



VEHICLE EMISSIONS REDUCTIONS BASED AT SCHOOLS (VERBS)
 GRANT APPLICATION
 FY2012/13-FY2015/16

SECTION ONE: PROJECT SUMMARY

Project Title	Arastradero Road Schoolscape – Multi-use Trail
Project Description (Specific goals and objectives that result from VERBS funding. Include how many schools, which grades and how many schools are expected to benefit from this program.)	<p>The Arastradero Road Schoolscape – Multi-use Trail project proposes a reconstruction of the sidewalk along the south side of Arastradero Road between the Hetch Hetchy-Los Altos Pathway and Miranda Avenue to a multi-use trail to support Safe Routes to School activities to Gunn High School and, complimented by Schoolscape treatments, to provide a comfortable environment for the high volume of school-aged users in the corridor. The project includes:</p> <ul style="list-style-type: none"> • A new .26 mile multi-use pathway along the south side of Arastradero Road between the Hetch Hetchy-Los Altos pathway and Miranda Avenue with pedestrian rails to restrict access across Arastradero Road and complimentary hardscape/landscape treatments • Upgrades to the Hetch Hetchy-Los Altos Trail Path, including low-level lighting in conjunction with trail maintenance and access improvements • Schoolscape measures along Arastradero Road including pedestrian-scaled lighting and landscaped median islands to encourage vehicle speed reductions on Arastradero Road • Schoolscape intersection treatments at Gunn High School including study and consideration of exclusive pedestrian signal phasing, enhanced textured crosswalk treatments, and ADA upgrades.
Grant Funds Requested (\$)	\$1,000,000

Grant Funds Fiscal Year (FY)	2015
Program Component	<input type="checkbox"/> Non-infrastructure <input checked="" type="checkbox"/> Infrastructure
Local Match (11.47% Min)	\$501,605 (33%)
Total Project Cost	\$1,501,605
Member Agency	City of Palo Alto
Contact Person	Jaime O. Rodriguez
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Other Project Partners	

SECTION ONE: PROJECT SUMMARY CONTINUED

1. A map and/or photos of the project, including the benefiting school location

Project Maps

The Charleston Road/Arastradero Road corridor is a residential arterial on the City's school commute corridor network. The corridor serves as one of three east-west corridors in Palo Alto connecting South Palo Alto and Highway 101 to the east to Los Altos Hills, the Stanford Research Park, Foothill Expressway, and I-280 to the west. Along the way, the entire corridor serves eleven public and private schools, five public parks, two community centers, and three shopping centers while traversing the Caltrain railway at Alma Street.

The Arastradero Road Schoolscape – Multi-use Trail project shown in Figure 1 will improve the connection between the Hetch Hetchy-Los Altos Trail and Arastradero Road by using Schoolscape treatments to guide bicyclists and pedestrians along the south side of the Arastradero Road to improved bicycle and pedestrian facilities at Gunn High School. Gunn High School serves students from Palo Alto, Los Altos, and Los Altos Hills. The proposed multi-use trail improvements extend to Miranda Avenue and support Safe Routes to School activities for students from all three communities. The project also upgrades the Hetch Hetchy-Los Altos path maintained by the City of Palo Alto to provide low-level pedestrian lighting to open the pathway to users during all periods of the day and Schoolscape enhancements to buffer the pathway from the adjacent traffic on Arastradero Road.

Figure 1: Project Map

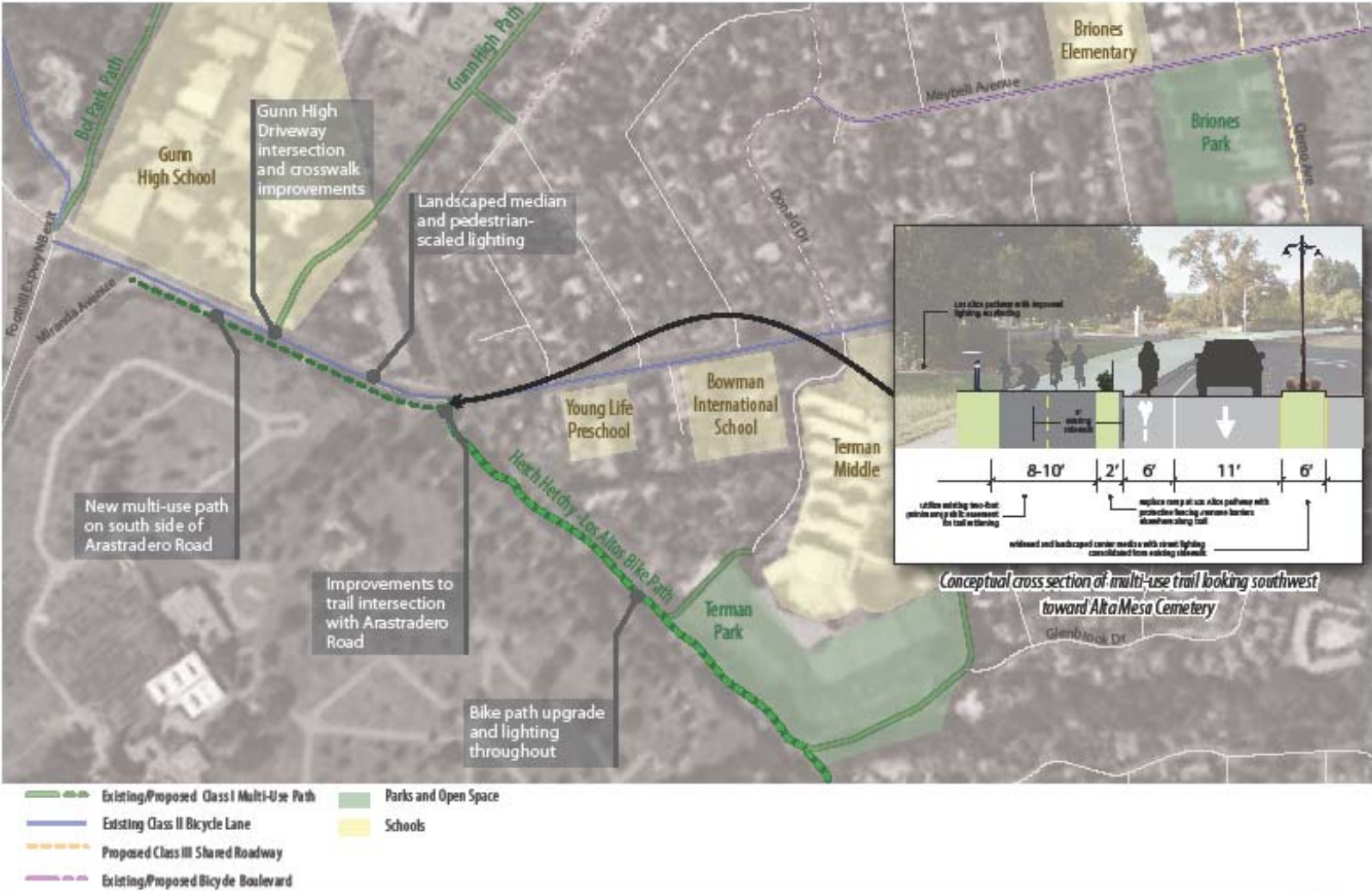


Figure 1. Arastradero Road Schoolscape - Multi-Use Trail

Vehicle Emissions Reductions Based at Schools (VERBS)
City of Palo Alto
Date: February 28, 2013

