



TASMAN DRIVE TRAFFIC STUDY

CITY OF SANTA CLARA



PRESENTED TO



PRESENTED BY



Kimley-Horn
and Associates, Inc.

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

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)*

LOS	Peak Hour Capacity (vehicles per hour per lane)
A	n/a
B	n/a
C	450
D	885
E	930
F	>930

Roadway LOS – Option 1

Eastbound Segment	EX WD AM	EX WD PM	EX WE MD	EX WE PM	AP WD AM	AP WD PM
Lick Mill Blvd – Calle Del Sol	C	D	C	C	C	D
Centennial Blvd – Convention Ctr Dwy	C	D	C	C	C	D
Convention Center Dwy – Great America Pkwy	C	D	C	C	C	D
Old Ironsides Dr – Patrick Henry Dr	C	C	C	C	C	C

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

Westbound Segment	EX WD AM	EX WD PM	EX WE MD	EX WE PM	AP WD AM	AP WD PM
Lick Mill Blvd – Calle Del Sol	C	D	C	C	C	D
Centennial Blvd – Convention Ctr Dwy	C	C	C	C	D	C
Convention Center Dwy – Great America Pkwy	C	D	C	D	C	D
Old Ironsides Dr – Patrick Henry Dr	C	C	C	C	C	C

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

Eastbound Segment	EX WD AM	EX WD PM	EX WE MD	EX WE PM	AP WD AM	AP WD PM
Lick Mill Blvd – Calle Del Sol	C	D	C	C	C	D
Centennial Blvd – Convention Ctr Dwy	C	C	C	C	C	C
Convention Center Dwy – Great America Pkwy	C	C	C	C	C	C
Old Ironsides Dr – Patrick Henry Dr	C	C	C	C	C	C

EX = Existing scenario

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WD = Weekday

WE = Weekend

AM = morning peak period

MD = midday peak period

PM = evening peak period

** Significant Impact from existing*

Roadway LOS – Option 2

Westbound Segment	EX WD AM	EX WD PM	EX WE MD	EX WE PM	AP WD AM	AP WD PM
Lick Mill Blvd – Calle Del Sol	C	C	C	C	C	C
Centennial Blvd – Convention Ctr Dwy	C	C	C	C	C	C
Convention Center Dwy – Great America Pkwy	C	C	C	C	C	C
Old Ironsides Dr – Patrick Henry Dr	C	C	C	C	C	C

EX = Existing scenario

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** 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

Tasman Drive Intersection	EX WD AM	EX WD PM	EX WE MD	EX WE PM	AP WD AM	AP WD PM
Patrick Henry Dr	B+	B	A	A	B+	B
Old Ironsides Dr	B+	B	A	A	B+	B
Great America Pkwy	C+	D	B-	C	C	E
Convention Center Dwy	A	A	B-	F 88.5	A	A
Centennial Blvd	B+	B	A	A	B+	B
Calle Del Sol	A	A	A	A	B+	A
Lick Mill Blvd	C+	C	C	C+	C+	C

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PM = evening peak period

** Significant Impact from existing*

Intersection LOS – Option 2

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

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

Event	Date
Community Meeting (Introduction/ Scoping)	June 17
Complete Traffic Analysis	June 28
Community Meeting	July 17
Design Alternative Summary Memorandum	July 19 (tent.)
30% Plans	August
Environmental Clearance	August

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”