Ponte Vista Traffic Study

NORTHWEST SAN PEDRO NEIGHBORHOOD COUNCIL
DECEMBER 10, 2012
Introduction

- **Linscott, Law, & Greenspan, Engineers (LLG)**
  - Transportation Planning and Traffic Engineering Consultants
  - Established in Los Angeles in 1966

- **David S. Shender, P.E.**
  - Principal
    - shender@llgengineers.com
  - Licensed Professional Engineer
  - Over 27 Years of Experience
Outline of Presentation

- What is a traffic study and who prepares it?
- Who decides what goes into a traffic study and who reviews the final report?
- How does the public participate in the traffic study preparation?
What are the elements of a traffic study and how is it prepared?

- Study Intersections
- Traffic Counts
- Ponte Vista Trip Forecast
- Related Projects
- Level of Service Calculations
- Significant Impacts
- Mitigation
Outline of Presentation (Cont.)

- What are the findings of the Ponte Vista traffic study?
  - Impacts
  - Mitigation Measures

- How do the traffic impacts of the Ponte Vista project compare to the Alternatives?

- What happens next?
What is a Traffic Study?

- What is a Traffic Study?
- Who Prepares the Traffic Study?
- Who Decides What Goes Into a Traffic Study?
- Who Reviews the Final Report?
- How Does the Public Participate in the Traffic Study Preparation and Review Process?
What is a Traffic Study?

- The traffic study is one chapter of the Draft Environmental Impact Report (Draft EIR) prepared for the Ponte Vista project.

- As required by the California Environmental Quality Act (CEQA), the traffic study is required to review the effects of the Ponte Vista project on the existing environment (i.e., existing traffic conditions).

- As also required by CEQA, the traffic effects of the Ponte Vista project are also reviewed in consideration of forecast future traffic conditions (also called cumulative effects).
Who Prepares the Traffic Study?

- In the City of Los Angeles, traffic studies are prepared by pre-qualified traffic engineering consultants, licensed with the State of California.
- The applicant is required to hire the traffic engineer, with approval from the Los Angeles Department of Transportation (LADOT).
Who Decides What Goes Into a Traffic Study?

- The Los Angeles Department of Transportation (LADOT) is the Lead Agency responsible for defining the Ponte Vista traffic study scope of work, its preparation (including methodology and defining thresholds of significance), and its review and approval.
- In determining the scope of work, LADOT considers comments and suggestions from other agencies, for example, the City of Rancho Palos Verdes, and Caltrans, as well as from members of the community.
- In addition, for the Ponte Vista project, LADOT and LLG had the benefit of comments and concerns expressed related to the prior (“Bisno”) traffic study, and adjusted the scope and methodology accordingly where appropriate.
In the City of Los Angeles, LADOT typically is required to approve a project’s traffic study before a Draft EIR is released for public review and comment.
How Does the Public Participate in the Traffic Study Preparation and Review Process?

- Public scoping process during the Notice of Preparation
- Outreach with members of the community during traffic study preparation process
- LLG participated in meetings with the Northwest San Pedro Neighborhood Council Land Use Committee to receive input on the traffic study preparation and expanded the scope of review to address these comments.
- Comments to the Draft EIR
  - All questions/comments answered in the Final EIR
  - Draft EIR/traffic study revised if new issues arise
- Public Hearings

Ponte Vista Traffic Study
What are the Elements of a Traffic Study and How is it Prepared?

- Elements Of A Traffic Study Chart
- Study Intersections
- Hours And Dates Of Traffic Counts
- Ponte Vista Trip Generation Forecast
- Future Traffic Forecasts
- Level of Service Calculations
- Significance Thresholds
Elements of a Traffic Study Chart

**PROCESS**

1. **Existing Conditions**
   - Identifying Study Area
   - Inventory of Existing Traffic
   - Level of Service Calculations

2. **Existing Plus Project Conditions**
   - Project Traffic Generation & Assignment
   - Level of Service Calculations
   - Determine Significant Impacts

3. **Future Pre-Project Conditions**
   - Related Projects
   - Ambient Growth
   - Level of Service Calculations

4. **Future With Project Conditions**
   - Project Traffic Generation & Assignment
   - Level of Service Calculations
   - Determine Significant Impacts

5. **Analysis of Mitigation Measures**
   - Identify Feasibility Of Measures
   - Level of Service Calculations
   - Confirm Mitigation Effectiveness

---

**Ponte Vista Traffic Study**
Traffic studies in Los Angeles typically evaluate project related impacts at signalized intersections, as they are the locations in the street network where motorists experience the most delay.

