



Town of Atherton Bicycle and Pedestrian Master Plan

FINAL - July 2014





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Atherton City Council

Atherton Transportation Committee

Town of Atherton Staff

Theresa DellaSanta (City Clerk)
Gordon Siebert (Town Engineer)
Michael Kashiwagi (Public Works Director)
George Rodericks (City Manager)

Stakeholder Advisory Group (SAG)

Ellen Barton (San Mateo City/County Association of Governments)
Kevin Conner (Menlo School)
Valerie Gardner (Atherton resident)
Sherman Hall (Atherton Police Department)
Jessica Herrera (Facebook)
Adina Levin (Menlo Park resident / advocate)
Elizabeth Lewis (City Council liaison)
Daina Lujan (San Mateo County Safe Routes to School Coordinator)
Anna Murveit (Atherton resident)
Nicky Nagaya (City of Menlo Park)
Blythe Nilsson (Sacred Heart School PTA)
Clements Pausa (Atherton resident)
Susan Wheeler (City of Redwood City)
Bill Widmer (City Council liaison)

Consultant Team

Alta Planning + Design / W-Trans

TABLE OF CONTENTS

1	Introduction	1	5	Implementation and Funding	46
1.1	Goal & Objectives	2	5.1	Prioritization Criteria	46
1.2	Public Outreach and Input	3	5.2	Priority Projects/Programs & Cost Estimates	46
2	Existing Conditions	4	5.3	Funding & Implementation	49
2.1	Setting and Context	4			
2.2	Collision History	7		Appendices	
2.3	Policy & Plan Context	9	A	Relevant Policies & Plans	
2.4	Pedestrian Environment Inventory	14	B	Pedestrian Environment Inventory	
2.5	Community Preference Survey	15	C	Public Preferences Survey	
2.6	Community Walking and Bicycling Tour	19	D	Funding Sources	
3	Recommended Policies & Programs	20	E	Master Project List w/ Planning Level Cost Estimates	
3.1	Bicyclist Needs & Facility Recommendations	20	F	Active Transportation Plan (ATP) Checklist	
3.2	Pedestrian Needs & Facility Recommendations	25			
3.3	Recommended Policies and Programs Summary	30			
4	Project Recommendations	35			
4.1	El Camino Real - Grand Boulevard Greenway	35			
4.2	Bay to Ridge Greenway	41			
4.3	Safe Routes to School / Enhanced Bikeways	44			
4.4	Countywide North/South Bicycle Boulevard	44			

TABLE OF FIGURES

1. Age Distribution in Atherton and San Mateo County	4	18. Active Warning Beacon Design Guidance	29
2. Non-Motorized Collisions in Atherton, 2008-2012	8	19. Town of Atherton Existing and Proposed Bicycle Network	37
3. Streetfronting Standards from Municipal Code (Section View)	10	20. El Camino - Grand Boulevard Greenway Conceptual Cross Section	38
4. Streetfronting Standards from Municipal Code (Plan View)	10	21. El Camino - Grand Boulevard Greenway Selby Lane to Fifth Ave	39
5. Draft Site Plan, Civic Center Master Plan	12	22. El Camino - Grand Boulevard Greenway Watkins/Isabella Ave	40
6. Countywide Bikeway Network, Southern San Mateo County (2011)	13	23. Bay to Ridge Greenway - Marsh Road & Middlefield Road	42
7. Right-of-Way Walkability, Pedestrian Environment Inventory	14	24. Bay to Ridge Greenway - Watkins Avenue Class I Trail	43
8. Roadway Segments by Obstruction and Walkability	15	25. North/South Bike Boulevard Concept - Elena Ave at Isabella Ave	45
9. Walkability Assessment Visual Glossary	16	26. Target Revenue for High Priority Projects/Programs	49
10. Pedestrian Environment Inventory Map	17	27. Five Year Pavement Maintenance Schedule (2013-2018)	50
11. Survey Response for Types of Needed Treatments	18		
12. Survey Response for Priority Streets for Improvement	18		
13. Walking/Biking Tour Routes	19		
14. 'Four Types of Cyclists' Graphic	20		
15. Example of a 'Green Gutter' with Porous Concrete Walkway	26		
16. Draft Walkway Concept Alternatives	27		
17. Typical Risk of Non-Motorized Collision Injury & Vehicle Speed	28		

TABLE OF TABLES

1. School enrollment in and nearby Atherton	5
2. Work Commute Trip Mode Share	6
3. Existing and Proposed Class I Trails (Mileage)	21
4. Existing and Proposed Class II Bike Lanes (Mileage)	22
5. Existing and Proposed Class III Bike Lanes (Mileage)	23
6. Interjurisdictional Coordination Needs By Agency and Facility	31
7. Priority Projects/Programs List with Planning Level Cost Estimates	47

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1 Introduction

The Town of Atherton Bicycle and Pedestrian Master Plan (‘the Plan’) puts forward visionary yet practical recommendations for improving travel safety and encouraging greater use of active, low-impact travel modes. The Plan builds off and contributes to the region’s bicycle priorities and local Safe Routes to School efforts, and includes a detailed walkability assessment for 33 miles of Atherton roadways. It provides context-sensitive policy and design recommendations to retain and enhance the Town’s scenic character while improving the ease at which all ages and abilities can safely walk or bicycle to key destinations.

This Plan is organized into the following chapters:

- **Chapter 1 - Introduction** explains the goals and overall themes of the Bicycle and Pedestrian Master Plan, as well as the public input and participation process
- **Chapter 2 - Existing Conditions**, offers an overview of the current environment for biking and walking in Atherton. Summarized topics include local and regional plans/policies, an identification of existing walkable environments in the Town, and a summary of public priorities and perceptions
- **Chapter 3 - Recommended Policies & Programs** provides the design and local policy framework for this Plan, including non-infrastructure recommendations.
- **Chapter 4 - Recommended Projects** identifies specific capital improvements and needed studies for bicycling and walking in Atherton.
- **Chapter 5 - Funding and Implementation** provides cost estimates for the top ranked projects recommended in this Plan and



This plan seeks to provide a comprehensive resource for strengthening access to the Town’s core public assets, while enhancing the safety, character and connectivity of the right-of-way

identifies the prioritization methods and funding sources to implement these projects.

- **Appendices** include a more detailed synthesis of relevant plans and policies (Appendix A), results of the Pedestrian Environment Inventory (Appendix B), Public Preference Survey results (Appendix C), further detail on funding programs and sources (Appendix D), a master list of project concepts and cost estimates (Appendix E), and an Active Transportation Plan checklist of required elements (Appendix F).



School travel is a significant source of travel demand in Atherton, and an opportunity for increasing active transportation options

1.1 Goal & Objectives

The primary goal of the Bicycle and Pedestrian Master Plan is to provide a comprehensive resource for identifying and advancing projects that promote increased safety and levels of non-motorized activity throughout the Town. Specific Plan objectives include the following:

- 1 Identify priorities and strategies for meeting the Town's Complete Streets policy while maintaining the community's rural character
- 2 Improve pedestrian and bicycle safety by reducing the number and severity of collisions, and improving overall accommodation
- 3 Remove barriers for accessing key destinations, including major transit facilities
- 4 Improve connectivity to/with adjacent communities
- 5 Help reduce traffic congestion and other issues associated with school-related travel
- 6 Improve walking and biking opportunities for social and recreational trip-making, and as a civic engagement strategy
- 7 Become more strategic and successful in competing for grant funding

Objectives are discussed as part of the Chapter 3 policy and program recommendations, and will also be used to help prioritize projects for implementation.

1.2 Public Outreach and Input

This plan is the product of a host of community members' time, input, and investment toward improving active transportation in Atherton. Community outreach events focused on Atherton residents, but welcomes and included interested community members from neighboring cities as well.

Stakeholder Advisory Group

This Plan was guided by a Bicycle and Pedestrian Master Plan Stakeholder Advisory Group (SAG), which included local residents and Town officials, as well as representatives from schools and neighboring jurisdictions. Members of the SAG met and communicated with the project team regularly to review plan documents, advise on community outreach events, and provide feedback on project recommendations within the plan.

Community Survey

Development of this plan was also guided by over 200 responses to an online preference survey hosted early in the planning process. The survey was developed by the project team with input from the SAG, and publicized through the Town's website, flyers at local schools, and postings at local and neighboring activity centers. Results of the survey are detailed in **Appendix C**.

Community Walking and Biking Tour

Additional input for this plan was collected during the Community Walking and Biking Tour, which took place on November 9, 2013.

Transportation Committee & City Council

Recommendations from this Plan were reviewed, revised, and ultimately approved by the Town's Transportation Committee and City Council.



21 individuals, including local and neighboring jurisdiction residents, participated in the walking/biking tour in November 2013

2 Existing Conditions

This chapter provides context for the Town of Atherton Bicycle and Pedestrian Master Plan. It includes background on current walking and bicycling habits, an overview of major roadways and conditions in the planning area, and a summary of relevant demographic and land use factors that impact bicycling and walking rates. Analysis of bicycle and pedestrian collisions, relevant planning and policy documents, and an overview of the Community Preference Survey results is also included.

2.1 Setting and Context

The Town of Atherton is a thickly wooded residential community in San Mateo County, located in Silicon Valley in the southern San Francisco Peninsula. The Town is approximately 5 square miles in size. Like much of the South Bay, Atherton enjoys a Mediterranean climate, marked by warm and dry summers and mild, (usually) damp winters.

In 2011, the population of the Town of Atherton was estimated by the US Census Bureau to be 6,883. Relative to San Mateo County, Atherton has a greater share of residents aged 10 to 14 (11%) than does the County as a whole (6%). Likewise, the Town also has a larger share of older residents than the Countywide average (Figure 1). Approximately one-third of all households have a one or more children and/or one or more persons aged 65 or older living at home.

Major Streets and Roadways

California State Highway 82, or El Camino Real, is the largest regional thoroughfare that passes through the Town. El Camino Real is a surface highway connecting Atherton residents to destinations

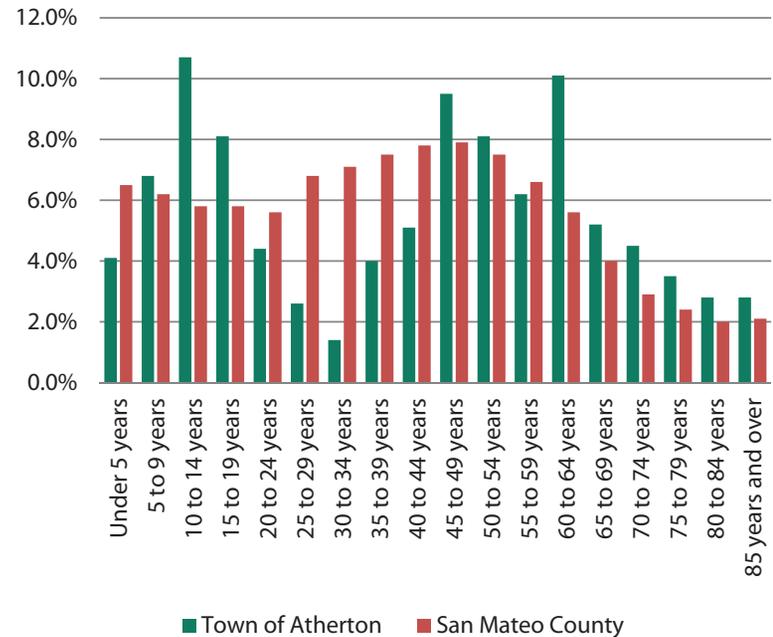


Figure 1: Age Distribution in Atherton and San Mateo County

north and south along the peninsula. In Atherton, there are six travel lanes on El Camino Real. Crossing the southern border into Menlo Park, El Camino Real reduces to four travel lanes. There are no pedestrian or bicycle facilities, excepting a striped shoulder, along El Camino Real within the Town of Atherton.

Marsh Road, Middlefield Road, and Alameda de las Pulgas are classified as Minor Arterials in the Town General Plan. Each of these roadways includes one travel lane in each direction and on-street parking prohibitions; the latter two include Class II bike lanes, although the quality of these lanes on Middlefield Road is poor and in many instances do not meet minimum width standards.

Collector & Neighborhood Roadways

Most roadways in Atherton are neighborhood streets, characterized by narrow roadways, very low traffic volumes, and no centerline markings. The following streets, however, are considered collectors and include additional traffic and engineering features: Atherton Avenue, Encinal Avenue, Fair Oaks Lane, Glenwood Avenue, Oak Grove Avenue, Ravenswood Avenue, Ringwood Avenue, Valparaiso Avenue, and Watkins Road. Most of these collectors are located near schools in the vicinity of Menlo Park, or provide access to Town public properties.

Bike lanes are provided on Encinal Avenue, Valparaiso Avenue, Ringwood Avenue, and Ravenswood Avenue. Each of these roadways is generally owned and maintained by either Menlo Park or the County, but portions of these facilities are within Atherton or are directly adjacent - thus serving Town residents and visitors.

Transit

Transit access in Atherton is provided by the San Mateo County Transportation Agency (SamTrans). North-south transit route stops in Atherton are located along El Camino Real and Middlefield Road. Atherton residents can also access Caltrain commuter rail via a short walk or bike ride into downtown Menlo Park. (A Caltrain station is located in the Town’s civic center complex, but service is currently provided on weekends only and ridership is low.)

Land Use

The Town of Atherton is a residential community, with no commercially zoned properties. Land uses designations include residential, civic, and institutional uses such as public and private schools. Many students from outside Atherton attend school in Atherton (or travel on Atherton streets and roads to attend nearby

Table 1: School enrollment in and nearby Atherton

School	District	Enrollment
Encinal Elementary	Menlo Park City Elementary School District	755
Las Lomas Elementary School	Las Lomas Elementary School District	674
Laurel Elementary	Menlo Park City Elementary School District	489
Menlo College	Private	686
Menlo School	Private	795
Menlo-Atherton High	Sequoia Union High School District	2036
Sacred Heart School	Private	1150
Selby Lane Elementary School	Redwood City Elementary School District	673
Woodside High School	Sequoia Union High School District	1746
Total		9004

schools) thus making school travel a primary driver of localized pedestrian and bicycle demand during commuting periods. **Table 1** shows recent enrollment figures for the schools in and near Atherton.

Parks and Open Space

Holbrook-Palmer Park, located on Watkins Avenue between Middlefield Road and El Camino Real, is the Town of Atherton’s only public open space. The 22-acre park includes a baseball field, tennis courts, playground, gardens, and walking paths. Several buildings within the park may also be rented for weddings, receptions, meetings, lectures, and other gatherings.

The main access to the park is from Watkins Road, which includes an asphalt berm-protected walkway adjacent to the Atherton Channel. A private southern entrance from the Fenton Gables neighborhood is located at the western end of the park. A key, made available to local Atherton residents, unlocks a gated path



Holbrook-Palmer Park pathway

with connections to Laurel Street and designated bike facilities leading to Menlo Park and Palo Alto.

Although not within Atherton, nearby recreational open spaces include the Bedwell-Bayfront Park along the Bay Trail, and numerous regional open space preserves in the foothills, which

can be accessed via traveling through Portola Valley, Woodside, and Palo Alto/Stanford.

Commuting Characteristics

The U.S. Census collects information about the primary mode that residents use when commuting to work. While this provides important data about commute trips, these data only tell us about those residents who are employed and how they typically travel to work. This data does not capture the many walking and biking trips that Atherton residents take, including school, shopping, and recreational trips. Additionally, it does not capture the walking or biking trips that someone in Atherton might take after parking a vehicle, nor does it capture non-Atherton residents who walk or bike through the town.

As **Table 2** shows, most Atherton residents drive alone to work, and at a higher rate than county, state, and national figures. A slightly larger share of residents reported walking to work than in San Mateo County, but a markedly smaller share bike or take transit. Atherton residents work from home at twice the rate of the County and state averages.