0 1/8 Miles

Project Proximity to adjacent Public and Private Schools

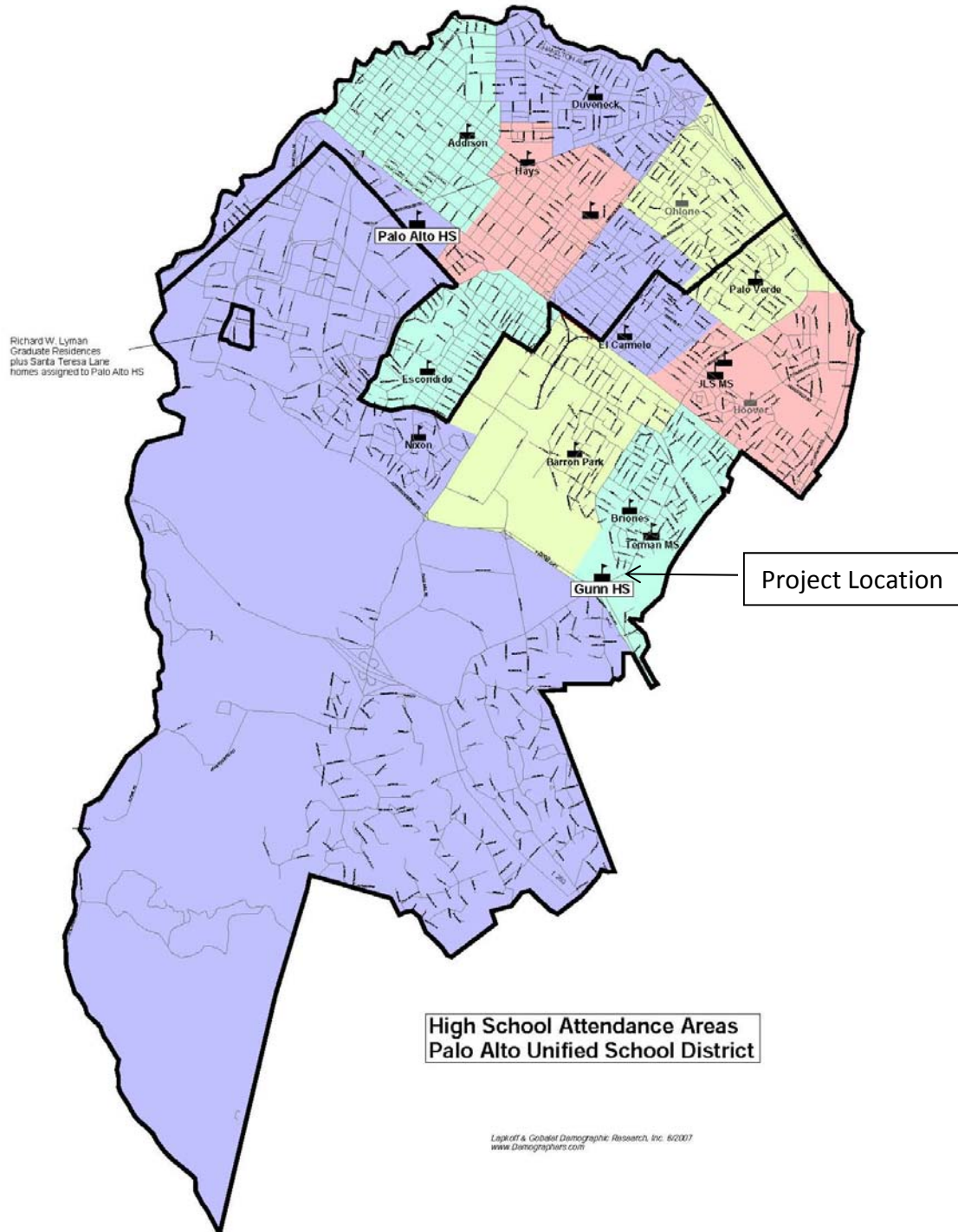
Three public schools and two private schools are in the immediate vicinity of this project:

- **Gunn High School – 0 FT**
The project traverses immediately adjacent to and provides improvements to the existing traffic signal at Arastradero Road & Gunn High School servicing students from Palo Alto, Los Altos, and Los Altos Hills.
- **Young Life Preschool – 200 FT**
Young Life Preschool is immediately adjacent to the east end of the Arastradero Road Schoolscape – Multi-use Trail project. The proposed project improves safety of young students accessing the adjacent trail by providing Schoolscape measures along Arastradero Road to buffer the proposed multi-use trail from adjacent Arastradero Road traffic.
- **Terman Middle School – 250 FT**
Terman Middle School is located on Arastradero Road at Terman Drive which runs parallel to the Hetch Hetchy-Los Altos Trail and provides access to both Terman Middle School and the adjacent Terman Park.
- **Bowman International School – 250 FT**
Bowman International School is a private institution located immediately adjacent to Terman Middle School and benefits from the same trail access points for the Hetch Hetchy-Los Altos Trail.
- **Juana Briones Elementary School – ¼ Mile**
Juana Briones Elementary School is located one-quarter mile northeast of the proposed project. Recommended Safe Routes to School commute routes to Juana Briones School include use of Georgia Avenue and Donald Drive located adjacent to the Hetch Hetchy-Los Altos Trail. The proposed project better channelizes student traffic accessing those facilities from the trail, improving bicycle and pedestrian access to the school.

Figure 2: Project Location Adjacent to Public Schools highlights the proximity of the public schools above and their attendance boundaries to the proposed Arastradero Road Schoolscape – Multi-use Trail project. The proposed project supports recently completed Safe Routes to School Walk 'n Roll map recommendations for each of the three public schools: Gun High School, Terman Middle School, and Juana Briones Elementary School.

SECTION ONE: PROJECT SUMMARY CONTINUED

Figure 2: Project Location Adjacent to Public Schools



SECTION ONE: PROJECT SUMMARY CONTINUED

Project Photos



Photo 1:
Cyclist entering Arastradero Road from
Hetch Hetchy-Los Altos Bike Path into
Uncontrolled Traffic



Photo 2:
View of Hetch Hetchy-Los Altos Trail
from Arastradero Road



Photo 3:
Hetch Hetchy-Los Altos Trail Intersection
At Arastradero Road



Photo 4:
View of Uncontrolled Arastradero Road
Traffic at Hetch Hetchy-Los Altos Trail



Photo 5:
South View of Trail at Los Altos Border



Photo 6:
Proposed Multi-use Path at Gunn High Driveway



Photo 7:
Project Multi-use Path along Alta Mesa



Photo 8:
Project Multi-use Path at Alta Mesa Driveway Showing Narrow sidewalk Facilities to be Improved to a Multi-use Path with Park Strip Buffer

SECTION ONE: PROJECT SUMMARY CONTINUED**2. Proposed project cost estimate and schedule**

City of Palo Alto
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 Project Title: Arastradero Road Schoolscape – Multi-use Trail

FUND TABLE

PROJECT COST (\$1,000s)					PROJECT SCHEDULE (mm/yy)	
PROJECT PHASE	FUNDS REQUESTED	LOCAL MATCH \$	LOCAL MATCH %	OTHER FUNDS TYPE/\$	START DATE	END DATE
ENV	\$0	\$35	100%		7/13	12/13
				\$ -		
PSE	\$0	\$161	100%		10/13	6/14
				\$ -		
ROW	\$0	\$0	N/A		N/A	N/A
				\$ -		
CON	\$1,000	\$306	18.9%		9/14	3/15
				\$ -		
TOTAL	\$1,000	\$502	33%			