The Ponte Vista traffic study evaluates potential impacts at 56 study intersections.

- Intersections selected for analysis based on LADOT requirements, comments from nearby cities, and community feedback.
- Additional intersections added to new traffic study based on comments to the prior Bisno project traffic study.
Map of Study Intersections
New traffic counts were conducted at all study intersections in October 2010.
- Local schools in session
- No road construction

Counts conducted
- 7:00 AM to 10:00 AM – Weekday
- 3:00 PM to 6:00 PM – Weekday
  (2:00 PM to 6:00 PM near schools)
- 11:00 AM to 2:00 PM – Saturday (Western Avenue)

From counts, peak one hour of traffic determined at each intersection during each period.
Ponte Vista Trip Generation Forecast

Weekday Peak Hour

<table>
<thead>
<tr>
<th>LAND USE</th>
<th>SIZE</th>
<th>DAILY TRIP ENDS VOLUMES</th>
<th>AM PEAK HOUR VOLUMES</th>
<th>PM PEAK HOUR VOLUMES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>IN</td>
<td>OUT</td>
<td>TOTAL</td>
</tr>
<tr>
<td>Single-Family Residential (ITE Single-Family Detached Housing Trip Rate)</td>
<td>143 DU</td>
<td>1,369</td>
<td>27</td>
<td>80</td>
</tr>
<tr>
<td>Condominium (ITE Residential Condominium/Townhouse Trip Rate)</td>
<td>600 DU</td>
<td>3,486</td>
<td>45</td>
<td>219</td>
</tr>
<tr>
<td>Apartment (ITE Apartment Trip Rate)</td>
<td>392 DU</td>
<td>2,607</td>
<td>40</td>
<td>160</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>7,468</td>
<td>112</td>
<td>459</td>
</tr>
</tbody>
</table>

Ponte Vista Traffic Study
## Ponte Vista Trip Generation Forecast

### Saturday Peak Hour

<table>
<thead>
<tr>
<th>LAND USE</th>
<th>SIZE</th>
<th>DAILY TRIP ENDS VOLUMES</th>
<th>MID-DAY PEAK HOUR VOLUMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Residential</td>
<td>143 DU</td>
<td>1,441</td>
<td>IN 70</td>
</tr>
<tr>
<td>(ITE Single-Family Detached Housing Trip Rate)</td>
<td></td>
<td></td>
<td>OUT 63</td>
</tr>
<tr>
<td>Condominium</td>
<td>600 DU</td>
<td>3,402</td>
<td>TOTAL 133</td>
</tr>
<tr>
<td>(ITE Residential Condominium/ Townhouse Trip Rate)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apartment</td>
<td>392 DU</td>
<td>2,505</td>
<td>IN 110</td>
</tr>
<tr>
<td>(ITE Apartment Trip Rate)</td>
<td></td>
<td></td>
<td>OUT 94</td>
</tr>
<tr>
<td>Park</td>
<td>2.8 AC</td>
<td>34</td>
<td>TOTAL 6</td>
</tr>
<tr>
<td>(ITE County Park Trip Rate)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>7,382</td>
<td>336</td>
<td>289</td>
</tr>
</tbody>
</table>

---

**Ponte Vista Traffic Study**
Future Traffic Forecasts

- In addition to the Ponte Vista project, forecast of future traffic includes Related Projects and Ambient Growth.

- Approximately 154 related projects evaluated.

- In addition, includes 1% annual ambient traffic growth rate to account for unknown related projects.
Map of Related Projects

Ponte Vista Traffic Study
Level of Service Calculations

- Quantifies intersection operations and used for assessing impacts of a project.
- Volume to capacity (v/c) ratio calculated based on:
  - Volume at intersection (left-turns, throughs, right-turns)
  - Capacity of the intersection (number of traffic lanes, type of signal control)
- Levels of Service used to “grade” intersections.
  - LOS A to F
Significance Thresholds

Levels of Service (LOS)

Significance Thresholds

Volume-to-Capacity Ratio (v/c)

- LOS F
- LOS E
- Δv/c > 0.010
- LOS D
- Δv/c > 0.020
- LOS C
- Δv/c > 0.040
- LOS B
- LOS A

Ponte Vista Traffic Study
What are the Findings of the Ponte Vista Traffic Study?

