies & Water
City of Vernon
4305 Santa Fe Avenue
Vernon, CA 90058

**Notice of Preparation of a CEQA Document for the**
**Focused General Plan and Zoning Ordinance Update**

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft CEQA document. Please send the SCAQMD a copy of the Draft EIR upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

**Air Quality Analysis**

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. The lead agency may wish to consider using land use emissions estimating software such as the recently released CalEEMod. This model is available on the SCAQMD Website at: http://www.aqmd.gov/ceqa/models.html.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on the SCAQMD's CEQA web pages at the following internet address: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

**Mitigation Measures**

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html Additionally, SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html. In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

**Data Sources**

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. If you have any questions regarding this letter, please call Ian MacMillan, Program Supervisor, CEQA Section, at (909) 396-3244.

Sincerely,

Ian V. MacMillan

Ian MacMillan
Program Supervisor, CEQA Inter-Governmental Review
Planning, Rule Development & Area Sources

IM
LAC120913-04
Control Number

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

RECEIVED
SEP 17 2012
Community Services

**Notice of Preparation**

September 13, 2012

To: Reviewing Agencies

Re: Focused General Plan and Zoning Ordinance Update
SCH# 2007061031

Attached for your review and comment is the Notice of Preparation (NOP) for the Focused General Plan and Zoning Ordinance Update draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

**S. Kevin Wilson**
**City of Vernon**
**4305 Santa Fe Ave**
**Vernon, CA 90058**

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

# Document Details Report
# State Clearinghouse Data Base

**SCH#** 2007061031
**Project Title** Focused General Plan and Zoning Ordinance Update
**Lead Agency** Vernon, City of

---

**Type** NOP Notice of Preparation

**Description** The proposed project consists of: 1) a comprehensive update to the Vernon General Plan Housing element; 2) a related vision to the Land Use Element to introduce a new Housing Overlay and Emergency Shelter Overlay, and to expand the Commercial Overlay; 3) revisions to the Land Use, Noise, Safety, and Resources Elements to respond to newly adopted State Law; and 4) focused revisions to the Vernon Zoning Ordinance and Zoning Map, including introduction of a Housing Overlay, Emergency Shelter Overlay, and Truck and Freight Terminal Overlay; expansion of the Commercial Overlay and revisions to allowable commercial uses; and minor edits to clarify other provisions.

---

## Lead Agency Contact

**Name** S. Kevin Wilson
**Agency** City of Vernon
**Phone** 323 583-8811 x245 **Fax**
**email**
**Address** 4305 Santa Fe Ave
**City** Vernon **State** CA **Zip** 90058

---

## Project Location

**County** Los Angeles
**City** Vernon
**Region**
**Cross Streets** Entire City
**Lat / Long**
**Parcel No.** Entire City
**Township** **Range** **Section** **Base**

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## Proximity to:

**Highways** I-5, I-10, I-710
**Airports** No
**Railways** UPRR, BNSF
**Waterways** Los Angeles River
**Schools** LA USD
**Land Use** Industrial Land Use; largely Industrial Zoning

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**Project Issues** Noise; Toxic/Hazardous; Traffic/Circulation; Cumulative Effects; Other Issues; Air Quality

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**Reviewing Agencies** Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Office of Emergency Management Agency, California; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 7; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 4

---

**Date Received** 09/13/2012 **Start of Review** 09/13/2012 **End of Review** 10/12/2012

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: Los Angeles

SCH# 2007061031

## Resources Agency

- [x] Resources Agency
  Nadell Gayou
- [ ] Dept. of Boating & Waterways
  Nicole Wong
- [ ] California Coastal Commission
  Elizabeth A. Fuchs
- [ ] Colorado River Board
  Gerald R. Zimmerman
- [ ] Dept. of Conservation
  Elizabeth Carpenter
- [ ] California Energy Commission
  Eric Knight
- [ ] Cal Fire
  Dan Foster
- [ ] Central Valley Flood Protection Board
  James Herota
- [ ] Office of Historic Preservation
  Ron Parsons
- [x] Dept of Parks & Recreation
  Environmental Stewardship Section
- [ ] California Department of Resources, Recycling & Recovery
  Sue O'Leary
- [ ] S.F. Bay Conservation & Dev't. Comm.
  Steve McAdam
- [x] Dept. of Water Resources Resources Agency
  Nadell Gayou

## Fish and Game

- [ ] Depart. of Fish & Game
  Scott Flint
  Environmental Services Division
- [ ] Fish & Game Region 1
  Donald Koch
- [ ] Fish & Game Region 1E
  Laurie Harnsberger
- [ ] Fish & Game Region 2
  Jeff Drongesen
- [ ] Fish & Game Region 3
  Charles Armor
- [ ] Fish & Game Region 4
  Julie Vance
- [x] Fish & Game Region 5
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] Fish & Game Region 6
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] Fish & Game Region 6 I/M
  Brad Henderson
  Inyo/Mono, Habitat Conservation Program
- [ ] Dept. of Fish & Game M
  George Isaac
  Marine Region

## Other Departments

- [ ] Food & Agriculture
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] Depart. of General Services
  Public School Construction
- [ ] Dept. of General Services
  Anna Garbeff
  Environmental Services Section
- [ ] Dept. of Public Health
  Jeffery Worth
  Dept. of Health/Drinking Water
- [ ] Delta Stewardship Council
  Kevan Samsam

## Independent Commissions,Boards

- [ ] Delta Protection Commission
  Michael Machado
- [x] Cal EMA (Emergency Management Agency)
  Dennis Castrillo
- [x] Native American Heritage Comm.
  Debbie Treadway
- [x] Public Utilities Commission
  Leo Wong
- [ ] Santa Monica Bay Restoration
  Guangyu Wang
- [ ] State Lands Commission
  Jennifer Deleong
- [ ] Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

## Business, Trans & Housing

- [ ] Caltrans - Division of Aeronautics
  Philip Crimmins
- [ ] Caltrans - Planning
  Terri Pencovic
- [x] California Highway Patrol
  Suzann Ikeuchi
  Office of Special Projects
- [x] Housing & Community Development
  CEQA Coordinator
  Housing Policy Division

## Dept. of Transportation

- [ ] Caltrans, District 1
  Rex Jackman
- [ ] Caltrans, District 2
  Marcelino Gonzalez
- [ ] Caltrans, District 3
  Gary Arnold
- [ ] Caltrans, District 4
  Erik Alm
- [ ] Caltrans, District 5
  David Murray
- [ ] Caltrans, District 6
  Michael Navarro
- [x] Caltrans, District 7
  Dianna Watson
- [ ] Caltrans, District 8
  Dan Kopulsky
- [ ] Caltrans, District 9
  Gayle Rosander
- [ ] Caltrans, District 10
  Tom Dumas
- [ ] Caltrans, District 11
  Jacob Armstrong
- [ ] Caltrans, District 12
  Marlon Regisford

## Cal EPA

**Air Resources Board**

- [ ] Airport/Energy Projects
  Jim Lerner
- [ ] Transportation Projects
  Douglas Ito
- [ ] Industrial Projects
  Mike Tollstrup
- [ ] State Water Resources Control Board
  Regional Programs Unit
  Division of Financial Assistance
- [ ] State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] State Water Resouces Control Board
  Phil Crader
  Division of Water Rights
- [x] Dept. of Toxic Substances Control
  CEQA Tracking Center
- [ ] Department of Pesticide Regulation
  CEQA Coordinator

## Regional Water Quality Control Board (RWQCB)

- [ ] RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- [ ] RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] RWQCB 3
  Central Coast Region (3)
- [x] RWQCB 4
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] RWQCB 5S
  Central Valley Region (5)
- [ ] RWQCB 5F
  Central Valley Region (5)
  Fresno Branch Office
- [ ] RWQCB 5R
  Central Valley Region (5)
  Redding Branch Office
- [ ] RWQCB 6
  Lahontan Region (6)
- [ ] RWQCB 6V
  Lahontan Region (6)
  Victorville Branch Office
- [ ] RWQCB 7
  Colorado River Basin Region (7)
- [ ] RWQCB 8
  Santa Ana Region (8)
- [ ] RWQCB 9
  San Diego Region (9)

- [ ] Other _____
  _____
  _____

- [ ] _____
  Conservancy

Last Updated 8/14/2012

**City of Huntington Park**
Planning Department
6550 Miles Avenue
Huntington Park, CA 90255

**L.A. County Board of Supervisors**
Director of Planning
James Hertl – Room 1390
320 W. Temple Street
Los Angeles, CA 90012

**South Coast Air Quality Mgmt District (AQMD)**
21865 E. Copley Drive
Diamond Bar, CA 91765

**Brian Scanlon**
L.A. County Public Works
Mapping & Property Mgmt.
900 S. Fremont Avenue, 10th Floor
Alhambra, CA 91803

**City of Commerce**
Planning Department
2535 Commerce Way
Commerce, CA 90040

**City of Bell**
Planning Department
6330 Pine Street
Bell, CA 90201

**City of Cudahy**
Planning Department
5220 Santa Ana Street
Cudahy, CA 90201

**L.A. County Sanitation District**
P.O. Box 4998
Whittier, CA 90607

**City of Maywood**
Planning Department
4319 Slauson Avenue
Maywood, CA 90270

**City of Los Angeles**
Planning Department
200 North Spring St.
Los Angeles, CA 90012

Lucille Roybal-Allard
Congresswoman
255 E. Temple St., Ste 1860
Los Angeles, CA 90012

Gloria Molina
Board of Supervisors
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Los Angeles, CA 90012

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Long Beach, CA 90802

E.J. Contreras
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Vernon, CA 90058

California Water Service Comp.
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Montebello, CA 90640

Marisa Olguin
Chamber of Commerce
3801 Santa Fe Avenue
Vernon, CA 90058

**State Clearinghouse**
P.O. Box 3044
Sacramento, CA 95812-3044

**L.A. County Flood Control District**
900 S. Fremont Avenue, 8th Floor
Alhambra, CA 91803

**L.A. Unified School District**
Office of Environmental Health & Safety
333 South Beaudry Ave., 20th Floor
Los Angeles, CA 90017
Attention: Glenn Striegler

**Suk Chon**
County of Los Angeles
Department of Public Works
Land Development Division
P.O. Box 1460
Alhambra, CA 91802-1460

John Kinas
United States Aluminum
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Vernon, CA 90023

Ms. Gutierrez
924 S. Mott Street
Los Angeles, CA 90023

James H. Hillands
Heger Realty Corp.
5657 E. Washington Blvd.
Los Angeles, CA 90040

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California Portland Cement Co.
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Glendora, CA 91740

J.J. Little
J.J. Little Company, Inc.
9945 Malgar Drive
Whittier, CA 90603

L.R. Luppen
Metal Products Engineering
3050 Leonis Boulevard
Vernon, CA 90058

Ellen Orlando
Karen Lehrer
2300 E. 11th Street
Los Angeles, CA 90021

Maywood Mutual Water Co. 3
6151 Heliotrope Avenue
Maywood, CA 90270

So. Cal Edison
1924 Cashdan Street
Compton, CA 90220
Attn: Mike Frazier

Dave Karrker
California Water Service
5243 E. Sheila Street
Commerce, CA 90022

Reynan L. Ledesma
Department of Water & Power L.A.
111 N. Hope Street
Los Angeles, CA 90012

AT&T
100 W. Alondra Blvd., Rm 202A
Gardena, CA 90248
Attn: Leslie Donaldson

The Gas Company (So. Cal Gas Co.)
P.O. Box 3150
San Dimas, CA 91773

Burlington Northern Santa Fe Railroad
3770 E. Washington Blvd.
Los Angeles, CA 90023
Attn: Dick Ebel

L.A. Junction Railroad
4433 Exchange Avenue
Vernon, CA 90058
Attn: Marion Alexander

**L.A. County Sanitation District**
P.O. Box 4998
Whittier, CA 90607

**Suk Chon**
County of Los Angeles
Department of Public Works
Land Development Division
P.O. Box 1460
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The Gas Company (So. Cal Gas Co.)
P.O. Box 3150
San Dimas, CA 91773

**L.A. County Sanitation District**
P.O. Box 4998
Whittier, CA 90607

**Suk Chon**
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Department of Public Works
Land Development Division
P.O. Box 1460
Alhambra, CA 91802-1460

The Gas Company (So. Cal Gas Co.)
P.O. Box 3150
San Dimas, CA 91773

**L.A. County Sanitation District**
P.O. Box 4998
Whittier, CA 90607

**Suk Chon**
County of Los Angeles
Department of Public Works
Land Development Division
P.O. Box 1460
Alhambra, CA 91802-1460

The Gas Company (So. Cal Gas Co.)
P.O. Box 3150
San Dimas, CA 91773

# Appendix B Air Quality Data

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**EXISTING OUTPUT**

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# City of Vernon Supplemental EIR Existing

**South Coast Air Basin, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 113,822.28 | 1000sqft | 2,613.00 | 113,822,280.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 12 | | | **Operational Year** | 2014 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 630.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - acreage

Construction Phase - No construction proposed.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10,000.00 | 0.00 |
| tblLandUse | LandUseSquareFeet | 113,822,000.00 | 113,822,280.00 |
| tblLandUse | LotAcreage | 2,612.99 | 2,613.00 |

## 2.0 Emissions Summary

| | 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 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 | 2,977.6003 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| Energy | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| Mobile | 3,992.5407 | 13,111.8491 | 53,171.5850 | 109.6362 | 7,444.6167 | 212.9344 | 7,657.5511 | 1,988.6281 | 195.5229 | 2,184.1510 | | 10,160,886.7357 | 10,160,886.7357 | 444.4319 | | 10,170,219.8064 |
| **Total** | **7,033.3991** | **13,687.0406** | **53,666.7966** | **113.0875** | **7,444.6167** | **256.6843** | **7,701.3009** | **1,988.6281** | **239.2728** | **2,227.9008** | | **10,850,999.3452** | **10,850,999.3452** | **457.7331** | **12.6516** | **10,864,533.7393** |

### 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 | 2,977.6003 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| Energy | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| Mobile | 3,992.5407 | 13,111.8491 | 53,171.5850 | 109.6362 | 7,444.6167 | 212.9344 | 7,657.5511 | 1,988.6281 | 195.5229 | 2,184.1510 | | 10,160,886.7357 | 10,160,886.7357 | 444.4319 | | 10,170,219.8064 |
| **Total** | **7,033.3991** | **13,687.0406** | **53,666.7966** | **113.0875** | **7,444.6167** | **256.6843** | **7,701.3009** | **1,988.6281** | **239.2728** | **2,227.9008** | | **10,850,999.3452** | **10,850,999.3452** | **457.7331** | **12.6516** | **10,864,533.7393** |

| | **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** | **N20** | **CO2e** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2014 | 12/31/2013 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 162 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 255 | 0.40 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | 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 | | | | | |
| Unmitigated | 3,992.5407 | 13,111.8491 | 53,171.5850 | 109.6362 | 7,444.6167 | 212.9344 | 7,657.5511 | 1,988.6281 | 195.5229 | 2,184.1510 | | 10,160,886.7357 | 10,160,886.7357 | 444.4319 | | 10,170,219.8064 |
| Mitigated | 3,992.5407 | 13,111.8491 | 53,171.5850 | 109.6362 | 7,444.6167 | 212.9344 | 7,657.5511 | 1,988.6281 | 195.5229 | 2,184.1510 | | 10,160,886.7357 | 10,160,886.7357 | 444.4319 | | 10,170,219.8064 |

### 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Light Industry | 793,341.29 | 150,245.41 | 77399.15 | 2,653,392,885 | 2,653,392,885 |
| Total | 793,341.29 | 150,245.41 | 77,399.15 | 2,653,392,885 | 2,653,392,885 |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | Primary | Diverted | Pass-by |
| General Light Industry | 16.60 | 8.40 | 6.90 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.516610 | 0.060517 | 0.179979 | 0.140587 | 0.041566 | 0.006616 | 0.015092 | 0.027587 | 0.001923 | 0.002530 | 0.004314 | 0.000602 | 0.002075 |

## 5.0 Energy Detail

### 4.4 Fleet Mix

Historical Energy Use: N

### 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 | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| NaturalGas Unmitigated | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |

## 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/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 5.86575e+006 | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| **Total** | | **63.2580** | **575.0731** | **483.0614** | **3.4504** | | **43.7056** | **43.7056** | | **43.7056** | **43.7056** | | **690,087.6992** | **690,087.6992** | **13.2267** | **12.6516** | **694,287.4579** |

### 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/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 5865.75 | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| **Total** | | **63.2580** | **575.0731** | **483.0614** | **3.4504** | | **43.7056** | **43.7056** | | **43.7056** | **43.7056** | | **690,087.6992** | **690,087.6992** | **13.2267** | **12.6516** | **694,287.4579** |

# 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 | | | | | |
| Unmitigated | 2,977.6003 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| Mitigated | 2,977.6003 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |

## 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 | 722.6917 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2,253.6811 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.2275 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| **Total** | **2,977.6003** | **0.1184** | **12.1503** | **8.7000e-004** | | **0.0443** | **0.0443** | | **0.0443** | **0.0443** | | **24.9103** | **24.9103** | **0.0745** | | **26.4750** |

**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 | 722.6917 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2,253.6811 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.2275 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| **Total** | **2,977.6003** | **0.1184** | **12.1503** | **8.7000e-004** | | **0.0443** | **0.0443** | | **0.0443** | **0.0443** | | **24.9103** | **24.9103** | **0.0745** | | **26.4750** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

# 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

# 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

# 10.0 Vegetation

# City of Vernon Supplemental EIR Existing

**South Coast Air Basin, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 113,822.28 | 1000sqft | 2,613.00 | 113,822,280.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 12 | | | **Operational Year** | 2014 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 630.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - acreage

Construction Phase - No construction proposed.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10,000.00 | 0.00 |
| tblLandUse | LandUseSquareFeet | 113,822,000.00 | 113,822,280.00 |
| tblLandUse | LotAcreage | 2,612.99 | 2,613.00 |

## 2.0 Emissions Summary

| | 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 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 | 2,977.6003 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| Energy | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| Mobile | 4,116.6429 | 13,828.8340 | 51,193.0805 | 104.0720 | 7,444.6167 | 213.9547 | 7,658.5714 | 1,988.6281 | 196.4615 | 2,185.0896 | | 9,657,831.6624 | 9,657,831.6624 | 444.6368 | | 9,667,169.0355 |
| **Total** | **7,157.5012** | **14,404.0255** | **51,688.2921** | **107.5233** | **7,444.6167** | **257.7046** | **7,702.3213** | **1,988.6281** | **240.2114** | **2,228.8395** | | **10,347,944.2719** | **10,347,944.2719** | **457.9380** | **12.6516** | **10,361,482.9684** |

### 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 | 2,977.6003 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| Energy | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| Mobile | 4,116.6429 | 13,828.8340 | 51,193.0805 | 104.0720 | 7,444.6167 | 213.9547 | 7,658.5714 | 1,988.6281 | 196.4615 | 2,185.0896 | | 9,657,831.6624 | 9,657,831.6624 | 444.6368 | | 9,667,169.0355 |
| **Total** | **7,157.5012** | **14,404.0255** | **51,688.2921** | **107.5233** | **7,444.6167** | **257.7046** | **7,702.3213** | **1,988.6281** | **240.2114** | **2,228.8395** | | **10,347,944.2719** | **10,347,944.2719** | **457.9380** | **12.6516** | **10,361,482.9684** |

| | **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** | **N20** | **CO2e** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2014 | 12/31/2013 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 162 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 255 | 0.40 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | 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 | | | | | |
| Unmitigated | 4,116.6429 | 13,828.8340 | 51,193.0805 | 104.0720 | 7,444.6167 | 213.9547 | 7,658.5714 | 1,988.6281 | 196.4615 | 2,185.0896 | | 9,657,831.6624 | 9,657,831.6624 | 444.6368 | | 9,667,169.0355 |
| Mitigated | 4,116.6429 | 13,828.8340 | 51,193.0805 | 104.0720 | 7,444.6167 | 213.9547 | 7,658.5714 | 1,988.6281 | 196.4615 | 2,185.0896 | | 9,657,831.6624 | 9,657,831.6624 | 444.6368 | | 9,667,169.0355 |

### 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Light Industry | 793,341.29 | 150,245.41 | 77399.15 | 2,653,392,885 | 2,653,392,885 |
| Total | 793,341.29 | 150,245.41 | 77,399.15 | 2,653,392,885 | 2,653,392,885 |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | Primary | Diverted | Pass-by |
| General Light Industry | 16.60 | 8.40 | 6.90 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.516610 | 0.060517 | 0.179979 | 0.140587 | 0.041566 | 0.006616 | 0.015092 | 0.027587 | 0.001923 | 0.002530 | 0.004314 | 0.000602 | 0.002075 |

## 5.0 Energy Detail

### 4.4 Fleet Mix

Historical Energy Use: N

### 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 | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| NaturalGas Unmitigated | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |

## 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/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 5.86575e+006 | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| **Total** | | **63.2580** | **575.0731** | **483.0614** | **3.4504** | | **43.7056** | **43.7056** | | **43.7056** | **43.7056** | | **690,087.6992** | **690,087.6992** | **13.2267** | **12.6516** | **694,287.4579** |

### 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/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 5865.75 | 63.2580 | 575.0731 | 483.0614 | 3.4504 | | 43.7056 | 43.7056 | | 43.7056 | 43.7056 | | 690,087.6992 | 690,087.6992 | 13.2267 | 12.6516 | 694,287.4579 |
| **Total** | | **63.2580** | **575.0731** | **483.0614** | **3.4504** | | **43.7056** | **43.7056** | | **43.7056** | **43.7056** | | **690,087.6992** | **690,087.6992** | **13.2267** | **12.6516** | **694,287.4579** |

# 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 | | | | | |
| Unmitigated | 2,977.6003 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| Mitigated | 2,977.6003 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |

## 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 | 722.6917 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2,253.6811 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.2275 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| **Total** | **2,977.6003** | **0.1184** | **12.1503** | **8.7000e-004** | | **0.0443** | **0.0443** | | **0.0443** | **0.0443** | | **24.9103** | **24.9103** | **0.0745** | | **26.4750** |

**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 | 722.6917 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2,253.6811 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.2275 | 0.1184 | 12.1503 | 8.7000e-004 | | 0.0443 | 0.0443 | | 0.0443 | 0.0443 | | 24.9103 | 24.9103 | 0.0745 | | 26.4750 |
| **Total** | **2,977.6003** | **0.1184** | **12.1503** | **8.7000e-004** | | **0.0443** | **0.0443** | | **0.0443** | **0.0443** | | **24.9103** | **24.9103** | **0.0745** | | **26.4750** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

# 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

# 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

# 10.0 Vegetation

# City of Vernon Supplemental EIR Existing

**South Coast Air Basin, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 113,822.28 | 1000sqft | 2,613.00 | 113,822,280.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 12 | | | **Operational Year** | 2014 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 630.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - acreage

Construction Phase - No construction proposed.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10,000.00 | 0.00 |
| tblLandUse | LandUseSquareFeet | 113,822,000.00 | 113,822,280.00 |
| tblLandUse | LotAcreage | 2,612.99 | 2,613.00 |

## 2.0 Emissions Summary

| | 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 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 | 543.3415 | 0.0148 | 1.5188 | 1.1000e-004 | | 5.5400e-003 | 5.5400e-003 | | 5.5400e-003 | 5.5400e-003 | 0.0000 | 2.8248 | 2.8248 | 8.4500e-003 | 0.0000 | 3.0022 |
| Energy | 11.5446 | 104.9508 | 88.1587 | 0.6297 | | 7.9763 | 7.9763 | | 7.9763 | 7.9763 | 0.0000 | 506,746.3814 | 506,746.3814 | 20.2316 | 5.8274 | 508,977.7337 |
| Mobile | 541.2811 | 1,939.3142 | 7,136.5591 | 14.4714 | 1,004.7194 | 29.2941 | 1,034.0135 | 268.7871 | 26.8988 | 295.6860 | 0.0000 | 1,217,929.8852 | 1,217,929.8852 | 55.3664 | 0.0000 | 1,219,092.5793 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 28,649.9983 | 0.0000 | 28,649.9983 | 1,693.1664 | 0.0000 | 64,206.4927 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 8,350.5461 | 98,078.0171 | 106,428.5632 | 862.1895 | 21.1845 | 131,101.7281 |
| **Total** | **1,096.1672** | **2,044.2798** | **7,226.2365** | **15.1012** | **1,004.7194** | **37.2759** | **1,041.9953** | **268.7871** | **34.8806** | **303.6678** | **37,000.5444** | **1,822,757.1085** | **1,859,757.6529** | **2,630.9623** | **27.0119** | **1,923,381.5360** |

### 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 | 543.3415 | 0.0148 | 1.5188 | 1.1000e-004 | | 5.5400e-003 | 5.5400e-003 | | 5.5400e-003 | 5.5400e-003 | 0.0000 | 2.8248 | 2.8248 | 8.4500e-003 | 0.0000 | 3.0022 |
| Energy | 11.5446 | 104.9508 | 88.1587 | 0.6297 | | 7.9763 | 7.9763 | | 7.9763 | 7.9763 | 0.0000 | 506,746.3814 | 506,746.3814 | 20.2316 | 5.8274 | 508,977.7337 |
| Mobile | 541.2811 | 1,939.3142 | 7,136.5591 | 14.4714 | 1,004.7194 | 29.2941 | 1,034.0135 | 268.7871 | 26.8988 | 295.6860 | 0.0000 | 1,217,929.8852 | 1,217,929.8852 | 55.3664 | 0.0000 | 1,219,092.5793 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 28,649.9983 | 0.0000 | 28,649.9983 | 1,693.1664 | 0.0000 | 64,206.4927 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 8,350.5461 | 98,078.0171 | 106,428.5632 | 862.0330 | 21.1521 | 131,088.4060 |
| **Total** | **1,096.1672** | **2,044.2798** | **7,226.2365** | **15.1012** | **1,004.7194** | **37.2759** | **1,041.9953** | **268.7871** | **34.8806** | **303.6678** | **37,000.5444** | **1,822,757.1085** | **1,859,757.6529** | **2,630.8058** | **26.9795** | **1,923,368.2139** |

| | 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.01** | **0.12** | **0.00** |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2014 | 12/31/2013 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 162 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 255 | 0.40 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | 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 | 541.2811 | 1,939.3142 | 7,136.5591 | 14.4714 | 1,004.7194 | 29.2941 | 1,034.0135 | 268.7871 | 26.8988 | 295.6860 | 0.0000 | 1,217,929.8852 | 1,217,929.8852 | 55.3664 | 0.0000 | 1,219,092.5793 |
| Unmitigated | 541.2811 | 1,939.3142 | 7,136.5591 | 14.4714 | 1,004.7194 | 29.2941 | 1,034.0135 | 268.7871 | 26.8988 | 295.6860 | 0.0000 | 1,217,929.8852 | 1,217,929.8852 | 55.3664 | 0.0000 | 1,219,092.5793 |

### 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Light Industry | 793,341.29 | 150,245.41 | 77399.15 | 2,653,392,885 | 2,653,392,885 |
| Total | 793,341.29 | 150,245.41 | 77,399.15 | 2,653,392,885 | 2,653,392,885 |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | Primary | Diverted | Pass-by |
| General Light Industry | 16.60 | 8.40 | 6.90 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.516610 | 0.060517 | 0.179979 | 0.140587 | 0.041566 | 0.006616 | 0.015092 | 0.027587 | 0.001923 | 0.002530 | 0.004314 | 0.000602 | 0.002075 |

## 5.0 Energy Detail

### 4.4 Fleet Mix

Historical Energy Use: N

## 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 | | | | | |
| NaturalGas Mitigated | 11.5446 | 104.9508 | 88.1587 | 0.6297 | | 7.9763 | 7.9763 | | 7.9763 | 7.9763 | 0.0000 | 114,251.7580 | 114,251.7580 | 2.1898 | 2.0946 | 114,947.0751 |
| NaturalGas Unmitigated | 11.5446 | 104.9508 | 88.1587 | 0.6297 | | 7.9763 | 7.9763 | | 7.9763 | 7.9763 | 0.0000 | 114,251.7580 | 114,251.7580 | 2.1898 | 2.0946 | 114,947.0751 |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 392,494.6234 | 392,494.6234 | 18.0417 | 3.7328 | 394,030.6586 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 392,494.6234 | 392,494.6234 | 18.0417 | 3.7328 | 394,030.6586 |

## 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/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Light Industry | 2.141e+009 | 11.5446 | 104.9508 | 88.1587 | 0.6297 | | 7.9763 | 7.9763 | | 7.9763 | 7.9763 | 0.0000 | 114,251.7580 | 114,251.7580 | 2.1898 | 2.0946 | 114,947.0751 |
| **Total** | | **11.5446** | **104.9508** | **88.1587** | **0.6297** | | **7.9763** | **7.9763** | | **7.9763** | **7.9763** | **0.0000** | **114,251.7580** | **114,251.7580** | **2.1898** | **2.0946** | **114,947.0751** |

### 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/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Light Industry | 2.141e+009 | 11.5446 | 104.9508 | 88.1587 | 0.6297 | | 7.9763 | 7.9763 | | 7.9763 | 7.9763 | 0.0000 | 114,251.7580 | 114,251.7580 | 2.1898 | 2.0946 | 114,947.0751 |
| **Total** | | **11.5446** | **104.9508** | **88.1587** | **0.6297** | | **7.9763** | **7.9763** | | **7.9763** | **7.9763** | **0.0000** | **114,251.7580** | **114,251.7580** | **2.1898** | **2.0946** | **114,947.0751** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Light Industry | 1.37156e+009 | 392,494.6234 | 18.0417 | 3.7328 | 394,030.6586 |
| **Total** | | **392,494.6234** | **18.0417** | **3.7328** | **394,030.6586** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Light Industry | 1.37156e+009 | 392,494.6234 | 18.0417 | 3.7328 | 394,030.6586 |
| **Total** | | **392,494.6234** | **18.0417** | **3.7328** | **394,030.6586** |

# 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 | 543.3415 | 0.0148 | 1.5188 | 1.1000e-004 | | 5.5400e-003 | 5.5400e-003 | | 5.5400e-003 | 5.5400e-003 | 0.0000 | 2.8248 | 2.8248 | 8.4500e-003 | 0.0000 | 3.0022 |
| Unmitigated | 543.3415 | 0.0148 | 1.5188 | 1.1000e-004 | | 5.5400e-003 | 5.5400e-003 | | 5.5400e-003 | 5.5400e-003 | 0.0000 | 2.8248 | 2.8248 | 8.4500e-003 | 0.0000 | 3.0022 |

## 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 | 131.8912 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 411.2968 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.1534 | 0.0148 | 1.5188 | 1.1000e-004 | | 5.5400e-003 | 5.5400e-003 | | 5.5400e-003 | 5.5400e-003 | 0.0000 | 2.8248 | 2.8248 | 8.4500e-003 | 0.0000 | 3.0022 |
| **Total** | **543.3415** | **0.0148** | **1.5188** | **1.1000e-004** | | **5.5400e-003** | **5.5400e-003** | | **5.5400e-003** | **5.5400e-003** | **0.0000** | **2.8248** | **2.8248** | **8.4500e-003** | **0.0000** | **3.0022** |

**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 | 131.8912 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 411.2968 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.1534 | 0.0148 | 1.5188 | 1.1000e-004 | | 5.5400e-003 | 5.5400e-003 | | 5.5400e-003 | 5.5400e-003 | 0.0000 | 2.8248 | 2.8248 | 8.4500e-003 | 0.0000 | 3.0022 |
| **Total** | **543.3415** | **0.0148** | **1.5188** | **1.1000e-004** | | **5.5400e-003** | **5.5400e-003** | | **5.5400e-003** | **5.5400e-003** | **0.0000** | **2.8248** | **2.8248** | **8.4500e-003** | **0.0000** | **3.0022** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Unmitigated | 106,428.5632 | 862.1895 | 21.1845 | 131,101.7281 |
| Mitigated | 106,428.5632 | 862.0330 | 21.1521 | 131,088.4060 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Light Industry | 26321.3 / 0 | 106,428.5632 | 862.1895 | 21.1845 | 131,101.7281 |
| **Total** | | **106,428.5632** | **862.1895** | **21.1845** | **131,101.7281** |

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Light Industry | 26321.3 / 0 | 106,428.5632 | 862.0330 | 21.1521 | 131,088.4060 |
| **Total** | | **106,428.5632** | **862.0330** | **21.1521** | **131,088.4060** |

# 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 28,649.9983 | 1,693.1664 | 0.0000 | 64,206.4927 |
| Unmitigated | 28,649.9983 | 1,693.1664 | 0.0000 | 64,206.4927 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Light Industry | 141139 | 28,649.9983 | 1,693.1664 | 0.0000 | 64,206.4927 |
| **Total** | | **28,649.9983** | **1,693.1664** | **0.0000** | **64,206.4927** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Light Industry | 141139 | 28,649.9983 | 1,693.1664 | 0.0000 | 64,206.4927 |
| **Total** | | **28,649.9983** | **1,693.1664** | **0.0000** | **64,206.4927** |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Vegetation

**PROPOSED OUTPUT**

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# City of Vernon Supplemental EIR Proposed

**South Coast Air Basin, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 120,879.00 | 1000sqft | 2,775.00 | 120,879,000.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 12 | | | **Operational Year** | 2035 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 630.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - acreage

Construction Phase - No construction proposed.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10,000.00 | 0.00 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2035 |

## 2.0 Emissions Summary

| | 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 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 | 3,162.0255 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| Energy | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| Mobile | 1,857.1778 | 5,226.4884 | 23,937.8416 | 122.4193 | 7,930.0909 | 159.8782 | 8,089.9691 | 2,120.4302 | 147.5124 | 2,267.9427 | | 8,727,552.8005 | 8,727,552.8005 | 217.2612 | | 8,732,115.2860 |
| **Total** | **5,086.3831** | **5,837.3249** | **24,463.1231** | **126.0846** | **7,930.0909** | **206.3369** | **8,136.4278** | **2,120.4302** | **193.9711** | **2,314.4014** | | **9,460,450.8071** | **9,460,450.8071** | **231.3761** | **13.4360** | **9,469,474.8580** |

### 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 | 3,162.0255 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| Energy | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| Mobile | 1,857.1778 | 5,226.4884 | 23,937.8416 | 122.4193 | 7,930.0909 | 159.8782 | 8,089.9691 | 2,120.4302 | 147.5124 | 2,267.9427 | | 8,727,552.8005 | 8,727,552.8005 | 217.2612 | | 8,732,115.2860 |
| **Total** | **5,086.3831** | **5,837.3249** | **24,463.1231** | **126.0846** | **7,930.0909** | **206.3369** | **8,136.4278** | **2,120.4302** | **193.9711** | **2,314.4014** | | **9,460,450.8071** | **9,460,450.8071** | **231.3761** | **13.4360** | **9,469,474.8580** |

| | **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** | **N20** | **CO2e** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2014 | 12/31/2013 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 162 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 255 | 0.40 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | 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 | | | | | |
| Unmitigated | 1,857.1778 | 5,226.4884 | 23,937.8416 | 122.4193 | 7,930.0909 | 159.8782 | 8,089.9691 | 2,120.4302 | 147.5124 | 2,267.9427 | | 8,727,552.8005 | 8,727,552.8005 | 217.2612 | | 8,732,115.2860 |
| Mitigated | 1,857.1778 | 5,226.4884 | 23,937.8416 | 122.4193 | 7,930.0909 | 159.8782 | 8,089.9691 | 2,120.4302 | 147.5124 | 2,267.9427 | | 8,727,552.8005 | 8,727,552.8005 | 217.2612 | | 8,732,115.2860 |

### 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Light Industry | 842,526.63 | 159,560.28 | 82197.72 | 2,817,897,152 | 2,817,897,152 |
| Total | 842,526.63 | 159,560.28 | 82,197.72 | 2,817,897,152 | 2,817,897,152 |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | Primary | Diverted | Pass-by |
| General Light Industry | 16.60 | 8.40 | 6.90 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.475956 | 0.062534 | 0.188657 | 0.147142 | 0.045607 | 0.007258 | 0.017370 | 0.042746 | 0.002183 | 0.002612 | 0.003879 | 0.000535 | 0.003521 |

## 5.0 Energy Detail

### 4.4 Fleet Mix

Historical Energy Use: N

## 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 | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| NaturalGas Unmitigated | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |

## 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/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 6.22941e+006 | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| **Total** | | **67.1799** | **610.7263** | **513.0101** | **3.6644** | | **46.4152** | **46.4152** | | **46.4152** | **46.4152** | | **732,871.5520** | **732,871.5520** | **14.0467** | **13.4360** | **737,331.6861** |

### 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/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 6229.41 | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| **Total** | | **67.1799** | **610.7263** | **513.0101** | **3.6644** | | **46.4152** | **46.4152** | | **46.4152** | **46.4152** | | **732,871.5520** | **732,871.5520** | **14.0467** | **13.4360** | **737,331.6861** |

# 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 | | | | | |
| Unmitigated | 3,162.0255 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| Mitigated | 3,162.0255 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |

## 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 | 767.4989 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2,393.4042 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.1224 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| **Total** | **3,162.0255** | **0.1103** | **12.2715** | **9.2000e-004** | | **0.0435** | **0.0435** | | **0.0435** | **0.0435** | | **26.4547** | **26.4547** | **0.0682** | | **27.8859** |

**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 | 767.4989 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2,393.4042 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.1224 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| **Total** | **3,162.0255** | **0.1103** | **12.2715** | **9.2000e-004** | | **0.0435** | **0.0435** | | **0.0435** | **0.0435** | | **26.4547** | **26.4547** | **0.0682** | | **27.8859** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

# 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

# 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

# City of Vernon Supplemental EIR Proposed

**South Coast Air Basin, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 120,879.00 | 1000sqft | 2,775.00 | 120,879,000.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 12 | | | **Operational Year** | 2035 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 630.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - acreage

Construction Phase - No construction proposed.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10,000.00 | 0.00 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2035 |

## 2.0 Emissions Summary

| | 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 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 | 3,162.0255 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| Energy | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| Mobile | 1,897.9578 | 5,470.3576 | 23,399.8587 | 116.3224 | 7,930.0909 | 160.2526 | 8,090.3436 | 2,120.4302 | 147.8568 | 2,268.2871 | | 8,333,233.0295 | 8,333,233.0295 | 217.6240 | | 8,337,803.1325 |
| **Total** | **5,127.1632** | **6,081.1942** | **23,925.1402** | **119.9877** | **7,930.0909** | **206.7113** | **8,136.8023** | **2,120.4302** | **194.3156** | **2,314.7458** | | **9,066,131.0361** | **9,066,131.0361** | **231.7388** | **13.4360** | **9,075,162.7045** |

### 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 | 3,162.0255 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| Energy | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| Mobile | 1,897.9578 | 5,470.3576 | 23,399.8587 | 116.3224 | 7,930.0909 | 160.2526 | 8,090.3436 | 2,120.4302 | 147.8568 | 2,268.2871 | | 8,333,233.0295 | 8,333,233.0295 | 217.6240 | | 8,337,803.1325 |
| **Total** | **5,127.1632** | **6,081.1942** | **23,925.1402** | **119.9877** | **7,930.0909** | **206.7113** | **8,136.8023** | **2,120.4302** | **194.3156** | **2,314.7458** | | **9,066,131.0361** | **9,066,131.0361** | **231.7388** | **13.4360** | **9,075,162.7045** |

| | **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** | **N20** | **CO2e** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2014 | 12/31/2013 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 162 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 255 | 0.40 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | 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 | | | | | |
| Unmitigated | 1,897.9578 | 5,470.3576 | 23,399.8587 | 116.3224 | 7,930.0909 | 160.2526 | 8,090.3436 | 2,120.4302 | 147.8568 | 2,268.2871 | | 8,333,233.0295 | 8,333,233.0295 | 217.6240 | | 8,337,803.1325 |
| Mitigated | 1,897.9578 | 5,470.3576 | 23,399.8587 | 116.3224 | 7,930.0909 | 160.2526 | 8,090.3436 | 2,120.4302 | 147.8568 | 2,268.2871 | | 8,333,233.0295 | 8,333,233.0295 | 217.6240 | | 8,337,803.1325 |

### 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Light Industry | 842,526.63 | 159,560.28 | 82197.72 | 2,817,897,152 | 2,817,897,152 |
| Total | 842,526.63 | 159,560.28 | 82,197.72 | 2,817,897,152 | 2,817,897,152 |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | Primary | Diverted | Pass-by |
| General Light Industry | 16.60 | 8.40 | 6.90 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.475956 | 0.062534 | 0.188657 | 0.147142 | 0.045607 | 0.007258 | 0.017370 | 0.042746 | 0.002183 | 0.002612 | 0.003879 | 0.000535 | 0.003521 |

## 5.0 Energy Detail

### 4.4 Fleet Mix

Historical Energy Use: N

## 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 | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| NaturalGas Unmitigated | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |

## 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/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 6.22941e+006 | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| **Total** | | **67.1799** | **610.7263** | **513.0101** | **3.6644** | | **46.4152** | **46.4152** | | **46.4152** | **46.4152** | | **732,871.5520** | **732,871.5520** | **14.0467** | **13.4360** | **737,331.6861** |

### 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/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 6229.41 | 67.1799 | 610.7263 | 513.0101 | 3.6644 | | 46.4152 | 46.4152 | | 46.4152 | 46.4152 | | 732,871.5520 | 732,871.5520 | 14.0467 | 13.4360 | 737,331.6861 |
| **Total** | | **67.1799** | **610.7263** | **513.0101** | **3.6644** | | **46.4152** | **46.4152** | | **46.4152** | **46.4152** | | **732,871.5520** | **732,871.5520** | **14.0467** | **13.4360** | **737,331.6861** |

# 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 | | | | | |
| Unmitigated | 3,162.0255 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| Mitigated | 3,162.0255 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |

## 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 | 767.4989 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2,393.4042 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.1224 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| **Total** | **3,162.0255** | **0.1103** | **12.2715** | **9.2000e-004** | | **0.0435** | **0.0435** | | **0.0435** | **0.0435** | | **26.4547** | **26.4547** | **0.0682** | | **27.8859** |

**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 | 767.4989 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2,393.4042 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.1224 | 0.1103 | 12.2715 | 9.2000e-004 | | 0.0435 | 0.0435 | | 0.0435 | 0.0435 | | 26.4547 | 26.4547 | 0.0682 | | 27.8859 |
| **Total** | **3,162.0255** | **0.1103** | **12.2715** | **9.2000e-004** | | **0.0435** | **0.0435** | | **0.0435** | **0.0435** | | **26.4547** | **26.4547** | **0.0682** | | **27.8859** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Vegetation

# City of Vernon Supplemental EIR Proposed

**South Coast Air Basin, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 120,879.00 | 1000sqft | 2,775.00 | 120,879,000.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 12 | | | **Operational Year** | 2035 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 630.89 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - acreage

Construction Phase - No construction proposed.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 10,000.00 | 0.00 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2035 |

## 2.0 Emissions Summary

| | 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 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 | 577.0051 | 0.0138 | 1.5339 | 1.2000e-004 | | 5.4400e-003 | 5.4400e-003 | | 5.4400e-003 | 5.4400e-003 | 0.0000 | 2.9999 | 2.9999 | 7.7300e-003 | 0.0000 | 3.1622 |
| Energy | 12.2603 | 111.4576 | 93.6243 | 0.6688 | | 8.4708 | 8.4708 | | 8.4708 | 8.4708 | 0.0000 | 538,163.4934 | 538,163.4934 | 21.4859 | 6.1887 | 540,533.1844 |
| Mobile | 249.7553 | 767.3518 | 3,249.3428 | 16.1673 | 1,070.2985 | 21.9724 | 1,092.2708 | 286.6214 | 20.2729 | 306.8942 | 0.0000 | 1,049,535.6753 | 1,049,535.6753 | 27.0797 | 0.0000 | 1,050,104.3485 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 30,426.3073 | 0.0000 | 30,426.3073 | 1,798.1433 | 0.0000 | 68,187.3155 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 8,868.2826 | 104,158.8852 | 113,027.1678 | 915.6455 | 22.4979 | 139,230.0767 |
| **Total** | **839.0207** | **878.8231** | **3,344.5011** | **16.8361** | **1,070.2985** | **30.4486** | **1,100.7471** | **286.6214** | **28.7491** | **315.3704** | **39,294.5899** | **1,691,861.0538** | **1,731,155.6436** | **2,762.3620** | **28.6866** | **1,798,058.0873** |

### 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 | 577.0051 | 0.0138 | 1.5339 | 1.2000e-004 | | 5.4400e-003 | 5.4400e-003 | | 5.4400e-003 | 5.4400e-003 | 0.0000 | 2.9999 | 2.9999 | 7.7300e-003 | 0.0000 | 3.1622 |
| Energy | 12.2603 | 111.4576 | 93.6243 | 0.6688 | | 8.4708 | 8.4708 | | 8.4708 | 8.4708 | 0.0000 | 538,163.4934 | 538,163.4934 | 21.4859 | 6.1887 | 540,533.1844 |
| Mobile | 249.7553 | 767.3518 | 3,249.3428 | 16.1673 | 1,070.2985 | 21.9724 | 1,092.2708 | 286.6214 | 20.2729 | 306.8942 | 0.0000 | 1,049,535.6753 | 1,049,535.6753 | 27.0797 | 0.0000 | 1,050,104.3485 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 30,426.3073 | 0.0000 | 30,426.3073 | 1,798.1433 | 0.0000 | 68,187.3155 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 8,868.2826 | 104,158.8852 | 113,027.1678 | 915.4793 | 22.4635 | 139,215.9286 |
| **Total** | **839.0207** | **878.8231** | **3,344.5011** | **16.8361** | **1,070.2985** | **30.4486** | **1,100.7471** | **286.6214** | **28.7491** | **315.3704** | **39,294.5899** | **1,691,861.0538** | **1,731,155.6436** | **2,762.1958** | **28.6522** | **1,798,043.9392** |

| | **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** | **N20** | **CO2e** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.01** | **0.12** | **0.00** |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2014 | 12/31/2013 | 5 | 0 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

### OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 162 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 255 | 0.40 |

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | 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 | 249.7553 | 767.3518 | 3,249.3428 | 16.1673 | 1,070.2985 | 21.9724 | 1,092.2708 | 286.6214 | 20.2729 | 306.8942 | 0.0000 | 1,049,535.6753 | 1,049,535.6753 | 27.0797 | 0.0000 | 1,050,104.3485 |
| Unmitigated | 249.7553 | 767.3518 | 3,249.3428 | 16.1673 | 1,070.2985 | 21.9724 | 1,092.2708 | 286.6214 | 20.2729 | 306.8942 | 0.0000 | 1,049,535.6753 | 1,049,535.6753 | 27.0797 | 0.0000 | 1,050,104.3485 |

### 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Light Industry | 842,526.63 | 159,560.28 | 82197.72 | 2,817,897,152 | 2,817,897,152 |
| Total | 842,526.63 | 159,560.28 | 82,197.72 | 2,817,897,152 | 2,817,897,152 |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | Primary | Diverted | Pass-by |
| General Light Industry | 16.60 | 8.40 | 6.90 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.475956 | 0.062534 | 0.188657 | 0.147142 | 0.045607 | 0.007258 | 0.017370 | 0.042746 | 0.002183 | 0.002612 | 0.003879 | 0.000535 | 0.003521 |

## 5.0 Energy Detail

### 4.4 Fleet Mix

Historical Energy Use: N

### 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 | | | | | |
| NaturalGas Mitigated | 12.2603 | 111.4576 | 93.6243 | 0.6688 | | 8.4708 | 8.4708 | | 8.4708 | 8.4708 | 0.0000 | 121,335.1046 | 121,335.1046 | 2.3256 | 2.2245 | 122,073.5298 |
| NaturalGas Unmitigated | 12.2603 | 111.4576 | 93.6243 | 0.6688 | | 8.4708 | 8.4708 | | 8.4708 | 8.4708 | 0.0000 | 121,335.1046 | 121,335.1046 | 2.3256 | 2.2245 | 122,073.5298 |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 416,828.3888 | 416,828.3888 | 19.1603 | 3.9642 | 418,459.6546 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 416,828.3888 | 416,828.3888 | 19.1603 | 3.9642 | 418,459.6546 |

## 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/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Light Industry | 2.27373e+009 | 12.2603 | 111.4576 | 93.6243 | 0.6688 | | 8.4708 | 8.4708 | | 8.4708 | 8.4708 | 0.0000 | 121,335.1046 | 121,335.1046 | 2.3256 | 2.2245 | 122,073.5298 |
| **Total** | | **12.2603** | **111.4576** | **93.6243** | **0.6688** | | **8.4708** | **8.4708** | | **8.4708** | **8.4708** | **0.0000** | **121,335.1046** | **121,335.1046** | **2.3256** | **2.2245** | **122,073.5298** |

### 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/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Light Industry | 2.27373e+009 | 12.2603 | 111.4576 | 93.6243 | 0.6688 | | 8.4708 | 8.4708 | | 8.4708 | 8.4708 | 0.0000 | 121,335.1046 | 121,335.1046 | 2.3256 | 2.2245 | 122,073.5298 |
| **Total** | | **12.2603** | **111.4576** | **93.6243** | **0.6688** | | **8.4708** | **8.4708** | | **8.4708** | **8.4708** | **0.0000** | **121,335.1046** | **121,335.1046** | **2.3256** | **2.2245** | **122,073.5298** |

## 5.3 Energy by Land Use - Electricity

### Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Light Industry | 1.45659e+009 | 416,828.3888 | 19.1603 | 3.9642 | 418,459.6546 |
| **Total** | | **416,828.3888** | **19.1603** | **3.9642** | **418,459.6546** |

### Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Light Industry | 1.45659e+009 | 416,828.3888 | 19.1603 | 3.9642 | 418,459.6546 |
| **Total** | | **416,828.3888** | **19.1603** | **3.9642** | **418,459.6546** |

# 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 | 577.0051 | 0.0138 | 1.5339 | 1.2000e-004 | | 5.4400e-003 | 5.4400e-003 | | 5.4400e-003 | 5.4400e-003 | 0.0000 | 2.9999 | 2.9999 | 7.7300e-003 | 0.0000 | 3.1622 |
| Unmitigated | 577.0051 | 0.0138 | 1.5339 | 1.2000e-004 | | 5.4400e-003 | 5.4400e-003 | | 5.4400e-003 | 5.4400e-003 | 0.0000 | 2.9999 | 2.9999 | 7.7300e-003 | 0.0000 | 3.1622 |

## 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 | 140.0685 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 436.7963 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.1403 | 0.0138 | 1.5339 | 1.2000e-004 | | 5.4400e-003 | 5.4400e-003 | | 5.4400e-003 | 5.4400e-003 | 0.0000 | 2.9999 | 2.9999 | 7.7300e-003 | 0.0000 | 3.1622 |
| **Total** | **577.0051** | **0.0138** | **1.5339** | **1.2000e-004** | | **5.4400e-003** | **5.4400e-003** | | **5.4400e-003** | **5.4400e-003** | **0.0000** | **2.9999** | **2.9999** | **7.7300e-003** | **0.0000** | **3.1622** |

### 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 | 140.0685 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 436.7963 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.1403 | 0.0138 | 1.5339 | 1.2000e-004 | | 5.4400e-003 | 5.4400e-003 | | 5.4400e-003 | 5.4400e-003 | 0.0000 | 2.9999 | 2.9999 | 7.7300e-003 | 0.0000 | 3.1622 |
| **Total** | **577.0051** | **0.0138** | **1.5339** | **1.2000e-004** | | **5.4400e-003** | **5.4400e-003** | | **5.4400e-003** | **5.4400e-003** | **0.0000** | **2.9999** | **2.9999** | **7.7300e-003** | **0.0000** | **3.1622** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Unmitigated | 113,027.1678 | 915.6455 | 22.4979 | 139,230.0767 |
| Mitigated | 113,027.1678 | 915.4793 | 22.4635 | 139,215.9286 |

## 7.2 Water by Land Use

### Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Light Industry | 27953.3 / 0 | 113,027.1678 | 915.6455 | 22.4979 | 139,230.0767 |
| **Total** | | **113,027.1678** | **915.6455** | **22.4979** | **139,230.0767** |

### Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Light Industry | 27953.3 / 0 | 113,027.1678 | 915.4793 | 22.4635 | 139,215.9286 |
| **Total** | | **113,027.1678** | **915.4793** | **22.4635** | **139,215.9286** |

# 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 30,426.3073 | 1,798.1433 | 0.0000 | 68,187.3155 |
| Unmitigated | 30,426.3073 | 1,798.1433 | 0.0000 | 68,187.3155 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Light Industry | 149890 | 30,426.3073 | 1,798.1433 | 0.0000 | 68,187.3155 |
| **Total** | | **30,426.3073** | **1,798.1433** | **0.0000** | **68,187.3155** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Light Industry | 149890 | 30,426.3073 | 1,798.1433 | 0.0000 | 68,187.3155 |
| **Total** | | **30,426.3073** | **1,798.1433** | **0.0000** | **68,187.3155** |

# 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

# 10.0 Vegetation

KUNZMAN ASSOCIATES, INC.

# CITY OF VERNON GENERAL PLAN UPDATE

# TRAFFIC IMPACT ANALYSIS

**December 11, 2012**

Traffic Engineering | Transportation Planning | Parking | Noise/Vibration | Expert Witness
Air Quality | Global Climate Change | Health Risk Assessment

KUNZMAN ASSOCIATES, INC.

# CITY OF VERNON GENERAL PLAN UPDATE

# TRAFFIC IMPACT ANALYSIS

## December 11, 2012


**Prepared by:**

**Amy L. Kim, EIT,**
**Robert Kunzman,**
**Carl Ballard, LEED GA, and**
**William Kunzman, P.E.**

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**5031**

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# I. Introduction and Summary

## A. Purpose of Report and Study Objectives

The purpose of this report is to provide an assessment of the traffic impacts resulting from proposed residential and trucking overlay districts in the City of Vernon, and to identify the traffic mitigation measures necessary to maintain the established Level of Service standard for the elements of the impacted roadway system. The traffic issues related to the proposed land uses and development have been evaluated in the context of the California Environmental Quality Act.

The City of Vernon is the lead agency responsible for preparation of the traffic impact analysis, in accordance with the California Environmental Quality Act authorizing legislation. This report analyzes traffic impacts for the Existing and Year 2035 traffic conditions.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided in Appendix A.

## B. Study Area

The study area intersections were determined by selecting the intersections that are projected to operate at unacceptable Levels of Service in the 2007 Circulation Plan Update for the City of Vernon (see Figure 1):

Alameda Street (NS) at:
- Vernon Avenue (EW) - #1
- 55th Street (EW) - #2

Santa Fe Avenue (NS) at:
- 25th/26th Street (EW) - #3
- 38th Street (EW) - #4
- Vernon Avenue (EW) - #5
- Vernon Avenue/Pacific Boulevard (EW) - #6

Soto Street (NS) at:
- 26th Street (EW) - #7
- Bandini Boulevard (EW) - #8
- Vernon Avenue (EW) - #9
- Leonis Boulevard (EW) - #10
- Fruitland Avenue (EW) - #11

Boyle Avenue (NS) at:
- Slauson Avenue (EW) - #12

Downey Road (NS) at:
Washington Boulevard (EW) - #13
Bandini Boulevard (EW) - #14
Slauson Avenue (EW) - #15

Atlantic Boulevard (NS) at:
Bandini Boulevard (EW) - #16
District Boulevard (EW) - #17

## C. Definition of Deficiency and Significant Impact

The City of Vernon has an established acceptable Level of Service of D. Level of Service E and F are unacceptable.

Based on the Los Angeles Department of Transportation Policies and Procedures, an impact is considered significant if the project-related increase in the volume-to-capacity ratio equals or exceeds the thresholds shown below:

| Significant Impact Threshold for Intersections | | |
|---|---|---|
| Level of Service | Volume/Capacity | Incremental Increase |
| C | 0.70-0.79 | 0.04 or more |
| D | 0.80-0.89 | 0.02 or more |
| E/F | 0.90 - more | 0.01 or more |

## D. Principal Findings

Existing Level of Service: For Existing traffic conditions, the study area intersections currently operate within acceptable Levels of Service during the peak hours, except for the following study area intersections that operate at Levels of Service E to F during the peak hours (see Table 1):

Alameda Street (NS) at:
Vernon Avenue (EW) - #1
55th Street (EW) - #2

Santa Fe Avenue (NS) at:
25th/26th Street (EW) - #3
38th Street (EW) - #4
Vernon Avenue (EW) - #5
Vernon Avenue/Pacific Boulevard (EW) - #6

Soto Street (NS) at:
26th Street (EW) - #7
Bandini Boulevard (EW) - #8
Vernon Avenue (EW) - #9

Boyle Avenue (NS) at:
Slauson Avenue (EW) - #12

Downey Road (NS) at:
Washington Boulevard (EW) - #13
Bandini Boulevard (EW) - #14
Slauson Avenue (EW) - #15

Atlantic Boulevard (NS) at:
Bandini Boulevard (EW) - #16
District Boulevard (EW) - #17

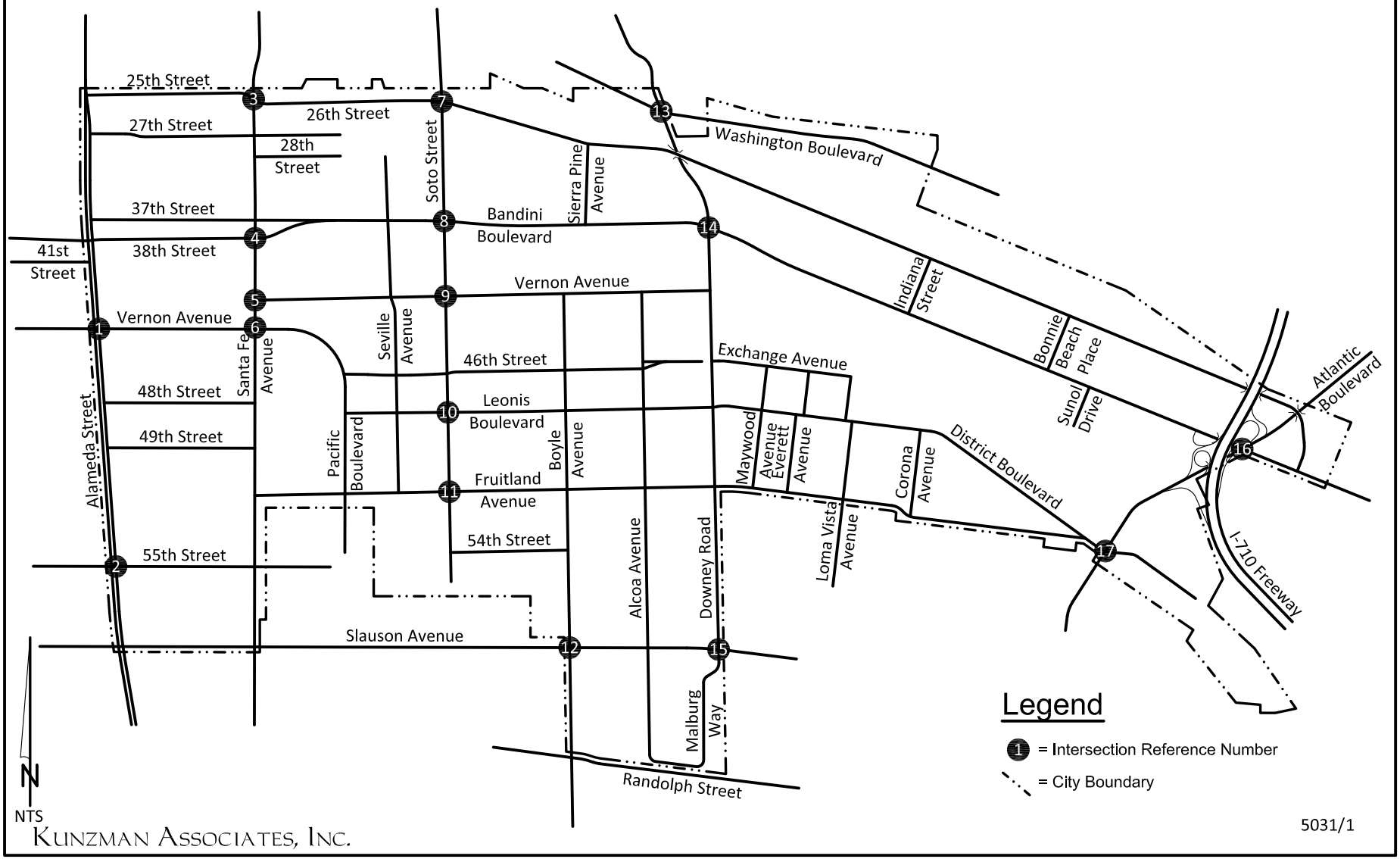
Current General Plan Year 2035 Level of Service: For the Current General Plan Year 2035 traffic conditions, the study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements (see Table 2).

All potential developments within the proposed housing and trucking overlay districts have been individually accounted for by an appropriate trip generation and trip distribution.

Proposed General Plan Year 2035 Level of Service: For the Proposed General Plan Year 2035 traffic conditions, the study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements (see Table 4).

Table 5 depicts the Proposed General Plan Year 2035 traffic conditions at the study area intersections. The study area intersections are not significantly impacted by the proposed housing and trucking overlay districts.

# Figure 1
# Location Map

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# II. Existing Traffic Conditions

The traffic conditions as they exist today are discussed below and illustrated on Figures 2 to 8.

## A. Existing Travel Lanes and Intersection Controls

Figures 2 and 3 identify the existing roadway conditions within the City of Vernon. The number of through travel lanes and intersection controls for existing roadways are illustrated on Figure 2 and the existing intersection geometries are identified on Figure 3.

## B. Existing Average Daily Traffic Volumes

Figure 4 depict the existing average daily traffic volumes in the study area. Existing manual morning and evening peak hour intersection turning movement counts have been obtained by Kunzman Associates, Inc. in February and October 2012 (see Appendix B). The existing average daily traffic volumes have been obtained from peak hour counts using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + Exit Volume) x 11.0 = Leg Volume.

## C. Truck Passenger Car Equivalents

To account for the number of trucks that are included in the traffic counts, a truck factor has been developed. Four vehicle classification spot counts have been conducted to calculate the percentage of the vehicle mix that are trucks. The truck percentage calculation shows that there are currently 22 percent trucks on the City of Vernon Streets (see Appendix C). Per the City of Vernon, a Passenger Car Equivalent of 2.5 has been used on the 22 percent trucks (see Appendix C). A truck factor of 1.33 has been applied to account for the calculated 22 percent trucks on the study area roadways ((1.00 – 0.22) + (0.22 X 2.5) = 1.33).

## D. Existing Intersection Capacity Utilization and Level of Service

The technique used to assess the capacity needs of an intersection is known as Intersection Capacity Utilization (see Appendix D). To calculate Intersection Capacity Utilization, the volume of traffic using the intersection is compared with the capacity of the intersection.

The existing Intersection Capacity Utilization and Level of Service for the study area intersections are shown in Table 1. Existing Intersection Capacity Utilization is based upon manual morning and evening peak hour intersection turning movement counts obtained by Kunzman Associates, Inc. in February and October 2012. The factored traffic counts are presented on Figures 5 and 6.

There are two peak hours in a weekday. The morning peak hour is between 7:00 AM and 9:00 AM, and the evening peak hour is between 4:00 PM and 6:00 PM. The actual peak hour within the two hour interval is the four consecutive 15 minute periods with the highest

total volume when all movements are added together. Thus, the evening peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15 minute periods have the highest combined volume.

For Existing traffic conditions, the study area intersections currently operate within acceptable Levels of Service during the peak hours, except for the following study area intersections that operate at Levels of Service E to F during the peak hours (see Table 1):

Alameda Street (NS) at:
- Vernon Avenue (EW) - #1
- 55th Street (EW) - #2

Santa Fe Avenue (NS) at:
- 25th/26th Street (EW) - #3
- 38th Street (EW) - #4
- Vernon Avenue (EW) - #5
- Vernon Avenue/Pacific Boulevard (EW) - #6

Soto Street (NS) at:
- 26th Street (EW) - #7
- Bandini Boulevard (EW) - #8
- Vernon Avenue (EW) - #9

Boyle Avenue (NS) at:
- Slauson Avenue (EW) - #12

Downey Road (NS) at:
- Washington Boulevard (EW) - #13
- Bandini Boulevard (EW) - #14
- Slauson Avenue (EW) - #15

Atlantic Boulevard (NS) at:
- Bandini Boulevard (EW) - #16
- District Boulevard (EW) - #17

Existing delay worksheets are provided in Appendix D.

## E. Planned Transportation Improvements and Relationship to General Plan

The City of Vernon General Plan Circulation Element is shown on Figure 7. Existing and future roadways are included in the Circulation Element of the General Plan and are graphically depicted on Figure 7. This figure shows the nature and extent of arterial highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The City of Vernon General Plan roadway cross-sections is shown on Figure 8.

