

Arastradero Road Trial Restriping Project

Community Outreach Meeting

June 12, 2012

Agenda

- Project Background
- Changes Made Since June 2011
 - Timing Changes only
- Observations
- Traffic Data Collection Summary
 - 3rd Party Data Collection
- Next Steps
- Questions & Answers

Project Background

Corridor Study initiated by the City in April 2003

Purpose: Create a safer, functional corridor for all users that mitigates aggregate impacts of approved and proposed development projects.

Balance needs of all road users, recognizing high volumes of motorists, bicyclists and pedestrians, especially school commuting children.

Project Background (Continued)

Original Objectives of Project

- Enhance streetscape and quality of life in corridor for local residents
- Enhance school commute safety for K-12 students
- Improve quality of bike and pedestrian experience
- Reduce amount of very high speed vehicles
- Minimize traffic shift to adjacent streets

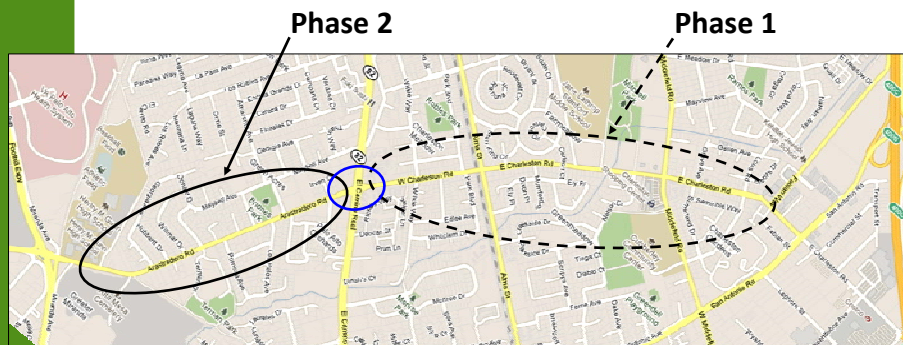
Project Background (Continued)

Charleston - Arastradero Road is a residential arterial and a designated School Route that serves:

- 11 public & private elementary, middle & high schools
- Multiple preschools
- 3 community centers
- 6 public & private parks
- Connection to Stanford Research Park



Project Area



Phase 1 – Charleston Road Improvements

Phase 2 – Arastradero Road Improvements

Future Improvements at El Camino Real Intersection



Project Background (Continued)

Phase I - Charleston Rd Project, 2006-08

- Two-Year Trial Period
- 4- to 3-Lane Reduction
- Traffic Calming Treatments
- Successful Results
- Adopted by Council for permanent installation in 2008
- **Design phase proposed for funding in 2013 CIP**



Project Background (Continued)

Phase 2 - Arastradero Road

- El Camino Real to Gunn High School
- Gunn Driveway Improvements
(Implemented with Phase 1)
- 4-lane to Hybrid 3-Lane in Some Segments
- Traffic Calming Treatments
- Original One-Year Trial Period, 2010-11
 - Trial extended to Summer 2012



Changes During 2011/2012 School Year

Gunn High School Bell Schedule Start

- Previous: 7:55AM
- Current: 8:25AM

Bowman International: Start – 9:00AM

Signal Timing Adjustments:

- Left Turn at Coulombe Dr
- Signal Timing Coordination between Donald/Terman and Coulombe
- All Pedestrian Phase at Donald/Terman ends at 8:10AM
- Additional Eastbound Green Time at Alma St

Observations in Fall 2011 and Spring 2012

AM Peak Hour

- Peak period shift from 7:35-8:05AM to 8:00-8:25AM
- Increased bicycle and pedestrian activity