Table 2: Work Commute Trip Mode Share

Location	Bike	Walk	Drive Alone	Transit	Work from home
Atherton	0.1%	3.2%	78.9%	3.2%	10.2%
San Mateo County	2.4%	2.6%	70.6%	8.1%	5.2%
California	1.0%	2.8%	73.0%	5.1%	5.2%
United States	0.5%	2.8%	76.1%	5.0%	4.3%

Source: American Community Survey 5-Year Estimate, 2008-2012

2.2 Collision History

Figure 2 identifies pedestrian and bicycle collisions within Atherton involving injury for the last five years of available data. Due to relatively low levels of traffic exposure and active travel demand, few statistically valid conclusions can be made about bicycle and pedestrian safety risks or trends at specific locations. In general, however, collisions tend to occur in areas where people are more exposed to traffic (namely, at arterial intersections) and more likely to be walking or biking (along bikeways and near schools).



Two fatalities - one a pedestrian, the other a bicyclist - were recorded recently along El Camino Real (a six lane highway) near Isabella Avenue / Watkins Avenue. The location includes an uncontrolled marked crosswalk as well as an off-set interection that requires travelling along the roadway shoulder

From January 2008 to December 2012, there were three times as many bicycle collisions (38) than pedestrian collisions (13). Nearly two-thirds of these collisions occurred on the El Camino Real and Middlefield Road corridors, each with 15 reported collisions. Two collisions were fatal, both occurring on El Camino Real near the intersection of Isabella and Watkins Avenues. Overall, bike collisions represent 7% of all traffic collisions recorded during this time, while pedestrians were involved in 2% of all collisions.

Other data observations include:

- Eight (8) collisions were recorded near Menlo-Atherton High School, with a cluster of pedestrian collisions at Oak Grove Avenue and Middlefield Road. These collisions involved children under age 18.
- 26 of 38 recorded bicycle collisions occurred during the peak commute periods.
- Five (5) collisions involved bicyclists under the age of 18. Seven collisions (7) involved adults over the age of 50.
- In one-third of the collisions, the movement preceding the collision was a vehicular right-turn. These crashes occurred on roadways with bike lanes, indicating a potential need to focus improvements at these facility types.
- 18% of all injury collisions, and 100% of all recorded fatalities, involved a bicyclist or pedestrian.

This analysis was produced using data from the California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS). These data include only collisions reported to the CHP and local police agencies, and thus may underestimate the total number of collisions while not reflecting the locations of ‘near misses’ that may pose a challenge to active transportation users.

2.3 Policy & Plan Context

This section summarizes the most relevant policies and planning efforts in Atherton and San Mateo County that influence the Bicycle and Pedestrian Master Plan. A more extensive policy review, including regional, state, and federal planning frameworks can be found in [Appendix A: Policy and Plan Review](#).

Local

Preserving the scenic, rural character of Atherton is extremely important to Town residents. While many policies aimed at preserving this character benefit walking and bicycling (such as discouraging car traffic and road widening, prioritizing tree canopy, and generally prohibiting on-street parking), other policies tend to conflict with pedestrian and bicycle priority measures (such as not having a walkable residential street front standard). Select policies and issues are identified and discussed below. Recommended policy actions and potential changes are summarized in Chapter 3.

Town of Atherton General Plan

The Circulation Element of the Town of Atherton General Plan was last updated in 2002, and stresses protection of all Town streets as scenic routes and limited encroachment by the circulation network into residential and open space uses. Minor and collector arterials (as well as local streets) are limited to two lanes (up to 24 feet) in width, with standard right-of-way widths of 60 and 50 feet, respectively.

Policies that directly and specifically affect active transportation include adoption of Caltrans standards for the design of bicycle



View of a typical neighborhood collector street in Atherton, with two travel lanes, no sidewalks or bike lanes, large fenced lots, and ample tree cover.

facilities (Policy 2.621)¹, support for development and maintenance of bicycle paths separate from traffic (2.622-23), the desire for limiting on-street parking (2.425) and street lighting (2.426), and the explicit prohibition of vertical curbs and sidewalks (2.721). Policy 2.722 could also be interpreted to only allow for the maintenance of already existing pedestrian paths, precluding the

¹ Caltrans bikeway standards are codified in the California Highway Design Manual, and include a class-based system of off-street trails (Class I), on-street bike lanes (Class II), and on-street shared routes (Class III).

development of new paths. In general, the Circulation Element supports the idea of walking and bicycling but lacks the vision and design flexibility for encouraging greater numbers of residents to walk and bicycle for school, recreation, and work commutes.

Town Municipal Code

Current municipal codes, such as the Town’s ordinance regarding roadway right-of-way encroachment (see **Figure 3 and Figure 4**), are intended to preserve the Town’s rural nature. This ordinance could be amended to better address accessibility concern and provide a walkable frontage design standard that still maintains the street character.

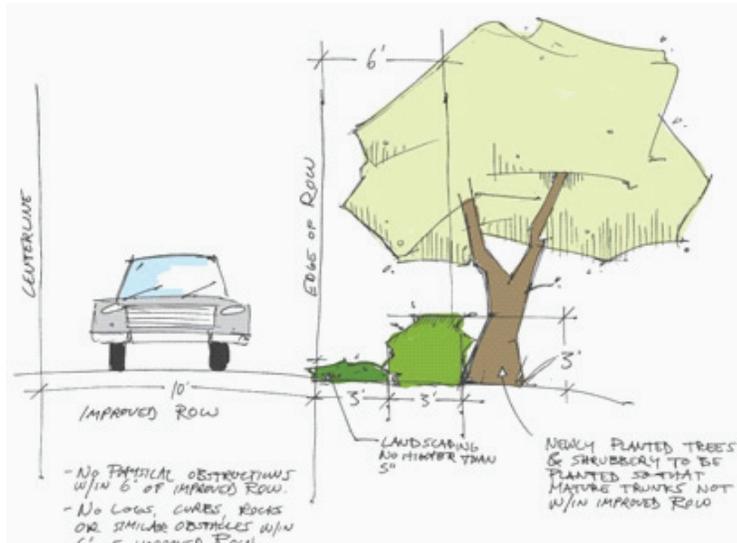


Figure 3: Streetfronting Standards from Municipal Code (Section View). As shown, there is no standard provision of dedicated walking facilities

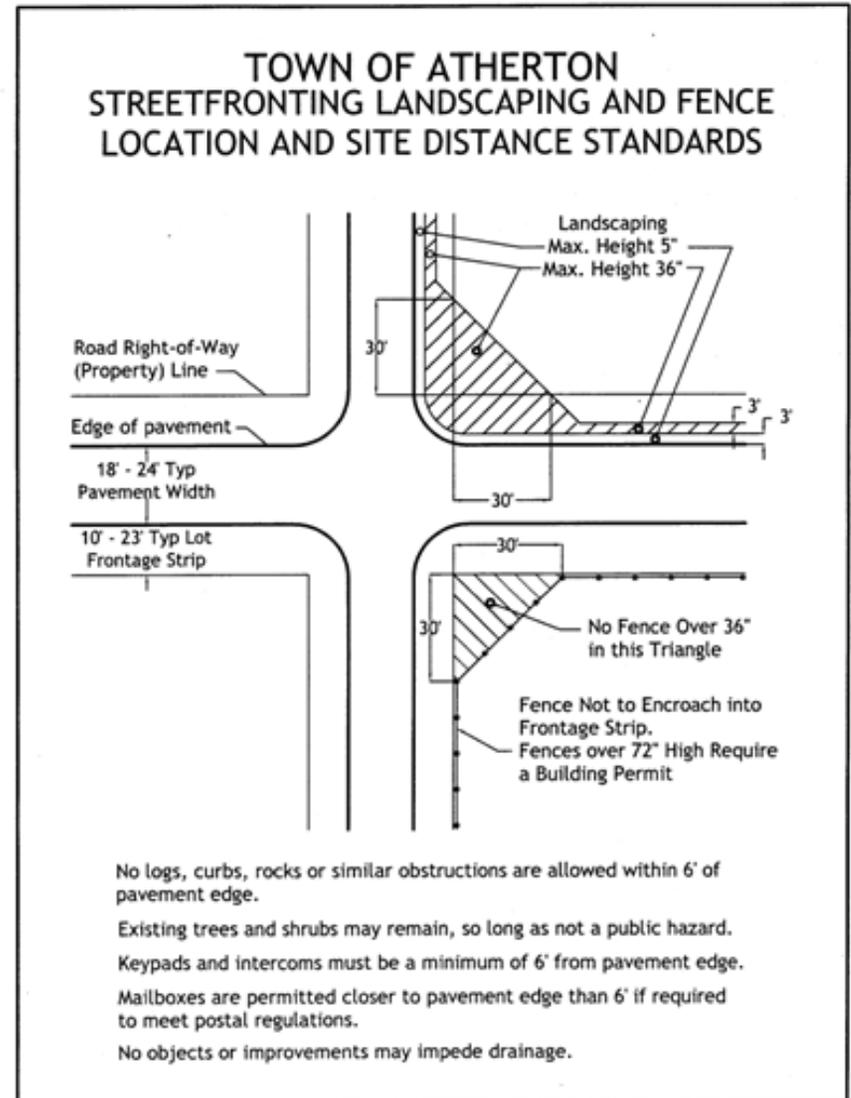


Figure 4: Streetfronting Standards from the Municipal Code (Plan)

Complete Streets Policy Resolution

On November 28, 2012, the Town passed a resolution in support of Complete Streets, or the routine accommodation of all users in the planning, design, and maintenance of new and improved roadway facilities. Accommodation is provided by offering reasonably safe travel for all users, which includes bicyclists, pedestrians, seniors, youth, and the mobility-impaired (among others). Adherence to Complete Streets is increasingly necessary to compete for grant funding sources, for which project-level Complete Streets ‘checklists’ are now often required.

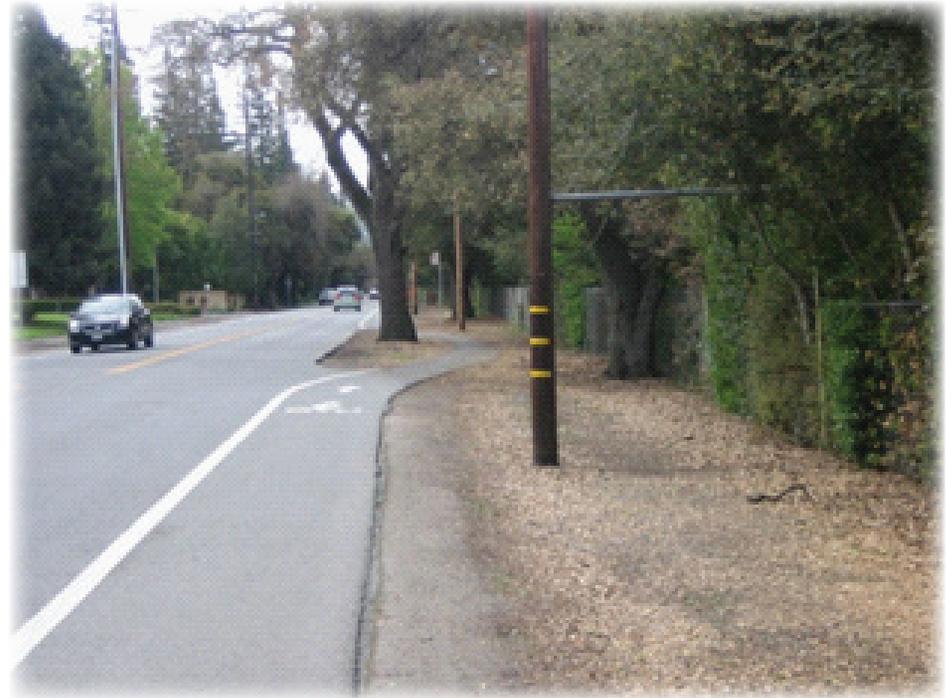
The resolution identifies the need for context-sensitive design that maintains the Town’s rural character. It also recommends a practice of decision-making where exceptions to the Complete Street policy require written approval from the Public Works and Planning departments.

Safe Routes to School

Several recent Safe Routes to School plans have been completed for schools in Atherton and Menlo Park, including:

- Valparaiso Avenue (2012)
- Encinal Elementary (2009)
- Laurel Elementary (2011)
- Oak Knoll School (2013)

Progress toward implementing these plans includes an upcoming grant-funded project to provide green bike lane and corridor improvements to the Valparaiso Ave/Glenwood Avenue corridor



In 2013, Menlo Park and Atherton were awarded OneBayArea grant funding to install green bike lanes, lighted crosswalks, and speed feedback signs on the Valparaiso/Glenwood Ave corridor, as well as upgrades to the Middlefield Road bicycle lanes near Encinal School

(and a portion of Middlefield Rd), as well as recent parking prohibitions for the Laurel Street bicycle lanes in Menlo Park. More information on these individual plans is provided in Appendix A. More information on green bike lanes is provided in Chapter 3.

Concurrent Master Planning Efforts

Three master plan efforts within the Town of Atherton were underway at the time this Plan was in development, each of which has a relationship to the Pedestrian and Bicycle Master Plan:

- **Holbrook-Palmer Park Master Plan** - issues include potential access improvements between the park and Laurel Street/Menlo Park via the Fenton Gables neighborhood, as well as potential enhancements/revisions to the park trail network and use provisions. (See also Watkins Road project recommendations in Chapter 4.)
- **Civic Center Master Plan** - visioning effort to dramatically upgrade the Town's main public campus, with improved circulation and new pathways between Fair Oaks Lane and Watkins Road. (See Watkins Road and Fair Oaks Lane recommendations in Chapter 4 of this Plan)
- **Drainage Master Plan** - project will identify and seek to address the frequency and impacts of stormwater flooding through new projects and policies. (See alternative walkway concepts and discussion of green infrastructure design coordination in Chapter 3, Elena/Isabella intersection concept in Chapter 4).

The Bicycle and Pedestrian Master Plan team, with assistance from Town staff, maintained lines of communication with the project teams developing the Civic Center Master Plan, Parks Master Plan, and Drainage Master Plan in order to promote coordination and leverage opportunities.



Figure 5: Draft Site Plan, Civic Center Master Plan

Other Plans

The Downtown Menlo Park Specific Plan, North Fair Oaks Community Plan, Redwood City Circulation Element, Valparaiso Safe Routes to School Plan, and Facebook Expansion EIR are all recently developed plans that helped inform walking/biking priorities within Atherton. The Town’s Capital Improvement Plan (CIP) and five-year paving plan are also used to help scope and prioritize projects identified in Chapter 5 of this plan.