**Table 1**

**Existing Intersection Capacity Utilization and Level of Service**

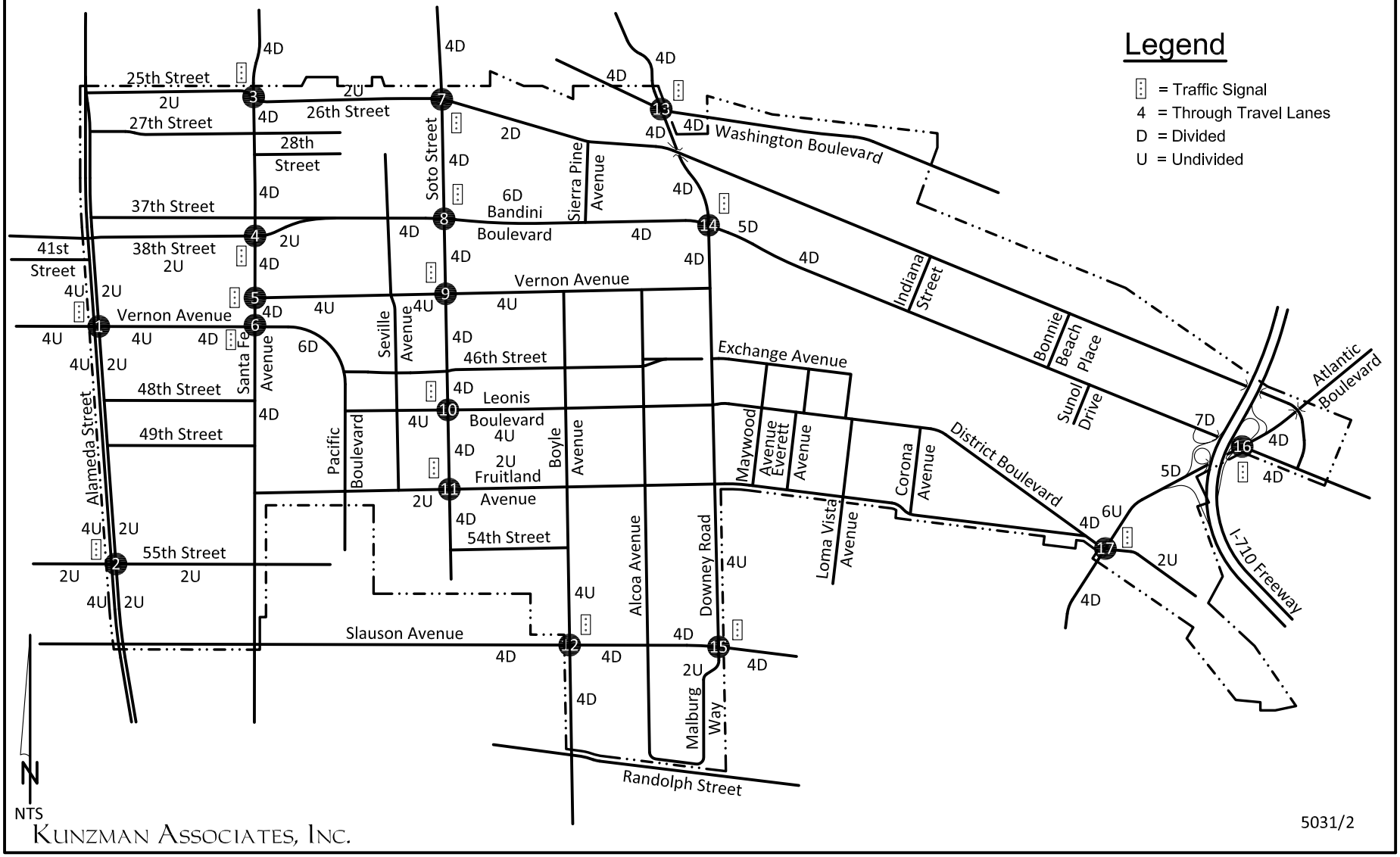
| Intersection | Traffic Control [3] | Intersection Approach Lanes [1] | | | | | | | | | | | | Peak Hour ICU-LOS [2] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | |
| | | L | T | R | L | T | R | L | T | R | L | T | R | Morning | Evening |
| Alameda Street (NS) at: | | | | | | | | | | | | | | | |
| Vernon Avenue - West (EW) - #1a | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 | 1.454-F | 1.502-F |
| Vernon Avenue - East (EW) - #1b | TS | 0 | 1 | 0 | 0 | 1 | 0 | 0.5 | 1 | 0.5 | 0.5 | 1.5 | 1 | 1.334-F | 1.097-F |
| 55th Street - West (EW) - #2a | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 0.5 | d | 0 | 1 | 0 | 1.186-F | 1.521-F |
| 55th Street - East (EW) - #2b | TS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0.5 | 0.5 | d | 0.891-D | 0.735-C |
| Santa Fe Avenue (NS) at: | | | | | | | | | | | | | | | |
| 25th/26th Street (EW) - #3 | TS | 1 | 2 | 1>> | 1 | 2 | 1>> | 1 | 1 | d | 1 | 0.5 | 0.5 | 1.040-F | 1.014-F |
| 38th Street (EW) - #4 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 0.5 | d | 0 | 0 | 0 | 0.956-E | 1.011-F |
| Vernon Avenue (EW) - #5 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0 | 1 | 0 | 0.5 | 1 | 0.5 | 0.972-E | 0.923-E |
| Vernon Avenue/Pacific Boulevard (EW) - #6 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 2 | 2 | 0.919-E | 0.957-E |
| Soto Street (NS) at: | | | | | | | | | | | | | | | |
| 26th Street (EW) - #7 | TS | 1 | 2 | 1>> | 1 | 2 | 1 | 1 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 1.009-F | 1.181-F |
| Bandini Boulevard (EW) - #8 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 2.5 | 0.5 | 0.951-E | 1.003-F |
| Vernon Avenue (EW) - #9 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 | 0.861-D | 0.948-E |
| Leonis Boulevard (EW) - #10 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.876-D | 0.814-D |
| Fruitland Avenue (EW) - #11 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 0.806-D | 0.879-D |
| Boyle Avenue (NS) at: | | | | | | | | | | | | | | | |
| Slauson Avenue (EW) - #12 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1.081-F | 1.202-F |
| Downey Road (NS) at: | | | | | | | | | | | | | | | |
| Washington Boulevard (EW) - #13 | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1> | 1 | 2 | d | 0.868-D | 0.920-E |
| Bandini Boulevard (EW) - #14 | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1.5 | 0.5 | 0.902-E | .942-E |
| Slauson Avenue (EW) - #15 | TS | 1 | 1 | 1 | 1 | 0.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 1 | 0.5 | 0.974-E | 0.970-E |
| Atlantic Boulevard (NS) at: | | | | | | | | | | | | | | | |
| Bandini Boulevard (EW) - #16 | TS | 1 | 4 | 1 | 1 | 3.5 | 1.5>> | 1.5 | 2 | 0.5 | 1 | 1 | 2>> | 1.543-F | 1.433-F |
| District Boulevard (EW) - #17 | TS | 1 | 2.5 | 0.5 | 1 | 3 | 1>> | 2 | 1 | 1 | 0.5 | 1.5 | 1>> | 0.858-D | 0.975-E |

[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Turn Lane; > = Right Turn Overlap; >> = Free Right Turn

[2] ICU-LOS = Intersection Capacity Utilization-Level of Service

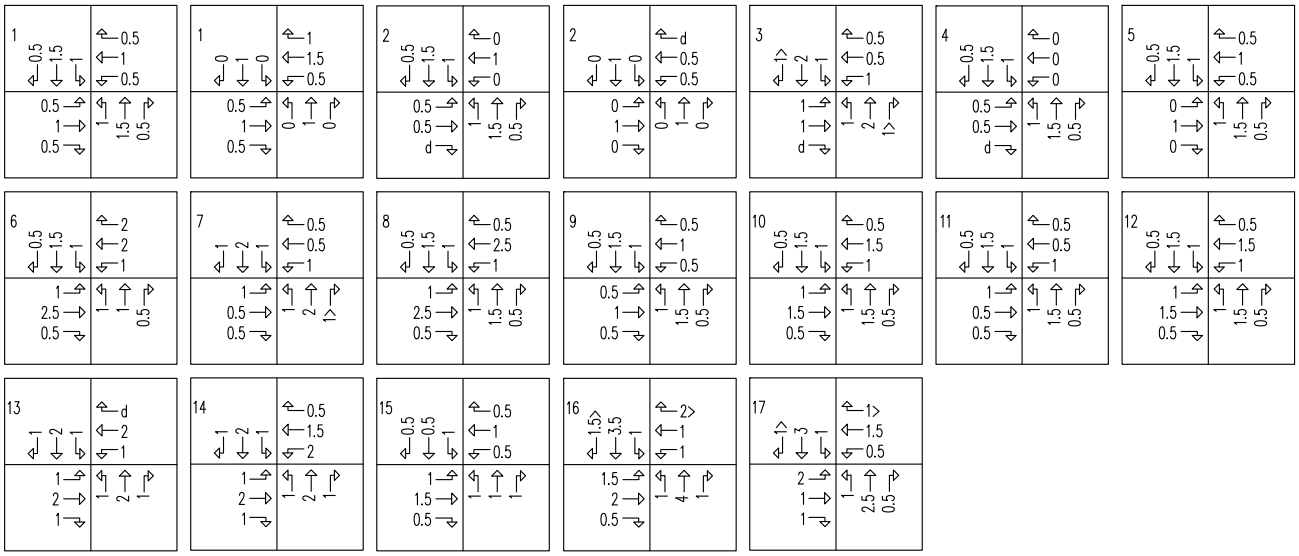
[3] TS = Traffic Signal

# Figure 2
## Existing Through Travel Lanes and Intersection Controls




KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

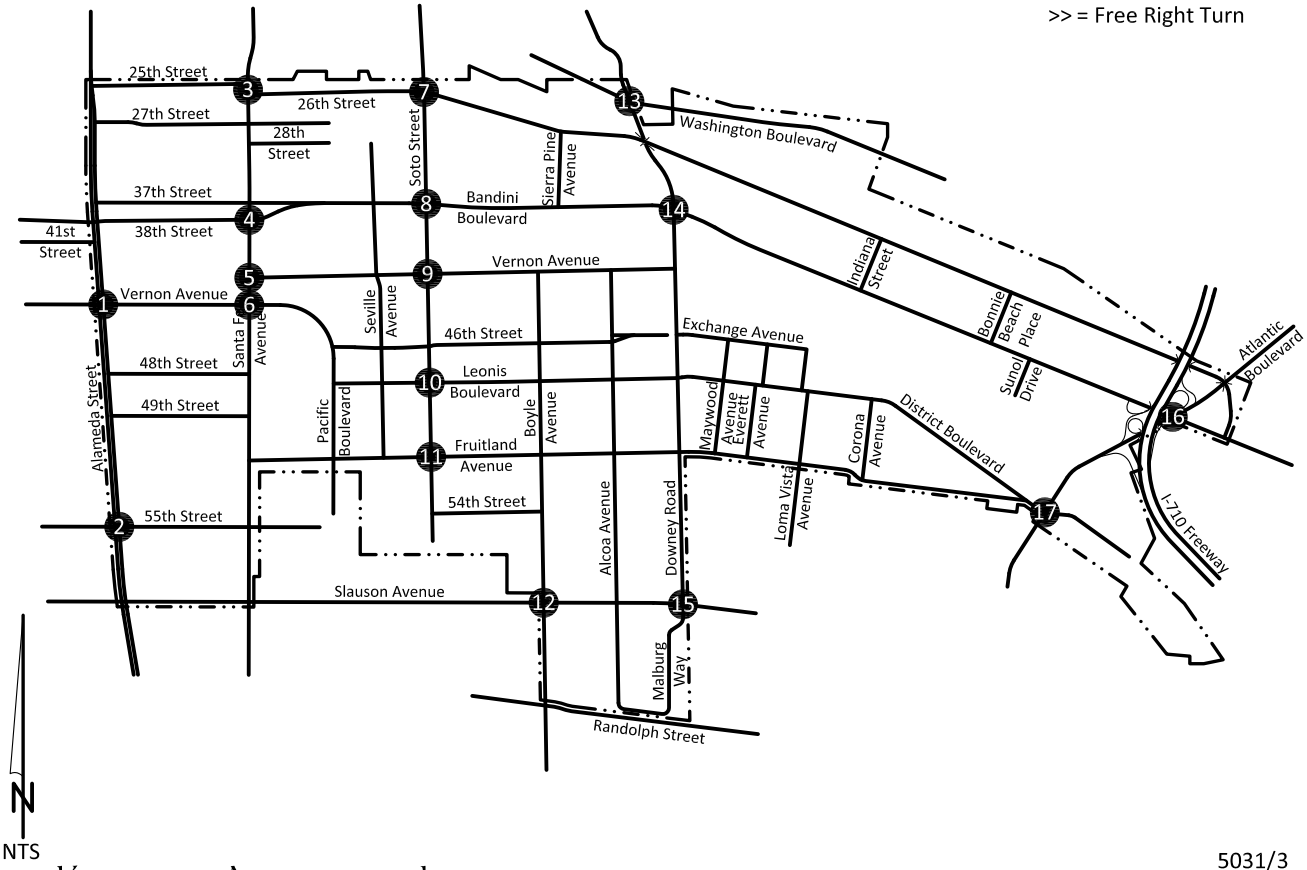
# Figure 3
# Existing Intersection Geometrics



## Legend

> = Right Turn Overlap

>> = Free Right Turn

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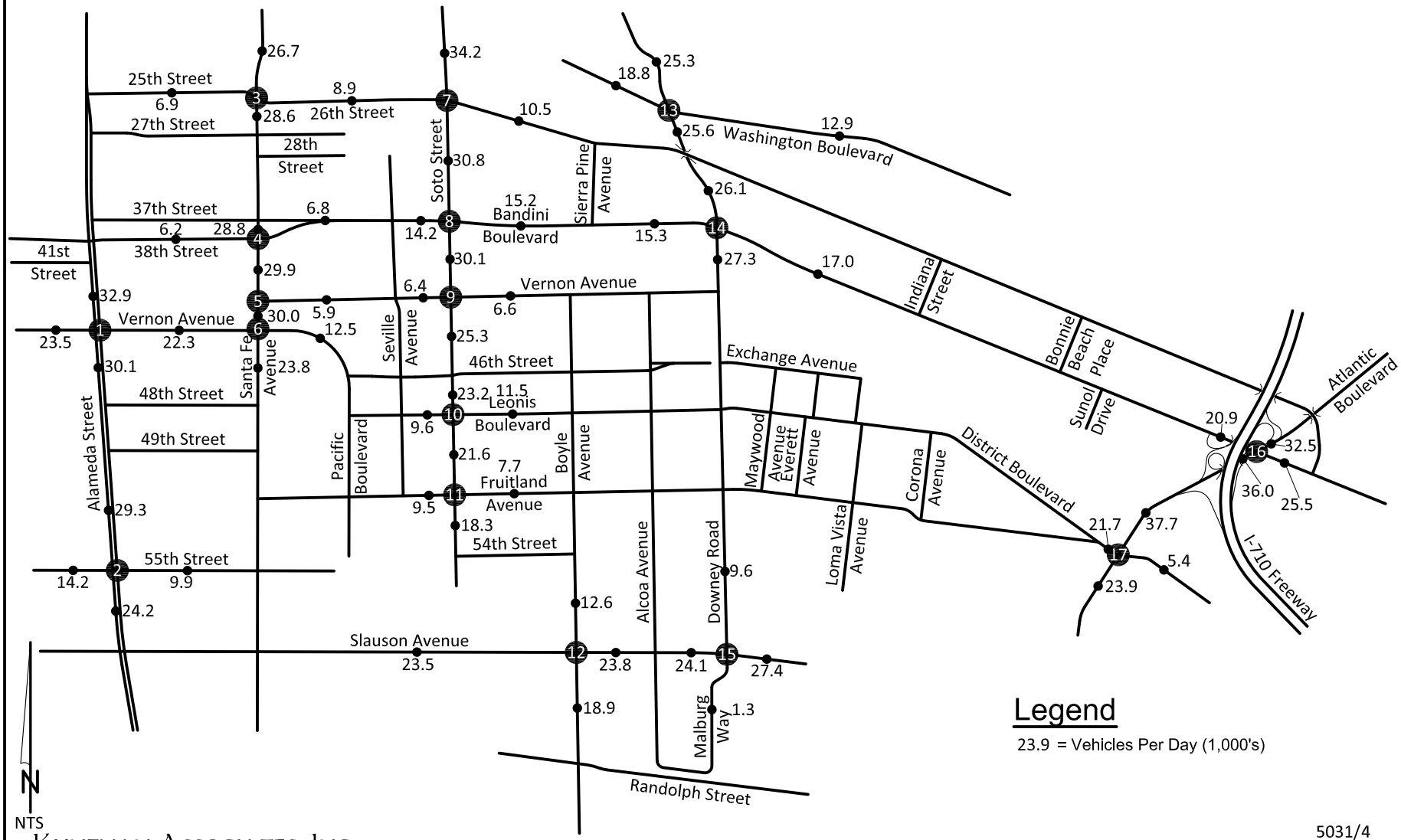
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 4
## Existing Average Daily Traffic Volumes

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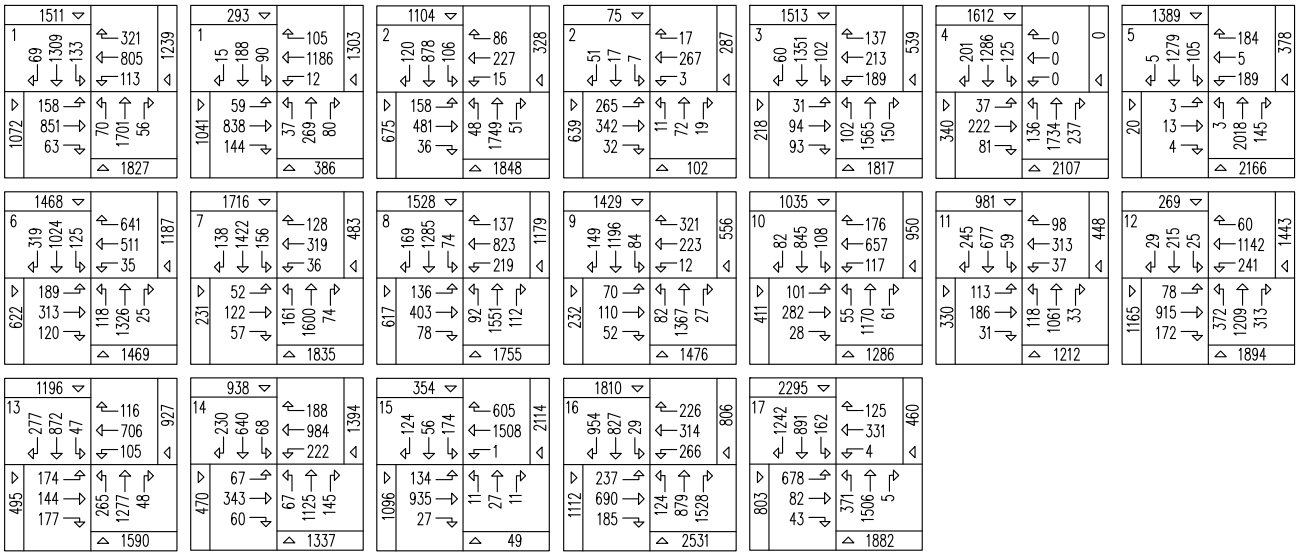
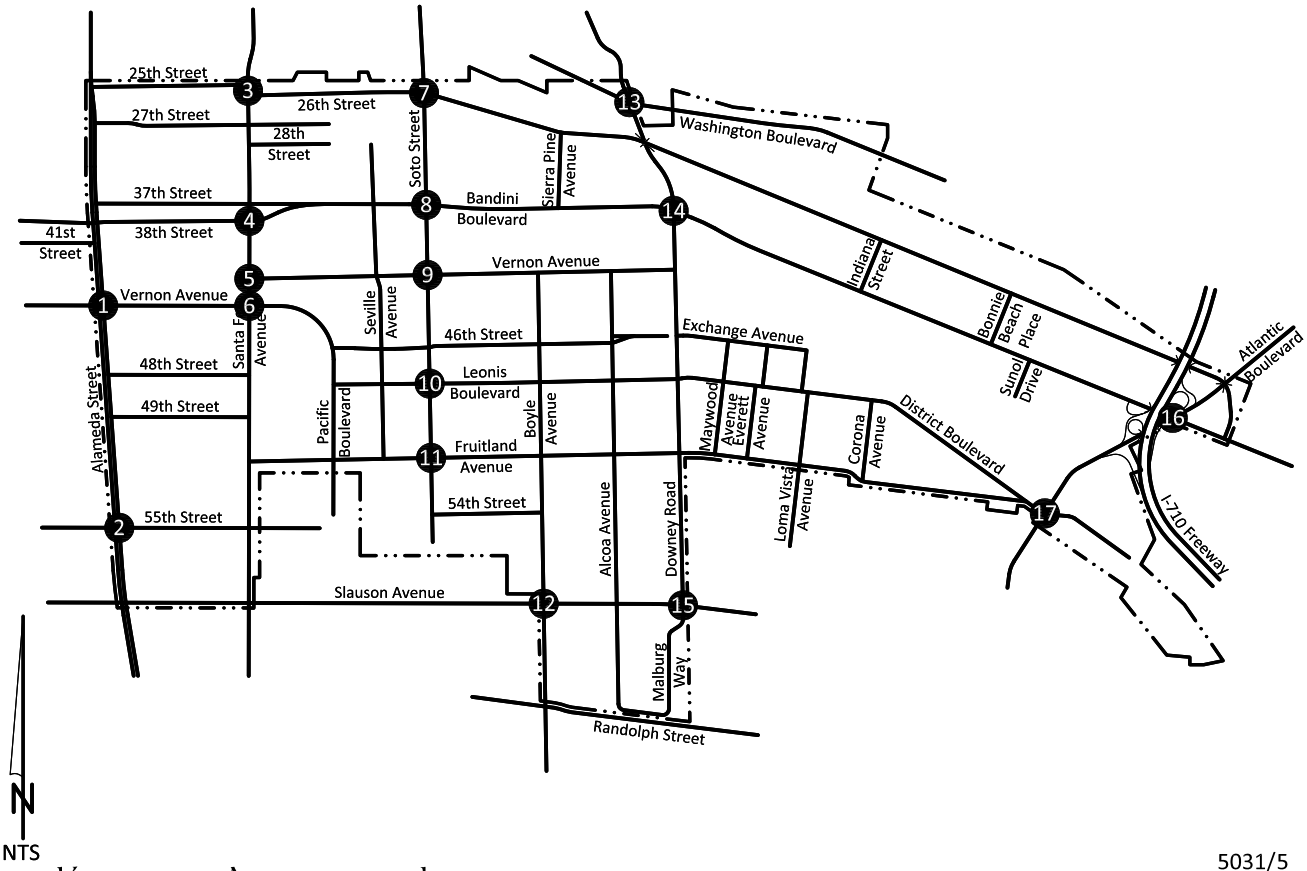
# Figure 5
# Existing Morning Peak Hour Intersection Turning Movement Volumes

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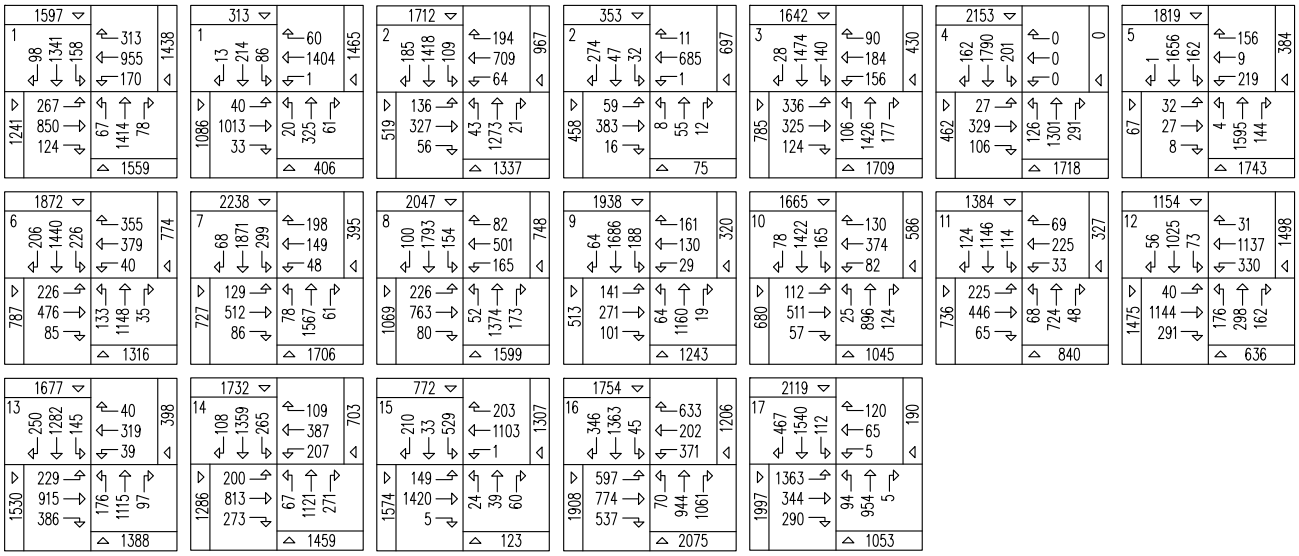
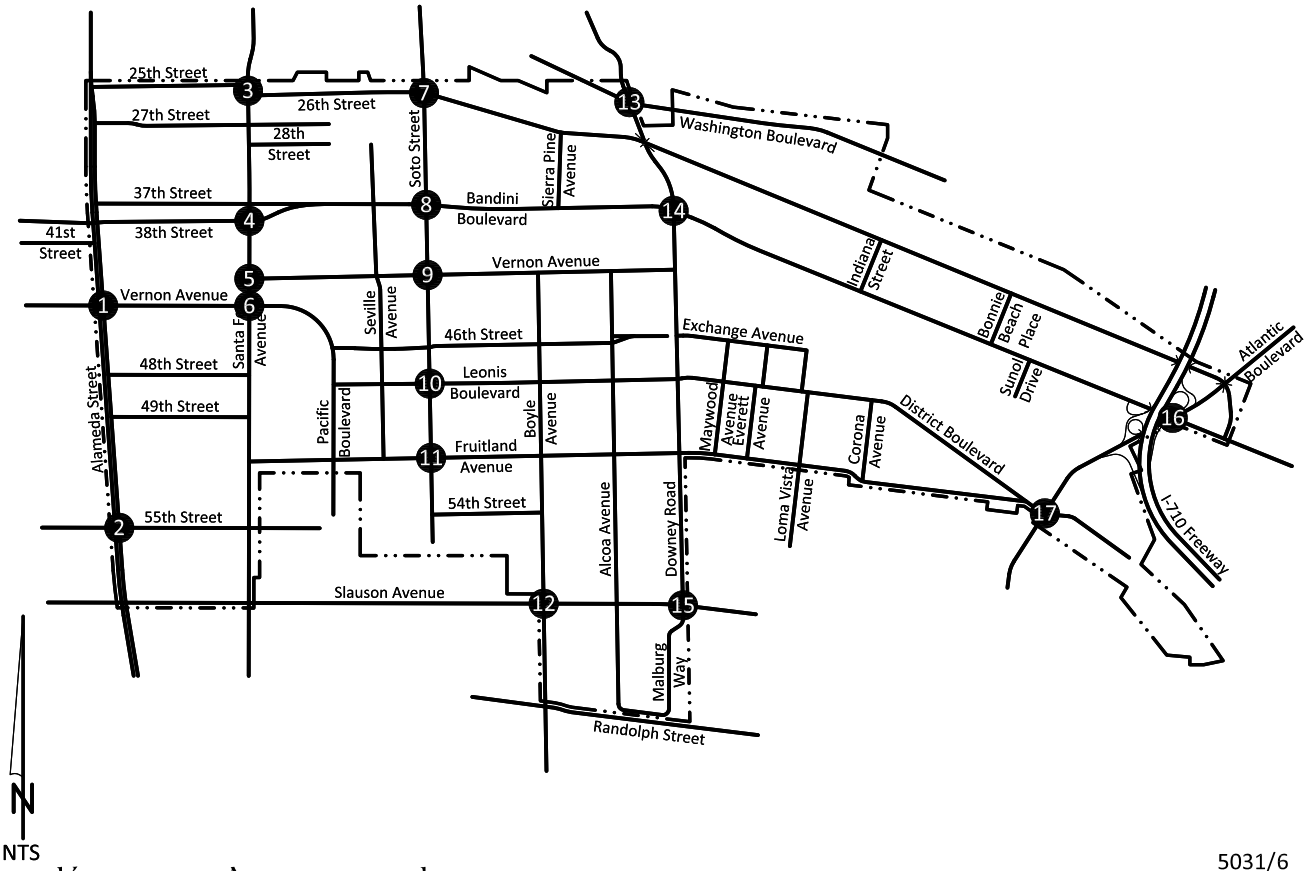
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 6
# Existing Evening Peak Hour Intersection Turning Movement Volumes

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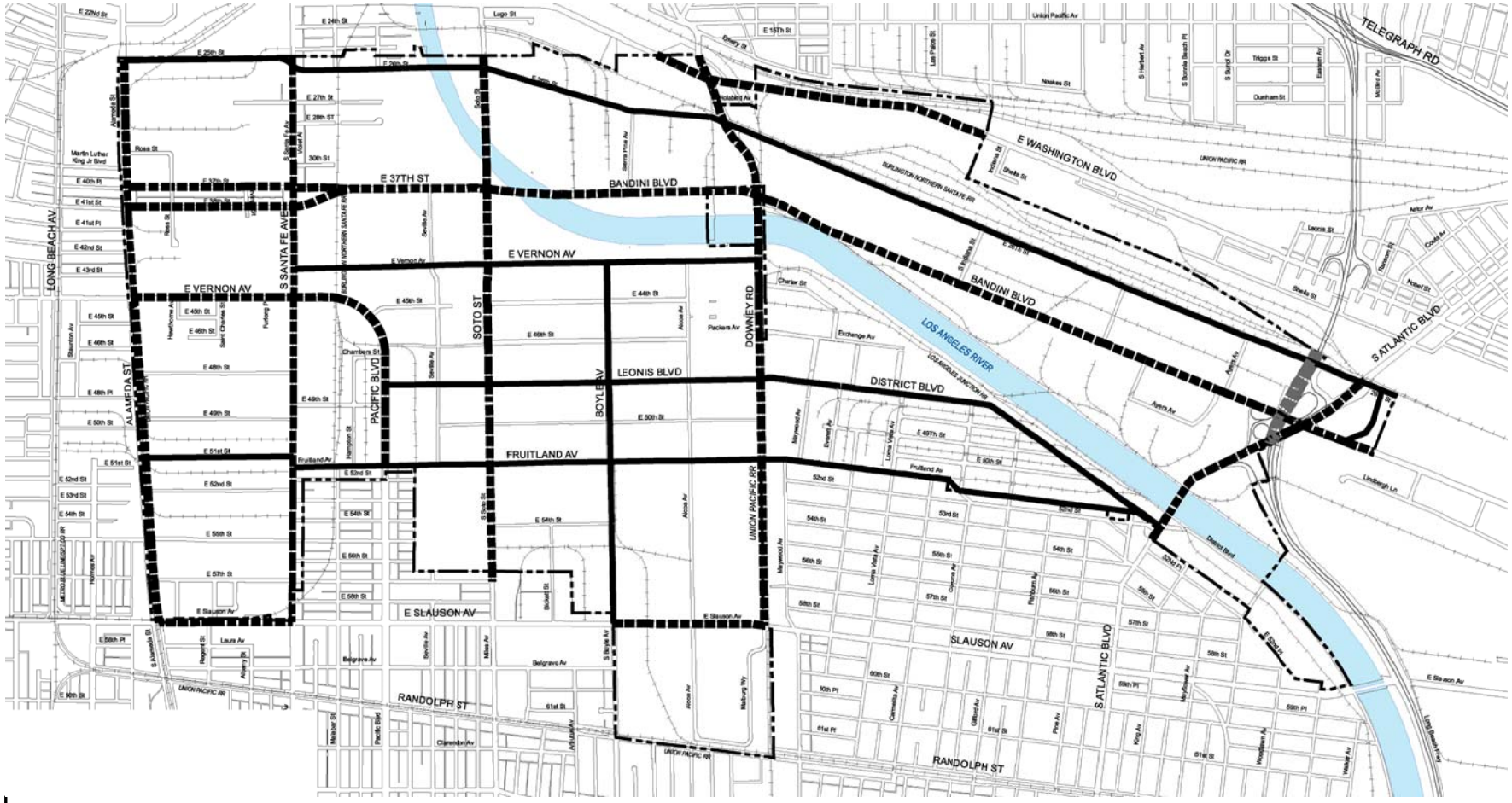
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 7
## City of Vernon General Plan Circulation Element




## Legend

- City Boundary
- Freeway
- Railroad
- Freeway
- Arterial
- Collector
- Local

N

NTS

Source: City of Vernon

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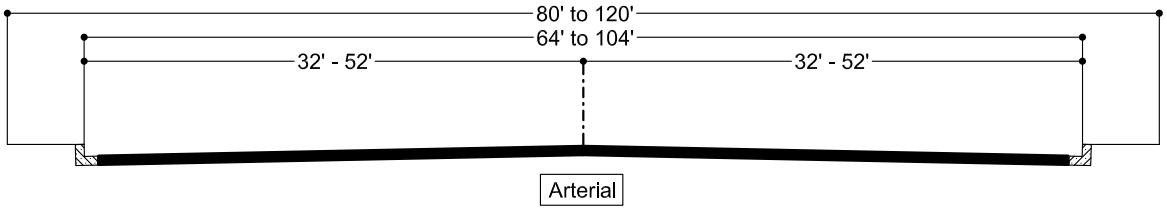
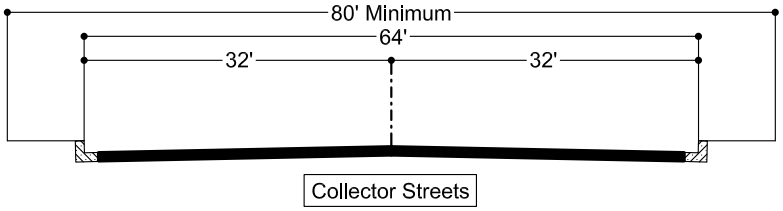
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 8
## City of Vernon General Plan Roadway Cross-Sections



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KUNZMAN ASSOCIATES

Source: City of Vernon

OVER 35 YEARS OF EXCELLENT SERVICE

# III. Current General Plan Year 2035 Traffic Conditions

In this section, Current General Plan Year 2035 traffic conditions are discussed. Figures 9 and 11 illustrate the Current General Plan Year 2035 traffic conditions.

## A. Method of Projection

Based upon the 2007 City of Vernon General Plan Updated, an ambient annual growth rate of 0.5 percent is used in this analysis. This produces a growth factor of 1.12 for Year 2035 conditions.

## B. Current General Plan Year 2035 Average Daily Traffic Volumes

Current General Plan Year 2035 average daily traffic volumes are depicted on Figure 9.

## C. Current General Plan Year 2035 Intersection Capacity Utilization and Level of Service

The technique used to assess the capacity needs of an intersection is known as Intersection Capacity Utilization (see Appendix D). To calculate Intersection Capacity Utilization, the volume of traffic using the intersection is compared with the capacity of the intersection.

The Current General Plan Year 2035 morning and evening peak hour turning movement volumes are provided on Figures 10 and 11, respectively.

For the Current General Plan Year 2035 traffic conditions, the study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements (see Table 2). Current General Plan Year 2035 Intersection Capacity Utilization worksheets are provided in Appendix D.

**Table 2**

**Current General Plan Year 2035 Intersection Capacity Utilization and Level of Service**

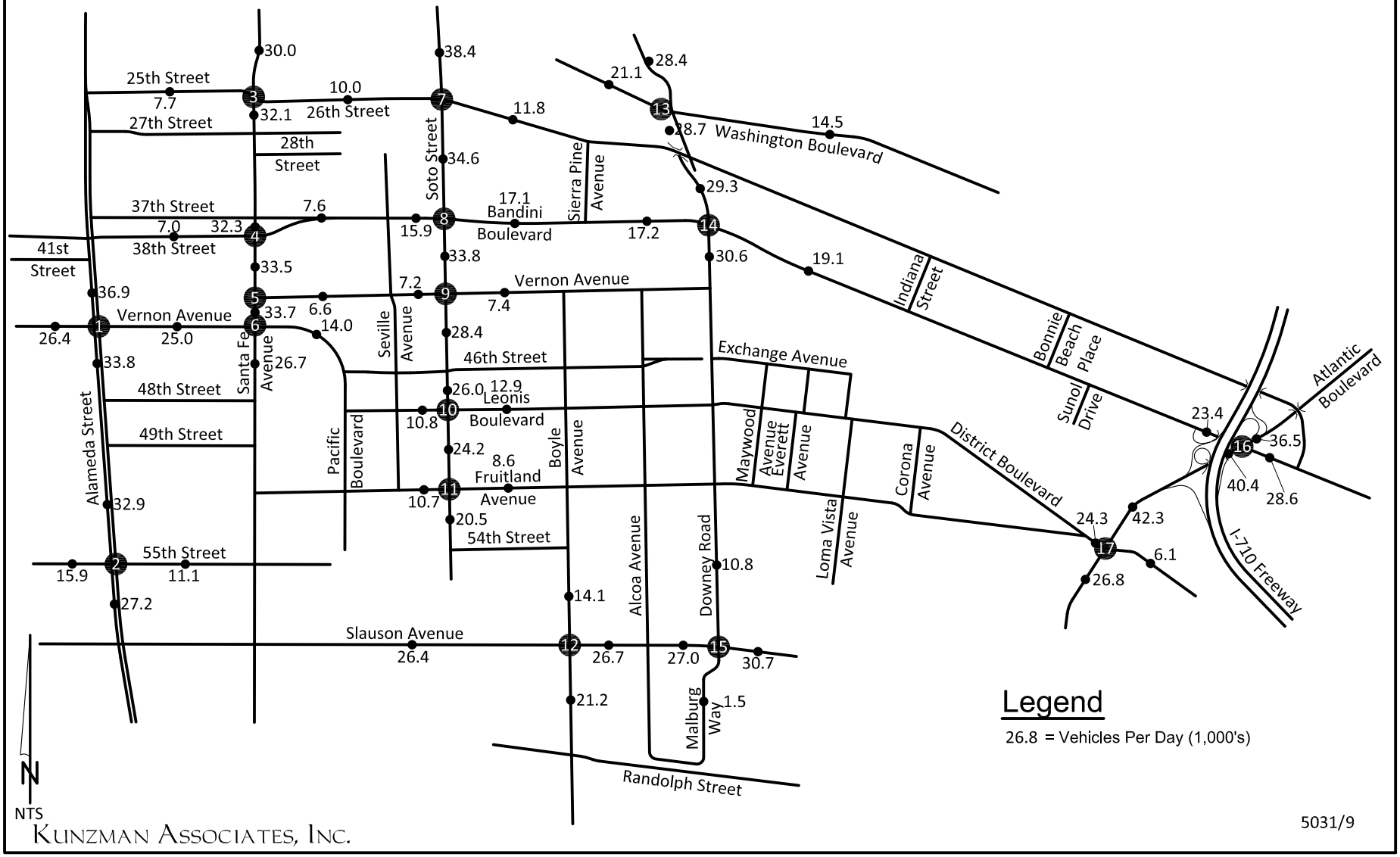
| Intersection | Traffic Control [3] | Intersection Approach Lanes [1] | | | | | | | | | | | | Peak Hour ICU-LOS [2] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | |
| | | L | T | R | L | T | R | L | T | R | L | T | R | Morning | Evening |
| Alameda Street (NS) at: | | | | | | | | | | | | | | | |
| Vernon Avenue - West (EW) - #1a | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 | 1.617-F | 1.671-F |
| Vernon Avenue - East (EW) - #1b | TS | 0 | 1 | 0 | 0 | 1 | 0 | 0.5 | 1 | 0.5 | 0.5 | 1.5 | 1 | 1.217-F | 1.317-F |
| 55th Street - West (EW) - #2a | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 0.5 | d | 0 | 1 | 0 | 1.482-F | 1.692-F |
| 55th Street - East (EW) - #2b | TS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0.5 | 0.5 | d | 0.811-D | 1.153-F |
| Santa Fe Avenue (NS) at: | | | | | | | | | | | | | | | |
| 25th/26th Street (EW) - #3 | TS | 1 | 2 | 1>> | 1 | 2 | 1>> | 1 | 1 | d | 1 | 0.5 | 0.5 | 0.986-E | 1.124-F |
| 38th Street (EW) - #4 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 0.5 | d | 0 | 0 | 0 | 1.059-F | 1.121-F |
| Vernon Avenue (EW) - #5 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0 | 1 | 0 | 0.5 | 1 | 0.5 | 1.077-F | 1.022-F |
| Vernon Avenue/Pacific Boulevard (EW) - #6 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 2 | 2 | 1.017-F | 1.061-F |
| Soto Street (NS) at: | | | | | | | | | | | | | | | |
| 26th Street (EW) - #7 | TS | 1 | 2 | 1>> | 1 | 2 | 1 | 1 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 1.118-F | 1.311-F |
| Bandini Boulevard (EW) - #8 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 2.5 | 0.5 | 1.053-F | 1.111-F |
| Vernon Avenue (EW) - #9 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 | 0.953-E | 1.050-F |
| Leonis Boulevard (EW) - #10 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.960-E | 0.899-D |
| Fruitland Avenue (EW) - #11 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 0.891-D | 0.973-E |
| Boyle Avenue (NS) at: | | | | | | | | | | | | | | | |
| Slauson Avenue (EW) - #12 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1.199-F | 1.353-F |
| Downey Road (NS) at: | | | | | | | | | | | | | | | |
| Washington Boulevard (EW) - #13 | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1> | 1 | 2 | d | 0.960-E | 1.019-F |
| Bandini Boulevard (EW) - #14 | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1.5 | 0.5 | 0.998-E | 1.043-F |
| Slauson Avenue (EW) - #15 | TS | 1 | 1 | 1 | 1 | 0.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 1 | 0.5 | 1.079-F | 1.075-F |
| Atlantic Boulevard (NS) at: | | | | | | | | | | | | | | | |
| Bandini Boulevard (EW) - #16 | TS | 1 | 4 | 1 | 1 | 3.5 | 1.5>> | 1.5 | 2 | 0.5 | 1 | 1 | 2>> | 1.717-F | 1.594-F |
| District Boulevard (EW) - #17 | TS | 1 | 2.5 | 0.5 | 1 | 3 | 1>> | 2 | 1 | 1 | 0.5 | 1.5 | 1>> | 0.949-E | 1.081-F |

[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Turn Lane; > = Right Turn Overlap; >> = Free Right Turn

[2] ICU-LOS = Intersection Capacity Utilization-Level of Service

[3] TS = Traffic Signal

# Figure 9
## Current General Plan Year 2035 Average Daily Traffic Volumes

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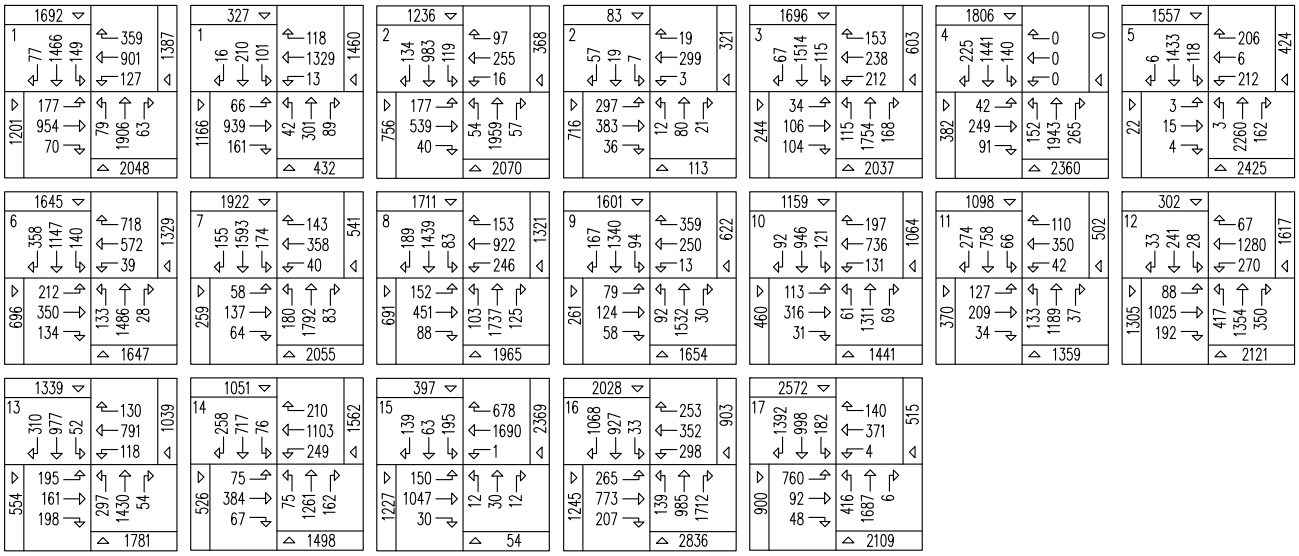
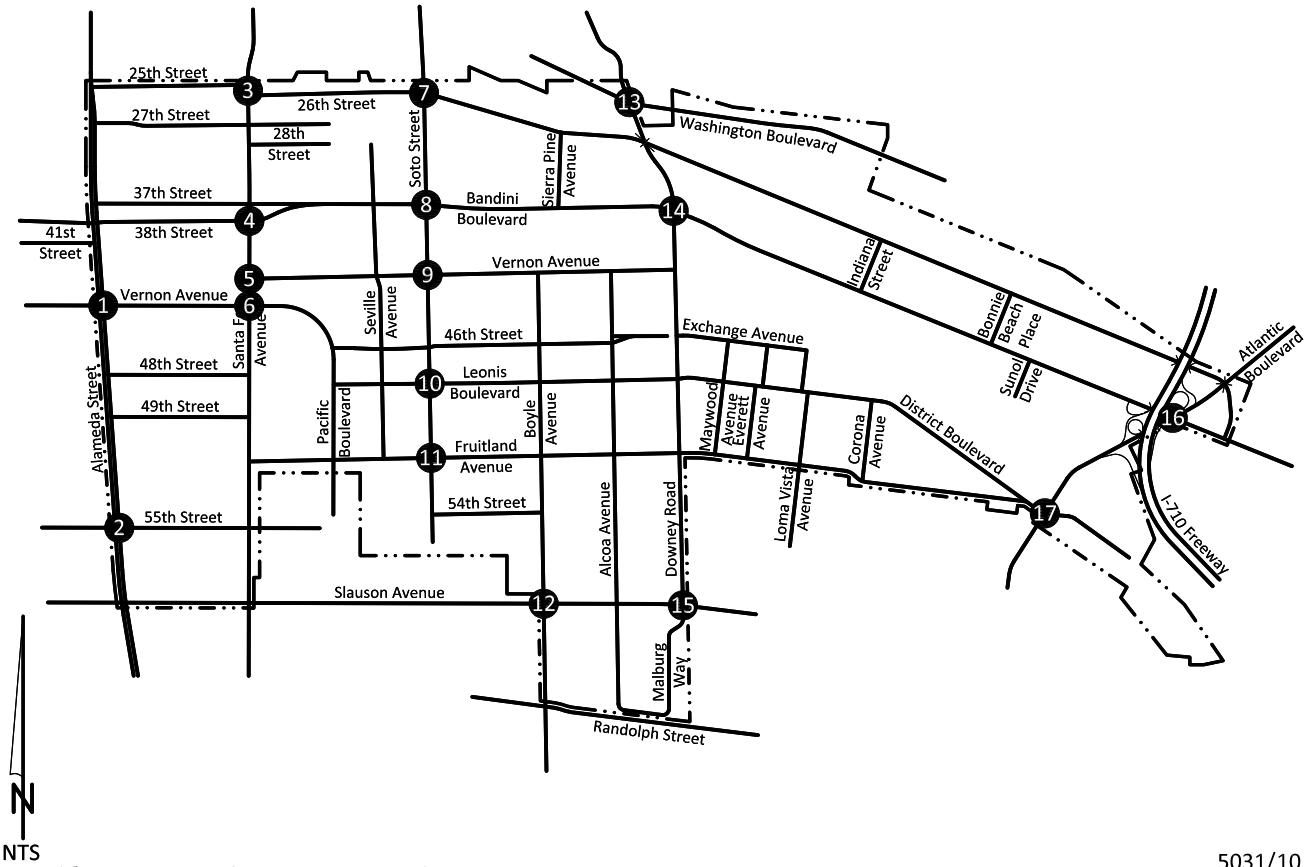
# Figure 10
# Current General Plan Year 2035
# Morning Peak Hour Intersection Turning Movement Volumes

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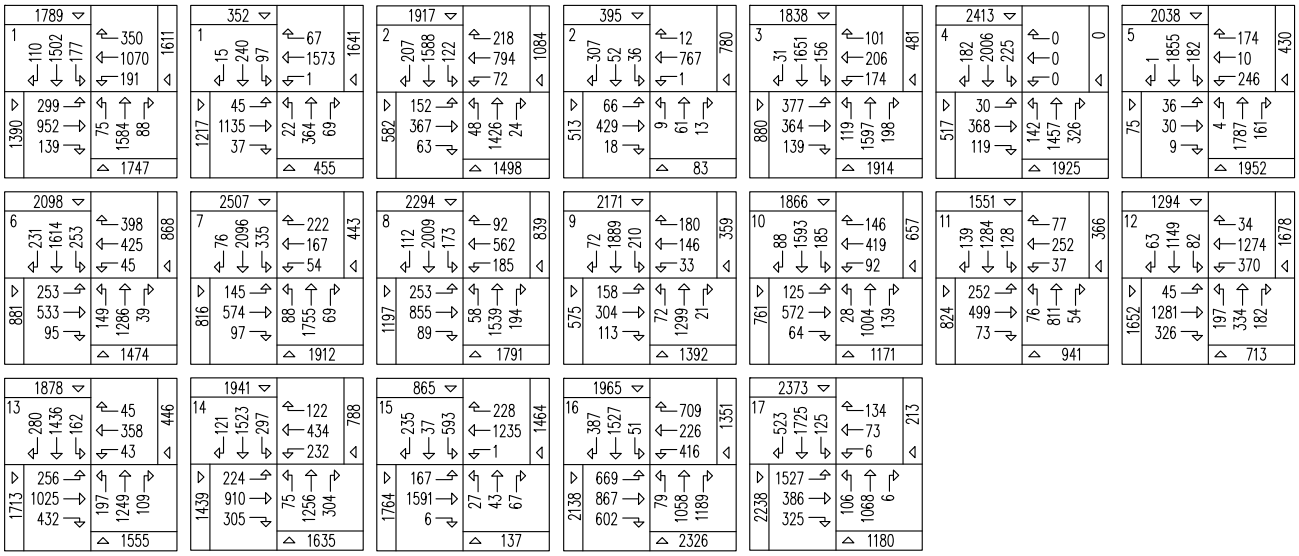
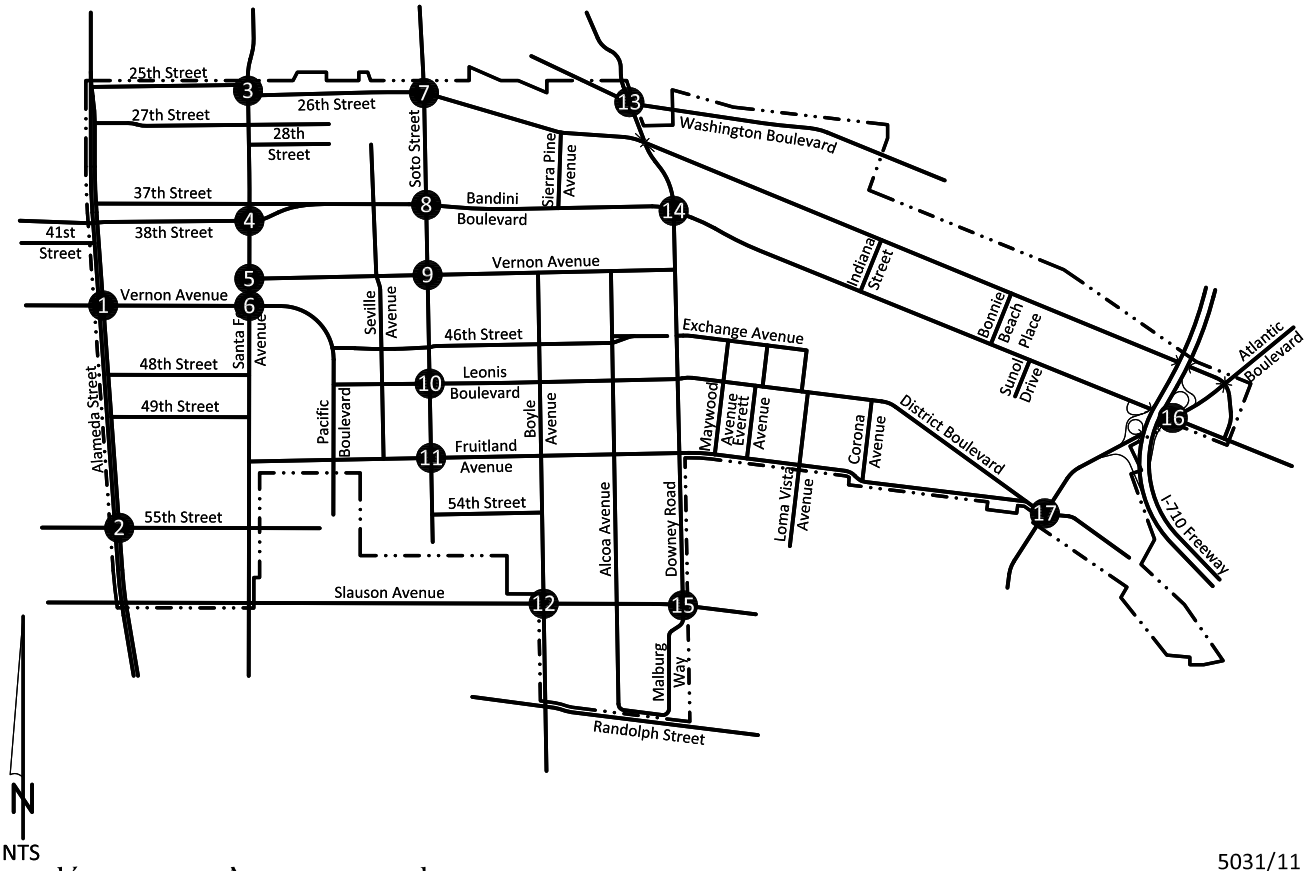
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 11
# Current General Plan Year 2035
# Evening Peak Hour Intersection Turning Movement Volumes




5031/11

KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

# IV. Proposed General Plan Year 2035 Traffic Conditions

In this section, Proposed General Plan Year 2035 traffic conditions are discussed. Figures 12 and 31 illustrate the Current General Plan Year 2035 traffic conditions.

## A. Method of Projection

Based upon the 2007 City of Vernon General Plan Update, an ambient annual growth rate of 0.5 percent is used in this analysis. This produces a growth factor of 1.12 for Year 2035 conditions.

The potential development trip generation and trip distribution are then applied to analyze the Proposed General Plan.

## B. Potential Development

### 1. Potential Development Locations

The City of Vernon has provided the potential locations for residential developments, industrial developments, and an emergency shelter within the residential and trucking overlay districts. Figure 12 provides the location of each potential development site.

### 2. Trip Generation

The trips generated by the potential development is determined by multiplying an appropriate trip generation rate by the quantity of land use. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and our life styles remain similar to what we know today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily traffic and morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land uses. By multiplying the trip generation rates by the land use quantities, the traffic volumes are determined. The difference in vehicle trips between the previously proposed land uses and the proposed land uses are used as the trip generation for each potential development site. Table 3 shows the trip generation based upon rates obtained from the Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012.

### 3. Trip Distribution

To determine the trip distribution for the potential developments, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, and other additional information on future development

and traffic impacts in the area were reviewed. The trip distributions for the potential developments are provided on Figures 13 to 25.

4. Trip Assignment

Based on the identified trip generation and distributions, potential development average daily traffic volumes have been calculated and shown on Figure 26. Morning and evening peak hour intersection turning movement volumes expected from the potential developments are shown on Figures 27 and 28, respectively.

## C. Proposed General Plan Year 2035 Average Daily Traffic Volumes

Proposed General Plan Year 2035 average daily traffic volumes are depicted on Figure 29.

## D. Proposed General Plan Year 2035 Intersection Capacity Utilization and Level of Service

The technique used to assess the capacity needs of an intersection is known as Intersection Capacity Utilization (see Appendix D). To calculate Intersection Capacity Utilization, the volume of traffic using the intersection is compared with the capacity of the intersection.

The Proposed General Plan Year 2035 morning and evening peak hour turning movement volumes are provided in Figures 30 and 31, respectively.

For the Proposed General Plan Year 2035 traffic conditions, the study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements (see Table 4). Proposed General Plan Year 2035 Intersection Capacity Utilization worksheets are provided in Appendix D.

## E. Significant Impact

Based on the Los Angeles Department of Transportation Policies and Procedures, an impact is considered significant if the project-related increase in the volume-to-capacity ratio equals or exceeds the thresholds shown below:

| Significant Impact Threshold for Intersections | | |
|---|---|---|
| Level of Service | Volume/Capacity | Incremental Increase |
| C | 0.70-0.79 | 0.04 or more |
| D | 0.80-0.89 | 0.02 or more |

Table 5 depicts the Proposed General Plan Year 2035 traffic conditions at the study area intersections. The study area intersections are not significantly impacted by the proposed housing and trucking overlay districts.

## Table 3

## Potential Proposed Development Trip Generation[1]

| Site | Land Use | Quantity | Unit[2] | Morning Inbound | Morning Outbound | Morning Total | Evening Inbound | Evening Outbound | Evening Total | Daily |
|---|---|---|---|---|---|---|---|---|---|---|
| Trip Generation Rates | | | | | | | | | | |
| | Warehousing | | AC | 7.22 | 2.81 | 10.03 | 3.04 | 5.65 | 8.69 | 57.23 |
| | Manufacturing | | AC | 6.92 | 0.52 | 7.44 | 4.43 | 3.92 | 8.35 | 38.80 |
| | Emergency Shelter[3] | | Site | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 10.00 |
| | Apartments | | DU | 0.1 | 0.41 | 0.51 | 0.4 | 0.22 | 0.62 | 6.65 |
| Trips Generated | | | | | | | | | | |
| | Warehousing | 2.7 | AC | 19 | 8 | 27 | 8 | 15 | 23 | 155 |
| | Manufacturing | 2.7 | AC | -19 | -1 | -20 | -12 | -11 | -23 | -105 |
| 1 | Subtotal | | | 0 | 7 | 7 | -4 | 4 | 0 | 50 |
| | Emergency Shelter | 1 | Site | 1 | 1 | 2 | 1 | 1 | 2 | 10 |
| | Manufacturing | 2.1 | AC | -15 | -1 | -16 | -9 | -8 | -17 | -81 |
| 2 | Subtotal | | | -14 | 0 | -14 | -8 | -7 | -15 | -71 |
| | Warehousing | 5.0 | AC | 36 | 14 | 50 | 15 | 28 | 43 | 286 |
| | Manufacturing | 5 | AC | -35 | -3 | -38 | -22 | -20 | -42 | -194 |
| 3 | Subtotal | | | 1 | 11 | 12 | -7 | 8 | 1 | 92 |
| | Warehousing | 3.6 | AC | 26 | 10 | 36 | 11 | 20 | 31 | 206 |
| | Manufacturing | 3.6 | AC | -25 | -2 | -27 | -16 | -14 | -30 | -140 |
| 4 | Subtotal | | | 1 | 8 | 9 | -5 | 6 | 1 | 66 |
| | Warehousing | 3.1 | AC | 22 | 9 | 31 | 9 | 18 | 27 | 177 |
| | Manufacturing | 3.1 | AC | -21 | -2 | -23 | -14 | -12 | -26 | -120 |
| 5 | Subtotal | | | 1 | 7 | 8 | -5 | 6 | 1 | 57 |
| | Warehousing | 2.9 | AC | 21 | 8 | 29 | 9 | 16 | 25 | 166 |
| | Manufacturing | 2.9 | AC | -20 | -2 | -22 | -13 | -11 | -24 | -113 |
| 6 | Subtotal | | | 1 | 6 | 7 | -4 | 5 | 1 | 53 |
| | Warehousing | 10.5 | AC | 76 | 30 | 106 | 32 | 59 | 91 | 601 |
| | Manufacturing | 10.5 | AC | -73 | -5 | -78 | -47 | -41 | -88 | -407 |
| 7 | Subtotal | | | 3 | 25 | 28 | -15 | 18 | 3 | 194 |
| | Warehousing | 2.0 | AC | 14 | 6 | 20 | 6 | 11 | 17 | 114 |
| | Manufacturing | 2 | AC | -14 | -1 | -15 | -9 | -8 | -17 | -78 |
| 8 | Subtotal | | | 0 | 5 | 5 | -3 | 3 | 0 | 36 |
| | Warehousing | 2.7 | AC | 19 | 8 | 27 | 8 | 15 | 23 | 155 |
| | Manufacturing | 2.7 | AC | -19 | -1 | -20 | -12 | -11 | -23 | -105 |
| 9 | Subtotal | | | 0 | 7 | 7 | -4 | 4 | 0 | 50 |
| | Apartments | 10 | DU | 1 | 4 | 5 | 4 | 2 | 6 | 67 |
| | Manufacturing | 0.5 | AC | -3 | 0 | -3 | -2 | -2 | -4 | -19 |
| 10 | Subtotal | | | -2 | 4 | 2 | 2 | 0 | 2 | 48 |
| | Warehousing | 8.6 | AC | 62 | 24 | 86 | 26 | 49 | 75 | 492 |
| | Manufacturing | 8.6 | AC | -60 | -4 | -64 | -38 | -34 | -72 | -334 |
| 11 | Subtotal | | | 2 | 20 | 22 | -12 | 15 | 3 | 158 |
| | Apartments | 45 | DU | 5 | 18 | 23 | 18 | 10 | 28 | 299 |
| | Manufacturing | 2.9 | AC | -20 | -2 | -22 | -13 | -11 | -24 | -113 |
| 12 | Subtotal | | | -15 | 16 | 1 | 5 | -1 | 4 | 186 |
| | Warehousing | 3.0 | AC | 22 | 8 | 30 | 9 | 17 | 26 | 172 |
| | Manufacturing | 3.0 | AC | -21 | -2 | -23 | -13 | -12 | -25 | -116 |
| 13 | Subtotal | | | 1 | 6 | 7 | -4 | 5 | 1 | 56 |

[1] Source: Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012, Land Use Categories 140, 150, and 220.

[2] AC = Acres; Site = Site; DU = Dwelling Unit

[3] The emergency shelter is projected to generate little to know traffic. An assumption of 1 inbound and 1 outbound vehicle has been made for the morning and even total of 10 vehicle trips per day.