BUDGET

Arastradero Road Schoolscape - Multi-use trail					
Item #	Description	Units	Quantity	Unit Cost	Cost
1	Demolish and remove existing pathway	LS	1	\$ 40,000.00	\$ 40,000.00
2	1/2" AC pathway @ 2" depth	tons	207	\$ 165.00	\$ 34,100.00
3	Class II AB @ 6" depth	cy	648	\$ 75.00	\$ 48,600.00
4	Pressure Treated 2x12 header boards	lf	3,200	\$ 4.00	\$ 12,800.00
5	Decomposed Granite	SF	6,400	\$ 13.00	\$ 83,200.00
6	Pedestrian Barrier Rail	LF	1,375	\$ 75.00	\$ 103,125.00
7	Demo existing curb on sidewalk	LF	1,375	\$ 7.00	\$ 9,625.00
8	Remove existng soil and landscaping	SF	4,125	\$ 5.00	\$ 20,625.00
9	Install new concrete sidewalk	SF	4,125	\$ 10.00	\$ 41,250.00
10	Center median concrete curb	LF	2,750	\$ 55.00	\$ 151,250.00
11	Center Median Landscaping	SF	5,500	\$ 6.00	\$ 33,000.00
12	Center Median Irrigation	SF	5,500	\$ 4.00	\$ 22,000.00
13	Illuminated Bollard	EA	60	\$ 1,300.00	\$ 78,000.00
14	Install New Street Light	EA	6	\$ 7,500.00	\$ 45,000.00
15	Remove Exisitng Street Light	EA	6	\$ 6,000.00	\$ 36,000.00
16	Electrical Conduit and wiring	LF	2,000	\$ 45.00	\$ 90,000.00
17	Textured Crosswalks	SF	1,300	\$ 30.00	\$ 39,000.00
18	ADA Curb Ramp	EA	7	\$ 5,000.00	\$ 35,000.00
19	Traffic Control	LS	1	\$ 50,000.00	\$ 50,000.00
20	Striping & Signage	LS	1	\$ 50,000.00	\$ 50,000.00
21	Schoolscape Intersection Treatments	LS	1	\$ 50,000.00	\$ 50,000.00
	SUBTOTAL				\$1,072,575.00
	Design (15%)				\$ 160,886.25
	Construction Manager (5%)				\$ 53,628.75
	Permits (1%)				\$ 10,725.75
	Testing (3%)				\$ 32,177.25
	Art (1%)				\$ 10,725.75
	Contingency (15%)				\$ 160,886.25
	TOTAL				\$1,501,605.00

SECTION TWO: PROJECT NARRATIVE

(Use Section Two to respond to the Screening Criteria and to the Scoring Criteria categories for either the Non-infrastructure or Infrastructure Improvements as found in Attachment A)

SCREENING CRITERIA

1. Issue statement that clearly identifies the purpose, need and expected outcome(s) of the project.

Purpose of Improvements

The purpose of the Arastradero Road Schoolscape – Multi-use Trail project is to:

- Enhance school commute safety for K-12 student cyclists and pedestrians through infrastructure improvements along City-designated Safe Routes to School Walk 'n Roll routes to Gunn High School, Terman Middle School, and Juana Briones Elementary School.
- Improve the quality of bicycle and pedestrian facilities by installing “Schoolscape” intersection treatments at the Gunn Driveway and buffering facilities more effectively from adjacent streets through innovative hardscape, landscape, and channelizing treatments.
- Enhance access to facilities through pedestrian-scaled streetlight improvements both along Arastradero Road and the Hetch Hetchy-Los Altos Trail to support student use from activities that extend beyond sunset at the adjacent public schools.
- Reduce the amount of very high speed vehicles along Arastradero Road through Schoolscape-focused roadway measures including the installation of new landscaped median island improvements.
- Measure the associated reductions in vehicle miles traveled, emissions, and congestion.



The ultimate goals of the Arastradero Road Schoolscape – Multi-Use Trail are to increase the number of students and parents using alternative modes of transportation to school (walking, biking, skating, carpooling, bus) and reduce school related vehicle miles traveled and emissions.

Project Need

Safety concerns on Arastradero Road include high vehicular speeds and volumes and the presence of a relatively high number of vulnerable users. The Arastradero Road corridor realizes over 1,000 student-age users daily because of the unusual cluster of public and private schools along the roadway. The City has taken proactive measures to implement traditional traffic calming measures along Arastradero Road that were approved for permanent retention and installation of permanent measures. The Arastradero Road Schoolscape – Multi-use Trail implements innovative Schoolscape measures that build upon the past traffic calming measures and community momentum for the creation of a student-first multi-modal corridor. The Multi-use Trail project is the western anchor of the larger Arastradero Road ‘Schoonscape Project’ that will extend to El Camino Real.

The Arastradero Road ‘Schoonscape Project’, of which this Multi-use Trail proposal is the westernmost component, seeks to make permanent recent roadway configuration changes by installing landscaped center medians, pedestrian-scaled lighting, enhanced crosswalks, and bus stop improvements. The corridor project goes beyond typical traffic calming, however, to create a school-focused mobility corridor complete with reconfiguration of the problematic El Camino Real intersection, enhanced bicycle lane treatments, student bicyclist comfort stations at bulb-outs (with repair stands, water fountains, and other amenities), and first-of-their-kind Walk ‘n Roll pavement and sidewalk markers to promote coordination with the Safe Routes to School ‘Walk and Roll’ program. The intersection and trail upgrades included in this proposal, along with the extension of the Hetch Hetchy-Los Altos pathway, are essential parts of the overall Schoonscape initiative at the western end of the corridor.

High Traffic Speeds and Volumes

The 2004 *Charleston/Arastradero Road Corridor Plan*¹ documented high-speed, high volume conditions for Arastradero Road. The existing conditions report identified 85th-percentile vehicle speeds of 36.9 mph on Arastradero at Pomona Avenue, the second-highest speed along the Charleston-Arastradero corridor. The report also observed average daily motor vehicle volume on Arastradero of approximately 20,500 (both directions). Peak hour volumes ranged from 900 to 1,200 vehicles per hour.

The 2008 *Charleston-Arastradero Corridor Trial Improvements Evaluation* documented average vehicle volumes on Arastradero Road at 18,300 vehicles daily, or 18 percent higher traffic volumes than on Charleston Road.

The *Charleston/Arastradero Corridor Traffic Accident Analysis* (2011) found that crashes on the Charleston/Arastradero corridor constitute four to seven percent of the yearly crashes in Palo

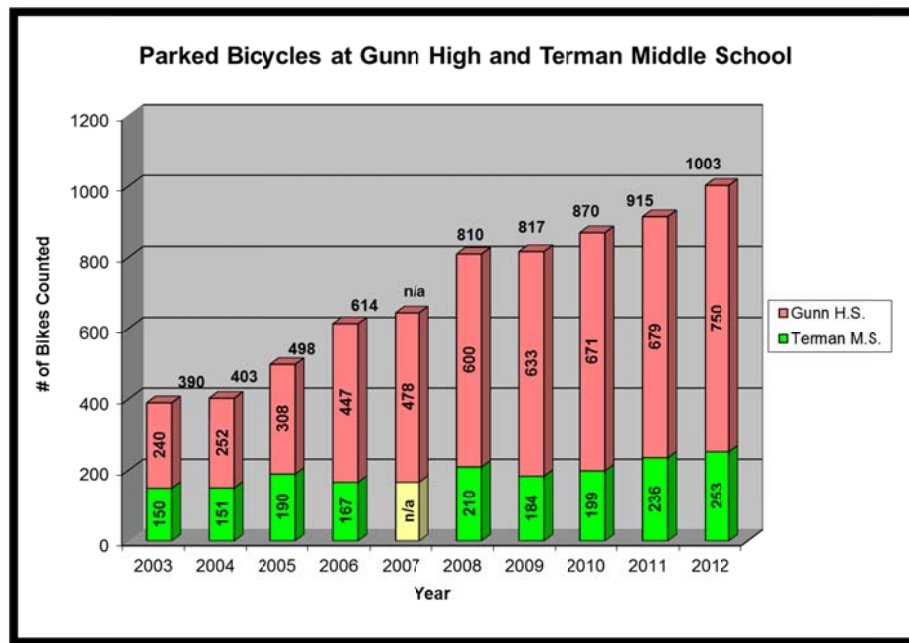
¹ <http://www.cityofpaloalto.org/gov/topics/projects/transit/charleston.asp>

Alto, and that the number of crashes involving bicyclists and pedestrians on the corridor is slightly higher than in general in Palo Alto.