Regional

San Mateo County Comprehensive Bicycle and Pedestrian Plan

The San Mateo County Comprehensive Bicycle and Pedestrian Plan (2011) provides a framework for connecting and strengthening the regional bikeway system and prioritizing investment in pedestrian facilities. The goals of the plan are to encourage more people to walk and bike, improve safety, and strengthen local support for non-motorized transportation. As part of the recommended Countywide Bikeway Network (CBN), two key north-south corridors are identified in Atherton, as well as three other bicycle routes of countywide significance:

- North-South Bikeway (Class II Bikeway), a priority bicycle corridor parallel to El Camino Real. In Atherton, Middlefield Road provides the local link for the North South Bikeway.
- Alameda de las Pulgas (Class II Bikeway), which serves as a western parallel to the North-South Bikeway, linking Santa Clara and San Mateo counties and feeding recreational routes among the open spaces of the foothills
- Atherton/Austin/Elena Ave & Selby Lane (Class III Bikeway),

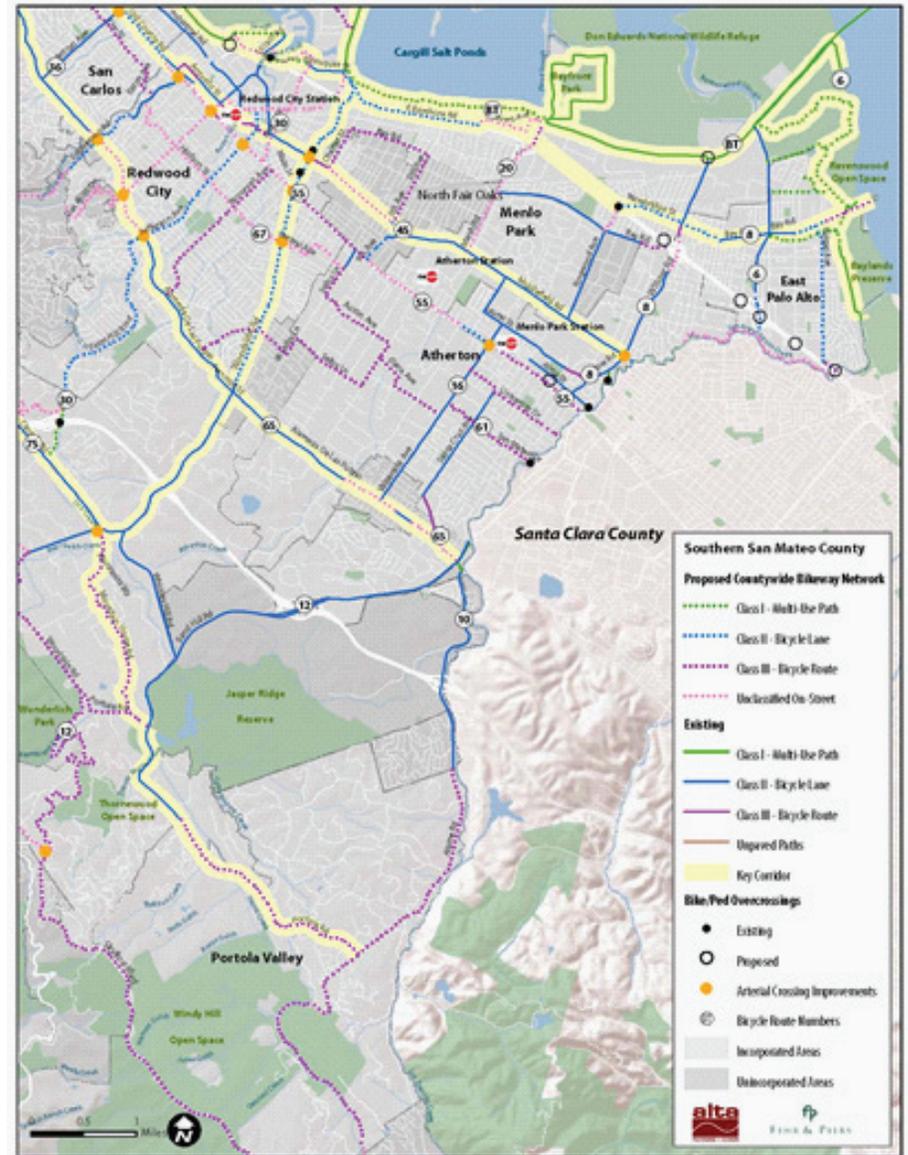


Figure 6: Planned Countywide Bikeway Network, Southern San Mateo County (2011)

a north-south bikeway through residential streets that can accommodate bicyclists of all abilities for a variety of trips

- El Camino Real (unidentified on-street facility)
- Marsh Road (unidentified on-street facility)

Additionally, the Plan identifies El Camino Real and school areas as pedestrian focus areas that are to be prioritized for investment.

Grand Boulevard Initiative

The Grand Boulevard Initiative (GBI) is a collaboration of 19 cities, Santa Clara and San Mateo Counties, local and regional agencies and other stakeholders intended to improve the performance, safety, and aesthetics of the El Camino Real corridor from San Jose to Daly City. The initiative’s goal is for the corridor, which is owned and operated by Caltrans, to achieve its full potential as a place for residents to work, live, shop and play, creating links between communities that promote walking and transit and an improved and meaningful quality of life.

As a regional growth investment strategy, the GBI up to this time has not focused much on Atherton, which has a policy of limiting parcel access and development on El Camino. The GBI does, however, clearly set high expectations for providing safe, multi-modal access along and across the Grand Boulevard, including dedicated pedestrian and bicycle facilities along with faster, more convenient bus service.

2.4 Pedestrian Environment Inventory

To assess the pedestrian environment in Atherton, the project team identified 33 miles of Atherton streets to closely examine

for walkability. This analysis included a survey of right-of-way treatments, as well as an inventory of common walkway obstructions. Streets were chosen for this inventory based on input from the Stakeholder Advisory Group (SAG) and represent a mix of neighborhood roadways, commuter routes, and school commute routes.

Walkability

The project team graded each roadway segment on the basis of physical condition and obstructions of the walkway. How even is the walkway surface? Are there major obstructions, such as trees or utility poles that disrupt a clear walking path? Do other obstructions, such as groundcover or other landscaping features, still force pedestrians to enter the roadway?

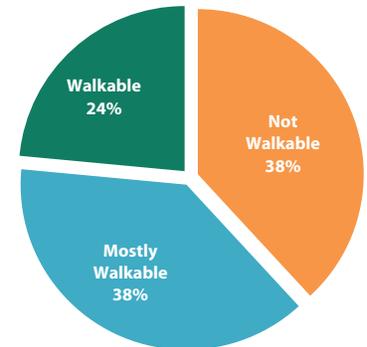


Figure 7: Assessed right-of-way walkability from the Pedestrian Environment Inventory

Segments were assessed as ‘not walkable,’ ‘mostly walkable,’ and ‘walkable.’ One quarter of inventoried segments (almost 8 miles) were determined to be walkable. Almost 40 percent of evaluated segments were deemed ‘mostly walkable,’ or walkable but for one or two minor obstructions. ‘Mostly walkable’ segments account for 13 miles of the 33 miles of roadways assessed. Another 40 percent (13 miles) were deemed ‘not walkable’ due to multiple obstructions, of which many (but not all) are legally permissible designs under the current landscaping code.

Walkability assessments did not take into account Americans with Disabilities Act (ADA) accessibility features (e.g., slope and surface stability); a ‘walkable’ rating, therefore, does not imply that a segment necessarily meets ADA design guidelines.

Pavement Edge

Despite being less than 4 percent of the inventoried Atherton street segments, curb and sidewalk conditions comprise 22 percent of the walkable segments recorded. The majority of ‘mostly walkable’ segments had a gravel or unimproved pavement edge condition.

Unimproved conditions were also the most common pavement edge found on ‘not walkable’ roadways, accounting for nearly half of all such segments. Unimproved segments, in general, are the largest category of inventoried pavement edge treatments, amounting to 37 percent of all segments evaluated.

Obstructions in Walkways

Obstructions in walkways limit accessibility. The most common walkway obstruction by far that was identified is landscaping, which is allowed under the Town’s design standards. Existing trees and rocks placed in walkways to prevent parking were also frequently observed. **Figure 8** shows the prevalence of various types of obstructions within segments identified as walkable, mostly walkable, and not walkable. The data suggests that changes to landscaping standards may have a large impact on improving overall walkability within Atherton.

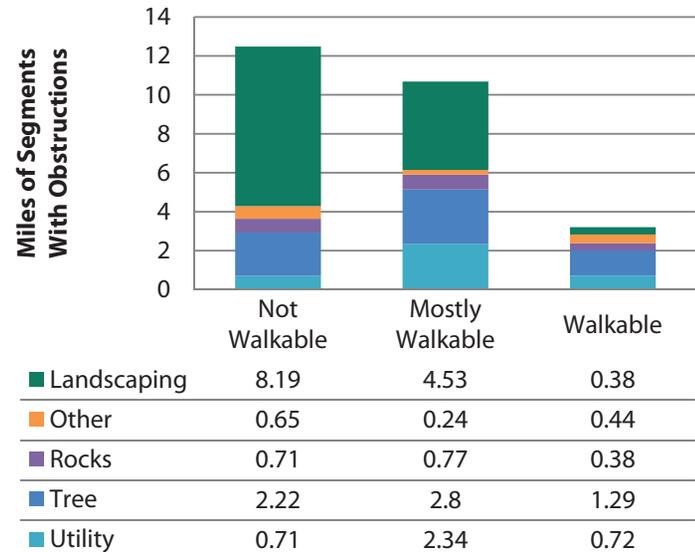


Figure 8: Roadway Segments by Obstruction and Walkability

2.5 Community Preference Survey

The project team conducted an online survey in August 2013. Notifications were sent home with Atherton students, posted on the Town’s website, and posted at community centers in Fair Oaks and Menlo Park. A total of 298 respondents participated in the survey. Over half of the respondents—60 percent—were residents of the Town. Key findings are presented below; a complete report of the survey can be found in **Appendix C: Community Preference Survey**.

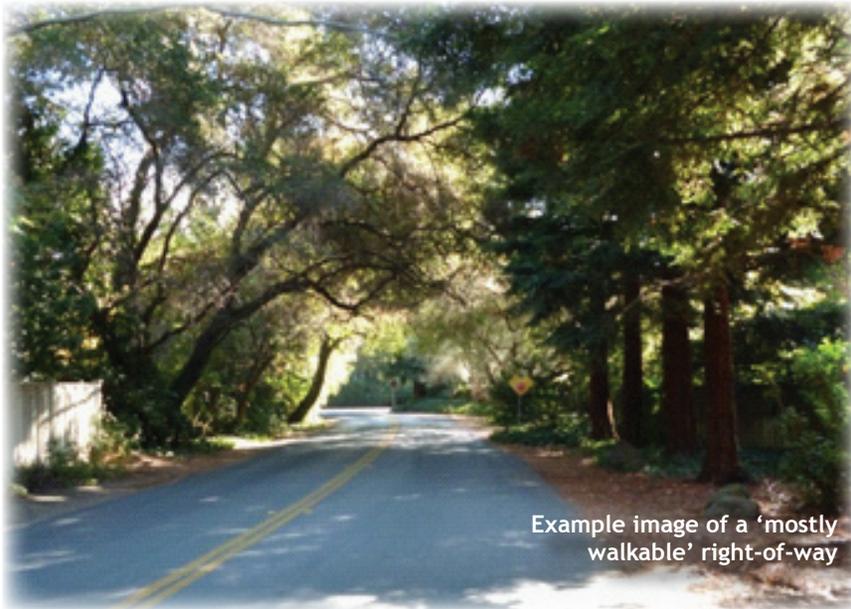


Figure 9: Walkability Assessment Visual Glossary

Town of Atherton Bicycle and Pedestrian Master Plan

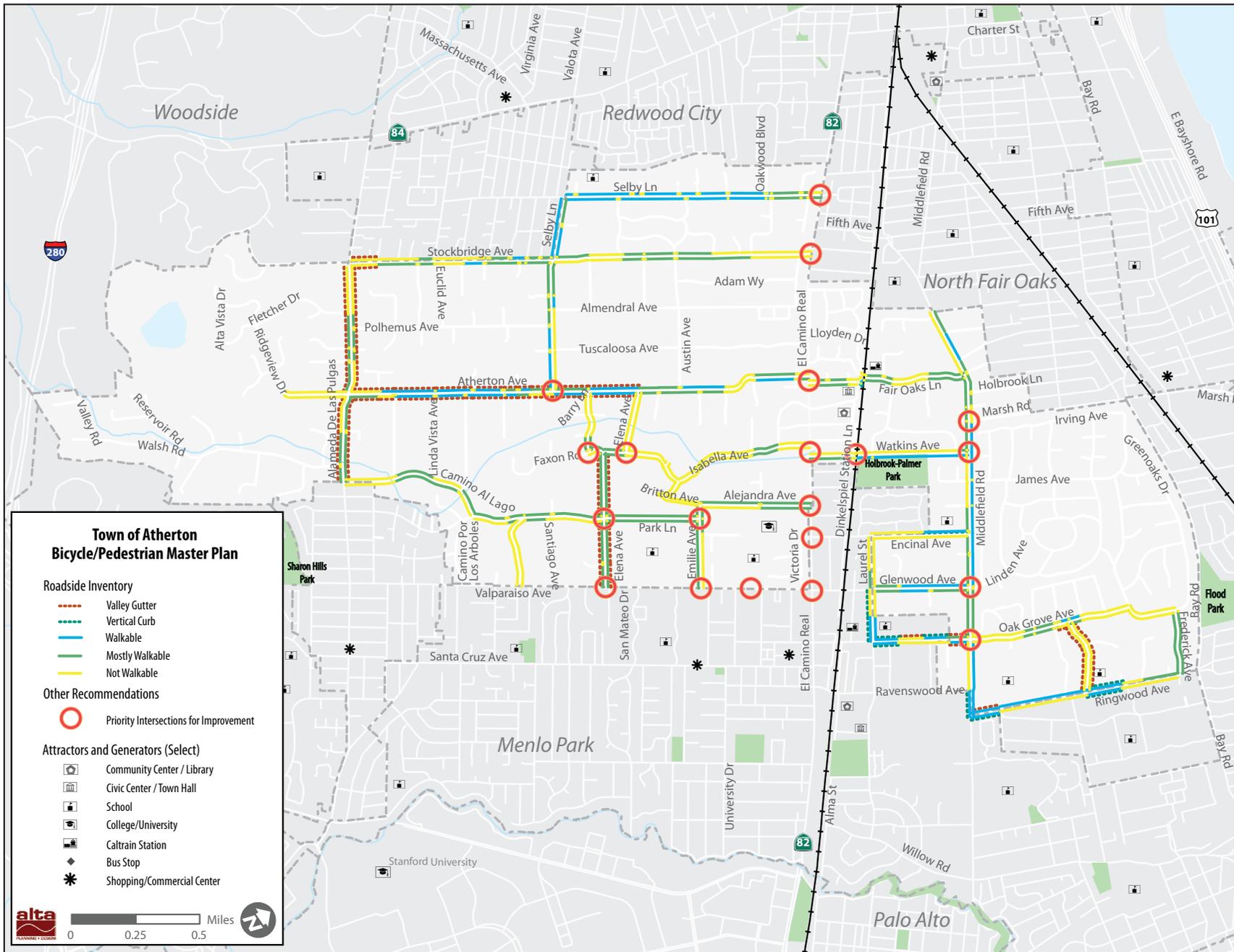


Figure 10: Pedestrian Environment Inventory Map

Key Survey Findings

Street Treatment Types

The survey also included a photo array and explanation of various street treatments that improve conditions for walking and bicycling. Respondents were asked to identify whether treatments were compatible with the rural character of Atherton, and then whether the treatments were needed in Atherton. **Figure 11** illustrates survey respondents' perceived need for the treatments in Atherton.

Key Locations for Improvements

Respondents were asked to identify roadways with the greatest need for improvements for biking and walking. **Figure 12** compares the total survey responses for the most frequently identified roadways for both modes. El Camino Real was the most widely-cited roadway for needing improvement, followed by Atherton Avenue and Valparaiso Avenue.

Survey respondents were also asked to identify key intersections or crossings most in need for improvement. These locations are represented by a red circle on the Pedestrian Environment Inventory Map in **Figure 10**. (Note: This map includes additional circled locations based on other stakeholder feedback outside of the online survey.)