**Table 4**

**Proposed General Plan Year 2035 Intersection Capacity Utilization and Level of Service**

| Intersection | Traffic Control [3] | Intersection Approach Lanes [1] | | | | | | | | | | | | Peak Hour ICU-LOS [2] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | |
| | | L | T | R | L | T | R | L | T | R | L | T | R | Morning | Evening |
| Alameda Street (NS) at: | | | | | | | | | | | | | | | |
| Vernon Avenue - West (EW) - #1a | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 | 1.617-F | 1.671-F |
| Vernon Avenue - East (EW) - #1b | TS | 0 | 1 | 0 | 0 | 1 | 0 | 0.5 | 1 | 0.5 | 0.5 | 1.5 | 1 | 1.217-F | 1.317-F |
| 55th Street - West (EW) - #2a | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 0.5 | d | 0 | 1 | 0 | 1.482-F | 1.692-F |
| 55th Street - East (EW) - #2b | TS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0.5 | 0.5 | d | 0.811-D | 1.153-F |
| Santa Fe Avenue (NS) at: | | | | | | | | | | | | | | | |
| 25th/26th Street (EW) - #3 | TS | 1 | 2 | 1>> | 1 | 2 | 1>> | 1 | 1 | d | 1 | 0.5 | 0.5 | 0.988-E | 1.125-F |
| 38th Street (EW) - #4 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 0.5 | d | 0 | 0 | 0 | 1.055-F | 1.119-F |
| Vernon Avenue (EW) - #5 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0 | 1 | 0 | 0.5 | 1 | 0.5 | 1.076-F | 1.018-F |
| Vernon Avenue/Pacific Boulevard (EW) - #6 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 2 | 2 | 1.017-F | 1.062-F |
| Soto Street (NS) at: | | | | | | | | | | | | | | | |
| 26th Street (EW) - #7 | TS | 1 | 2 | 1>> | 1 | 2 | 1 | 1 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 1.127-F | 1.314-F |
| Bandini Boulevard (EW) - #8 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 2.5 | 0.5 | 1.060-F | 1.111-F |
| Vernon Avenue (EW) - #9 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 | 0.953-E | 1.050-F |
| Leonis Boulevard (EW) - #10 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 0.969-E | 0.899-D |
| Fruitland Avenue (EW) - #11 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 | 0.5 | 0.891-D | 0.973-E |
| Boyle Avenue (NS) at: | | | | | | | | | | | | | | | |
| Slauson Avenue (EW) - #12 | TS | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1.199-F | 1.334-F |
| Downey Road (NS) at: | | | | | | | | | | | | | | | |
| Washington Boulevard (EW) - #13 | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1> | 1 | 2 | d | 0.963-E | 1.019-F |
| Bandini Boulevard (EW) - #14 | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1.5 | 0.5 | 1.002-F | 1.048-F |
| Slauson Avenue (EW) - #15 | TS | 1 | 1 | 1 | 1 | 0.5 | 0.5 | 1 | 1.5 | 0.5 | 0.5 | 1 | 0.5 | 1.081-F | 1.073-F |
| Atlantic Boulevard (NS) at: | | | | | | | | | | | | | | | |
| Bandini Boulevard (EW) - #16 | TS | 1 | 4 | 1 | 1 | 3.5 | 1.5>> | 1.5 | 2 | 0.5 | 1 | 1 | 2>> | 1.725-F | 1.598-F |
| District Boulevard (EW) - #17 | TS | 1 | 2.5 | 0.5 | 1 | 3 | 1>> | 2 | 1 | 1 | 0.5 | 1.5 | 1>> | 0.952-E | 1.080-F |

[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Turn Lane; > = Right Turn Overlap; >> = Free Right Turn

[2] ICU-LOS = Intersection Capacity Utilization-Level of Service

[3] TS = Traffic Signal

**Table 5**

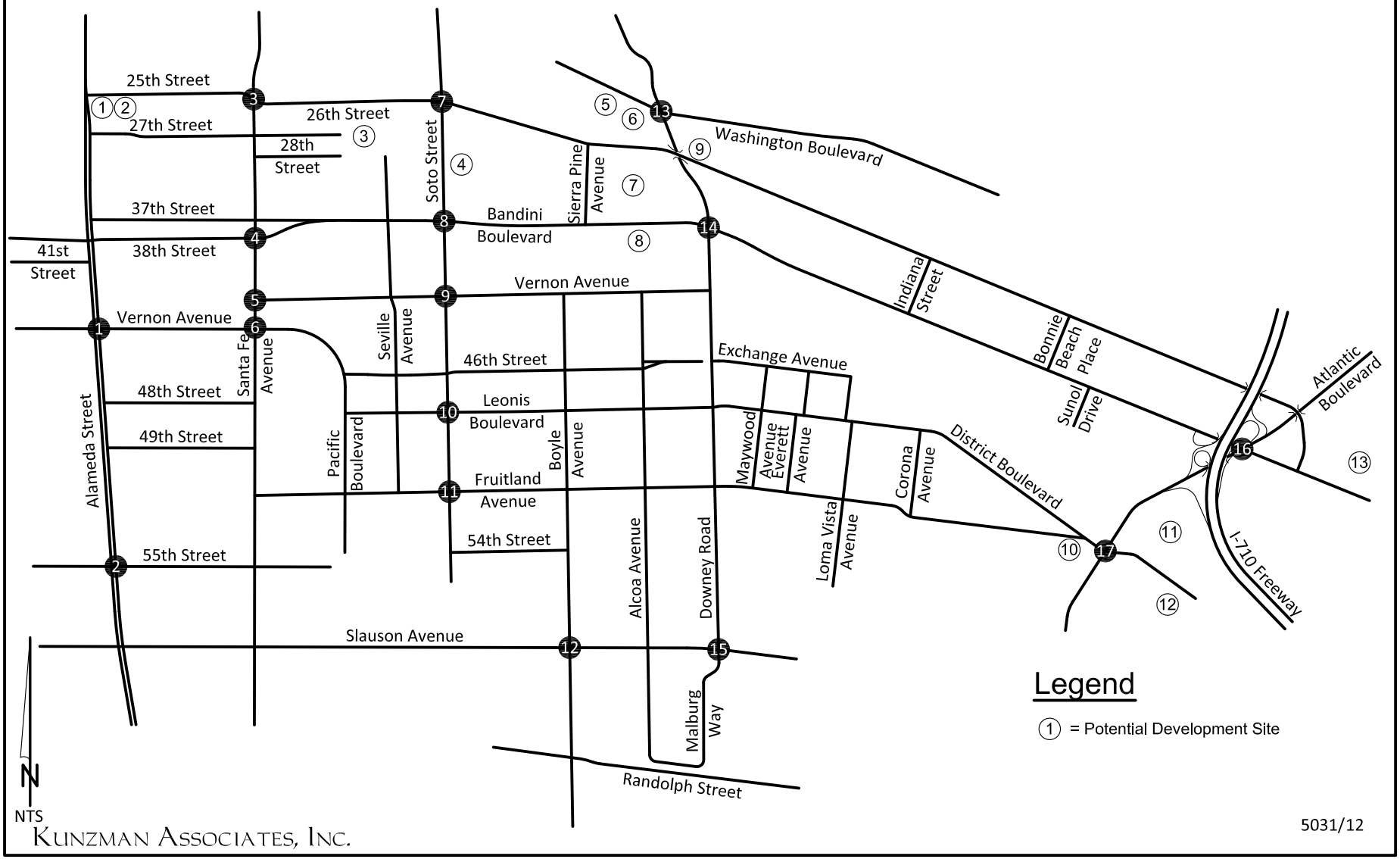
**Project Traffic Contribution**

| Intersection | Peak Hour | Year 2035 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Current General Plan | | Proposed General Plan | | | | | | | |
| | | | | Without Mitigation | | | | With Mitigation | | | |
| | | Volume to Capacity | Level of Service | Volume to Capacity | Level of Service | Project Impact | Significant Impact[1] | Volume to Capacity | Level of Service | Project Impact | Significant Impact |
| Alameda Street (NS) at: | | | | | | | | | | | |
| Vernon Avenue - West (EW) - #1a | Morning | 1.617 | F | 1.617 | F | 0.000 | No | | | | |
| | Evening | 1.671 | F | 1.671 | F | 0.000 | No | | | | |
| Vernon Avenue - East (EW) - #1b | Morning | 1.217 | F | 1.217 | F | 0.000 | No | | | | |
| | Evening | 1.317 | F | 1.317 | F | 0.000 | No | | | | |
| 55th Street - West (EW) - #2a | Morning | 1.482 | F | 1.482 | F | 0.000 | No | | | | |
| | Evening | 1.692 | F | 1.692 | F | 0.000 | No | | | | |
| 55th Street - East (EW) - #2b | Morning | 0.811 | D | 0.811 | D | 0.000 | No | | | | |
| | Evening | 1.153 | D | 1.153 | D | 0.000 | No | | | | |
| Santa Fe Avenue (NS) at: | | | | | | | | | | | |
| 25th/26th Street (EW) - #3 | Morning | 0.986 | E | 0.988 | E | 0.002 | No | | | | |
| | Evening | 1.124 | F | 1.125 | F | 0.001 | No | | | | |
| 38th Street (EW) - #4 | Morning | 1.059 | F | 1.055 | F | -0.004 | No | | | | |
| | Evening | 1.121 | F | 1.119 | F | -0.002 | No | | | | |
| Vernon Avenue (EW) - #5 | Morning | 1.077 | F | 1.076 | F | -0.001 | No | | | | |
| | Evening | 1.022 | F | 1.018 | F | -0.004 | No | | | | |
| Vernon Avenue/Pacific Boulevard (EW) - #6 | Morning | 1.017 | F | 1.017 | F | 0.000 | No | | | | |
| | Evening | 1.061 | F | 1.062 | F | 0.001 | No | | | | |
| Soto Street (NS) at: | | | | | | | | | | | |
| 26th Street (EW) - #7 | Morning | 1.118 | F | 1.127 | F | 0.009 | No | | | | |
| | Evening | 1.311 | F | 1.134 | F | -0.177 | No | | | | |
| Bandini Boulevard (EW) - #8 | Morning | 1.053 | F | 1.060 | F | 0.007 | No | | | | |
| | Evening | 1.111 | F | 1.111 | F | 0.000 | No | | | | |
| Vernon Avenue (EW) - #9 | Morning | 0.953 | E | 0.953 | F | 0.000 | No | | | | |
| | Evening | 1.050 | F | 1.050 | F | 0.000 | No | | | | |
| Leonis Boulevard (EW) - #10 | Morning | 0.969 | E | 0.969 | E | 0.000 | No | | | | |
| | Evening | 0.899 | D | 0.899 | D | 0.000 | No | | | | |
| Fruitland Avenue (EW) - #11 | Morning | 0.891 | D | 0.891 | D | 0.000 | No | | | | |
| | Evening | 0.973 | E | 0.973 | E | 0.000 | No | | | | |
| Boyle Avenue (NS) at: | | | | | | | | | | | |
| Slauson Avenue (EW) - #12 | Morning | 1.199 | F | 1.199 | F | 0.000 | No | | | | |
| | Evening | 1.335 | F | 1.334 | F | -0.001 | No | | | | |
| Downey Road (NS) at: | | | | | | | | | | | |
| Washington Boulevard (EW) - #13 | Morning | 0.960 | E | 0.963 | E | 0.003 | No | | | | |
| | Evening | 1.019 | F | 1.019 | F | 0.000 | No | | | | |
| Bandini Boulevard (EW) - #14 | Morning | 0.998 | E | 1.002 | F | 0.004 | No | | | | |
| | Evening | 1.043 | F | 1.048 | F | 0.005 | No | | | | |
| Slauson Avenue (EW) - #15 | Morning | 1.079 | F | 1.081 | F | 0.002 | No | | | | |
| | Evening | 1.075 | F | 1.073 | F | -0.002 | No | | | | |
| Atlantic Boulevard (NS) at: | | | | | | | | | | | |
| Bandini Boulevard (EW) - #16 | Morning | 1.717 | F | 1.725 | F | 0.008 | No | | | | |
| | Evening | 1.594 | F | 1.598 | F | 0.004 | No | | | | |
| District Boulevard (EW) - #17 | Morning | 0.949 | E | 0.952 | E | 0.003 | No | | | | |
| | Evening | 1.081 | F | 1.080 | F | -0.001 | No | | | | |

[1] Based on the Los Angeles Department of Transportation Policies and Procedure, impact is considered significant if the project related increase in the volume to capacity ratio equals or exceeds the thresholds shown below:

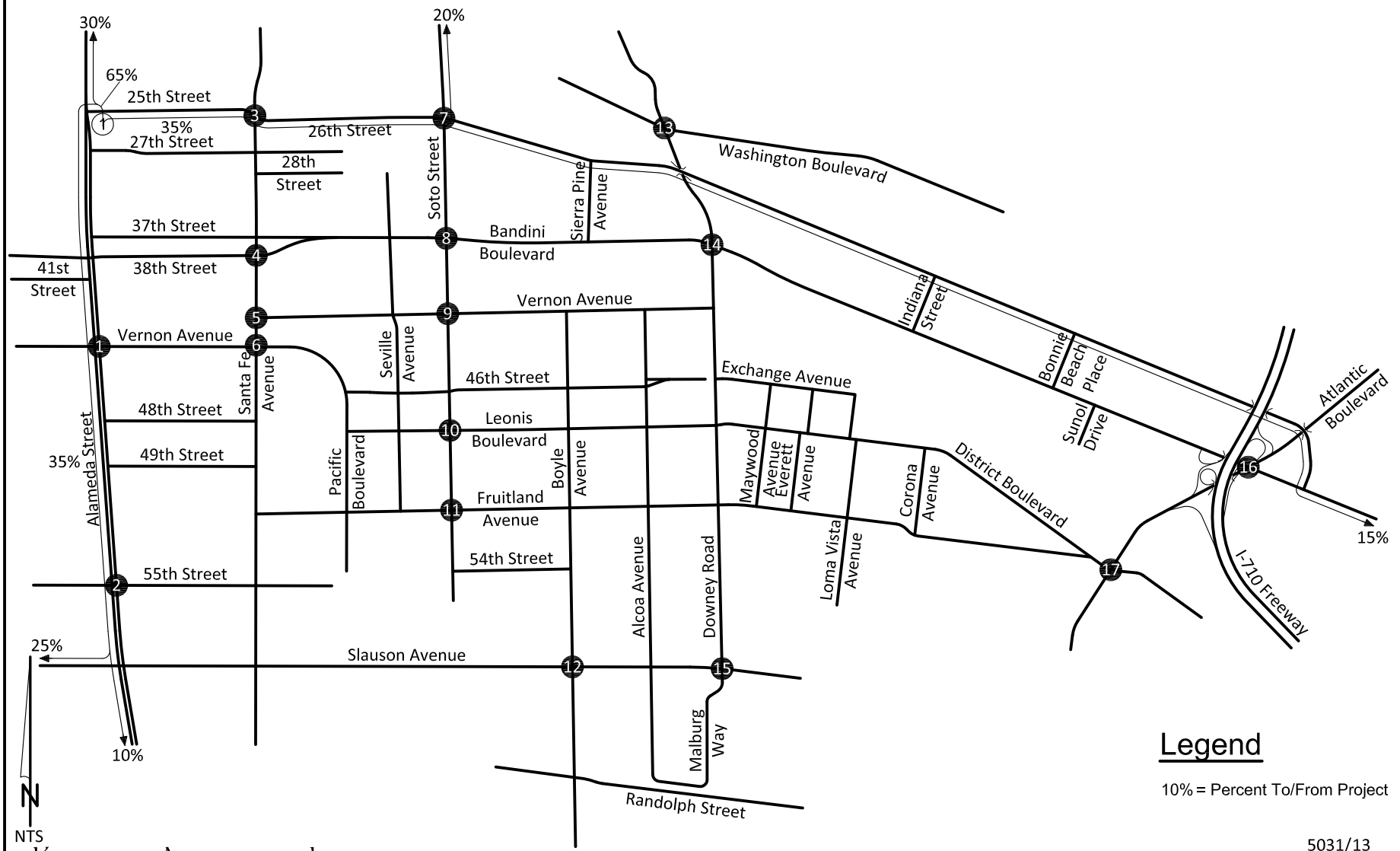
| Significant Impact Threshold for Intersections | | |
|---|---|---|
| Level of Service | Volume/Capacity | Incremental Increase |
| C | 0.70 - 0.79 | equal to or greater than 0.040 or more |
| D | 0.80 - 0.89 | equal to or greater than 0.020 or more |
| E/F | 0.90 - more | equal to or greater than 0.010 or more |

# Figure 12
## Potential Development Location Map



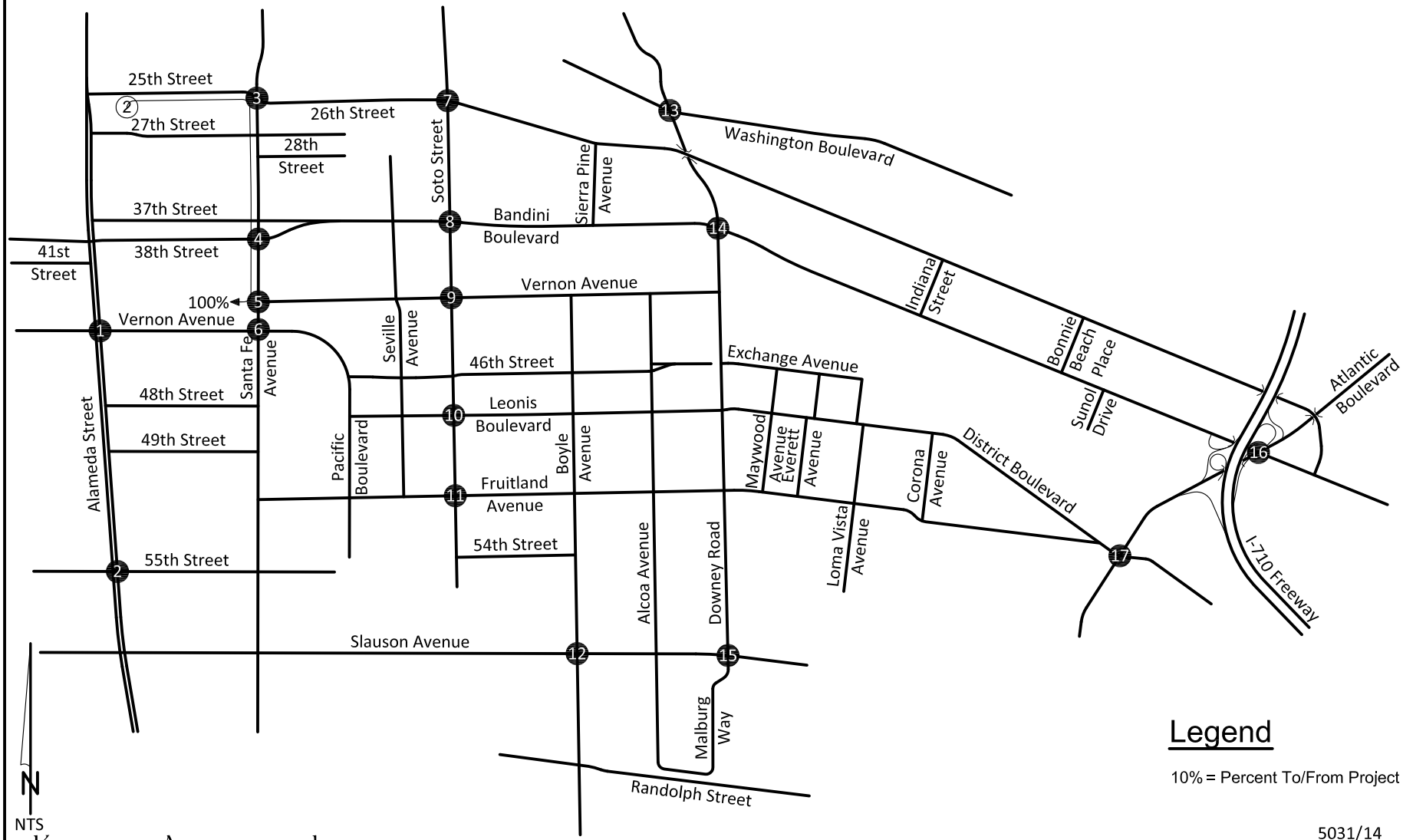

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 13
## Potential Development Number 1 Trip Distribution



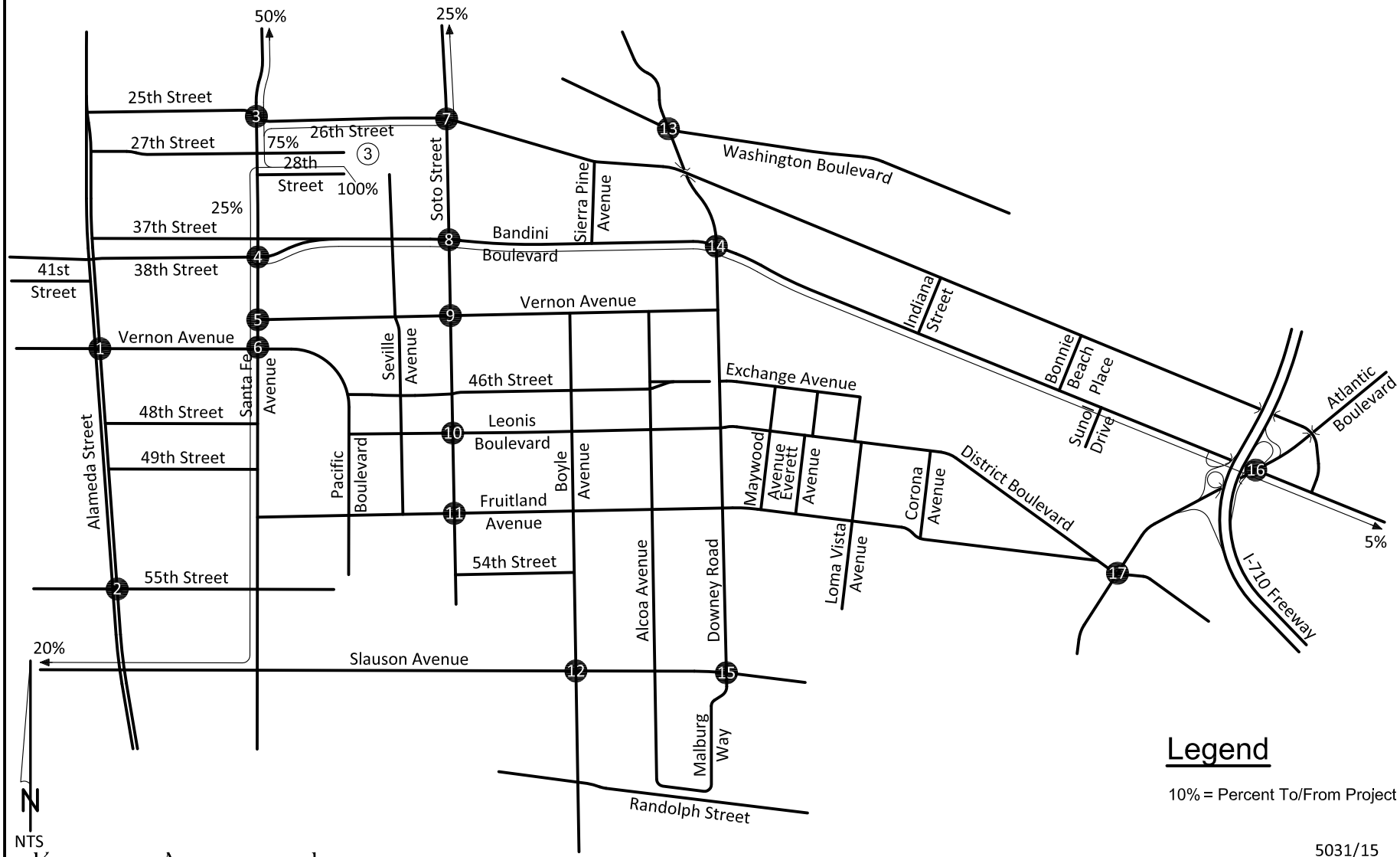

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 14
## Potential Development Number 2 Trip Distribution



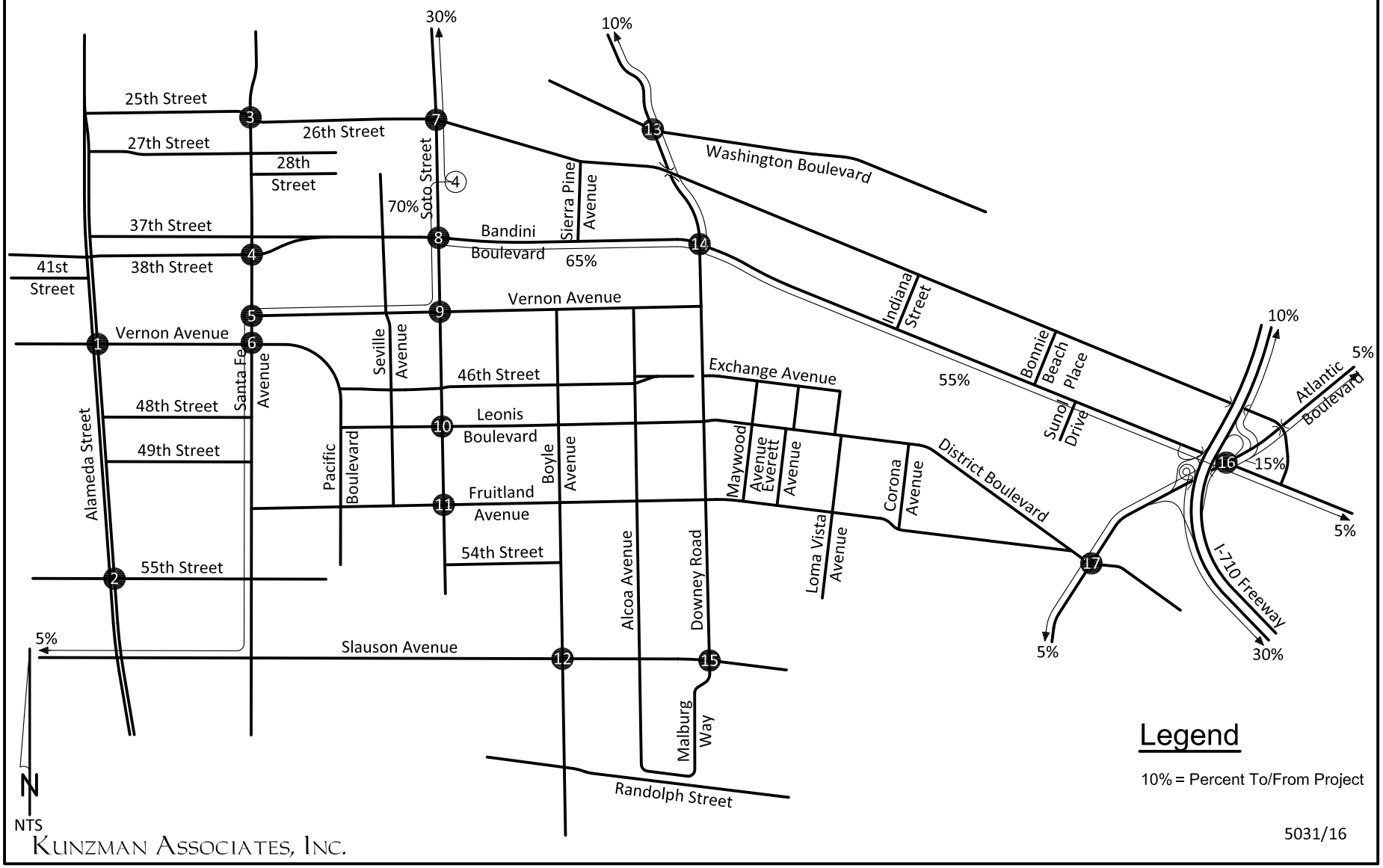

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 15
## Potential Development Number 3 Trip Distribution



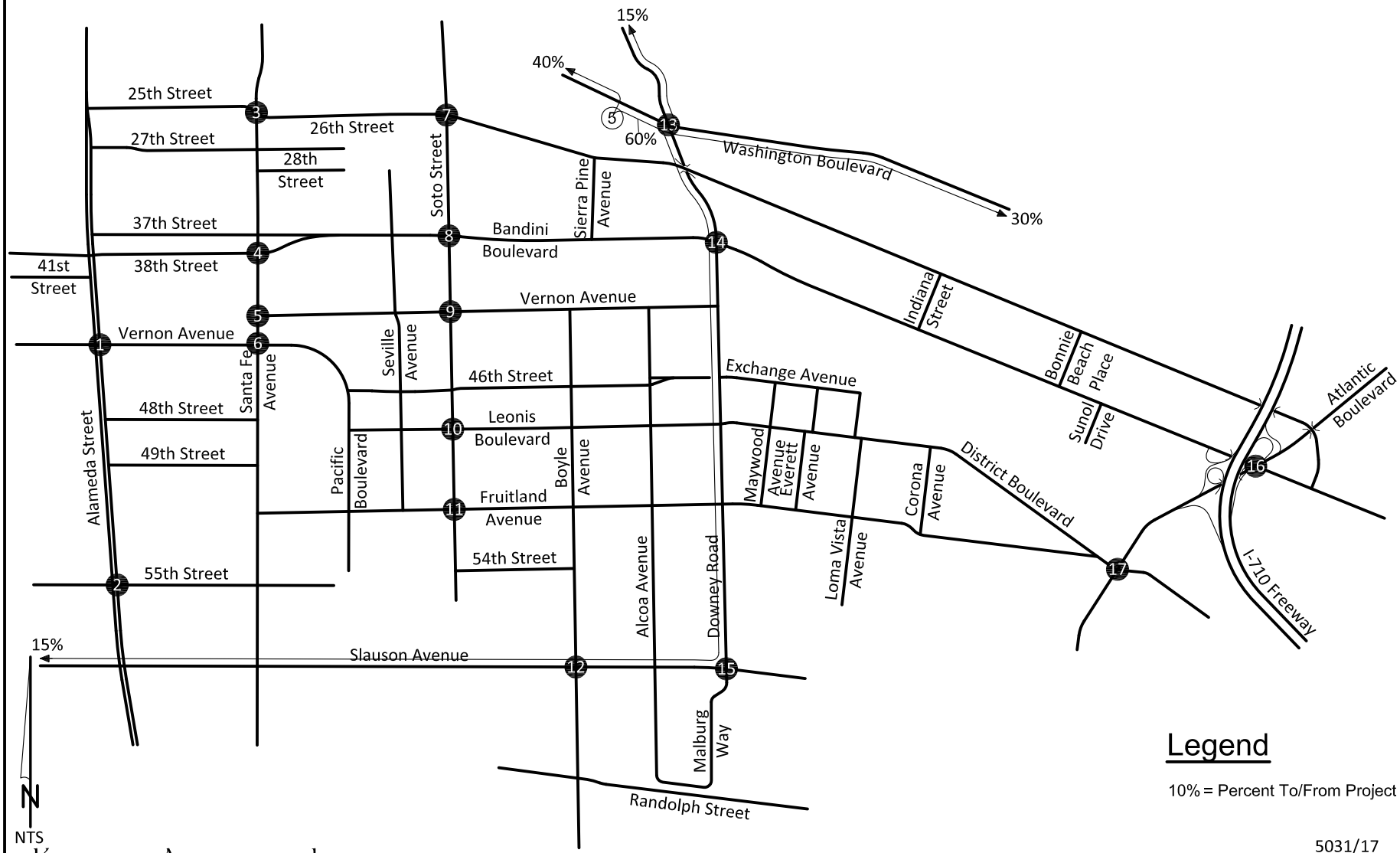

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 16
## Potential Development Number 4 Trip Distribution



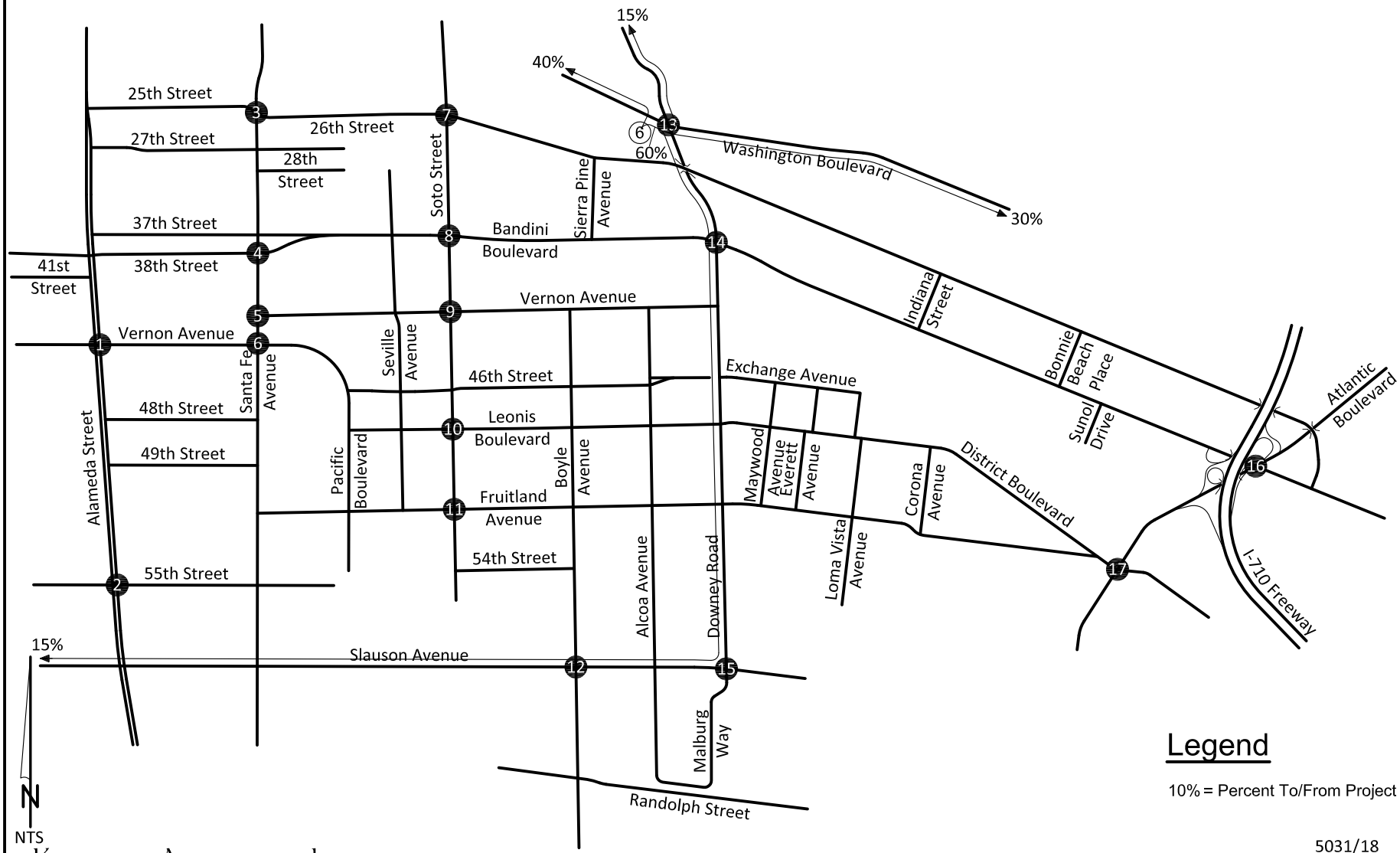

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 17
## Potential Development Number 5 Trip Distribution



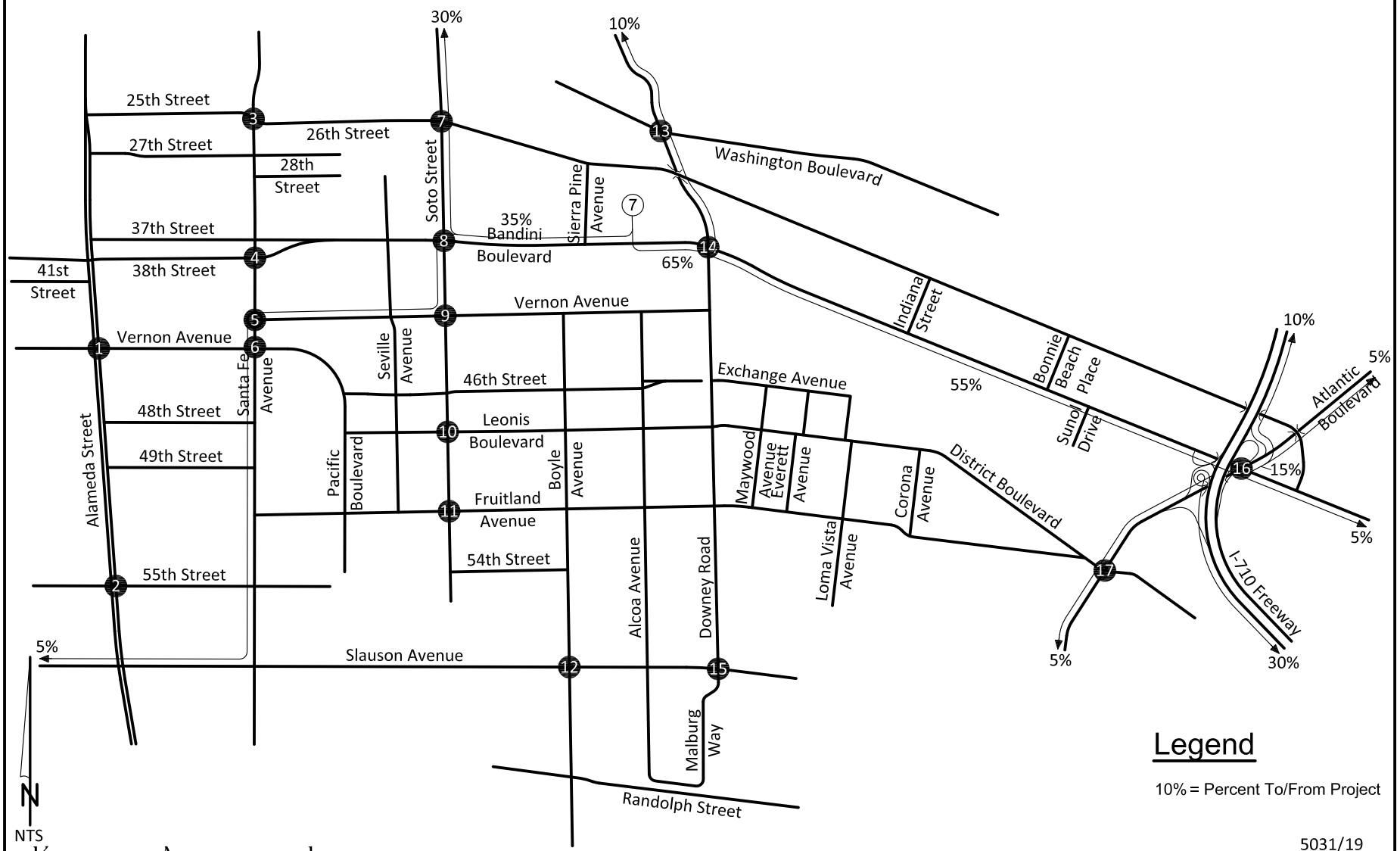

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 18
## Potential Development Number 6 Trip Distribution



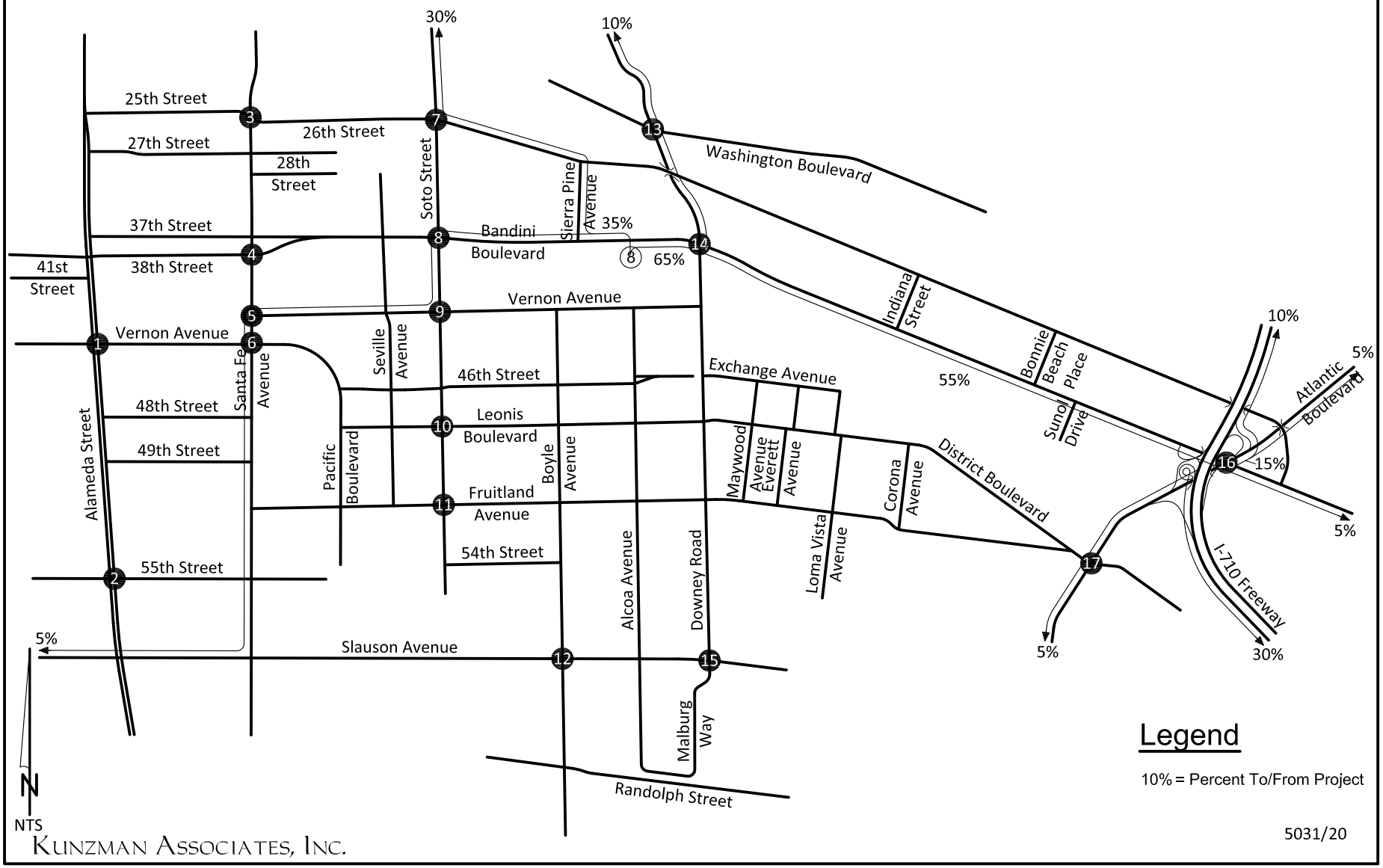

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 19
## Potential Development Number 7 Trip Distribution



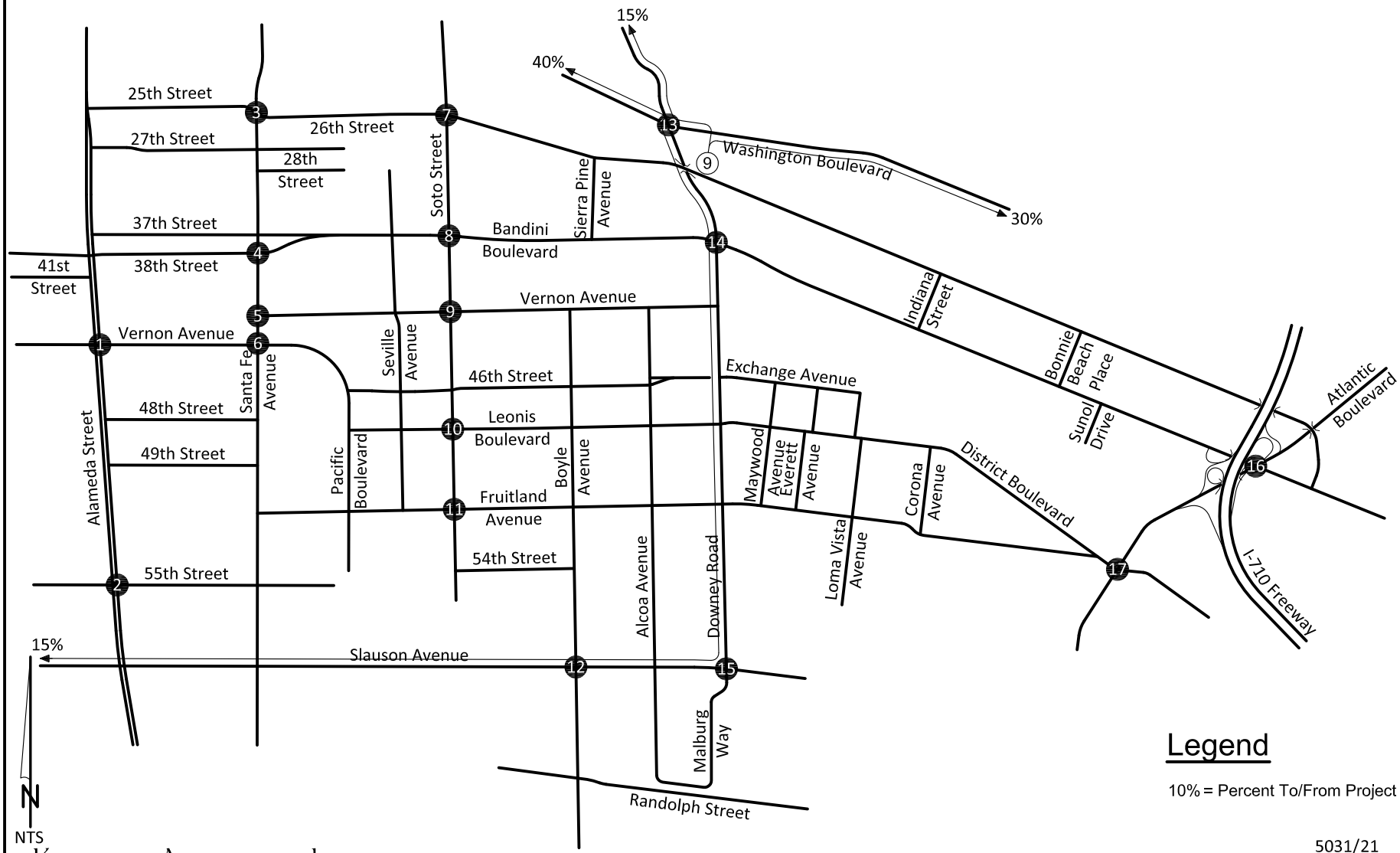

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 20
## Potential Development Number 8 Trip Distribution



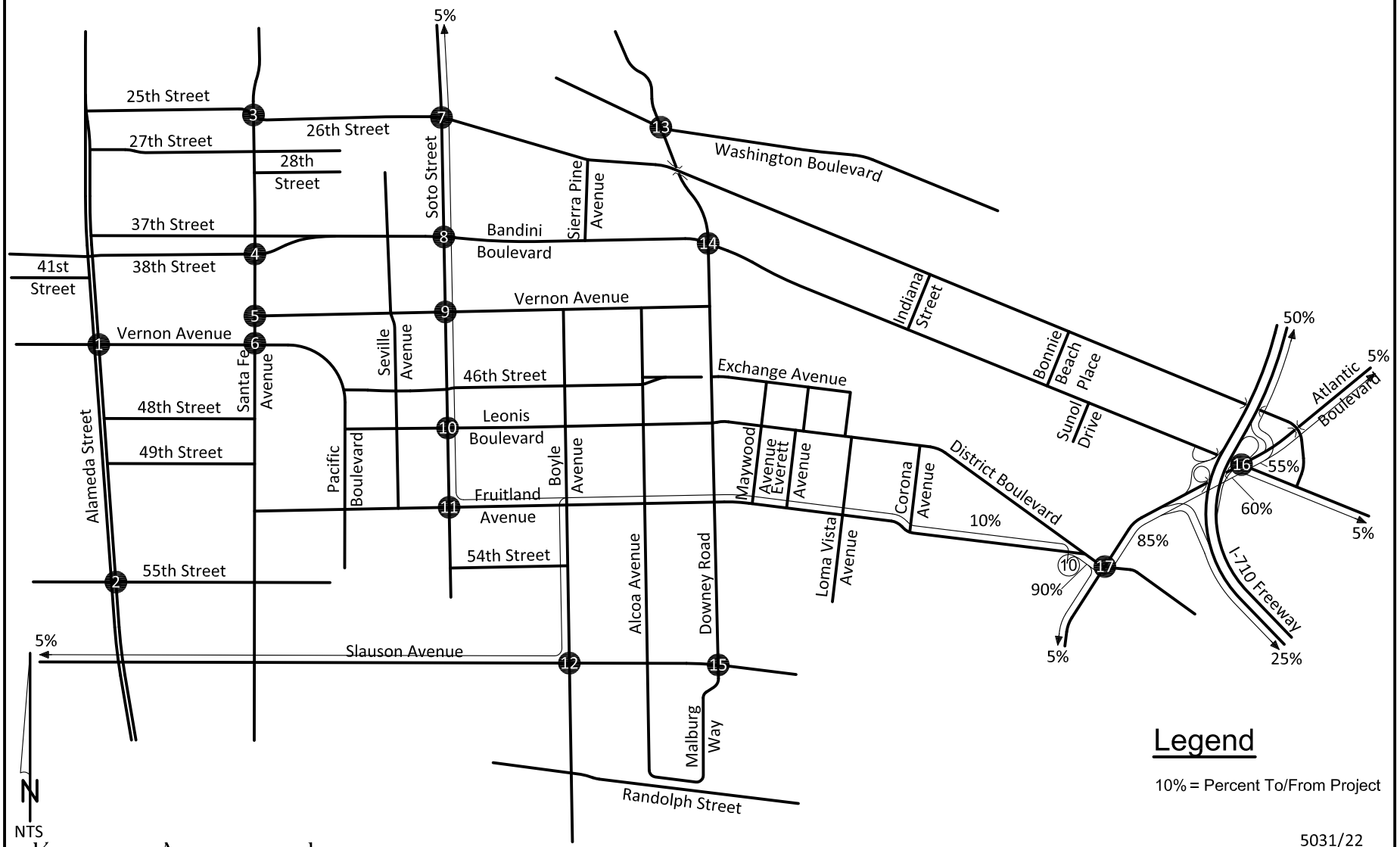

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 21
## Potential Development Number 9 Trip Distribution



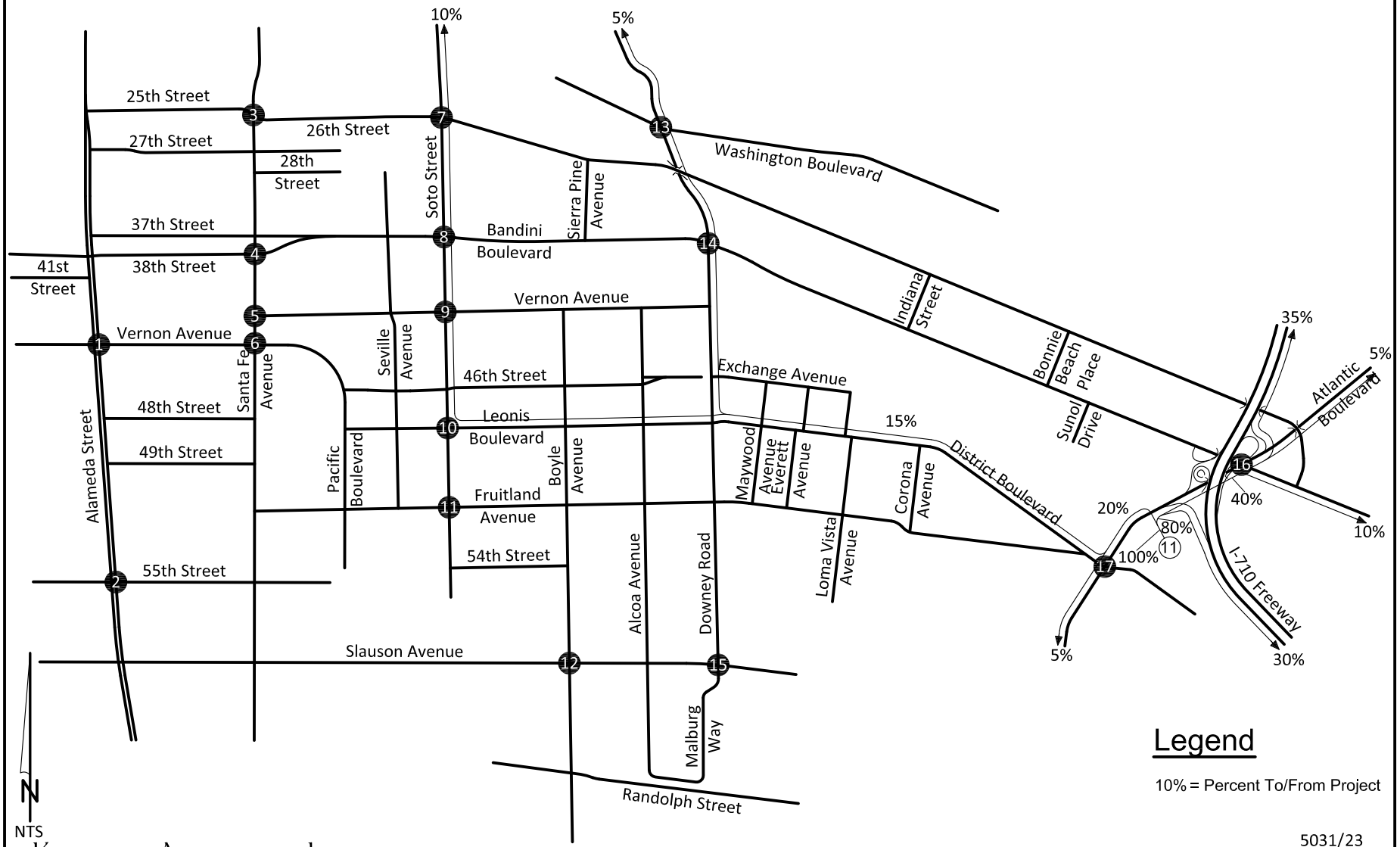

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 22
## Potential Development Number 10 Trip Distribution



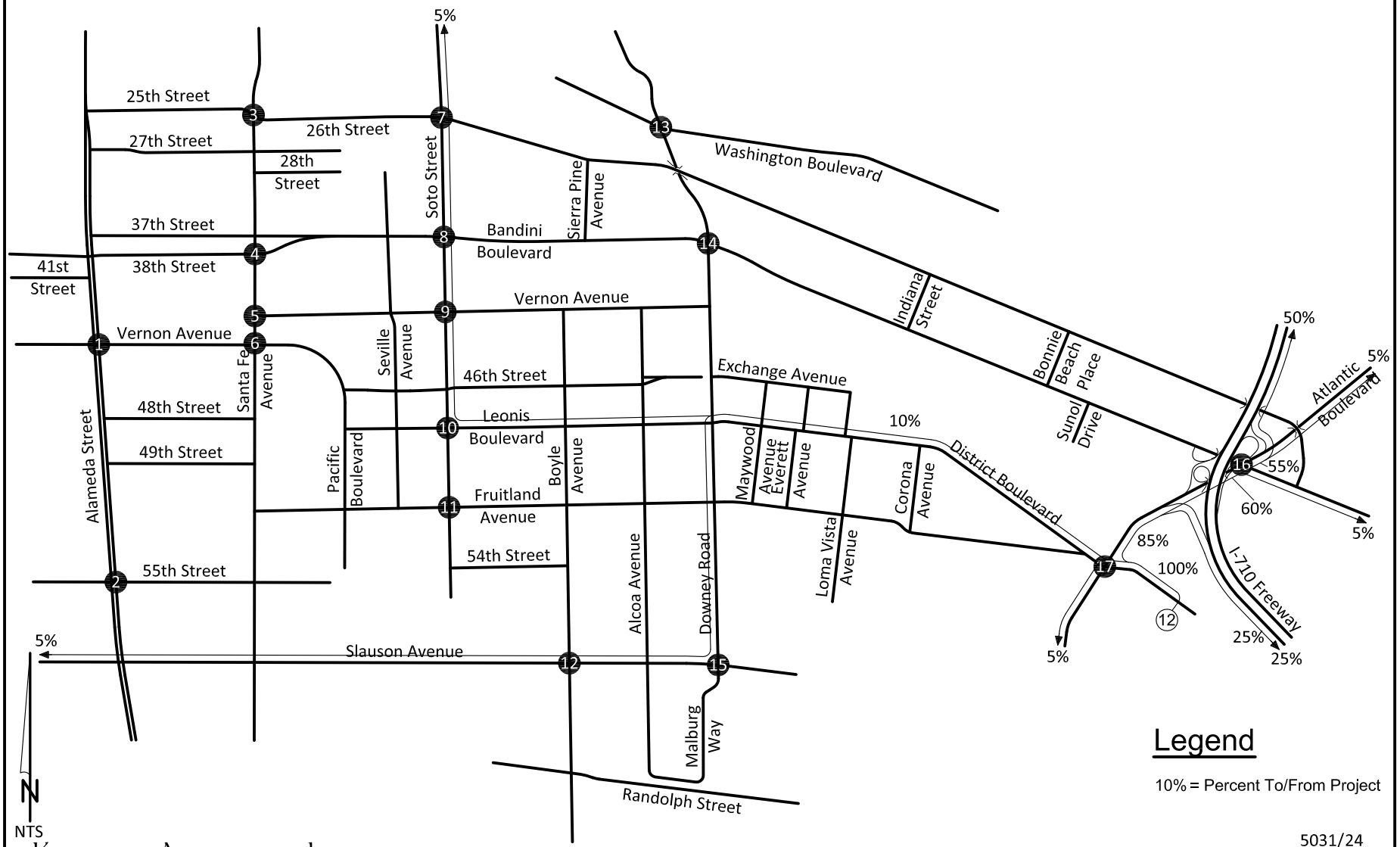

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 23
## Potential Development Number 11 Trip Distribution



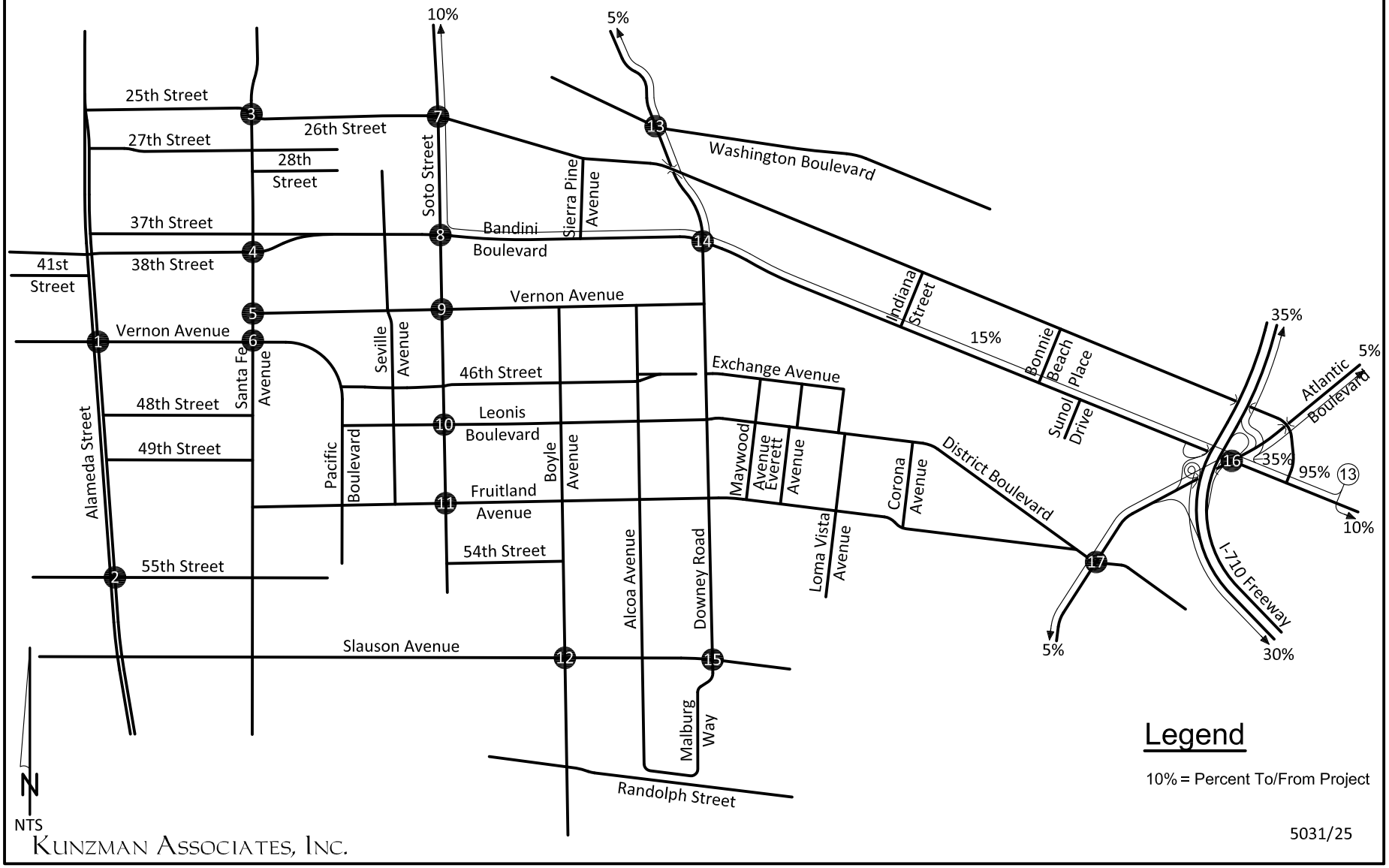

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 24
## Potential Development Number 12 Trip Distribution



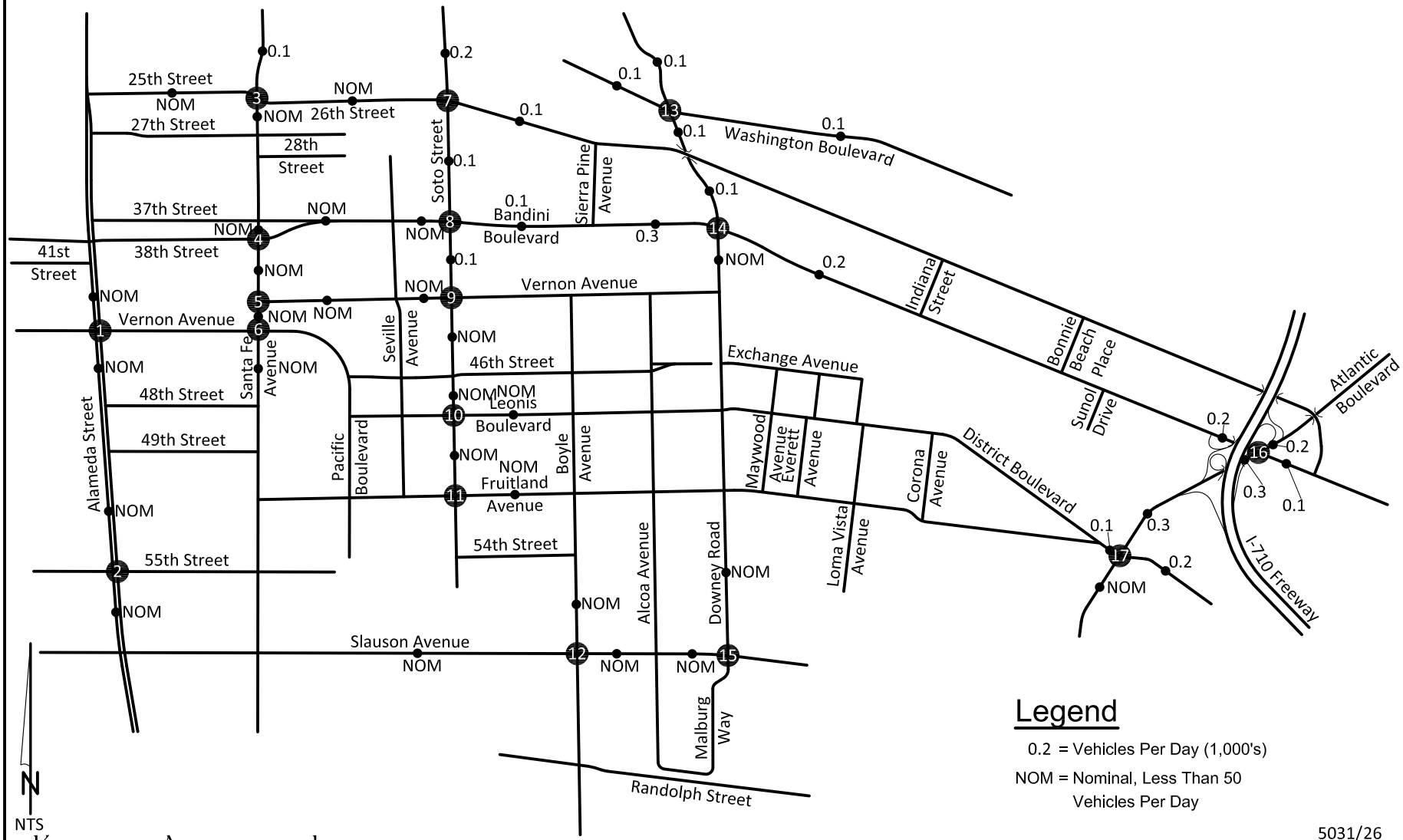

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 25
## Potential Development Number 13 Trip Distribution



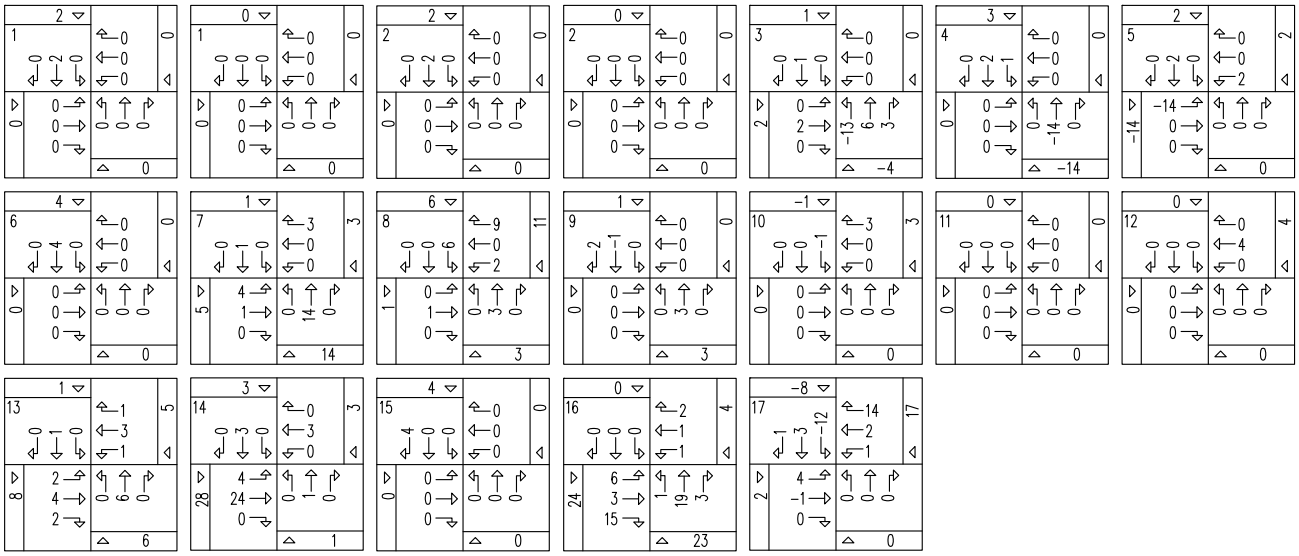

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

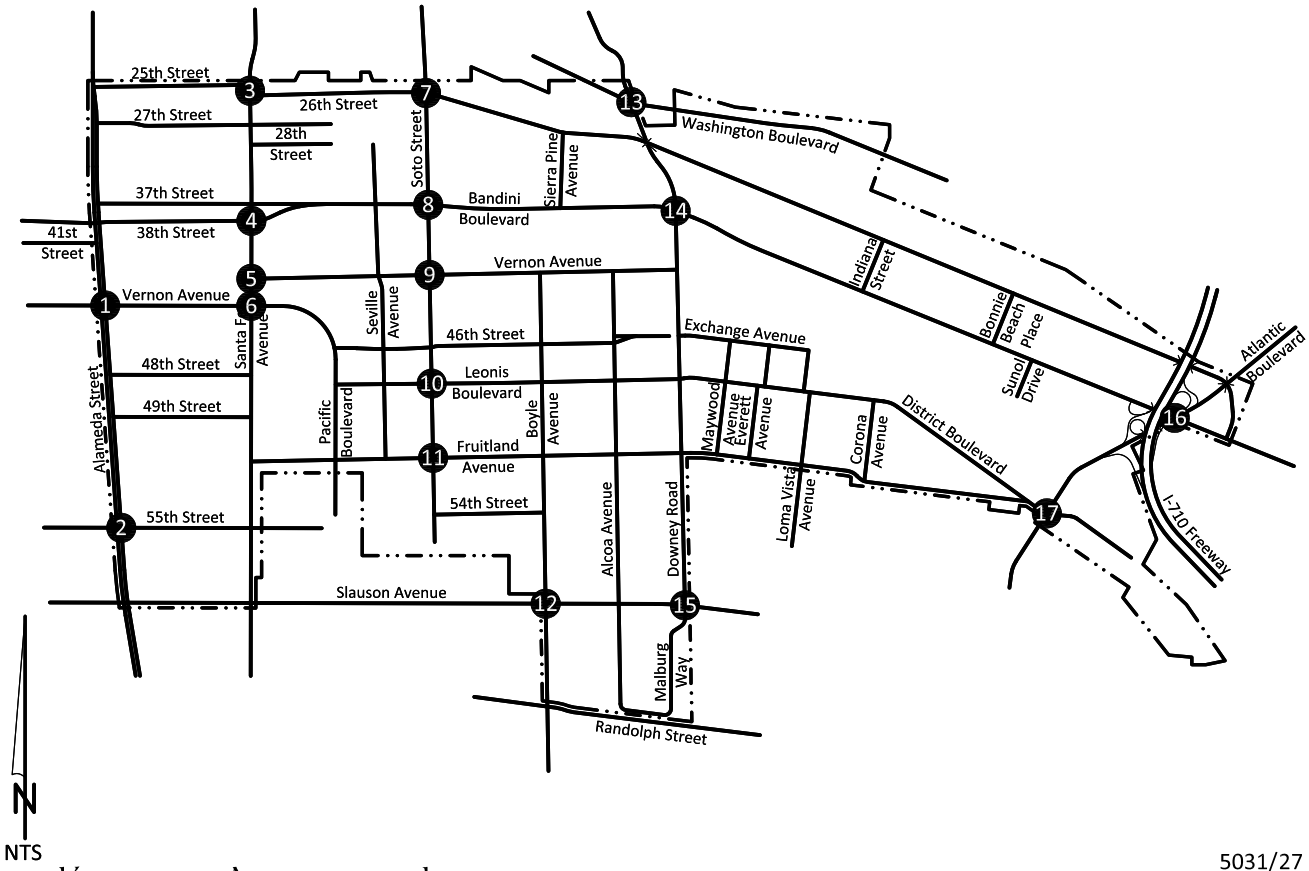
# Figure 26
## Potential Development Average Daily Traffic Volumes




KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 27
# Potential Development
# Morning Peak Hour Intersection Turning Movement Volumes

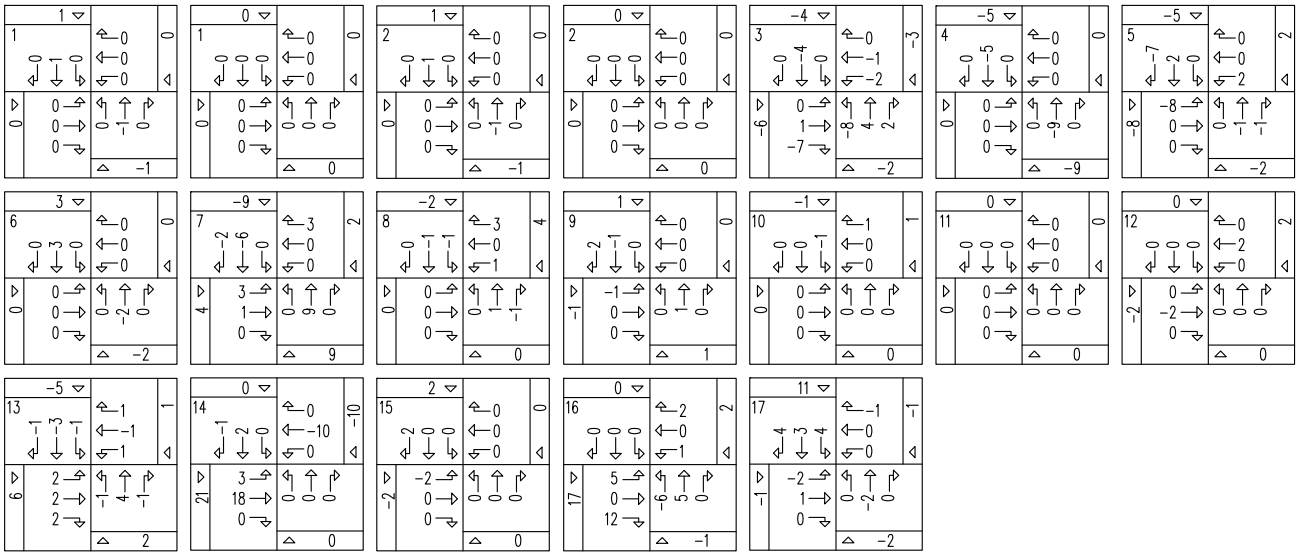


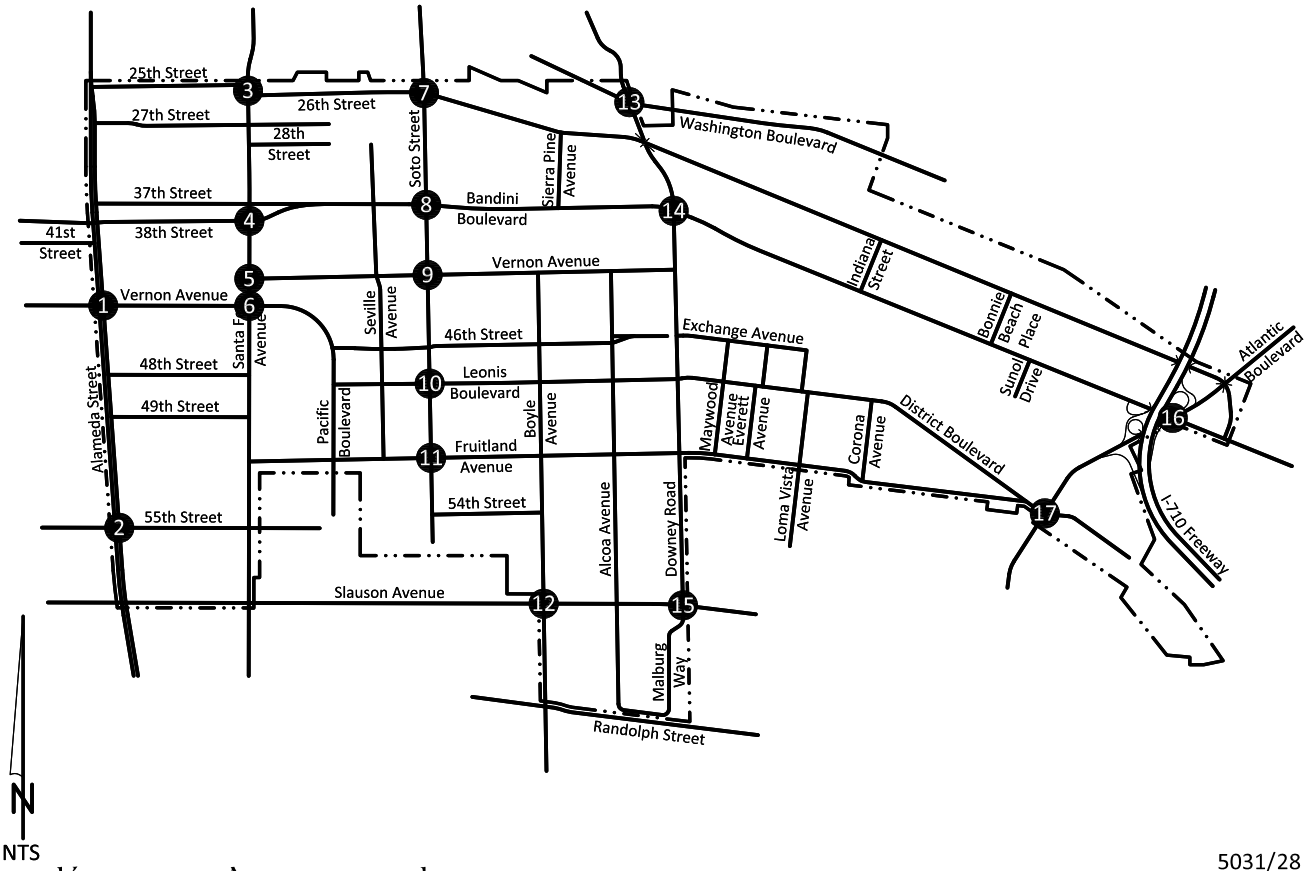



5031/27

Intersection reference numbers are in upper left corner of turning movement boxes.