High Volumes of Vulnerable Users

Arastradero Road has a high proportion of bicyclists; the Palo Alto Transportation Division found that 19 percent of morning peak traffic in the westbound direction was comprised of cyclists.² In addition, Arastradero Road has a very high proportion of students using the road, due to the presence of Gunn High, Terman Middle, and Briones Elementary. All of these schools have high rates of walking and bicycling. Student pedestrians are a particularly vulnerable group, as they may be harder for drivers to see (due to shorter stature than adults) and they may behave more erratically, not waiting for an appropriate crossing location or gap.

Figure 3: Parked Bicycles at Gunn High and Terman Middle School



In 2012, the City and PTA counted bicycles parked at schools as part of an annual tally of bicycle ridership throughout the school district. The historical results are graphed in Figure 3.

Combined with school enrollment, the count estimates that 41 percent of students at Gunn High School (750 students) and 37 percent at Terman Middle School (253 students) bicycle to school. This adds to over 1,000 students biking to these schools. A 2012 Safe Routes to School Parent Survey conducted for MTC found that 6 percent of Gunn High School students walk to and from school, while 11 percent at Terman Middle School walk.

² http://www.paloaltoonline.com/news/show_story.php?id=26994

Despite these high numbers of students walking and bicycling along and across Arastradero and Charleston Roads, walkabouts for the Palo Alto Safe Routes to School Program have identified Arastradero and Charleston Roads as key impediments to walking and bicycling and reasons why parents would not allow their students to walk or bicycle. The proposed improvements along this critical segment of Arastradero Road will calm traffic, minimize conflicts with vehicular traffic, and improve safety.

Phased Re-striping Trials to Implement Road Diet

Efforts to re-design the Charleston/Arastradero Road corridor in south Palo Alto for all types of road users, particularly school-commuting children, began in 2000 with an initial study of Charleston Road. In 2004, the City approved a plan of phased implementation of improvements for the Charleston/Arastradero Corridor. Trial restriping traffic calming projects took place in 2006 and 2010 respectively.



Only the El Camino Real & Arastradero Road-Charleston Road intersection has not realized traffic calming improvements due to operation and maintenance by Caltrans. The City has a concurrent One Bay Area Grant (OBAG) proposal for the Arastradero Road Schoolscape project between El Camino Real and Miranda Avenue; the proposed project implements only a portion of the proposed OBAG project along the west end of the project area.



In summer 2009, the City Council approved the plan for the Phase 2 trial project on Arastradero Road between El Camino Real and Gunn High School for a one-year trial period in 2010 and was extended to two years due to changes in the bell schedules at Gunn High School in 2011 impacting the commute patterns to all schools serviced by Arastradero Road. The trial project included a 4-lane to 3-lane reduction with hardscape treatments via median islands at Arastradero Road & Clemo Drive to support pedestrian crossing activities via an enhanced pedestrian-activated rapid flashing beacon and at Arastradero Road & Ynigo Way to support a dynamic vehicle speed feedback sign. The trial project was approved by permanent retention in 2012 and implementation of permanent

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measures that are an element of the proposed Arastradero Road Schoolscape – Multi-use Trail project.

Expected Outcome

The City of Palo Alto expects the following outcomes of this project:

- Improved bicycle and pedestrian facilities that are safely and more effectively integrated with Arastradero Road
- Reduced vehicle speeds through new landscaped median island treatments
- An increase in bicycle and pedestrian use through Schoolscape amenities between the Hetch Hetch-Los Altos Trail and Miranda Avenue
- Reduced VMT and improved air quality



to access Terman

2. Proposed method to evaluate the reduction in criteria pollutants and congestion.

Reductions in criteria pollutants and congestion will be measured by counting the numbers of parked bicycles at each school to measure mode shift changes and measuring of vehicle speeds through the use of existing vehicle speed feedback signs adjacent to the project area installed as part of the successfully completed trial restriping project.

3. Letters of Support for the project from school officials and any ancillary information that will inform the evaluation process.

Letters of Support

The City of Palo Alto has formed a local Safe Routes to School local partnership with the Palo Alto Unified School District, the Palo Alto Council of PTAs, and the Parent Teacher Associations at individual schools. In addition, the Palo Alto Housing Corporation, a low-income housing developer who also administers the city's Below Market Rate Purchase Program, has endorsed this application as the Arastradero corridor serves many of the residents they serve. The attached letters indicate substantial support for the proposed infrastructure program. See *Attachment A – Letters of Support*.

Community Support and Engagement

The Charleston-Arastradero corridor has been the focus of many planning efforts in the last decade. As such, the bicycle and pedestrian improvements of this proposed project represent years of public involvement and municipal support. Key documents include the following:

- *Charleston/Arastradero Corridor Plan* (2004)
- *Charleston-Arastradero Corridor Trial Improvements Evaluation* (2008)
- *Charleston/Arastradero Corridor Traffic Accident Analysis* (2010)
- *Palo Alto Bicycle + Pedestrian Transportation Plan* (2012)
- 2012 City Council Vote
- *Palo Alto Capital Improvement Projects* (2012-2016)

Arastradero Road is also a designated School Commute Corridor, as defined by the City/ School Transportation Safety Committee (CSTSC), a partnership between community leaders at each of the public schools in the City, Palo Alto Unified School District (PAUSD) administrators, and City staff.

Charleston/Arastradero Corridor Plan (2004)

The *Charleston/Arastradero Corridor Plan* sought to address school commute and other travel safety concerns for pedestrians, bicyclists and drivers. The Plan included two community meetings in July 2003.

In response to the Plan, the City implemented at “Travel Smart, Travel Safe” Residential Arterial program, which included advanced traffic detection, traffic-adaptive system, communication system upgrade, adjusted signal timing, V-calm electronic speed signs, and enhanced crosswalks.

A trial restriping project on Arastradero Road was identified through stakeholder groups from adjacent neighborhood associations, school staff and Parent-Teacher Associations and implemented in 2012.

Charleston-Arastradero Corridor Trial Improvements Evaluation (2008)

The Evaluation involved a stakeholders group and a meeting in November 2006. The Evaluation considered options for the trial restriping on Arastradero Road, particularly considering the congestion issues around the Gunn High driveway and a midblock crosswalk near Briones Park. Based on the analysis, the Evaluation recommended providing two inbound lanes into the Gunn High parking lot, noting that, “without Gunn High School working correctly, it is unlikely that the public will accept the reduced mobility and poorer operations of Arastradero as a three-lane arterial route.” The Evaluation also recommended

installation of a marked crosswalk at Clemo, which was implemented along with a median island.

Charleston/Arastradero Corridor Traffic Accident Analysis (2011)

This report provides an analysis of traffic accident data from the California Highway Patrol between 1995 and 2009. The report does not provide an author, but it was written to encourage the Palo Alto Transportation Division to consider crash data when analyzing potential improvements.

Post-Construction Community Workshops

After a two year trial and evaluation period, the community and city council officially assessed the trial striping improvements for retention. Community support and testimony from 30 residents, most in favor of the restriping, supported the city council's unanimous vote to retain the configuration in October 2012.

Palo Alto Bicycle + Pedestrian Transportation Plan (2012)

The 2012 BPTP recommends this project as BK-1: Charleston/Arastradero Road Enhanced Bikeway. Recommendations include enhanced bike lane striping, installation of permanent median islands, improved pedestrian/bicycle crossings at key north-south bikeway connections, and select spot improvements. The BPTP involved considerable public outreach, including two public open houses and an online survey to solicit input from the general public. The BPTP was also developed in coordination with the Palo Alto Bicycle Advisory Committee (PABAC), the City/School Traffic Safety Committee (CSTSC), and the Planning & Transportation Commission.