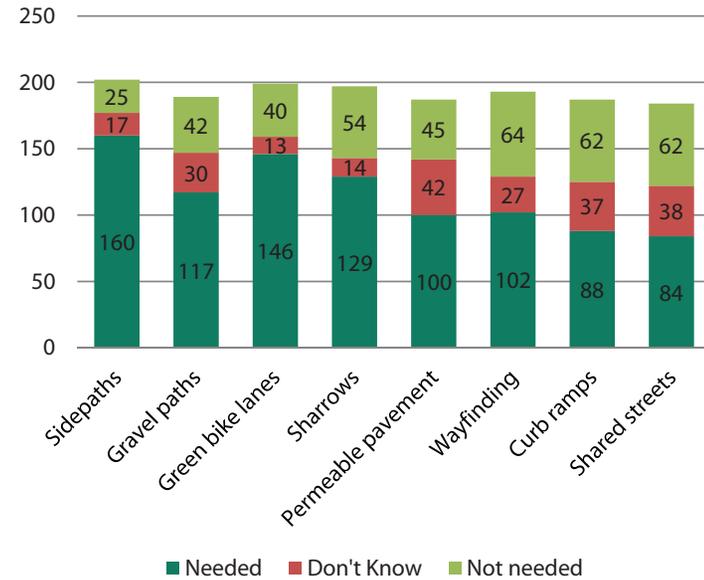


Figure 11: Survey response for types of treatments needed in Atherton

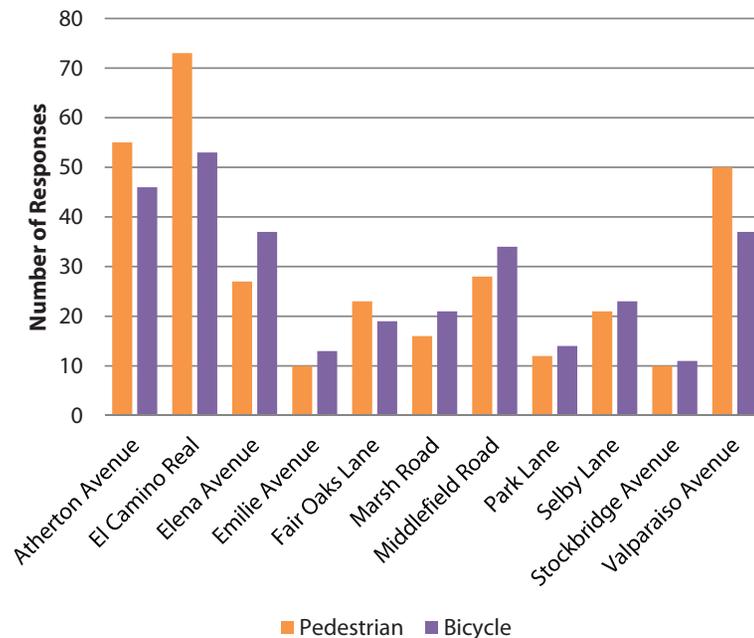


Figure 12: Survey response for priority streets for pedestrian and bicycle improvements

2.6 Community Walking and Bicycling Tour

On Saturday, November 9, 2013 the project team led a community walking and bicycling tour. The tour was advertised on the Town’s website and flyers were sent to Atherton schools.

Fifteen (15) participants joined the biking tour, and six participants joined the walking tour (for a total of 21). Participants included a new member of the Atherton Town Council, Atherton residents, residents of neighboring communities, and stakeholders of neighboring communities, including a Senior Transportation Engineer for the City of Menlo Park.



Walking tour participants viewing new walkway on Emilie Avenue

Comments from participants in the tour included:

- Vegetation overgrowth is an “easy fix” that many property owners could address to immediately provide a walkable path.
- Four-way stops at Atherton Avenue at Selby Lane and Atherton Avenue at Austin Avenue could assist school-age bicyclists and pedestrians traveling to school.
- Consider a two-way bike/pedestrian connector between Fifth Avenue and Stockbridge Avenue. Currently there is no signalized crossing of El Camino Real at the north end of Atherton that is feasible for pedestrians and bicyclists.
- Add a bikeway on Park Lane to give school-age bicyclists a safe space on the road



Figure 13: Walking/Biking Tour Routes

3 Recommended Policies & Programs

This chapter outlines priority actions for improving bicycling and walking in Atherton, with a focus on meeting Plan objectives - including the strong desire to improve safety while maintaining and protecting the Town’s rural character. The first two sections summarize priority design issues and needs by mode, while the third section includes a summary of recommendations organized according to the ‘Five E’s’ of transportation planning: engineering, education, enforcement, encouragement, and evaluation. Specific project recommendations are mentioned briefly in this chapter, but more clearly delineated and prioritized in Chapter 4.

3.1 Bicyclist Needs and Recommendations

Bicyclists’ needs and preferences tend to vary by the purpose of their trip and type of rider. For a relatively small group of people, sharing lanes with traffic or navigating bike lanes on busy streets is acceptable to provide fast and efficient connections between destinations, usually for commuter and utilitarian trips. These riders are sometimes called the “strong and fearless” and “enthused and confident” cyclist types (Figure 14)- due to their tolerance for traffic stress - and are generally accommodated by Atherton’s existing bike lanes and slower speed residential streets.

Based on a variety of research and anecdotal evidence, however, it is now widely acknowledged that a majority of potential riders prefer higher levels of accommodation and separation from vehicular traffic. To appeal to this “interested but concerned” group (which includes many school children and their parents) requires a well-connected network of trails and other enhanced, dedicated bike facilities and well-marked routes along slow speed,

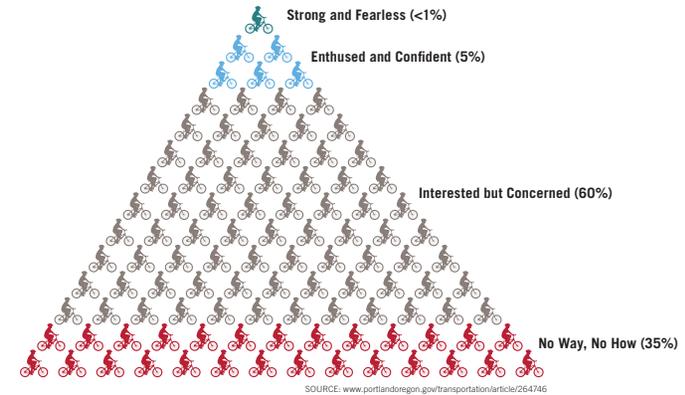


Figure 14: ‘Four Types of Cyclists’ Graphic

low-volume roadways. Particularly with such a high proportion of young and old residents (i.e. more vulnerable users), Atherton should generally focus its investments on these types of facilities.

Bikeway Design Standards & Priorities

The Town of Atherton currently utilizes Caltrans’ bikeway design standards, which are organized according to a classification system within the California Highway Design Manual (HDM) defined as ‘Class I’ off-street trails; ‘Class II’ on-street, dedicated bike lanes; and ‘Class III’ shared bikeways.

Alternative guidance for innovative bicycle facility designs, including protected on-street bikeways and special markings for conflict zones and intersections, is provided by the National Association of Transportation Officials (NACTO) Urban Bikeway Design Guide. Other current bikeway design references include the American Association of State Highway Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities (4th Edition), and the Valley Transportation Authority Bicycle Technical Guidelines (2012), which is utilized by jurisdictions in neighboring Santa Clara County.



A young bicyclist using the Fenton Gables connector to Holbrook-Palmer Park



Some communities, such as the Town of Los Altos Hills, have a shared use pathway design standard (distinct from the Caltrans Class I classification) to help retain local character. This pathway was constructed in 2012 along West Fremont Road

Trails & Pathways

Caltrans Class I trail standards include a minimum paved surface width of eight feet (8') with level shoulders on either side; 12 feet of paved surface is considered optimal in most cases. For sidepath facilities, or street-adjacent trails, a minimum separation of five feet (5') is required from the nearest vehicular travel lane to the inside trail edge. This standard can be difficult to meet within constrained rights-of-way and tends to prohibit installation of protected on-street bikeways. For these reasons Caltrans is, at

Table 3: Existing and Proposed Class I Trails (Mileage)

Class I Shared Use Trails	Mileage
Existing	0
Proposed	2.15

the time of this plan's development, considering modifications to this standard that may be incorporated in 2014 or 2015.

In Atherton, no trails meeting Class I standards currently exist. Holbrook-Palmer Park includes park pathways commonly used by young bicyclists, including the connector path to Fenton Gables available to local residents only, but these are less than eight feet (8') wide and technically bicycling is prohibited. Although not an official trail, the northeast side of Middlefield Road is also commonly used for two-way bicycle and pedestrian travel.

New Class I trails are recommended for consideration along the busiest streets (namely, El Camino Real) and adjacent to the

Atherton flood channel along Watkins Avenue and potentially Marsh Road. Upgrades to the Middlefield Road pathway should also be explored although will not likely meet Class I standards.

As an alternative to the Caltrans standard, several communities develop custom pathway design standards or projects that deviate from Caltrans in order to maintain context-appropriate function and character. Such pathways typically include soft-surfaces (with optional binders for durability), narrower widths, and an emphasis on pedestrian accommodation with bicycles allowed. Possible locations for such a facility in Atherton include Marsh Road, Middlefield Road, Watkins Ave, and possibly Park Avenue.

New & Enhanced Class II Bike Lanes

Enhancements to existing Class II bike lane corridors—such as Middlefield Road, Valparaiso Ave, and Alameda de las Pulgas—represent a cost-effective strategy for improving arterial and collector roadway conditions for bicyclists. Currently, bike lanes are dropped at most approaches to major intersections, leaving bicyclists and motorists with little guidance at the points of greatest potential conflict. Continuing these markings through intersections does not typically impact traffic capacity and can be relatively inexpensive to install. Comprehensive wayfinding signage should also be prioritized on enhanced bikeways, which together with bicycle boulevards and trails represent the core regional bicycle network.

Table 4: Existing and Proposed Class II Bike Lanes (Mileage)

Class II Bicycle Lanes	Mileage
Existing (may or may not meet minimum width standards)	3.61
Proposed New	3.18
Proposed Enhancements to Existing (includes widening and/or NACTO-style treatments)	3.61



Enhanced Class II bikeway treatments focus on intersections and areas of potential conflict to help improve the visibility and continuity of bicycle facilities, and properly position both motorists and bicyclists (Images from NACTO Urban Bikeway Design Guide)

Other improvements to enhanced bikeway corridors include the use of green colorized pavement markings to denote potential conflict zones or exclusive bike facilities, improved bicycle detection, and the conversion of substandard bike lanes to well-designed shared roadways.

New Class II (dedicated) bicycle lanes are recommended on Glenwood Ave, Selby Lane and (in the long-term) Atherton Ave, all of which would require widening of existing soft-surface shoulders. Class II bike lanes are also proposed for consideration along El Camino Real, pending further study.

Class III Shared Bikeways, or Bike Boulevards

Bike boulevards are quiet, low speed streets where bicycling is encouraged and prioritized through better pavement quality, wayfinding, intersection improvements, and traffic calming (where necessary) to limit stress associated with riding in shared traffic. When combined with pedestrian improvements, such as along school routes, bike boulevards are also known as neighborhood greenways. In terms of Caltrans classification, these bikeways are considered Class III since they do not involve dedicated facilities or lanes for bicycling.

Table 5: Existing and Proposed Class III Bikeways (Mileage)

Class III Shared Bikeways	Mileage
Existing	0
Proposed	7.75

The San Mateo County Comprehensive Bicycle and Pedestrian Plan (2011) proposes two Class III bike routes in Atherton for travel to/from Redwood City and Menlo Park, which provide alternatives to travel along El Camino Real and Alameda de Las Pulgas. The western route picks up from Massachusetts Avenue/ San Carlos



Bicycle boulevards are shared streets where bicycling is encouraged through wayfinding, traffic calming, and other features that overcome barriers and reduce stress, such as flipping stop signs or installing traffic circles (Images from NACTO Urban Bikeway Design Guide)

Avenue in Redwood City and follows Selby Lane and Elena Avenue to Valparaiso Avenue/San Mateo Drive in Menlo Park. A proposed eastern route connects the Hudson Street bike route in Redwood City to Austin Avenue in Atherton, and connects to the Elena Avenue-Valparaiso Avenue-San Mateo Drive route in Menlo Park.

This Plan recommends implementing the County’s proposal for a low-stress north/south bikeway with bicycle boulevard standards, to be augmented by an east-west route that contains both bicycle boulevard and trail facilities. This recommendation would establish an Atherton bicycle network compatible with the concerns of “interested but concerned” bicyclists, while also contributing to better pedestrian conditions along key school routes. Due to the presence of relatively calm, tree-lined residential streets in Atherton, bicycle boulevards are considered highly compatible with the Town’s character and should be less costly to implement than trails or enhanced bike lanes that require roadway widening.

Bicycle parking

There are two main types of bicycle parking, divided by user group.

- Short-term bicycle parking is typically intended for shoppers, customers, and visitors who require bicycle storage for up to several hours. Acceptable racks enable the bicyclist to lock the frame and one or both wheels with a user-provided U-lock or cable, and support a bicycle by its frame in a stable upright position without damage to the bicycle or its finish.
- Long-term bicycle parking facilities are intended for bicyclists who need to park a bicycle and its component and accessories for extended periods during the day, overnight, or for a longer duration. Long-term bicycle storage is typically for employees, students, residents and commuters. The facility frequently protects the bicycle from inclement weather. Designs for long-term bicycle facilities include bicycle lockers, restricted-area bicycle enclosure, and school bicycle enclosures.

In Atherton, short-term bicycle parking is appropriate outside

civic buildings, such as the Atherton Library and Post Office, and public spaces such as Holbrook-Palmer Park and the planned Civic Center Green. Additional potential locations include bus stops along El Camino Real and Middlefield Road.



Wheel bender racks, such as this one at the Menlo School, are generally discouraged in favor of a rack with two points of contact with the bicycle, such as an inverted-U style rack.

Long-term bicycle parking that is either secured/gated or surveillable by nearby staff is appropriate for all Atherton schools, both for students and faculty/staff. Secure bicycle parking in conjunction with Safe Routes to School education and encouragement efforts is a relatively inexpensive way to promote active transportation and reduced peak period car travel.

Bicycle parking design & placement

Unacceptable racks include ‘wheel benders’, ‘toaster’ racks, and wave racks that do not support the bicycle at two points or allow for the frame and at least one wheel to be locked to the rack. A standard inverted-U style or circular rack is recommended as a standard for Atherton.

Placement of bicycle racks also determines how useful they are to bicyclists. If short-term parking is not readily apparent, bicyclists may lock informally to trees or other inappropriate locations. Likewise, accessible and visible long-term parking may make the difference between whether (or not) a student bikes to school.

3.2 Pedestrian Needs & Recommendations

Designing Accessible Rights-of-Way

The Americans with Disabilities Act (ADA) was signed into law in 1990 to protect the rights of people with disabilities. As defined by ADA, a person with a disability is a person who has a physical or mental impairment that substantially limits one or more major life activities, has a record of such impairment, or is regarded as having such impairment. This includes people with mobility, vision, hearing, and/or mental difficulties.

ADA protects the right to access public services and places of public accommodation, including transit. Compliance with the Americans with Disabilities Act does not solely benefit those with mobility impairments; continuous and level walkways, audible countdown signals, and on/off-street transitions (i.e., curb ramps) provide safety and mobility for all users, including children and families with strollers, and bicycle riding where appropriate.