# Figure 28
# Potential Development
# Evening Peak Hour Intersection Turning Movement Volumes



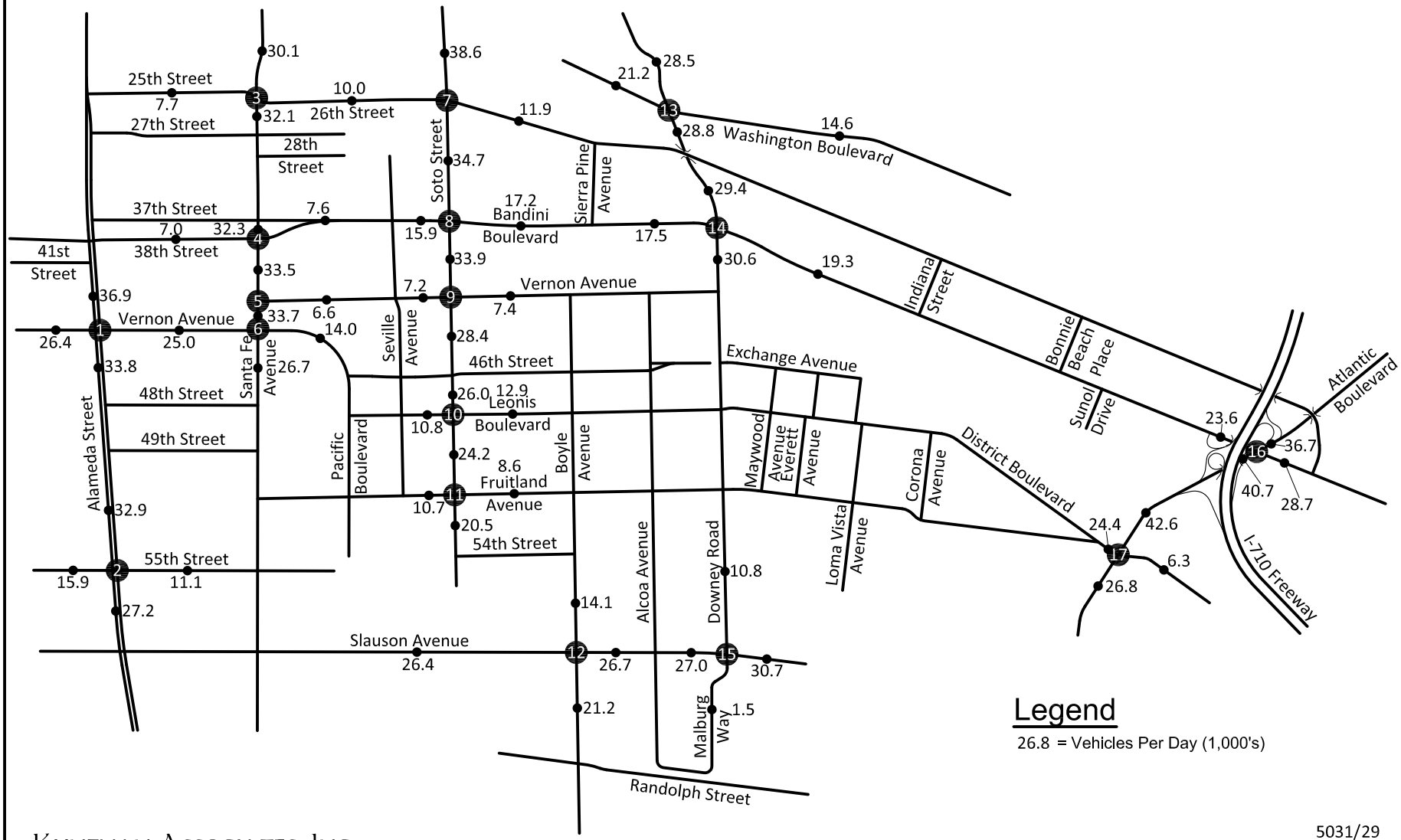



5031/28

KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

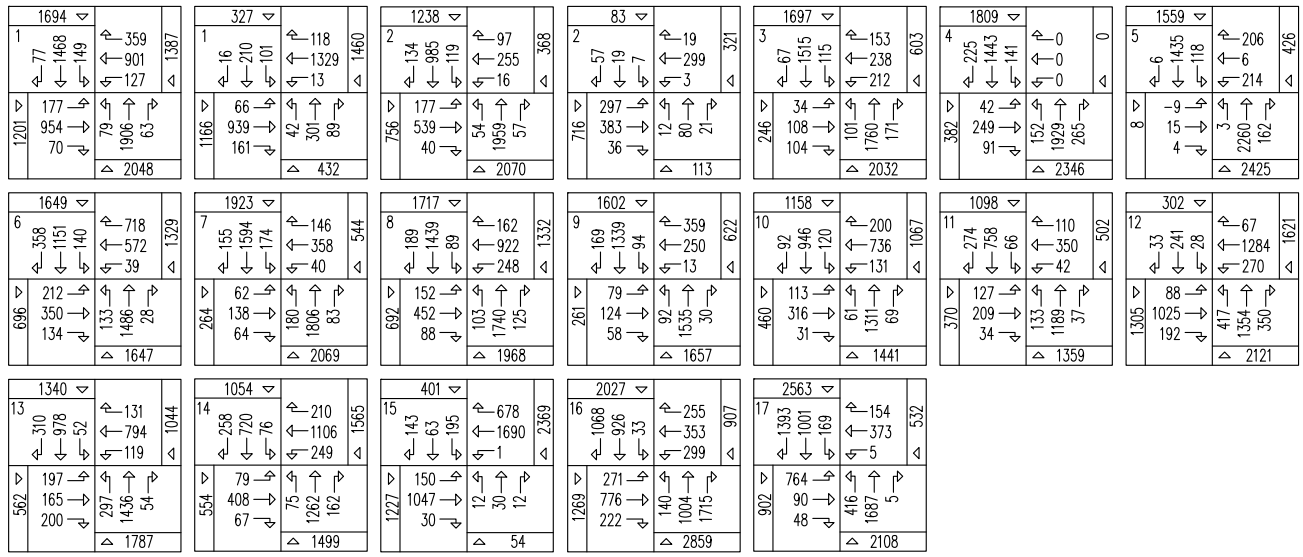
# Figure 29
## Proposed General Plan Year 2035 Average Daily Traffic Volumes

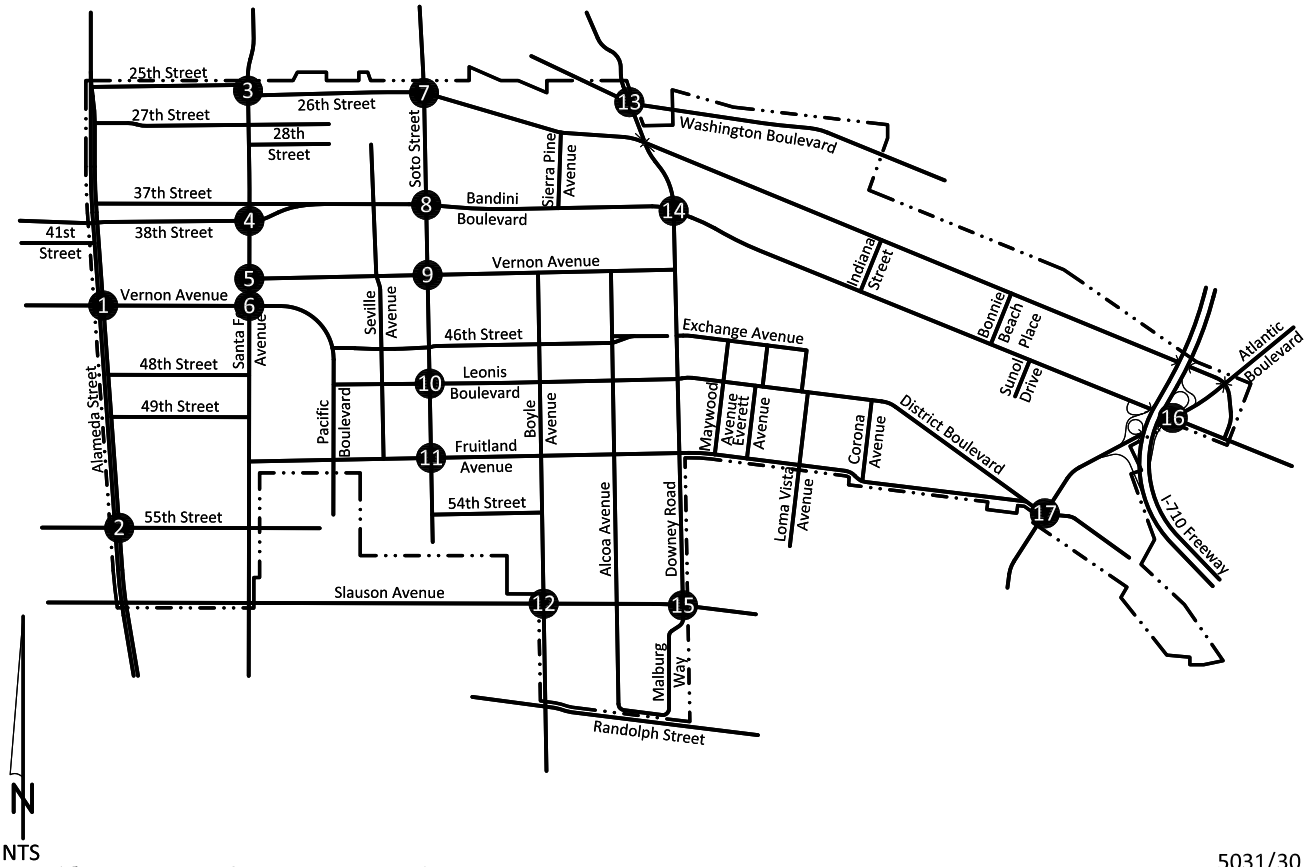



5031/29

KUNZMAN ASSOCIATES, INC.
OVER 35 YEARS OF EXCELLENT SERVICE

# Figure 30
# Proposed General Plan Year 2035
# Morning Peak Hour Intersection Turning Movement Volumes

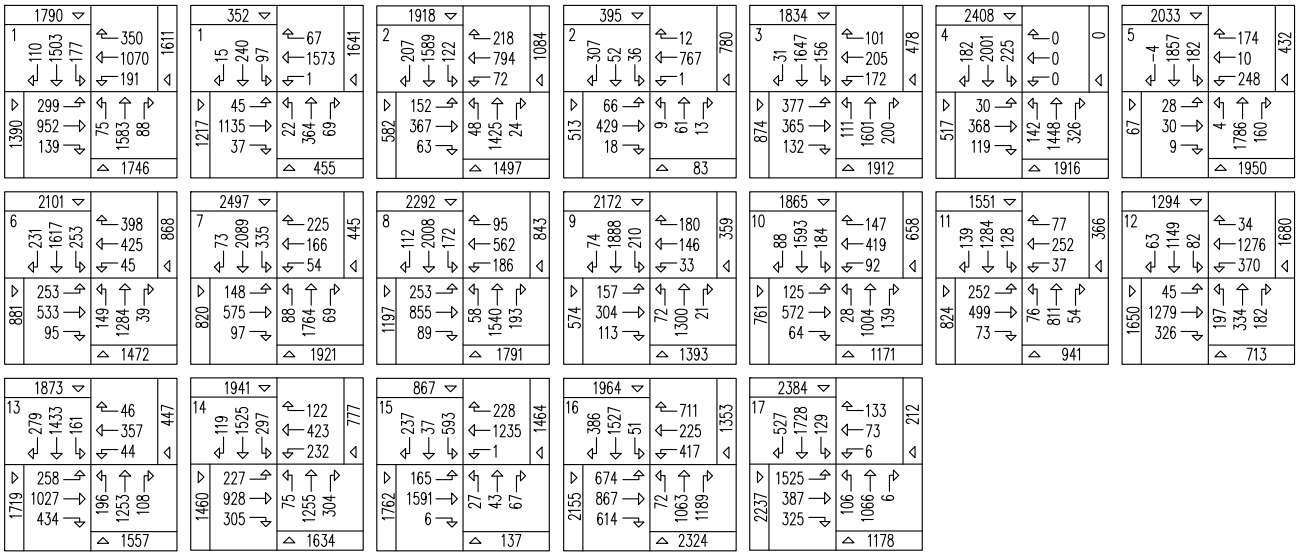



5031/30

Intersection reference numbers are in upper left corner of turning movement boxes.

# Figure 31
# Proposed General Plan Year 2035
# Evening Peak Hour Intersection Turning Movement Volumes




5031/31

KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

# V. Conclusions

The purpose of this report is to provide an assessment of the traffic impacts resulting from proposed residential and trucking overlay districts in the City of Vernon, and to identify the traffic mitigation measures necessary to maintain the established Level of Service standard for the elements of the impacted roadway system.

The study area intersections were determined by selecting the intersections that were projected to operate at unacceptable Levels of Service in the 2007 Circulation Plan Update for the City of Vernon.

Alameda Street (NS) at:
- Vernon Avenue (EW) - #1
- 55th Street (EW) - #2

Santa Fe Avenue (NS) at:
- 25th/26th Street (EW) - #3
- 38th Street (EW) - #4
- Vernon Avenue (EW) - #5
- Vernon Avenue/Pacific Boulevard (EW) - #6

Soto Street (NS) at:
- 26th Street (EW) - #7
- Bandini Boulevard (EW) - #8
- Vernon Avenue (EW) - #9
- Leonis Boulevard (EW) - #10
- Fruitland Avenue (EW) - #11

Boyle Avenue (NS) at:
- Slauson Avenue (EW) - #12

Downey Road (NS) at:
- Washington Boulevard (EW) - #13
- Bandini Boulevard (EW) - #14
- Slauson Avenue (EW) - #15

Atlantic Boulevard (NS) at:
- Bandini Boulevard (EW) - #16
- District Boulevard (EW) - #17

Existing Level of Service: For Existing traffic conditions, the study area intersections currently operate within acceptable Levels of Service during the peak hours, except for the following study area intersections that operate at Levels of Service E to F during the peak hours (see Table 1):

Alameda Street (NS) at:
- Vernon Avenue (EW) - #1
- 55th Street (EW) - #2

Santa Fe Avenue (NS) at:
- 25th/26th Street (EW) - #3
- 38th Street (EW) - #4
- Vernon Avenue (EW) - #5
- Vernon Avenue/Pacific Boulevard (EW) - #6

Soto Street (NS) at:
- 26th Street (EW) - #7
- Bandini Boulevard (EW) - #8
- Vernon Avenue (EW) - #9

Boyle Avenue (NS) at:
- Slauson Avenue (EW) - #12

Downey Road (NS) at:
- Washington Boulevard (EW) - #13
- Bandini Boulevard (EW) - #14
- Slauson Avenue (EW) - #15

Atlantic Boulevard (NS) at:
- Bandini Boulevard (EW) - #16
- District Boulevard (EW) - #17

Current General Plan Year 2035 Level of Service: For the Current General Plan Year 2035 traffic conditions, the study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements (see Table 2).

All potential developments within the proposed housing and trucking overlay districts have been individually accounted for by an appropriate trip generation and trip distribution.

Proposed General Plan Year 2035 Level of Service: For the Proposed General Plan Year 2035 traffic conditions, the study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements (see Table 4).

Table 5 depicts the Proposed General Plan Year 2035 traffic conditions at the study area intersections. The study area intersections are <u>not</u> significantly impacted by the proposed housing and trucking overlay districts.

The I-710 widening project is projected to add an additional two northbound and two southbound travel lanes. These travel lanes proposed to be dedicated to trucks. The additional lane modifications are not projected to alter the traffic patterns within the City of Vernon. There is also a potential for additional interchanges and modification the existing interchanges along the I-710 Freeway. These potential improvements will potentially significantly improve the function of Atlantic Boulevard/Bandini Boulevard.

The Orange Rail Line might align through the City of Vernon and provide access to the City of Vernon. At this point there is no preferred alignment and no proposed stations. Traffic patterns within the City of Vernon are not anticipated to significantly change if and when this Orange Rail Line is completed.

It should be noted that the City of Vernon is virtually built out and that physical lane addition as a means of traffic mitigation provides limited opportunities. It is recommended that the City of Vernon implement an Intelligent Transportation System. The City of Los Angeles has implemented a number of Los Angeles County Automated Traffic Surveillance and Control systems and these systems provide an approximate 10 percent increase in capacity.

# Appendices

**Appendix A – Glossary of Transportation Terms**

**Appendix B – Traffic Count Worksheets**

**Appendix C – Truck Percentage Calculations**

**Appendix D – Explanation and Calculation of Intersection Capacity Utilization**

# APPENDIX A

## Glossary of Transportation Terms

## GLOSSARY OF TRANSPORTATION TERMS

### COMMON ABBREVIATIONS

| | |
|---|---|
| AC: | Acres |
| ADT: | Average Daily Traffic |
| Caltrans: | California Department of Transportation |
| DU: | Dwelling Unit |
| ICU: | Intersection Capacity Utilization |
| LOS: | Level of Service |
| TSF: | Thousand Square Feet |
| V/C: | Volume/Capacity |
| VMT: | Vehicle Miles Traveled |

### TERMS

**AVERAGE DAILY TRAFFIC**: The total volume during a year divided by the number of days in a year. Usually only weekdays are included.

**BANDWIDTH:** The number of seconds of green time available for through traffic in a signal progression.

**BOTTLENECK**: A constriction along a travelway that limits the amount of traffic that can proceed downstream from its location.

**CAPACITY**: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

**CHANNELIZATION:** The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

**CLEARANCE INTERVAL**: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

**CORDON**: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

**CYCLE LENGTH**: The time period in seconds required for one complete signal cycle.

**CUL-DE-SAC STREET**: A local street open at one end only, and with special provisions for turning around.

**DAILY CAPACITY**: The daily volume of traffic that will result in a volume during the peak hour equal to the capacity of the roadway.

**DELAY:** The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

**DEMAND RESPONSIVE SIGNAL**: Same as traffic-actuated signal.

**DENSITY**: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

**DETECTOR:** A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

**DESIGN SPEED**: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

**DIRECTIONAL SPLIT**: The percent of traffic in the peak direction at any point in time.

**DIVERSION:** The rerouting of peak hour traffic to avoid congestion.

**FORCED FLOW**: Opposite of free flow.

**FREE FLOW**: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

**GAP:** Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

**HEADWAY:** Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

**INTERCONNECTED SIGNAL SYSTEM**: A number of intersections that are connected to achieve signal progression.

**LEVEL OF SERVICE**: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

**LOOP DETECTOR**: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

**MINIMUM ACCEPTABLE GAP**: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

**MULTI-MODAL**: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

**OFFSET**: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

**PLATOON:** A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

**ORIGIN-DESTINATION SURVEY**: A survey to determine the point of origin and the point of destination for a given vehicle trip.

**PASSENGER CAR EQUIVALENTS**: One car is one Passenger Car Equivalent. A truck is equal to 2 or 3 Passenger Car Equivalents in that a truck requires longer to start, goes slower, and accelerates slower. Loaded trucks have a higher Passenger Car Equivalent than empty trucks.

**PEAK HOUR**: The 60 consecutive minutes with the highest number of vehicles.

**PRETIMED SIGNAL**: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

**PROGRESSION**: A term used to describe the progressive movement of traffic through several signalized intersections.

**SCREEN-LINE**: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

**SIGNAL CYCLE**: The time period in seconds required for one complete sequence of signal indications.

**SIGNAL PHASE**: The part of the signal cycle allocated to one or more traffic movements.

**STARTING DELAY**: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

**TRAFFIC-ACTUATED SIGNAL**: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

**TRIP:** The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

**TRIP-END**: One end of a trip at either the origin or destination; i.e. each trip has two trip-ends. A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

**TRIP GENERATION RATE:** The quality of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

**TRUCK:** A vehicle having dual tires on one or more axles, or having more than two axles.

**UNBALANCED FLOW:** Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

**VEHICLE MILES OF TRAVEL**: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

# APPENDIX B

## Traffic Count Worksheets

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_001 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Alameda St | | | Alameda St | | | Vernon Ave (East) | | | Vernon Ave (East) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | |
| 7:00 AM | 9 | 151 | 2 | 12 | 117 | 5 | 10 | 76 | 3 | 6 | 85 | 30 | 506 |
| 7:15 AM | 2 | 155 | 10 | 12 | 124 | 7 | 12 | 82 | 1 | 10 | 81 | 26 | 522 |
| 7:30 AM | 5 | 172 | 8 | 12 | 130 | 4 | 19 | 89 | 5 | 9 | 93 | 39 | 585 |
| 7:45 AM | 4 | 149 | 9 | 16 | 152 | 4 | 15 | 83 | 3 | 17 | 77 | 49 | 578 |
| 8:00 AM | 7 | 156 | 7 | 12 | 130 | 11 | 15 | 88 | 6 | 15 | 76 | 31 | 554 |
| 8:15 AM | 7 | 163 | 1 | 9 | 113 | 6 | 24 | 77 | 11 | 10 | 68 | 30 | 519 |
| 8:30 AM | 9 | 169 | 3 | 17 | 100 | 8 | 10 | 58 | 6 | 10 | 65 | 20 | 475 |
| 8:45 AM | 10 | 164 | 2 | 10 | 118 | 7 | 14 | 87 | 12 | 8 | 60 | 16 | 508 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 53 | 1279 | 42 | 100 | 984 | 52 | 119 | 640 | 47 | 85 | 605 | 241 | 4247 |
| **APPROACH %'s :** | 3.86% | 93.09% | 3.06% | 8.80% | 86.62% | 4.58% | 14.76% | 79.40% | 5.83% | 9.13% | 64.98% | 25.89% | |
| **PEAK HR START TIME :** | 715 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 18 | 632 | 34 | 52 | 536 | 26 | 61 | 342 | 15 | 51 | 327 | 145 | 2239 |
| **PEAK HR FACTOR :** | | 0.924 | | | 0.892 | | | 0.925 | | | 0.914 | | 0.957 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_001 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Alameda St | | | Alameda St | | | Vernon Ave (East) | | | Vernon Ave (East) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | |
| 4:00 PM | 7 | 129 | 9 | 16 | 92 | 4 | 33 | 56 | 15 | 16 | 63 | 43 | 483 |
| 4:15 PM | 7 | 145 | 6 | 16 | 112 | 5 | 48 | 76 | 16 | 20 | 97 | 26 | 574 |
| 4:30 PM | 12 | 126 | 9 | 13 | 123 | 6 | 43 | 91 | 2 | 15 | 86 | 27 | 553 |
| 4:45 PM | 3 | 134 | 7 | 18 | 138 | 6 | 17 | 75 | 16 | 8 | 99 | 32 | 553 |
| 5:00 PM | 4 | 116 | 6 | 11 | 109 | 7 | 19 | 79 | 15 | 17 | 104 | 42 | 529 |
| 5:15 PM | 5 | 126 | 3 | 13 | 138 | 17 | 11 | 88 | 5 | 16 | 104 | 21 | 547 |
| 5:30 PM | 4 | 150 | 14 | 24 | 148 | 16 | 20 | 87 | 14 | 21 | 97 | 21 | 616 |
| 5:45 PM | 8 | 137 | 5 | 8 | 148 | 13 | 10 | 87 | 10 | 15 | 68 | 23 | 532 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 50 | 1063 | 59 | 119 | 1008 | 74 | 201 | 639 | 93 | 128 | 718 | 235 | 4387 |
| **APPROACH %'s :** | 4.27% | 90.70% | 5.03% | 9.91% | 83.93% | 6.16% | 21.54% | 68.49% | 9.97% | 11.84% | 66.42% | 21.74% | |
| **PEAK HR START TIME :** | 445 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 16 | 526 | 30 | 66 | 533 | 46 | 67 | 329 | 50 | 62 | 404 | 116 | 2245 |
| **PEAK HR FACTOR :** | | 0.851 | | | 0.858 | | | 0.921 | | | 0.893 | | 0.911 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_001 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Alameda St | | | Alameda St | | | Vernon Ave (East) | | | Vernon Ave (East) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | |
| 7:00 AM | 5 | 24 | 5 | 10 | 13 | 0 | 5 | | 16 | 0 | | 14 | 92 |
| 7:15 AM | 7 | 22 | 8 | 9 | 24 | 2 | 10 | | 32 | 1 | | 8 | 123 |
| 7:30 AM | 4 | 26 | 11 | 7 | 14 | 1 | 7 | | 6 | 5 | | 12 | 93 |
| 7:45 AM | 5 | 38 | 5 | 8 | 22 | 0 | 9 | | 10 | 0 | | 9 | 106 |
| 8:00 AM | 3 | 26 | 10 | 5 | 19 | 3 | 5 | | 13 | 0 | | 2 | 86 |
| 8:15 AM | 0 | 28 | 5 | 7 | 18 | 2 | 4 | | 14 | 2 | | 16 | 96 |
| 8:30 AM | 1 | 23 | 11 | 10 | 17 | 2 | 1 | | 6 | 1 | | 11 | 83 |
| 8:45 AM | 3 | 15 | 5 | 12 | 14 | 1 | 3 | | 11 | 0 | | 7 | 71 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 28 | 202 | 60 | 68 | 141 | 11 | 44 | 0 | 108 | 9 | 0 | 79 | 750 |
| **APPROACH %'s :** | 9.66% | 69.66% | 20.69% | 30.91% | 64.09% | 5.00% | 28.95% | 0.00% | 71.05% | 10.23% | 0.00% | 89.77% | |
| **PEAK HR START TIME :** | 700 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 21 | 110 | 29 | 34 | 73 | 3 | 31 | 0 | 64 | 6 | 0 | 43 | 414 |
| **PEAK HR FACTOR :** | | 0.833 | | | 0.786 | | | 0.565 | | | 0.721 | | 0.841 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_001 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Alameda St | | | Alameda St | | | Vernon Ave (East) | | | Vernon Ave (East) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | |
| 4:00 PM | 3 | 35 | 10 | 10 | 17 | 2 | 3 | | 5 | 0 | | 10 | 95 |
| 4:15 PM | 1 | 32 | 9 | 8 | 24 | 1 | 5 | | 6 | 0 | | 3 | 89 |
| 4:30 PM | 0 | 33 | 8 | 11 | 20 | 0 | 3 | | 1 | 0 | | 6 | 82 |
| 4:45 PM | 1 | 28 | 4 | 3 | 17 | 1 | 3 | | 1 | 0 | | 4 | 62 |
| 5:00 PM | 0 | 32 | 6 | 6 | 20 | 2 | 4 | | 5 | 0 | | 5 | 80 |
| 5:15 PM | 4 | 28 | 2 | 9 | 19 | 1 | 6 | | 3 | 0 | | 2 | 74 |
| 5:30 PM | 1 | 37 | 5 | 10 | 25 | 2 | 4 | | 1 | 0 | | 8 | 93 |
| 5:45 PM | 5 | 19 | 2 | 8 | 19 | 1 | 2 | | 3 | 1 | | 7 | 67 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 15 | 244 | 46 | 65 | 161 | 10 | 30 | 0 | 25 | 1 | 0 | 45 | 642 |
| **APPROACH %'s :** | 4.92% | 80.00% | 15.08% | 27.54% | 68.22% | 4.24% | 54.55% | 0.00% | 45.45% | 2.17% | 0.00% | 97.83% | |
| **PEAK HR START TIME :** | 400 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 5 | 128 | 31 | 32 | 78 | 4 | 14 | 0 | 13 | 0 | 0 | 23 | 328 |
| **PEAK HR FACTOR :** | | 0.854 | | | 0.864 | | | 0.614 | | | 0.575 | | 0.863 |

**CONTROL :** Signalized

Alameda Street (NS) at Vernon Avenue (EW) - #1

Morning Peak Hour

| Southbound | | |
|---|---|---|
| 52 | 984 | 100 |
| Right | Through | Left |

| Eastbound | | |
|---|---|---|
| 119 | Left | |
| 640 | Through | |
| 47 | Right | |

| Westbound | | | | | |
|---|---|---|---|---|---|
| Right | 241 | 44 | Left | | |
| Through | 605 | 630 | Through | | |
| Left | 85 | 108 | Right | | |

| Northbound | | |
|---|---|---|
| Left | Through | Right |
| 53 | 1279 | 42 |

| Southbound | | |
|---|---|---|
| 11 | 141 | 68 |
| Right | Through | Left |

| Westbound | | |
|---|---|---|
| Right | 79 | |
| Through | 892 | |
| Left | 9 | |

| Northbound | | |
|---|---|---|
| Left | Through | Right |
| 28 | 202 | 60 |

Evening Peak Hour

| Southbound | | |
|---|---|---|
| 74 | 1008 | 119 |
| Right | Through | Left |

| Eastbound | | |
|---|---|---|
| 201 | Left | |
| 639 | Through | |
| 93 | Right | |

| Westbound | | | | | |
|---|---|---|---|---|---|
| Right | 235 | 30 | Left | | |
| Through | 718 | 762 | Through | | |
| Left | 128 | 25 | Right | | |

| Northbound | | |
|---|---|---|
| Left | Through | Right |
| 50 | 1063 | 59 |

| Southbound | | |
|---|---|---|
| 10 | 161 | 65 |
| Right | Through | Left |

| Westbound | | |
|---|---|---|
| Right | 45 | |
| Through | 1056 | |
| Left | 1 | |

| Northbound | | |
|---|---|---|
| Left | Through | Right |
| 15 | 244 | 46 |

RED = West Count

BLUE = East Count

Green = Calculated

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_002 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Alameda St | | | Alameda St | | | 55th St (West) | | | 55th St (West) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 7:00 AM | 4 | 141 | 4 | 12 | 75 | 13 | 10 | 46 | 4 | 3 | 16 | 6 | 334 |
| 7:15 AM | 4 | 165 | 8 | 14 | 81 | 15 | 17 | 77 | 0 | 5 | 22 | 9 | 417 |
| 7:30 AM | 4 | 198 | 8 | 6 | 83 | 13 | 16 | 54 | 2 | 0 | 31 | 8 | 423 |
| 7:45 AM | 4 | 176 | 4 | 11 | 83 | 18 | 15 | 57 | 3 | 1 | 31 | 7 | 410 |
| 8:00 AM | 5 | 173 | 4 | 12 | 75 | 10 | 13 | 46 | 4 | 1 | 25 | 11 | 379 |
| 8:15 AM | 5 | 155 | 2 | 12 | 91 | 8 | 16 | 25 | 1 | 0 | 15 | 3 | 333 |
| 8:30 AM | 5 | 160 | 5 | 3 | 76 | 4 | 16 | 32 | 3 | 0 | 16 | 9 | 329 |
| 8:45 AM | 5 | 147 | 3 | 10 | 96 | 9 | 16 | 25 | 10 | 1 | 15 | 12 | 349 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 36 | 1315 | 38 | 80 | 660 | 90 | 119 | 362 | 27 | 11 | 171 | 65 | 2974 |
| **APPROACH %'s :** | 2.59% | 94.67% | 2.74% | 9.64% | 79.52% | 10.84% | 23.43% | 71.26% | 5.31% | 4.45% | 69.23% | 26.32% | |
| **PEAK HR START TIME :** | 715 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 17 | 712 | 24 | 43 | 322 | 56 | 61 | 234 | 9 | 7 | 109 | 35 | 1629 |
| **PEAK HR FACTOR :** | | 0.896 | | | 0.940 | | | 0.809 | | | 0.968 | | 0.963 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_002 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Alameda St | | | Alameda St | | | 55th St (West) | | | 55th St (West) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 4:00 PM | 5 | 116 | 4 | 9 | 112 | 24 | 15 | 26 | 8 | 8 | 90 | 29 | 446 |
| 4:15 PM | 5 | 122 | 1 | 9 | 118 | 21 | 12 | 34 | 6 | 7 | 62 | 11 | 408 |
| 4:30 PM | 4 | 130 | 1 | 9 | 144 | 17 | 8 | 32 | 5 | 4 | 72 | 13 | 439 |
| 4:45 PM | 3 | 118 | 1 | 4 | 125 | 14 | 12 | 33 | 4 | 2 | 50 | 15 | 381 |
| 5:00 PM | 3 | 105 | 1 | 14 | 146 | 13 | 11 | 31 | 8 | 9 | 69 | 27 | 437 |
| 5:15 PM | 6 | 130 | 3 | 16 | 132 | 12 | 13 | 26 | 4 | 4 | 56 | 23 | 425 |
| 5:30 PM | 3 | 120 | 1 | 10 | 147 | 15 | 15 | 37 | 3 | 9 | 69 | 16 | 445 |
| 5:45 PM | 3 | 116 | 4 | 11 | 142 | 23 | 16 | 27 | 4 | 5 | 65 | 12 | 428 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 32 | 957 | 16 | 82 | 1066 | 139 | 102 | 246 | 42 | 48 | 533 | 146 | 3409 |
| **APPROACH %'s :** | 3.18% | 95.22% | 1.59% | 6.37% | 82.83% | 10.80% | 26.15% | 63.08% | 10.77% | 6.60% | 73.31% | 20.08% | |
| **PEAK HR START TIME :** | 500 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 15 | 471 | 9 | 51 | 567 | 63 | 55 | 121 | 19 | 27 | 259 | 78 | 1735 |
| **PEAK HR FACTOR :** | | 0.890 | | | 0.967 | | | 0.886 | | | 0.867 | | 0.975 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_002 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Alameda St | | | Alameda St | | | 55th St (West) | | | 55th St (West) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 7:00 AM | 2 | 4 | 1 | 0 | 1 | 9 | 31 | | 2 | 0 | | 1 | 51 |
| 7:15 AM | 2 | 7 | 4 | 1 | 0 | 4 | 39 | | 3 | 0 | | 0 | 60 |
| 7:30 AM | 0 | 10 | 0 | 0 | 2 | 3 | 27 | | 2 | 1 | | 0 | 45 |
| 7:45 AM | 0 | 4 | 1 | 1 | 3 | 2 | 39 | | 3 | 0 | | 3 | 56 |
| 8:00 AM | 0 | 9 | 4 | 2 | 3 | 7 | 24 | | 6 | 0 | | 0 | 55 |
| 8:15 AM | 0 | 8 | 0 | 1 | 2 | 4 | 9 | | 5 | 0 | | 5 | 34 |
| 8:30 AM | 1 | 9 | 2 | 0 | 1 | 4 | 18 | | 1 | 1 | | 3 | 40 |
| 8:45 AM | 3 | 3 | 2 | 0 | 1 | 5 | 12 | | 2 | 0 | | 1 | 29 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 8 | 54 | 14 | 5 | 13 | 38 | 199 | 0 | 24 | 2 | 0 | 13 | 370 |
| **APPROACH %'s :** | 10.53% | 71.05% | 18.42% | 8.93% | 23.21% | 67.86% | 89.24% | 0.00% | 10.76% | 13.33% | 0.00% | 86.67% | |
| **PEAK HR START TIME :** | 715 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 2 | 30 | 9 | 4 | 8 | 16 | 129 | 0 | 14 | 1 | 0 | 3 | 216 |
| **PEAK HR FACTOR :** | | 0.788 | | | 0.583 | | | 0.851 | | | 0.333 | | 0.900 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_002 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Alameda St | | | Alameda St | | | 55th St (West) | | | 55th St (West) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 4:00 PM | 1 | 8 | 0 | 2 | 2 | 33 | 6 | | 0 | | | 4 | 56 |
| 4:15 PM | 0 | 7 | 2 | 3 | 6 | 25 | 8 | | 2 | | | 2 | 55 |
| 4:30 PM | 1 | 4 | 1 | 5 | 4 | 31 | 7 | | 1 | | | 0 | 54 |
| 4:45 PM | 1 | 6 | 0 | 4 | 5 | 27 | 5 | | 5 | | | 0 | 53 |
| 5:00 PM | 2 | 5 | 1 | 1 | 2 | 34 | 3 | | 2 | | | 0 | 50 |
| 5:15 PM | 0 | 3 | 2 | 1 | 1 | 23 | 7 | | 0 | | | 0 | 37 |
| 5:30 PM | 0 | 3 | 3 | 7 | 3 | 18 | 5 | | 0 | | | 0 | 39 |
| 5:45 PM | 1 | 5 | 0 | 1 | 12 | 15 | 3 | | 2 | | | 2 | 41 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 6 | 41 | 9 | 24 | 35 | 206 | 44 | 0 | 12 | 0 | 0 | 8 | 385 |
| **APPROACH %'s :** | 10.71% | 73.21% | 16.07% | 9.06% | 13.21% | 77.74% | 78.57% | 0.00% | 21.43% | 0.00% | 0.00% | 100.00% | |
| **PEAK HR START TIME :** | 400 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 3 | 25 | 3 | 14 | 17 | 116 | 26 | 0 | 8 | 0 | 0 | 6 | 218 |
| **PEAK HR FACTOR :** | | 0.861 | | | 0.919 | | | 0.850 | | | 0.375 | | 0.973 |

**CONTROL :** Signalized

Alameda Street (NS) at 55th Street (EW) - #2

Morning Peak Hour

| Southbound | | |
|---|---|---|
| 90 | 660 | 80 |
| Right | Through | Left |

| Eastbound | | |
|---|---|---|
| 119 | Left | |
| 362 | Through | |
| 27 | Right | |

| Westbound | | | | | |
|---|---|---|---|---|---|
| Right | 65 | 199 | Left | | |
| Through | 171 | 257 | Through | | |
| Left | 11 | 24 | Right | | |

| Northbound | | |
|---|---|---|
| Left | Through | Right |
| 36 | 1315 | 38 |

| Southbound | | |
|---|---|---|
| 38 | 13 | 5 |
| Right | Through | Left |

| Westbound | | |
|---|---|---|
| Right | 13 | |
| Through | 201 | |
| Left | 2 | |

| Northbound | | |
|---|---|---|
| Left | Through | Right |
| 8 | 54 | 14 |

Evening Peak Hour

| Southbound | | |
|---|---|---|
| 139 | 1066 | 82 |
| Right | Through | Left |

| Eastbound | | |
|---|---|---|
| 102 | Left | |
| 246 | Through | |
| 42 | Right | |

| Westbound | | | | | |
|---|---|---|---|---|---|
| Right | 146 | 44 | Left | | |
| Through | 533 | 288 | Through | | |
| Left | 48 | 12 | Right | | |

| Northbound | | |
|---|---|---|
| Left | Through | Right |
| 32 | 957 | 16 |

| Southbound | | |
|---|---|---|
| 206 | 35 | 24 |
| Right | Through | Left |

| Westbound | | |
|---|---|---|
| Right | 8 | |
| Through | 515 | |
| Left | 0 | |

| Northbound | | |
|---|---|---|
| Left | Through | Right |
| 6 | 41 | 9 |

RED = West Count

BLUE = East Count

Green = Calculated

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_003 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Santa Fe Ave | | | Santa Fe Ave | | | 25th St | | | 25th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1.5 | .5 | 1 | 1.5 | .5 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 7:00 AM | 16 | 262 | 16 | 7 | 250 | 4 | 8 | 26 | 24 | 23 | 31 | 27 | 694 |
| 7:15 AM | 25 | 242 | 21 | 15 | 222 | 10 | 4 | 10 | 21 | 28 | 34 | 23 | 655 |
| 7:30 AM | 19 | 329 | 24 | 15 | 234 | 12 | 4 | 17 | 21 | 36 | 45 | 22 | 778 |
| 7:45 AM | 27 | 305 | 36 | 22 | 236 | 8 | 9 | 24 | 22 | 36 | 42 | 22 | 789 |
| 8:00 AM | 16 | 269 | 30 | 22 | 301 | 10 | 6 | 21 | 15 | 34 | 37 | 28 | 789 |
| 8:15 AM | 15 | 274 | 23 | 18 | 245 | 15 | 4 | 9 | 12 | 36 | 36 | 31 | 718 |
| 8:30 AM | 17 | 273 | 16 | 20 | 247 | 12 | 13 | 16 | 14 | 35 | 30 | 26 | 719 |
| 8:45 AM | 15 | 205 | 20 | 26 | 216 | 10 | 9 | 20 | 15 | 34 | 28 | 28 | 626 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 150 | 2159 | 186 | 145 | 1951 | 81 | 57 | 143 | 144 | 262 | 283 | 207 | 5768 |
| **APPROACH %'s :** | 6.01% | 86.53% | 7.45% | 6.66% | 89.62% | 3.72% | 16.57% | 41.57% | 41.86% | 34.84% | 37.63% | 27.53% | |
| **PEAK HR START TIME :** | 730 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 77 | 1177 | 113 | 77 | 1016 | 45 | 23 | 71 | 70 | 142 | 160 | 103 | 3074 |
| **PEAK HR FACTOR :** | | 0.919 | | | 0.854 | | | 0.745 | | | 0.983 | | 0.974 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_003 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Santa Fe Ave | | | Santa Fe Ave | | | 25th St | | | 25th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1.5 | .5 | 1 | 1.5 | .5 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 4:00 PM | 20 | 275 | 32 | 28 | 257 | 5 | 26 | 49 | 42 | 24 | 35 | 19 | 812 |
| 4:15 PM | 26 | 267 | 30 | 18 | 241 | 6 | 12 | 54 | 26 | 20 | 27 | 12 | 739 |
| 4:30 PM | 26 | 312 | 40 | 24 | 182 | 13 | 19 | 48 | 33 | 33 | 24 | 11 | 765 |
| 4:45 PM | 21 | 270 | 32 | 28 | 242 | 9 | 11 | 33 | 34 | 19 | 34 | 22 | 755 |
| 5:00 PM | 15 | 255 | 48 | 23 | 261 | 9 | 16 | 69 | 30 | 25 | 30 | 17 | 798 |
| 5:15 PM | 16 | 325 | 29 | 17 | 290 | 5 | 12 | 51 | 18 | 32 | 44 | 21 | 860 |
| 5:30 PM | 17 | 262 | 25 | 31 | 292 | 5 | 14 | 51 | 20 | 38 | 33 | 17 | 805 |
| 5:45 PM | 32 | 230 | 31 | 34 | 265 | 2 | 11 | 73 | 25 | 22 | 31 | 13 | 769 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 173 | 2196 | 267 | 203 | 2030 | 54 | 121 | 428 | 228 | 213 | 258 | 132 | 6303 |
| **APPROACH %'s :** | 6.56% | 83.31% | 10.13% | 8.88% | 88.76% | 2.36% | 15.57% | 55.08% | 29.34% | 35.32% | 42.79% | 21.89% | |
| **PEAK HR START TIME :** | 500 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 80 | 1072 | 133 | 105 | 1108 | 21 | 53 | 244 | 93 | 117 | 138 | 68 | 3232 |
| **PEAK HR FACTOR :** | | 0.868 | | | 0.941 | | | 0.848 | | | 0.832 | | 0.940 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_004 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Santa Fe Ave | | | Santa Fe Ave | | | 38th St | | | 38th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 7:00 AM | 22 | 279 | 35 | 16 | 266 | 34 | 14 | 27 | 21 | | | | 714 |
| 7:15 AM | 27 | 290 | 42 | 20 | 249 | 41 | 1 | 33 | 20 | | | | 723 |
| 7:30 AM | 25 | 364 | 42 | 19 | 212 | 40 | 6 | 44 | 15 | | | | 767 |
| 7:45 AM | 34 | 336 | 48 | 27 | 242 | 39 | 14 | 53 | 10 | | | | 803 |
| 8:00 AM | 16 | 314 | 46 | 28 | 264 | 31 | 7 | 37 | 16 | | | | 759 |
| 8:15 AM | 14 | 255 | 34 | 26 | 255 | 26 | 7 | 32 | 8 | | | | 657 |
| 8:30 AM | 21 | 278 | 24 | 24 | 255 | 25 | 5 | 23 | 20 | | | | 675 |
| 8:45 AM | 13 | 212 | 39 | 21 | 243 | 32 | 7 | 30 | 17 | | | | 614 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 172 | 2328 | 310 | 181 | 1986 | 268 | 61 | 279 | 127 | 0 | 0 | 0 | 5712 |
| **APPROACH %'s :** | 6.12% | 82.85% | 11.03% | 7.43% | 81.56% | 11.01% | 13.06% | 59.74% | 27.19% | #DIV/0! | #DIV/0! | #DIV/0! | |
| **PEAK HR START TIME :** | 715 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 102 | 1304 | 178 | 94 | 967 | 151 | 28 | 167 | 61 | 0 | 0 | 0 | 3052 |
| **PEAK HR FACTOR :** | | 0.919 | | | 0.938 | | | 0.831 | | | 0.000 | | 0.950 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_004 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Santa Fe Ave | | | Santa Fe Ave | | | 38th St | | | 38th St | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | |
| 4:00 PM | 35 | 268 | 67 | 41 | 295 | 22 | 7 | 59 | 18 | | | | 812 |
| 4:15 PM | 30 | 265 | 46 | 39 | 290 | 17 | 8 | 55 | 17 | | | | 767 |
| 4:30 PM | 27 | 263 | 53 | 40 | 286 | 30 | 10 | 47 | 22 | | | | 778 |
| 4:45 PM | 20 | 231 | 65 | 33 | 296 | 29 | 1 | 62 | 19 | | | | 756 |
| 5:00 PM | 22 | 297 | 54 | 45 | 349 | 43 | 7 | 69 | 27 | | | | 913 |
| 5:15 PM | 34 | 222 | 51 | 36 | 329 | 31 | 8 | 57 | 20 | | | | 788 |
| 5:30 PM | 19 | 228 | 49 | 37 | 372 | 19 | 4 | 59 | 14 | | | | 801 |
| 5:45 PM | 15 | 196 | 42 | 44 | 300 | 20 | 7 | 52 | 18 | | | | 694 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 202 | 1970 | 427 | 315 | 2517 | 211 | 52 | 460 | 155 | 0 | 0 | 0 | 6309 |
| **APPROACH %'s :** | 7.77% | 75.80% | 16.43% | 10.35% | 82.71% | 6.93% | 7.80% | 68.97% | 23.24% | #DIV/0! | #DIV/0! | #DIV/0! | |
| **PEAK HR START TIME :** | 445 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 95 | 978 | 219 | 151 | 1346 | 122 | 20 | 247 | 80 | 0 | 0 | 0 | 3258 |
| **PEAK HR FACTOR :** | | 0.866 | | | 0.926 | | | 0.842 | | | 0.000 | | 0.892 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_005 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Santa Fe Ave | | | Santa Fe Ave | | | Vernon Ave | | | Vernon Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | .5 | 1 | .5 | |
| 7:00 AM | 2 | 344 | 21 | 14 | 281 | 2 | 0 | 2 | 0 | 37 | 1 | 23 | 727 |
| 7:15 AM | 0 | 358 | 41 | 25 | 241 | 2 | 0 | 4 | 2 | 34 | 0 | 37 | 744 |
| 7:30 AM | 0 | 408 | 20 | 16 | 215 | 0 | 2 | 1 | 1 | 41 | 2 | 36 | 742 |
| 7:45 AM | 0 | 407 | 27 | 24 | 225 | 0 | 0 | 3 | 0 | 30 | 1 | 42 | 759 |
| 8:00 AM | 1 | 353 | 22 | 20 | 257 | 0 | 0 | 2 | 1 | 37 | 1 | 26 | 720 |
| 8:15 AM | 1 | 295 | 20 | 23 | 218 | 1 | 0 | 2 | 0 | 36 | 3 | 27 | 626 |
| 8:30 AM | 0 | 293 | 15 | 17 | 271 | 2 | 0 | 3 | 0 | 16 | 1 | 28 | 646 |
| 8:45 AM | 6 | 265 | 16 | 21 | 207 | 1 | 1 | 1 | 2 | 35 | 2 | 20 | 577 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 10 | 2723 | 182 | 160 | 1915 | 8 | 3 | 18 | 6 | 266 | 11 | 239 | 5541 |
| **APPROACH %'s :** | 0.34% | 93.41% | 6.24% | 7.68% | 91.93% | 0.38% | 11.11% | 66.67% | 22.22% | 51.55% | 2.13% | 46.32% | |
| **PEAK HR START TIME :** | 700 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 2 | 1517 | 109 | 79 | 962 | 4 | 2 | 10 | 3 | 142 | 4 | 138 | 2972 |
| **PEAK HR FACTOR :** | | 0.938 | | | 0.880 | | | 0.625 | | | 0.899 | | 0.979 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_005 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Santa Fe Ave | | | Santa Fe Ave | | | Vernon Ave | | | Vernon Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | .5 | 1 | .5 | |
| 4:00 PM | 0 | 310 | 25 | 22 | 286 | 6 | 1 | 3 | 1 | 49 | 2 | 31 | 736 |
| 4:15 PM | 3 | 320 | 29 | 36 | 310 | 1 | 1 | 3 | 3 | 35 | 2 | 18 | 761 |
| 4:30 PM | 0 | 296 | 25 | 27 | 316 | 0 | 2 | 4 | 1 | 37 | 0 | 32 | 740 |
| 4:45 PM | 0 | 262 | 25 | 25 | 291 | 0 | 12 | 6 | 1 | 44 | 2 | 29 | 697 |
| 5:00 PM | 0 | 321 | 29 | 34 | 328 | 0 | 9 | 7 | 1 | 49 | 3 | 38 | 819 |
| 5:15 PM | 0 | 252 | 17 | 27 | 365 | 0 | 3 | 10 | 1 | 25 | 0 | 30 | 730 |
| 5:30 PM | 2 | 266 | 18 | 22 | 344 | 0 | 10 | 19 | 4 | 26 | 1 | 33 | 745 |
| 5:45 PM | 1 | 245 | 17 | 22 | 313 | 0 | 1 | 5 | 1 | 30 | 2 | 8 | 645 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 6 | 2272 | 185 | 215 | 2553 | 7 | 39 | 57 | 13 | 295 | 12 | 219 | 5873 |
| **APPROACH %'s :** | 0.24% | 92.25% | 7.51% | 7.75% | 92.00% | 0.25% | 35.78% | 52.29% | 11.93% | 56.08% | 2.28% | 41.63% | |
| **PEAK HR START TIME :** | 415 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 3 | 1199 | 108 | 122 | 1245 | 1 | 24 | 20 | 6 | 165 | 7 | 117 | 3017 |
| **PEAK HR FACTOR :** | | 0.930 | | | 0.945 | | | 0.658 | | | 0.803 | | 0.921 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_006 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Santa Fe Ave | | | Santa Fe Ave | | | Vernon Ave/Pacific Blvd | | | Vernon Ave/Pacific Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 2 | |
| 7:00 AM | 27 | 236 | 3 | 23 | 219 | 79 | 24 | 66 | 24 | 5 | 89 | 111 | 906 |
| 7:15 AM | 21 | 248 | 4 | 16 | 195 | 60 | 45 | 57 | 20 | 5 | 94 | 105 | 870 |
| 7:30 AM | 24 | 243 | 7 | 28 | 179 | 52 | 40 | 62 | 31 | 9 | 106 | 160 | 941 |
| 7:45 AM | 17 | 270 | 5 | 27 | 177 | 49 | 33 | 50 | 15 | 7 | 95 | 106 | 851 |
| 8:00 AM | 16 | 258 | 1 | 28 | 212 | 61 | 44 | 60 | 12 | 2 | 80 | 94 | 868 |
| 8:15 AM | 22 | 191 | 3 | 28 | 178 | 47 | 28 | 60 | 9 | 1 | 82 | 76 | 725 |
| 8:30 AM | 20 | 209 | 5 | 29 | 201 | 57 | 29 | 52 | 11 | 3 | 69 | 81 | 766 |
| 8:45 AM | 15 | 183 | 8 | 29 | 169 | 43 | 28 | 54 | 13 | 6 | 58 | 66 | 672 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 162 | 1838 | 36 | 208 | 1530 | 448 | 271 | 461 | 135 | 38 | 673 | 799 | 6599 |
| **APPROACH %'s :** | 7.96% | 90.28% | 1.77% | 9.52% | 69.99% | 20.49% | 31.26% | 53.17% | 15.57% | 2.52% | 44.57% | 52.91% | |
| **PEAK HR START TIME :** | 700 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 89 | 997 | 19 | 94 | 770 | 240 | 142 | 235 | 90 | 26 | 384 | 482 | 3568 |
| **PEAK HR FACTOR :** | | 0.946 | | | 0.860 | | | 0.878 | | | 0.811 | | 0.948 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_006 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Santa Fe Ave | | | Santa Fe Ave | | | Vernon Ave/Pacific Blvd | | | Vernon Ave/Pacific Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 2 | |
| 4:00 PM | 27 | 224 | 6 | 35 | 251 | 47 | 53 | 98 | 19 | 7 | 82 | 58 | 907 |
| 4:15 PM | 27 | 237 | 8 | 46 | 271 | 29 | 57 | 89 | 8 | 8 | 66 | 57 | 903 |
| 4:30 PM | 14 | 208 | 7 | 38 | 281 | 37 | 37 | 110 | 24 | 15 | 80 | 74 | 925 |
| 4:45 PM | 27 | 183 | 3 | 50 | 234 | 44 | 32 | 67 | 16 | 1 | 56 | 62 | 775 |
| 5:00 PM | 32 | 235 | 8 | 36 | 297 | 45 | 44 | 92 | 16 | 6 | 83 | 74 | 968 |
| 5:15 PM | 18 | 163 | 3 | 31 | 328 | 30 | 36 | 76 | 16 | 2 | 72 | 79 | 854 |
| 5:30 PM | 31 | 166 | 3 | 43 | 299 | 37 | 50 | 87 | 18 | 4 | 55 | 58 | 851 |
| 5:45 PM | 7 | 164 | 1 | 36 | 286 | 21 | 35 | 98 | 21 | 4 | 58 | 63 | 794 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 183 | 1580 | 39 | 315 | 2247 | 290 | 344 | 717 | 138 | 47 | 552 | 525 | 6977 |
| **APPROACH %'s :** | 10.16% | 87.68% | 2.16% | 11.04% | 78.79% | 10.17% | 28.69% | 59.80% | 11.51% | 4.18% | 49.11% | 46.71% | |
| **PEAK HR START TIME :** | 415 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 100 | 863 | 26 | 170 | 1083 | 155 | 170 | 358 | 64 | 30 | 285 | 267 | 3571 |
| **PEAK HR FACTOR :** | | 0.899 | | | 0.931 | | | 0.865 | | | 0.861 | | 0.922 |

**CONTROL :** Signalized

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Soto Street
East/West Street: 26th Street
Counter: Counts Unlimited
Date: 02/22/12

### Morning Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 7:00 AM | Cars | 19 | 258 | 3 | 20 | 258 | 12 | 5 | 10 | 8 | 3 | 29 | 27 |
| | 2-Axle Truck | 2 | 13 | 0 | 1 | 9 | 0 | 0 | 1 | 0 | 0 | 5 | 2 |
| | 3-Axle Truck | 1 | 15 | 1 | 2 | 6 | 1 | 1 | 2 | 1 | 0 | 3 | 2 |
| | 4-Axle Truck | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:15 AM | Cars | 20 | 288 | 3 | 18 | 231 | 17 | 9 | 12 | 9 | 6 | 43 | 14 |
| | 2-Axle Truck | 1 | 10 | 1 | 0 | 9 | 0 | 0 | 1 | 2 | 2 | 3 | 1 |
| | 3-Axle Truck | 1 | 4 | 0 | 0 | 6 | 4 | 0 | 0 | 0 | 0 | 2 | 2 |
| | 4-Axle Truck | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5-Axle Truck + | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 1 |
| 7:30 AM | Cars | 25 | 297 | 8 | 27 | 250 | 28 | 6 | 18 | 8 | 7 | 49 | 12 |
| | 2-Axle Truck | 4 | 17 | 2 | 1 | 12 | 1 | 0 | 6 | 0 | 3 | 1 | 2 |
| | 3-Axle Truck | 1 | 6 | 1 | 1 | 6 | 0 | 2 | 3 | 0 | 1 | 4 | 4 |
| | 4-Axle Truck | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 3 | 1 |
| 7:45 AM | Cars | 34 | 269 | 19 | 31 | 252 | 18 | 5 | 14 | 3 | 3 | 56 | 24 |
| | 2-Axle Truck | 2 | 18 | 3 | 0 | 13 | 1 | 4 | 4 | 4 | 0 | 7 | 5 |
| | 3-Axle Truck | 1 | 8 | 0 | 1 | 6 | 1 | 0 | 5 | 0 | 1 | 4 | 2 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 3 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 2 | 1 |
| 8:00 AM | Cars | 24 | 256 | 8 | 23 | 259 | 28 | 10 | 17 | 11 | 7 | 42 | 17 |
| | 2-Axle Truck | 1 | 15 | 2 | 1 | 13 | 1 | 2 | 0 | 3 | 1 | 12 | 3 |
| | 3-Axle Truck | 0 | 6 | 0 | 0 | 6 | 0 | 3 | 3 | 0 | 0 | 1 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5-Axle Truck + | 0 | 1 | 1 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| 8:15 AM | Cars | 21 | 271 | 8 | 26 | 221 | 22 | 5 | 13 | 13 | 3 | 48 | 18 |
| | 2-Axle Truck | 2 | 17 | 3 | 1 | 14 | 2 | 1 | 1 | 0 | 0 | 8 | 4 |
| | 3-Axle Truck | 2 | 13 | 0 | 1 | 7 | 1 | 0 | 2 | 1 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 8:30 AM | Cars | 17 | 207 | 4 | 22 | 253 | 32 | 5 | 17 | 9 | 4 | 45 | 15 |
| | 2-Axle Truck | 5 | 26 | 1 | 1 | 17 | 0 | 1 | 4 | 1 | 1 | 6 | 3 |
| | 3-Axle Truck | 0 | 10 | 2 | 0 | 8 | 1 | 0 | 1 | 0 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 3 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| 8:45 AM | Cars | 12 | 226 | 3 | 12 | 233 | 28 | 7 | 9 | 2 | 6 | 41 | 13 |
| | 2-Axle Truck | 0 | 16 | 1 | 3 | 9 | 1 | 2 | 5 | 4 | 2 | 10 | 2 |
| | 3-Axle Truck | 0 | 4 | 0 | 1 | 9 | 2 | 2 | 3 | 1 | 0 | 4 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 3 | 0 |
| Total | Cars | 172 | 2,072 | 56 | 179 | 1,957 | 185 | 52 | 110 | 63 | 39 | 353 | 140 |
| | 2-Axle Truck | 17 | 132 | 13 | 8 | 96 | 6 | 10 | 22 | 14 | 9 | 52 | 22 |
| | 3-Axle Truck | 6 | 66 | 4 | 6 | 54 | 10 | 8 | 19 | 3 | 2 | 22 | 14 |
| | 4-Axle Truck | 1 | 5 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 5-Axle Truck + | 9 | 16 | 2 | 5 | 16 | 1 | 1 | 10 | 0 | 2 | 14 | 6 |
| | Total | 205 | 2291 | 76 | 200 | 2125 | 202 | 71 | 161 | 80 | 52 | 442 | 184 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 121 | 1203 | 56 | 117 | 1069 | 104 | 39 | 92 | 43 | 27 | 240 | 96 |
| Peak Hour Factor | 0.943 | | | 0.954 | | | 0.888 | | | 0.864 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Soto Street
East/West Street: 26th Street
Counter: Counts Unlimited
Date: 02/22/12

