Tasman Drive Traffic Study

Community Meeting

July 17, 2013

11:00 A.M. – 12:00 P.M.
Agenda

• Project Review
• Traffic Analysis
  – Scenarios
  – Findings
  – Simulation
• Schedule
• Q&A
Project Objective

• Roadway Capacity Needs/ Analysis
  – Current/ future traffic condition
• Study for installation of Bicycle Lanes on Tasman Drive in Santa Clara
• Tasman Drive in adjacent cities:
  – City of San Jose (to the east)
    • Two thru lanes
    • Existing bicycle lanes
  – City of Sunnyvale (to the west)
    • Two thru lanes
    • No bicycle lanes
Project Limits
Bicycle Lane Options

• Design restrictions
  – Work within existing VTA median and sidewalk curbs
  – 11’ min vehicle thru lanes (outside of intersections)
• Option 1 – Two vehicle thru lanes for all Tasman Drive
  – 5’ min bicycle lanes (does not include 1’ drain inlet area)
  – Painted buffer between #2 lane and bike lane for existing
    3-lane sections
• Option 2 – keep existing 2 or 3 lane thru lane configuration
  – 4’ min bicycle lanes (does not include 1’ drain inlet area)
  – 4’ min used at existing 3-lane sections
  – 5’ bicycle lanes used for other areas
Traffic Analysis Periods

• Work commute peak periods
  – Weekday AM (7 A.M. – 9 A.M)
  – Weekday PM (4 P.M. – 6 P.M.)

• Weekend peak period
  – Saturday mid-day (11 A.M. – 2 P.M.)
  – Convention Center activity (Saturday 4 P.M. – 7 P.M.)
  – Great America Theme Park (Saturday 4 P.M. – 7 P.M.)

• Levi’s Stadium (Special Events)
  – Not studied
  – Temporary traffic operations per Stadium Management Plan
Traffic Analysis Scenarios

• Analysis Scenarios
  – Existing (weekday and weekend)
  – Existing + Approved (weekday only)

• Existing Scenario
  – Roadway 7-day counts (4 locations)
  – Intersection counts (Weekday AM & PM, Saturday MD & PM)

• Existing + Approved Scenario:
  – City model (Traffix) approved trip outputs added to existing volumes
Traffic Analysis

• Option 2 is same as existing conditions
• Roadway Segment Level-of-Service (LOS)
  – Peak hour capacity
• Intersection Level-of-Service (LOS)
  – Peak Periods
  – Synchro model
  – VTA CMP LOS definitions
Traffic Analysis - Roadway

- Tasman Drive classified as Arterial roadway
- City of Santa Clara Roadway Segment LOS Standard
  - LOS D: acceptable
- Roadway LOS Definitions
  - *Highway Capacity Manual*, and
  - *City of Santa Clara General Plan (2010)*

<table>
<thead>
<tr>
<th>LOS</th>
<th>Peak Hour Capacity (vehicles per hour per lane)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>n/a</td>
</tr>
<tr>
<td>B</td>
<td>n/a</td>
</tr>
<tr>
<td>C</td>
<td>450</td>
</tr>
<tr>
<td>D</td>
<td>885</td>
</tr>
<tr>
<td>E</td>
<td>930</td>
</tr>
<tr>
<td>F</td>
<td>&gt;930</td>
</tr>
</tbody>
</table>
# Roadway LOS – Option 1

<table>
<thead>
<tr>
<th>Eastbound Segment</th>
<th>EX WD AM</th>
<th>EX WD PM</th>
<th>EX WE MD</th>
<th>EX WE PM</th>
<th>AP WD AM</th>
<th>AP WD PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lick Mill Blvd – Calle Del Sol</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Centennial Blvd – Convention Ctr Dwy</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Convention Center Dwy – Great America Pkwy</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Old Ironsides Dr – Patrick Henry Dr</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

*EX = Existing scenario  
AP = Existing + Approved scenario  
WD = Weekday  
WE = Weekend  
AM = morning peak period  
MD = midday peak period  
PM = evening peak period

*Significant Impact from existing*
## Roadway LOS – Option 1

<table>
<thead>
<tr>
<th>Westbound Segment</th>
<th>EX WD AM</th>
<th>EX WD PM</th>
<th>EX WE MD</th>
<th>EX WE PM</th>
<th>AP WD AM</th>
<th>AP WD PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lick Mill Blvd – Calle Del Sol</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Centennial Blvd – Convention Ctr Dwy</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>Convention Center Dwy – Great America Pkwy</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Old Ironsides Dr – Patrick Henry Dr</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

*EX = Existing scenario  
AP = Existing + Approved scenario  
WD = Weekday  
WE = Weekend  
AM = morning peak period  
MD = midday peak period  
PM = evening peak period*

*Significant Impact from existing*
## Roadway LOS – Option 2

<table>
<thead>
<tr>
<th>Eastbound Segment</th>
<th>EX WD AM</th>
<th>EX WD PM</th>
<th>EX WE MD</th>
<th>EX WE PM</th>
<th>AP WD AM</th>
<th>AP WD PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lick Mill Blvd – Calle Del Sol</td>
<td>C</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Centennial Blvd – Convention Ctr Dwy</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Convention Center Dwy – Great America Pkwy</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Old Ironsides Dr – Patrick Henry Dr</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