Design Guidelines

The ADA specifies design guidelines that must be met by public agencies when designing and reconstructing public rights-of-way. When evaluating whether a walkway is ADA compliant, cities consult guidelines such as the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and the Public Rights-of-Way Accessibility Guidelines (PROWAG). These guidelines offer specific guidance addressing the following:

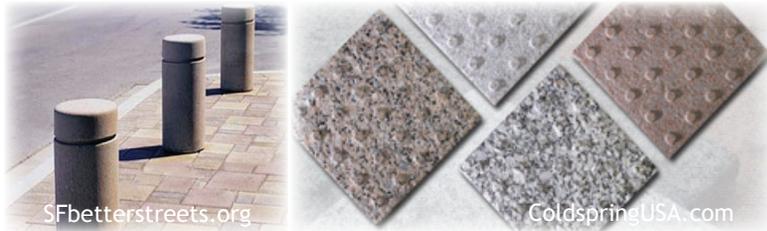
- Pedestrian through zone: an area of the corridor reserved for pedestrian travel, at least 36 inches wide with periodic passing zones, and preferably 6-10 feet wide where feasible

- Cross-slope: the slope that is perpendicular to the direction of travel, for which the maximum is 2% for pedestrian facilities
- Running slope: parallel to the direction of travel; acceptable running slope depends greatly on the site conditions
- Obstructions: any landscaping, utility pole, or other protruding or vertical object that obstructs the pedestrian through zone
- Gaps, grates and other openings: any gap in the pedestrian through zone wider than ½ inch may catch wheelchair castings, canes, crutches, inline skate wheels, and bicycle wheels
- Accessible signals: traffic signals that alert pedestrians through multiple media (sound, vision, tactile)

ADA Compliance in a Rural/Scenic Setting Without Sidewalks

A more traditional approach to ADA compliance (e.g., yellow curb ramps) may be difficult to harmonize with Atherton’s rural character. Similar communities, however, have found a balance of aesthetics and accessibility by thoughtfully designing their improvements. The Town of Los Altos, for example, has a standard cast-iron (baked-on-oil finish) detectable warning strip, while many parks and other public landscapes utilize bollards and low-profile transitions in the absence of curbs and sidewalks.

The Town ordinance regarding encroachments also provides a framework, albeit one that needs modification, for providing ADA accessibility by requiring a minimum six-foot easement from the roadway. This creates the possibility of creating a walkable ‘through zone’ reserved for pedestrian travel. Closer attention to detail regarding Atherton’s sidepaths and intersection corners using other ADA criteria, such as cross-slope and surface uniformity, can help ensure the Town is more accessible for all residents.



Context sensitive approaches to meeting ADA guidelines can include low-profile blended transitions and rustic finish detectable surfaces (with color contrast). Bollards can also be used in lieu of ramps for protected corners, and may be able to serve as wayfinding for bicycles and street signs

The Town of Atherton currently has plans to conduct an ADA Transition Master Plan in 2015. Prior to or concurrently with this effort, the Town should consider alternative walkway designs such as those provided in **Figure 16**.

Drainage & Walkability

While unimproved shoulders may contribute to the Town's character, they do not always provide adequate drainage or aesthetically pleasing streetscapes. According to preliminary analysis from the Drainage Master Plan, flooding from the conveyance channel and at intersections continues to be an issue on important streets such as Elena Avenue and Camino al Lago (along the proposed Bay to Ridge Greenway and North/South Bicycle Boulevard) as well as Almendral Avenue/Stockbridge Avenue near El Camino Real. To the maximum extent practical, efforts to address these and other drainage issues should utilize the Pedestrian Environment Inventory when prioritizing locations for improvement, and should consider providing accessible walkways such as those identified in **Figure 16**. Drainage improvements should also be consistent with planned bicycles facilities, particularly those that require widening such as on Selby Lane, Middlefield Road, and Atherton Avenue.

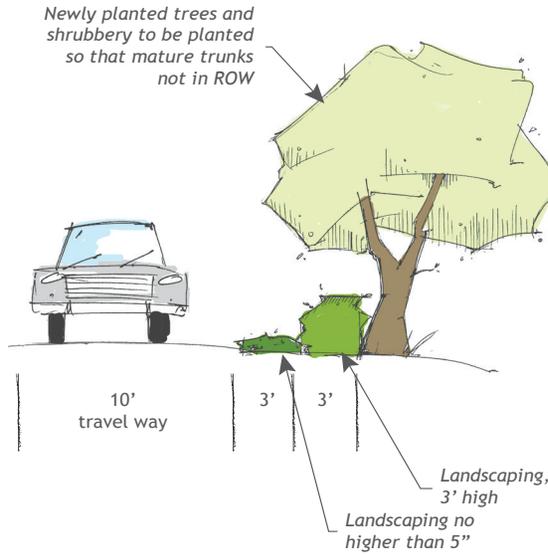


Elena Avenue behind the Menlo Circus Club is an example of a 'walkable' area from the Pedestrian Inventory that can be left flooded and inaccessible due to ponding and uneven, muddy surfaces

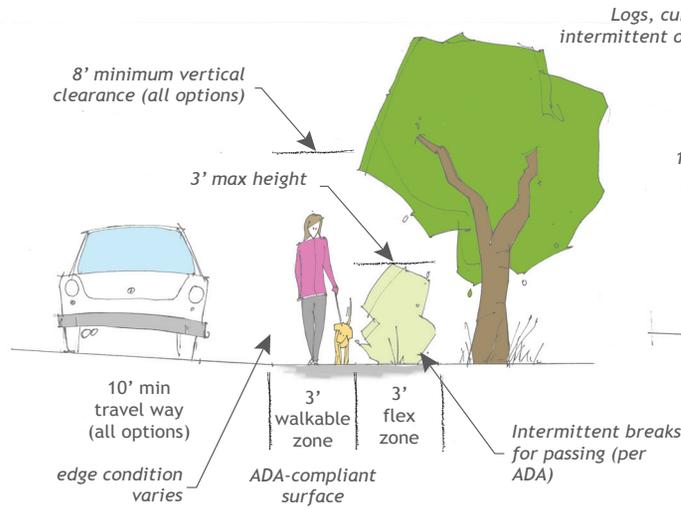


Figure 15: Example of a 'green gutter' with porous concrete walkway

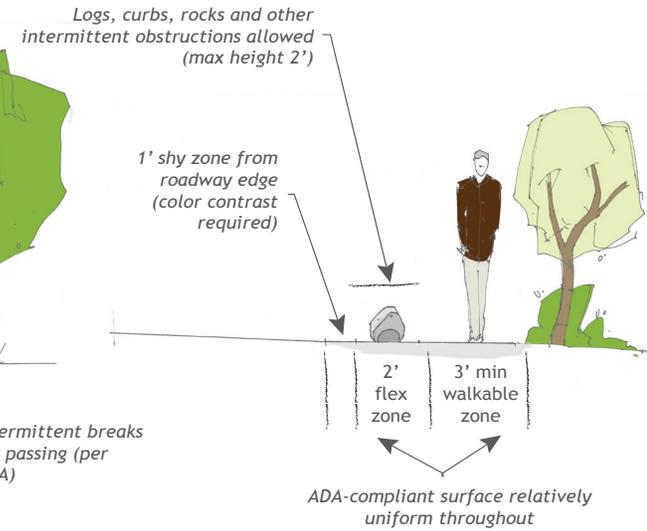
Existing Conditions



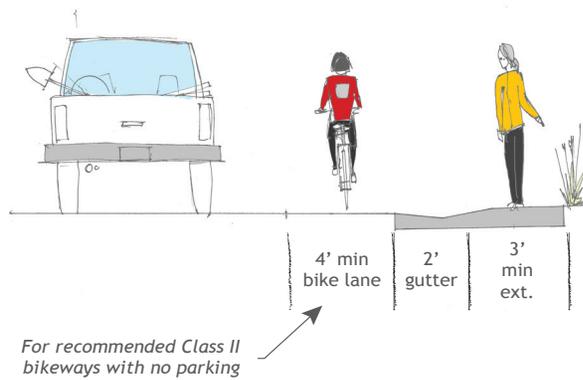
Walkable Shoulder



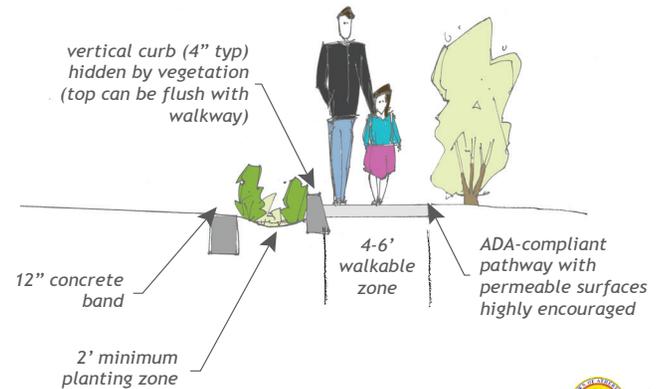
Barrier Protected Walkway



Walkable (Modified) Valley Gutter



'Green Gutter' Protected Walkway



DRAFT 2/2014

Not to Scale



Figure 16: Draft Walkway Design Concept Alternatives

Green stormwater infrastructure (such as the ‘green gutter’ concept in **Figure 15**) should be used whenever feasible in lieu of traditional underground inlets and piping that do not contribute to the pedestrian environment. Additional pedestrian and bicycle friendly drainage design concepts can be found in the **San Mateo County Sustainable Green Streets and Parking Lots Design Guidebook**.

Traffic Calming and Speed Limits

Vehicular speeds have significant impacts on the actual and perceived safety of the pedestrian environment because of the likelihood of injury resulting from a collision (**Figure 17**). This is especially true for the one-third of Atherton’s assessed streets where walking in the roadway is required.

Traditional traffic calming measures, such as speed humps and traffic circles on neighborhood streets, are low cost ways to improve safety and the sense of “sharedness” within the right-of-way. With recent California legislation, cities and towns are now also able to protect the most vulnerable road users by implementing strict speed limits around schools - without the need for an Engineering and Traffic Study. For example, San Francisco has designated 15 mile per hour speed limit zones within 500 feet of all its elementary schools.

Intersections & Crossings

Signalized crossings within Atherton are located along El Camino Real, Valparaiso Avenue, and Middlefield Road. Of these intersections, only one crossing (Valparaiso Avenue and El Camino Real) allows pedestrians to cross at all four legs of the intersection. In general, the crosswalk styles of these intersections are all transverse, or two horizontal white stripes extending across the intersection. These crosswalks could be enhanced with a higher visibility “continental” striping or decorative paving pattern (bordered by transverse striping for visibility). Where crosswalks

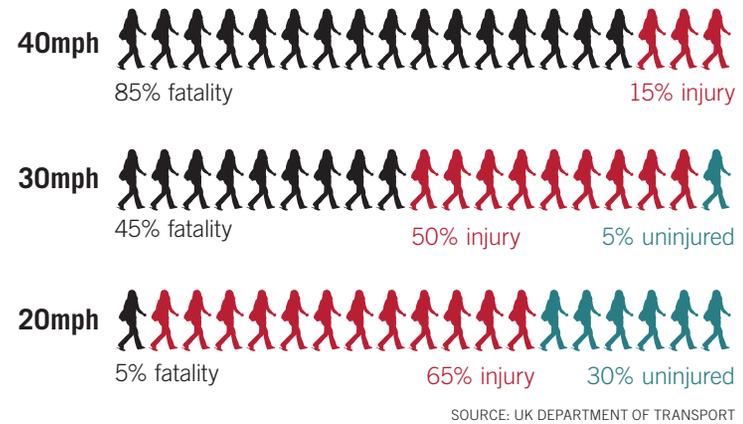


Figure 17: Typical risk of non-motorized collision injury based on vehicle speed at impact

do not connect with dedicated walkway facilities, an accessible landing area should be provided. Signalized intersection crossings should include an advance stop bar, set at least four feet back from the crosswalk to discourage vehicle encroachment.

El Camino Real

Marked, uncontrolled crosswalks on roadways with two or more travel lanes per direction and speeds above 30mph are generally discouraged. Four such crossing locations exist along the six-lane El Camino Real:

- Selby Lane
- Stockbridge Avenue
- Almendral Avenue
- Isabella Avenue

Removing these facilities would create distances of greater than 3,000 feet between the signalized crossings at Fifth Avenue, Atherton Avenue, Encinal Avenue, and Valparaiso Avenue - an unacceptable out-of-direction distance for most pedestrian

trips. Upgrading uncontrolled crossings with curb ramps and curb extensions, high-visibility crosswalks, center median refuge islands, and hybrid pedestrian signals or rapid flashing beacons is an identified need to improve pedestrian safety at these locations. Additional safety would be achieved by reducing the number of travel lanes pedestrians need to cross (from 6 to 4), which is discussed in the next chapter.

The Town has been coordinating with Caltrans on the potential funding partnership for one or more new traffic signals or hybrid pedestrian signals. As described in Chapter 4, this effort should consider the optimal crosswalk location before constructing these facilities, and may also consider the use of lower-cost active warning beacons if lane reductions are feasible (**Figure 18**).



Several marked but uncontrolled crosswalks on El Camino Real limit east-west walkability and bikeability in Atherton, particularly due to the need to cross six or seven lanes of traffic

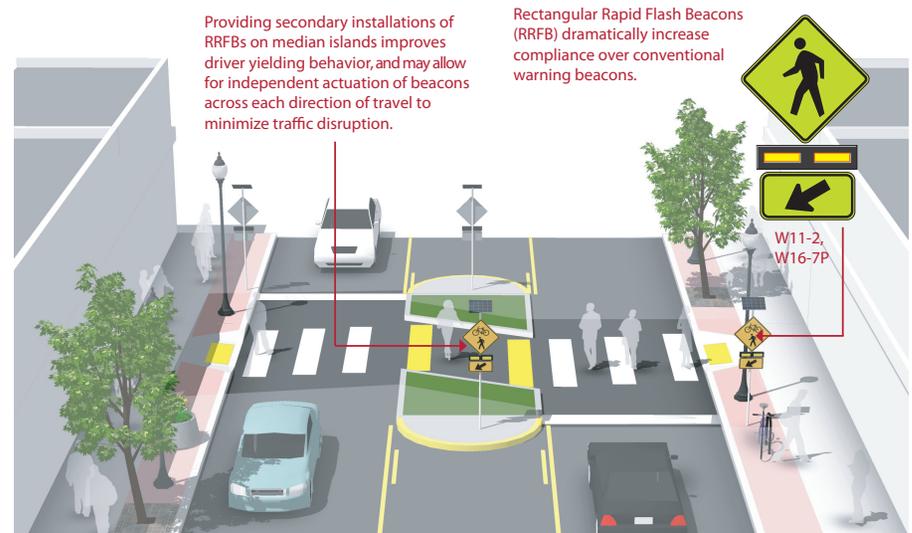
Description

Active warning beacons are user actuated illuminated devices designed to increase motor vehicle yielding compliance at crossings of multi lane or high volume roadways.

Types of active warning beacons include conventional circular yellow flashing beacons, in-roadway warning lights, or Rectangular Rapid Flash Beacons (RRFB).

Guidance

- Warning beacons shall not be used at crosswalks controlled by YIELD signs, STOP signs, or traffic signals.
- Warning beacons shall initiate operation based on pedestrian or bicyclist actuation and shall cease operation at a predetermined time after actuation or, with passive detection, after the pedestrian or bicyclist clears the crosswalk.



Discussion

Rectangular rapid flash beacons have the most increased compliance of all the warning beacon enhancement options.

A study of the effectiveness of going from a no-beacon arrangement to a two-beacon RRFB installation increased yielding from 18 percent to 81 percent. A four-beacon arrangement raised compliance to 88 percent. Additional studies over long term installations show little to no decrease in yielding behavior over time.

Additional References and Guidelines

- NACTO. (2012). Urban Bikeway Design Guide.
- FHWA. (2009). Manual on Uniform Traffic Control Devices.
- FHWA. (2008). MUTCD - Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons (IA-11)

Materials and Maintenance

Depending on power supply, maintenance can be minimal. If solar power is used, RRFBs should run for years without issue.

Figure 18: Active warning beacon design guidance

3.3 Recommended Policies and Programs Summary

Despite lower pedestrian and bicycle demand compared to its neighboring cities, Atherton nonetheless can benefit from increased levels of active transportation to reduce peak commute congestion and promote healthy, active lifestyles and social engagement among its residents. This is especially true given a higher than average percentage of older and younger school-age residents who are typically the most vulnerable and traffic-sensitive roadway users. The following section summarizes positive actions that can be undertaken or considered as part of this Plan's implementation.