### Evening Peak Hour

| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Classification | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 4:00 PM | Cars | 11 | 250 | 12 | 32 | 249 | 11 | 24 | 46 | 11 | 8 | 26 | 22 |
| | 2-Axle Truck | 1 | 7 | 2 | 3 | 11 | 3 | 1 | 4 | 1 | 4 | 2 | 1 |
| | 3-Axle Truck | 0 | 1 | 1 | 2 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| | 5-Axle Truck + | 0 | 4 | 0 | 2 | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 4:15 PM | Cars | 8 | 274 | 8 | 32 | 247 | 12 | 17 | 47 | 14 | 6 | 22 | 13 |
| | 2-Axle Truck | 1 | 13 | 1 | 7 | 14 | 3 | 2 | 6 | 1 | 0 | 4 | 2 |
| | 3-Axle Truck | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 1 | 4 | 0 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 1 | 7 | 1 | 0 | 5 | 1 | 0 | 4 | 1 | 0 | 2 | 3 |
| 4:30 PM | Cars | 12 | 292 | 7 | 39 | 279 | 7 | 13 | 56 | 10 | 24 | 23 | 38 |
| | 2-Axle Truck | 3 | 5 | 0 | 3 | 14 | 5 | 1 | 5 | 1 | 2 | 2 | 2 |
| | 3-Axle Truck | 0 | 3 | 1 | 1 | 1 | 0 | 1 | 6 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 5 | 0 | 2 | 9 | 0 | 0 | 0 | 0 | 0 | 3 | 1 |
| 4:45 PM | Cars | 8 | 249 | 10 | 57 | 306 | 5 | 7 | 65 | 14 | 12 | 18 | 40 |
| | 2-Axle Truck | 1 | 7 | 2 | 6 | 12 | 1 | 1 | 5 | 0 | 2 | 1 | 1 |
| | 3-Axle Truck | 0 | 2 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 1 |
| | 5-Axle Truck + | 1 | 10 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 2 | 2 |
| 5:00 PM | Cars | 10 | 304 | 11 | 42 | 333 | 9 | 28 | 73 | 13 | 9 | 20 | 37 |
| | 2-Axle Truck | 1 | 7 | 1 | 4 | 7 | 1 | 0 | 7 | 1 | 0 | 4 | 2 |
| | 3-Axle Truck | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 5 | 0 | 1 | 4 | 1 | 0 | 1 | 0 | 0 | 2 | 1 |
| 5:15 PM | Cars | 15 | 292 | 7 | 44 | 310 | 9 | 20 | 92 | 16 | 10 | 32 | 32 |
| | 2-Axle Truck | 3 | 8 | 1 | 2 | 9 | 0 | 1 | 5 | 1 | 2 | 0 | 0 |
| | 3-Axle Truck | 2 | 3 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 3 | 0 | 4 | 6 | 2 | 0 | 1 | 0 | 1 | 4 | 1 |
| 5:30 PM | Cars | 14 | 296 | 10 | 51 | 357 | 12 | 29 | 95 | 21 | 7 | 15 | 37 |
| | 2-Axle Truck | 1 | 4 | 1 | 9 | 12 | 3 | 1 | 4 | 0 | 0 | 3 | 0 |
| | 3-Axle Truck | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 1 | 8 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 1 |
| 5:45 PM | Cars | 9 | 236 | 12 | 53 | 348 | 6 | 17 | 91 | 12 | 7 | 19 | 37 |
| | 2-Axle Truck | 2 | 7 | 2 | 4 | 8 | 3 | 0 | 5 | 0 | 0 | 0 | 1 |
| | 3-Axle Truck | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 0 | 5 | 0 | 3 | 5 | 2 | 0 | 0 | 0 | 0 | 6 | 0 |
| Total | Cars | 87 | 2,193 | 77 | 350 | 2,429 | 71 | 155 | 565 | 111 | 83 | 175 | 256 |
| | 2-Axle Truck | 13 | 58 | 10 | 38 | 87 | 19 | 7 | 41 | 5 | 10 | 16 | 9 |
| | 3-Axle Truck | 3 | 10 | 3 | 13 | 14 | 4 | 1 | 14 | 1 | 1 | 7 | 0 |
| | 4-Axle Truck | 0 | 3 | 2 | 1 | 3 | 1 | 0 | 7 | 0 | 1 | 9 | 1 |
| | 5-Axle Truck + | 4 | 47 | 1 | 14 | 42 | 6 | 2 | 12 | 2 | 1 | 19 | 10 |
| | Total | 107 | 2311 | 93 | 416 | 2575 | 101 | 165 | 639 | 119 | 96 | 226 | 276 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 59 | 1178 | 46 | 225 | 1407 | 51 | 97 | 385 | 65 | 36 | 112 | 149 |
| Peak Hour Factor | 0.946 | | | 0.931 | | | 0.866 | | | 0.884 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Soto Street
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Morning Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 7:00 AM | Cars | 14 | 253 | 12 | 10 | 202 | 41 | 16 | 66 | 2 | 39 | 134 | 14 |
| | 2-Axle Truck | 1 | 12 | 1 | 0 | 9 | 0 | 0 | 2 | 2 | 1 | 3 | 2 |
| | 3-Axle Truck | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 2 | 1 | 6 | 2 |
| | 4-Axle Truck | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 10 | 3 | 1 | 5 | 2 | 2 | 7 | 2 | 2 | 3 | 2 |
| 7:15 AM | Cars | 20 | 291 | 14 | 4 | 234 | 30 | 14 | 54 | 17 | 35 | 123 | 16 |
| | 2-Axle Truck | 2 | 8 | 1 | 2 | 12 | 0 | 2 | 2 | 0 | 0 | 4 | 0 |
| | 3-Axle Truck | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 6 | 0 | 2 | 1 | 1 |
| | 4-Axle Truck | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 4 | 5 | 1 | 4 | 0 | 2 | 9 | 2 | 3 | 3 | 0 |
| 7:30 AM | Cars | 18 | 277 | 22 | 9 | 194 | 29 | 20 | 74 | 8 | 34 | 146 | 30 |
| | 2-Axle Truck | 2 | 13 | 0 | 2 | 12 | 1 | 7 | 6 | 1 | 1 | 5 | 1 |
| | 3-Axle Truck | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 0 | 4 | 2 | 1 | 6 | 2 | 1 | 3 | 0 | 1 | 10 | 2 |
| 7:45 AM | Cars | 12 | 286 | 25 | 10 | 221 | 31 | 29 | 54 | 11 | 41 | 151 | 17 |
| | 2-Axle Truck | 1 | 19 | 0 | 1 | 15 | 1 | 3 | 6 | 2 | 1 | 6 | 1 |
| | 3-Axle Truck | 0 | 2 | 0 | 0 | 2 | 2 | 1 | 2 | 0 | 0 | 1 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 6 | 1 | 2 | 4 | 1 | 1 | 10 | 2 | 2 | 6 | 3 |
| 8:00 AM | Cars | 7 | 231 | 11 | 19 | 236 | 28 | 18 | 56 | 11 | 42 | 132 | 28 |
| | 2-Axle Truck | 2 | 17 | 2 | 0 | 17 | 0 | 1 | 9 | 3 | 1 | 12 | 0 |
| | 3-Axle Truck | 1 | 0 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 0 | 3 | 1 | 4 | 3 | 2 | 1 | 7 | 1 | 0 | 11 | 1 |
| 8:15 AM | Cars | 16 | 270 | 20 | 8 | 204 | 28 | 29 | 51 | 10 | 35 | 111 | 25 |
| | 2-Axle Truck | 4 | 16 | 1 | 0 | 12 | 2 | 5 | 3 | 0 | 2 | 5 | 3 |
| | 3-Axle Truck | 1 | 5 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 2 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 5-Axle Truck + | 3 | 9 | 3 | 1 | 6 | 3 | 3 | 3 | 2 | 1 | 9 | 4 |
| 8:30 AM | Cars | 5 | 195 | 13 | 6 | 233 | 25 | 13 | 42 | 7 | 35 | 108 | 22 |
| | 2-Axle Truck | 1 | 22 | 2 | 3 | 13 | 1 | 4 | 10 | 3 | 2 | 6 | 5 |
| | 3-Axle Truck | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 4 | 1 | 0 | 4 | 4 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 8 | 0 | 2 | 2 | 2 | 0 | 5 | 0 | 2 | 6 | 1 |
| 8:45 AM | Cars | 12 | 208 | 13 | 7 | 194 | 19 | 17 | 42 | 8 | 33 | 88 | 18 |
| | 2-Axle Truck | 2 | 12 | 2 | 2 | 8 | 4 | 1 | 4 | 4 | 2 | 8 | 5 |
| | 3-Axle Truck | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 3 | 2 | 1 | 5 | 4 | 0 | 5 | 1 | 3 | 13 | 1 |
| Total | Cars | 104 | 2,011 | 130 | 73 | 1,718 | 231 | 156 | 439 | 74 | 294 | 993 | 170 |
| | 2-Axle Truck | 15 | 119 | 9 | 10 | 98 | 9 | 23 | 42 | 15 | 10 | 49 | 17 |
| | 3-Axle Truck | 4 | 13 | 2 | 1 | 11 | 3 | 5 | 23 | 3 | 6 | 18 | 10 |
| | 4-Axle Truck | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 5 | 0 |
| | 5-Axle Truck + | 7 | 47 | 17 | 13 | 35 | 16 | 10 | 49 | 10 | 14 | 61 | 14 |
| | Total | 132 | 2192 | 158 | 97 | 1863 | 259 | 194 | 555 | 103 | 325 | 1126 | 211 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 69 | 1166 | 84 | 56 | 966 | 127 | 102 | 303 | 59 | 165 | 619 | 103 |
| Peak Hour Factor | 0.937 | | | 0.918 | | | 0.943 | | | 0.940 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Soto Street
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Evening Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 4:00 PM | Cars | 5 | 239 | 17 | 28 | 261 | 8 | 44 | 123 | 17 | 23 | 43 | 15 |
| | 2-Axle Truck | 1 | 7 | 4 | 3 | 13 | 1 | 5 | 5 | 1 | 2 | 11 | 0 |
| | 3-Axle Truck | 0 | 1 | 4 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 3 | 0 |
| | 4-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 1 | 2 | 3 | 4 | 2 | 1 | 8 | 3 | 3 | 5 | 1 |
| 4:15 PM | Cars | 16 | 251 | 19 | 31 | 280 | 18 | 26 | 108 | 20 | 22 | 47 | 12 |
| | 2-Axle Truck | 1 | 12 | 1 | 2 | 14 | 1 | 3 | 8 | 1 | 2 | 12 | 0 |
| | 3-Axle Truck | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 3 | 6 | 2 | 0 | 6 | 2 | 3 | 7 | 2 | 1 | 12 | 1 |
| 4:30 PM | Cars | 13 | 240 | 15 | 22 | 241 | 15 | 39 | 131 | 16 | 33 | 57 | 20 |
| | 2-Axle Truck | 1 | 9 | 1 | 5 | 12 | 1 | 2 | 4 | 4 | 3 | 6 | 0 |
| | 3-Axle Truck | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| | 5-Axle Truck + | 1 | 4 | 2 | 2 | 6 | 0 | 2 | 5 | 1 | 3 | 13 | 1 |
| 4:45 PM | Cars | 5 | 218 | 27 | 28 | 316 | 19 | 38 | 118 | 13 | 39 | 92 | 18 |
| | 2-Axle Truck | 0 | 7 | 1 | 0 | 14 | 1 | 1 | 2 | 3 | 0 | 9 | 1 |
| | 3-Axle Truck | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 3 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 8 | 1 | 0 | 2 | 2 | 1 | 9 | 1 | 0 | 7 | 2 |
| 5:00 PM | Cars | 11 | 245 | 23 | 20 | 306 | 18 | 53 | 161 | 16 | 32 | 80 | 12 |
| | 2-Axle Truck | 1 | 7 | 2 | 1 | 4 | 2 | 1 | 1 | 2 | 0 | 2 | 0 |
| | 3-Axle Truck | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 0 |
| | 5-Axle Truck + | 3 | 3 | 2 | 0 | 3 | 1 | 0 | 4 | 3 | 2 | 5 | 2 |
| 5:15 PM | Cars | 7 | 270 | 36 | 32 | 320 | 11 | 34 | 126 | 11 | 19 | 72 | 10 |
| | 2-Axle Truck | 0 | 5 | 0 | 0 | 13 | 2 | 1 | 3 | 0 | 1 | 2 | 1 |
| | 3-Axle Truck | 0 | 2 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 3 | 1 | 2 | 4 | 1 | 0 | 3 | 2 | 3 | 5 | 0 |
| 5:30 PM | Cars | 10 | 252 | 28 | 31 | 351 | 13 | 35 | 138 | 8 | 27 | 80 | 13 |
| | 2-Axle Truck | 1 | 3 | 3 | 2 | 8 | 1 | 3 | 1 | 0 | 0 | 4 | 1 |
| | 3-Axle Truck | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 1 | 7 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 8 | 1 |
| 5:45 PM | Cars | 11 | 214 | 27 | 37 | 332 | 19 | 19 | 122 | 14 | 23 | 85 | 19 |
| | 2-Axle Truck | 1 | 6 | 0 | 2 | 3 | 1 | 2 | 4 | 0 | 0 | 3 | 2 |
| | 3-Axle Truck | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 3 | 2 | 2 | 2 | 0 | 0 | 3 | 1 | 1 | 2 | 3 |
| Total | Cars | 78 | 1,929 | 192 | 229 | 2,407 | 121 | 288 | 1,027 | 115 | 218 | 556 | 119 |
| | 2-Axle Truck | 6 | 56 | 12 | 15 | 81 | 10 | 18 | 28 | 11 | 8 | 49 | 5 |
| | 3-Axle Truck | 0 | 8 | 7 | 2 | 11 | 2 | 4 | 8 | 0 | 0 | 12 | 1 |
| | 4-Axle Truck | 0 | 2 | 1 | 0 | 1 | 1 | 3 | 7 | 1 | 0 | 4 | 1 |
| | 5-Axle Truck + | 11 | 35 | 14 | 9 | 27 | 10 | 7 | 41 | 13 | 14 | 57 | 11 |
| | Total | 95 | 2030 | 226 | 255 | 2527 | 144 | 320 | 1111 | 140 | 240 | 678 | 137 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 39 | 1033 | 130 | 116 | 1348 | 75 | 170 | 574 | 60 | 124 | 377 | 62 |
| Peak Hour Factor | 0.922 | | | 0.936 | | | 0.820 | | | 0.823 | | |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_007 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Soto St | | | Soto St | | | Vernon Ave | | | Vernon Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | |
| 7:00 AM | 10 | 252 | 0 | 19 | 195 | 25 | 14 | 11 | 9 | 6 | 38 | 47 | 626 |
| 7:15 AM | 15 | 241 | 1 | 16 | 243 | 26 | 13 | 33 | 11 | 2 | 34 | 55 | 690 |
| 7:30 AM | 16 | 296 | 10 | 14 | 207 | 32 | 17 | 11 | 9 | 4 | 55 | 54 | 725 |
| 7:45 AM | 17 | 246 | 4 | 17 | 215 | 27 | 15 | 23 | 10 | 1 | 45 | 67 | 687 |
| 8:00 AM | 14 | 245 | 5 | 16 | 234 | 27 | 8 | 16 | 9 | 2 | 34 | 65 | 675 |
| 8:15 AM | 15 | 193 | 1 | 23 | 241 | 25 | 11 | 18 | 11 | 1 | 33 | 60 | 632 |
| 8:30 AM | 10 | 237 | 1 | 20 | 260 | 29 | 11 | 16 | 9 | 4 | 31 | 42 | 670 |
| 8:45 AM | 17 | 182 | 1 | 20 | 217 | 16 | 12 | 26 | 14 | 1 | 27 | 34 | 567 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 114 | 1892 | 23 | 145 | 1812 | 207 | 101 | 154 | 82 | 21 | 297 | 424 | 5272 |
| **APPROACH %'s :** | 5.62% | 93.25% | 1.13% | 6.70% | 83.73% | 9.57% | 29.97% | 45.70% | 24.33% | 2.83% | 40.03% | 57.14% | |
| **PEAK HR START TIME :** | 715 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 62 | 1028 | 20 | 63 | 899 | 112 | 53 | 83 | 39 | 9 | 168 | 241 | 2777 |
| **PEAK HR FACTOR :** | | 0.862 | | | 0.942 | | | 0.768 | | | 0.925 | | 0.958 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_007

**Day:** TUESDAY

**City:** City of Vernon

**Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Soto St | | | Soto St | | | Vernon Ave | | | Vernon Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | |
| 4:00 PM | 21 | 228 | 4 | 29 | 247 | 15 | 23 | 46 | 18 | 4 | 23 | 55 | 713 |
| 4:15 PM | 14 | 169 | 10 | 36 | 289 | 18 | 20 | 37 | 27 | 5 | 24 | 41 | 690 |
| 4:30 PM | 14 | 203 | 2 | 25 | 247 | 14 | 24 | 39 | 25 | 8 | 33 | 29 | 663 |
| 4:45 PM | 8 | 215 | 2 | 36 | 337 | 15 | 18 | 34 | 23 | 6 | 35 | 33 | 762 |
| 5:00 PM | 12 | 246 | 0 | 28 | 312 | 20 | 40 | 68 | 18 | 6 | 31 | 31 | 812 |
| 5:15 PM | 20 | 219 | 7 | 43 | 333 | 2 | 20 | 34 | 18 | 6 | 13 | 32 | 747 |
| 5:30 PM | 8 | 192 | 5 | 34 | 286 | 11 | 28 | 68 | 17 | 4 | 19 | 25 | 697 |
| 5:45 PM | 5 | 168 | 2 | 45 | 305 | 8 | 17 | 32 | 20 | 0 | 14 | 24 | 640 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 102 | 1640 | 32 | 276 | 2356 | 103 | 190 | 358 | 166 | 39 | 192 | 270 | 5724 |
| **APPROACH %'s :** | 5.75% | 92.45% | 1.80% | 10.09% | 86.14% | 3.77% | 26.61% | 50.14% | 23.25% | 7.78% | 38.32% | 53.89% | |
| **PEAK HR START TIME :** | 445 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 48 | 872 | 14 | 141 | 1268 | 48 | 106 | 204 | 76 | 22 | 98 | 121 | 3018 |
| **PEAK HR FACTOR :** | | 0.905 | | | 0.939 | | | 0.766 | | | 0.814 | | 0.929 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_008 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Soto St | | | Soto St | | | Leonis Blvd | | | Leonis Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | |
| 7:00 AM | 4 | 209 | 8 | 16 | 156 | 18 | 10 | 51 | 10 | 21 | 105 | 32 | 640 |
| 7:15 AM | 3 | 205 | 13 | 21 | 174 | 10 | 29 | 55 | 4 | 27 | 134 | 30 | 705 |
| 7:30 AM | 17 | 239 | 13 | 22 | 172 | 9 | 20 | 58 | 1 | 16 | 120 | 37 | 724 |
| 7:45 AM | 17 | 227 | 12 | 22 | 133 | 25 | 17 | 48 | 6 | 24 | 135 | 33 | 699 |
| 8:00 AM | 5 | 230 | 3 | 20 | 159 | 18 | 11 | 44 | 1 | 11 | 50 | 12 | 564 |
| 8:15 AM | 9 | 167 | 5 | 31 | 195 | 30 | 10 | 39 | 4 | 28 | 102 | 29 | 649 |
| 8:30 AM | 6 | 196 | 6 | 23 | 175 | 19 | 19 | 47 | 2 | 29 | 97 | 33 | 652 |
| 8:45 AM | 6 | 152 | 6 | 23 | 183 | 29 | 5 | 30 | 2 | 25 | 106 | 25 | 592 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 67 | 1625 | 66 | 178 | 1347 | 158 | 121 | 372 | 30 | 181 | 849 | 231 | 5225 |
| **APPROACH %'s :** | 3.81% | 92.43% | 3.75% | 10.58% | 80.04% | 9.39% | 23.14% | 71.13% | 5.74% | 14.35% | 67.33% | 18.32% | |
| **PEAK HR START TIME :** | 700 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 41 | 880 | 46 | 81 | 635 | 62 | 76 | 212 | 21 | 88 | 494 | 132 | 2768 |
| **PEAK HR FACTOR :** | | 0.899 | | | 0.949 | | | 0.878 | | | 0.930 | | 0.956 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_008 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Soto St | | | Soto St | | | Leonis Blvd | | | Leonis Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | |
| 4:00 PM | 10 | 158 | 12 | 28 | 242 | 12 | 18 | 99 | 12 | 21 | 90 | 22 | 724 |
| 4:15 PM | 6 | 137 | 12 | 32 | 245 | 8 | 16 | 66 | 6 | 24 | 50 | 15 | 617 |
| 4:30 PM | 6 | 182 | 29 | 31 | 245 | 16 | 15 | 109 | 8 | 18 | 59 | 24 | 742 |
| 4:45 PM | 2 | 153 | 17 | 29 | 289 | 10 | 14 | 79 | 9 | 15 | 64 | 18 | 699 |
| 5:00 PM | 5 | 174 | 22 | 31 | 266 | 16 | 34 | 115 | 11 | 16 | 79 | 34 | 803 |
| 5:15 PM | 6 | 165 | 25 | 33 | 269 | 17 | 21 | 81 | 15 | 13 | 79 | 22 | 746 |
| 5:30 PM | 3 | 142 | 21 | 33 | 254 | 14 | 17 | 114 | 8 | 8 | 62 | 29 | 705 |
| 5:45 PM | 3 | 129 | 25 | 31 | 282 | 12 | 9 | 72 | 3 | 13 | 52 | 12 | 643 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 41 | 1240 | 163 | 248 | 2092 | 105 | 144 | 735 | 72 | 128 | 535 | 176 | 5679 |
| **APPROACH %'s :** | 2.84% | 85.87% | 11.29% | 10.14% | 85.56% | 4.29% | 15.14% | 77.29% | 7.57% | 15.26% | 63.77% | 20.98% | |
| **PEAK HR START TIME :** | 430 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 19 | 674 | 93 | 124 | 1069 | 59 | 84 | 384 | 43 | 62 | 281 | 98 | 2990 |
| **PEAK HR FACTOR :** | | 0.906 | | | 0.954 | | | 0.798 | | | 0.855 | | 0.931 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_009

**Day:** TUESDAY

**City:** City of Vernon

**Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Soto St | | | Soto St | | | Fruitland Ave | | | Fruitland Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 7:00 AM | 20 | 171 | 6 | 11 | 122 | 28 | 30 | 34 | 10 | 4 | 67 | 22 | 525 |
| 7:15 AM | 24 | 186 | 8 | 9 | 156 | 47 | 22 | 29 | 10 | 6 | 51 | 17 | 565 |
| 7:30 AM | 26 | 238 | 4 | 9 | 132 | 41 | 20 | 43 | 2 | 5 | 70 | 24 | 614 |
| 7:45 AM | 23 | 185 | 10 | 12 | 101 | 41 | 26 | 32 | 5 | 6 | 55 | 16 | 512 |
| 8:00 AM | 16 | 189 | 3 | 14 | 120 | 55 | 17 | 36 | 6 | 11 | 59 | 17 | 543 |
| 8:15 AM | 26 | 140 | 4 | 17 | 126 | 69 | 18 | 36 | 5 | 12 | 65 | 11 | 529 |
| 8:30 AM | 15 | 187 | 1 | 20 | 129 | 75 | 18 | 30 | 22 | 4 | 44 | 21 | 566 |
| 8:45 AM | 21 | 131 | 3 | 14 | 125 | 63 | 16 | 33 | 11 | 7 | 52 | 11 | 487 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 171 | 1427 | 39 | 106 | 1011 | 419 | 167 | 273 | 71 | 55 | 463 | 139 | 4341 |
| **APPROACH %'s :** | 10.45% | 87.17% | 2.38% | 6.90% | 65.82% | 27.28% | 32.68% | 53.42% | 13.89% | 8.37% | 70.47% | 21.16% | |
| **PEAK HR START TIME :** | 715 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 89 | 798 | 25 | 44 | 509 | 184 | 85 | 140 | 23 | 28 | 235 | 74 | 2234 |
| **PEAK HR FACTOR :** | | 0.851 | | | 0.869 | | | 0.954 | | | 0.851 | | 0.910 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_009

**Day:** TUESDAY

**City:** City of Vernon

**Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Soto St | | | Soto St | | | Fruitland Ave | | | Fruitland Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | |
| 4:00 PM | 14 | 124 | 1 | 17 | 239 | 30 | 32 | 60 | 14 | 11 | 55 | 14 | 611 |
| 4:15 PM | 7 | 125 | 2 | 22 | 226 | 19 | 26 | 54 | 6 | 5 | 44 | 11 | 547 |
| 4:30 PM | 13 | 141 | 8 | 22 | 207 | 21 | 50 | 96 | 18 | 8 | 55 | 9 | 648 |
| 4:45 PM | 7 | 120 | 8 | 21 | 258 | 27 | 37 | 73 | 8 | 4 | 40 | 13 | 616 |
| 5:00 PM | 16 | 148 | 12 | 19 | 248 | 21 | 47 | 109 | 14 | 11 | 42 | 18 | 705 |
| 5:15 PM | 15 | 135 | 8 | 24 | 249 | 24 | 35 | 57 | 9 | 2 | 32 | 12 | 602 |
| 5:30 PM | 3 | 116 | 10 | 30 | 229 | 24 | 41 | 81 | 10 | 5 | 30 | 6 | 585 |
| 5:45 PM | 5 | 105 | 6 | 20 | 223 | 22 | 41 | 59 | 12 | 4 | 34 | 10 | 541 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 80 | 1014 | 55 | 175 | 1879 | 188 | 309 | 589 | 91 | 50 | 332 | 93 | 4855 |
| **APPROACH %'s :** | 6.96% | 88.25% | 4.79% | 7.81% | 83.81% | 8.39% | 31.24% | 59.56% | 9.20% | 10.53% | 69.89% | 19.58% | |
| **PEAK HR START TIME :** | 430 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 51 | 544 | 36 | 86 | 962 | 93 | 169 | 335 | 49 | 25 | 169 | 52 | 2571 |
| **PEAK HR FACTOR :** | | 0.896 | | | 0.932 | | | 0.813 | | | 0.854 | | 0.912 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_010 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Boyle Ave | | | Boyle Ave | | | Slauson Ave | | | Slauson Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | |
| 7:00 AM | 50 | 197 | 35 | 5 | 60 | 4 | 5 | 145 | 26 | 47 | 216 | 15 | 805 |
| 7:15 AM | 68 | 239 | 51 | 4 | 58 | 5 | 13 | 172 | 24 | 35 | 224 | 11 | 904 |
| 7:30 AM | 66 | 239 | 61 | 8 | 43 | 5 | 15 | 182 | 38 | 47 | 217 | 11 | 932 |
| 7:45 AM | 86 | 218 | 71 | 4 | 31 | 6 | 17 | 183 | 38 | 45 | 207 | 11 | 917 |
| 8:00 AM | 60 | 213 | 52 | 3 | 30 | 6 | 14 | 151 | 29 | 54 | 211 | 12 | 835 |
| 8:15 AM | 61 | 212 | 52 | 4 | 32 | 2 | 20 | 137 | 23 | 40 | 195 | 6 | 784 |
| 8:30 AM | 49 | 130 | 49 | 3 | 24 | 3 | 12 | 140 | 19 | 39 | 171 | 13 | 652 |
| 8:45 AM | 34 | 89 | 36 | 6 | 32 | 4 | 20 | 169 | 16 | 38 | 210 | 9 | 663 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 474 | 1537 | 407 | 37 | 310 | 35 | 116 | 1279 | 213 | 345 | 1651 | 88 | 6492 |
| **APPROACH %'s :** | 19.60% | 63.56% | 16.83% | 9.69% | 81.15% | 9.16% | 7.21% | 79.54% | 13.25% | 16.55% | 79.22% | 4.22% | |
| **PEAK HR START TIME :** | 715 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 280 | 909 | 235 | 19 | 162 | 22 | 59 | 688 | 129 | 181 | 859 | 45 | 3588 |
| **PEAK HR FACTOR :** | | 0.949 | | | 0.757 | | | 0.920 | | | 0.979 | | 0.962 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_010 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Boyle Ave | | | Boyle Ave | | | Slauson Ave | | | Slauson Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | |
| 4:00 PM | 28 | 63 | 25 | 16 | 167 | 16 | 9 | 228 | 43 | 68 | 207 | 4 | 874 |
| 4:15 PM | 32 | 44 | 36 | 13 | 141 | 6 | 7 | 225 | 55 | 59 | 185 | 7 | 810 |
| 4:30 PM | 31 | 62 | 41 | 18 | 164 | 16 | 9 | 233 | 43 | 56 | 199 | 6 | 878 |
| 4:45 PM | 35 | 55 | 31 | 8 | 182 | 8 | 8 | 209 | 64 | 48 | 210 | 6 | 864 |
| 5:00 PM | 39 | 54 | 27 | 10 | 196 | 5 | 8 | 214 | 46 | 76 | 227 | 3 | 905 |
| 5:15 PM | 27 | 53 | 23 | 19 | 229 | 13 | 5 | 204 | 66 | 68 | 219 | 8 | 934 |
| 5:30 PM | 45 | 55 | 39 | 16 | 217 | 9 | 8 | 191 | 51 | 63 | 170 | 6 | 870 |
| 5:45 PM | 25 | 50 | 31 | 8 | 171 | 6 | 5 | 223 | 68 | 65 | 168 | 9 | 829 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 262 | 436 | 253 | 108 | 1467 | 79 | 59 | 1727 | 436 | 503 | 1585 | 49 | 6964 |
| **APPROACH %'s :** | 27.55% | 45.85% | 26.60% | 6.53% | 88.69% | 4.78% | 2.66% | 77.72% | 19.62% | 23.54% | 74.17% | 2.29% | |
| **PEAK HR START TIME :** | 430 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 132 | 224 | 122 | 55 | 771 | 42 | 30 | 860 | 219 | 248 | 855 | 23 | 3581 |
| **PEAK HR FACTOR :** | | 0.892 | | | 0.831 | | | 0.973 | | | 0.920 | | 0.959 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_011 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Downey Rd | | | Downey Rd | | | Washington Blvd | | | Washington Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1.5 | .5 | 1 | 1.5 | .5 | 1 | 2 | 1 | 1 | 2 | 0 | |
| 7:00 AM | 56 | 212 | 7 | 10 | 127 | 36 | 20 | 24 | 33 | 12 | 128 | 14 | 679 |
| 7:15 AM | 57 | 231 | 7 | 8 | 130 | 69 | 38 | 20 | 25 | 20 | 146 | 15 | 766 |
| 7:30 AM | 63 | 236 | 8 | 7 | 153 | 64 | 32 | 26 | 30 | 18 | 158 | 23 | 818 |
| 7:45 AM | 34 | 231 | 7 | 9 | 199 | 39 | 32 | 37 | 49 | 21 | 133 | 31 | 822 |
| 8:00 AM | 45 | 262 | 14 | 11 | 174 | 36 | 29 | 25 | 29 | 20 | 94 | 18 | 757 |
| 8:15 AM | 47 | 192 | 9 | 12 | 162 | 50 | 30 | 32 | 28 | 16 | 112 | 21 | 711 |
| 8:30 AM | 51 | 171 | 9 | 6 | 129 | 40 | 31 | 35 | 29 | 10 | 114 | 22 | 647 |
| 8:45 AM | 52 | 141 | 6 | 8 | 164 | 46 | 32 | 27 | 29 | 24 | 115 | 27 | 671 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 405 | 1676 | 67 | 71 | 1238 | 380 | 244 | 226 | 252 | 141 | 1000 | 171 | 5871 |
| **APPROACH %'s :** | 18.85% | 78.03% | 3.12% | 4.20% | 73.30% | 22.50% | 33.80% | 31.30% | 34.90% | 10.75% | 76.22% | 13.03% | |
| **PEAK HR START TIME :** | 715 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 199 | 960 | 36 | 35 | 656 | 208 | 131 | 108 | 133 | 79 | 531 | 87 | 3163 |
| **PEAK HR FACTOR :** | | 0.931 | | | 0.910 | | | 0.788 | | | 0.876 | | 0.962 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_011 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Downey Rd | | | Downey Rd | | | Washington Blvd | | | Washington Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1.5 | .5 | 1 | 1.5 | .5 | 1 | 2 | 1 | 1 | 2 | 0 | |
| 4:00 PM | 42 | 204 | 18 | 17 | 205 | 49 | 48 | 143 | 62 | 21 | 56 | 12 | 877 |
| 4:15 PM | 27 | 177 | 5 | 25 | 176 | 44 | 55 | 160 | 58 | 16 | 49 | 17 | 809 |
| 4:30 PM | 28 | 199 | 23 | 21 | 205 | 67 | 57 | 154 | 58 | 10 | 43 | 5 | 870 |
| 4:45 PM | 40 | 225 | 16 | 14 | 173 | 29 | 44 | 134 | 59 | 14 | 49 | 13 | 810 |
| 5:00 PM | 35 | 270 | 16 | 29 | 226 | 58 | 48 | 151 | 73 | 8 | 57 | 5 | 976 |
| 5:15 PM | 29 | 195 | 18 | 32 | 267 | 51 | 36 | 159 | 69 | 7 | 58 | 5 | 926 |
| 5:30 PM | 33 | 171 | 17 | 23 | 259 | 51 | 42 | 199 | 84 | 4 | 42 | 8 | 933 |
| 5:45 PM | 35 | 202 | 22 | 25 | 212 | 28 | 46 | 179 | 64 | 10 | 83 | 12 | 918 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 269 | 1643 | 135 | 186 | 1723 | 377 | 376 | 1279 | 527 | 90 | 437 | 77 | 7119 |
| **APPROACH %'s :** | 13.14% | 80.26% | 6.60% | 8.14% | 75.37% | 16.49% | 17.23% | 58.62% | 24.15% | 14.90% | 72.35% | 12.75% | |
| **PEAK HR START TIME :** | 500 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 132 | 838 | 73 | 109 | 964 | 188 | 172 | 688 | 290 | 29 | 240 | 30 | 3753 |
| **PEAK HR FACTOR :** | | 0.812 | | | 0.901 | | | 0.885 | | | 0.712 | | 0.961 |

**CONTROL :** Signalized

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Downey Road
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Morning Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 7:00 AM | Cars | 13 | 193 | 16 | 10 | 116 | 27 | 11 | 46 | 8 | 42 | 150 | 19 |
| | 2-Axle Truck | 0 | 9 | 1 | 2 | 2 | 0 | 0 | 0 | 1 | 4 | 5 | 2 |
| | 3-Axle Truck | 0 | 2 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 1 | 3 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 1 | 5 | 1 | 5 | 0 | 0 | 11 | 0 | 4 | 9 | 2 |
| 7:15 AM | Cars | 6 | 209 | 14 | 6 | 119 | 38 | 9 | 40 | 5 | 37 | 153 | 22 |
| | 2-Axle Truck | 1 | 11 | 5 | 1 | 5 | 2 | 1 | 4 | 2 | 3 | 3 | 4 |
| | 3-Axle Truck | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 4 | 2 | 1 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 5-Axle Truck + | 1 | 1 | 7 | 0 | 3 | 2 | 1 | 10 | 1 | 2 | 4 | 1 |
| 7:30 AM | Cars | 11 | 210 | 28 | 12 | 112 | 40 | 15 | 49 | 13 | 31 | 149 | 39 |
| | 2-Axle Truck | 0 | 10 | 2 | 1 | 11 | 0 | 0 | 4 | 4 | 4 | 5 | 2 |
| | 3-Axle Truck | 0 | 1 | 0 | 1 | 2 | 0 | 3 | 2 | 0 | 0 | 1 | 2 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 3 | 5 | 0 | 3 | 2 | 0 | 10 | 0 | 7 | 12 | 0 |
| 7:45 AM | Cars | 14 | 195 | 20 | 18 | 98 | 48 | 5 | 49 | 5 | 23 | 199 | 34 |
| | 2-Axle Truck | 0 | 18 | 1 | 1 | 3 | 1 | 1 | 7 | 0 | 5 | 11 | 2 |
| | 3-Axle Truck | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 2 | 1 | 1 | 0 | 3 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 4 | 3 | 4 | 1 | 4 | 2 | 0 | 10 | 3 | 2 | 12 | 0 |
| 8:00 AM | Cars | 8 | 167 | 13 | 4 | 114 | 27 | 8 | 50 | 4 | 46 | 172 | 24 |
| | 2-Axle Truck | 2 | 12 | 0 | 4 | 4 | 3 | 2 | 6 | 3 | 2 | 5 | 6 |
| | 3-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| | 4-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 1 | 3 | 5 | 0 | 2 | 2 | 1 | 8 | 2 | 1 | 10 | 1 |
| 8:15 AM | Cars | 14 | 167 | 10 | 11 | 122 | 33 | 5 | 26 | 7 | 30 | 135 | 34 |
| | 2-Axle Truck | 0 | 14 | 2 | 2 | 1 | 3 | 1 | 3 | 2 | 3 | 5 | 5 |
| | 3-Axle Truck | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| | 4-Axle Truck | 0 | 1 | 0 | 3 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 3 | 3 | 2 | 6 | 1 | 3 | 4 | 1 | 3 | 12 | 3 |
| 8:30 AM | Cars | 14 | 152 | 8 | 11 | 101 | 32 | 7 | 43 | 9 | 41 | 140 | 42 |
| | 2-Axle Truck | 5 | 13 | 2 | 2 | 8 | 1 | 0 | 9 | 2 | 3 | 5 | 2 |
| | 3-Axle Truck | 1 | 1 | 1 | 0 | 2 | 0 | 0 | 4 | 0 | 3 | 3 | 3 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 4 | 2 | 0 | 4 | 1 | 0 | 7 | 4 | 4 | 10 | 1 |
| 8:45 AM | Cars | 8 | 132 | 5 | 13 | 102 | 24 | 7 | 31 | 13 | 36 | 125 | 34 |
| | 2-Axle Truck | 2 | 17 | 2 | 2 | 10 | 3 | 2 | 10 | 2 | 3 | 11 | 3 |
| | 3-Axle Truck | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 4 | 2 | 6 | 0 | 6 | 3 | 2 | 13 | 3 | 3 | 13 | 1 |
| Total | Cars | 88 | 1,425 | 114 | 85 | 884 | 269 | 67 | 334 | 64 | 286 | 1,223 | 248 |
| | 2-Axle Truck | 10 | 104 | 15 | 15 | 44 | 13 | 7 | 43 | 16 | 27 | 50 | 26 |
| | 3-Axle Truck | 1 | 10 | 8 | 4 | 8 | 5 | 6 | 19 | 5 | 8 | 12 | 9 |
| | 4-Axle Truck | 0 | 2 | 1 | 5 | 1 | 6 | 4 | 4 | 0 | 1 | 2 | 0 |
| | 5-Axle Truck + | 14 | 20 | 37 | 4 | 33 | 13 | 7 | 73 | 14 | 26 | 82 | 9 |
| | Total | 113 | 1561 | 175 | 113 | 970 | 306 | 91 | 473 | 99 | 348 | 1369 | 292 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 50 | 846 | 109 | 51 | 481 | 173 | 50 | 258 | 45 | 167 | 740 | 141 |
| Peak Hour Factor | 0.924 | | | 0.958 | | | 0.883 | | | 0.897 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Downey Road
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Evening Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 4:00 PM | Cars | 10 | 204 | 37 | 32 | 175 | 15 | 38 | 124 | 20 | 30 | 54 | 21 |
| | 2-Axle Truck | 2 | 8 | 3 | 5 | 13 | 2 | 5 | 8 | 1 | 6 | 10 | 0 |
| | 3-Axle Truck | 0 | 1 | 0 | 1 | 2 | 0 | 2 | 3 | 0 | 1 | 4 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 4 | 1 | 1 | 4 | 1 | 2 | 10 | 1 | 0 | 9 | 1 |
| 4:15 PM | Cars | 3 | 171 | 50 | 43 | 223 | 13 | 29 | 116 | 20 | 19 | 47 | 20 |
| | 2-Axle Truck | 0 | 9 | 6 | 3 | 12 | 1 | 3 | 9 | 4 | 3 | 11 | 2 |
| | 3-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 |
| | 5-Axle Truck + | 3 | 7 | 4 | 2 | 2 | 2 | 0 | 10 | 1 | 1 | 10 | 0 |
| 4:30 PM | Cars | 10 | 206 | 61 | 30 | 189 | 23 | 19 | 142 | 24 | 31 | 48 | 21 |
| | 2-Axle Truck | 3 | 5 | 2 | 3 | 14 | 5 | 3 | 6 | 4 | 0 | 6 | 2 |
| | 3-Axle Truck | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 2 | 0 | 0 | 1 | 1 |
| | 4-Axle Truck | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 5-Axle Truck + | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 6 | 1 | 3 | 15 | 1 |
| 4:45 PM | Cars | 5 | 187 | 40 | 43 | 234 | 21 | 26 | 131 | 17 | 20 | 85 | 16 |
| | 2-Axle Truck | 0 | 4 | 4 | 5 | 5 | 1 | 1 | 5 | 1 | 2 | 6 | 1 |
| | 3-Axle Truck | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 3 | 2 | 0 | 4 | 2 | 1 | 9 | 3 | 2 | 5 | 0 |
| 5:00 PM | Cars | 7 | 208 | 48 | 50 | 245 | 17 | 31 | 136 | 42 | 29 | 64 | 25 |
| | 2-Axle Truck | 0 | 4 | 2 | 4 | 4 | 0 | 1 | 4 | 1 | 1 | 3 | 1 |
| | 3-Axle Truck | 0 | 1 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 3 | 3 | 0 | 3 | 0 | 1 | 6 | 0 | 3 | 8 | 0 |
| 5:15 PM | Cars | 8 | 212 | 50 | 38 | 250 | 19 | 39 | 154 | 50 | 38 | 61 | 18 |
| | 2-Axle Truck | 1 | 5 | 3 | 2 | 3 | 0 | 2 | 3 | 2 | 0 | 3 | 0 |
| | 3-Axle Truck | 0 | 1 | 2 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 1 | 1 | 0 | 1 | 1 | 2 | 7 | 1 | 0 | 7 | 0 |
| 5:30 PM | Cars | 13 | 177 | 46 | 51 | 251 | 19 | 40 | 143 | 39 | 50 | 51 | 19 |
| | 2-Axle Truck | 2 | 5 | 2 | 1 | 7 | 1 | 0 | 4 | 0 | 2 | 1 | 1 |
| | 3-Axle Truck | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 0 | 0 | 6 | 1 |
| 5:45 PM | Cars | 14 | 223 | 44 | 46 | 251 | 19 | 33 | 141 | 70 | 32 | 74 | 16 |
| | 2-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 8 | 0 | 0 | 6 | 0 |
| Total | Cars | 70 | 1,588 | 376 | 333 | 1,818 | 146 | 255 | 1,087 | 282 | 249 | 484 | 156 |
| | 2-Axle Truck | 8 | 40 | 22 | 23 | 58 | 10 | 15 | 39 | 13 | 14 | 40 | 7 |
| | 3-Axle Truck | 0 | 5 | 3 | 8 | 7 | 6 | 4 | 8 | 1 | 2 | 15 | 4 |
| | 4-Axle Truck | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 6 | 5 | 0 | 5 | 0 |
| | 5-Axle Truck + | 10 | 22 | 13 | 5 | 20 | 8 | 6 | 58 | 7 | 9 | 66 | 3 |
| | Total | 89 | 1657 | 414 | 369 | 1903 | 173 | 280 | 1198 | 308 | 274 | 610 | 170 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 50 | 843 | 204 | 199 | 1022 | 81 | 150 | 611 | 205 | 156 | 291 | 82 |
| Peak Hour Factor | 0.959 | | | 0.969 | | | 0.925 | | | 0.958 | | |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_012 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Downey Rd | | | Downey Rd | | | Slauson Ave | | | Slauson Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | .5 | .5 | 1 | .5 | .5 | 1 | 2 | 0 | 0 | 2 | 0 | |
| 7:00 AM | 0 | 3 | 3 | 47 | 6 | 39 | 12 | 148 | 0 | 1 | 240 | 109 | 608 |
| 7:15 AM | 2 | 5 | 2 | 35 | 9 | 25 | 24 | 165 | 4 | 0 | 280 | 126 | 677 |
| 7:30 AM | 2 | 3 | 3 | 35 | 13 | 27 | 26 | 195 | 4 | 0 | 300 | 118 | 726 |
| 7:45 AM | 0 | 7 | 1 | 25 | 10 | 21 | 25 | 183 | 8 | 0 | 279 | 109 | 668 |
| 8:00 AM | 4 | 5 | 2 | 36 | 10 | 20 | 26 | 160 | 4 | 0 | 275 | 102 | 644 |
| 8:15 AM | 0 | 2 | 4 | 31 | 6 | 28 | 27 | 150 | 4 | 0 | 211 | 83 | 546 |
| 8:30 AM | 0 | 4 | 2 | 39 | 10 | 24 | 20 | 132 | 2 | 0 | 248 | 87 | 568 |
| 8:45 AM | 1 | 6 | 1 | 33 | 8 | 34 | 33 | 162 | 4 | 0 | 257 | 70 | 609 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 9 | 35 | 18 | 281 | 72 | 218 | 193 | 1295 | 30 | 1 | 2090 | 804 | 5046 |
| **APPROACH %'s :** | 14.52% | 56.45% | 29.03% | 49.21% | 12.61% | 38.18% | 12.71% | 85.31% | 1.98% | 0.03% | 72.19% | 27.77% | |
| **PEAK HR START TIME :** | 715 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 8 | 20 | 8 | 131 | 42 | 93 | 101 | 703 | 20 | 0 | 1134 | 455 | 2715 |
| **PEAK HR FACTOR :** | 0.818 | | | 0.887 | | | 0.916 | | | 0.950 | | | 0.935 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_012

**Day:** TUESDAY

**City:** City of Vernon

**Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Downey Rd | | | Downey Rd | | | Slauson Ave | | | Slauson Ave | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | .5 | .5 | 1 | .5 | .5 | 1 | 2 | 0 | 0 | 2 | 0 | |
| 4:00 PM | 7 | 15 | 21 | 100 | 5 | 46 | 29 | 267 | 3 | 0 | 191 | 33 | 717 |
| 4:15 PM | 2 | 9 | 11 | 103 | 4 | 44 | 34 | 241 | 1 | 0 | 173 | 41 | 663 |
| 4:30 PM | 4 | 8 | 10 | 89 | 3 | 32 | 32 | 311 | 1 | 0 | 189 | 43 | 722 |
| 4:45 PM | 3 | 8 | 8 | 98 | 4 | 44 | 29 | 256 | 1 | 0 | 214 | 28 | 693 |
| 5:00 PM | 8 | 8 | 16 | 112 | 6 | 47 | 18 | 263 | 2 | 0 | 211 | 43 | 734 |
| 5:15 PM | 3 | 5 | 11 | 99 | 12 | 35 | 33 | 238 | 0 | 0 | 215 | 39 | 690 |
| 5:30 PM | 5 | 7 | 8 | 118 | 1 | 41 | 33 | 271 | 1 | 1 | 196 | 33 | 715 |
| 5:45 PM | 3 | 7 | 3 | 126 | 2 | 40 | 23 | 243 | 1 | 1 | 174 | 35 | 658 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 35 | 67 | 88 | 845 | 37 | 329 | 231 | 2090 | 10 | 2 | 1563 | 295 | 5592 |
| **APPROACH %'s :** | 18.42% | 35.26% | 46.32% | 69.78% | 3.06% | 27.17% | 9.91% | 89.66% | 0.43% | 0.11% | 84.03% | 15.86% | |
| **PEAK HR START TIME :** | 430 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 18 | 29 | 45 | 398 | 25 | 158 | 112 | 1068 | 4 | 0 | 829 | 153 | 2839 |
| **PEAK HR FACTOR :** | | 0.719 | | | 0.880 | | | 0.860 | | | 0.967 | | 0.967 |

**CONTROL :** Signalized

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Atlantic Boulevard
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Morning Peak Hour

| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Classification | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 7:00 AM | Cars | 34 | 178 | 234 | 2 | 151 | 135 | 26 | 85 | 23 | 29 | 47 | 36 |
| | 2-Axle Truck | 0 | 6 | 6 | 0 | 7 | 5 | 0 | 5 | 4 | 6 | 0 | 6 |
| | 3-Axle Truck | 1 | 1 | 4 | 0 | 6 | 4 | 4 | 0 | 0 | 4 | 1 | 4 |
| | 4-Axle Truck | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 2 |
| | 5-Axle Truck + | 1 | 5 | 13 | 1 | 4 | 4 | 19 | 6 | 9 | 15 | 4 | 13 |
| 7:15 AM | Cars | 15 | 169 | 246 | 4 | 132 | 180 | 45 | 127 | 25 | 32 | 53 | 29 |
| | 2-Axle Truck | 2 | 6 | 7 | 2 | 11 | 4 | 2 | 5 | 4 | 0 | 5 | 7 |
| | 3-Axle Truck | 0 | 2 | 7 | 0 | 1 | 5 | 1 | 5 | 2 | 2 | 0 | 3 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 5-Axle Truck + | 0 | 6 | 7 | 0 | 4 | 6 | 10 | 8 | 9 | 11 | 2 | 9 |
| 7:30 AM | Cars | 21 | 145 | 276 | 1 | 148 | 184 | 21 | 99 | 22 | 28 | 53 | 21 |
| | 2-Axle Truck | 1 | 6 | 12 | 1 | 9 | 5 | 3 | 5 | 2 | 6 | 5 | 0 |
| | 3-Axle Truck | 0 | 1 | 10 | 0 | 1 | 2 | 1 | 3 | 2 | 4 | 3 | 2 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 |
| | 5-Axle Truck + | 0 | 8 | 15 | 0 | 6 | 9 | 10 | 10 | 8 | 15 | 3 | 7 |
| 7:45 AM | Cars | 18 | 119 | 282 | 7 | 117 | 147 | 23 | 143 | 7 | 25 | 49 | 15 |
| | 2-Axle Truck | 0 | 5 | 7 | 0 | 10 | 7 | 3 | 6 | 7 | 5 | 5 | 2 |
| | 3-Axle Truck | 0 | 3 | 8 | 0 | 6 | 5 | 1 | 2 | 2 | 5 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| | 5-Axle Truck + | 0 | 1 | 9 | 0 | 7 | 15 | 7 | 9 | 12 | 9 | 4 | 10 |
| 8:00 AM | Cars | 14 | 101 | 217 | 8 | 160 | 193 | 20 | 81 | 14 | 34 | 57 | 25 |
| | 2-Axle Truck | 2 | 5 | 11 | 0 | 14 | 8 | 5 | 8 | 3 | 2 | 4 | 5 |
| | 3-Axle Truck | 0 | 2 | 12 | 0 | 4 | 3 | 0 | 1 | 1 | 3 | 1 | 3 |
| | 4-Axle Truck | 0 | 0 | 4 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| | 5-Axle Truck + | 0 | 8 | 15 | 0 | 9 | 7 | 13 | 12 | 7 | 12 | 4 | 9 |
| 8:15 AM | Cars | 13 | 121 | 226 | 7 | 138 | 164 | 26 | 104 | 28 | 16 | 61 | 29 |
| | 2-Axle Truck | 0 | 2 | 11 | 0 | 8 | 10 | 10 | 6 | 0 | 8 | 2 | 3 |
| | 3-Axle Truck | 0 | 0 | 17 | 0 | 8 | 8 | 0 | 3 | 0 | 4 | 4 | 1 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 |
| | 5-Axle Truck + | 1 | 3 | 22 | 0 | 11 | 7 | 9 | 6 | 8 | 15 | 3 | 9 |
| 8:30 AM | Cars | 20 | 114 | 210 | 4 | 154 | 142 | 20 | 57 | 21 | 18 | 73 | 28 |
| | 2-Axle Truck | 1 | 5 | 10 | 0 | 8 | 6 | 4 | 13 | 3 | 3 | 2 | 1 |
| | 3-Axle Truck | 0 | 1 | 12 | 1 | 2 | 7 | 1 | 3 | 1 | 5 | 0 | 3 |
| | 4-Axle Truck | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 | 0 |
| | 5-Axle Truck + | 0 | 8 | 22 | 1 | 5 | 8 | 15 | 7 | 6 | 10 | 3 | 7 |
| 8:45 AM | Cars | 22 | 96 | 157 | 4 | 121 | 124 | 19 | 91 | 15 | 30 | 52 | 32 |
| | 2-Axle Truck | 1 | 4 | 12 | 1 | 12 | 9 | 4 | 10 | 3 | 7 | 5 | 4 |
| | 3-Axle Truck | 0 | 1 | 7 | 0 | 1 | 6 | 1 | 5 | 0 | 2 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| | 5-Axle Truck + | 0 | 6 | 20 | 0 | 6 | 13 | 12 | 12 | 10 | 14 | 1 | 4 |
| Total | Cars | 157 | 1,043 | 1,848 | 37 | 1,121 | 1,269 | 200 | 787 | 155 | 212 | 445 | 215 |
| | 2-Axle Truck | 7 | 39 | 76 | 4 | 79 | 54 | 31 | 58 | 26 | 37 | 28 | 28 |
| | 3-Axle Truck | 1 | 11 | 77 | 1 | 29 | 40 | 9 | 22 | 8 | 29 | 12 | 17 |
| | 4-Axle Truck | 0 | 1 | 13 | 5 | 3 | 0 | 3 | 4 | 2 | 10 | 3 | 7 |
| | 5-Axle Truck + | 2 | 45 | 123 | 2 | 52 | 69 | 95 | 70 | 69 | 101 | 24 | 68 |
| | Total | 167 | 1139 | 2137 | 49 | 1284 | 1432 | 338 | 941 | 260 | 389 | 512 | 335 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 93 | 661 | 1149 | 22 | 622 | 717 | 178 | 519 | 139 | 200 | 236 | 170 |
| Peak Hour Factor | 0.957 | | | 0.930 | | | 0.857 | | | 0.902 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Atlantic Boulevard
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Evening Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 4:00 PM | Cars | 7 | 186 | 167 | 6 | 220 | 30 | 85 | 130 | 58 | 74 | 44 | 122 |
| | 2-Axle Truck | 0 | 4 | 11 | 0 | 16 | 4 | 2 | 14 | 2 | 1 | 3 | 0 |
| | 3-Axle Truck | 0 | 1 | 3 | 0 | 1 | 7 | 1 | 0 | 0 | 6 | 3 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 3 | 34 | 0 | 5 | 12 | 2 | 11 | 10 | 10 | 1 | 4 |
| 4:15 PM | Cars | 8 | 162 | 174 | 4 | 172 | 32 | 75 | 141 | 76 | 49 | 26 | 87 |
| | 2-Axle Truck | 0 | 2 | 15 | 0 | 11 | 9 | 5 | 10 | 3 | 2 | 2 | 1 |
| | 3-Axle Truck | 2 | 1 | 1 | 1 | 4 | 8 | 2 | 0 | 0 | 3 | 0 | 2 |
| | 4-Axle Truck | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 1 |
| | 5-Axle Truck + | 2 | 3 | 30 | 0 | 7 | 11 | 8 | 9 | 19 | 6 | 2 | 9 |
| 4:30 PM | Cars | 13 | 173 | 157 | 4 | 226 | 50 | 124 | 124 | 76 | 51 | 32 | 125 |
| | 2-Axle Truck | 0 | 4 | 7 | 3 | 12 | 5 | 2 | 15 | 1 | 4 | 5 | 4 |
| | 3-Axle Truck | 0 | 0 | 1 | 0 | 1 | 5 | 3 | 0 | 4 | 3 | 0 | 1 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 3 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 3 | 26 | 0 | 2 | 10 | 9 | 6 | 9 | 10 | 2 | 4 |
| 4:45 PM | Cars | 15 | 184 | 195 | 10 | 222 | 38 | 72 | 124 | 69 | 74 | 30 | 118 |
| | 2-Axle Truck | 0 | 3 | 9 | 0 | 8 | 4 | 5 | 8 | 2 | 3 | 0 | 0 |
| | 3-Axle Truck | 0 | 0 | 4 | 2 | 2 | 4 | 0 | 1 | 1 | 1 | 1 | 3 |
| | 4-Axle Truck | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 4 | 26 | 0 | 9 | 5 | 3 | 7 | 5 | 6 | 1 | 3 |
| 5:00 PM | Cars | 10 | 193 | 167 | 3 | 249 | 46 | 96 | 114 | 111 | 67 | 38 | 110 |
| | 2-Axle Truck | 0 | 6 | 3 | 0 | 13 | 4 | 2 | 10 | 2 | 6 | 1 | 2 |
| | 3-Axle Truck | 0 | 0 | 5 | 0 | 2 | 6 | 0 | 0 | 1 | 1 | 2 | 0 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 5 | 26 | 1 | 7 | 3 | 6 | 8 | 15 | 3 | 2 | 6 |
| 5:15 PM | Cars | 13 | 128 | 144 | 11 | 256 | 57 | 117 | 152 | 93 | 40 | 32 | 90 |
| | 2-Axle Truck | 0 | 2 | 3 | 0 | 7 | 4 | 3 | 6 | 1 | 2 | 2 | 2 |
| | 3-Axle Truck | 0 | 0 | 1 | 0 | 5 | 7 | 1 | 0 | 1 | 4 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 5 | 19 | 0 | 3 | 4 | 5 | 7 | 6 | 4 | 1 | 8 |
| 5:30 PM | Cars | 14 | 164 | 161 | 3 | 270 | 71 | 123 | 135 | 109 | 51 | 34 | 80 |
| | 2-Axle Truck | 0 | 8 | 24 | 0 | 3 | 3 | 2 | 4 | 2 | 2 | 3 | 4 |
| | 3-Axle Truck | 2 | 0 | 3 | 0 | 0 | 12 | 2 | 0 | 1 | 1 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 0 | 0 | 1 | 2 | 7 | 0 | 0 | 8 | 0 | 0 | 0 |
| 5:45 PM | Cars | 12 | 132 | 180 | 6 | 214 | 44 | 74 | 131 | 80 | 42 | 40 | 73 |
| | 2-Axle Truck | 0 | 1 | 20 | 0 | 3 | 2 | 1 | 5 | 3 | 5 | 2 | 4 |
| | 3-Axle Truck | 1 | 0 | 6 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 2 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 4 | 0 |
| | 5-Axle Truck + | 0 | 0 | 0 | 0 | 5 | 4 | 0 | 0 | 6 | 0 | 0 | 0 |
| Total | Cars | 92 | 1,322 | 1,345 | 47 | 1,829 | 368 | 766 | 1,051 | 672 | 448 | 276 | 805 |
| | 2-Axle Truck | 0 | 30 | 92 | 3 | 73 | 35 | 22 | 72 | 16 | 25 | 18 | 17 |
| | 3-Axle Truck | 5 | 2 | 24 | 3 | 16 | 49 | 9 | 2 | 9 | 20 | 7 | 9 |
| | 4-Axle Truck | 1 | 0 | 10 | 1 | 2 | 17 | 2 | 0 | 10 | 1 | 7 | 1 |
| | 5-Axle Truck + | 3 | 23 | 161 | 2 | 40 | 56 | 33 | 48 | 78 | 39 | 9 | 34 |
| | Total | 101 | 1377 | 1632 | 56 | 1960 | 525 | 832 | 1173 | 785 | 533 | 317 | 866 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 53 | 710 | 798 | 34 | 1025 | 260 | 449 | 582 | 404 | 279 | 152 | 476 |
| Peak Hour Factor | 0.881 | | | 0.921 | | | 0.915 | | | 0.937 | | |

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_013 **Day:** TUESDAY

**City:** City of Vernon **Date:** 10/16/2012

**AM**

| **NS/EW Streets:** | Atlantic Blvd | | | Atlantic Blvd | | | District Blvd | | | District Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 3 | 0 | 1 | 3 | 1 | 2 | 1 | 1 | .5 | 1 | .5 | |
| 7:00 AM | 68 | 273 | 2 | 27 | 160 | 222 | 113 | 9 | 6 | 0 | 60 | 26 | 966 |
| 7:15 AM | 74 | 280 | 1 | 33 | 149 | 214 | 116 | 12 | 8 | 0 | 63 | 25 | 975 |
| 7:30 AM | 70 | 292 | 0 | 39 | 144 | 213 | 159 | 16 | 9 | 1 | 57 | 21 | 1021 |
| 7:45 AM | 67 | 287 | 1 | 23 | 217 | 285 | 122 | 25 | 9 | 2 | 69 | 22 | 1129 |
| 8:00 AM | 48 | 241 | 0 | 29 | 172 | 266 | 108 | 12 | 18 | 0 | 54 | 14 | 962 |
| 8:15 AM | 50 | 206 | 1 | 18 | 151 | 274 | 112 | 15 | 10 | 0 | 34 | 24 | 895 |
| 8:30 AM | 35 | 273 | 0 | 25 | 159 | 245 | 86 | 10 | 11 | 2 | 40 | 13 | 899 |
| 8:45 AM | 38 | 185 | 3 | 12 | 193 | 246 | 107 | 17 | 10 | 1 | 24 | 7 | 843 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 450 | 2037 | 8 | 206 | 1345 | 1965 | 923 | 116 | 81 | 6 | 401 | 152 | 7690 |
| **APPROACH %'s :** | 18.04% | 81.64% | 0.32% | 5.86% | 38.25% | 55.89% | 82.41% | 10.36% | 7.23% | 1.07% | 71.74% | 27.19% | |
| **PEAK HR START TIME :** | 700 AM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 279 | 1132 | 4 | 122 | 670 | 934 | 510 | 62 | 32 | 3 | 249 | 94 | 4091 |
| **PEAK HR FACTOR :** | | 0.977 | | | 0.822 | | | 0.821 | | | 0.930 | | 0.906 |

**CONTROL :** Signalized

# Intersection Turning Movement

**Prepared by:**

## National Data & Surveying Services

**Project ID:** CA12_5403_013

**Day:** TUESDAY

**City:** City of Vernon

**Date:** 10/16/2012

**PM**

| **NS/EW Streets:** | Atlantic Blvd | | | Atlantic Blvd | | | District Blvd | | | District Blvd | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 3 | 0 | 1 | 3 | 1 | 2 | 1 | 1 | .5 | 1 | .5 | |
| 4:00 PM | 18 | 211 | 0 | 17 | 278 | 107 | 207 | 41 | 53 | 0 | 12 | 32 | 976 |
| 4:15 PM | 17 | 180 | 1 | 18 | 296 | 79 | 195 | 41 | 48 | 2 | 17 | 20 | 914 |
| 4:30 PM | 13 | 157 | 2 | 20 | 266 | 92 | 267 | 64 | 51 | 0 | 14 | 18 | 964 |
| 4:45 PM | 21 | 188 | 0 | 19 | 274 | 84 | 243 | 60 | 51 | 1 | 11 | 15 | 967 |
| 5:00 PM | 14 | 171 | 1 | 24 | 316 | 81 | 257 | 69 | 56 | 1 | 11 | 29 | 1030 |
| 5:15 PM | 23 | 201 | 1 | 21 | 302 | 94 | 258 | 66 | 60 | 2 | 13 | 28 | 1069 |
| 5:30 PM | 17 | 173 | 2 | 20 | 240 | 87 | 190 | 60 | 82 | 0 | 17 | 20 | 908 |
| 5:45 PM | 20 | 165 | 1 | 28 | 306 | 80 | 233 | 48 | 64 | 1 | 13 | 29 | 988 |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| **TOTAL VOLUMES :** | 143 | 1446 | 8 | 167 | 2278 | 704 | 1850 | 449 | 465 | 7 | 108 | 191 | 7816 |
| **APPROACH %'s :** | 8.95% | 90.54% | 0.50% | 5.30% | 72.34% | 22.36% | 66.93% | 16.24% | 16.82% | 2.29% | 35.29% | 62.42% | |
| **PEAK HR START TIME :** | 430 PM | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 71 | 717 | 4 | 84 | 1158 | 351 | 1025 | 259 | 218 | 4 | 49 | 90 | 4030 |
| **PEAK HR FACTOR :** | | 0.880 | | | 0.946 | | | 0.978 | | | 0.831 | | 0.942 |

**CONTROL :** Signalized

# APPENDIX C

## Truck Percentage Calculations

## Truck Percentage Calculations

| Intersection | Car | | Truck | |
|---|---|---|---|---|
| | Morning | Evening | Morning | Evening |
| Soto Street (NS) at 26th Street (EW) - #7 | 4,718 | 5,827 | 1,361 | 1,303 |
| Soto Street (NS) at Bandini Boulevard (EW) - #8 | 5,584 | 6,465 | 1,642 | 1,486 |
| Downey Road (NS) at Bandini Boulevard (EW) - #14 | 4,469 | 6,128 | 1,484 | 1,409 |
| Atlantic Boulevard (NS) at Bandini Boulevard (EW) - #16 | 6,533 | 8,110 | 2,490 | 2,299 |
| Total Cars - AM | 21,304 | | | |
| Total Cars - PM | 26,530 | | | |
| Total Cars | 47,834 | | | |
| Total Trucks - AM | 6,977 | | | |
| Total Trucks - PM | 6,497 | | | |
| Total Trucks | 13,474 | | | |
| Percent Cars - AM | 75.3% | | | |
| Percent Trucks - AM | 24.7% | | | |
| Percent Cars - PM | 80.3% | | | |
| Percent Trucks - PM | 19.7% | | | |
| Percent Cars | 78.0% | | | |
| Percent Trucks | 22.0% | | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Soto Street
East/West Street: 26th Street
Counter: Counts Unlimited
Date: 02/22/12