*EX = Existing scenario  AP = Existing + Approved scenario  WD = Weekday  WE = Weekend  AM = morning peak period  MD = midday peak period  PM = evening peak period  *Significant Impact from existing
## Roadway LOS – Option 2

<table>
<thead>
<tr>
<th>Westbound Segment</th>
<th>EX WD AM</th>
<th>EX WD PM</th>
<th>EX WE MD</th>
<th>EX WE PM</th>
<th>AP WD AM</th>
<th>AP WD PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lick Mill Blvd – Calle Del Sol</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Centennial Blvd – Convention Ctr Dwy</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Convention Center Dwy – Great America Pkwy</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Old Ironsides Dr – Patrick Henry Dr</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

*EX = Existing scenario*  
*AP = Existing + Approved scenario*  
*WD = Weekday*  
*WE = Weekend*  
*AM = morning peak period*  
*MD = midday peak period*  
*PM = evening peak period*

*Significant Impact from existing*
Traffic Analysis - Intersections

• City of Santa Clara Intersection Standard
  – LOS D: acceptable
  – LOS E: acceptable for CMP intersections (Great America Pkwy)
• Intersection LOS Definitions
  • VTA Congestion Management Program, Traffic Level of Service Analysis Guidelines
• Results derived from Synchro
  – Implemented VTA CMP standards
  – LOS and Delay (sec)
  – Critical Delay, V/C
• City Criteria for Significant Impact
  – LOS change from acceptable to unacceptable, or
  – If LOS already unacceptable:
    • Incurs 4 or more sec of critical delay, and
    • Increases critical v/c by > 1%
# Intersection LOS – Option 1

<table>
<thead>
<tr>
<th>Tasman Drive Intersection</th>
<th>EX WD AM</th>
<th>EX WD PM</th>
<th>EX WE MD</th>
<th>EX WE PM</th>
<th>AP WD AM</th>
<th>AP WD PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patrick Henry Dr</td>
<td>B+</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B+</td>
<td>B</td>
</tr>
<tr>
<td>Old Ironsides Dr</td>
<td>B+</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B+</td>
<td>B</td>
</tr>
<tr>
<td>Great America Pkwy</td>
<td>C+</td>
<td>D</td>
<td>B-</td>
<td>C</td>
<td>C</td>
<td>E</td>
</tr>
<tr>
<td>Convention Center Dwy</td>
<td>A</td>
<td>A</td>
<td>B-</td>
<td><strong>F 88.5</strong></td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Centennial Blvd</td>
<td>B+</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B+</td>
<td>B</td>
</tr>
<tr>
<td>Calle Del Sol</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>B+</td>
<td>A</td>
</tr>
<tr>
<td>Lick Mill Blvd</td>
<td>C+</td>
<td>C</td>
<td>C</td>
<td>C+</td>
<td>C+</td>
<td>C</td>
</tr>
</tbody>
</table>

*EX = Existing scenario  
AP = Existing + Approved scenario  
WD = Weekday  
WE = Weekend  
AM = morning peak period  
MD = midday peak period  
PM = evening peak period

*Significant Impact from existing*
# Intersection LOS – Option 2

<table>
<thead>
<tr>
<th>Tasman Drive Intersection</th>
<th>EX WD AM</th>
<th>EX WD PM</th>
<th>EX WE MD</th>
<th>EX WE PM</th>
<th>AP WD AM</th>
<th>AP WD PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patrick Henry Dr</td>
<td>B+</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B+</td>
<td>B</td>
</tr>
<tr>
<td>Old Ironsides Dr</td>
<td>B+</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B+</td>
<td>B</td>
</tr>
<tr>
<td>Great America Pkwy</td>
<td>C+</td>
<td>C</td>
<td>B-</td>
<td>C</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Convention Center Dwy</td>
<td>A</td>
<td>A</td>
<td>B-</td>
<td>F 88.5</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Centennial Blvd</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>B+</td>
<td>B</td>
</tr>
<tr>
<td>Calle Del Sol</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Lick Mill Blvd</td>
<td>C+</td>
<td>C</td>
<td>C</td>
<td>C+</td>
<td>C+</td>
<td>C</td>
</tr>
</tbody>
</table>

EX = Existing scenario  
AP = Existing + Approved scenario  
WD = Weekday  
WE = Weekend  
AM = morning peak period  
MD = midday peak period  
PM = evening peak period

* Significant Impact from existing
Simulation

• Existing (Option 1 and Option 2)
  – Weekday AM & PM
  – Weekend MD & PM

• Existing + Approved (Option 1 and Option 2)
  – Weekday AM & PM
### Schedule

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Meeting (Introduction/ Scoping)</td>
<td>June 17</td>
</tr>
<tr>
<td>Complete Traffic Analysis</td>
<td>June 28</td>
</tr>
<tr>
<td>Community Meeting</td>
<td>July 17</td>
</tr>
<tr>
<td>Design Alternative Summary Memorandum</td>
<td>July 19 (tent.)</td>
</tr>
<tr>
<td>30% Plans</td>
<td>August</td>
</tr>
<tr>
<td>Environmental Clearance</td>
<td>August</td>
</tr>
</tbody>
</table>
Question and Answer

City Project Manager: Benison Tran
Email: btran@santaclaraca.gov
Phone: 408-615-3024

Presentation and Q&A will be available on City website:
http://santaclaraca.gov
“Traffic Engineering Division”