- Impacted Study Intersections
- Summary of Mitigation Measures
- Project Features
- Mitigation Measures
Impacted Intersections

- 20 intersections significantly impacted due to the project.
- By comparison, 26 intersection impacted due to the Bisno project.
- While size of the project was substantially reduced, the difference in the number of impacted intersections is relatively small due to more conservative trip generation assumptions in the new traffic study.
Map of Impacted Intersections

- Project Impacts (20 Intersections)
Summary of Mitigation Measures

- Per CEQA, traffic study required to identify feasible mitigation measures.

- Mitigation measures only required to mitigate impact of project, not alleviate existing or future congestion not attributable to the project.
• Mitigation measures generally consist of roadway widening (within public right-of-way), median modifications, re-striping, and/or traffic signal modifications (left-turn/right-turn arrows).

• Mitigation is proposed be phased such that improvements are built before the impact occurs.
Construction of mitigation requires consent of the local jurisdiction.

For projects in Los Angeles, the project developer is required to retain engineers and contractors to design and construct the mitigation measures.
Example

Western Avenue & Palos Verdes Drive North (AM Peak Hour)

- **Existing Volume-to-Capacity Ratio (v/c)**
  - Western Avenue & Palos Verdes Drive North (AM Peak Hour):
    - Existing: 0.905
    - Existing + Project: 1.038

- **Δv/c**
  - Existing: -0.258
  - Existing + Project: 0.133

- **Level of Service (LOS)**
  - LOS A
  - LOS B
  - LOS C
  - LOS D
  - LOS E

- **Δv/c values**:
  - Δv/c = 0.133 (Existing + Project)
  - Δv/c = -0.258 (Existing)
Example

Western Avenue & Palos Verdes Drive North (PM Peak Hour)

<table>
<thead>
<tr>
<th>Volume-to-Capacity Ratio (v/c)</th>
<th>Level of Service (LOS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.034</td>
<td>LOS F</td>
</tr>
<tr>
<td>0.851</td>
<td>LOS E</td>
</tr>
<tr>
<td>0.839</td>
<td>LOS D</td>
</tr>
<tr>
<td>0.8</td>
<td>LOS C</td>
</tr>
<tr>
<td>0.6</td>
<td>LOS B</td>
</tr>
<tr>
<td>0.5</td>
<td>LOS A</td>
</tr>
</tbody>
</table>

- **Δv/c = 0.183**
- **Δv/c = 0.195**

- **1** Existing
- **2** Existing + Project
- **3** Existing + Project + Mitigation

Ponte Vista Traffic Study
Project Features

• Western Avenue & Green Hills Drive-North Project Entrance
• Western Avenue & Avenida Aprenda-South Project Entrance
Western Avenue & Green Hills Drive-North Project Entrance (#17)

Existing

Proposed

Provide Bus Turn-out Lane

Provide Additional Through Lane & Widen Western Avenue by 7-feet

Provide Left-Turn Arrows/Phasing for North/South Western Avenue

Provide Additional Through Lane & Widen Western Avenue by 7-feet

Provide Right-Turn Only Lane

Extend Left-Turn Pocket

Ponte Vista Traffic Study
Western Avenue & Avenida Aprenda-South Project Entrance (#18)

Existing

Proposed

Extend Left-Turn Pocket

Provide Additional Through Lane & Widen Western Avenue by 7-feet

Provide Bus Turn-out Lane

Provide Additional Through Lane & Widen Western Avenue by 7-feet

Provide Left-Turn Arrows/Phasing for North/South Western Avenue

Ponte Vista Traffic Study
Mitigation Measures
Crenshaw Boulevard & Pacific Coast Highway (#6)

Provide Second Left-Turn Lane

Widen Crenshaw Boulevard by 2-feet

Existing Proposed

Ponte Vista Traffic Study
Provide Right-Turn Arrows/Phasing for Northbound Crenshaw Boulevard