2012 City Council Vote

In October 2012, the Palo Alto City Council voted 8-0 in favor of making the trial restriping on Arastradero Road permanent. The street modifications included a “road diet” from four to three lanes in some locations, two-way left-turn lanes, a flashing-beacon crosswalk with a raised median at Clemo Drive, a left-turn signal at Coloumbe Drive for eastbound traffic on Arastradero, and a median island at Hubbard Street.



ripping

Thirty residents provided testimony, primarily in support of keeping the reconfiguration. The Transportation Division reported that they have found no significant change in traffic volumes due to the restriping, although they have recorded an increase in bicyclists.

Palo Alto Capital Improvement Projects

Palo Alto supported the recommendation in the BTP and from previous public engagement efforts by including project PE-13011: Charleston/Arastradero Corridor Project in the City's *Capital Improvement Projects* list for 2012-2016. The program implements a permanent reconfiguration to formalize the Charleston/Arastradero Corridor Plan recommendations.

Safe Routes to School Program

The City of Palo Alto was designated as a Gold level Bicycle Friendly City in 2003, based not only on its well-known bicycle facilities but on the commitment to bicycle safety education. The city is currently expanding its Safe Routes to School program (with the help of VERBS funding) by updating curricula for students and parents, conducting walk and bike audits at all schools, developing school commute maps for all schools, updating adult crossing guard and school speed limit policies, developing a school loading zone policy, improving bicycle and pedestrian data collection methods, and enhancing encouragement and outreach tools.

The Palo Alto Police Department is a strong partner in this SRTS partnership. The traffic sergeant prioritizes enforcement around schools not just during Operation Safe Passage, but all during the school year. The Chief of Police sends home a letter to K-8 parents at the start of every school year. (See the 2012 letter in *Attachment A*).

SCORING CRITERIA

Infrastructure Improvements

1. Gap Closure

The proposed .26-mile long multi-use trail along Arastradero Road improves an existing substandard sidewalk facility and channelizes uncontrolled access across Arastradero Road between the Hetch Hetchy-Los Altos Trail to Miranda Avenue servicing high volume pedestrian and bicycle demand from the Palo Alto, Los Altos, and Los Altos Hills communities. Student using the Hetch Hetchy-Los Altos Trail currently either ride in the wrong direction on Arastradero Road against high-speed, high-volume traffic or cross uncontrolled in traffic gaps; either condition is unsafe for student commuters.

The Charleston Road-Arastradero Road corridor is one of only three east-west corridors in Palo Alto. The traffic calming aspects of this project will enhance a connection from the Arastradero Road Trail (west of Foothill Expressway) to El Camino Real and will overcome significant existing obstacles to use of the corridor.

2. Access to/from school

This project is within one-third of a mile walking distance of two public schools and two private schools: Gunn High (public), Terman Middle (public), Bowman International (private), and Young Life Preschool (private).

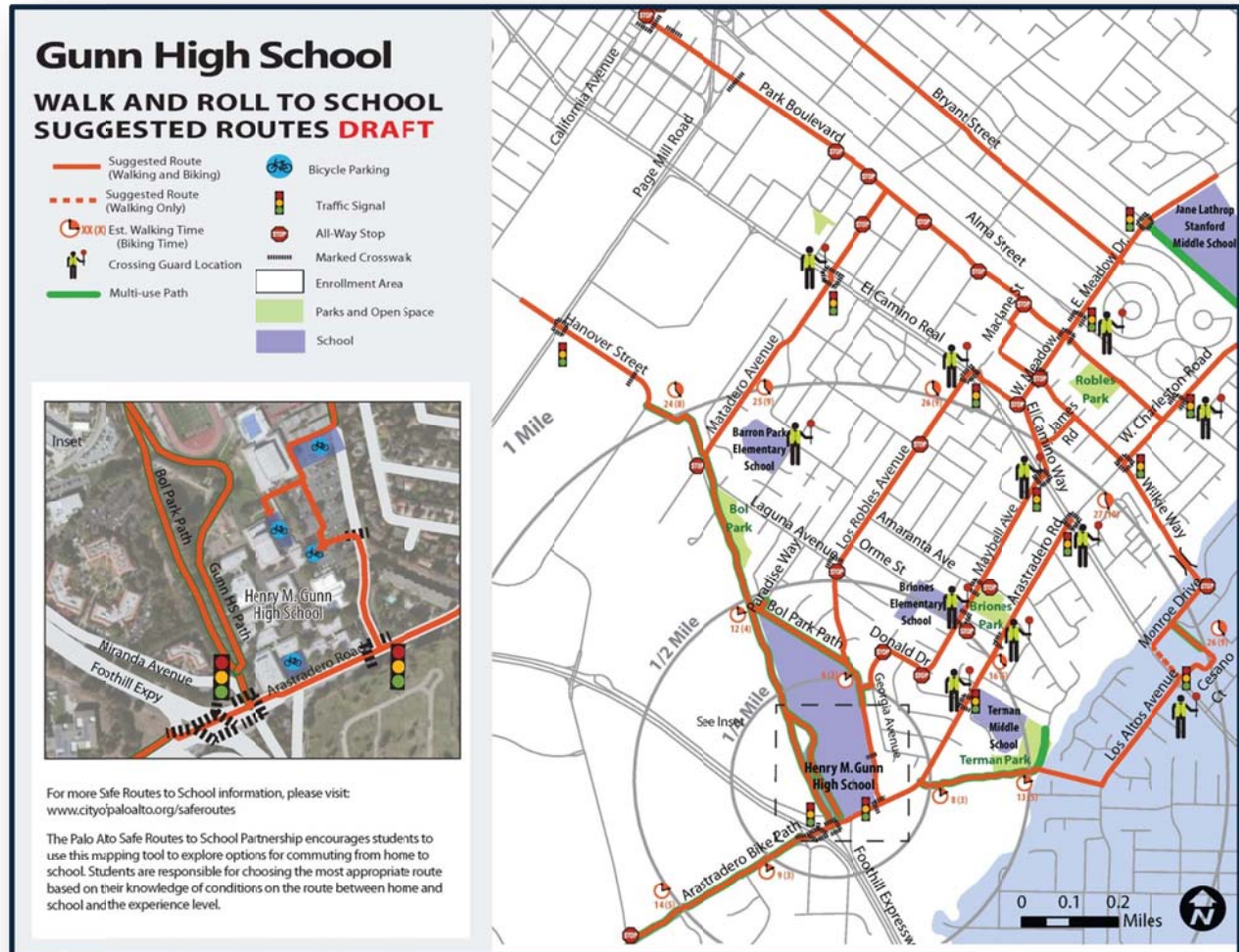
One of the many benefits of the new multi-use trail is that it constitutes a new link between Gunn High School and Terman Middle School that is essentially free of car traffic. Students using the new multi-use trail and the Hetch Hetchy-Los Altos path will be able to travel between Gunn High and Terman Middle School or Terman Park without interacting with vehicles on the road except at the signalized crosswalk at Gunn High.

In addition, taken together, the Hetch Hetchy-Los Altos Bike Path and Los Altos Avenue form an alternative low-traffic/low-stress route to Gunn High School or Terman Middle School for less experienced cyclists coming from the east side of El Camino Real. This route is illustrated in Figure 4: Draft Gunn High School Walk and Roll Map. (This map will be finalized in the spring of 2013.)