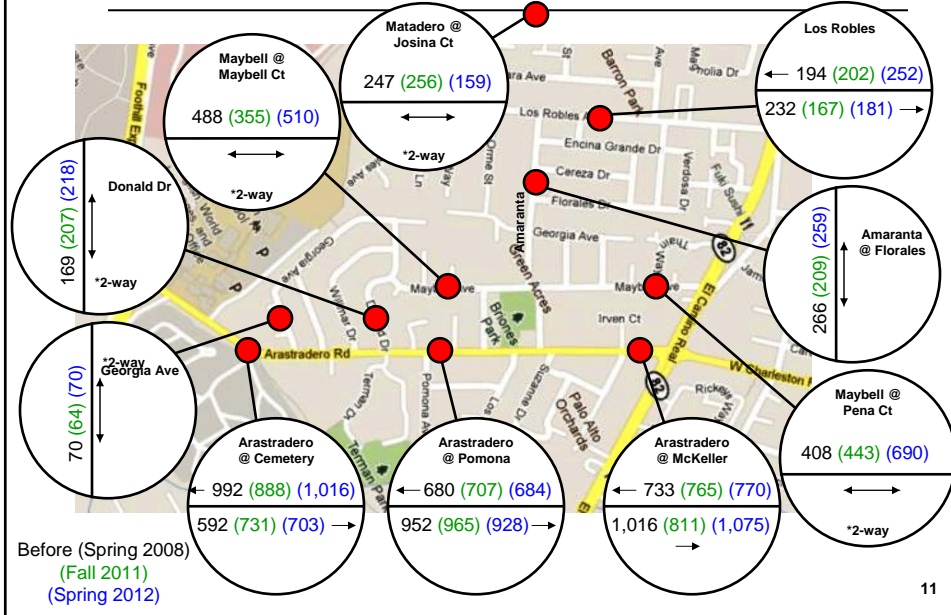
PM Peak Hour

- Long queues at Foothill Expressway
- Consistent but steadily moving EB traffic to El Camino Real

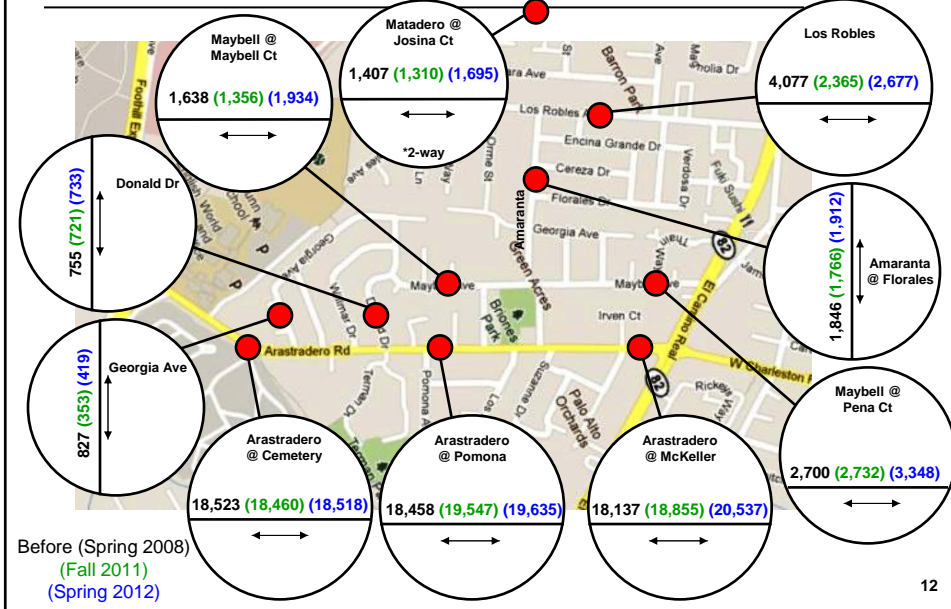
Between Fall and Spring

- Slight increase in travel time
- Slight Increases in vehicular traffic

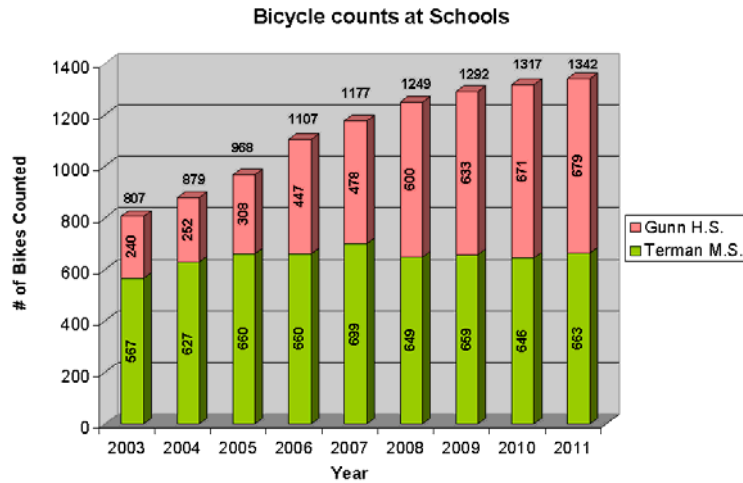
AM Peak Hour Traffic Comparison (Primary Traffic Movements during AM School Peak Hour)