Crenshaw Boulevard & Palos Verdes Drive North (#7)
Provide Right-Turn Arrows/Phasing for Southbound Western Avenue

Provide Right-Turn Only Lane

Western Avenue & Lomita Boulevard (#12)
Western Avenue & Pacific Coast Highway (#13)

Provide Additional Through Lane
Provide Second Left-Turn Lane
Provide Additional Through Lane

Existing  Proposed
Western Avenue & Palos Verdes Drive North (#15)

Ponte Vista Traffic Study
Western Avenue & Peninsula Verde Drive (#16)
Install New Traffic Signal

Western Avenue

Fitness Drive

Western Avenue & Fitness Drive (#19)
Western Avenue & Westmont Drive (#20)
Provide Right-Turn Arrows/Phasing for Westbound Summerland Avenue

Western Avenue & Summerland Avenue (#26)

Ponte Vista Traffic Study
Provide Right-Turn Only Lane
Widen Anaheim Street by 12-feet

Vermont Avenue - Palos Verdes Drive North-Gaffey Street & Anaheim Street (#36)

Ponte Vista Traffic Study
Gaffey Street & Westmont Drive (#37)

Ponte Vista Traffic Study

Provide Right-Turn Only Lane

Provide Right-Turn Arrows/Phasing for Southbound Gaffey Street
Ponte Vista Traffic Study

Gaffey Street & Summerland Avenue (#41)

Provide Right-Turn Only Lane

Provide Right-Turn Arrows/Phasing for Southbound Gaffey Street

Existing  Proposed  Proposed

Linscott Law & Greenspan engineers
Vermont Avenue & Sepulveda Boulevard (#44)

Provide Second Left-Turn Lane
Remove Existing Raised Median

Existing  Proposed

Ponte Vista Traffic Study
Vermont Avenue & Pacific Coast Highway (#46)

- Widen PCH by 3-feet
- Provide Second Left-Turn Only Lane
Anaheim Street & I-110 Freeway Interchange (#49,53,54)
Figueroa Street & I-110 NB On-Ramp (#51)
Figueroa Street & Pacific Coast Highway (#52)
How Do the Traffic Impacts of the Ponte Vista Project Compare to the Alternatives?

- **Trip Generation and Intersection Impact Comparison**
- **Impacted Intersections**
  - Project
  - Reduced Project
  - R1 Alternative
<table>
<thead>
<tr>
<th>CONDITION</th>
<th>DESCRIPTION</th>
<th>DAILY TRIP ENDS VOLUMES</th>
<th>AM PEAK HOUR VOLUMES</th>
<th>PM PEAK HOUR VOLUMES</th>
<th>NO. OF SIGNIFICANT IMPACTS (FUTURE 2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>143 DU 600 DU 392 DU 1,135 DU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single-Family Condominium Apartment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7,468</td>
<td>112 459 571</td>
<td>458 241 699</td>
</tr>
<tr>
<td>Project Alternative C:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced Density</td>
<td>208 DU 404 DU 218 DU 830 DU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single-Family Condominium Apartment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5,788</td>
<td>91 354 445</td>
<td>361 194 555</td>
</tr>
<tr>
<td>Project Alternative B:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Project/Single-Family Homes</td>
<td>385 DU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single-Family</td>
<td></td>
<td>3,684</td>
<td>72 217 289</td>
<td>245 144 389</td>
</tr>
</tbody>
</table>

Ponte Vista Traffic Study
Map of Impacted Intersections Due to Alternatives

- Single Family Project Only (15 Intersections)
- Reduced Project Only (16 Intersections)
What Happens Next?

- Draft EIR Comment Period
- Preparation of Final EIR (Responses to Public Comments) or Recirculation of Draft EIR if new impacts are found (traffic or other issue areas)
- If approved, construction of the Project
- Construction of traffic mitigation measures by the developer; all mitigation to be completed by developer for each phase of development prior to occupancy
Questions?

To ensure that all questions and comments regarding the traffic study are addressed, please submit to the City of Los Angeles before January 7, 2013 as follows:

Erin Strellich, Planning Assistant
Los Angeles Department of City Planning
200 N. Spring Street, Room 750
Los Angeles, CA 90012
Fax: (213) 978-1343
Email: erin.strellich@lacity.org