### Morning Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 7:00 AM | Cars | 19 | 258 | 3 | 20 | 258 | 12 | 5 | 10 | 8 | 3 | 29 | 27 |
| | 2-Axle Truck | 2 | 13 | 0 | 1 | 9 | 0 | 0 | 1 | 0 | 0 | 5 | 2 |
| | 3-Axle Truck | 1 | 15 | 1 | 2 | 6 | 1 | 1 | 2 | 1 | 0 | 3 | 2 |
| | 4-Axle Truck | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:15 AM | Cars | 20 | 288 | 3 | 18 | 231 | 17 | 9 | 12 | 9 | 6 | 43 | 14 |
| | 2-Axle Truck | 1 | 10 | 1 | 0 | 9 | 0 | 0 | 1 | 2 | 2 | 3 | 1 |
| | 3-Axle Truck | 1 | 4 | 0 | 0 | 6 | 4 | 0 | 0 | 0 | 0 | 2 | 2 |
| | 4-Axle Truck | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5-Axle Truck + | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 1 |
| 7:30 AM | Cars | 25 | 297 | 8 | 27 | 250 | 28 | 6 | 18 | 8 | 7 | 49 | 12 |
| | 2-Axle Truck | 4 | 17 | 2 | 1 | 12 | 1 | 0 | 6 | 0 | 3 | 1 | 2 |
| | 3-Axle Truck | 1 | 6 | 1 | 1 | 6 | 0 | 2 | 3 | 0 | 1 | 4 | 4 |
| | 4-Axle Truck | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 3 | 1 |
| 7:45 AM | Cars | 34 | 269 | 19 | 31 | 252 | 18 | 5 | 14 | 3 | 3 | 56 | 24 |
| | 2-Axle Truck | 2 | 18 | 3 | 0 | 13 | 1 | 4 | 4 | 4 | 0 | 7 | 5 |
| | 3-Axle Truck | 1 | 8 | 0 | 1 | 6 | 1 | 0 | 5 | 0 | 1 | 4 | 2 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 3 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 2 | 1 |
| 8:00 AM | Cars | 24 | 256 | 8 | 23 | 259 | 28 | 10 | 17 | 11 | 7 | 42 | 17 |
| | 2-Axle Truck | 1 | 15 | 2 | 1 | 13 | 1 | 2 | 0 | 3 | 1 | 12 | 3 |
| | 3-Axle Truck | 0 | 6 | 0 | 0 | 6 | 0 | 3 | 3 | 0 | 0 | 1 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5-Axle Truck + | 0 | 1 | 1 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| 8:15 AM | Cars | 21 | 271 | 8 | 26 | 221 | 22 | 5 | 13 | 13 | 3 | 48 | 18 |
| | 2-Axle Truck | 2 | 17 | 3 | 1 | 14 | 2 | 1 | 1 | 0 | 0 | 8 | 4 |
| | 3-Axle Truck | 2 | 13 | 0 | 1 | 7 | 1 | 0 | 2 | 1 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 8:30 AM | Cars | 17 | 207 | 4 | 22 | 253 | 32 | 5 | 17 | 9 | 4 | 45 | 15 |
| | 2-Axle Truck | 5 | 26 | 1 | 1 | 17 | 0 | 1 | 4 | 1 | 1 | 6 | 3 |
| | 3-Axle Truck | 0 | 10 | 2 | 0 | 8 | 1 | 0 | 1 | 0 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 3 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| 8:45 AM | Cars | 12 | 226 | 3 | 12 | 233 | 28 | 7 | 9 | 2 | 6 | 41 | 13 |
| | 2-Axle Truck | 0 | 16 | 1 | 3 | 9 | 1 | 2 | 5 | 4 | 2 | 10 | 2 |
| | 3-Axle Truck | 0 | 4 | 0 | 1 | 9 | 2 | 2 | 3 | 1 | 0 | 4 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 3 | 0 |
| Total | Cars | 172 | 2,072 | 56 | 179 | 1,957 | 185 | 52 | 110 | 63 | 39 | 353 | 140 |
| | 2-Axle Truck | 17 | 132 | 13 | 8 | 96 | 6 | 10 | 22 | 14 | 9 | 52 | 22 |
| | 3-Axle Truck | 6 | 66 | 4 | 6 | 54 | 10 | 8 | 19 | 3 | 2 | 22 | 14 |
| | 4-Axle Truck | 1 | 5 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 5-Axle Truck + | 9 | 16 | 2 | 5 | 16 | 1 | 1 | 10 | 0 | 2 | 14 | 6 |
| | Total | 205 | 2291 | 76 | 200 | 2125 | 202 | 71 | 161 | 80 | 52 | 442 | 184 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 121 | 1203 | 56 | 117 | 1069 | 104 | 39 | 92 | 43 | 27 | 240 | 96 |
| Peak Hour Factor | 0.943 | | | 0.954 | | | 0.888 | | | 0.864 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Soto Street
East/West Street: 26th Street
Counter: Counts Unlimited
Date: 02/22/12

### Evening Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 4:00 PM | Cars | 11 | 250 | 12 | 32 | 249 | 11 | 24 | 46 | 11 | 8 | 26 | 22 |
| | 2-Axle Truck | 1 | 7 | 2 | 3 | 11 | 3 | 1 | 4 | 1 | 4 | 2 | 1 |
| | 3-Axle Truck | 0 | 1 | 1 | 2 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| | 5-Axle Truck + | 0 | 4 | 0 | 2 | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 4:15 PM | Cars | 8 | 274 | 8 | 32 | 247 | 12 | 17 | 47 | 14 | 6 | 22 | 13 |
| | 2-Axle Truck | 1 | 13 | 1 | 7 | 14 | 3 | 2 | 6 | 1 | 0 | 4 | 2 |
| | 3-Axle Truck | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 1 | 4 | 0 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 1 | 7 | 1 | 0 | 5 | 1 | 0 | 4 | 1 | 0 | 2 | 3 |
| 4:30 PM | Cars | 12 | 292 | 7 | 39 | 279 | 7 | 13 | 56 | 10 | 24 | 23 | 38 |
| | 2-Axle Truck | 3 | 5 | 0 | 3 | 14 | 5 | 1 | 5 | 1 | 2 | 2 | 2 |
| | 3-Axle Truck | 0 | 3 | 1 | 1 | 1 | 0 | 1 | 6 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 5 | 0 | 2 | 9 | 0 | 0 | 0 | 0 | 0 | 3 | 1 |
| 4:45 PM | Cars | 8 | 249 | 10 | 57 | 306 | 5 | 7 | 65 | 14 | 12 | 18 | 40 |
| | 2-Axle Truck | 1 | 7 | 2 | 6 | 12 | 1 | 1 | 5 | 0 | 2 | 1 | 1 |
| | 3-Axle Truck | 0 | 2 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 1 |
| | 5-Axle Truck + | 1 | 10 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 0 | 2 | 2 |
| 5:00 PM | Cars | 10 | 304 | 11 | 42 | 333 | 9 | 28 | 73 | 13 | 9 | 20 | 37 |
| | 2-Axle Truck | 1 | 7 | 1 | 4 | 7 | 1 | 0 | 7 | 1 | 0 | 4 | 2 |
| | 3-Axle Truck | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 5 | 0 | 1 | 4 | 1 | 0 | 1 | 0 | 0 | 2 | 1 |
| 5:15 PM | Cars | 15 | 292 | 7 | 44 | 310 | 9 | 20 | 92 | 16 | 10 | 32 | 32 |
| | 2-Axle Truck | 3 | 8 | 1 | 2 | 9 | 0 | 1 | 5 | 1 | 2 | 0 | 0 |
| | 3-Axle Truck | 2 | 3 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 3 | 0 | 4 | 6 | 2 | 0 | 1 | 0 | 1 | 4 | 1 |
| 5:30 PM | Cars | 14 | 296 | 10 | 51 | 357 | 12 | 29 | 95 | 21 | 7 | 15 | 37 |
| | 2-Axle Truck | 1 | 4 | 1 | 9 | 12 | 3 | 1 | 4 | 0 | 0 | 3 | 0 |
| | 3-Axle Truck | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 1 | 8 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 1 |
| 5:45 PM | Cars | 9 | 236 | 12 | 53 | 348 | 6 | 17 | 91 | 12 | 7 | 19 | 37 |
| | 2-Axle Truck | 2 | 7 | 2 | 4 | 8 | 3 | 0 | 5 | 0 | 0 | 0 | 1 |
| | 3-Axle Truck | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 0 | 5 | 0 | 3 | 5 | 2 | 0 | 0 | 0 | 0 | 6 | 0 |
| Total | Cars | 87 | 2,193 | 77 | 350 | 2,429 | 71 | 155 | 565 | 111 | 83 | 175 | 256 |
| | 2-Axle Truck | 13 | 58 | 10 | 38 | 87 | 19 | 7 | 41 | 5 | 10 | 16 | 9 |
| | 3-Axle Truck | 3 | 10 | 3 | 13 | 14 | 4 | 1 | 14 | 1 | 1 | 7 | 0 |
| | 4-Axle Truck | 0 | 3 | 2 | 1 | 3 | 1 | 0 | 7 | 0 | 1 | 9 | 1 |
| | 5-Axle Truck + | 4 | 47 | 1 | 14 | 42 | 6 | 2 | 12 | 2 | 1 | 19 | 10 |
| | Total | 107 | 2311 | 93 | 416 | 2575 | 101 | 165 | 639 | 119 | 96 | 226 | 276 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 59 | 1178 | 46 | 225 | 1407 | 51 | 97 | 385 | 65 | 36 | 112 | 149 |
| Peak Hour Factor | 0.946 | | | 0.931 | | | 0.866 | | | 0.884 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Soto Street
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Morning Peak Hour

| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Classification | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 7:00 AM | Cars | 14 | 253 | 12 | 10 | 202 | 41 | 16 | 66 | 2 | 39 | 134 | 14 |
| | 2-Axle Truck | 1 | 12 | 1 | 0 | 9 | 0 | 0 | 2 | 2 | 1 | 3 | 2 |
| | 3-Axle Truck | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 2 | 1 | 6 | 2 |
| | 4-Axle Truck | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 10 | 3 | 1 | 5 | 2 | 2 | 7 | 2 | 2 | 3 | 2 |
| 7:15 AM | Cars | 20 | 291 | 14 | 4 | 234 | 30 | 14 | 54 | 17 | 35 | 123 | 16 |
| | 2-Axle Truck | 2 | 8 | 1 | 2 | 12 | 0 | 2 | 2 | 0 | 0 | 4 | 0 |
| | 3-Axle Truck | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 6 | 0 | 2 | 1 | 1 |
| | 4-Axle Truck | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 4 | 5 | 1 | 4 | 0 | 2 | 9 | 2 | 3 | 3 | 0 |
| 7:30 AM | Cars | 18 | 277 | 22 | 9 | 194 | 29 | 20 | 74 | 8 | 34 | 146 | 30 |
| | 2-Axle Truck | 2 | 13 | 0 | 2 | 12 | 1 | 7 | 6 | 1 | 1 | 5 | 1 |
| | 3-Axle Truck | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 0 | 4 | 2 | 1 | 6 | 2 | 1 | 3. | 0 | 1 | 10 | 2 |
| 7:45 AM | Cars | 12 | 286 | 25 | 10 | 221 | 31 | 29 | 54 | 11 | 41 | 151 | 17 |
| | 2-Axle Truck | 1 | 19 | 0 | 1 | 15 | 1 | 3 | 6 | 2 | 1 | 6 | 1 |
| | 3-Axle Truck | 0 | 2 | 0 | 0 | 2 | 2 | 1 | 2 | 0 | 0 | 1 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 6 | 1 | 2 | 4 | 1 | 1 | 10 | 2 | 2 | 6 | 3 |
| 8:00 AM | Cars | 7 | 231 | 11 | 19 | 236 | 28 | 18 | 56 | 11 | 42 | 132 | 28 |
| | 2-Axle Truck | 2 | 17 | 2 | 0 | 17 | 0 | 1 | 9 | 3 | 1 | 12 | 0 |
| | 3-Axle Truck | 1 | 0 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 0 | 3 | 1 | 4 | 3 | 2 | 1 | 7 | 1 | 0 | 11 | 1 |
| 8:15 AM | Cars | 16 | 270 | 20 | 8 | 204 | 28 | 29 | 51 | 10 | 35 | 111 | 25 |
| | 2-Axle Truck | 4 | 16 | 1 | 0 | 12 | 2 | 5 | 3 | 0 | 2 | 5 | 3 |
| | 3-Axle Truck | 1 | 5 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 2 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 5-Axle Truck + | 3 | 9 | 3 | 1 | 6 | 3 | 3 | 3 | 2 | 1 | 9 | 4 |
| 8:30 AM | Cars | 5 | 195 | 13 | 6 | 233 | 25 | 13 | 42 | 7 | 35 | 108 | 22 |
| | 2-Axle Truck | 1 | 22 | 2 | 3 | 13 | 1 | 4 | 10 | 3 | 2 | 6 | 5 |
| | 3-Axle Truck | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 4 | 1 | 0 | 4 | 4 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 8 | 0 | 2 | 2 | 2 | 0 | 5 | 0 | 2 | 6 | 1 |
| 8:45 AM | Cars | 12 | 208 | 13 | 7 | 194 | 19 | 17 | 42 | 8 | 33 | 88 | 18 |
| | 2-Axle Truck | 2 | 12 | 2 | 2 | 8 | 4 | 1 | 4 | 4 | 2 | 8 | 5 |
| | 3-Axle Truck | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 3 | 2 | 1 | 5 | 4 | 0 | 5 | 1 | 3 | 13 | 1 |
| Total | Cars | 104 | 2,011 | 130 | 73 | 1,718 | 231 | 156 | 439 | 74 | 294 | 993 | 170 |
| | 2-Axle Truck | 15 | 119 | 9 | 10 | 98 | 9 | 23 | 42 | 15 | 10 | 49 | 17 |
| | 3-Axle Truck | 4 | 13 | 2 | 1 | 11 | 3 | 5 | 23 | 3 | 6 | 18 | 10 |
| | 4-Axle Truck | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 5 | 0 |
| | 5-Axle Truck + | 7 | 47 | 17 | 13 | 35 | 16 | 10 | 49 | 10 | 14 | 61 | 14 |
| | Total | 132 | 2192 | 158 | 97 | 1863 | 259 | 194 | 555 | 103 | 325 | 1126 | 211 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 69 | 1166 | 84 | 56 | 966 | 127 | 102 | 303 | 59 | 165 | 619 | 103 |
| Peak Hour Factor | 0.937 | | | 0.918 | | | 0.943 | | | 0.940 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Soto Street
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Evening Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 4:00 PM | Cars | 5 | 239 | 17 | 28 | 261 | 8 | 44 | 123 | 17 | 23 | 43 | 15 |
| | 2-Axle Truck | 1 | 7 | 4 | 3 | 13 | 1 | 5 | 5 | 1 | 2 | 11 | 0 |
| | 3-Axle Truck | 0 | 1 | 4 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 3 | 0 |
| | 4-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 1 | 2 | 3 | 4 | 2 | 1 | 8 | 3 | 3 | 5 | 1 |
| 4:15 PM | Cars | 16 | 251 | 19 | 31 | 280 | 18 | 26 | 108 | 20 | 22 | 47 | 12 |
| | 2-Axle Truck | 1 | 12 | 1 | 2 | 14 | 1 | 3 | 8 | 1 | 2 | 12 | 0 |
| | 3-Axle Truck | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 3 | 6 | 2 | 0 | 6 | 2 | 3 | 7 | 2 | 1 | 12 | 1 |
| 4:30 PM | Cars | 13 | 240 | 15 | 22 | 241 | 15 | 39 | 131 | 16 | 33 | 57 | 20 |
| | 2-Axle Truck | 1 | 9 | 1 | 5 | 12 | 1 | 2 | 4 | 4 | 3 | 6 | 0 |
| | 3-Axle Truck | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| | 5-Axle Truck + | 1 | 4 | 2 | 2 | 6 | 0 | 2 | 5 | 1 | 3 | 13 | 1 |
| 4:45 PM | Cars | 5 | 218 | 27 | 28 | 316 | 19 | 38 | 118 | 13 | 39 | 92 | 18 |
| | 2-Axle Truck | 0 | 7 | 1 | 0 | 14 | 1 | 1 | 2 | 3 | 0 | 9 | 1 |
| | 3-Axle Truck | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 3 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 8 | 1 | 0 | 2 | 2 | 1 | 9 | 1 | 0 | 7 | 2 |
| 5:00 PM | Cars | 11 | 245 | 23 | 20 | 306 | 18 | 53 | 161 | 16 | 32 | 80 | 12 |
| | 2-Axle Truck | 1 | 7 | 2 | 1 | 4 | 2 | 1 | 1 | 2 | 0 | 2 | 0 |
| | 3-Axle Truck | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 0 |
| | 5-Axle Truck + | 3 | 3 | 2 | 0 | 3 | 1 | 0 | 4 | 3 | 2 | 5 | 2 |
| 5:15 PM | Cars | 7 | 270 | 36 | 32 | 320 | 11 | 34 | 126 | 11 | 19 | 72 | 10 |
| | 2-Axle Truck | 0 | 5 | 0 | 0 | 13 | 2 | 1 | 3 | 0 | 1 | 2 | 1 |
| | 3-Axle Truck | 0 | 2 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 3 | 1 | 2 | 4 | 1 | 0 | 3 | 2 | 3 | 5 | 0 |
| 5:30 PM | Cars | 10 | 252 | 28 | 31 | 351 | 13 | 35 | 138 | 8 | 27 | 80 | 13 |
| | 2-Axle Truck | 1 | 3 | 3 | 2 | 8 | 1 | 3 | 1 | 0 | 0 | 4 | 1 |
| | 3-Axle Truck | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 1 | 7 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 8 | 1 |
| 5:45 PM | Cars | 11 | 214 | 27 | 37 | 332 | 19 | 19 | 122 | 14 | 23 | 85 | 19 |
| | 2-Axle Truck | 1 | 6 | 0 | 2 | 3 | 1 | 2 | 4 | 0 | 0 | 3 | 2 |
| | 3-Axle Truck | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 3 | 2 | 2 | 2 | 0 | 0 | 3 | 1 | 1 | 2 | 3 |
| Total | Cars | 78 | 1,929 | 192 | 229 | 2,407 | 121 | 288 | 1,027 | 115 | 218 | 556 | 119 |
| | 2-Axle Truck | 6 | 56 | 12 | 15 | 81 | 10 | 18 | 28 | 11 | 8 | 49 | 5 |
| | 3-Axle Truck | 0 | 8 | 7 | 2 | 11 | 2 | 4 | 8 | 0 | 0 | 12 | 1 |
| | 4-Axle Truck | 0 | 2 | 1 | 0 | 1 | 1 | 3 | 7 | 1 | 0 | 4 | 1 |
| | 5-Axle Truck + | 11 | 35 | 14 | 9 | 27 | 10 | 7 | 41 | 13 | 14 | 57 | 11 |
| | Total | 95 | 2030 | 226 | 255 | 2527 | 144 | 320 | 1111 | 140 | 240 | 678 | 137 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 39 | 1033 | 130 | 116 | 1348 | 75 | 170 | 574 | 60 | 124 | 377 | 62 |
| Peak Hour Factor | 0.922 | | | 0.936 | | | 0.820 | | | 0.823 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Downey Road
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Morning Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 7:00 AM | Cars | 13 | 193 | 16 | 10 | 116 | 27 | 11 | 46 | 8 | 42 | 150 | 19 |
| | 2-Axle Truck | 0 | 9 | 1 | 2 | 2 | 0 | 0 | 0 | 1 | 4 | 5 | 2 |
| | 3-Axle Truck | 0 | 2 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 1 | 3 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 1 | 5 | 1 | 5 | 0 | 0 | 11 | 0 | 4 | 9 | 2 |
| 7:15 AM | Cars | 6 | 209 | 14 | 6 | 119 | 38 | 9 | 40 | 5 | 37 | 153 | 22 |
| | 2-Axle Truck | 1 | 11 | 5 | 1 | 5 | 2 | 1 | 4 | 2 | 3 | 3 | 4 |
| | 3-Axle Truck | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 4 | 2 | 1 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 5-Axle Truck + | 1 | 1 | 7 | 0 | 3 | 2 | 1 | 10 | 1 | 2 | 4 | 1 |
| 7:30 AM | Cars | 11 | 210 | 28 | 12 | 112 | 40 | 15 | 49 | 13 | 31 | 149 | 39 |
| | 2-Axle Truck | 0 | 10 | 2 | 1 | 11 | 0 | 0 | 4 | 4 | 4 | 5 | 2 |
| | 3-Axle Truck | 0 | 1 | 0 | 1 | 2 | 0 | 3 | 2 | 0 | 0 | 1 | 2 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 3 | 5 | 0 | 3 | 2 | 0 | 10 | 0 | 7 | 12 | 0 |
| 7:45 AM | Cars | 14 | 195 | 20 | 18 | 98 | 48 | 5 | 49 | 5 | 23 | 199 | 34 |
| | 2-Axle Truck | 0 | 18 | 1 | 1 | 3 | 1 | 1 | 7 | 0 | 5 | 11 | 2 |
| | 3-Axle Truck | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 2 | 1 | 1 | 0 | 3 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 4 | 3 | 4 | 1 | 4 | 2 | 0 | 10 | 3 | 2 | 12 | 0 |
| 8:00 AM | Cars | 8 | 167 | 13 | 4 | 114 | 27 | 8 | 50 | 4 | 46 | 172 | 24 |
| | 2-Axle Truck | 2 | 12 | 0 | 4 | 4 | 3 | 2 | 6 | 3 | 2 | 5 | 6 |
| | 3-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| | 4-Axle Truck | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 1 | 3 | 5 | 0 | 2 | 2 | 1 | 8 | 2 | 1 | 10 | 1 |
| 8:15 AM | Cars | 14 | 167 | 10 | 11 | 122 | 33 | 5 | 26 | 7 | 30 | 135 | 34 |
| | 2-Axle Truck | 0 | 14 | 2 | 2 | 1 | 3 | 1 | 3 | 2 | 3 | 5 | 5 |
| | 3-Axle Truck | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| | 4-Axle Truck | 0 | 1 | 0 | 3 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 3 | 3 | 2 | 6 | 1 | 3 | 4 | 1 | 3 | 12 | 3 |
| 8:30 AM | Cars | 14 | 152 | 8 | 11 | 101 | 32 | 7 | 43 | 9 | 41 | 140 | 42 |
| | 2-Axle Truck | 5 | 13 | 2 | 2 | 8 | 1 | 0 | 9 | 2 | 3 | 5 | 2 |
| | 3-Axle Truck | 1 | 1 | 1 | 0 | 2 | 0 | 0 | 4 | 0 | 3 | 3 | 3 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 4 | 2 | 0 | 4 | 1 | 0 | 7 | 4 | 4 | 10 | 1 |
| 8:45 AM | Cars | 8 | 132 | 5 | 13 | 102 | 24 | 7 | 31 | 13 | 36 | 125 | 34 |
| | 2-Axle Truck | 2 | 17 | 2 | 2 | 10 | 3 | 2 | 10 | 2 | 3 | 11 | 3 |
| | 3-Axle Truck | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 4 | 2 | 6 | 0 | 6 | 3 | 2 | 13 | 3 | 3 | 13 | 1 |
| Total | Cars | 88 | 1,425 | 114 | 85 | 884 | 269 | 67 | 334 | 64 | 286 | 1,223 | 248 |
| | 2-Axle Truck | 10 | 104 | 15 | 15 | 44 | 13 | 7 | 43 | 16 | 27 | 50 | 26 |
| | 3-Axle Truck | 1 | 10 | 8 | 4 | 8 | 5 | 6 | 19 | 5 | 8 | 12 | 9 |
| | 4-Axle Truck | 0 | 2 | 1 | 5 | 1 | 6 | 4 | 4 | 0 | 1 | 2 | 0 |
| | 5-Axle Truck + | 14 | 20 | 37 | 4 | 33 | 13 | 7 | 73 | 14 | 26 | 82 | 9 |
| | Total | 113 | 1561 | 175 | 113 | 970 | 306 | 91 | 473 | 99 | 348 | 1369 | 292 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 50 | 846 | 109 | 51 | 481 | 173 | 50 | 258 | 45 | 167 | 740 | 141 |
| Peak Hour Factor | 0.924 | | | 0.958 | | | 0.883 | | | 0.897 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Downey Road
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Evening Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 4:00 PM | Cars | 10 | 204 | 37 | 32 | 175 | 15 | 38 | 124 | 20 | 30 | 54 | 21 |
| | 2-Axle Truck | 2 | 8 | 3 | 5 | 13 | 2 | 5 | 8 | 1 | 6 | 10 | 0 |
| | 3-Axle Truck | 0 | 1 | 0 | 1 | 2 | 0 | 2 | 3 | 0 | 1 | 4 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 4 | 1 | 1 | 4 | 1 | 2 | 10 | 1 | 0 | 9 | 1 |
| 4:15 PM | Cars | 3 | 171 | 50 | 43 | 223 | 13 | 29 | 116 | 20 | 19 | 47 | 20 |
| | 2-Axle Truck | 0 | 9 | 6 | 3 | 12 | 1 | 3 | 9 | 4 | 3 | 11 | 2 |
| | 3-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 2 | 1 |
| | 4-Axle Truck | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 |
| | 5-Axle Truck + | 3 | 7 | 4 | 2 | 2 | 2 | 0 | 10 | 1 | 1 | 10 | 0 |
| 4:30 PM | Cars | 10 | 206 | 61 | 30 | 189 | 23 | 19 | 142 | 24 | 31 | 48 | 21 |
| | 2-Axle Truck | 3 | 5 | 2 | 3 | 14 | 5 | 3 | 6 | 4 | 0 | 6 | 2 |
| | 3-Axle Truck | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 2 | 0 | 0 | 1 | 1 |
| | 4-Axle Truck | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 5-Axle Truck + | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 6 | 1 | 3 | 15 | 1 |
| 4:45 PM | Cars | 5 | 187 | 40 | 43 | 234 | 21 | 26 | 131 | 17 | 20 | 85 | 16 |
| | 2-Axle Truck | 0 | 4 | 4 | 5 | 5 | 1 | 1 | 5 | 1 | 2 | 6 | 1 |
| | 3-Axle Truck | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 3 | 2 | 0 | 4 | 2 | 1 | 9 | 3 | 2 | 5 | 0 |
| 5:00 PM | Cars | 7 | 208 | 48 | 50 | 245 | 17 | 31 | 136 | 42 | 29 | 64 | 25 |
| | 2-Axle Truck | 0 | 4 | 2 | 4 | 4 | 0 | 1 | 4 | 1 | 1 | 3 | 1 |
| | 3-Axle Truck | 0 | 1 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 3 | 3 | 0 | 3 | 0 | 1 | 6 | 0 | 3 | 8 | 0 |
| 5:15 PM | Cars | 8 | 212 | 50 | 38 | 250 | 19 | 39 | 154 | 50 | 38 | 61 | 18 |
| | 2-Axle Truck | 1 | 5 | 3 | 2 | 3 | 0 | 2 | 3 | 2 | 0 | 3 | 0 |
| | 3-Axle Truck | 0 | 1 | 2 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 2 | 1 | 1 | 0 | 1 | 1 | 2 | 7 | 1 | 0 | 7 | 0 |
| 5:30 PM | Cars | 13 | 177 | 46 | 51 | 251 | 19 | 40 | 143 | 39 | 50 | 51 | 19 |
| | 2-Axle Truck | 2 | 5 | 2 | 1 | 7 | 1 | 0 | 4 | 0 | 2 | 1 | 1 |
| | 3-Axle Truck | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 0 | 0 | 6 | 1 |
| 5:45 PM | Cars | 14 | 223 | 44 | 46 | 251 | 19 | 33 | 141 | 70 | 32 | 74 | 16 |
| | 2-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 5-Axle Truck + | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 8 | 0 | 0 | 6 | 0 |
| Total | Cars | 70 | 1,588 | 376 | 333 | 1,818 | 146 | 255 | 1,087 | 282 | 249 | 484 | 156 |
| | 2-Axle Truck | 8 | 40 | 22 | 23 | 58 | 10 | 15 | 39 | 13 | 14 | 40 | 7 |
| | 3-Axle Truck | 0 | 5 | 3 | 8 | 7 | 6 | 4 | 8 | 1 | 2 | 15 | 4 |
| | 4-Axle Truck | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 6 | 5 | 0 | 5 | 0 |
| | 5-Axle Truck + | 10 | 22 | 13 | 5 | 20 | 8 | 6 | 58 | 7 | 9 | 66 | 3 |
| | Total | 89 | 1657 | 414 | 369 | 1903 | 173 | 280 | 1198 | 308 | 274 | 610 | 170 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 50 | 843 | 204 | 199 | 1022 | 81 | 150 | 611 | 205 | 156 | 291 | 82 |
| Peak Hour Factor | 0.959 | | | 0.969 | | | 0.925 | | | 0.958 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Atlantic Boulevard
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Morning Peak Hour

| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Classification | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 7:00 AM | Cars | 34 | 178 | 234 | 2 | 151 | 135 | 26 | 85 | 23 | 29 | 47 | 36 |
| | 2-Axle Truck | 0 | 6 | 6 | 0 | 7 | 5 | 0 | 5 | 4 | 6 | 0 | 6 |
| | 3-Axle Truck | 1 | 1 | 4 | 0 | 6 | 4 | 4 | 0 | 0 | 4 | 1 | 4 |
| | 4-Axle Truck | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 2 |
| | 5-Axle Truck + | 1 | 5 | 13 | 1 | 4 | 4 | 19 | 6 | 9 | 15 | 4 | 13 |
| 7:15 AM | Cars | 15 | 169 | 246 | 4 | 132 | 180 | 45 | 127 | 25 | 32 | 53 | 29 |
| | 2-Axle Truck | 2 | 6 | 7 | 2 | 11 | 4 | 2 | 5 | 4 | 0 | 5 | 7 |
| | 3-Axle Truck | 0 | 2 | 7 | 0 | 1 | 5 | 1 | 5 | 2 | 2 | 0 | 3 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 5-Axle Truck + | 0 | 6 | 7 | 0 | 4 | 6 | 10 | 8 | 9 | 11 | 2 | 9 |
| 7:30 AM | Cars | 21 | 145 | 276 | 1 | 148 | 184 | 21 | 99 | 22 | 28 | 53 | 21 |
| | 2-Axle Truck | 1 | 6 | 12 | 1 | 9 | 5 | 3 | 5 | 2 | 6 | 5 | 0 |
| | 3-Axle Truck | 0 | 1 | 10 | 0 | 1 | 2 | 1 | 3 | 2 | 4 | 3 | 2 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 |
| | 5-Axle Truck + | 0 | 8 | 15 | 0 | 6 | 9 | 10 | 10 | 8 | 15 | 3 | 7 |
| 7:45 AM | Cars | 18 | 119 | 282 | 7 | 117 | 147 | 23 | 143 | 7 | 25 | 49 | 15 |
| | 2-Axle Truck | 0 | 5 | 7 | 0 | 10 | 7 | 3 | 6 | 7 | 5 | 5 | 2 |
| | 3-Axle Truck | 0 | 3 | 8 | 0 | 6 | 5 | 1 | 2 | 2 | 5 | 2 | 1 |
| | 4-Axle Truck | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| | 5-Axle Truck + | 0 | 1 | 9 | 0 | 7 | 15 | 7 | 9 | 12 | 9 | 4 | 10 |
| 8:00 AM | Cars | 14 | 101 | 217 | 8 | 160 | 193 | 20 | 81 | 14 | 34 | 57 | 25 |
| | 2-Axle Truck | 2 | 5 | 11 | 0 | 14 | 8 | 5 | 8 | 3 | 2 | 4 | 5 |
| | 3-Axle Truck | 0 | 2 | 12 | 0 | 4 | 3 | 0 | 1 | 1 | 3 | 1 | 3 |
| | 4-Axle Truck | 0 | 0 | 4 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| | 5-Axle Truck + | 0 | 8 | 15 | 0 | 9 | 7 | 13 | 12 | 7 | 12 | 4 | 9 |
| 8:15 AM | Cars | 13 | 121 | 226 | 7 | 138 | 164 | 26 | 104 | 28 | 16 | 61 | 29 |
| | 2-Axle Truck | 0 | 2 | 11 | 0 | 8 | 10 | 10 | 6 | 0 | 8 | 2 | 3 |
| | 3-Axle Truck | 0 | 0 | 17 | 0 | 8 | 8 | 0 | 3 | 0 | 4 | 4 | 1 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 |
| | 5-Axle Truck + | 1 | 3 | 22 | 0 | 11 | 7 | 9 | 6 | 8 | 15 | 3 | 9 |
| 8:30 AM | Cars | 20 | 114 | 210 | 4 | 154 | 142 | 20 | 57 | 21 | 18 | 73 | 28 |
| | 2-Axle Truck | 1 | 5 | 10 | 0 | 8 | 6 | 4 | 13 | 3 | 3 | 2 | 1 |
| | 3-Axle Truck | 0 | 1 | 12 | 1 | 2 | 7 | 1 | 3 | 1 | 5 | 0 | 3 |
| | 4-Axle Truck | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 | 0 |
| | 5-Axle Truck + | 0 | 8 | 22 | 1 | 5 | 8 | 15 | 7 | 6 | 10 | 3 | 7 |
| 8:45 AM | Cars | 22 | 96 | 157 | 4 | 121 | 124 | 19 | 91 | 15 | 30 | 52 | 32 |
| | 2-Axle Truck | 1 | 4 | 12 | 1 | 12 | 9 | 4 | 10 | 3 | 7 | 5 | 4 |
| | 3-Axle Truck | 0 | 1 | 7 | 0 | 1 | 6 | 1 | 5 | 0 | 2 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| | 5-Axle Truck + | 0 | 6 | 20 | 0 | 6 | 13 | 12 | 12 | 10 | 14 | 1 | 4 |
| Total | Cars | 157 | 1,043 | 1,848 | 37 | 1,121 | 1,269 | 200 | 787 | 155 | 212 | 445 | 215 |
| | 2-Axle Truck | 7 | 39 | 76 | 4 | 79 | 54 | 31 | 58 | 26 | 37 | 28 | 28 |
| | 3-Axle Truck | 1 | 11 | 77 | 1 | 29 | 40 | 9 | 22 | 8 | 29 | 12 | 17 |
| | 4-Axle Truck | 0 | 1 | 13 | 5 | 3 | 0 | 3 | 4 | 2 | 10 | 3 | 7 |
| | 5-Axle Truck + | 2 | 45 | 123 | 2 | 52 | 69 | 95 | 70 | 69 | 101 | 24 | 68 |
| | Total | 167 | 1139 | 2137 | 49 | 1284 | 1432 | 338 | 941 | 260 | 389 | 512 | 335 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 93 | 661 | 1149 | 22 | 622 | 717 | 178 | 519 | 139 | 200 | 236 | 170 |
| Peak Hour Factor | 0.957 | | | 0.930 | | | 0.857 | | | 0.902 | | |

## KUNZMAN ASSOCIATES, INC. TRAFFIC COUNT

North/South Street: Atlantic Boulevard
East/West Street: Bandini Boulevard
Counter: Counts Unlimited
Date: 02/22/12

### Evening Peak Hour

| Time | Classification | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Left | Through | Right | Left | Through | Right | Left | Through | Right | Left | Through | Right |
| 4:00 PM | Cars | 7 | 186 | 167 | 6 | 220 | 30 | 85 | 130 | 58 | 74 | 44 | 122 |
| | 2-Axle Truck | 0 | 4 | 11 | 0 | 16 | 4 | 2 | 14 | 2 | 1 | 3 | 0 |
| | 3-Axle Truck | 0 | 1 | 3 | 0 | 1 | 7 | 1 | 0 | 0 | 6 | 3 | 1 |
| | 4-Axle Truck | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 3 | 34 | 0 | 5 | 12 | 2 | 11 | 10 | 10 | 1 | 4 |
| 4:15 PM | Cars | 8 | 162 | 174 | 4 | 172 | 32 | 75 | 141 | 76 | 49 | 26 | 87 |
| | 2-Axle Truck | 0 | 2 | 15 | 0 | 11 | 9 | 5 | 10 | 3 | 2 | 2 | 1 |
| | 3-Axle Truck | 2 | 1 | 1 | 1 | 4 | 8 | 2 | 0 | 0 | 3 | 0 | 2 |
| | 4-Axle Truck | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 1 |
| | 5-Axle Truck + | 2 | 3 | 30 | 0 | 7 | 11 | 8 | 9 | 19 | 6 | 2 | 9 |
| 4:30 PM | Cars | 13 | 173 | 157 | 4 | 226 | 50 | 124 | 124 | 76 | 51 | 32 | 125 |
| | 2-Axle Truck | 0 | 4 | 7 | 3 | 12 | 5 | 2 | 15 | 1 | 4 | 5 | 4 |
| | 3-Axle Truck | 0 | 0 | 1 | 0 | 1 | 5 | 3 | 0 | 4 | 3 | 0 | 1 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 3 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 3 | 26 | 0 | 2 | 10 | 9 | 6 | 9 | 10 | 2 | 4 |
| 4:45 PM | Cars | 15 | 184 | 195 | 10 | 222 | 38 | 72 | 124 | 69 | 74 | 30 | 118 |
| | 2-Axle Truck | 0 | 3 | 9 | 0 | 8 | 4 | 5 | 8 | 2 | 3 | 0 | 0 |
| | 3-Axle Truck | 0 | 0 | 4 | 2 | 2 | 4 | 0 | 1 | 1 | 1 | 1 | 3 |
| | 4-Axle Truck | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 |
| | 5-Axle Truck + | 1 | 4 | 26 | 0 | 9 | 5 | 3 | 7 | 5 | 6 | 1 | 3 |
| 5:00 PM | Cars | 10 | 193 | 167 | 3 | 249 | 46 | 96 | 114 | 111 | 67 | 38 | 110 |
| | 2-Axle Truck | 0 | 6 | 3 | 0 | 13 | 4 | 2 | 10 | 2 | 6 | 1 | 2 |
| | 3-Axle Truck | 0 | 0 | 5 | 0 | 2 | 6 | 0 | 0 | 1 | 1 | 2 | 0 |
| | 4-Axle Truck | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 5 | 26 | 1 | 7 | 3 | 6 | 8 | 15 | 3 | 2 | 6 |
| 5:15 PM | Cars | 13 | 128 | 144 | 11 | 256 | 57 | 117 | 152 | 93 | 40 | 32 | 90 |
| | 2-Axle Truck | 0 | 2 | 3 | 0 | 7 | 4 | 3 | 6 | 1 | 2 | 2 | 2 |
| | 3-Axle Truck | 0 | 0 | 1 | 0 | 5 | 7 | 1 | 0 | 1 | 4 | 1 | 0 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5-Axle Truck + | 0 | 5 | 19 | 0 | 3 | 4 | 5 | 7 | 6 | 4 | 1 | 8 |
| 5:30 PM | Cars | 14 | 164 | 161 | 3 | 270 | 71 | 123 | 135 | 109 | 51 | 34 | 80 |
| | 2-Axle Truck | 0 | 8 | 24 | 0 | 3 | 3 | 2 | 4 | 2 | 2 | 3 | 4 |
| | 3-Axle Truck | 2 | 0 | 3 | 0 | 0 | 12 | 2 | 0 | 1 | 1 | 0 | 0 |
| | 4-Axle Truck | 0 | 0 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 |
| | 5-Axle Truck + | 0 | 0 | 0 | 1 | 2 | 7 | 0 | 0 | 8 | 0 | 0 | 0 |
| 5:45 PM | Cars | 12 | 132 | 180 | 6 | 214 | 44 | 74 | 131 | 80 | 42 | 40 | 73 |
| | 2-Axle Truck | 0 | 1 | 20 | 0 | 3 | 2 | 1 | 5 | 3 | 5 | 2 | 4 |
| | 3-Axle Truck | 1 | 0 | 6 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 2 |
| | 4-Axle Truck | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 4 | 0 |
| | 5-Axle Truck + | 0 | 0 | 0 | 0 | 5 | 4 | 0 | 0 | 6 | 0 | 0 | 0 |
| Total | Cars | 92 | 1,322 | 1,345 | 47 | 1,829 | 368 | 766 | 1,051 | 672 | 448 | 276 | 805 |
| | 2-Axle Truck | 0 | 30 | 92 | 3 | 73 | 35 | 22 | 72 | 16 | 25 | 18 | 17 |
| | 3-Axle Truck | 5 | 2 | 24 | 3 | 16 | 49 | 9 | 2 | 9 | 20 | 7 | 9 |
| | 4-Axle Truck | 1 | 0 | 10 | 1 | 2 | 17 | 2 | 0 | 10 | 1 | 7 | 1 |
| | 5-Axle Truck + | 3 | 23 | 161 | 2 | 40 | 56 | 33 | 48 | 78 | 39 | 9 | 34 |
| | Total | 101 | 1377 | 1632 | 56 | 1960 | 525 | 832 | 1173 | 785 | 533 | 317 | 866 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Hour Volumes | 53 | 710 | 798 | 34 | 1025 | 260 | 449 | 582 | 404 | 279 | 152 | 476 |
| Peak Hour Factor | 0.881 | | | 0.921 | | | 0.915 | | | 0.937 | | |

# APPENDIX D

## Explanation and Calculation of Intersection Capacity Utilization

# EXPLANATION AND CALCULATION OF INTERSECTION CAPACITY UTILIZATION

## Overview

The ability of a roadway to carry traffic is referred to as capacity. The capacity is usually greater between intersections and less at intersections because traffic flows continuously between them and only during the green phase at them. Capacity at intersections is best defined in terms of vehicles per lane per hour of green. If capacity is 1600 vehicles per lane per hour of green, and if the green phase is 50 percent of the cycle and there are three lanes, then the capacity is 1600 times 50 percent times 3 lanes, or 2400 vehicles per hour for that approach.

The technique used to compare the volume and capacity at an intersection is known as Intersection Capacity Utilization. Intersection Capacity Utilization, usually expressed as a percent, is the proportion of an hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. If an intersection is operating at 80 percent of capacity (i.e., an Intersection Capacity Utilization of 80 percent), then 20 percent of the signal cycle is not used. The signal could show red on all indications 20 percent of the time and the signal would just accommodate approaching traffic.

Intersection Capacity Utilization analysis consists of (a) determining the proportion of signal time needed to serve each conflicting movement of traffic, (b) summing the times for the movements, and (c) comparing the total time required to the total time available. For example, if for north-south traffic the northbound traffic is 1600 vehicles per hour, the southbound traffic is 1200 vehicles per hour, and the capacity of either direction is 3200 vehicles per hour, then the northbound traffic is critical and requires 1600/3200 or 50 percent of the signal time. If for east-west traffic, 30 percent of the signal time is required, then it can be seen that the Intersection Capacity Utilization is 50 plus 30, or 80 percent. When left turn arrows (left turn phasing) exist, they are incorporated into the analysis. The critical movements are usually the heavy left turn movements and the opposing through movements.

The Intersection Capacity Utilization technique is an ideal tool to quantify existing as well as future intersection operation. The impact of adding a lane can be quickly determined by examining the effect the lane has on the Intersection Capacity Utilization.

**Intersection Capacity Utilization Worksheets That Follow This Discussion**

The Intersection Capacity Utilization worksheet table contains the following information:

1. Peak hour turning movement volumes.

2. Number of lanes that serve each movement.

3. For right turn lanes, whether the lane is a free right turn lane, whether it has a right turn arrow, and the percent of right turns on red that are assumed.

4. Capacity assumed per lane.

5. Capacity available to serve each movement (number of lanes times capacity per lane).

6. Volume to capacity ratio for each movement.

7. Whether the movement's volume to capacity ratio is critical and adds to the Intersection Capacity Utilization value.

8. The yellow time or clearance interval assumed.

9. Adjustments for right turn movements.

10. The Intersection Capacity Utilization and Level of Service.

The Intersection Capacity Utilization Worksheet also has two graphics on the same page. These two graphics show the following:

1. Peak hour turning movement volumes.

2. Number of lanes that serve each movement.

3. The approach and exit leg volumes.

4. The two-way leg volumes.

5. An estimate of daily traffic volumes that is fairly close to actual counts and is based strictly on the peak hour leg volumes multiplied by a factor.

6. Percent of daily traffic in peak hours.

7. Percent of peak hour leg volume that is inbound versus outbound.

A more detailed discussion of Intersection Capacity Utilization and Level of Service follows.

**Level of Service**

Level of Service is used to describe the quality of traffic flow. Levels of Service A to C operate quite well. Level of Service C is typically the standard to which rural roadways are designed.

Level of Service D is characterized by fairly restricted traffic flow. Level of Service D is the standard to which urban roadways are typically designed. Level of Service E is the maximum volume a facility can accommodate and will result in possible stoppages of momentary duration. Level of Service F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration.

A description of the various Levels of Service appears at the end of the Intersection Capacity Utilization description, along with the relationship between Intersection Capacity Utilization and Level of Service.

**Signalized and Unsignalized Intersections**

Although calculating an Intersection Capacity Utilization value for an unsignalized intersection is invalid, the presumption is that a signal can be installed and the calculation shows whether the geometrics are capable of accommodating the expected volumes with a signal. A traffic signal becomes warranted before Level of Service D is reached for a signalized intersection.

**Signal Timing**

The Intersection Capacity Utilization calculation assumes that a signal is properly timed. It is possible to have an Intersection Capacity Utilization well below 100 percent, yet have severe traffic congestion. This would occur if one or more movements is not getting sufficient green time to satisfy its demand, and excess green time exists on other movements. This is an operational problem that should be remedied.

**Lane Capacity**

Capacity is often defined in terms of roadway width; however, standard lanes have approximately the same capacity whether they are 11 or 14 feet wide. Our data indicates a typical lane, whether a through lane or a left turn lane, has a capacity of approximately 1750 vehicles per hour of green time, with nearly all locations showing a capacity greater than 1600 vehicles per hour of green per lane. Right turn lanes have a slightly lower capacity; however 1600 vehicles per hour is a valid capacity assumption for right turn lanes.

This finding is published in the August, 1978 issue of ITE Journal in the article entitled, "Another Look at Signalized Intersection Capacity" by William Kunzman. A capacity of 1600 vehicles per hour per lane with no yellow time penalty, or 1700 vehicles per hour with a 3 or 5 percent yellow time penalty is reasonable.

**Yellow Time**

The yellow time can either be assumed to be completely used and no penalty applied, or it can be assumed to be only partially usable. Total yellow time accounts for approximately 10 percent of a signal cycle, and a penalty of 3 to 5 percent is reasonable.

During peak hour traffic operation the yellow times are nearly completely used. If there is no left turn phasing, the left turn vehicles completely use the yellow time. Even if there is left turn phasing, the through traffic continues to enter the intersection on the yellow until just a split second before the red.

**Shared Lanes**

Shared lanes occur in many locations. A shared lane is often found at the end of an off ramp where the ramp forms an intersection with the cross street. Often at a diamond interchange off ramp, there are three lanes. In the case of a diamond interchange, the middle lane is sometimes shared, and the driver can turn left, go through, or turn right from that lane.

If one assumes a three lane off ramp as described above, and if one assumes that each lane has 1600 capacity, and if one assumes that there are 1000 left turns per hour, 500 right turns per hour, and 100 through vehicles per hour, then how should one assume that the three lanes operate. There are three ways that it is done.

One way is to just assume that all 1600 vehicles (1000 plus 500 plus 100) are served simultaneously by three lanes. When this is done, the capacity is 3 times 1600 or

4800, and the amount of green time needed to serve the ramp is 1600 vehicles divided by 4800 capacity or 33.3 percent. This assumption effectively assumes perfect lane distribution between the three lanes that is not realistic. It also means a left turn can be made from the right lane.

Another way is to equally split the capacity of a shared lane and in this case to assume there are 1.33 left turn lanes, 1.33 right turn lanes, and 0.33 through lanes. With this assumption, the critical movement is the left turns and the 1000 left turns are served by a capacity of 1.33 times 1600, or 2133. The volume to capacity ratio of the critical move is 1000 divided by 2133 or 46.9 percent.

The first method results in a critical move of 33.3 percent and the second method results in a critical move of 46.9 percent. Neither is very accurate, and the difference in the calculated Level of Service will be approximately 1.5 Levels of Service (one Level of Service is 10 percent).

The way Kunzman Associates does it is to assign fractional lanes in a reasonable way. In this example, it would be assumed that there is 1.1 right turn lanes, 0.2 through lanes, and 1.7 left turn lanes. The volume to capacity ratios for each movement would be 31.3 percent for the through traffic, 28.4 percent for the right turn movement, and 36.8 percent for the left turn movement. The critical movement would be the 36.8 percent for the left turns.

**Right Turn on Red**

Kunzman Associates' software treats right turn lanes in one of five different ways. Each right turn lane is classified into one of five cases. The five cases are (1) free right turn lane, (2) right turn lane with separate right turn arrow, (3) standard right turn lane with no right turns on red allowed, (4) standard right turn lane with a certain percentage of right turns on red allowed, and (5) separate right turn arrow and a certain percentage of right turns on red allowed.

**Free Right Turn Lane**

If it is a free right turn lane, then it is given a capacity of one full lane with continuous or 100 percent green time. A Free right turn lane occurs when there is a separate approach lane for right turning vehicles, there is a separate departure lane for the right turning vehicles after they turn and are exiting the intersection, and the through cross street traffic does not interfere with the vehicles after they turn right.

**Separate Right Turn Arrow**

If there is a separate right turn arrow, then it is assumed that vehicles are given a green indication and can proceed on what is known as the left turn overlap.

The left turn overlap for a northbound right turn is the westbound left turn. When the left turn overlap has a green indication, the right turn lane is also given a green arrow indication. Thus, if there is a northbound right turn arrow, then it can be turned green for the period of time that the westbound left turns are proceeding.

If there are more right turns than can be accommodated during the northbound through green and the time that the northbound right turn arrow is on, then an adjustment is made to the Intersection Capacity Utilization to account for the green time that needs to be added to the northbound through green to accommodate the northbound right turns.

**Standard Right Turn Lane, No Right Turns on Red**

A standard right turn lane, with no right turn on red assumed, proceeds only when there is a green indication displayed for the adjacent through movement. If additional green time is needed above that amount of time, then in the Intersection Capacity Utilization calculation a right turn adjustment green time is added above the green time that is needed to serve the adjacent through movement.

**Standard Right Turn Lane, With Right Turns on Red**

A standard right turn lane with say 20 percent of the right turns allowed to turn right on a red indication is calculated the same as the standard right turn case where there is no right turn on red allowed, except that the right turn adjustment is reduced to account for the 20 percent of the right turning vehicles that can logically turn right on a red light. The right turns on red are never allowed to exceed the time the overlap left turns take plus the unused part of the green cycle that the cross street traffic moving from left to right has.

As an example of how 20 percent of the cars are allowed to turn right on a red indication, assume that the northbound right turn volume needs 40 percent of the signal cycle to be satisfied. To allow 20 percent of the northbound right turns to turn right on red, then during 8 percent of the signal cycle (40 percent of signal cycle times 20 percent that can turn right on red) right turns on red will be allowed if it is feasible.

For this example, assume that 15 percent of the signal cycle is green for the northbound through traffic, and that means that 15 percent of the signal cycle is

available to satisfy northbound right turns. After the northbound through traffic has received its green, 25 percent of the signal cycle is still needed to satisfy the northbound right turns (40 percent of the signal cycle minus the 15 percent of the signal cycle that the northbound through used).

Assume that the westbound left turns require a green time of 6 percent of the signal cycle. This 6 percent of the signal cycle is used by northbound right turns on red. After accounting for the northbound right turns that occur on the westbound overlap left turn, 19 percent of the signal cycle is still needed for the northbound right turns (25 percent of the cycle was needed after the northbound through green time was accounted for [see above paragraph], and 6 percent was served during the westbound left turn overlap). Also, at this point 6 percent of the signal cycle has been used for northbound right turns on red, and still 2 percent more of the right turns will be allowed to occur on the red if there is unused eastbound through green time.

For purpose of this example, assume that the westbound through green is critical, and that 15 percent of the signal cycle is unused by eastbound through traffic. Thus, 2 percent more of the signal cycle can be used by the northbound right turns on red since there is 15 seconds of unused green time being given to the eastbound through traffic.

At this point, 8 percent of the signal cycle was available to serve northbound right turning vehicles on red, and 15 percent of the signal cycle was available to serve right turning vehicles on the northbound through green. So 23 percent of the signal cycle has been available for northbound right turns.

Because 40 percent of the signal cycle is needed to serve northbound right turns, there is still a need for 17 percent more of the signal cycle to be available for northbound right turns. What this means is the northbound through traffic green time is increased by 17 percent of the cycle length to serve the unserved right turn volume, and a 17 percent adjustment is added to the Intersection Capacity Utilization to account for the northbound right turns that were not served on the northbound through green time or when right turns on red were assumed.

**Separate Right Turn Arrow, With Right Turns on Red**

A right turn lane with a separate right turn arrow, plus a certain percentage of right turns allowed on red is calculated the same way as a standard right turn lane with a certain percentage of right turns allowed on red, except the turns which occur on the right turn arrow are not counted as part of the percentage of right turns that occur on red.

**Critical Lane Method**

Intersection Capacity Utilization parallels another calculation procedure known as the Critical Lane Method with one exception. Critical Lane Method dimensions capacity in terms of standardized vehicles per hour per lane. A Critical Lane Method result of 800 vehicles per hour means that the intersection operates as though 800 vehicles were using a single lane continuously. If one assumes a lane capacity of 1600 vehicles per hour, then a Critical Lane Method calculation resulting in 800 vehicles per hour is the same as an Intersection Capacity Utilization calculation of 50 percent since 800/1600 is 50 percent. It is our opinion that the Critical Lane Method is inferior to the Intersection Capacity Utilization method simply because a statement such as "The Critical Lane Method value is 800 vehicles per hour" means little to most persons, whereas a statement such as "The Intersection Capacity Utilization is 50 percent" communicates clearly. Critical Lane Method results directly correspond to Intersection Capacity Utilization results. The correspondence is as follows, assuming a lane capacity of 1600 vehicles per hour and no clearance interval.

| Critical Lane Method Result | Intersection Capacity Utilization Result |
|---|---|
| 800 vehicles per hour | 50 percent |
| 960 vehicles per hour | 60 percent |
| 1120 vehicles per hour | 70 percent |
| 1280 vehicles per hour | 80 percent |
| 1440 vehicles per hour | 90 percent |
| 1600 vehicles per hour | 100 percent |
| 1760 vehicles per hour | 110 percent |

## INTERSECTION CAPACITY UTILIZATION
## LEVEL OF SERVICE DESCRIPTION[1]

| Level of Service | Description | Volume to Capacity Ratio |
|---|---|---|
| A | Level of Service A occurs when progression is extremely favorable and vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay. | 0.600 and below |
| B | Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average delay. | 0.601 to 0.700 |
| C | Level of Service C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping. | 0.701 to 0.800 |
| D | Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable. | 0.801 to 0.900 |
| E | Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent. | 0.901 to 1.000 |
| F | Level of Service F is considered to be unacceptable to most drivers. This condition often occurs when oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels. | 1.001 and up |

[1] Source: Highway Capacity Manual Special Report 209, Transportation Research Board, National Research Council Washington D.C., 2000.

**Existing**

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alameda Street (NS) at Vernon Avenue - West (EW) - #1a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.454 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 1 0 | | 0 1 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 53 | 1279 | 42 | 100 | 984 | 52 | 119 | 640 | 47 | 85 | 605 | 241 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 70 | 1701 | 56 | 133 | 1309 | 69 | 158 | 851 | 63 | 113 | 805 | 321 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 70 | 1701 | 56 | 133 | 1309 | 69 | 158 | 851 | 63 | 113 | 805 | 321 |
| 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: | 70 | 1701 | 56 | 133 | 1309 | 69 | 158 | 851 | 63 | 113 | 805 | 321 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 70 | 1701 | 56 | 133 | 1309 | 69 | 158 | 851 | 63 | 113 | 805 | 321 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 70 | 1701 | 56 | 133 | 1309 | 69 | 158 | 851 | 63 | 113 | 805 | 321 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.90 | 0.10 | 0.30 | 1.59 | 0.12 | 0.18 | 1.30 | 0.52 |
| Final Sat.: | 1600 | 3098 | 102 | 1600 | 3039 | 161 | 472 | 2541 | 187 | 292 | 2079 | 828 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.55 | 0.55 | 0.08 | 0.43 | 0.43 | 0.33 | 0.33 | 0.33 | 0.39 | 0.39 | 0.39 |
| Crit Moves: | | **** | | **** | | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alameda Street (NS) at Vernon Avenue - West (EW) - #1a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.502 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 50 | 1063 | 59 | 119 | 1008 | 74 | 201 | 639 | 93 | 128 | 718 | 235 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 67 | 1414 | 78 | 158 | 1341 | 98 | 267 | 850 | 124 | 170 | 955 | 313 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 67 | 1414 | 78 | 158 | 1341 | 98 | 267 | 850 | 124 | 170 | 955 | 313 |
| 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: | 67 | 1414 | 78 | 158 | 1341 | 98 | 267 | 850 | 124 | 170 | 955 | 313 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 67 | 1414 | 78 | 158 | 1341 | 98 | 267 | 850 | 124 | 170 | 955 | 313 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 67 | 1414 | 78 | 158 | 1341 | 98 | 267 | 850 | 124 | 170 | 955 | 313 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.89 | 0.11 | 1.00 | 1.86 | 0.14 | 0.43 | 1.37 | 0.20 | 0.24 | 1.33 | 0.43 |
| Final Sat.: | 1600 | 3032 | 168 | 1600 | 2981 | 219 | 689 | 2192 | 319 | 379 | 2125 | 696 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.47 | 0.47 | 0.10 | 0.45 | 0.45 | 0.39 | 0.39 | 0.39 | 0.45 | 0.45 | 0.45 |
| Crit Moves: | | **** | | **** | | | | | **** | | | **** |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Alameda Street (NS) at 55th Street - West (EW) - #2a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.334 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 0 1 | | 0 0 1! | 0 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 36 | 1315 | 38 | 80 | 660 | 90 | 119 | 362 | 27 | 11 | 171 | 65 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 48 | 1749 | 51 | 106 | 878 | 120 | 158 | 481 | 36 | 15 | 227 | 86 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 48 | 1749 | 51 | 106 | 878 | 120 | 158 | 481 | 36 | 15 | 227 | 86 |
| 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: | 48 | 1749 | 51 | 106 | 878 | 120 | 158 | 481 | 36 | 15 | 227 | 86 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 48 | 1749 | 51 | 106 | 878 | 120 | 158 | 481 | 36 | 15 | 227 | 86 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 48 | 1749 | 51 | 106 | 878 | 120 | 158 | 481 | 36 | 15 | 227 | 86 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.76 | 0.24 | 0.25 | 0.75 | 1.00 | 0.04 | 0.69 | 0.26 |
| Final Sat.: | 1600 | 3110 | 90 | 1600 | 2816 | 384 | 396 | 1204 | 1600 | 71 | 1108 | 421 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.56 | 0.56 | 0.07 | 0.31 | 0.31 | 0.40 | 0.40 | 0.02 | 0.21 | 0.21 | 0.21 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #101 Alameda Street (NS) at Vernon Avenue - East (EW) - #1b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.097 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (East) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 1 | 0 | 0 1 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 202 | 60 | 68 | 141 | 11 | 44 | 630 | 108 | 9 | 892 | 79 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 37 | 269 | 80 | 90 | 188 | 15 | 59 | 838 | 144 | 12 | 1186 | 105 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 37 | 269 | 80 | 90 | 188 | 15 | 59 | 838 | 144 | 12 | 1186 | 105 |
| 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: | 37 | 269 | 80 | 90 | 188 | 15 | 59 | 838 | 144 | 12 | 1186 | 105 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 37 | 269 | 80 | 90 | 188 | 15 | 59 | 838 | 144 | 12 | 1186 | 105 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 37 | 269 | 80 | 90 | 188 | 15 | 59 | 838 | 144 | 12 | 1186 | 105 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.10 | 0.70 | 0.21 | 0.31 | 0.64 | 0.05 | 0.11 | 1.61 | 0.28 | 0.02 | 1.98 | 1.00 |
| Final Sat.: | 154 | 1114 | 331 | 495 | 1025 | 80 | 180 | 2578 | 442 | 32 | 3168 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.24 | 0.24 | 0.06 | 0.18 | 0.18 | 0.33 | 0.33 | 0.33 | 0.37 | 0.37 | 0.07 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #101 Alameda Street (NS) at Vernon Avenue - East (EW) - #1b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.186 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (East) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 1 | 0 | 0 1 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 15 | 244 | 46 | 65 | 161 | 10 | 30 | 762 | 25 | 1 | 1056 | 45 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 20 | 325 | 61 | 86 | 214 | 13 | 40 | 1013 | 33 | 1 | 1404 | 60 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 20 | 325 | 61 | 86 | 214 | 13 | 40 | 1013 | 33 | 1 | 1404 | 60 |
| 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: | 20 | 325 | 61 | 86 | 214 | 13 | 40 | 1013 | 33 | 1 | 1404 | 60 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 20 | 325 | 61 | 86 | 214 | 13 | 40 | 1013 | 33 | 1 | 1404 | 60 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 20 | 325 | 61 | 86 | 214 | 13 | 40 | 1013 | 33 | 1 | 1404 | 60 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.05 | 0.80 | 0.15 | 0.28 | 0.68 | 0.04 | 0.07 | 1.87 | 0.06 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 79 | 1280 | 241 | 441 | 1092 | 68 | 118 | 2985 | 98 | 3 | 3197 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.25 | 0.25 | 0.05 | 0.20 | 0.20 | 0.34 | 0.34 | 0.34 | 0.44 | 0.44 | 0.04 |
| Crit Moves: | | **** | | **** | | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Alameda Street (NS) at 55th Street - West (EW) - #2a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.521 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 32 | 957 | 16 | 82 | 1066 | 139 | 102 | 246 | 42 | 48 | 533 | 146 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 43 | 1273 | 21 | 109 | 1418 | 185 | 136 | 327 | 56 | 64 | 709 | 194 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 43 | 1273 | 21 | 109 | 1418 | 185 | 136 | 327 | 56 | 64 | 709 | 194 |
| 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: | 43 | 1273 | 21 | 109 | 1418 | 185 | 136 | 327 | 56 | 64 | 709 | 194 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 43 | 1273 | 21 | 109 | 1418 | 185 | 136 | 327 | 56 | 64 | 709 | 194 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 43 | 1273 | 21 | 109 | 1418 | 185 | 136 | 327 | 56 | 64 | 709 | 194 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.97 | 0.03 | 1.00 | 1.77 | 0.23 | 0.29 | 0.71 | 1.00 | 0.07 | 0.73 | 0.20 |
| Final Sat.: | 1600 | 3147 | 53 | 1600 | 2831 | 369 | 469 | 1131 | 1600 | 106 | 1173 | 321 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.40 | 0.40 | 0.07 | 0.50 | 0.50 | 0.29 | 0.29 | 0.03 | 0.60 | 0.60 | 0.60 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Fe Avenue (NS) at 25th Street (EW) - #3

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.891 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Santa Fe Avenue | | | | | | 25th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 1 0 1 | | | 1 0 0 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 77 | 1177 | 113 | 77 | 1016 | 45 | 23 | 71 | 70 | 142 | 160 | 103 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 102 | 1565 | 150 | 102 | 1351 | 60 | 31 | 94 | 93 | 189 | 213 | 137 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 102 | 1565 | 150 | 102 | 1351 | 60 | 31 | 94 | 93 | 189 | 213 | 137 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 102 | 1565 | 0 | 102 | 1351 | 0 | 31 | 94 | 93 | 189 | 213 | 137 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 102 | 1565 | 0 | 102 | 1351 | 0 | 31 | 94 | 93 | 189 | 213 | 137 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 102 | 1565 | 0 | 102 | 1351 | 0 | 31 | 94 | 93 | 189 | 213 | 137 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.61 | 0.39 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1600 | 1600 | 1600 | 973 | 627 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.49 | 0.00 | 0.06 | 0.42 | 0.00 | 0.02 | 0.06 | 0.06 | 0.12 | 0.22 | 0.22 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #102 Alameda Street (NS) at 55th Street - East (EW) - #2b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.735 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | C |

| Street Name: | Alameda Street (East) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 8 | 54 | 14 | 5 | 13 | 38 | 199 | 257 | 24 | 2 | 201 | 13 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 11 | 72 | 19 | 7 | 17 | 51 | 265 | 342 | 32 | 3 | 267 | 17 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 72 | 19 | 7 | 17 | 51 | 265 | 342 | 32 | 3 | 267 | 17 |
| 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: | 11 | 72 | 19 | 7 | 17 | 51 | 265 | 342 | 32 | 3 | 267 | 17 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 11 | 72 | 19 | 7 | 17 | 51 | 265 | 342 | 32 | 3 | 267 | 17 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 11 | 72 | 19 | 7 | 17 | 51 | 265 | 342 | 32 | 3 | 267 | 17 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.11 | 0.71 | 0.18 | 0.09 | 0.23 | 0.68 | 0.41 | 0.54 | 0.05 | 0.01 | 0.99 | 1.00 |
| Final Sat.: | 168 | 1137 | 295 | 143 | 371 | 1086 | 663 | 857 | 80 | 16 | 1584 | 1600 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.06 | 0.06 | 0.00 | 0.05 | 0.05 | 0.40 | 0.40 | 0.40 | 0.17 | 0.17 | 0.01 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #102 Alameda Street (NS) at 55th Street - East (EW) - #2b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.040 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (East) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 6 | 41 | 9 | 24 | 35 | 206 | 44 | 288 | 12 | 1 | 515 | 8 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 8 | 55 | 12 | 32 | 47 | 274 | 59 | 383 | 16 | 1 | 685 | 11 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 8 | 55 | 12 | 32 | 47 | 274 | 59 | 383 | 16 | 1 | 685 | 11 |
| 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: | 8 | 55 | 12 | 32 | 47 | 274 | 59 | 383 | 16 | 1 | 685 | 11 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 8 | 55 | 12 | 32 | 47 | 274 | 59 | 383 | 16 | 1 | 685 | 11 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 8 | 55 | 12 | 32 | 47 | 274 | 59 | 383 | 16 | 1 | 685 | 11 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.11 | 0.73 | 0.16 | 0.09 | 0.13 | 0.78 | 0.13 | 0.84 | 0.03 | 0.00 | 1.00 | 1.00 |
| Final Sat.: | 171 | 1171 | 257 | 145 | 211 | 1244 | 205 | 1340 | 56 | 3 | 1597 | 1600 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.05 | 0.05 | 0.02 | 0.22 | 0.22 | 0.29 | 0.29 | 0.29 | 0.43 | 0.43 | 0.01 |
| Crit Moves: | **** | | | | **** | | | | **** | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Fe Avenue (NS) at 25th Street (EW) - #3