Engineering / Infrastructure

Adoption of the Complete Streets policy, as well as this Plan, requires review of the General Plan and other existing policies for consistency. The following design-oriented policies and changes are recommended for consideration:

Town of Atherton General Plan

- Review/revise street width standards for minor and collector roads where bicycle lanes are proposed (e.g., from 24' to 32' to account for Class II bicycle lanes)
- Adopt the proposed bicycle network
- Consider adopting a local shared pathway standard and the NACTO Urban Bikeway Design Guide to supplement the Caltrans Bikeway Classification system and accompanying Highway Design Manual guidelines
- Adopt a more rigorous policy for pedestrian accommodation, including specific streets (e.g. all minor and collector arterials)

where ADA-compliant walkways or pathways are a priority.

Town Municipal Code

- Revise landscaping standard in code to accommodate pedestrian travel. Adopt a new minimum standard of 3-4 feet walkable surface with multiple design options for guidance, to be coordinated with adjacent property owners and potentially required with major modifications/property development

ADA & Drainage Master Plans

- Integrate location and design priorities between the Bicycle and Pedestrian Master Plan, Drainage Master Plan, and future ADA Master Plan
- Consider alternative design standards for intersections (e.g., blended transitions with bollards) consistent with all-weather, at-grade walkways

Town Capital Improvement Planning & Design

- Develop a Complete Streets Checklist for all major capital and maintenance projects and a review/approval process to ensure new roadway projects address bicycle and pedestrian needs. A similar checklist is required by the Metropolitan Transportation Commission (MTC) for several funding programs and is available at www.mtc.ca.gov/planning/bicyclespedestrians/routine_accommodations.htm
- Prioritize design studies to confirm feasibility of complex high priority projects and refine planning level cost estimates in preparation for possible grant activities and new capital programming

Table 6: Interjurisdictional Coordination Needs By Agency and Facility

Street Facility	Coordinating Agency		Comments
El Camino Real	Caltrans, North Fair Oaks (County), Menlo Park	None	Sidewalks in both County and Menlo Park; two travel lanes with on-street parking
Valparaiso Avenue	Menlo Park	DG sidepath	Valley gutter + paved shoulder on MP side of Valpo and on Corine Ln
El Camino & Valparaiso	Menlo Park	DG sidepath	10 ft sidewalk
San Carlos Ave-Selby Ln-El Camino between ECR and San Carlos Drive	North Fair Oaks, Menlo Park, San Mateo County	Class II bikeway from ECR to Oakwood	Proposed Class III bikeway from San Carlos to Selby Ln
San Carlos Ave-Selby Ln-Atherton Ave-Barry Ln-Elena Ave between Selby Lane and Valparaiso Ave	San Mateo County, Menlo Park	None	Proposed Class III bikeway at San Carlos Ave/Selby Ln, Existing Class II bikeway at Valparaiso
Middlefield Rd & Marsh Rd	North Fair Oaks	None	
Marsh Rd between Middlefield and Bay Road	North Fair Oaks	None	Sidepath
Middlefield Rd between Jennings Ln and Ringwood Ave	Menlo Park	None	Proposed Class II bikeway at North Fair Oaks border, existing Class II bikeway at Menlo Park border
Bay Rd between Marsh Rd and Ringwood Ave	Menlo Park	Class II bikeway	None at North Fair Oaks border, continuation of Class II bikeway at Menlo Park border
Austin Ave-Atherton Ave-Elena Ave between Selby Lane and Valparaiso Ave	Menlo Park	None	Existing Class II bikeway at Valparaiso
James Ave-Catalpa Dr-Acorn Way-Greenoaks Dr-Frederick Ave between Middlefield Rd and Ringwood Ave	Menlo Park	None	Class II bikeway
Alameda de las Pulgas between Stockbridge Ave and Camino Al ALgo	Woodside, San Mateo County, West Menlo Park	Class II bikeway	Class II bikeway, Proposed Class III bikeway
Valparaiso Ave	Menlo Park, West Menlo Park	Class II bikeway	Class II bikeway
Valparaiso & Elena	Menlo Park	DG sidepath	Valley gutter + paved shoulder on MP side of Valpo and on Corine Ln
Valparaiso & Sacred Heart	Menlo Park	DG side path	DG sidepath

Inter-jurisdictional Coordination

Apart from schools, there are few destinations within Atherton that generate bicycle and walking trips. Many destinations, such as the retail, restaurants, and medical offices in downtown Menlo Park and the recreational opportunities like the San Francisco Bay Trail, lie just beyond the boundaries of the Town. Additionally, Atherton is positioned between residential and employment centers in Redwood City, Menlo Park, and Palo Alto. As pedestrians or bicyclists enter and leave Atherton, whether for recreation or a work or school commute, they should be able to ride or walk on similar, interconnected facility and be directed toward activity centers, rather than having a bike lane or shared dedicated walkway end abruptly at the Town boundary. **Table 6** documents the major corridors in Atherton that require coordination with adjacent jurisdictions and other agencies.

Non-Infrastructure (Programmatic) Recommendations

A successful framework for the planning and provision of safe transportation environments involves more than just the presence and design of infrastructure. Education, encouragement, enforcement, and evaluation measures are all needed to complement and support solid engineering - in what's known as the 'Five E's' of transportation planning. The following recommendations identify opportunities and priorities for advancing non-infrastructure programs and efforts:

Education

- Work with the San Mateo County Safe Routes to School Program and various agencies/partners to provide and expand innovative bicycle and pedestrian safety curriculum¹.

¹ Potential education and encouragement partners include the Silicon Valley Bike Coalition, Peninsula Family YMCA, Wheel Kids, and Safe Moves (among others)

The San Mateo County Safe Routes to School (SR2S) program has developed K-5 and middle school SR2S Educator Guides aligned to Common Core Standards and Next Generation Science Standards, as well as a Non-Infrastructure Programs Toolkit. By mid 2014, a Middle School Bike Club Facilitator's Guide will also be available that is aligned with League of American Bicyclists (LAB) Instructor Certification Guidelines. More information is available at www.smcoe.org/SR2S

- Include educational outreach materials to local residents and roadway users when implementing recommendations in this plan, such as alternative streetfronting standards to accommodate pedestrian travel, and with coordinated enforcement efforts (e.g., safety campaigns during the back-to-school period).
- Partner with and support the Roadway Safety Solutions Team (RSST), a collaborative effort sponsored by the Silicon Valley Bicycle Coalition and Stanford Trauma Center, formed as part of the Coalition's **Vision Zero Initiative**. Focus areas of the RSST include inter-agency connectivity and standards, Share the Road messaging, Safe Routes to Schools, law enforcement coordination, increasing information about bicycles on the Department of Motor Vehicles website, and anti-harassment ordinances. Lead RSST organizers include employees and affiliates of the Stanford Medical Center and Menlo Park elected officials and advocates.
- Include information from this Plan and links to other pedestrian/ bicycle resources on the Town's website, including the Peninsula Traffic Congestion Relief Alliance (www.commute.org)

Encouragement

- Support Bike to Work Day in May by hosting an 'energizer' station and promoting through media such as the Athertonian newsletter, MenloPark-Atherton Patch.com website, and/or with a hanging banner at Marsh Road and Middlefield Road

- Support International Walk and Roll to School Day (October), and Bike to School Day (May) through coordinated efforts with the various local school districts, private schools, and County SR25 program.
- Partner with local student groups to provide youth engagement opportunities, bring enthusiasm to projects, and help develop a culture of active living among Atherton school youth. Environment-focused student groups, such as Menlo School's Environmental Awareness Club, is one potential partner for these efforts.
- Consider Personal Travel Encouragement programs that incentivize walking, bicycling, and transit use as facilities and services improves over time. Such a program involves baseline data collection, a marketing intervention, and follow-up measurements to document mode or behavior shifts. The program invites residents to order customized information about their specific travel needs (e.g. an event calendar, walking and bicycling maps, a bicycling guide, transit maps and schedules).

- **Enforcement**

Strive to improve safety for all users by undertaking the following actions:

- Prioritize enforcement of existing streetscape frontages that violate the Town's ordinance of sight distance setbacks at intersections
- Consider a 15/20 mph zone speed limit for application in select school zones and along bicycle boulevards. In conjunction with or in lieu of reduced speed limits, utilize physical traffic calming measures, such as speed tables and planted medians, to reduce the need for ongoing speed enforcement

- Conduct regular crosswalk and bike lane violation emphasis patrols in areas with reported issues, such as Valparaiso Avenue and along Middlefield Road
- Communicate safe and appropriate "Rules of the Road" for all roadway users through targeted enforcement and education. This should include education and enforcement activities related to AB 1371, the recent bill that prohibits motorists from passing a bicycle with less than three feet between any part of the vehicle and any part of the bicycle or driver. When three feet is not possible, the motor vehicle must slow to a reasonable and prudent speed and only pass when no danger is present to the bicyclist. Failing to do so can incur a fine, regardless of a collision or not. This law is to go into effect September 16, 2014.
- Encourage school districts, including private schools in Atherton, to continue and expand funding crossing guards to assist with non-motorized school commutes.

Evaluation

Bicycle and pedestrian counts are important because they provide documentation of actual bicycle and pedestrian activity, allowing the Town to make informed decisions to target improvements in areas where they will be most beneficial. Project-specific before and after counts are also valuable to assess progress in encouraging non-motorized transportation, and are increasingly required to compete for outside grant funding (including the new statewide Active Transportation Program, or ATP):

- Create a program to conduct regular pedestrian and bicycle data collection efforts at strategic screen lines to assess activity level trends. If funds are not available for an ongoing program, seek to organize and train volunteers to conduct such counts. More information and resources on annual non-motorized

counts is available from the **National Pedestrian and Bicycle Documentation Project**

- Update town-wide traffic counts for all modes, including automobile counts, to assist the feasibility and design for including pedestrian and bicycle facilities in new projects

Volunteer Groups / 'Friends of Atherton Bicycles'

Engagement (a potential 'sixth E') of residents and community members is an excellent strategy for finding resources and garnering support and enthusiasm for bicycle and pedestrian facility improvements. A "Friends of Atherton Bicycles" organization could be formed to help organize volunteerism for maintenance and ongoing education/encouragement programming. The group could also help support and conduct outreach for bicycle-related projects, maximizing public-private funding opportunities.

For proposed trail projects, the group could hold a fundraiser in which individuals finance a small portion for the trail. Jackson County, Oregon had a 'Yard Sale,' in which the Break Creek Greenway Foundation sold symbolic 'yards' of the trail and

placed donor's names on permanent markers that are located at each trailhead. At \$40 a yard, the organization raised enough money in private cash donations to help match their \$690,000 Transportation Enhancement program award. A similar program could be developed for a multi-use path on Middlefield Road, Watkins Ave, or El Camino Real.

Bicycle/Pedestrian Advisory Committee (BPAC)

Most jurisdictions in the Bay Area have some form of a Bicycle and Pedestrian Advisory Committee (BPAC) to help advise and inform City Council on technical matters related to active transportation, including ongoing implementation of bicycle and pedestrian master plans. BPAC's are also required for consideration of Bicycle-Friendly Community status as defined by the League of American Bicyclists (LAB), and for eligibility under the bicycle and pedestrian Transportation Development Act (TDA) Article 3 regional funding source. According to TDA eligibility rules, a jurisdiction's BPAC should be composed of three or more members who live or work in the city or town, and all must be appointed by the City Council.



Non-infrastructure programs and efforts can help educate and encourage safe roadway behavior, identify funding partnerships, and complement engineering and enforcement priorities

4 Project Recommendations

The Atherton Bicycle and Pedestrian Master Plan identifies four (4) key project corridors/categories to improve active transportation safety and options. These facility recommendations consist of:

- 1 A major overhaul to El Camino Real by (in most cases) converting the westernmost southbound travel lane to a Class I trail with landscaping and pedestrian crossing improvements, called the **Grand Boulevard Greenway**;
- 2 A new east-west **Bay-to-Ridge Greenway**, including Class I trail and pathway improvements to Marsh Road/Middlefield Road/Watkins Ave, plus bicycle boulevard and greenway linkages along or adjacent to the Atherton flood channel across El Camino Real to Alameda de las Pulgas.
- 3 **Safe Routes to School**: Enhanced bike lanes along the regionally important Middlefield Road, Valparaiso Avenue, and Alameda de las Pulgas corridors, as well as new bike lanes and pedestrian improvements on Selby Lane, Glenwood Ave, and Atherton Ave serving local priority connections.
- 4 Shared bikeway and pedestrian greenway improvements along the Countywide **North/South Bicycle Boulevard** (along Elena Ave and Austin Ave/Selby Lane), as well as additional shared bikeway improvements connecting to the Town Civic Center

Bikeway facility recommendations are generally summarized by the Proposed Bicycle Network Map (**Figure 19**) and accompanying design discussion and reference documents in Chapter 3. Pedestrian improvements outside of those described in the following sections should be considered on a case-by-case basis, or

as part of the drainage and ADA master plans, using the guidance and information provided in this plan.

4.1 El Camino Real - Grand Boulevard Greenway

Throughout the entire El Camino Real corridor, there are very few sections (only six percent) that do not have pedestrian facilities. With six travel lanes compared to four lanes in neighboring jurisdictions, and a number of off-set intersections for its east-west corridors, Atherton is also uniquely difficult to cross for pedestrians and an opportunity to install dedicated bicycle facilities.

Figures 20-22 provide detailed improvement concepts for the El Camino Real Grand Boulevard Greenway concept. Below are recommendations for moving forward with implementation.

Recommendations

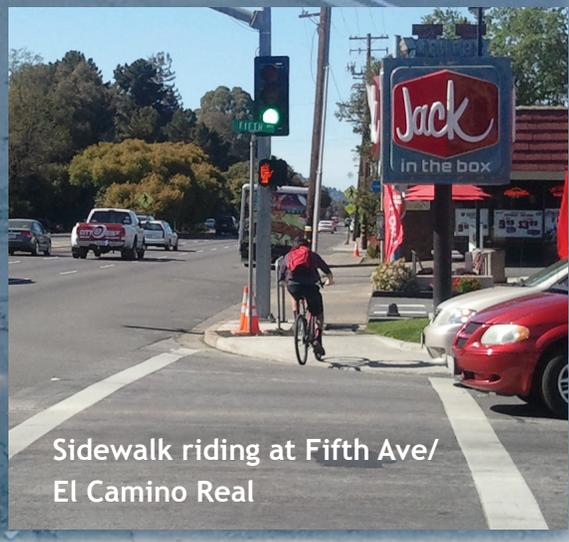
- Coordinate with Caltrans on reviewing optimal locations for new potential traffic signals, pedestrian hybrid signals, and other crossing improvements using concepts from this Plan. Strongly consider crosswalk placement and design that utilizes the full width of the center median to include accessible waiting areas
- Fund a traffic study to look at the feasibility of converting (removing) one or both outside travel lanes in favor of dedicated pedestrian and bicycle facilities. Consider both a west-side Class I trail (for two-way travel) and/or buffered bike lanes with eight foot (8') sidewalks, as well as impacts to bus service and stops
- Assuming feasibility, prioritize improvements to the Selby Lane/Fifth Avenue and Isabella/Watkins Avenue off-set intersections. For Selby Lane/Fifth Avenue, removing a travel lane does not appear to be required for providing a Class I trail connection.