Complementing the proposed Arastradero Road Schoolscape – Multi-use Trail project, the City of Palo Alto will dedicate a portion of its One Bay Area Grant – Guaranteed Fund allocation, \$950,000, to the improvements to Arastradero Road between Foothill Expressway and the West City Limit near Deer Creek Road including reconstruction of the existing multiluse path in that section. Together with the proposed Arastradero Road

Schoolscape – Multi-use Trial project, a seamless and vehicle free path between Los Altos Hills, Palo Alto, and Los Altos will be created.

Figure 4: Draft Gunn High School Walk and Roll Map



3. Safety

Wrong-Way Riding

Wrong-way riding on Arastradero Road by Gunn and Terman students has been the cause of bicycle-vehicle crashes in this corridor. Since the Phase 2 Trial, collisions on Arastradero have decreased, but when collisions have occurred, they have been shown to involve bicyclists riding in the wrong direction of travel with vehicle traffic. This project will allow students to walk or ride on a side path in either direction between Gunn and the Hetch Hetchy-Los Altos Path.

Uncontrolled Crossing

As noted elsewhere, students reaching the end of the Hetch Hetchy-Los Altos Bike Path at Arastradero must wait for gaps in traffic on this high-volume, high-speed stretch to cross to the high school (north) side of the street. This is an unsafe condition for commuting students. This project will direct trail users to the signalized crossing at Gunn High School.

Poor Cyclist and Pedestrian Visibility

The project will include warning signage for drivers, pavement markings, vegetation removal, and lighting to improve the visibility of cyclists at the Hetch Hetchy-Los Altos bicycle path intersection with Arastradero Road. Cyclists entering the bike lane on Arastradero Road would have improved visibility over the current condition of overgrown trees that obscure signage and create shadows that drivers at speed cannot differentiate from cyclists.

In addition, the Hetch Hetchy-Los Altos path traverses a wooded area, and roots have degraded the pavement condition. This project will bring the portion of the path that is within city limits up to standards for a multi-use pedestrian and bicycle facility and will install low-level lighting for enhanced visibility and safety.

4. Air Quality Improvements

The congestion issues observed around Gunn High and at the intersections of Foothill Expressway and El Camino Real result in higher greenhouse gas emissions (GHGs) due to the numbers of idling automobiles. Promoting alternatives to driving can reduce congestion and improve air quality. In addition, planned operational enhancements at the Gunn Driveway intersection and at other intersections along the corridor will reduce idling time and minimize the number of drivers slowing down suddenly, which also causes pollution.

Arastradero Road is one of the most heavily-used bicycle corridors in Palo Alto. A recent analysis of school-related travel activity estimates over 1,000 daily bicycle and pedestrian trips are supported by Arastradero Road. Bicycle and pedestrian improvements encourage alternatives to driving solo and promote transit use, reducing VMT. As previously discussed, several schools are located along this corridor. Despite the high walking and bicycling numbers, congestion in the morning drop-off and evening pick-up periods decreases safety for all users and leads to greenhouse gas emissions, which decrease air quality. The proposed bicycle and pedestrian improvements encourage alternatives to driving solo, reducing vehicle miles traveled and thereby improving air quality.

The proposed improvements will reach 2,900 public school students at the three campuses adjacent to this project. Based on the 2012 District-wide Parent Survey and tallies of parked bicycles, it is safe to assume approximately 65 percent of students attending neighborhood schools are driven to school in a single-family car: 1,885 students. This represents the target group that may switch to alternative modes as a result of the proposed improvements. The City estimates that 5 percent of the target group will shift to biking and walking. This will result in walking and biking trips replacing 236 motor vehicle miles on a typical school day. This is in addition to the over 2,500 miles already walked, biked or skated by the over 1,000 students who currently walk, bike or skate to school on a normal day. The total annual VMT replaced as a result of the project will be approximately 42,400 miles.

5. Community of Concern

Approximately 560 students from the Ravenswood School District in East Palo Alto and Menlo Park attend PAUSD schools as part of the Voluntary Transfer Program. Each of the six public schools along the Charleston-Arastradero Road corridor serves Communities of Concern identified by the Metropolitan Transportation Commission both within Palo Alto and in adjacent cities such as the City of East Palo Alto. The proposed capital improvements along Arastradero Road will directly benefit low-income families within those neighborhoods as a majority of those students are driven to school or ride a school bus. In addition, over 13% of Juana Briones Elementary students are socioeconomically disadvantaged. The proposed project will create a safe environment while traveling down the corridor to the three public schools and two private schools in the project area.

6. Local Plan(s)

The Hetch Hetchy-Los Altos Path is a key Proposed Multi-Use Trail in the City of Palo Alto's 2012 Bicycle and Pedestrian Transportation Plan (BPTP) and is included in the Plan's Proposed Bikeway Network. In addition, the Arastradero Road and Hetch Hetchy-Los Altos Bike Path improvements are listed in the BPTP as BK-1: Charleston/Arastradero Road Enhanced Bikeway. The upgrades to the Los Altos Path are referenced in the BPTP as TR-4: Bol Park/Gunn HS/Los Altos Path Lighting and Upgrades.

As mentioned earlier, this project has been included in the City's *Capital Improvement Projects* list for 2012-16 as PE-13011: Charleston/Arastradero Corridor Project. The program implements a permanent reconfiguration to formalize the Charleston/Arastradero Corridor Plan recommendations.

7. Local Match

The City estimates the Arastradero Road Schoolscape - Multi-use Trail to cost approximately \$1.5M and is proposing a 33% local match of \$502,000.

8. Project Readiness

Environmental

The environmental review of this project is included in the Mitigated Negative Declaration for the City of Palo Alto Bicycle + Pedestrian Transportation Plan 2012.

Design

The City will issue a Request for Proposals (RFP) for the design phase of both the Charleston Road-Arastradero Road Schoolscape segments in spring 2013. Since the potentially controversial elements of the roadway redesign have been implemented and approved with the Arastradero Trial Restriping Phase 2 project, the design process for the Arastradero Schoolscape Project is anticipated to be relatively straightforward. At the same time, numerous opportunities will be realized for public participation and engagement, particularly with school families and students.

Right-of-Way

The City of Palo Alto owns the necessary right-of-way for this project.

Attachment A

Letters of Support

Palo Alto Housing Corporation
Palo Alto Unified School District
Palo Alto Council of PTAs
Gunn High School PTSA
Terman Middle School PTA
Briones Elementary PTA
Police Chief's Letter to Parents



725 Alma Street • Palo Alto, CA 94301 • (650) 321-9709 • Fax (650) 321-4341

February, 22, 2013

Valley Transportation Authority
Attn: Celeste Fiore
3331 North First Street
San Jose, CA 95134

Dear Ms. Fiore:

I write on behalf of the Palo Alto Housing Corporation (PAHC) to express our support of the City of Palo Alto VERBs grant application for funding the *Arastradero Rd Corridor Improvements (Gunn High to El Camino Real)*.

The Palo Alto Housing Corp. is an independent, non-profit public benefit organization with a mission of developing or acquiring low- and moderate-income housing in Palo Alto. The Housing Corp. also administers the city's Below Market Rate Purchase Program, which allows eligible families and singles to purchase moderately priced condominiums and duplexes. Below market rate (BMR) units are available to households of low and moderate income. 118 of our existing family and senior housing units are served by Charleston/Arastradero Road:

Palo Alto Housing Project	Address	No. Affordable Units
Treehouse	488 W Charleston Road	35
Arastradero Park	574 Arastradero Road	67
Ferne Apartments	101-131 Ferne Avenue	16

In addition, we are planning 60 new low-income senior units at 567-595 Maybell Ave., one block north of Arastradero Road.