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.014 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | 25th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 80 | 1072 | 133 | 105 | 1108 | 21 | 253 | 244 | 93 | 117 | 138 | 68 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 106 | 1426 | 177 | 140 | 1474 | 28 | 336 | 325 | 124 | 156 | 184 | 90 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 106 | 1426 | 177 | 140 | 1474 | 28 | 336 | 325 | 124 | 156 | 184 | 90 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 106 | 1426 | 0 | 140 | 1474 | 0 | 336 | 325 | 124 | 156 | 184 | 90 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 106 | 1426 | 0 | 140 | 1474 | 0 | 336 | 325 | 124 | 156 | 184 | 90 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 106 | 1426 | 0 | 140 | 1474 | 0 | 336 | 325 | 124 | 156 | 184 | 90 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.33 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1600 | 1600 | 1600 | 1072 | 528 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.45 | 0.00 | 0.09 | 0.46 | 0.00 | 0.21 | 0.20 | 0.08 | 0.10 | 0.17 | 0.17 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Fe Avenue (NS) at 38th Street (EW) - #4

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.956 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Santa Fe Avenue | | | | | | 38th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 102 | 1304 | 178 | 94 | 967 | 151 | 28 | 167 | 61 | 0 | 0 | 0 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 136 | 1734 | 237 | 125 | 1286 | 201 | 37 | 222 | 81 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 136 | 1734 | 237 | 125 | 1286 | 201 | 37 | 222 | 81 | 0 | 0 | 0 |
| 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: | 136 | 1734 | 237 | 125 | 1286 | 201 | 37 | 222 | 81 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 136 | 1734 | 237 | 125 | 1286 | 201 | 37 | 222 | 81 | 0 | 0 | 0 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 136 | 1734 | 237 | 125 | 1286 | 201 | 37 | 222 | 81 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.76 | 0.24 | 1.00 | 1.73 | 0.27 | 0.14 | 0.86 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1600 | 2816 | 384 | 1600 | 2768 | 432 | 230 | 1370 | 1600 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.62 | 0.62 | 0.08 | 0.46 | 0.46 | 0.02 | 0.16 | 0.05 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Fe Avenue (NS) at 38th Street (EW) - #4

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.011 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | 38th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 0 1 | | 0 0 0 | 0 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 95 | 978 | 219 | 151 | 1346 | 122 | 20 | 247 | 80 | 0 | 0 | 0 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 126 | 1301 | 291 | 201 | 1790 | 162 | 27 | 329 | 106 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 126 | 1301 | 291 | 201 | 1790 | 162 | 27 | 329 | 106 | 0 | 0 | 0 |
| 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: | 126 | 1301 | 291 | 201 | 1790 | 162 | 27 | 329 | 106 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 126 | 1301 | 291 | 201 | 1790 | 162 | 27 | 329 | 106 | 0 | 0 | 0 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 126 | 1301 | 291 | 201 | 1790 | 162 | 27 | 329 | 106 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.63 | 0.37 | 1.00 | 1.83 | 0.17 | 0.07 | 0.93 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1600 | 2615 | 585 | 1600 | 2934 | 266 | 120 | 1480 | 1600 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.50 | 0.50 | 0.13 | 0.61 | 0.61 | 0.02 | 0.22 | 0.07 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Fe Avenue (NS) at Vernon Avenue (EW) - #5

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.972 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 2 | 1517 | 109 | 79 | 962 | 4 | 2 | 10 | 3 | 142 | 4 | 138 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 3 | 2018 | 145 | 105 | 1279 | 5 | 3 | 13 | 4 | 189 | 5 | 184 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 3 | 2018 | 145 | 105 | 1279 | 5 | 3 | 13 | 4 | 189 | 5 | 184 |
| 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: | 3 | 2018 | 145 | 105 | 1279 | 5 | 3 | 13 | 4 | 189 | 5 | 184 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 3 | 2018 | 145 | 105 | 1279 | 5 | 3 | 13 | 4 | 189 | 5 | 184 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 3 | 2018 | 145 | 105 | 1279 | 5 | 3 | 13 | 4 | 189 | 5 | 184 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.87 | 0.13 | 1.00 | 1.99 | 0.01 | 0.13 | 0.67 | 0.20 | 1.00 | 0.03 | 0.97 |
| Final Sat.: | 1600 | 2985 | 215 | 1600 | 3187 | 13 | 213 | 1067 | 320 | 1600 | 45 | 1555 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.68 | 0.68 | 0.07 | 0.40 | 0.40 | 0.00 | 0.01 | 0.01 | 0.12 | 0.12 | 0.12 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Fe Avenue (NS) at Vernon Avenue (EW) - #5

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.923 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 0 1! | 0 0 | | 0 1 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 3 | 1199 | 108 | 122 | 1245 | 1 | 24 | 20 | 6 | 165 | 7 | 117 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 4 | 1595 | 144 | 162 | 1656 | 1 | 32 | 27 | 8 | 219 | 9 | 156 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 1595 | 144 | 162 | 1656 | 1 | 32 | 27 | 8 | 219 | 9 | 156 |
| 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: | 4 | 1595 | 144 | 162 | 1656 | 1 | 32 | 27 | 8 | 219 | 9 | 156 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 1595 | 144 | 162 | 1656 | 1 | 32 | 27 | 8 | 219 | 9 | 156 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 1595 | 144 | 162 | 1656 | 1 | 32 | 27 | 8 | 219 | 9 | 156 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.83 | 0.17 | 1.00 | 2.00 | 0.00 | 0.48 | 0.40 | 0.12 | 1.00 | 0.19 | 0.81 |
| Final Sat.: | 1600 | 2936 | 264 | 1600 | 3197 | 3 | 768 | 640 | 192 | 1600 | 304 | 1296 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.54 | 0.54 | 0.10 | 0.52 | 0.52 | 0.02 | 0.04 | 0.04 | 0.14 | 0.03 | 0.12 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Santa Fe Avenue (NS) at Vernon Avenue/Pacific Boulevard (EW) - #

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.919 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue/Pacific Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Protected | | | Protected | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 89 | 997 | 19 | 94 | 770 | 240 | 142 | 235 | 90 | 26 | 384 | 482 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 118 | 1326 | 25 | 125 | 1024 | 319 | 189 | 313 | 120 | 35 | 511 | 641 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 118 | 1326 | 25 | 125 | 1024 | 319 | 189 | 313 | 120 | 35 | 511 | 641 |
| 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: | 118 | 1326 | 25 | 125 | 1024 | 319 | 189 | 313 | 120 | 35 | 511 | 641 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 118 | 1326 | 25 | 125 | 1024 | 319 | 189 | 313 | 120 | 35 | 511 | 641 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 118 | 1326 | 25 | 125 | 1024 | 319 | 189 | 313 | 120 | 35 | 511 | 641 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.96 | 0.04 | 1.00 | 1.52 | 0.48 | 1.00 | 2.17 | 0.83 | 1.00 | 2.00 | 2.00 |
| Final Sat.: | 1600 | 3140 | 60 | 1600 | 2440 | 760 | 1600 | 3471 | 1329 | 1600 | 3200 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.42 | 0.42 | 0.08 | 0.42 | 0.42 | 0.12 | 0.09 | 0.09 | 0.02 | 0.16 | 0.20 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Santa Fe Avenue (NS) at Vernon Avenue/Pacific Boulevard (EW) - #

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.957 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue/Pacific Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Protected | | | Protected | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 100 | 863 | 26 | 170 | 1083 | 155 | 170 | 358 | 64 | 30 | 285 | 267 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 133 | 1148 | 35 | 226 | 1440 | 206 | 226 | 476 | 85 | 40 | 379 | 355 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 133 | 1148 | 35 | 226 | 1440 | 206 | 226 | 476 | 85 | 40 | 379 | 355 |
| 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: | 133 | 1148 | 35 | 226 | 1440 | 206 | 226 | 476 | 85 | 40 | 379 | 355 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 133 | 1148 | 35 | 226 | 1440 | 206 | 226 | 476 | 85 | 40 | 379 | 355 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 133 | 1148 | 35 | 226 | 1440 | 206 | 226 | 476 | 85 | 40 | 379 | 355 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.75 | 0.25 | 1.00 | 2.55 | 0.46 | 1.00 | 2.00 | 2.00 |
| Final Sat.: | 1600 | 3106 | 94 | 1600 | 2799 | 401 | 1600 | 4072 | 728 | 1600 | 3200 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.37 | 0.37 | 0.14 | 0.51 | 0.51 | 0.14 | 0.12 | 0.12 | 0.02 | 0.12 | 0.11 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Soto Street (NS) at 26th Street (EW) - #7

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.009 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | 26th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 0 1 0 | | | 1 0 0 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 121 | 1203 | 56 | 117 | 1069 | 104 | 39 | 92 | 43 | 27 | 240 | 96 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 161 | 1600 | 74 | 156 | 1422 | 138 | 52 | 122 | 57 | 36 | 319 | 128 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 161 | 1600 | 74 | 156 | 1422 | 138 | 52 | 122 | 57 | 36 | 319 | 128 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 161 | 1600 | 0 | 156 | 1422 | 138 | 52 | 122 | 57 | 36 | 319 | 128 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 161 | 1600 | 0 | 156 | 1422 | 138 | 52 | 122 | 57 | 36 | 319 | 128 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 161 | 1600 | 0 | 156 | 1422 | 138 | 52 | 122 | 57 | 36 | 319 | 128 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 0.68 | 0.32 | 1.00 | 0.71 | 0.29 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1090 | 510 | 1600 | 1143 | 457 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.50 | 0.00 | 0.10 | 0.44 | 0.09 | 0.03 | 0.11 | 0.11 | 0.02 | 0.28 | 0.28 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Soto Street (NS) at 26th Street (EW) - #7

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.181 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | 26th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 59 | 1178 | 46 | 225 | 1407 | 51 | 97 | 385 | 65 | 36 | 112 | 149 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 78 | 1567 | 61 | 299 | 1871 | 68 | 129 | 512 | 86 | 48 | 149 | 198 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 78 | 1567 | 61 | 299 | 1871 | 68 | 129 | 512 | 86 | 48 | 149 | 198 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 78 | 1567 | 0 | 299 | 1871 | 68 | 129 | 512 | 86 | 48 | 149 | 198 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 78 | 1567 | 0 | 299 | 1871 | 68 | 129 | 512 | 86 | 48 | 149 | 198 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 78 | 1567 | 0 | 299 | 1871 | 68 | 129 | 512 | 86 | 48 | 149 | 198 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 0.86 | 0.14 | 1.00 | 0.43 | 0.57 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1369 | 231 | 1600 | 687 | 913 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.49 | 0.00 | 0.19 | 0.58 | 0.04 | 0.08 | 0.37 | 0.37 | 0.03 | 0.22 | 0.22 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Soto Street (NS) at Bandini Boulevard (EW) - #8

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.951 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Soto Street | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 69 | 1166 | 84 | 56 | 966 | 127 | 102 | 303 | 59 | 165 | 619 | 103 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 92 | 1551 | 112 | 74 | 1285 | 169 | 136 | 403 | 78 | 219 | 823 | 137 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 92 | 1551 | 112 | 74 | 1285 | 169 | 136 | 403 | 78 | 219 | 823 | 137 |
| 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: | 92 | 1551 | 112 | 74 | 1285 | 169 | 136 | 403 | 78 | 219 | 823 | 137 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 92 | 1551 | 112 | 74 | 1285 | 169 | 136 | 403 | 78 | 219 | 823 | 137 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 92 | 1551 | 112 | 74 | 1285 | 169 | 136 | 403 | 78 | 219 | 823 | 137 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.87 | 0.13 | 1.00 | 1.77 | 0.23 | 1.00 | 2.51 | 0.49 | 1.00 | 2.57 | 0.43 |
| Final Sat.: | 1600 | 2985 | 215 | 1600 | 2828 | 372 | 1600 | 4018 | 782 | 1600 | 4115 | 685 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.52 | 0.52 | 0.05 | 0.45 | 0.45 | 0.08 | 0.10 | 0.10 | 0.14 | 0.20 | 0.20 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Soto Street (NS) at Bandini Boulevard (EW) - #8

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.003 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 39 | 1033 | 130 | 116 | 1348 | 75 | 170 | 574 | 60 | 124 | 377 | 62 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 52 | 1374 | 173 | 154 | 1793 | 100 | 226 | 763 | 80 | 165 | 501 | 82 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 52 | 1374 | 173 | 154 | 1793 | 100 | 226 | 763 | 80 | 165 | 501 | 82 |
| 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: | 52 | 1374 | 173 | 154 | 1793 | 100 | 226 | 763 | 80 | 165 | 501 | 82 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 52 | 1374 | 173 | 154 | 1793 | 100 | 226 | 763 | 80 | 165 | 501 | 82 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 52 | 1374 | 173 | 154 | 1793 | 100 | 226 | 763 | 80 | 165 | 501 | 82 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.78 | 0.22 | 1.00 | 1.89 | 0.11 | 1.00 | 2.72 | 0.28 | 1.00 | 2.58 | 0.42 |
| Final Sat.: | 1600 | 2842 | 358 | 1600 | 3031 | 169 | 1600 | 4346 | 454 | 1600 | 4122 | 678 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.48 | 0.48 | 0.10 | 0.59 | 0.59 | 0.14 | 0.18 | 0.18 | 0.10 | 0.12 | 0.12 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 Soto Street (NS) at Vernon Avenue (EW) - #9

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.861 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Soto Street | | | | | | Vernon Avenuie | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 62 | 1028 | 20 | 63 | 899 | 112 | 53 | 83 | 39 | 9 | 168 | 241 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 82 | 1367 | 27 | 84 | 1196 | 149 | 70 | 110 | 52 | 12 | 223 | 321 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 82 | 1367 | 27 | 84 | 1196 | 149 | 70 | 110 | 52 | 12 | 223 | 321 |
| 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: | 82 | 1367 | 27 | 84 | 1196 | 149 | 70 | 110 | 52 | 12 | 223 | 321 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 82 | 1367 | 27 | 84 | 1196 | 149 | 70 | 110 | 52 | 12 | 223 | 321 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 82 | 1367 | 27 | 84 | 1196 | 149 | 70 | 110 | 52 | 12 | 223 | 321 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.96 | 0.04 | 1.00 | 1.78 | 0.22 | 0.61 | 0.95 | 0.45 | 0.04 | 0.96 | 1.00 |
| Final Sat.: | 1600 | 3139 | 61 | 1600 | 2845 | 355 | 969 | 1518 | 713 | 69 | 1531 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.44 | 0.44 | 0.05 | 0.42 | 0.42 | 0.07 | 0.07 | 0.07 | 0.17 | 0.15 | 0.20 |
| Crit Moves: | | **** | | **** | | | | **** | | | | **** |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 Soto Street (NS) at Vernon Avenue (EW) - #9

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.948 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Soto Street | | | | | | Vernon Avenuie | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 1 0 | | | 1 0 1 1 0 | | | 0 1 0 1 0 | | | 0 1 0 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 48 | 872 | 14 | 141 | 1268 | 48 | 106 | 204 | 76 | 22 | 98 | 121 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 64 | 1160 | 19 | 188 | 1686 | 64 | 141 | 271 | 101 | 29 | 130 | 161 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 64 | 1160 | 19 | 188 | 1686 | 64 | 141 | 271 | 101 | 29 | 130 | 161 |
| 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: | 64 | 1160 | 19 | 188 | 1686 | 64 | 141 | 271 | 101 | 29 | 130 | 161 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 64 | 1160 | 19 | 188 | 1686 | 64 | 141 | 271 | 101 | 29 | 130 | 161 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 64 | 1160 | 19 | 188 | 1686 | 64 | 141 | 271 | 101 | 29 | 130 | 161 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.97 | 0.03 | 1.00 | 1.93 | 0.07 | 0.55 | 1.06 | 0.39 | 0.18 | 0.82 | 1.00 |
| Final Sat.: | 1600 | 3149 | 51 | 1600 | 3083 | 117 | 879 | 1691 | 630 | 292 | 1308 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.37 | 0.37 | 0.12 | 0.55 | 0.55 | 0.16 | 0.16 | 0.16 | 0.10 | 0.10 | 0.10 |
| Crit Moves: | **** | | | | **** | | | | **** | | | **** |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Soto Street (NS) at Leonis Boulevard (EW) - #10

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.876 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Soto Street | | | | | | Leonis Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 41 | 880 | 46 | 81 | 635 | 62 | 76 | 212 | 21 | 88 | 494 | 132 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 55 | 1170 | 61 | 108 | 845 | 82 | 101 | 282 | 28 | 117 | 657 | 176 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 55 | 1170 | 61 | 108 | 845 | 82 | 101 | 282 | 28 | 117 | 657 | 176 |
| 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: | 55 | 1170 | 61 | 108 | 845 | 82 | 101 | 282 | 28 | 117 | 657 | 176 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 55 | 1170 | 61 | 108 | 845 | 82 | 101 | 282 | 28 | 117 | 657 | 176 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 55 | 1170 | 61 | 108 | 845 | 82 | 101 | 282 | 28 | 117 | 657 | 176 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.90 | 0.10 | 1.00 | 1.82 | 0.18 | 1.00 | 1.82 | 0.18 | 1.00 | 1.58 | 0.42 |
| Final Sat.: | 1600 | 3041 | 159 | 1600 | 2915 | 285 | 1600 | 2912 | 288 | 1600 | 2525 | 675 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.38 | 0.38 | 0.07 | 0.29 | 0.29 | 0.06 | 0.10 | 0.10 | 0.07 | 0.26 | 0.26 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Soto Street (NS) at Leonis Boulevard (EW) - #10

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.814 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Soto Street | | | | | | Leonis Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 19 | 674 | 93 | 124 | 1069 | 59 | 84 | 384 | 43 | 62 | 281 | 98 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 25 | 896 | 124 | 165 | 1422 | 78 | 112 | 511 | 57 | 82 | 374 | 130 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 25 | 896 | 124 | 165 | 1422 | 78 | 112 | 511 | 57 | 82 | 374 | 130 |
| 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: | 25 | 896 | 124 | 165 | 1422 | 78 | 112 | 511 | 57 | 82 | 374 | 130 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 25 | 896 | 124 | 165 | 1422 | 78 | 112 | 511 | 57 | 82 | 374 | 130 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 25 | 896 | 124 | 165 | 1422 | 78 | 112 | 511 | 57 | 82 | 374 | 130 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.76 | 0.24 | 1.00 | 1.90 | 0.10 | 1.00 | 1.80 | 0.20 | 1.00 | 1.48 | 0.52 |
| Final Sat.: | 1600 | 2812 | 388 | 1600 | 3033 | 167 | 1600 | 2878 | 322 | 1600 | 2373 | 827 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.32 | 0.32 | 0.10 | 0.47 | 0.47 | 0.07 | 0.18 | 0.18 | 0.05 | 0.16 | 0.16 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Soto Street (NS) at Fruitland Avenue (EW) - #11

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.806 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Soto Street | | | | | | Fruitland Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 0 | 1 0 | | 1 0 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 89 | 798 | 25 | 44 | 509 | 184 | 85 | 140 | 23 | 28 | 235 | 74 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 118 | 1061 | 33 | 59 | 677 | 245 | 113 | 186 | 31 | 37 | 313 | 98 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 118 | 1061 | 33 | 59 | 677 | 245 | 113 | 186 | 31 | 37 | 313 | 98 |
| 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: | 118 | 1061 | 33 | 59 | 677 | 245 | 113 | 186 | 31 | 37 | 313 | 98 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 118 | 1061 | 33 | 59 | 677 | 245 | 113 | 186 | 31 | 37 | 313 | 98 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 118 | 1061 | 33 | 59 | 677 | 245 | 113 | 186 | 31 | 37 | 313 | 98 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.47 | 0.53 | 1.00 | 0.86 | 0.14 | 1.00 | 0.76 | 0.24 |
| Final Sat.: | 1600 | 3103 | 97 | 1600 | 2350 | 850 | 1600 | 1374 | 226 | 1600 | 1217 | 383 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.34 | 0.34 | 0.04 | 0.29 | 0.29 | 0.07 | 0.14 | 0.14 | 0.02 | 0.26 | 0.26 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Soto Street (NS) at Fruitland Avenue (EW) - #11

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.879 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Soto Street | | | | | | Fruitland Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 0 | 1 0 | | 1 0 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 51 | 544 | 36 | 86 | 862 | 93 | 169 | 335 | 49 | 25 | 169 | 52 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 68 | 724 | 48 | 114 | 1146 | 124 | 225 | 446 | 65 | 33 | 225 | 69 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 68 | 724 | 48 | 114 | 1146 | 124 | 225 | 446 | 65 | 33 | 225 | 69 |
| 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: | 68 | 724 | 48 | 114 | 1146 | 124 | 225 | 446 | 65 | 33 | 225 | 69 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 68 | 724 | 48 | 114 | 1146 | 124 | 225 | 446 | 65 | 33 | 225 | 69 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 68 | 724 | 48 | 114 | 1146 | 124 | 225 | 446 | 65 | 33 | 225 | 69 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.88 | 0.12 | 1.00 | 1.81 | 0.19 | 1.00 | 0.87 | 0.13 | 1.00 | 0.76 | 0.24 |
| Final Sat.: | 1600 | 3001 | 199 | 1600 | 2888 | 312 | 1600 | 1396 | 204 | 1600 | 1224 | 376 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.24 | 0.24 | 0.07 | 0.40 | 0.40 | 0.14 | 0.32 | 0.32 | 0.02 | 0.18 | 0.18 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Boyle Avenue/State Street (NS) at Slauson Avenue (EW) - #12

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.081 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Boyle Avenue/State Street | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 280 | 909 | 235 | 19 | 162 | 22 | 59 | 688 | 129 | 181 | 859 | 45 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 372 | 1209 | 313 | 25 | 215 | 29 | 78 | 915 | 172 | 241 | 1142 | 60 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 372 | 1209 | 313 | 25 | 215 | 29 | 78 | 915 | 172 | 241 | 1142 | 60 |
| 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: | 372 | 1209 | 313 | 25 | 215 | 29 | 78 | 915 | 172 | 241 | 1142 | 60 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 372 | 1209 | 313 | 25 | 215 | 29 | 78 | 915 | 172 | 241 | 1142 | 60 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 372 | 1209 | 313 | 25 | 215 | 29 | 78 | 915 | 172 | 241 | 1142 | 60 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.59 | 0.41 | 1.00 | 1.76 | 0.24 | 1.00 | 1.68 | 0.32 | 1.00 | 1.90 | 0.10 |
| Final Sat.: | 1600 | 2543 | 657 | 1600 | 2817 | 383 | 1600 | 2695 | 505 | 1600 | 3041 | 159 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.48 | 0.48 | 0.02 | 0.08 | 0.08 | 0.05 | 0.34 | 0.34 | 0.15 | 0.38 | 0.38 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Boyle Avenue/State Street (NS) at Slauson Avenue (EW) - #12

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.202 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Boyle Avenue/State Street | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 132 | 224 | 122 | 55 | 771 | 42 | 30 | 860 | 219 | 248 | 855 | 23 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 176 | 298 | 162 | 73 | 1025 | 56 | 40 | 1144 | 291 | 330 | 1137 | 31 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 176 | 298 | 162 | 73 | 1025 | 56 | 40 | 1144 | 291 | 330 | 1137 | 31 |
| 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: | 176 | 298 | 162 | 73 | 1025 | 56 | 40 | 1144 | 291 | 330 | 1137 | 31 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 176 | 298 | 162 | 73 | 1025 | 56 | 40 | 1144 | 291 | 330 | 1137 | 31 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 176 | 298 | 162 | 73 | 1025 | 56 | 40 | 1144 | 291 | 330 | 1137 | 31 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.29 | 0.71 | 1.00 | 1.90 | 0.10 | 1.00 | 1.59 | 0.41 | 1.00 | 1.95 | 0.05 |
| Final Sat.: | 1600 | 2072 | 1128 | 1600 | 3035 | 165 | 1600 | 2551 | 649 | 1600 | 3116 | 84 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.14 | 0.14 | 0.05 | 0.34 | 0.34 | 0.02 | 0.45 | 0.45 | 0.21 | 0.36 | 0.36 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Downey Road (NS) at Washington Boulevard (EW) - #13

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.868 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Downey Road | | | | | | | | | Washington Boulevard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Protected | | | | | | Protected | | | | | | Protected | | | | | | Protected | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Ovl | | | | | | Include | | | | | |
| Min. Green: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Lanes: | 1 | 0 | 2 | 0 | 1 | | 1 | 0 | 2 | 0 | 1 | | 1 | 0 | 2 | 0 | 1 | | 1 | 0 | 2 | 0 | 1 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 199 | | 960 | | 36 | | 35 | | 656 | | 208 | | 131 | | 108 | | 133 | | 79 | | 531 | | 87 | |
| Growth Adj: | 1.33 | | 1.33 | | 1.33 | | 1.33 | | 1.33 | | 1.33 | | 1.33 | | 1.33 | | 1.33 | | 1.33 | | 1.33 | | 1.33 | |
| Initial Bse: | 265 | | 1277 | | 48 | | 47 | | 872 | | 277 | | 174 | | 144 | | 177 | | 105 | | 706 | | 116 | |
| Added Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| PasserByVol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Initial Fut: | 265 | | 1277 | | 48 | | 47 | | 872 | | 277 | | 174 | | 144 | | 177 | | 105 | | 706 | | 116 | |
| 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: | 265 | | 1277 | | 48 | | 47 | | 872 | | 277 | | 174 | | 144 | | 177 | | 105 | | 706 | | 116 | |
| Reduct Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Reduced Vol: | 265 | | 1277 | | 48 | | 47 | | 872 | | 277 | | 174 | | 144 | | 177 | | 105 | | 706 | | 116 | |
| 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 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| FinalVolume: | 265 | | 1277 | | 48 | | 47 | | 872 | | 277 | | 174 | | 144 | | 177 | | 105 | | 706 | | 116 | |
| OvlAdjVol: | | | | | | | | | | | | | | | | | 0 | | | | | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | | 1600 | | 1600 | | 1600 | | 1600 | | 1600 | | 1600 | | 1600 | | 1600 | | 1600 | | 1600 | | 1600 | |
| 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 | | 1.00 | | 2.00 | | 1.00 | | 1.00 | | 2.00 | | 1.00 | | 1.00 | | 2.00 | | 1.00 | |
| Final Sat.: | 1600 | | 3200 | | 1600 | | 1600 | | 3200 | | 1600 | | 1600 | | 3200 | | 1600 | | 1600 | | 3200 | | 1600 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.17 | | 0.40 | | 0.03 | | 0.03 | | 0.27 | | 0.17 | | 0.11 | | 0.04 | | 0.11 | | 0.07 | | 0.22 | | 0.07 | |
| OvlAdjV/S: | | | | | | | | | | | | | | | | | 0.00 | | | | | | | |
| Crit Moves: | **** | | | | | | | | **** | | | | **** | | | | | | | | **** | | | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Downey Road (NS) at Washington Boulevard (EW) - #13

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.920 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Downey Road | | | | | | Washington Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 2 0 1 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 132 | 838 | 73 | 109 | 964 | 188 | 172 | 688 | 290 | 29 | 240 | 30 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 176 | 1115 | 97 | 145 | 1282 | 250 | 229 | 915 | 386 | 39 | 319 | 40 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 176 | 1115 | 97 | 145 | 1282 | 250 | 229 | 915 | 386 | 39 | 319 | 40 |
| 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: | 176 | 1115 | 97 | 145 | 1282 | 250 | 229 | 915 | 386 | 39 | 319 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 176 | 1115 | 97 | 145 | 1282 | 250 | 229 | 915 | 386 | 39 | 319 | 40 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 176 | 1115 | 97 | 145 | 1282 | 250 | 229 | 915 | 386 | 39 | 319 | 40 |
| OvlAdjVol: | | | | | | | | | 210 | | | |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.35 | 0.06 | 0.09 | 0.40 | 0.16 | 0.14 | 0.29 | 0.24 | 0.02 | 0.10 | 0.02 |
| OvlAdjV/S: | | | | | | | | | 0.13 | | | |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Downey Road (NS) at Bandini Boulevard (EW) - #14

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.902 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Downey Road | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 2 0 1 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 50 | 846 | 109 | 51 | 481 | 173 | 50 | 258 | 45 | 167 | 740 | 141 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 67 | 1125 | 145 | 68 | 640 | 230 | 67 | 343 | 60 | 222 | 984 | 188 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 67 | 1125 | 145 | 68 | 640 | 230 | 67 | 343 | 60 | 222 | 984 | 188 |
| 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: | 67 | 1125 | 145 | 68 | 640 | 230 | 67 | 343 | 60 | 222 | 984 | 188 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 67 | 1125 | 145 | 68 | 640 | 230 | 67 | 343 | 60 | 222 | 984 | 188 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 67 | 1125 | 145 | 68 | 640 | 230 | 67 | 343 | 60 | 222 | 984 | 188 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.68 | 0.32 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 2880 | 2688 | 512 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.35 | 0.09 | 0.04 | 0.20 | 0.14 | 0.04 | 0.11 | 0.04 | 0.08 | 0.37 | 0.37 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Downey Road (NS) at Bandini Boulevard (EW) - #14

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.942 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Downey Road | | | | | | | | | Bandini Boulevard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | | South Bound | | | | | East Bound | | | | | West Bound | | | |
| Movement: | L | - T | - | R | L | - T | - | R | | L | - T | - | R | | L | - T | - | R |
| Control: | Protected | | | | Protected | | | | | Protected | | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | | Include | | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 2 | 0 | 1 | 1 | 0 2 | 0 | 1 | | 1 | 0 2 | 0 | 1 | | 2 | 0 1 | 1 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | |
| Base Vol: | 50 | 843 | 204 | | 199 | 1022 | 81 | | | 150 | 611 | 205 | | | 156 | 291 | 82 | |
| Growth Adj: | 1.33 | 1.33 | 1.33 | | 1.33 | 1.33 | 1.33 | | | 1.33 | 1.33 | 1.33 | | | 1.33 | 1.33 | 1.33 | |
| Initial Bse: | 67 | 1121 | 271 | | 265 | 1359 | 108 | | | 200 | 813 | 273 | | | 207 | 387 | 109 | |
| Added Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | |
| PasserByVol: | 0 | 0 | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | |
| Initial Fut: | 67 | 1121 | 271 | | 265 | 1359 | 108 | | | 200 | 813 | 273 | | | 207 | 387 | 109 | |
| 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: | 67 | 1121 | 271 | | 265 | 1359 | 108 | | | 200 | 813 | 273 | | | 207 | 387 | 109 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | |
| Reduced Vol: | 67 | 1121 | 271 | | 265 | 1359 | 108 | | | 200 | 813 | 273 | | | 207 | 387 | 109 | |
| 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 | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | |
| FinalVolume: | 67 | 1121 | 271 | | 265 | 1359 | 108 | | | 200 | 813 | 273 | | | 207 | 387 | 109 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | | 1600 | 1600 | 1600 | | | 1600 | 1600 | 1600 | | | 1600 | 1600 | 1600 | |
| Adjustment: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 0.90 | 1.00 | 1.00 | |
| Lanes: | 1.00 | 2.00 | 1.00 | | 1.00 | 2.00 | 1.00 | | | 1.00 | 2.00 | 1.00 | | | 2.00 | 1.56 | 0.44 | |
| Final Sat.: | 1600 | 3200 | 1600 | | 1600 | 3200 | 1600 | | | 1600 | 3200 | 1600 | | | 2880 | 2497 | 703 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.35 | 0.17 | | 0.17 | 0.42 | 0.07 | | | 0.12 | 0.25 | 0.17 | | | 0.07 | 0.16 | 0.16 | |
| Crit Moves: | | **** | | | **** | | | | | | **** | | | | **** | | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Downey Road (NS) at Slauson Avenue (EW) - #15

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.974 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Downey Road | | | | | | | | | Slauson Avenue | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | | Permitted | | | | | Permitted | | | |
| Rights: | Include | | | | | Include | | | | Include | | | | | Include | | | |
| Min. Green: | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 |
| Lanes: | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | |
| Base Vol: | 8 | 20 | | 8 | | 131 | 42 | | 93 | 101 | 703 | | 20 | | 1 | 1134 | | 455 |
| Growth Adj: | 1.33 | 1.33 | | 1.33 | | 1.33 | 1.33 | | 1.33 | 1.33 | 1.33 | | 1.33 | | 1.33 | 1.33 | | 1.33 |
| Initial Bse: | 11 | 27 | | 11 | | 174 | 56 | | 124 | 134 | 935 | | 27 | | 1 | 1508 | | 605 |
| Added Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 |
| PasserByVol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 |
| Initial Fut: | 11 | 27 | | 11 | | 174 | 56 | | 124 | 134 | 935 | | 27 | | 1 | 1508 | | 605 |
| 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: | 11 | 27 | | 11 | | 174 | 56 | | 124 | 134 | 935 | | 27 | | 1 | 1508 | | 605 |
| Reduct Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | | 0 |
| Reduced Vol: | 11 | 27 | | 11 | | 174 | 56 | | 124 | 134 | 935 | | 27 | | 1 | 1508 | | 605 |
| 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 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| FinalVolume: | 11 | 27 | | 11 | | 174 | 56 | | 124 | 134 | 935 | | 27 | | 1 | 1508 | | 605 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 |
| 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 | 1.00 | | 1.00 | | 1.00 | 0.31 | | 0.69 | 1.00 | 1.94 | | 0.06 | | 0.00 | 1.43 | | 0.57 |
| Final Sat.: | 1600 | 1600 | | 1600 | | 1600 | 498 | | 1102 | 1600 | 3111 | | 89 | | 2 | 2282 | | 916 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.02 | | 0.01 | | 0.11 | 0.11 | | 0.11 | 0.08 | 0.30 | | 0.30 | | 0.00 | 0.66 | | 0.66 |
| Crit Moves: | | **** | | | | | | | **** | **** | | | | | | **** | | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Downey Road (NS) at Slauson Avenue (EW) - #15

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.970 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Downey Road | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 18 | 29 | 45 | 398 | 25 | 158 | 112 | 1068 | 4 | 1 | 829 | 153 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 24 | 39 | 60 | 529 | 33 | 210 | 149 | 1420 | 5 | 1 | 1103 | 203 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 24 | 39 | 60 | 529 | 33 | 210 | 149 | 1420 | 5 | 1 | 1103 | 203 |
| 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: | 24 | 39 | 60 | 529 | 33 | 210 | 149 | 1420 | 5 | 1 | 1103 | 203 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 24 | 39 | 60 | 529 | 33 | 210 | 149 | 1420 | 5 | 1 | 1103 | 203 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 24 | 39 | 60 | 529 | 33 | 210 | 149 | 1420 | 5 | 1 | 1103 | 203 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 1.00 | 1.00 | 0.14 | 0.86 | 1.00 | 1.99 | 0.01 | 0.00 | 1.69 | 0.31 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 219 | 1381 | 1600 | 3188 | 12 | 3 | 2699 | 498 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.02 | 0.04 | 0.33 | 0.15 | 0.15 | 0.09 | 0.45 | 0.45 | 0.00 | 0.41 | 0.41 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Atlantic Boulevard (NS) at Bandini Boulevard (EW) - #16

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.543 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Atlantic Boulevard | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 4 0 1 | | | 1 0 3 1 1 | | | 1 1 1 1 0 | | | 1 0 1 0 2 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 93 | 661 | 1149 | 22 | 622 | 717 | 178 | 519 | 139 | 200 | 236 | 170 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 124 | 879 | 1528 | 29 | 827 | 954 | 237 | 690 | 185 | 266 | 314 | 226 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 124 | 879 | 1528 | 29 | 827 | 954 | 237 | 690 | 185 | 266 | 314 | 226 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 124 | 879 | 1528 | 29 | 827 | 0 | 237 | 690 | 185 | 266 | 314 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 124 | 879 | 1528 | 29 | 827 | 0 | 237 | 690 | 185 | 266 | 314 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 124 | 879 | 1528 | 29 | 827 | 0 | 237 | 690 | 185 | 266 | 314 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 4.00 | 1.00 | 1.00 | 4.00 | 1.00 | 1.00 | 2.58 | 0.42 | 1.00 | 1.00 | 2.00 |
| Final Sat.: | 1600 | 6400 | 1600 | 1600 | 6400 | 1600 | 1600 | 4124 | 676 | 1600 | 1600 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.14 | 0.96 | 0.02 | 0.13 | 0.00 | 0.15 | 0.17 | 0.27 | 0.17 | 0.20 | 0.00 |
| Crit Moves: | | | **** | **** | | | | | **** | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Atlantic Boulevard (NS) at Bandini Boulevard (EW) - #16

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.433 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Atlantic Boulevard | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 4 0 1 | | | 1 0 3 1 1 | | | 1 1 1 1 0 | | | 1 0 1 0 2 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 53 | 710 | 798 | 34 | 1025 | 260 | 449 | 582 | 404 | 279 | 152 | 476 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 70 | 944 | 1061 | 45 | 1363 | 346 | 597 | 774 | 537 | 371 | 202 | 633 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 70 | 944 | 1061 | 45 | 1363 | 346 | 597 | 774 | 537 | 371 | 202 | 633 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 70 | 944 | 1061 | 45 | 1363 | 0 | 597 | 774 | 537 | 371 | 202 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 70 | 944 | 1061 | 45 | 1363 | 0 | 597 | 774 | 537 | 371 | 202 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 70 | 944 | 1061 | 45 | 1363 | 0 | 597 | 774 | 537 | 371 | 202 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 4.00 | 1.00 | 1.00 | 4.00 | 1.00 | 1.31 | 1.87 | 0.82 | 1.00 | 1.00 | 2.00 |
| Final Sat.: | 1600 | 6400 | 1600 | 1600 | 6400 | 1600 | 2090 | 2998 | 1311 | 1600 | 1600 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.15 | 0.66 | 0.03 | 0.21 | 0.00 | 0.29 | 0.26 | 0.41 | 0.23 | 0.13 | 0.00 |
| Crit Moves: | | | **** | **** | | | | | **** | **** | | |

Vernon General Plan Circulation Element Update
Existing
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Atlantic Boulevard (NS) at District Boulevard (EW) - #17

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.858 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Atlantic Boulevard | | | | | | District Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 1 0 | | | 1 0 3 0 1 | | | 2 0 1 0 1 | | | 0 1 1 0 1 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 279 | 1132 | 4 | 122 | 670 | 934 | 510 | 62 | 32 | 3 | 249 | 94 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 371 | 1506 | 5 | 162 | 891 | 1242 | 678 | 82 | 43 | 4 | 331 | 125 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 371 | 1506 | 5 | 162 | 891 | 1242 | 678 | 82 | 43 | 4 | 331 | 125 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 371 | 1506 | 5 | 162 | 891 | 0 | 678 | 82 | 43 | 4 | 331 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 371 | 1506 | 5 | 162 | 891 | 0 | 678 | 82 | 43 | 4 | 331 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 371 | 1506 | 5 | 162 | 891 | 0 | 678 | 82 | 43 | 4 | 331 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.99 | 0.01 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 1.00 | 0.02 | 1.98 | 1.00 |
| Final Sat.: | 1600 | 4783 | 17 | 1600 | 4800 | 1600 | 2880 | 1600 | 1600 | 38 | 3162 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.31 | 0.31 | 0.10 | 0.19 | 0.00 | 0.24 | 0.05 | 0.03 | 0.10 | 0.10 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Existing
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Atlantic Boulevard (NS) at District Boulevard (EW) - #17

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.975 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Atlantic Boulevard | | | | | | District Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 1 0 | | | 1 0 3 0 1 | | | 2 0 1 0 1 | | | 0 1 1 0 1 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 71 | 717 | 4 | 84 | 1158 | 351 | 1025 | 259 | 218 | 4 | 49 | 90 |
| Growth Adj: | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 |
| Initial Bse: | 94 | 954 | 5 | 112 | 1540 | 467 | 1363 | 344 | 290 | 5 | 65 | 120 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 94 | 954 | 5 | 112 | 1540 | 467 | 1363 | 344 | 290 | 5 | 65 | 120 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 94 | 954 | 5 | 112 | 1540 | 0 | 1363 | 344 | 290 | 5 | 65 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 94 | 954 | 5 | 112 | 1540 | 0 | 1363 | 344 | 290 | 5 | 65 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 94 | 954 | 5 | 112 | 1540 | 0 | 1363 | 344 | 290 | 5 | 65 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.98 | 0.02 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 1.00 | 0.15 | 1.85 | 1.00 |
| Final Sat.: | 1600 | 4773 | 27 | 1600 | 4800 | 1600 | 2880 | 1600 | 1600 | 242 | 2958 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.20 | 0.20 | 0.07 | 0.32 | 0.00 | 0.47 | 0.22 | 0.18 | 0.02 | 0.02 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |

**Current General Plan Year 2035**

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alameda Street (NS) at Vernon Avenue - West (EW) - #1a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.617 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 1 0 | | 0 1 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 53 | 1279 | 42 | 100 | 984 | 52 | 119 | 640 | 47 | 85 | 605 | 241 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 79 | 1906 | 63 | 149 | 1466 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 79 | 1906 | 63 | 149 | 1466 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| 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: | 79 | 1906 | 63 | 149 | 1466 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 79 | 1906 | 63 | 149 | 1466 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 79 | 1906 | 63 | 149 | 1466 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.90 | 0.10 | 0.30 | 1.59 | 0.12 | 0.18 | 1.30 | 0.52 |
| Final Sat.: | 1600 | 3098 | 102 | 1600 | 3039 | 161 | 472 | 2541 | 187 | 292 | 2079 | 828 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.62 | 0.62 | 0.09 | 0.48 | 0.48 | 0.38 | 0.38 | 0.38 | 0.43 | 0.43 | 0.43 |
| Crit Moves: | | **** | | **** | | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alameda Street (NS) at Vernon Avenue - West (EW) - #1a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.671 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 1 0 | | 0 1 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 50 | 1063 | 59 | 119 | 1008 | 74 | 201 | 639 | 93 | 128 | 718 | 235 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 75 | 1584 | 88 | 177 | 1502 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 75 | 1584 | 88 | 177 | 1502 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| 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: | 75 | 1584 | 88 | 177 | 1502 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 75 | 1584 | 88 | 177 | 1502 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 75 | 1584 | 88 | 177 | 1502 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.89 | 0.11 | 1.00 | 1.86 | 0.14 | 0.43 | 1.37 | 0.20 | 0.24 | 1.33 | 0.43 |
| Final Sat.: | 1600 | 3032 | 168 | 1600 | 2981 | 219 | 689 | 2192 | 319 | 379 | 2125 | 696 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.52 | 0.52 | 0.11 | 0.50 | 0.50 | 0.43 | 0.43 | 0.43 | 0.50 | 0.50 | 0.50 |
| Crit Moves: | | **** | | **** | | | | | **** | | | **** |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #101 Alameda Street (NS) at Vernon Avenue - East (EW) - #1b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.217 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (East) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 1 | 0 | 0 1 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 202 | 60 | 68 | 141 | 11 | 44 | 630 | 108 | 9 | 892 | 79 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| 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: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.10 | 0.70 | 0.21 | 0.31 | 0.64 | 0.05 | 0.11 | 1.61 | 0.28 | 0.02 | 1.98 | 1.00 |
| Final Sat.: | 154 | 1114 | 331 | 495 | 1025 | 80 | 180 | 2578 | 442 | 32 | 3168 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.27 | 0.27 | 0.06 | 0.20 | 0.20 | 0.36 | 0.36 | 0.36 | 0.42 | 0.42 | 0.07 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #101 Alameda Street (NS) at Vernon Avenue - East (EW) - #1b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.317 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (East) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 1 | 0 | 0 1 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 15 | 244 | 46 | 65 | 161 | 10 | 30 | 762 | 25 | 1 | 1056 | 45 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| 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: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.05 | 0.80 | 0.15 | 0.28 | 0.68 | 0.04 | 0.07 | 1.87 | 0.06 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 79 | 1280 | 241 | 441 | 1092 | 68 | 118 | 2985 | 98 | 3 | 3197 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.28 | 0.28 | 0.06 | 0.22 | 0.22 | 0.38 | 0.38 | 0.38 | 0.49 | 0.49 | 0.04 |
| Crit Moves: | | **** | | **** | | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Alameda Street (NS) at 55th Street - West (EW) - #2a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.482 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 0 1 | | 0 0 1! | 0 0 | |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 36 | 1315 | 38 | 80 | 660 | 90 | 119 | 362 | 27 | 11 | 171 | 65 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 54 | 1959 | 57 | 119 | 983 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 54 | 1959 | 57 | 119 | 983 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| 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: | 54 | 1959 | 57 | 119 | 983 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 54 | 1959 | 57 | 119 | 983 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 54 | 1959 | 57 | 119 | 983 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.76 | 0.24 | 0.25 | 0.75 | 1.00 | 0.04 | 0.69 | 0.26 |
| Final Sat.: | 1600 | 3110 | 90 | 1600 | 2816 | 384 | 396 | 1204 | 1600 | 71 | 1108 | 421 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.63 | 0.63 | 0.07 | 0.35 | 0.35 | 0.45 | 0.45 | 0.03 | 0.23 | 0.23 | 0.23 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Alameda Street (NS) at 55th Street - West (EW) - #2a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.692 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 32 | 957 | 16 | 82 | 1066 | 139 | 102 | 246 | 42 | 48 | 533 | 146 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 48 | 1426 | 24 | 122 | 1588 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 48 | 1426 | 24 | 122 | 1588 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| 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: | 48 | 1426 | 24 | 122 | 1588 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 48 | 1426 | 24 | 122 | 1588 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 48 | 1426 | 24 | 122 | 1588 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.97 | 0.03 | 1.00 | 1.77 | 0.23 | 0.29 | 0.71 | 1.00 | 0.07 | 0.73 | 0.20 |
| Final Sat.: | 1600 | 3147 | 53 | 1600 | 2831 | 369 | 469 | 1131 | 1600 | 106 | 1173 | 321 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.45 | 0.45 | 0.08 | 0.56 | 0.56 | 0.32 | 0.32 | 0.04 | 0.68 | 0.68 | 0.68 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #102 Alameda Street (NS) at 55th Street - East (EW) - #2b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.811 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Alameda Street (East) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 8 | 54 | 14 | 5 | 13 | 38 | 199 | 257 | 24 | 2 | 201 | 13 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| 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: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.11 | 0.71 | 0.18 | 0.09 | 0.23 | 0.68 | 0.41 | 0.54 | 0.05 | 0.01 | 0.99 | 1.00 |
| Final Sat.: | 168 | 1137 | 295 | 143 | 371 | 1086 | 663 | 857 | 80 | 16 | 1584 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.07 | 0.07 | 0.00 | 0.05 | 0.05 | 0.45 | 0.45 | 0.45 | 0.19 | 0.19 | 0.01 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #102 Alameda Street (NS) at 55th Street - East (EW) - #2b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.153 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (East) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 6 | 41 | 9 | 24 | 35 | 206 | 44 | 288 | 12 | 1 | 515 | 8 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| 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: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.11 | 0.73 | 0.16 | 0.09 | 0.13 | 0.78 | 0.13 | 0.84 | 0.03 | 0.00 | 1.00 | 1.00 |
| Final Sat.: | 171 | 1171 | 257 | 145 | 211 | 1244 | 205 | 1340 | 56 | 3 | 1597 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.05 | 0.05 | 0.02 | 0.25 | 0.25 | 0.32 | 0.32 | 0.32 | 0.48 | 0.48 | 0.01 |
| Crit Moves: | **** | | | | **** | | | | **** | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Fe Avenue (NS) at 25th Street (EW) - #3

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.986 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Santa Fe Avenue | | | | | | 25th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 1 0 1 | | | 1 0 0 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 77 | 1177 | 113 | 77 | 1016 | 45 | 23 | 71 | 70 | 142 | 160 | 103 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 115 | 1754 | 168 | 115 | 1514 | 67 | 34 | 106 | 104 | 212 | 238 | 153 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 115 | 1754 | 168 | 115 | 1514 | 67 | 34 | 106 | 104 | 212 | 238 | 153 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 115 | 1754 | 0 | 115 | 1514 | 0 | 34 | 106 | 104 | 212 | 238 | 153 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 115 | 1754 | 0 | 115 | 1514 | 0 | 34 | 106 | 104 | 212 | 238 | 153 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 115 | 1754 | 0 | 115 | 1514 | 0 | 34 | 106 | 104 | 212 | 238 | 153 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.61 | 0.39 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1600 | 1600 | 1600 | 973 | 627 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.55 | 0.00 | 0.07 | 0.47 | 0.00 | 0.02 | 0.07 | 0.07 | 0.13 | 0.24 | 0.24 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Fe Avenue (NS) at 25th Street (EW) - #3

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.124 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | 25th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 80 | 1072 | 133 | 105 | 1108 | 21 | 253 | 244 | 93 | 117 | 138 | 68 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 119 | 1597 | 198 | 156 | 1651 | 31 | 377 | 364 | 139 | 174 | 206 | 101 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 119 | 1597 | 198 | 156 | 1651 | 31 | 377 | 364 | 139 | 174 | 206 | 101 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 119 | 1597 | 0 | 156 | 1651 | 0 | 377 | 364 | 139 | 174 | 206 | 101 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 119 | 1597 | 0 | 156 | 1651 | 0 | 377 | 364 | 139 | 174 | 206 | 101 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 119 | 1597 | 0 | 156 | 1651 | 0 | 377 | 364 | 139 | 174 | 206 | 101 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.33 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1600 | 1600 | 1600 | 1072 | 528 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.50 | 0.00 | 0.10 | 0.52 | 0.00 | 0.24 | 0.23 | 0.09 | 0.11 | 0.19 | 0.19 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

**********

Intersection #4 Santa Fe Avenue (NS) at 38th Street (EW) - #4

**********

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.059 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

**********

| Street Name: | Santa Fe Avenue | | | | | | 38th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 102 | 1304 | 178 | 94 | 967 | 151 | 28 | 167 | 61 | 0 | 0 | 0 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 152 | 1943 | 265 | 140 | 1441 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 152 | 1943 | 265 | 140 | 1441 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| 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: | 152 | 1943 | 265 | 140 | 1441 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 152 | 1943 | 265 | 140 | 1441 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 152 | 1943 | 265 | 140 | 1441 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.76 | 0.24 | 1.00 | 1.73 | 0.27 | 0.14 | 0.86 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1600 | 2816 | 384 | 1600 | 2768 | 432 | 230 | 1370 | 1600 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.69 | 0.69 | 0.09 | 0.52 | 0.52 | 0.03 | 0.18 | 0.06 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |

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Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Fe Avenue (NS) at 38th Street (EW) - #4

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.121 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | 38th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 95 | 978 | 219 | 151 | 1346 | 122 | 20 | 247 | 80 | 0 | 0 | 0 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 142 | 1457 | 326 | 225 | 2006 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 142 | 1457 | 326 | 225 | 2006 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| 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: | 142 | 1457 | 326 | 225 | 2006 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 142 | 1457 | 326 | 225 | 2006 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 142 | 1457 | 326 | 225 | 2006 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.63 | 0.37 | 1.00 | 1.83 | 0.17 | 0.07 | 0.93 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1600 | 2615 | 585 | 1600 | 2934 | 266 | 120 | 1480 | 1600 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.56 | 0.56 | 0.14 | 0.68 | 0.68 | 0.02 | 0.25 | 0.07 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Fe Avenue (NS) at Vernon Avenue (EW) - #5

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.077 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 0 1! | 0 0 | | 0 1 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 2 | 1517 | 109 | 79 | 962 | 4 | 2 | 10 | 3 | 142 | 4 | 138 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 3 | 2260 | 162 | 118 | 1433 | 6 | 3 | 15 | 4 | 212 | 6 | 206 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 3 | 2260 | 162 | 118 | 1433 | 6 | 3 | 15 | 4 | 212 | 6 | 206 |
| 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: | 3 | 2260 | 162 | 118 | 1433 | 6 | 3 | 15 | 4 | 212 | 6 | 206 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 3 | 2260 | 162 | 118 | 1433 | 6 | 3 | 15 | 4 | 212 | 6 | 206 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 3 | 2260 | 162 | 118 | 1433 | 6 | 3 | 15 | 4 | 212 | 6 | 206 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.87 | 0.13 | 1.00 | 1.99 | 0.01 | 0.13 | 0.67 | 0.20 | 1.00 | 0.03 | 0.97 |
| Final Sat.: | 1600 | 2985 | 215 | 1600 | 3187 | 13 | 213 | 1067 | 320 | 1600 | 45 | 1555 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.76 | 0.76 | 0.07 | 0.45 | 0.45 | 0.00 | 0.01 | 0.01 | 0.13 | 0.13 | 0.13 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Fe Avenue (NS) at Vernon Avenue (EW) - #5

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.022 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 3 | 1199 | 108 | 122 | 1245 | 1 | 24 | 20 | 6 | 165 | 7 | 117 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 4 | 1787 | 161 | 182 | 1855 | 1 | 36 | 30 | 9 | 246 | 10 | 174 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 1787 | 161 | 182 | 1855 | 1 | 36 | 30 | 9 | 246 | 10 | 174 |
| 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: | 4 | 1787 | 161 | 182 | 1855 | 1 | 36 | 30 | 9 | 246 | 10 | 174 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 1787 | 161 | 182 | 1855 | 1 | 36 | 30 | 9 | 246 | 10 | 174 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 1787 | 161 | 182 | 1855 | 1 | 36 | 30 | 9 | 246 | 10 | 174 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.83 | 0.17 | 1.00 | 2.00 | 0.00 | 0.48 | 0.40 | 0.12 | 1.00 | 0.19 | 0.81 |
| Final Sat.: | 1600 | 2936 | 264 | 1600 | 3197 | 3 | 768 | 640 | 192 | 1600 | 304 | 1296 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.61 | 0.61 | 0.11 | 0.58 | 0.58 | 0.02 | 0.05 | 0.05 | 0.15 | 0.03 | 0.13 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #6 Santa Fe Avenue (NS) at Vernon Avenue/Pacific Boulevard (EW) - #

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| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.017 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

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| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue/Pacific Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Protected | | | Protected | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 89 | 997 | 19 | 94 | 770 | 240 | 142 | 235 | 90 | 26 | 384 | 482 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 133 | 1486 | 28 | 140 | 1147 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 133 | 1486 | 28 | 140 | 1147 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| 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: | 133 | 1486 | 28 | 140 | 1147 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 133 | 1486 | 28 | 140 | 1147 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 133 | 1486 | 28 | 140 | 1147 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.96 | 0.04 | 1.00 | 1.52 | 0.48 | 1.00 | 2.17 | 0.83 | 1.00 | 2.00 | 2.00 |
| Final Sat.: | 1600 | 3140 | 60 | 1600 | 2440 | 760 | 1600 | 3471 | 1329 | 1600 | 3200 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.47 | 0.47 | 0.09 | 0.47 | 0.47 | 0.13 | 0.10 | 0.10 | 0.02 | 0.18 | 0.22 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |

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Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #6 Santa Fe Avenue (NS) at Vernon Avenue/Pacific Boulevard (EW) - #

**********

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.061 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

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| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue/Pacific Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Protected | | | Protected | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 100 | 863 | 26 | 170 | 1083 | 155 | 170 | 358 | 64 | 30 | 285 | 267 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 149 | 1286 | 39 | 253 | 1614 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 149 | 1286 | 39 | 253 | 1614 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| 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: | 149 | 1286 | 39 | 253 | 1614 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 149 | 1286 | 39 | 253 | 1614 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 149 | 1286 | 39 | 253 | 1614 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.75 | 0.25 | 1.00 | 2.55 | 0.46 | 1.00 | 2.00 | 2.00 |
| Final Sat.: | 1600 | 3106 | 94 | 1600 | 2799 | 401 | 1600 | 4072 | 728 | 1600 | 3200 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.41 | 0.41 | 0.16 | 0.58 | 0.58 | 0.16 | 0.13 | 0.13 | 0.03 | 0.13 | 0.12 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |

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Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #7 Soto Street (NS) at 26th Street (EW) - #7

**********

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.118 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

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| Street Name: | Soto Street | | | | | | 26th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 121 | 1203 | 56 | 117 | 1069 | 104 | 39 | 92 | 43 | 27 | 240 | 96 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 180 | 1792 | 83 | 174 | 1593 | 155 | 58 | 137 | 64 | 40 | 358 | 143 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 180 | 1792 | 83 | 174 | 1593 | 155 | 58 | 137 | 64 | 40 | 358 | 143 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 180 | 1792 | 0 | 174 | 1593 | 155 | 58 | 137 | 64 | 40 | 358 | 143 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 180 | 1792 | 0 | 174 | 1593 | 155 | 58 | 137 | 64 | 40 | 358 | 143 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 180 | 1792 | 0 | 174 | 1593 | 155 | 58 | 137 | 64 | 40 | 358 | 143 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 0.68 | 0.32 | 1.00 | 0.71 | 0.29 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1090 | 510 | 1600 | 1143 | 457 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.56 | 0.00 | 0.11 | 0.50 | 0.10 | 0.04 | 0.13 | 0.13 | 0.03 | 0.31 | 0.31 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

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Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Soto Street (NS) at 26th Street (EW) - #7

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.311 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | 26th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 0 1 0 | | | 1 0 0 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 59 | 1178 | 46 | 225 | 1407 | 51 | 97 | 385 | 65 | 36 | 112 | 149 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 88 | 1755 | 69 | 335 | 2096 | 76 | 145 | 574 | 97 | 54 | 167 | 222 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 88 | 1755 | 69 | 335 | 2096 | 76 | 145 | 574 | 97 | 54 | 167 | 222 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 88 | 1755 | 0 | 335 | 2096 | 76 | 145 | 574 | 97 | 54 | 167 | 222 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 88 | 1755 | 0 | 335 | 2096 | 76 | 145 | 574 | 97 | 54 | 167 | 222 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 88 | 1755 | 0 | 335 | 2096 | 76 | 145 | 574 | 97 | 54 | 167 | 222 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 0.86 | 0.14 | 1.00 | 0.43 | 0.57 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1369 | 231 | 1600 | 687 | 913 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.55 | 0.00 | 0.21 | 0.66 | 0.05 | 0.09 | 0.42 | 0.42 | 0.03 | 0.24 | 0.24 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Soto Street (NS) at Bandini Boulevard (EW) - #8

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.053 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 69 | 1166 | 84 | 56 | 966 | 127 | 102 | 303 | 59 | 165 | 619 | 103 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 103 | 1737 | 125 | 83 | 1439 | 189 | 152 | 451 | 88 | 246 | 922 | 153 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 103 | 1737 | 125 | 83 | 1439 | 189 | 152 | 451 | 88 | 246 | 922 | 153 |
| 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: | 103 | 1737 | 125 | 83 | 1439 | 189 | 152 | 451 | 88 | 246 | 922 | 153 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 103 | 1737 | 125 | 83 | 1439 | 189 | 152 | 451 | 88 | 246 | 922 | 153 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 103 | 1737 | 125 | 83 | 1439 | 189 | 152 | 451 | 88 | 246 | 922 | 153 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.87 | 0.13 | 1.00 | 1.77 | 0.23 | 1.00 | 2.51 | 0.49 | 1.00 | 2.57 | 0.43 |
| Final Sat.: | 1600 | 2985 | 215 | 1600 | 2828 | 372 | 1600 | 4018 | 782 | 1600 | 4115 | 685 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.58 | 0.58 | 0.05 | 0.51 | 0.51 | 0.09 | 0.11 | 0.11 | 0.15 | 0.22 | 0.22 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Soto Street (NS) at Bandini Boulevard (EW) - #8

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.111 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 2 | 1 0 | | 1 0 2 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 39 | 1033 | 130 | 116 | 1348 | 75 | 170 | 574 | 60 | 124 | 377 | 62 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 58 | 1539 | 194 | 173 | 2009 | 112 | 253 | 855 | 89 | 185 | 562 | 92 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 58 | 1539 | 194 | 173 | 2009 | 112 | 253 | 855 | 89 | 185 | 562 | 92 |
| 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: | 58 | 1539 | 194 | 173 | 2009 | 112 | 253 | 855 | 89 | 185 | 562 | 92 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 58 | 1539 | 194 | 173 | 2009 | 112 | 253 | 855 | 89 | 185 | 562 | 92 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 58 | 1539 | 194 | 173 | 2009 | 112 | 253 | 855 | 89 | 185 | 562 | 92 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.78 | 0.22 | 1.00 | 1.89 | 0.11 | 1.00 | 2.72 | 0.28 | 1.00 | 2.58 | 0.42 |
| Final Sat.: | 1600 | 2842 | 358 | 1600 | 3031 | 169 | 1600 | 4346 | 454 | 1600 | 4122 | 678 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.54 | 0.54 | 0.11 | 0.66 | 0.66 | 0.16 | 0.20 | 0.20 | 0.12 | 0.14 | 0.14 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 Soto Street (NS) at Vernon Avenue (EW) - #9

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.953 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Soto Street | | | | | | Vernon Avenuie | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 62 | 1028 | 20 | 63 | 899 | 112 | 53 | 83 | 39 | 9 | 168 | 241 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 92 | 1532 | 30 | 94 | 1340 | 167 | 79 | 124 | 58 | 13 | 250 | 359 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 92 | 1532 | 30 | 94 | 1340 | 167 | 79 | 124 | 58 | 13 | 250 | 359 |
| 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: | 92 | 1532 | 30 | 94 | 1340 | 167 | 79 | 124 | 58 | 13 | 250 | 359 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 92 | 1532 | 30 | 94 | 1340 | 167 | 79 | 124 | 58 | 13 | 250 | 359 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 92 | 1532 | 30 | 94 | 1340 | 167 | 79 | 124 | 58 | 13 | 250 | 359 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.96 | 0.04 | 1.00 | 1.78 | 0.22 | 0.61 | 0.95 | 0.45 | 0.04 | 0.96 | 1.00 |
| Final Sat.: | 1600 | 3139 | 61 | 1600 | 2845 | 355 | 969 | 1518 | 713 | 69 | 1531 | 1600 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.49 | 0.49 | 0.06 | 0.47 | 0.47 | 0.08 | 0.08 | 0.08 | 0.19 | 0.16 | 0.22 |
| Crit Moves: | | **** | | **** | | | | **** | | | | **** |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 Soto Street (NS) at Vernon Avenue (EW) - #9

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.050 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | Vernon Avenuie | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 1 0 | | 0 1 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 48 | 872 | 14 | 141 | 1268 | 48 | 106 | 204 | 76 | 22 | 98 | 121 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 72 | 1299 | 21 | 210 | 1889 | 72 | 158 | 304 | 113 | 33 | 146 | 180 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 72 | 1299 | 21 | 210 | 1889 | 72 | 158 | 304 | 113 | 33 | 146 | 180 |
| 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: | 72 | 1299 | 21 | 210 | 1889 | 72 | 158 | 304 | 113 | 33 | 146 | 180 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 72 | 1299 | 21 | 210 | 1889 | 72 | 158 | 304 | 113 | 33 | 146 | 180 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 72 | 1299 | 21 | 210 | 1889 | 72 | 158 | 304 | 113 | 33 | 146 | 180 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.97 | 0.03 | 1.00 | 1.93 | 0.07 | 0.55 | 1.06 | 0.39 | 0.18 | 0.82 | 1.00 |
| Final Sat.: | 1600 | 3149 | 51 | 1600 | 3083 | 117 | 879 | 1691 | 630 | 292 | 1308 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.41 | 0.41 | 0.13 | 0.61 | 0.61 | 0.18 | 0.18 | 0.18 | 0.11 | 0.11 | 0.11 |
| Crit Moves: | **** | | | | **** | | | | **** | | | **** |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Soto Street (NS) at Leonis Boulevard (EW) - #10

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.969 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Soto Street | | | | | | Leonis Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 41 | 880 | 46 | 81 | 635 | 62 | 76 | 212 | 21 | 88 | 494 | 132 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 61 | 1311 | 69 | 121 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 197 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 61 | 1311 | 69 | 121 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 197 |
| 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: | 61 | 1311 | 69 | 121 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 197 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 61 | 1311 | 69 | 121 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 197 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 61 | 1311 | 69 | 121 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 197 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.90 | 0.10 | 1.00 | 1.82 | 0.18 | 1.00 | 1.82 | 0.18 | 1.00 | 1.58 | 0.42 |
| Final Sat.: | 1600 | 3041 | 159 | 1600 | 2915 | 285 | 1600 | 2912 | 288 | 1600 | 2525 | 675 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.43 | 0.43 | 0.08 | 0.32 | 0.32 | 0.07 | 0.11 | 0.11 | 0.08 | 0.29 | 0.29 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Soto Street (NS) at Leonis Boulevard (EW) - #10

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.899 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Soto Street | | | | | | Leonis Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 19 | 674 | 93 | 124 | 1069 | 59 | 84 | 384 | 43 | 62 | 281 | 98 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 28 | 1004 | 139 | 185 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 146 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 28 | 1004 | 139 | 185 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 146 |
| 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: | 28 | 1004 | 139 | 185 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 146 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 28 | 1004 | 139 | 185 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 146 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 28 | 1004 | 139 | 185 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 146 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.76 | 0.24 | 1.00 | 1.90 | 0.10 | 1.00 | 1.80 | 0.20 | 1.00 | 1.48 | 0.52 |
| Final Sat.: | 1600 | 2812 | 388 | 1600 | 3033 | 167 | 1600 | 2878 | 322 | 1600 | 2373 | 827 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.36 | 0.36 | 0.12 | 0.53 | 0.53 | 0.08 | 0.20 | 0.20 | 0.06 | 0.18 | 0.18 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Soto Street (NS) at Fruitland Avenue (EW) - #11

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.891 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Soto Street | | | | | | Fruitland Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 0 | 1 0 | | 1 0 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 89 | 798 | 25 | 44 | 509 | 184 | 85 | 140 | 23 | 28 | 235 | 74 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| 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: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.47 | 0.53 | 1.00 | 0.86 | 0.14 | 1.00 | 0.76 | 0.24 |
| Final Sat.: | 1600 | 3103 | 97 | 1600 | 2350 | 850 | 1600 | 1374 | 226 | 1600 | 1217 | 383 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.38 | 0.38 | 0.04 | 0.32 | 0.32 | 0.08 | 0.15 | 0.15 | 0.03 | 0.29 | 0.29 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #11 Soto Street (NS) at Fruitland Avenue (EW) - #11

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| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.973 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