Northbound view from west side of El Camino Real at Fifth Avenue



Access to the northbound bus stop at Fifth Ave is not ADA compliant



Sidewalk riding at Fifth Ave/El Camino Real

El Camino Real between Fifth Ave and Selby Lane is a high-priority improvement project and should be competitive for external partner/grant funding sources given its proximity to essential services (groceries, transit, medical/office space) and the North Fair Oaks community

Town of Atherton Bicycle and Pedestrian Master Plan

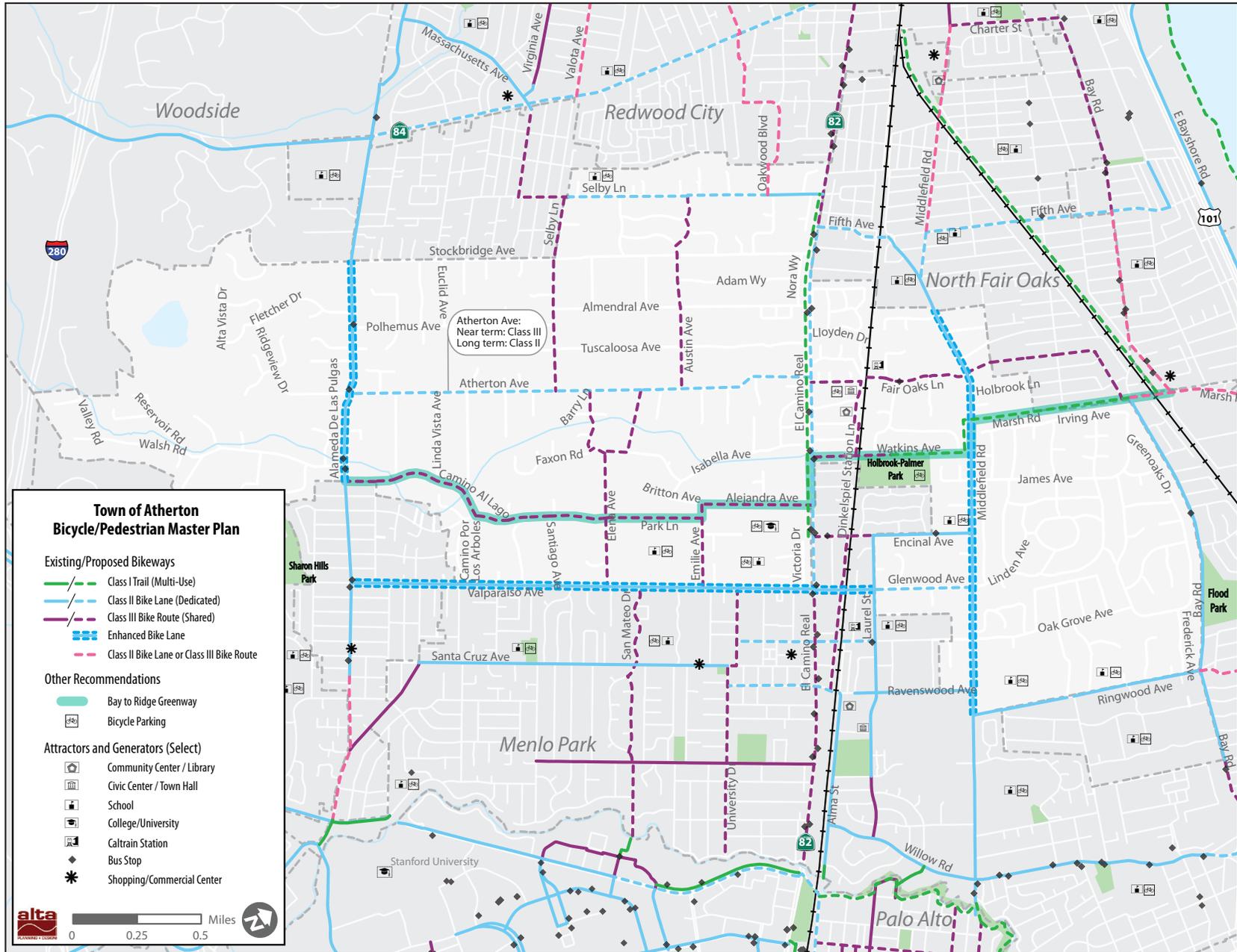
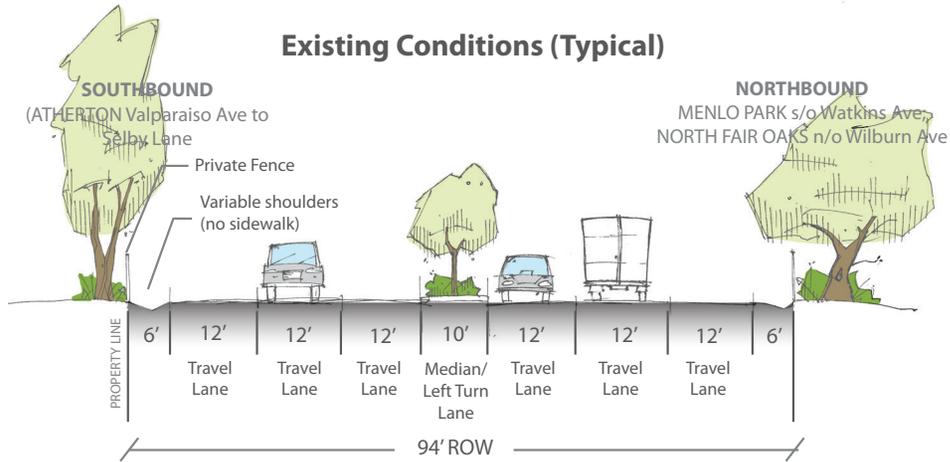


Figure 19: Town of Atherton Existing and Proposed Bicycle Network

El Camino Real in Atherton - Grand Boulevard Greenway Concept

Existing Conditions (Typical)



Project Description

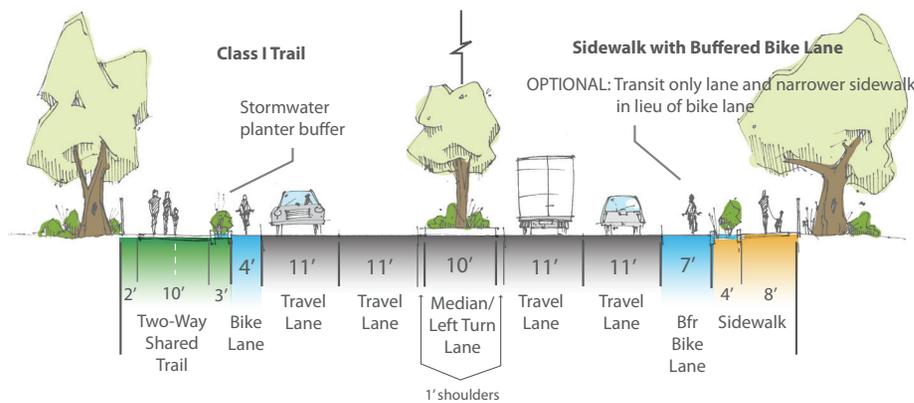
The Grand Boulevard Greenway project concept would provide dedicated bicycle and pedestrian facilities, and transit access improvements, along the length of El Camino Real within Atherton by repurposing a vehicle travel lane in one or both directions. Recommended concept alternatives for further study include: (1) a two-way, shared use trail along the west side of El Camino Real; (2) 8' sidewalks with buffered bike lanes (both sides); and (3) a transit-bicycle priority lane with sidewalks (both sides).

Project implementation would likely occur in phases, with prioritization given to locations identified for potential installation of pedestrian hybrid signals or flashing beacons (namely, the Selby Lane/Fifth Ave and Isabella Ave/Watkins Ave/Alejandra Ave offset pedestrian crossing locations). Other priority "complete intersection" improvement locations include Atherton Ave and Encinal Ave.

Purpose & Need

The project would greatly improve safety for all modes, especially pedestrians, and encourage greater bicycle and transit travel. Atherton is one of the last remaining segments of El Camino Real without any dedicated bicycle or pedestrian facilities. Existing signalized crossings are limited and lack connectivity, while uncontrolled crosswalks require six or more lanes of traffic to yield for a pedestrian. Two pedestrian fatalities have occurred in these crosswalks since 2007, which act as significant barriers for east-west travel (including for accessing the Town's only public park and civic campus). El Camino Real is also one of the area's only transit corridors, and provides access to multiple schools and downtown Menlo Park, which is the closest commercial area for most town residents. The project would also improve the design consistency of the corridor, which currently has two lanes to the south in Menlo Park and the north in Redwood City.

Proposed Conditions (Optional Cross Sections)



Potential Conditions

(Intersection with Right-Turn Lane)

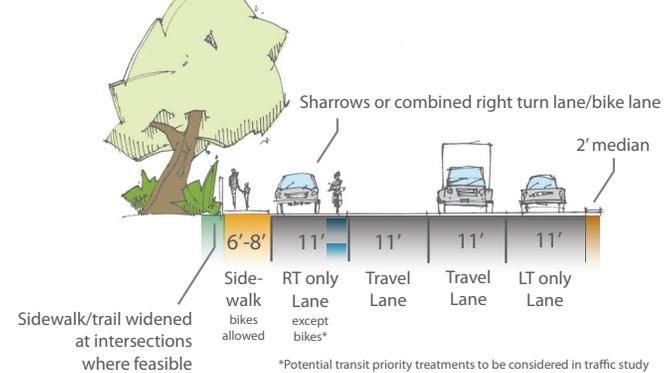
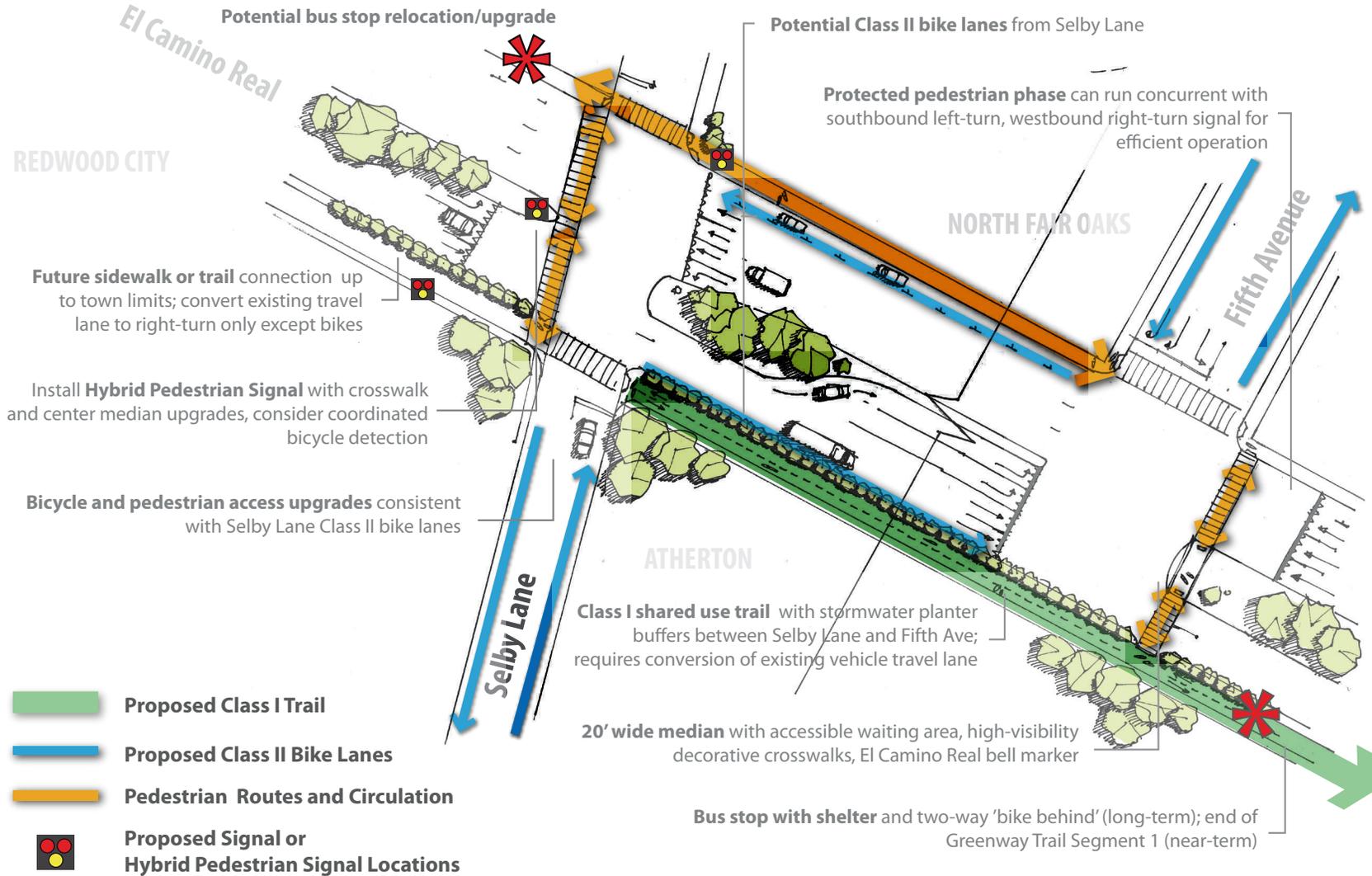


Figure 20: El Camino Real Grand Boulevard Concept - Typical Cross Section Study

Selby Lane/Fifth Avenue Complete Street & Grand Boulevard Segment #1



Alta Planning + Design (Feb 2014)

Draft Concept Not to Scale

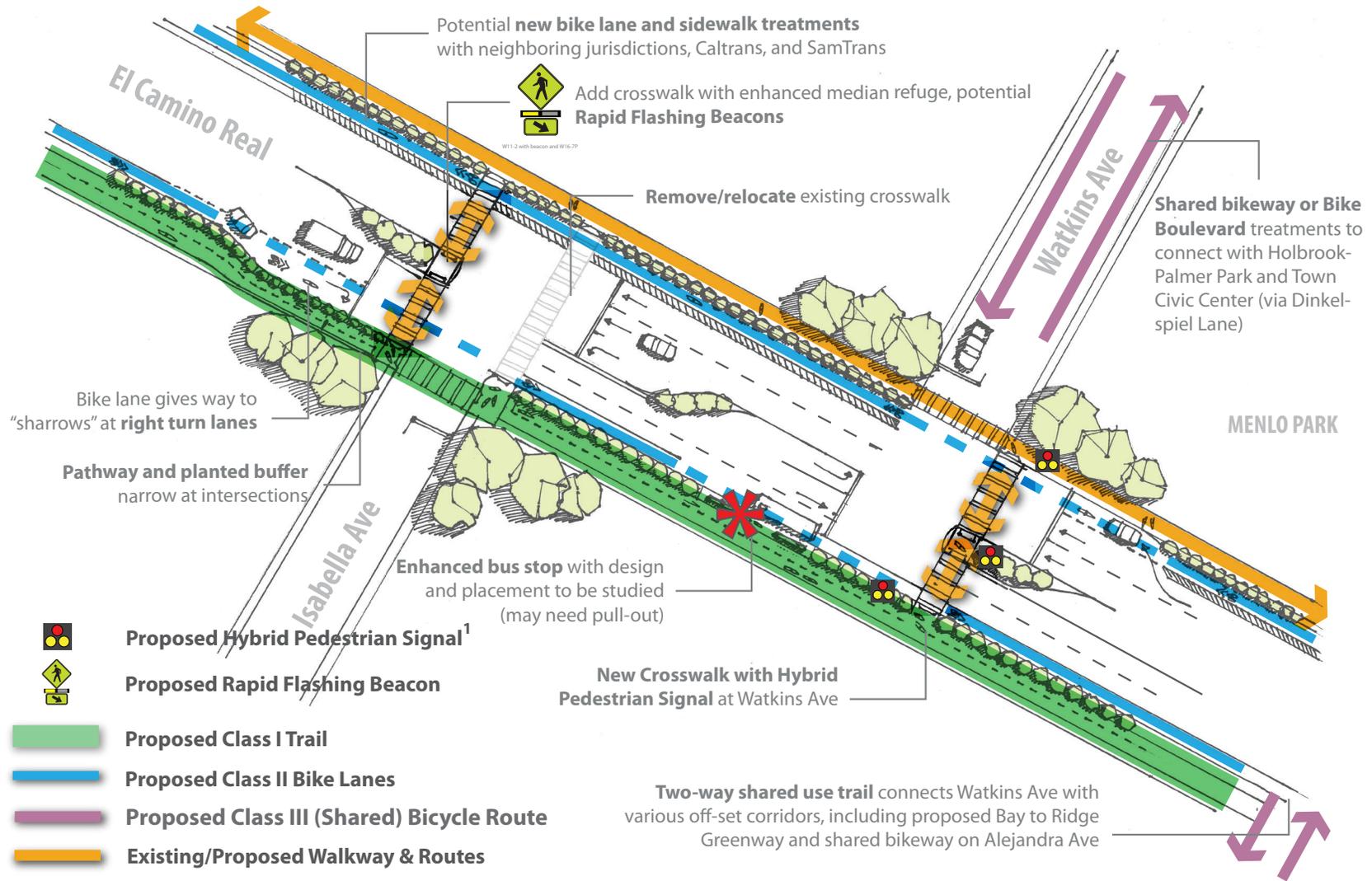


Bicycle and Pedestrian Master Plan

El Camino Real - Grand Boulevard Greenway

Figure 21: El Camino Real Grand Boulevard Concept - Selby Lane to Fifth Avenue

Watkins Ave/Isabella Ave Crosswalks & Greenway Segment #2



Alta Planning + Design (March 2014)

¹ May need Caltrans Design Exception based on proximity to stop-controlled intersection

Draft Concept Not to Scale



Figure 22: El Camino Real Grand Boulevard Concept - Isabella Avenue and Watkins Avenue

• 4.2 Bay to Ridge Greenway



The northbound bike lane on Middlefield Road should be extended through the intersection using innovative striping and signage from the NACTO Urban Bikeway Guide

Marsh Road is an important automobile commute corridor for residents, providing access to the nearby Facebook and SRI International campuses, but it also has the potential to be an important bicycle and pedestrian corridor. The Bay to Ridge Greenway Concept identifies Marsh Road as a linking corridor between the Bay Trail and recreational opportunities toward the foothill open spaces. Watkins Avenue, via Middlefield Road, is a logical linkage within this greenway since it provides access to the Town’s only public park as well as the Town Hall/Civic Center, and includes a Class I trail opportunity alongside the Atherton flood conveyance channel. West of

El Camino Real, this greenway can be implemented as a bicycle boulevard and/or Safe Routes to School project via Alejandra Avenue/Park Lane/Camino al Lago or on adjacent facilities to be determined in coordination with adjacent schools and Menlo Park.