Ideal affordable housing sites offer access to alternative modes of transportation, including bicycle and pedestrian facilities that connect well to community resources and public transit. Therefore, it is important for us to support projects like this one that provide pedestrian/bicycle facilities that connect our residents from their homes to important community resources:

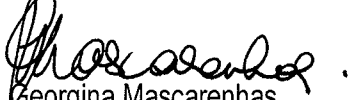
- shopping centers (Alma Plaza, Charleston Shopping Center and ECR shopping locations)
- public transit (VTA 88, 522, 22, 35, possible future BRT)
- parks (Mitchell Park, Juana Briones Park, Terman Park, Robles Park)
- schools (eleven public and private k-12 schools are served by Charleston/Arastradero)
- public libraries (Mitchell Park Library)
- community centers and playing fields (Cubblerey, TK Campus for Jewish Life, Mitchell Park Community Center)

Please support the *Arastradero Rd Corridor Improvements (Gunn High to El Camino Real)* City of Palo Alto project. It will provide improved bicycle, pedestrian and transit connections our residents need—giving better transportation access to all residents, of any age or ability, whether or not they can drive or afford access to a car, to move about the community freely and independently.

Thank you for your consideration of our comments.

Sincerely,

PALO ALTO HOUSING CORPORATION

A handwritten signature in black ink, appearing to read "Georgina Mascarenhas", followed by a period.

Georgina Mascarenhas

Director of Property Management

Palo Alto Council of PTAs
25 Churchill Avenue
Palo Alto, CA 94306
www.paloaltopta.org

February 21, 2013

Valley Transportation Authority
Attn: Celeste Fiore
3331 North First Street
San Jose, CA 95134

Dear Ms. Fiore,

Please approve the City of Palo Alto VERBS grant application for *Arastradero Rd Corridor Improvements (Gunn High to El Camino Real)*.

Charleston/Arastradero (C/A), a residential arterial, provides connections into Palo Alto for work commuters from 280 and Hwy101, carrying 18,000- 20,000 car trips each day, depending on the segment. It also serves eleven public and private k-12 schools, as well as: residential neighborhoods, parks and playing fields, two community centers, a public library, and a number of other after-school destinations for children. Children who live south of Arastradero must travel along or across this street to get to school sites.

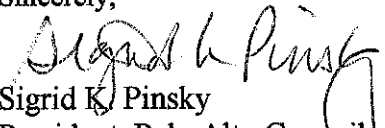
During the morning peak hour Arastradero is severely congested due to convergence of commuter traffic with the bell times of so many schools. Enrollment at most of the public schools on the corridor is increasing so creating transportation mode shift among school commuters is increasingly important for traffic congestion management as well as health and safety. After-school, when auto volumes are lighter, auto speeds and uncontrolled turning movements have been two key safety problems. The City, in partnership with the community, developed and implemented a trial lane reduction project along Arastradero Rd in 2010 that was unanimously approved by the City Council in 2012 with pursuit of final treatments including hardscape treatments, landscape median islands, pedestrian-scaled streetlights, and enhanced bikeway improvements. The VERBs grant partnership in the implementation of these final improvements will help to complete the community vision for Arastradero Road.

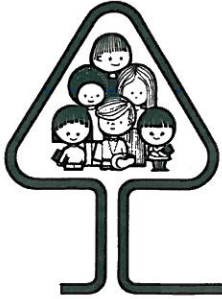
The Palo Alto Council of PTAs (PAPTAC) Traffic Safety Committee works in partnership with the city and school district to provide bicycle and pedestrian safety education and encouragement events to all PAUSD students. These efforts are working. PAUSD foot-powered commuters are steadily increasing. We look forward to the additional traffic calming and control that will be provided by hardscape improvements. The addition of pedestrian refuges in the middle of long crossings and bulb-outs will shorten crossing distances and enable young foot-powered commuters to see and be seen by on-coming traffic in addition to controlling turning movements of drivers into our school site to create a safer environment for all road users.

Please support this project which will complete the transformation of this auto-centered arterial to a more school commute-friendly and "complete" street environment.

Thank you for considering our request.

Sincerely,


Sigrid K. Pinsky
President, Palo Alto Council of PTAs



PALO ALTO UNIFIED SCHOOL DISTRICT

25 Churchill Avenue • Palo Alto, CA 94306
Telephone: (650) 329-3980 • FAX: (650) 329-3803

BUSINESS SERVICES

February 27, 2013

Valley Transportation Authority
Attn: Celeste Fiore
3331 North First Street
San Jose, CA 95134

Dear Ms. Fiore,

Palo Alto Unified School District (PAUSD) supports the City of Palo Alto VERBs grant application for Arastradero Road Corridor Improvements (Gunn High School to El Camino Real).

PAUSD's Gunn High School and Terman Middle School both front on Arastradero Road. In addition, many students of Juana Briones Elementary School commute to school via Arastradero. All Palo Alto students who live south of Arastradero must travel along or across Arastradero to get to school each day.

Charleston/Arastradero is a residential arterial providing connections into Palo Alto for work commuters from 280 and Hwy101, carrying nearly 20,000 car trips each day. The road also serves eleven public and private k-12 schools, including six PAUSD school sites, as well as: residential neighborhoods, parks and playing fields, two community centers, a public library, and a number of other after-school destinations for students. PAUSD also operates Preschool Family and Young Fives programs at the Greendell site, also served by Charleston/Arastradero.

Enrollment at most of the public schools on the corridor is increasing so creating transportation mode shift among school commuters is increasingly important for traffic congestion management as well as health and safety. The City, in partnership with PAUSD and the community, developed and implemented a trial lane reduction project along Arastradero Rd in 2010 that was unanimously approved by the City Council in 2012 with pursuit of final treatments including hardscape treatments, landscape median islands, pedestrian-scaled streetlights, and enhanced bikeway improvements. The VERBs partnership in the implementation of these final improvements will help to complete the community vision for Arastradero Road.

PAUSD is committed to a Safe Routes to School Partnership with the city and PTAs to support bicycle and pedestrian safety programs and events that encourage students to use alternative modes of transportation. We are very appreciative of the city's efforts to improve safety on this important school commute corridor. We hope you will approve their application for funding it.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Catherine Mak', is written over the name and title of the signatory.

Catherine Mak
Chief Business Officer

February 21, 2013

Valley Transportation Authority
Attn: Celeste Fiore
3331 North First Street
San Jose, CA 95134

Dear Ms. Fiore,

Gunn High School PTSA supports the City of Palo Alto VERBs grant application for Arastradero Road Corridor Improvements (Gunn High School to El Camino Real).

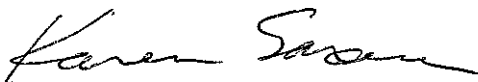
Gunn High School fronts on Arastradero Road. Palo Alto students who live south of Arastradero must travel along or across Arastradero to get to school each day. Charleston/Arastradero is a heavily traveled crosstown residential arterial providing connections into Palo Alto for work commuters from 280 and Hwy101, carrying nearly 20,000 car trips each day. The road also serves eleven public and private k-12 schools, including Gunn, as well as: multiple residential neighborhoods, parks and playing fields, two community centers, a public library, and a number of other after-school destinations for students.

Historically, during the morning peak hour Arastradero has been severely congested due to convergence of commuter traffic with the bell times of so many schools. Enrollment at most of the public schools on the corridor is increasing so creating transportation mode shift among school commuters is increasingly important for traffic congestion management as well as health and safety. After-school, when auto volumes are lighter, auto speeds and uncontrolled turning movements have been two key safety problems. The City, in partnership with the community, developed and implemented a trial lane reduction project along Arastradero Rd in 2010 that was unanimously approved by the City Council in 2012 with pursuit of final treatments including hardscape treatments, landscape median islands, pedestrian-scaled streetlights, and enhanced bikeway improvements. The VERBs partnership in the implementation of these final improvements will help to complete the community vision for Arastradero Road.