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| Street Name: | Soto Street | | | | | | Fruitland Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 51 | 544 | 36 | 86 | 862 | 93 | 169 | 335 | 49 | 25 | 169 | 52 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| 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: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.88 | 0.12 | 1.00 | 1.81 | 0.19 | 1.00 | 0.87 | 0.13 | 1.00 | 0.76 | 0.24 |
| Final Sat.: | 1600 | 3001 | 199 | 1600 | 2888 | 312 | 1600 | 1396 | 204 | 1600 | 1224 | 376 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.27 | 0.27 | 0.08 | 0.44 | 0.44 | 0.16 | 0.36 | 0.36 | 0.02 | 0.21 | 0.21 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

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Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Boyle Avenue/State Street (NS) at Slauson Avenue (EW) - #12

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.199 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Boyle Avenue/State Street | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 280 | 909 | 235 | 19 | 162 | 22 | 59 | 688 | 129 | 181 | 859 | 45 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1280 | 67 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1280 | 67 |
| 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: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1280 | 67 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1280 | 67 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1280 | 67 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.59 | 0.41 | 1.00 | 1.76 | 0.24 | 1.00 | 1.68 | 0.32 | 1.00 | 1.90 | 0.10 |
| Final Sat.: | 1600 | 2543 | 657 | 1600 | 2817 | 383 | 1600 | 2695 | 505 | 1600 | 3041 | 159 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.26 | 0.53 | 0.53 | 0.02 | 0.09 | 0.09 | 0.05 | 0.38 | 0.38 | 0.17 | 0.42 | 0.42 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #12 Boyle Avenue/State Street (NS) at Slauson Avenue (EW) - #12

**********

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.335 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

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| Street Name: | Boyle Avenue/State Street | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 132 | 224 | 122 | 55 | 771 | 42 | 30 | 860 | 219 | 248 | 855 | 23 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1281 | 326 | 370 | 1274 | 34 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1281 | 326 | 370 | 1274 | 34 |
| 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: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1281 | 326 | 370 | 1274 | 34 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1281 | 326 | 370 | 1274 | 34 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1281 | 326 | 370 | 1274 | 34 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.29 | 0.71 | 1.00 | 1.90 | 0.10 | 1.00 | 1.59 | 0.41 | 1.00 | 1.95 | 0.05 |
| Final Sat.: | 1600 | 2072 | 1128 | 1600 | 3035 | 165 | 1600 | 2551 | 649 | 1600 | 3116 | 84 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.16 | 0.16 | 0.05 | 0.38 | 0.38 | 0.03 | 0.50 | 0.50 | 0.23 | 0.41 | 0.41 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

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Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Downey Road (NS) at Washington Boulevard (EW) - #13

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.960 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Downey Road | | | | | | | | | Washington Boulevard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | | | South Bound | | | | East Bound | | | | | West Bound | | | |
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Protected | | | | | Protected | | | | | Protected | | | | | Protected | | | | |
| Rights: | Include | | | | | Include | | | | | Ovl | | | | | Include | | | | |
| Min. Green: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 199 | 960 | | 36 | | 35 | 656 | | 208 | | 131 | 108 | | 133 | | 79 | 531 | | 87 | |
| Growth Adj: | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | |
| Initial Bse: | 297 | 1430 | | 54 | | 52 | 977 | | 310 | | 195 | 161 | | 198 | | 118 | 791 | | 130 | |
| Added Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| PasserByVol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Initial Fut: | 297 | 1430 | | 54 | | 52 | 977 | | 310 | | 195 | 161 | | 198 | | 118 | 791 | | 130 | |
| 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: | 297 | 1430 | | 54 | | 52 | 977 | | 310 | | 195 | 161 | | 198 | | 118 | 791 | | 130 | |
| Reduct Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Reduced Vol: | 297 | 1430 | | 54 | | 52 | 977 | | 310 | | 195 | 161 | | 198 | | 118 | 791 | | 130 | |
| 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 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | |
| FinalVolume: | 297 | 1430 | | 54 | | 52 | 977 | | 310 | | 195 | 161 | | 198 | | 118 | 791 | | 130 | |
| OvlAdjVol: | | | | | | | | | | | | | | 0 | | | | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | |
| 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 | | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | |
| Final Sat.: | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.19 | 0.45 | | 0.03 | | 0.03 | 0.31 | | 0.19 | | 0.12 | 0.05 | | 0.12 | | 0.07 | 0.25 | | 0.08 | |
| OvlAdjV/S: | | | | | | | | | | | | | | 0.00 | | | | | | |
| Crit Moves: | **** | | | | | | **** | | | | **** | | | | | | **** | | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #13 Downey Road (NS) at Washington Boulevard (EW) - #13

**********

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.019 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

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| Street Name: | Downey Road | | | | | | Washington Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 2 0 1 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 132 | 838 | 73 | 109 | 964 | 188 | 172 | 688 | 290 | 29 | 240 | 30 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 197 | 1249 | 109 | 162 | 1436 | 280 | 256 | 1025 | 432 | 43 | 358 | 45 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 197 | 1249 | 109 | 162 | 1436 | 280 | 256 | 1025 | 432 | 43 | 358 | 45 |
| 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: | 197 | 1249 | 109 | 162 | 1436 | 280 | 256 | 1025 | 432 | 43 | 358 | 45 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 197 | 1249 | 109 | 162 | 1436 | 280 | 256 | 1025 | 432 | 43 | 358 | 45 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 197 | 1249 | 109 | 162 | 1436 | 280 | 256 | 1025 | 432 | 43 | 358 | 45 |
| OvlAdjVol: | | | | | | | | | 235 | | | |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.39 | 0.07 | 0.10 | 0.45 | 0.18 | 0.16 | 0.32 | 0.27 | 0.03 | 0.11 | 0.03 |
| OvlAdjV/S: | | | | | | | | | 0.15 | | | |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

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Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Downey Road (NS) at Bandini Boulevard (EW) - #14

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.998 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Downey Road | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 2 0 1 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 50 | 846 | 109 | 51 | 481 | 173 | 50 | 258 | 45 | 167 | 740 | 141 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 75 | 1261 | 162 | 76 | 717 | 258 | 75 | 384 | 67 | 249 | 1103 | 210 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 75 | 1261 | 162 | 76 | 717 | 258 | 75 | 384 | 67 | 249 | 1103 | 210 |
| 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: | 75 | 1261 | 162 | 76 | 717 | 258 | 75 | 384 | 67 | 249 | 1103 | 210 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 75 | 1261 | 162 | 76 | 717 | 258 | 75 | 384 | 67 | 249 | 1103 | 210 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 75 | 1261 | 162 | 76 | 717 | 258 | 75 | 384 | 67 | 249 | 1103 | 210 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.68 | 0.32 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 2880 | 2688 | 512 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.39 | 0.10 | 0.05 | 0.22 | 0.16 | 0.05 | 0.12 | 0.04 | 0.09 | 0.41 | 0.41 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Downey Road (NS) at Bandini Boulevard (EW) - #14

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.043 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Downey Road | | | | | | | | | Bandini Boulevard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | | | South Bound | | | | East Bound | | | | | West Bound | | | |
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Protected | | | | | Protected | | | | | Protected | | | | | Protected | | | | |
| Rights: | Include | | | | | Include | | | | | Include | | | | | Include | | | | |
| Min. Green: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 50 | 843 | | 204 | | 199 | 1022 | | 81 | | 150 | 611 | | 205 | | 156 | 291 | | 82 | |
| Growth Adj: | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | |
| Initial Bse: | 75 | 1256 | | 304 | | 297 | 1523 | | 121 | | 224 | 910 | | 305 | | 232 | 434 | | 122 | |
| Added Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| PasserByVol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Initial Fut: | 75 | 1256 | | 304 | | 297 | 1523 | | 121 | | 224 | 910 | | 305 | | 232 | 434 | | 122 | |
| 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: | 75 | 1256 | | 304 | | 297 | 1523 | | 121 | | 224 | 910 | | 305 | | 232 | 434 | | 122 | |
| Reduct Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Reduced Vol: | 75 | 1256 | | 304 | | 297 | 1523 | | 121 | | 224 | 910 | | 305 | | 232 | 434 | | 122 | |
| 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 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | |
| FinalVolume: | 75 | 1256 | | 304 | | 297 | 1523 | | 121 | | 224 | 910 | | 305 | | 232 | 434 | | 122 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | |
| Adjustment: | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 0.90 | 1.00 | | 1.00 | |
| Lanes: | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | | 2.00 | 1.56 | | 0.44 | |
| Final Sat.: | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 2880 | 2497 | | 703 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.39 | | 0.19 | | 0.19 | 0.48 | | 0.08 | | 0.14 | 0.28 | | 0.19 | | 0.08 | 0.17 | | 0.17 | |
| Crit Moves: | | **** | | | | **** | | | | | | **** | | | | **** | | | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Downey Road (NS) at Slauson Avenue (EW) - #15

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.079 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Downey Road | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 0 1 | | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 8 | 20 | 8 | 131 | 42 | 93 | 101 | 703 | 20 | 1 | 1134 | 455 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 12 | 30 | 12 | 195 | 63 | 139 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 12 | 30 | 12 | 195 | 63 | 139 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| 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: | 12 | 30 | 12 | 195 | 63 | 139 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 12 | 30 | 12 | 195 | 63 | 139 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 12 | 30 | 12 | 195 | 63 | 139 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 1.00 | 1.00 | 0.31 | 0.69 | 1.00 | 1.94 | 0.06 | 0.00 | 1.43 | 0.57 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 498 | 1102 | 1600 | 3111 | 89 | 2 | 2282 | 916 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.02 | 0.01 | 0.12 | 0.13 | 0.13 | 0.09 | 0.34 | 0.34 | 0.00 | 0.74 | 0.74 |
| Crit Moves: | | **** | | | | **** | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Downey Road (NS) at Slauson Avenue (EW) - #15

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.075 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Downey Road | | | | | | | | | Slauson Avenue | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | | | Permitted | | | | | Permitted | | | | |
| Rights: | Include | | | | | Include | | | | | Include | | | | | Include | | | | |
| Min. Green: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Lanes: | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 18 | | 29 | | 45 | 398 | | 25 | | 158 | 112 | | 1068 | | 4 | 1 | | 829 | | 153 |
| Growth Adj: | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 |
| Initial Bse: | 27 | | 43 | | 67 | 593 | | 37 | | 235 | 167 | | 1591 | | 6 | 1 | | 1235 | | 228 |
| Added Vol: | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 |
| PasserByVol: | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 |
| Initial Fut: | 27 | | 43 | | 67 | 593 | | 37 | | 235 | 167 | | 1591 | | 6 | 1 | | 1235 | | 228 |
| 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: | 27 | | 43 | | 67 | 593 | | 37 | | 235 | 167 | | 1591 | | 6 | 1 | | 1235 | | 228 |
| Reduct Vol: | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 |
| Reduced Vol: | 27 | | 43 | | 67 | 593 | | 37 | | 235 | 167 | | 1591 | | 6 | 1 | | 1235 | | 228 |
| 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 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 |
| FinalVolume: | 27 | | 43 | | 67 | 593 | | 37 | | 235 | 167 | | 1591 | | 6 | 1 | | 1235 | | 228 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 |
| 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 | | 1.00 | | 1.00 | 1.00 | | 0.14 | | 0.86 | 1.00 | | 1.99 | | 0.01 | 0.00 | | 1.69 | | 0.31 |
| Final Sat.: | 1600 | | 1600 | | 1600 | 1600 | | 219 | | 1381 | 1600 | | 3188 | | 12 | 3 | | 2699 | | 498 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | | 0.03 | | 0.04 | 0.37 | | 0.17 | | 0.17 | 0.10 | | 0.50 | | 0.50 | 0.00 | | 0.46 | | 0.46 |
| Crit Moves: | | | | | **** | **** | | | | | **** | | | | | | | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Atlantic Boulevard (NS) at Bandini Boulevard (EW) - #16

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.717 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Atlantic Boulevard | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 4 0 1 | | | 1 0 3 1 1 | | | 1 1 1 1 0 | | | 1 0 1 0 2 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 93 | 661 | 1149 | 22 | 622 | 717 | 178 | 519 | 139 | 200 | 236 | 170 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 139 | 985 | 1712 | 33 | 927 | 1068 | 265 | 773 | 207 | 298 | 352 | 253 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 139 | 985 | 1712 | 33 | 927 | 1068 | 265 | 773 | 207 | 298 | 352 | 253 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 139 | 985 | 1712 | 33 | 927 | 0 | 265 | 773 | 207 | 298 | 352 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 139 | 985 | 1712 | 33 | 927 | 0 | 265 | 773 | 207 | 298 | 352 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 139 | 985 | 1712 | 33 | 927 | 0 | 265 | 773 | 207 | 298 | 352 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 4.00 | 1.00 | 1.00 | 4.00 | 1.00 | 1.00 | 2.58 | 0.42 | 1.00 | 1.00 | 2.00 |
| Final Sat.: | 1600 | 6400 | 1600 | 1600 | 6400 | 1600 | 1600 | 4124 | 676 | 1600 | 1600 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.15 | 1.07 | 0.02 | 0.14 | 0.00 | 0.17 | 0.19 | 0.31 | 0.19 | 0.22 | 0.00 |
| Crit Moves: | | | **** | **** | | | | | **** | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Atlantic Boulevard (NS) at Bandini Boulevard (EW) - #16

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.594 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Atlantic Boulevard | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 4 0 1 | | | 1 0 3 1 1 | | | 1 1 1 1 0 | | | 1 0 1 0 2 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 53 | 710 | 798 | 34 | 1025 | 260 | 449 | 582 | 404 | 279 | 152 | 476 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 79 | 1058 | 1189 | 51 | 1527 | 387 | 669 | 867 | 602 | 416 | 226 | 709 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 79 | 1058 | 1189 | 51 | 1527 | 387 | 669 | 867 | 602 | 416 | 226 | 709 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 79 | 1058 | 1189 | 51 | 1527 | 0 | 669 | 867 | 602 | 416 | 226 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 79 | 1058 | 1189 | 51 | 1527 | 0 | 669 | 867 | 602 | 416 | 226 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 79 | 1058 | 1189 | 51 | 1527 | 0 | 669 | 867 | 602 | 416 | 226 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 4.00 | 1.00 | 1.00 | 4.00 | 1.00 | 1.31 | 1.87 | 0.82 | 1.00 | 1.00 | 2.00 |
| Final Sat.: | 1600 | 6400 | 1600 | 1600 | 6400 | 1600 | 2090 | 2998 | 1311 | 1600 | 1600 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.17 | 0.74 | 0.03 | 0.24 | 0.00 | 0.32 | 0.29 | 0.46 | 0.26 | 0.14 | 0.00 |
| Crit Moves: | | | **** | **** | | | | | **** | **** | | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Atlantic Boulevard (NS) at District Boulevard (EW) - #17

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.949 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Atlantic Boulevard | | | | | | District Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 1 | 0 | 1 0 | 3 0 | 1 | 2 0 | 1 0 | 1 | 0 1 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 279 | 1132 | 4 | 122 | 670 | 934 | 510 | 62 | 32 | 3 | 249 | 94 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 416 | 1687 | 6 | 182 | 998 | 1392 | 760 | 92 | 48 | 4 | 371 | 140 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 416 | 1687 | 6 | 182 | 998 | 1392 | 760 | 92 | 48 | 4 | 371 | 140 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 416 | 1687 | 6 | 182 | 998 | 0 | 760 | 92 | 48 | 4 | 371 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 416 | 1687 | 6 | 182 | 998 | 0 | 760 | 92 | 48 | 4 | 371 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 416 | 1687 | 6 | 182 | 998 | 0 | 760 | 92 | 48 | 4 | 371 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.99 | 0.01 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 1.00 | 0.02 | 1.98 | 1.00 |
| Final Sat.: | 1600 | 4783 | 17 | 1600 | 4800 | 1600 | 2880 | 1600 | 1600 | 38 | 3162 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.26 | 0.35 | 0.35 | 0.11 | 0.21 | 0.00 | 0.26 | 0.06 | 0.03 | 0.12 | 0.12 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Current General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Atlantic Boulevard (NS) at District Boulevard (EW) - #17

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.081 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Atlantic Boulevard | | | | | | District Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 1 0 | | 1 0 | 3 0 1 | | 2 0 | 1 0 1 | | 0 1 | 1 0 1 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 71 | 717 | 4 | 84 | 1158 | 351 | 1025 | 259 | 218 | 4 | 49 | 90 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 106 | 1068 | 6 | 125 | 1725 | 523 | 1527 | 386 | 325 | 6 | 73 | 134 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 106 | 1068 | 6 | 125 | 1725 | 523 | 1527 | 386 | 325 | 6 | 73 | 134 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 106 | 1068 | 6 | 125 | 1725 | 0 | 1527 | 386 | 325 | 6 | 73 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 106 | 1068 | 6 | 125 | 1725 | 0 | 1527 | 386 | 325 | 6 | 73 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 106 | 1068 | 6 | 125 | 1725 | 0 | 1527 | 386 | 325 | 6 | 73 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.98 | 0.02 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 1.00 | 0.15 | 1.85 | 1.00 |
| Final Sat.: | 1600 | 4773 | 27 | 1600 | 4800 | 1600 | 2880 | 1600 | 1600 | 242 | 2958 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.22 | 0.22 | 0.08 | 0.36 | 0.00 | 0.53 | 0.24 | 0.20 | 0.02 | 0.02 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |

**Proposed General Plan Year 2035**

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alameda Street (NS) at Vernon Avenue - West (EW) - #1a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.617 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 53 | 1279 | 42 | 100 | 984 | 52 | 119 | 640 | 47 | 85 | 605 | 241 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 79 | 1906 | 63 | 149 | 1466 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| Added Vol: | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 79 | 1906 | 63 | 149 | 1468 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| 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: | 79 | 1906 | 63 | 149 | 1468 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 79 | 1906 | 63 | 149 | 1468 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 79 | 1906 | 63 | 149 | 1468 | 77 | 177 | 954 | 70 | 127 | 901 | 359 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.90 | 0.10 | 0.30 | 1.59 | 0.12 | 0.18 | 1.30 | 0.52 |
| Final Sat.: | 1600 | 3098 | 102 | 1600 | 3040 | 160 | 472 | 2541 | 187 | 292 | 2079 | 828 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.62 | 0.62 | 0.09 | 0.48 | 0.48 | 0.38 | 0.38 | 0.38 | 0.43 | 0.43 | 0.43 |
| Crit Moves: | | **** | | **** | | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alameda Street (NS) at Vernon Avenue - West (EW) - #1a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.671 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 50 | 1063 | 59 | 119 | 1008 | 74 | 201 | 639 | 93 | 128 | 718 | 235 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 75 | 1584 | 88 | 177 | 1502 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| Added Vol: | 0 | -1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 75 | 1583 | 88 | 177 | 1503 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| 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: | 75 | 1583 | 88 | 177 | 1503 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 75 | 1583 | 88 | 177 | 1503 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 75 | 1583 | 88 | 177 | 1503 | 110 | 299 | 952 | 139 | 191 | 1070 | 350 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.89 | 0.11 | 1.00 | 1.86 | 0.14 | 0.43 | 1.37 | 0.20 | 0.24 | 1.33 | 0.43 |
| Final Sat.: | 1600 | 3032 | 168 | 1600 | 2981 | 219 | 689 | 2192 | 319 | 379 | 2125 | 696 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.52 | 0.52 | 0.11 | 0.50 | 0.50 | 0.43 | 0.43 | 0.43 | 0.50 | 0.50 | 0.50 |
| Crit Moves: | | **** | | **** | | | | | **** | | | **** |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #101 Alameda Street (NS) at Vernon Avenue - East (EW) - #1b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.217 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (East) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 1 | 0 | 0 1 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 202 | 60 | 68 | 141 | 11 | 44 | 630 | 108 | 9 | 892 | 79 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| 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: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 42 | 301 | 89 | 101 | 210 | 16 | 66 | 939 | 161 | 13 | 1329 | 118 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.10 | 0.70 | 0.21 | 0.31 | 0.64 | 0.05 | 0.11 | 1.61 | 0.28 | 0.02 | 1.98 | 1.00 |
| Final Sat.: | 154 | 1114 | 331 | 495 | 1025 | 80 | 180 | 2578 | 442 | 32 | 3168 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.27 | 0.27 | 0.06 | 0.20 | 0.20 | 0.36 | 0.36 | 0.36 | 0.42 | 0.42 | 0.07 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #101 Alameda Street (NS) at Vernon Avenue - East (EW) - #1b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.317 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (East) | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 1 | 0 | 0 1 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 15 | 244 | 46 | 65 | 161 | 10 | 30 | 762 | 25 | 1 | 1056 | 45 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| 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: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 22 | 364 | 69 | 97 | 240 | 15 | 45 | 1135 | 37 | 1 | 1573 | 67 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.05 | 0.80 | 0.15 | 0.28 | 0.68 | 0.04 | 0.07 | 1.87 | 0.06 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 79 | 1280 | 241 | 441 | 1092 | 68 | 118 | 2985 | 98 | 3 | 3197 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.28 | 0.28 | 0.06 | 0.22 | 0.22 | 0.38 | 0.38 | 0.38 | 0.49 | 0.49 | 0.04 |
| Crit Moves: | | **** | | **** | | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Alameda Street (NS) at 55th Street - West (EW) - #2a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.482 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 36 | 1315 | 38 | 80 | 660 | 90 | 119 | 362 | 27 | 11 | 171 | 65 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 54 | 1959 | 57 | 119 | 983 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| Added Vol: | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 54 | 1959 | 57 | 119 | 985 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| 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: | 54 | 1959 | 57 | 119 | 985 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 54 | 1959 | 57 | 119 | 985 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 54 | 1959 | 57 | 119 | 985 | 134 | 177 | 539 | 40 | 16 | 255 | 97 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.76 | 0.24 | 0.25 | 0.75 | 1.00 | 0.04 | 0.69 | 0.26 |
| Final Sat.: | 1600 | 3110 | 90 | 1600 | 2817 | 383 | 396 | 1204 | 1600 | 71 | 1108 | 421 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.63 | 0.63 | 0.07 | 0.35 | 0.35 | 0.45 | 0.45 | 0.03 | 0.23 | 0.23 | 0.23 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Alameda Street (NS) at 55th Street - West (EW) - #2a

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.692 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (West) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 0 1 | | 0 0 1! | 0 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 32 | 957 | 16 | 82 | 1066 | 139 | 102 | 246 | 42 | 48 | 533 | 146 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 48 | 1426 | 24 | 122 | 1588 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| Added Vol: | 0 | -1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 48 | 1425 | 24 | 122 | 1589 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| 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: | 48 | 1425 | 24 | 122 | 1589 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 48 | 1425 | 24 | 122 | 1589 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 48 | 1425 | 24 | 122 | 1589 | 207 | 152 | 367 | 63 | 72 | 794 | 218 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.97 | 0.03 | 1.00 | 1.77 | 0.23 | 0.29 | 0.71 | 1.00 | 0.07 | 0.73 | 0.20 |
| Final Sat.: | 1600 | 3147 | 53 | 1600 | 2831 | 369 | 469 | 1131 | 1600 | 106 | 1173 | 321 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.45 | 0.45 | 0.08 | 0.56 | 0.56 | 0.32 | 0.32 | 0.04 | 0.68 | 0.68 | 0.68 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #102 Alameda Street (NS) at 55th Street - East (EW) - #2b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.811 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Alameda Street (East) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 8 | 54 | 14 | 5 | 13 | 38 | 199 | 257 | 24 | 2 | 201 | 13 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| 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: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 12 | 80 | 21 | 7 | 19 | 57 | 297 | 383 | 36 | 3 | 299 | 19 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.11 | 0.71 | 0.18 | 0.09 | 0.23 | 0.68 | 0.41 | 0.54 | 0.05 | 0.01 | 0.99 | 1.00 |
| Final Sat.: | 168 | 1137 | 295 | 143 | 371 | 1086 | 663 | 857 | 80 | 16 | 1584 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.07 | 0.07 | 0.00 | 0.05 | 0.05 | 0.45 | 0.45 | 0.45 | 0.19 | 0.19 | 0.01 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #102 Alameda Street (NS) at 55th Street - East (EW) - #2b

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.153 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Alameda Street (East) | | | | | | 55th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 6 | 41 | 9 | 24 | 35 | 206 | 44 | 288 | 12 | 1 | 515 | 8 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| 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: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 9 | 61 | 13 | 36 | 52 | 307 | 66 | 429 | 18 | 1 | 767 | 12 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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: | 0.11 | 0.73 | 0.16 | 0.09 | 0.13 | 0.78 | 0.13 | 0.84 | 0.03 | 0.00 | 1.00 | 1.00 |
| Final Sat.: | 171 | 1171 | 257 | 145 | 211 | 1244 | 205 | 1340 | 56 | 3 | 1597 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.05 | 0.05 | 0.02 | 0.25 | 0.25 | 0.32 | 0.32 | 0.32 | 0.48 | 0.48 | 0.01 |
| Crit Moves: | **** | | | | **** | | | | **** | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Fe Avenue (NS) at 25th Street (EW) - #3

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.988 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Santa Fe Avenue | | | | | | 25th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 77 | 1177 | 113 | 77 | 1016 | 45 | 23 | 71 | 70 | 142 | 160 | 103 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 115 | 1754 | 168 | 115 | 1514 | 67 | 34 | 106 | 104 | 212 | 238 | 153 |
| Added Vol: | -14 | 6 | 3 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 101 | 1760 | 171 | 115 | 1515 | 67 | 34 | 108 | 104 | 212 | 238 | 153 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 101 | 1760 | 0 | 115 | 1515 | 0 | 34 | 108 | 104 | 212 | 238 | 153 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 101 | 1760 | 0 | 115 | 1515 | 0 | 34 | 108 | 104 | 212 | 238 | 153 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 101 | 1760 | 0 | 115 | 1515 | 0 | 34 | 108 | 104 | 212 | 238 | 153 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.61 | 0.39 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1600 | 1600 | 1600 | 973 | 627 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.55 | 0.00 | 0.07 | 0.47 | 0.00 | 0.02 | 0.07 | 0.07 | 0.13 | 0.24 | 0.24 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Fe Avenue (NS) at 25th Street (EW) - #3

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.125 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | 25th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 1 0 1 | | | 1 0 0 1 0 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 80 | 1072 | 133 | 105 | 1108 | 21 | 253 | 244 | 93 | 117 | 138 | 68 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 119 | 1597 | 198 | 156 | 1651 | 31 | 377 | 364 | 139 | 174 | 206 | 101 |
| Added Vol: | -8 | 4 | 2 | 0 | -4 | 0 | 0 | 1 | -7 | -2 | -1 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 111 | 1601 | 200 | 156 | 1647 | 31 | 377 | 365 | 132 | 172 | 205 | 101 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 111 | 1601 | 0 | 156 | 1647 | 0 | 377 | 365 | 132 | 172 | 205 | 101 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 111 | 1601 | 0 | 156 | 1647 | 0 | 377 | 365 | 132 | 172 | 205 | 101 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 111 | 1601 | 0 | 156 | 1647 | 0 | 377 | 365 | 132 | 172 | 205 | 101 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.33 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1600 | 1600 | 1600 | 1070 | 530 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.50 | 0.00 | 0.10 | 0.51 | 0.00 | 0.24 | 0.23 | 0.08 | 0.11 | 0.19 | 0.19 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Fe Avenue (NS) at 38th Street (EW) - #4

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.055 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | 38th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 102 | 1304 | 178 | 94 | 967 | 151 | 28 | 167 | 61 | 0 | 0 | 0 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 152 | 1943 | 265 | 140 | 1441 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| Added Vol: | 0 | -14 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 152 | 1929 | 265 | 141 | 1443 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| 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: | 152 | 1929 | 265 | 141 | 1443 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 152 | 1929 | 265 | 141 | 1443 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 152 | 1929 | 265 | 141 | 1443 | 225 | 42 | 249 | 91 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.76 | 0.24 | 1.00 | 1.73 | 0.27 | 0.14 | 0.86 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1600 | 2813 | 387 | 1600 | 2768 | 432 | 230 | 1370 | 1600 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.69 | 0.69 | 0.09 | 0.52 | 0.52 | 0.03 | 0.18 | 0.06 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Fe Avenue (NS) at 38th Street (EW) - #4

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.119 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | 38th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 0 1 | | 0 0 0 | 0 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 95 | 978 | 219 | 151 | 1346 | 122 | 20 | 247 | 80 | 0 | 0 | 0 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 142 | 1457 | 326 | 225 | 2006 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| Added Vol: | 0 | -9 | 0 | 0 | -5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 142 | 1448 | 326 | 225 | 2001 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| 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: | 142 | 1448 | 326 | 225 | 2001 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 142 | 1448 | 326 | 225 | 2001 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 142 | 1448 | 326 | 225 | 2001 | 182 | 30 | 368 | 119 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.63 | 0.37 | 1.00 | 1.83 | 0.17 | 0.07 | 0.93 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1600 | 2612 | 588 | 1600 | 2933 | 267 | 120 | 1480 | 1600 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.55 | 0.55 | 0.14 | 0.68 | 0.68 | 0.02 | 0.25 | 0.07 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Fe Avenue (NS) at Vernon Avenue (EW) - #5

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.076 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 0 | 0 1 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 2 | 1517 | 109 | 79 | 962 | 4 | 2 | 10 | 3 | 142 | 4 | 138 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 3 | 2260 | 162 | 118 | 1433 | 6 | 3 | 15 | 4 | 212 | 6 | 206 |
| Added Vol: | 0 | 0 | 0 | 0 | 2 | 0 | -14 | 0 | 0 | 2 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 3 | 2260 | 162 | 118 | 1435 | 6 | -11 | 15 | 4 | 214 | 6 | 206 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 3 | 2260 | 162 | 118 | 1435 | 6 | 0 | 15 | 4 | 214 | 6 | 206 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 3 | 2260 | 162 | 118 | 1435 | 6 | 0 | 15 | 4 | 214 | 6 | 206 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 3 | 2260 | 162 | 118 | 1435 | 6 | 0 | 15 | 4 | 214 | 6 | 206 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.87 | 0.13 | 1.00 | 1.99 | 0.01 | 0.00 | 0.77 | 0.23 | 1.00 | 0.03 | 0.97 |
| Final Sat.: | 1600 | 2985 | 215 | 1600 | 3187 | 13 | 0 | 1231 | 369 | 1600 | 52 | 1548 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.76 | 0.76 | 0.07 | 0.45 | 0.45 | 0.00 | 0.01 | 0.01 | 0.13 | 0.11 | 0.13 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Fe Avenue (NS) at Vernon Avenue (EW) - #5

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.018 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 3 | 1199 | 108 | 122 | 1245 | 1 | 24 | 20 | 6 | 165 | 7 | 117 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 4 | 1787 | 161 | 182 | 1855 | 1 | 36 | 30 | 9 | 246 | 10 | 174 |
| Added Vol: | 0 | -1 | -1 | 0 | 2 | -7 | -8 | 0 | 0 | 2 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 4 | 1786 | 160 | 182 | 1857 | -5 | 28 | 30 | 9 | 248 | 10 | 174 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 4 | 1786 | 160 | 182 | 1857 | 0 | 28 | 30 | 9 | 248 | 10 | 174 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 4 | 1786 | 160 | 182 | 1857 | 0 | 28 | 30 | 9 | 248 | 10 | 174 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 4 | 1786 | 160 | 182 | 1857 | 0 | 28 | 30 | 9 | 248 | 10 | 174 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.84 | 0.16 | 1.00 | 2.00 | 0.00 | 0.42 | 0.45 | 0.13 | 1.00 | 0.19 | 0.81 |
| Final Sat.: | 1600 | 2937 | 263 | 1600 | 3200 | 0 | 668 | 717 | 215 | 1600 | 310 | 1290 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.61 | 0.61 | 0.11 | 0.58 | 0.00 | 0.02 | 0.04 | 0.04 | 0.15 | 0.03 | 0.14 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Santa Fe Avenue (NS) at Vernon Avenue/Pacific Boulevard (EW) - #

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.017 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue/Pacific Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Protected | | | Protected | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 89 | 997 | 19 | 94 | 770 | 240 | 142 | 235 | 90 | 26 | 384 | 482 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 133 | 1486 | 28 | 140 | 1147 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| Added Vol: | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 133 | 1486 | 28 | 140 | 1151 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| 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: | 133 | 1486 | 28 | 140 | 1151 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 133 | 1486 | 28 | 140 | 1151 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 133 | 1486 | 28 | 140 | 1151 | 358 | 212 | 350 | 134 | 39 | 572 | 718 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.96 | 0.04 | 1.00 | 1.53 | 0.47 | 1.00 | 2.17 | 0.83 | 1.00 | 2.00 | 2.00 |
| Final Sat.: | 1600 | 3140 | 60 | 1600 | 2442 | 758 | 1600 | 3471 | 1329 | 1600 | 3200 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.47 | 0.47 | 0.09 | 0.47 | 0.47 | 0.13 | 0.10 | 0.10 | 0.02 | 0.18 | 0.22 |
| Crit Moves: | | **** | | **** | | | **** | | | | | **** |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #6 Santa Fe Avenue (NS) at Vernon Avenue/Pacific Boulevard (EW) - #

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| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.062 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

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| Street Name: | Santa Fe Avenue | | | | | | Vernon Avenue/Pacific Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Protected | | | Protected | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 100 | 863 | 26 | 170 | 1083 | 155 | 170 | 358 | 64 | 30 | 285 | 267 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 149 | 1286 | 39 | 253 | 1614 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| Added Vol: | 0 | -2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 149 | 1284 | 39 | 253 | 1617 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| 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: | 149 | 1284 | 39 | 253 | 1617 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 149 | 1284 | 39 | 253 | 1617 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 149 | 1284 | 39 | 253 | 1617 | 231 | 253 | 533 | 95 | 45 | 425 | 398 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.75 | 0.25 | 1.00 | 2.55 | 0.46 | 1.00 | 2.00 | 2.00 |
| Final Sat.: | 1600 | 3106 | 94 | 1600 | 2800 | 400 | 1600 | 4072 | 728 | 1600 | 3200 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.41 | 0.41 | 0.16 | 0.58 | 0.58 | 0.16 | 0.13 | 0.13 | 0.03 | 0.13 | 0.12 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |

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Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Soto Street (NS) at 26th Street (EW) - #7

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.127 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | 26th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 121 | 1203 | 56 | 117 | 1069 | 104 | 39 | 92 | 43 | 27 | 240 | 96 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 180 | 1792 | 83 | 174 | 1593 | 155 | 58 | 137 | 64 | 40 | 358 | 143 |
| Added Vol: | 0 | 14 | 0 | 0 | 1 | 0 | 4 | 1 | 0 | 0 | 0 | 3 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 180 | 1806 | 83 | 174 | 1594 | 155 | 62 | 138 | 64 | 40 | 358 | 146 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 180 | 1806 | 0 | 174 | 1594 | 155 | 62 | 138 | 64 | 40 | 358 | 146 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 180 | 1806 | 0 | 174 | 1594 | 155 | 62 | 138 | 64 | 40 | 358 | 146 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 180 | 1806 | 0 | 174 | 1594 | 155 | 62 | 138 | 64 | 40 | 358 | 146 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 0.68 | 0.32 | 1.00 | 0.71 | 0.29 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1093 | 507 | 1600 | 1136 | 464 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.56 | 0.00 | 0.11 | 0.50 | 0.10 | 0.04 | 0.13 | 0.13 | 0.03 | 0.31 | 0.31 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Soto Street (NS) at 26th Street (EW) - #7

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.314 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | 26th Street | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Ignore | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 2 0 1 | | | 1 0 2 0 1 | | | 1 0 0 1 0 | | | 1 0 0 1 0 | | |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 59 | 1178 | 46 | 225 | 1407 | 51 | 97 | 385 | 65 | 36 | 112 | 149 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 88 | 1755 | 69 | 335 | 2096 | 76 | 145 | 574 | 97 | 54 | 167 | 222 |
| Added Vol: | 0 | 9 | 0 | 0 | -7 | -3 | 3 | 1 | 0 | 0 | -1 | 3 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 88 | 1764 | 69 | 335 | 2089 | 73 | 148 | 575 | 97 | 54 | 166 | 225 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 88 | 1764 | 0 | 335 | 2089 | 73 | 148 | 575 | 97 | 54 | 166 | 225 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 88 | 1764 | 0 | 335 | 2089 | 73 | 148 | 575 | 97 | 54 | 166 | 225 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 88 | 1764 | 0 | 335 | 2089 | 73 | 148 | 575 | 97 | 54 | 166 | 225 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 2.00 | 1.00 | 1.00 | 0.86 | 0.14 | 1.00 | 0.42 | 0.58 |
| Final Sat.: | 1600 | 3200 | 1600 | 1600 | 3200 | 1600 | 1600 | 1369 | 231 | 1600 | 679 | 921 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.55 | 0.00 | 0.21 | 0.65 | 0.05 | 0.09 | 0.42 | 0.42 | 0.03 | 0.24 | 0.24 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Soto Street (NS) at Bandini Boulevard (EW) - #8

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.060 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 69 | 1166 | 84 | 56 | 966 | 127 | 102 | 303 | 59 | 165 | 619 | 103 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 103 | 1737 | 125 | 83 | 1439 | 189 | 152 | 451 | 88 | 246 | 922 | 153 |
| Added Vol: | 0 | 3 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 9 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 103 | 1740 | 125 | 89 | 1439 | 189 | 152 | 452 | 88 | 248 | 922 | 162 |
| 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: | 103 | 1740 | 125 | 89 | 1439 | 189 | 152 | 452 | 88 | 248 | 922 | 162 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 103 | 1740 | 125 | 89 | 1439 | 189 | 152 | 452 | 88 | 248 | 922 | 162 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 103 | 1740 | 125 | 89 | 1439 | 189 | 152 | 452 | 88 | 248 | 922 | 162 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.87 | 0.13 | 1.00 | 1.77 | 0.23 | 1.00 | 2.51 | 0.49 | 1.00 | 2.55 | 0.45 |
| Final Sat.: | 1600 | 2985 | 215 | 1600 | 2828 | 372 | 1600 | 4019 | 781 | 1600 | 4081 | 719 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.58 | 0.58 | 0.06 | 0.51 | 0.51 | 0.09 | 0.11 | 0.11 | 0.15 | 0.23 | 0.23 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Soto Street (NS) at Bandini Boulevard (EW) - #8

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.111 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Soto Street | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 39 | 1033 | 130 | 116 | 1348 | 75 | 170 | 574 | 60 | 124 | 377 | 62 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 58 | 1539 | 194 | 173 | 2009 | 112 | 253 | 855 | 89 | 185 | 562 | 92 |
| Added Vol: | 0 | 1 | -1 | -1 | -1 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 58 | 1540 | 193 | 172 | 2008 | 112 | 253 | 855 | 89 | 186 | 562 | 95 |
| 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: | 58 | 1540 | 193 | 172 | 2008 | 112 | 253 | 855 | 89 | 186 | 562 | 95 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 58 | 1540 | 193 | 172 | 2008 | 112 | 253 | 855 | 89 | 186 | 562 | 95 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 58 | 1540 | 193 | 172 | 2008 | 112 | 253 | 855 | 89 | 186 | 562 | 95 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.78 | 0.22 | 1.00 | 1.89 | 0.11 | 1.00 | 2.72 | 0.28 | 1.00 | 2.56 | 0.44 |
| Final Sat.: | 1600 | 2844 | 356 | 1600 | 3031 | 169 | 1600 | 4346 | 454 | 1600 | 4103 | 697 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.54 | 0.54 | 0.11 | 0.66 | 0.66 | 0.16 | 0.20 | 0.20 | 0.12 | 0.14 | 0.14 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 Soto Street (NS) at Vernon Avenue (EW) - #9

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.953 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Soto Street | | | | | | Vernon Avenuie | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 62 | 1028 | 20 | 63 | 899 | 112 | 53 | 83 | 39 | 9 | 168 | 241 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 92 | 1532 | 30 | 94 | 1340 | 167 | 79 | 124 | 58 | 13 | 250 | 359 |
| Added Vol: | 0 | 3 | 0 | 0 | -1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 92 | 1535 | 30 | 94 | 1339 | 169 | 79 | 124 | 58 | 13 | 250 | 359 |
| 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: | 92 | 1535 | 30 | 94 | 1339 | 169 | 79 | 124 | 58 | 13 | 250 | 359 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 92 | 1535 | 30 | 94 | 1339 | 169 | 79 | 124 | 58 | 13 | 250 | 359 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 92 | 1535 | 30 | 94 | 1339 | 169 | 79 | 124 | 58 | 13 | 250 | 359 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.96 | 0.04 | 1.00 | 1.78 | 0.22 | 0.61 | 0.95 | 0.45 | 0.04 | 0.96 | 1.00 |
| Final Sat.: | 1600 | 3139 | 61 | 1600 | 2841 | 359 | 969 | 1518 | 713 | 69 | 1531 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.49 | 0.49 | 0.06 | 0.47 | 0.47 | 0.08 | 0.08 | 0.08 | 0.19 | 0.16 | 0.22 |
| Crit Moves: | | **** | | **** | | | | **** | | | | **** |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #9 Soto Street (NS) at Vernon Avenue (EW) - #9

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| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.050 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

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| Street Name: | Soto Street | | | | | | Vernon Avenuie | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 48 | 872 | 14 | 141 | 1268 | 48 | 106 | 204 | 76 | 22 | 98 | 121 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 72 | 1299 | 21 | 210 | 1889 | 72 | 158 | 304 | 113 | 33 | 146 | 180 |
| Added Vol: | 0 | 1 | 0 | 0 | -1 | 2 | -1 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 72 | 1300 | 21 | 210 | 1888 | 74 | 157 | 304 | 113 | 33 | 146 | 180 |
| 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: | 72 | 1300 | 21 | 210 | 1888 | 74 | 157 | 304 | 113 | 33 | 146 | 180 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 72 | 1300 | 21 | 210 | 1888 | 74 | 157 | 304 | 113 | 33 | 146 | 180 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 72 | 1300 | 21 | 210 | 1888 | 74 | 157 | 304 | 113 | 33 | 146 | 180 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.97 | 0.03 | 1.00 | 1.93 | 0.08 | 0.55 | 1.06 | 0.39 | 0.18 | 0.82 | 1.00 |
| Final Sat.: | 1600 | 3149 | 51 | 1600 | 3080 | 120 | 875 | 1694 | 631 | 292 | 1308 | 1600 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.41 | 0.41 | 0.13 | 0.61 | 0.61 | 0.18 | 0.18 | 0.18 | 0.11 | 0.11 | 0.11 |
| Crit Moves: | **** | | | | **** | | **** | | | | | **** |

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Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Soto Street (NS) at Leonis Boulevard (EW) - #10

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.969 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Soto Street | | | | | | Leonis Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 41 | 880 | 46 | 81 | 635 | 62 | 76 | 212 | 21 | 88 | 494 | 132 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 61 | 1311 | 69 | 121 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 197 |
| Added Vol: | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 61 | 1311 | 69 | 120 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 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: | 61 | 1311 | 69 | 120 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 200 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 61 | 1311 | 69 | 120 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 61 | 1311 | 69 | 120 | 946 | 92 | 113 | 316 | 31 | 131 | 736 | 200 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.90 | 0.10 | 1.00 | 1.82 | 0.18 | 1.00 | 1.82 | 0.18 | 1.00 | 1.57 | 0.43 |
| Final Sat.: | 1600 | 3041 | 159 | 1600 | 2915 | 285 | 1600 | 2912 | 288 | 1600 | 2517 | 683 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.43 | 0.43 | 0.07 | 0.32 | 0.32 | 0.07 | 0.11 | 0.11 | 0.08 | 0.29 | 0.29 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #10 Soto Street (NS) at Leonis Boulevard (EW) - #10

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| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.899 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

**********

| Street Name: | Soto Street | | | | | | Leonis Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 19 | 674 | 93 | 124 | 1069 | 59 | 84 | 384 | 43 | 62 | 281 | 98 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 28 | 1004 | 139 | 185 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 146 |
| Added Vol: | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 28 | 1004 | 139 | 184 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 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: | 28 | 1004 | 139 | 184 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 147 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 28 | 1004 | 139 | 184 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 28 | 1004 | 139 | 184 | 1593 | 88 | 125 | 572 | 64 | 92 | 419 | 147 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.76 | 0.24 | 1.00 | 1.90 | 0.10 | 1.00 | 1.80 | 0.20 | 1.00 | 1.48 | 0.52 |
| Final Sat.: | 1600 | 2812 | 388 | 1600 | 3033 | 167 | 1600 | 2878 | 322 | 1600 | 2368 | 832 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.36 | 0.36 | 0.11 | 0.53 | 0.53 | 0.08 | 0.20 | 0.20 | 0.06 | 0.18 | 0.18 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

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Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Soto Street (NS) at Fruitland Avenue (EW) - #11

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.891 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | D |

| Street Name: | Soto Street | | | | | | Fruitland Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 89 | 798 | 25 | 44 | 509 | 184 | 85 | 140 | 23 | 28 | 235 | 74 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| 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: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 133 | 1189 | 37 | 66 | 758 | 274 | 127 | 209 | 34 | 42 | 350 | 110 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.94 | 0.06 | 1.00 | 1.47 | 0.53 | 1.00 | 0.86 | 0.14 | 1.00 | 0.76 | 0.24 |
| Final Sat.: | 1600 | 3103 | 97 | 1600 | 2350 | 850 | 1600 | 1374 | 226 | 1600 | 1217 | 383 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.38 | 0.38 | 0.04 | 0.32 | 0.32 | 0.08 | 0.15 | 0.15 | 0.03 | 0.29 | 0.29 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Soto Street (NS) at Fruitland Avenue (EW) - #11

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.973 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Soto Street | | | | | | Fruitland Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 51 | 544 | 36 | 86 | 862 | 93 | 169 | 335 | 49 | 25 | 169 | 52 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| 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: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 76 | 811 | 54 | 128 | 1284 | 139 | 252 | 499 | 73 | 37 | 252 | 77 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.88 | 0.12 | 1.00 | 1.81 | 0.19 | 1.00 | 0.87 | 0.13 | 1.00 | 0.76 | 0.24 |
| Final Sat.: | 1600 | 3001 | 199 | 1600 | 2888 | 312 | 1600 | 1396 | 204 | 1600 | 1224 | 376 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.27 | 0.27 | 0.08 | 0.44 | 0.44 | 0.16 | 0.36 | 0.36 | 0.02 | 0.21 | 0.21 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #12 Boyle Avenue/State Street (NS) at Slauson Avenue (EW) - #12

**********

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.199 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

**********

| Street Name: | Boyle Avenue/State Street | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 280 | 909 | 235 | 19 | 162 | 22 | 59 | 688 | 129 | 181 | 859 | 45 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1280 | 67 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1284 | 67 |
| 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: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1284 | 67 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1284 | 67 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 417 | 1354 | 350 | 28 | 241 | 33 | 88 | 1025 | 192 | 270 | 1284 | 67 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.59 | 0.41 | 1.00 | 1.76 | 0.24 | 1.00 | 1.68 | 0.32 | 1.00 | 1.90 | 0.10 |
| Final Sat.: | 1600 | 2543 | 657 | 1600 | 2817 | 383 | 1600 | 2695 | 505 | 1600 | 3041 | 159 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.26 | 0.53 | 0.53 | 0.02 | 0.09 | 0.09 | 0.05 | 0.38 | 0.38 | 0.17 | 0.42 | 0.42 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

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Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #12 Boyle Avenue/State Street (NS) at Slauson Avenue (EW) - #12

**********

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.334 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

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| Street Name: | Boyle Avenue/State Street | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 132 | 224 | 122 | 55 | 771 | 42 | 30 | 860 | 219 | 248 | 855 | 23 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1281 | 326 | 370 | 1274 | 34 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 2 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1279 | 326 | 370 | 1276 | 34 |
| 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: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1279 | 326 | 370 | 1276 | 34 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1279 | 326 | 370 | 1276 | 34 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 197 | 334 | 182 | 82 | 1149 | 63 | 45 | 1279 | 326 | 370 | 1276 | 34 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.29 | 0.71 | 1.00 | 1.90 | 0.10 | 1.00 | 1.59 | 0.41 | 1.00 | 1.95 | 0.05 |
| Final Sat.: | 1600 | 2072 | 1128 | 1600 | 3035 | 165 | 1600 | 2550 | 650 | 1600 | 3116 | 84 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.16 | 0.16 | 0.05 | 0.38 | 0.38 | 0.03 | 0.50 | 0.50 | 0.23 | 0.41 | 0.41 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |

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Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Downey Road (NS) at Washington Boulevard (EW) - #13

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.963 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Downey Road | | | | | | | | | Washington Boulevard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | | | South Bound | | | | East Bound | | | | | West Bound | | | |
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Protected | | | | | Protected | | | | | Protected | | | | | Protected | | | | |
| Rights: | Include | | | | | Include | | | | | Ovl | | | | | Include | | | | |
| Min. Green: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 199 | 960 | | 36 | | 35 | 656 | | 208 | | 131 | 108 | | 133 | | 79 | 531 | | 87 | |
| Growth Adj: | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | |
| Initial Bse: | 297 | 1430 | | 54 | | 52 | 977 | | 310 | | 195 | 161 | | 198 | | 118 | 791 | | 130 | |
| Added Vol: | 0 | 6 | | 0 | | 0 | 1 | | 0 | | 2 | 4 | | 2 | | 1 | 3 | | 1 | |
| PasserByVol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Initial Fut: | 297 | 1436 | | 54 | | 52 | 978 | | 310 | | 197 | 165 | | 200 | | 119 | 794 | | 131 | |
| 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: | 297 | 1436 | | 54 | | 52 | 978 | | 310 | | 197 | 165 | | 200 | | 119 | 794 | | 131 | |
| Reduct Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Reduced Vol: | 297 | 1436 | | 54 | | 52 | 978 | | 310 | | 197 | 165 | | 200 | | 119 | 794 | | 131 | |
| 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 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | |
| FinalVolume: | 297 | 1436 | | 54 | | 52 | 978 | | 310 | | 197 | 165 | | 200 | | 119 | 794 | | 131 | |
| OvlAdjVol: | | | | | | | | | | | | | | 0 | | | | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | |
| 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 | | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | |
| Final Sat.: | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.19 | 0.45 | | 0.03 | | 0.03 | 0.31 | | 0.19 | | 0.12 | 0.05 | | 0.13 | | 0.07 | 0.25 | | 0.08 | |
| OvlAdjV/S: | | | | | | | | | | | | | | 0.00 | | | | | | |
| Crit Moves: | **** | | | | | | **** | | | | **** | | | | | | **** | | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Downey Road (NS) at Washington Boulevard (EW) - #13

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.019 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Downey Road | | | | | | | | | Washington Boulevard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | | | South Bound | | | | East Bound | | | | | West Bound | | | |
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Protected | | | | | Protected | | | | | Protected | | | | | Protected | | | | |
| Rights: | Include | | | | | Include | | | | | Ovl | | | | | Include | | | | |
| Min. Green: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 132 | 838 | | 73 | | 109 | 964 | | 188 | | 172 | 688 | | 290 | | 29 | 240 | | 30 | |
| Growth Adj: | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | |
| Initial Bse: | 197 | 1249 | | 109 | | 162 | 1436 | | 280 | | 256 | 1025 | | 432 | | 43 | 358 | | 45 | |
| Added Vol: | -1 | 4 | | -1 | | -1 | -3 | | -1 | | 2 | 2 | | 2 | | 1 | -1 | | 1 | |
| PasserByVol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Initial Fut: | 196 | 1253 | | 108 | | 161 | 1433 | | 279 | | 258 | 1027 | | 434 | | 44 | 357 | | 46 | |
| 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 | 1253 | | 108 | | 161 | 1433 | | 279 | | 258 | 1027 | | 434 | | 44 | 357 | | 46 | |
| Reduct Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Reduced Vol: | 196 | 1253 | | 108 | | 161 | 1433 | | 279 | | 258 | 1027 | | 434 | | 44 | 357 | | 46 | |
| 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 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | |
| FinalVolume: | 196 | 1253 | | 108 | | 161 | 1433 | | 279 | | 258 | 1027 | | 434 | | 44 | 357 | | 46 | |
| OvlAdjVol: | | | | | | | | | | | | | | 238 | | | | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | |
| 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 | | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | |
| Final Sat.: | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.39 | | 0.07 | | 0.10 | 0.45 | | 0.17 | | 0.16 | 0.32 | | 0.27 | | 0.03 | 0.11 | | 0.03 | |
| OvlAdjV/S: | | | | | | | | | | | | | | 0.15 | | | | | | |
| Crit Moves: | **** | | | | | | **** | | | | | **** | | | | | **** | | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Downey Road (NS) at Bandini Boulevard (EW) - #14

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.002 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Downey Road | | | | | | | | | Bandini Boulevard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | | | South Bound | | | | East Bound | | | | | West Bound | | | |
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Protected | | | | | Protected | | | | | Protected | | | | | Protected | | | | |
| Rights: | Include | | | | | Include | | | | | Include | | | | | Include | | | | |
| Min. Green: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 50 | 846 | | 109 | | 51 | 481 | | 173 | | 50 | 258 | | 45 | | 167 | 740 | | 141 | |
| Growth Adj: | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | | 1.49 | 1.49 | | 1.49 | |
| Initial Bse: | 75 | 1261 | | 162 | | 76 | 717 | | 258 | | 75 | 384 | | 67 | | 249 | 1103 | | 210 | |
| Added Vol: | 0 | 1 | | 0 | | 0 | 3 | | 0 | | 4 | 24 | | 0 | | 0 | 3 | | 0 | |
| PasserByVol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Initial Fut: | 75 | 1262 | | 162 | | 76 | 720 | | 258 | | 79 | 408 | | 67 | | 249 | 1106 | | 210 | |
| 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: | 75 | 1262 | | 162 | | 76 | 720 | | 258 | | 79 | 408 | | 67 | | 249 | 1106 | | 210 | |
| Reduct Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | |
| Reduced Vol: | 75 | 1262 | | 162 | | 76 | 720 | | 258 | | 79 | 408 | | 67 | | 249 | 1106 | | 210 | |
| 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 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | |
| FinalVolume: | 75 | 1262 | | 162 | | 76 | 720 | | 258 | | 79 | 408 | | 67 | | 249 | 1106 | | 210 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | | 1600 | 1600 | | 1600 | |
| Adjustment: | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 0.90 | 1.00 | | 1.00 | |
| Lanes: | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | | 1.00 | 2.00 | | 1.00 | | 2.00 | 1.68 | | 0.32 | |
| Final Sat.: | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 1600 | 3200 | | 1600 | | 2880 | 2689 | | 511 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.39 | | 0.10 | | 0.05 | 0.22 | | 0.16 | | 0.05 | 0.13 | | 0.04 | | 0.09 | 0.41 | | 0.41 | |
| Crit Moves: | | **** | | | | **** | | | | | **** | | | | | | **** | | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 Downey Road (NS) at Bandini Boulevard (EW) - #14

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.048 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Downey Road | | | | | | | | | Bandini Boulevard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | | | South Bound | | | | East Bound | | | | | West Bound | | | |
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Protected | | | | | Protected | | | | | Protected | | | | | Protected | | | | |
| Rights: | Include | | | | | Include | | | | | Include | | | | | Include | | | | |
| Min. Green: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| Lanes: | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 50 | 843 | 204 | | | 199 | 1022 | 81 | | | 150 | 611 | 205 | | | 156 | 291 | 82 | | |
| Growth Adj: | 1.49 | 1.49 | 1.49 | | | 1.49 | 1.49 | 1.49 | | | 1.49 | 1.49 | 1.49 | | | 1.49 | 1.49 | 1.49 | | |
| Initial Bse: | 75 | 1256 | 304 | | | 297 | 1523 | 121 | | | 224 | 910 | 305 | | | 232 | 434 | 122 | | |
| Added Vol: | 0 | -1 | 0 | | | 0 | 2 | -2 | | | 3 | 18 | 0 | | | 0 | -11 | 0 | | |
| PasserByVol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| Initial Fut: | 75 | 1255 | 304 | | | 297 | 1525 | 119 | | | 227 | 928 | 305 | | | 232 | 423 | 122 | | |
| 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: | 75 | 1255 | 304 | | | 297 | 1525 | 119 | | | 227 | 928 | 305 | | | 232 | 423 | 122 | | |
| Reduct Vol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| Reduced Vol: | 75 | 1255 | 304 | | | 297 | 1525 | 119 | | | 227 | 928 | 305 | | | 232 | 423 | 122 | | |
| 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 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| FinalVolume: | 75 | 1255 | 304 | | | 297 | 1525 | 119 | | | 227 | 928 | 305 | | | 232 | 423 | 122 | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | | | 1600 | 1600 | 1600 | | | 1600 | 1600 | 1600 | | | 1600 | 1600 | 1600 | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 0.90 | 1.00 | 1.00 | | |
| Lanes: | 1.00 | 2.00 | 1.00 | | | 1.00 | 2.00 | 1.00 | | | 1.00 | 2.00 | 1.00 | | | 2.00 | 1.55 | 0.45 | | |
| Final Sat.: | 1600 | 3200 | 1600 | | | 1600 | 3200 | 1600 | | | 1600 | 3200 | 1600 | | | 2880 | 2482 | 718 | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.39 | 0.19 | | | 0.19 | 0.48 | 0.07 | | | 0.14 | 0.29 | 0.19 | | | 0.08 | 0.17 | 0.17 | | |
| Crit Moves: | | **** | | | | **** | | | | | | **** | | | | **** | | | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Downey Road (NS) at Slauson Avenue (EW) - #15

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.081 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Downey Road | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 8 | 20 | 8 | 131 | 42 | 93 | 101 | 703 | 20 | 1 | 1134 | 455 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 12 | 30 | 12 | 195 | 63 | 139 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 12 | 30 | 12 | 195 | 63 | 143 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| 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: | 12 | 30 | 12 | 195 | 63 | 143 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 12 | 30 | 12 | 195 | 63 | 143 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 12 | 30 | 12 | 195 | 63 | 143 | 150 | 1047 | 30 | 1 | 1690 | 678 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 1.00 | 1.00 | 0.31 | 0.69 | 1.00 | 1.94 | 0.06 | 0.00 | 1.43 | 0.57 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 488 | 1112 | 1600 | 3111 | 89 | 2 | 2282 | 916 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.02 | 0.01 | 0.12 | 0.13 | 0.13 | 0.09 | 0.34 | 0.34 | 0.00 | 0.74 | 0.74 |
| Crit Moves: | | **** | | | **** | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 Downey Road (NS) at Slauson Avenue (EW) - #15

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.073 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Downey Road | | | | | | Slauson Avenue | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 1 | 0 1 | | 1 0 0 | 1 0 | | 1 0 1 | 1 0 | | 0 1 0 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 18 | 29 | 45 | 398 | 25 | 158 | 112 | 1068 | 4 | 1 | 829 | 153 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 27 | 43 | 67 | 593 | 37 | 235 | 167 | 1591 | 6 | 1 | 1235 | 228 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 2 | -2 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 27 | 43 | 67 | 593 | 37 | 237 | 165 | 1591 | 6 | 1 | 1235 | 228 |
| 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: | 27 | 43 | 67 | 593 | 37 | 237 | 165 | 1591 | 6 | 1 | 1235 | 228 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 27 | 43 | 67 | 593 | 37 | 237 | 165 | 1591 | 6 | 1 | 1235 | 228 |
| 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 27 | 43 | 67 | 593 | 37 | 237 | 165 | 1591 | 6 | 1 | 1235 | 228 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 1.00 | 1.00 | 1.00 | 0.14 | 0.86 | 1.00 | 1.99 | 0.01 | 0.00 | 1.69 | 0.31 |
| Final Sat.: | 1600 | 1600 | 1600 | 1600 | 217 | 1383 | 1600 | 3188 | 12 | 3 | 2699 | 498 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.03 | 0.04 | 0.37 | 0.17 | 0.17 | 0.10 | 0.50 | 0.50 | 0.00 | 0.46 | 0.46 |
| Crit Moves: | | | **** | **** | | | **** | | | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Atlantic Boulevard (NS) at Bandini Boulevard (EW) - #16

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.725 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Atlantic Boulevard | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 4 0 | 1 | 1 0 | 3 1 | 1 | 1 1 | 1 1 | 0 | 1 0 | 1 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 93 | 661 | 1149 | 22 | 622 | 717 | 178 | 519 | 139 | 200 | 236 | 170 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 139 | 985 | 1712 | 33 | 927 | 1068 | 265 | 773 | 207 | 298 | 352 | 253 |
| Added Vol: | 1 | 19 | 3 | 0 | -1 | 0 | 6 | 3 | 15 | 1 | 1 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 140 | 1004 | 1715 | 33 | 926 | 1068 | 271 | 776 | 222 | 299 | 353 | 255 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 140 | 1004 | 1715 | 33 | 926 | 0 | 271 | 776 | 222 | 299 | 353 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 140 | 1004 | 1715 | 33 | 926 | 0 | 271 | 776 | 222 | 299 | 353 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 140 | 1004 | 1715 | 33 | 926 | 0 | 271 | 776 | 222 | 299 | 353 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 4.00 | 1.00 | 1.00 | 4.00 | 1.00 | 1.00 | 2.56 | 0.44 | 1.00 | 1.00 | 2.00 |
| Final Sat.: | 1600 | 6400 | 1600 | 1600 | 6400 | 1600 | 1600 | 4088 | 712 | 1600 | 1600 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.16 | 1.07 | 0.02 | 0.14 | 0.00 | 0.17 | 0.19 | 0.31 | 0.19 | 0.22 | 0.00 |
| Crit Moves: | | | **** | **** | | | | | **** | | **** | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 Atlantic Boulevard (NS) at Bandini Boulevard (EW) - #16

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.598 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Atlantic Boulevard | | | | | | Bandini Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 4 0 1 | | | 1 0 3 1 1 | | | 1 1 1 1 0 | | | 1 0 1 0 2 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 53 | 710 | 798 | 34 | 1025 | 260 | 449 | 582 | 404 | 279 | 152 | 476 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 79 | 1058 | 1189 | 51 | 1527 | 387 | 669 | 867 | 602 | 416 | 226 | 709 |
| Added Vol: | -7 | 5 | 0 | 0 | 0 | -1 | 5 | 0 | 12 | 1 | -1 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 72 | 1063 | 1189 | 51 | 1527 | 386 | 674 | 867 | 614 | 417 | 225 | 711 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 72 | 1063 | 1189 | 51 | 1527 | 0 | 674 | 867 | 614 | 417 | 225 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 72 | 1063 | 1189 | 51 | 1527 | 0 | 674 | 867 | 614 | 417 | 225 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 72 | 1063 | 1189 | 51 | 1527 | 0 | 674 | 867 | 614 | 417 | 225 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | 4.00 | 1.00 | 1.00 | 4.00 | 1.00 | 1.31 | 1.86 | 0.83 | 1.00 | 1.00 | 2.00 |
| Final Sat.: | 1600 | 6400 | 1600 | 1600 | 6400 | 1600 | 2099 | 2974 | 1326 | 1600 | 1600 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.17 | 0.74 | 0.03 | 0.24 | 0.00 | 0.32 | 0.29 | 0.46 | 0.26 | 0.14 | 0.00 |
| Crit Moves: | | | **** | **** | | | | | **** | **** | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Morning Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Atlantic Boulevard (NS) at District Boulevard (EW) - #17

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.952 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | E |

| Street Name: | Atlantic Boulevard | | | | | | District Boulevard | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 1 | 0 | 1 0 | 3 0 | 1 | 2 0 | 1 0 | 1 | 0 1 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 279 | 1132 | 4 | 122 | 670 | 934 | 510 | 62 | 32 | 3 | 249 | 94 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 416 | 1687 | 6 | 182 | 998 | 1392 | 760 | 92 | 48 | 4 | 371 | 140 |
| Added Vol: | 0 | 0 | -1 | -13 | 3 | 1 | 4 | -2 | 0 | 1 | 2 | 14 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 416 | 1687 | 5 | 169 | 1001 | 1393 | 764 | 90 | 48 | 5 | 373 | 154 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 416 | 1687 | 5 | 169 | 1001 | 0 | 764 | 90 | 48 | 5 | 373 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 416 | 1687 | 5 | 169 | 1001 | 0 | 764 | 90 | 48 | 5 | 373 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 416 | 1687 | 5 | 169 | 1001 | 0 | 764 | 90 | 48 | 5 | 373 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.99 | 0.01 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 1.00 | 0.03 | 1.97 | 1.00 |
| Final Sat.: | 1600 | 4786 | 14 | 1600 | 4800 | 1600 | 2880 | 1600 | 1600 | 46 | 3154 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.26 | 0.35 | 0.35 | 0.11 | 0.21 | 0.00 | 0.27 | 0.06 | 0.03 | 0.12 | 0.12 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |

Vernon General Plan Circulation Element Update
Proposed General Plan Year 2035
Evening Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #17 Atlantic Boulevard (NS) at District Boulevard (EW) - #17

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.080 |
| Loss Time (sec): | 10 (Y+R=0.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 100 | Level Of Service: | F |

| Street Name: | Atlantic Boulevard | | | | | | | | | District Boulevard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Prot+Permit | | | Prot+Permit | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 1 | 0 | 1 0 | 3 0 | 1 | 2 0 | 1 0 | 1 | 0 1 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 71 | 717 | 4 | 84 | 1158 | 351 | 1025 | 259 | 218 | 4 | 49 | 90 |
| Growth Adj: | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 | 1.49 |
| Initial Bse: | 106 | 1068 | 6 | 125 | 1725 | 523 | 1527 | 386 | 325 | 6 | 73 | 134 |
| Added Vol: | 0 | -2 | 0 | 4 | 3 | 4 | -2 | 1 | 0 | 0 | 0 | -1 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 106 | 1066 | 6 | 129 | 1728 | 527 | 1525 | 387 | 325 | 6 | 73 | 133 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 106 | 1066 | 6 | 129 | 1728 | 0 | 1525 | 387 | 325 | 6 | 73 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 106 | 1066 | 6 | 129 | 1728 | 0 | 1525 | 387 | 325 | 6 | 73 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 106 | 1066 | 6 | 129 | 1728 | 0 | 1525 | 387 | 325 | 6 | 73 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.98 | 0.02 | 1.00 | 3.00 | 1.00 | 2.00 | 1.00 | 1.00 | 0.15 | 1.85 | 1.00 |
| Final Sat.: | 1600 | 4773 | 27 | 1600 | 4800 | 1600 | 2880 | 1600 | 1600 | 242 | 2958 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.22 | 0.22 | 0.08 | 0.36 | 0.00 | 0.53 | 0.24 | 0.20 | 0.02 | 0.02 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |

# Kunzman Associates, Inc.

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