Daily Traffic Count Comparison Combined Two-Way Daily Traffic Movements



Bicycle Use to Public Schools: Gunn High School and Terman Middle School



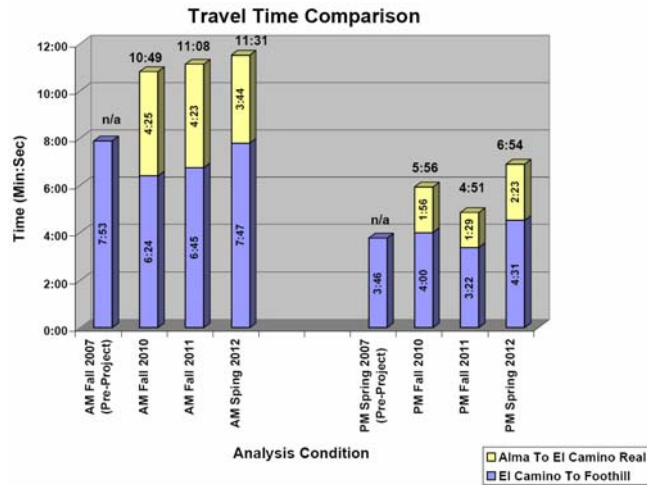
Segment Travel Time Survey Summary: Average Peak Period Travel Times (Table)

		Eastbound	Westbound	
		ARASTRADERO RD Foothill Exp to El Camino	CHARLESTON RD Alma St to El Camino	ARASTRADERO RD El Camino to Foothill Exp
AM Peak Hour	Time Period			
Pre-Project	2006/07 (7:30-7:55 AM)	4' 49"	n/a	7' 53"
1 st Year of Trial	2010-2011 (7:30-7:55AM)	6' 22"	4' 25"	6' 24"
Fall Condition	Fall 2011 (8:00-8:25AM)	3' 48"	4' 23"	6' 45"
Spring Condition	Spring 2012 (8:00-8:25AM)	3' 59"	3' 43"	7' 47"
PM Peak Hour	Time Period			
Pre-Project	2006/07 (5:15-6:00 PM)	4' 05"	n/a	3' 46"
1 st Year of Trial	2010-2011 (5:15-6:00 PM)	4' 27"	1' 56"	4' 00"
Fall Condition	Fall 2011 (5:15-6:00 PM)	4' 12"	1' 29"	3' 22"
Spring Condition	Spring 2012 (5:30-6:00 PM)	4' 27"	2' 23"	4' 31"

Time starts after passing El Camino (WB) or Foothill (EB) intersection



Segment Travel Time Survey Summary (Westbound): Average Peak Period Travel Times (Chart)



Off-Peak Vehicle Speed Findings Arastradero Road

Midday (9AM and 4PM)	West of Georgia	East of Pomona	East of McKellar
85% Speed Eastbound	35.6 [35.1] (34.2)	37.4 [34.4] (33.1)	30.0 [32.2] (32.0)
85% Speed Westbound	36.5 [36.5] (33.6)	36.9 [35.3] (35.3)	37.1 [33.3] (32.4)
% > 37mph Eastbound	9.2% [6.9%] (4.8%)	18.0% [6.1%] (6.1%)	6.1% [3.5%] (1.6%)
% > 37mph Westbound	12.8% [13.2%] (3.8%)	14.9% [8.4%] (8.4%)	15.3% [3.1%] (2.4%)

Spring 2010 (before project)
 Spring 2011 (after project)
 Fall 2011 (Current Conditions)

Vehicle Travel Speed Findings:

- Consistent 2 to 5 mph reduction in 85th percentile speed
- Significant reduction in high speed automobiles over 37 mph

Arastradero Road Collision Data Summary:

Year / Time Period	Total	Bike and Ped Involved	Highest Incident Location (not including El Camino)	Incidents at El Camino Real
2005	20	5	Georgia (4)	5
2006	20	0	Terman (4)	11
2007	15	5	Coulombe (2)	8
2008	11	1	five locations (1)	6
2009	13	6	Georgia(3)	3
2010	11	1	three locations (1)	8
2011	18	1	Clema (5),	4
2012	Tbd [3]*	1	three locations (1)	[0]*

*Data through April 5, 2012
 Arastradero Trial started September 2010
 Clema Crossing built in February 2011

Collisions:

- Reduction in incidents involving bicyclists and pedestrians
- Reduction in automobile incidents



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Summary of Findings

Collisions:

- Reduction in incidents involving bicyclists and pedestrians
- Reduction in automobile incidents

Vehicle Travel Speeds:

- Consistent 2 to 5 mph reduction in 85th percentile speeds
- Significant reduction in high speed automobiles over 37 mph

Traffic Volumes:

- Arastradero volumes have slight increase in Spring
- Increased automobile volumes consistent with regional growth
- Increased bike and pedestrian use each year with less incidents
- No apparent shift in Barron Park Neighborhood



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Recommendations

Improvements to Refine Corridor

- At Terman, provide Right Turn Arrow to allow egress school traffic to move with Arastradero Rd Left Turn traffic during the same period when the all-pedestrian movement takes place
- Remove island at Hubbart and Ynigo to allow residents left turn to/from Arastradero Rd
- Relocate speed sign facing westbound Arastradero Rd
- Green bike lane treatments at key intersections
- Feasibility Study for El Camino Real / Arastradero-Charleston intersection improvements



QUESTIONS/COMMENTS

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