Gunn PTSA works in partnership with the city and school district to support bicycle and pedestrian safety programs and events that encourage students to use alternative modes of transportation. Safety of commute routes Gunn is a very important priority for us so we have worked closely with the city through the course of the trial. We look forward to implementation of the final corridor improvements envisioned as part of the Arastradero Road Corridor Improvements project. Particularly, we look forward to the addition of usable pedestrian refuges in the middle of long crossings and bulb-outs that will shorten crossing distances and enable foot-powered commuters to see and be seen by on-coming traffic.

We are very appreciative of the city's efforts to improve safety on this important school commute corridor. We hope you will approve their application for funding it.

Sincerely,



Karen Saxena
Gunn High School PTSA President

February 19, 2013

Valley Transportation Authority
Attn: Celeste Fiore
3331 North First Street
San Jose, CA 95134

Dear Ms. Fiore,

Terman Middle School PTA Executive Board supports the City of Palo Alto VERBs grant application for streetscape improvements to Arastradero Road.

Terman Middle School fronts Arastradero Road, and 37% of 682 Terman students bicycle to school and an additional uncounted number walk to school. Nearly all of these students must travel along or across Arastradero to get to school each day.

Arastradero has presented special challenges to Terman school commuters since the opening of our school site in 2003. Charleston/Arastradero is a heavily traveled crosstown residential arterial providing connections into Palo Alto for work commuters from Hwys 280 and 101, carrying nearly 20,000 car trips each day. The road also serves eleven public and private K-12 schools, including Terman as well as: multiple residential neighborhoods, parks and playing fields, two community centers, a public library, and a number of other after-school destinations for students.

During the morning peak hour Arastradero is severely congested due to convergence of commuter traffic with the bell times of so many schools. Enrollment at most of the public schools on the corridor is increasing so creating transportation mode shift among school commuters is increasingly important for traffic congestion management as well as health and safety. After-school, when auto volumes are lighter, auto speeds and uncontrolled turning movements have been two key safety problems. The City, in partnership with the community, developed and implemented a trial lane reduction project along Arastradero Rd in 2010 that was unanimously approved by the City Council in 2012 with pursuit of final treatments including hardscape treatments, landscape median islands, pedestrian-scaled streetlights, and enhanced bikeway improvements. The VERBs grant partnership in the implementation of these final improvements will help to complete the community vision for Arastradero Road.

Terman Middle School PTA Executive Board works in partnership with the city and school district to provide bicycle and pedestrian safety education in grades 6-8 and events that encourage students to use alternative modes of transportation for school commutes. Safety of commute routes to our school site is a very important priority for us so we have worked closely with the city through the course of the trial. We look forward to implementation of the final corridor improvements envisioned as part of the Arastradero Road Corridor Improvements project. Particularly, we look forward to the addition of usable pedestrian refuges in the middle of long crossings and bulb-outs that will shorten crossing distances and enable foot-powered student commuters to see and be seen by on-coming traffic.

These improvements will transform a student-unfriendly arterial to a welcoming "complete street" that serves Terman students more safely. We hope you will approve the City of Palo Alto application for funding.

Sincerely,



PTA President
Terman Middle School PTA Executive Board

Juana Briones Elementary School PTA

4100 Orme St, Palo Alto, California 94306

February 28, 2013

Valley Transportation Authority
Attn: Celeste Fiore
3331 North First Street
San Jose, CA 95134

Dear Ms. Fiore,

Juana Briones Elementary School PTA supports the City of Palo Alto VERBs grant application for streetscape improvements to Arastradero Road.

Charleston/Arastradero is a heavily traveled crosstown residential arterial providing connections into Palo Alto for work commuters from 280 and Hwy101, carrying nearly 20,000 car trips each day. It also serves eleven public and private k-12 schools, including Juana Briones Elementary School, as well as: our nearby residential neighborhoods, parks and playing fields, two community centers, a public library, and a number of other after-school destinations for children. Children who live south of Arastradero must travel along or across this street to get to our school site.

During the morning peak hour Arastradero is severely congested due to convergence of commuter traffic with the bell times of so many schools. Enrollment at most of the public schools on the corridor is increasing so creating transportation mode shift among school commuters is increasingly important for traffic congestion management as well as health and safety. After-school, when auto volumes are lighter, auto speeds and uncontrolled turning movements have been two key safety problems. The City, in partnership with the community, developed and implemented a trial lane reduction project along Arastradero Rd in 2010 that was unanimously approved by the City Council in 2012 with pursuit of final treatments including hardscape treatments, landscape median islands, pedestrian-scaled streetlights, and enhanced bikeway improvements. The VERBs grant partnership in the implementation of these final improvements will help to complete the community vision for Arastradero Road.

Juana Briones Elementary School PTA works in partnership with the city and school district to provide bicycle and pedestrian safety education in grades k-5 and events that encourage students to use alternative modes of transportation for school commutes. Safety of commute routes to our school site is a very important priority for us so we have worked closely with the city through the course of the trial. We look forward to implementation of the final corridor improvements envisioned as part of the Arastradero Road Corridor Improvements project. Particularly, we look forward to the addition of usable pedestrian refuges in the middle of long crossings and bulb-outs that will shorten crossing distances and enable young foot-powered commuters to see and be seen by on-coming traffic.

We are very appreciative of the city's efforts to improve safety on this critical school commute corridor. We hope you will approve their application for funding it.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jaimi Kerr", with a long horizontal flourish extending to the right.

Jaimi Kerr

Juana Briones Elementary PTA, 2012-2013 President

Attachment A

City of Palo Alto
Police Department

August 2012

Dear Parents of Middle School Students,

The Palo Alto Police Department is a strong supporter of the local Safe Routes to School Partnership, formed by the City of Palo Alto, the Palo Alto Unified School District (PAUSD) and Palo Alto Council of PTAs. We invite you to join us in our ongoing efforts to provide a safer school commute for all students using all 5 E's of traffic safety: engineering, enforcement, education, encouraging reduced vehicle trips and evaluation.

More than half of all PAUSD middle school students are now getting to and from school by foot, on bikes or in buses and carpools. As your student becomes more independent, we would like to ask for your help. Please review the key safety tips on the reverse side of this letter with your student. When you are together, model safe choices and make sure that he or she consistently practices sharing the road safely with pedestrians, bicyclists and motorized traffic. If your student needs additional guidance as a bicyclist, watch for information on classes for middle school students and parents in your school's newsletters or on the school website.

The Police Department will continue to prioritize enforcement on school commute routes, especially before school starts and at afternoon dismissal. Unsafe choices such as driving in bike lanes, disobeying stop signs or U-turn prohibitions, wrong way bike riding, not wearing a helmet properly and other traffic infractions will risk a traffic citation. The department also funds 29 adult crossing guards who facilitate safe crossing of busy intersections for students walking and biking to school.

Another important way to help us improve safety along school commute routes is to reduce congestion by choosing an alternative to driving solo to school whenever possible. Look for information on local "Walk & Roll" events in early October. If walking, biking or taking the bus is not feasible for your student, please consider carpooling, especially on rainy days.

For times when you must drive, be sure you share the road safely by putting away your cell phone, using extra caution and arriving before the last minute rush. Make sure that your young passengers use their seatbelts properly and that they get out of the car near the curb where it is safe and legal to do so. Always look for bicyclists before opening your car door.

Let's all work together for a safe school commute in Palo Alto in 2012-13. Please contact your PTA to find out more about local Safe Routes to School efforts. If you have any traffic enforcement questions or concerns, please contact Officer Derek Souza at 650-329-2413.

Sincerely,



Dennis Burns
Police Chief

275 Forest Avenue
Palo Alto, CA 94301
650.329.2406
650.329.2565 fax
650.617.3120 Administration fax