Recommendations

- Coordinated with the Marsh Road Retaining Wall Project (an effort to address the degrading flood conveyance channel on Marsh Road) and the County, fund a feasibility study to assess pedestrian and bicycle options for the corridor, including potential use of channel aerial rights for a shared use pathway and bicycle boulevard on adjacent streets (e.g., Palmer Lane)
- Extend the greenway along Middlefield Road and Watkins Avenue



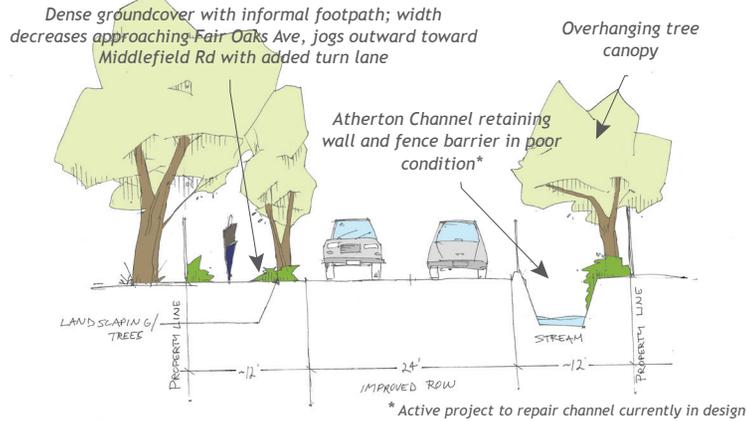
The flood channel on Watkins Avenue can be modified to provide a Class I shared use trail linking the Town’s only public park with Marsh/Middlefield Road as part of a larger vision to connect the Bay and foothills

via a new Class I shared use trail. Add a new crossing of Middlefield Road at Watkins Avenue and prioritize Watkins Avenue across El Camino Real with connections to Alejandra Avenue

- Improve pedestrian and bicycle accommodations on Park Lane and Camino al Lago, including a potential Class I/II facilities and wayfinding. In coordination with the City of Menlo Park, consider other potential improvements and/or preferred routes that connect into the Foothills via Alameda de las Pulgas and Alpine Road
- Long term, support improvements to Marsh Road in Menlo Park and across Highway 101 to the Bay Trail

Marsh / Middlefield Road Trail Feasibility Study & Bike Lanes

Existing Conditions - Marsh Road (Atherton)



Project Description

The Marsh Road Trail Feasibility Study would assess options for providing dedicated bicycle and pedestrian facilities along Marsh Rd from Middlefield Rd to approximately Bay Rd. Alternatives to consider include a shared use trail to be built over the Atherton Flood Channel, a shared use trail or pedestrian pathway on the north side of Marsh Road, wider travel lanes shared with bicycles, and adjacent shared bikeway (bicycle boulevard) on Fair Oaks Ave. The study will also consider crossing improvement and street “right-sizing” opportunities/impacts from Fair Oaks Lane to Bay Road, and compatibility with a possible trail connection along Middlefield Rd to Watkins Rd. Coordination with Menlo Park and San Mateo County will be required. In the short-term, this project includes upgrading of bicycle facilities along Middlefield Rd through Marsh Rd, with potential crosswalk and signal timing enhancements pending outcomes of the trail feasibility study.

Purpose & Need

Marsh Road currently does not provide dedicated pedestrian or bicycle facilities, despite being an important connection across the Dumbarton Rail Corridor to commercial and office destinations (including Facebook), as well as the Bay Trail. Middlefield Rd (where Marsh Rd terminates) is a regionally significant bicycle and transit corridor with substandard Class II bicycle lanes and pedestrian facilities. Both Marsh Rd and Middlefield Rd are part of the County bike network and proposed Atherton Bay to Ridge Greenway, a continuous recreational corridor concept from the Bay Trail into the foothills along and adjacent to the Atherton flood channel.

Issues & Alternatives

Consider soft-surface pathway wide enough for social/recreational activity; meander around specimen trees; would require County coordination and design attention to driveways approaching Fair Oaks Ave

Stripe 20'-30' long “green carpet” bike lane at intersection entries/exits

Crosswalk placement here allows concurrent pedestrian and WB left-turn/NB right-turn signal phase

Crosswalk location may not be optimal for intersection signal operations

Shared path would be protected by existing k-rail; formalize community gateway/banner location

Proposed shared pathway would connect to Watkins Rd/Atherton Channel proposed pathway

to Bay Road / Bay Trail / Bedwell Bayfront Park

Possible boardwalk trail over Atherton Channel, although would require new signalized crosswalk and/or travel lane reduction north of Fair Oaks Ave on Marsh Rd

No room for dedicated bike lane; consider combined right-turn/thru bike lane, intersection markings, and bike box (may maintain vehicle right-turns)

Replace existing signage directing bicyclists to narrow off-street path with RTL/BL or MUFL bicycle sign & wayfinding sign

to Watkins Rd / Holbrook-Palmer Park

Alta Planning + Design (Feb 2014)

Draft Concept Not to Scale



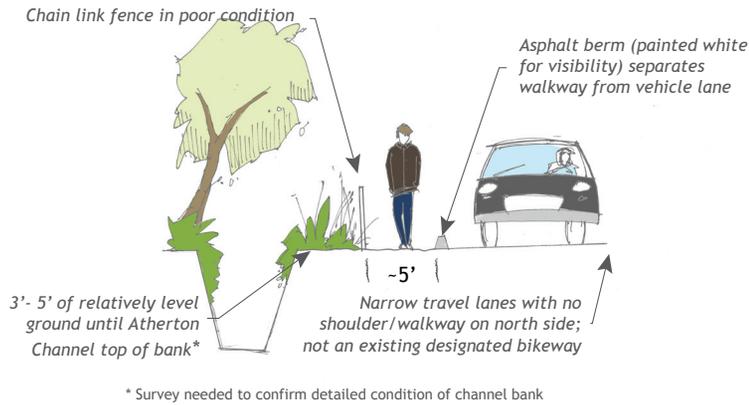
Bicycle and Pedestrian Master Plan

Bay to Ridge Greenway

Figure 23: Bay-to-Ridge Greenway Concept - Marsh Road and Middlefield Road

Watkins Ave Class I Trail at Holbrook-Palmer Park / Atherton Channel

Existing Conditions - Watkins Avenue



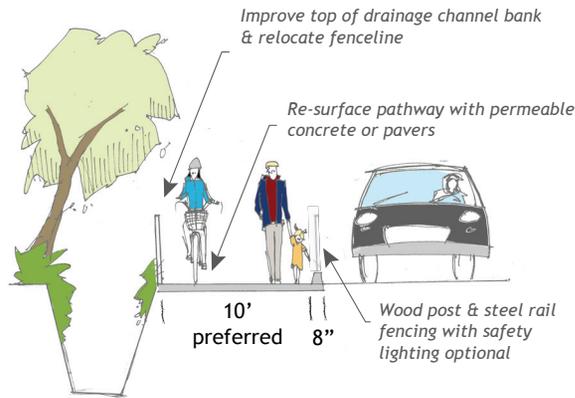
Project Description

The Watkins Shared Use Pathway would improve the top of the Atherton Channel bank and resurface/widen the existing walkway to provide a shared-use pedestrian and bicycle trail along Watkins Avenue between Middlefield Road and Holbrook-Palmer Park (and possibly as far south as the Caltrain railroad crossing). The project would install a Class III shared bikeway with wayfinding from trail to Dinkelspiel Station Lane and the Town Civic Center, and south to El Camino Real. Project may also consider an all-way stop at Watkins Ave and Dinkelspiel Station Ln, and additional improvements at and along Middlefield Road to connect with Marsh Road.

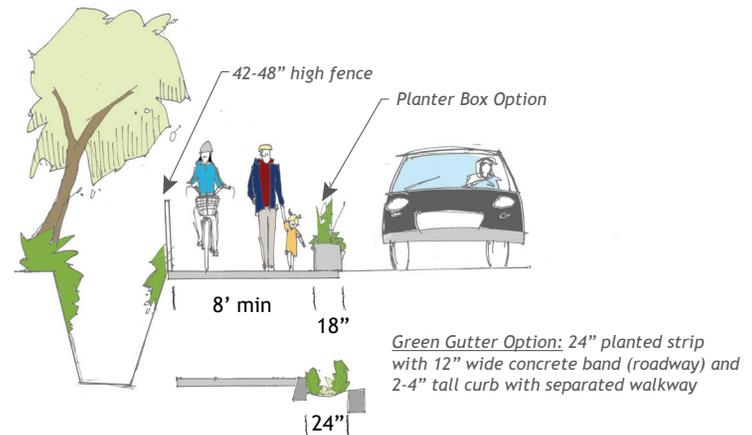
Purpose & Need

Currently there is only one narrow sidewalk along Watkins Ave, and no formal bike facility. This project would improve pedestrian and bicycle access to and between Atherton's two primary public places, Holbrooke-Palmer Park and the Town's civic center, by providing a shared use two-way path protected from traffic and other related improvements. This trail would also develop the "spine" of the proposed Atherton Bay to Ridge Greenway, a continuous recreational corridor concept extending to the Bay Trail via Marsh Road and into the foothills along or adjacent to the Atherton flood channel.

Option 1: Two-Way Path with Protective Fence



Option 2: Two-Way Path with Planted Barrier



Alta Planning + Design (Feb 2014)

Draft Concept Not to Scale



Figure 24: Bay-to-Ridge Greenway Concept - Watkins Avenue Class I Trail

4.3 Safe Routes to School / Enhanced Bikeways

Middlefield Road, Valparaiso Avenue, and Alameda de Las Pulgas are well-utilized existing bike lanes that provide connectivity for both school/work commute and recreational trips. These bike lanes, however, vary significantly in quality and are often encroached upon by turning and parked vehicles associated with school drop off and pick up. Improving these facilities will require coordinated efforts to integrate drainage and pedestrian improvements both along and across the roadway.

Recommendations

- Implement the funded Safe Routes to School enhancements project on Valparaiso Avenue and Middlefield Road. Extend widening and green bike lane treatments along both of these roads, with similar treatments to Alameda de Las Pulgas as funding allows
- Install Class II bike lanes on Selby Lane between El Camino Real and W. Selby Lane, and on Glenwood Ave between Laurel Ave and Middlefield Road. Ensure all new privately or publicly installed gutters are consistent with the Class II bikeway, and include pedestrian accommodations
- In the short-term, prioritize Class III bikeway designation for Atherton Avenue; longer term, develop Class II bike lanes with a preliminary focus on improving between Austin Avenue and Selby Lane (for contributing to the North/South Bicycle Boulevard)
- Consider reduced speed limits, flashing beacon crossings, speed feedback signs, and alternative walkway concept development on all corridors with Class II bike lanes
- Address school-related congestion and deficient roadway design at Middlefield Avenue and Oak Grove and Glenwood Avenues

4.4 Countywide North/South Bicycle Boulevard

Elena Ave from Selby Lane and Austin Ave can provide a slower roadway alternative to Alameda de Las Pulgas, El Camino Real, Middlefield Road for commuting bicyclists and recreational joggers/walkers. This corridor continues into Menlo Park via San Mateo Drive across San Franciquito Creek into Palo Alto, which will soon (by 2018, according to the Stanford Medical Center) extend directly across Sand Hill Road toward Stanford University.

With identified drainage and route legibility concerns, implementing this corridor is both a regional and local priority. Near-term priorities include adding shared lane markings (sharrows) and wayfinding signage, and revising traffic controls at key intersections to improve safety and convenience.

Recommendations

- Add sharrows and wayfinding signage; consider developing a custom wayfinding concept (perhaps a bollard sign) if MUTCD-approved signage is not desired by the community
- Reconfigure the 3-way intersection at Elena Avenue and Isabella Avenue to ensure safe pedestrian and bicycle crossings (see [Figure 25](#)); in the shorter term, implement in phases via the paving program and removal of the centerline berm on Elena Avenue
- Consider flipping STOP signs or constructing traffic circles at Austin, Tuscaloosa, Almendral, and Stockbridge Avenues
- Consider pros/cons of all-way STOP, “T” intersection at Selby Lane and Atherton Avenue; on Selby Lane, remove the centerline stripe and widen the roadway and/or install valley gutters as opportunities arise

Figure 25: North/South Bike Boulevard Concept - Elena Avenue at Isabella Avenue

5 Implementation and Funding

This chapter provides project prioritization criteria and scoring, planning-level cost estimates, and a set of potential funding sources and phasing strategies for implementing recommended projects.

5.1 Project Prioritization

The following criteria were used to identify the highest ranking projects in this Plan (listed in **Table 7**). Each criterion was given a score (1,2,3) based on qualitative assessment of conditions and issues, with the highest scoring projects ranked the highest.

Safety

How well does a project address a known safety issue or location with collision history, or will otherwise result in reduced collisions or exposure to injury from potential collisions? Is it along a suggested route to school?

Usage

Will the project contribute to increased walking and bicycling?
Will the project upgrade an already heavily used existing facility?

Gap Closure

Does the project link to existing bikeways/walkways or substantially implement new priority corridors?

Cost

What does the project cost relative to its benefits, and is there an existing capital project, such as a planned roadway repaving

project, to help minimize cost?

Feasibility / Phase-ability

Is the project achievable with minimal risk and/or can it be further broken down into more achievable phases? What actions are necessary to identify or resolve outstanding issues?

Multiple Benefits

Does the project contribute to improving more than one mode of travel? Does it address other known Town priorities, such as drainage, or otherwise create synergies?

Competitiveness

Are there funding sources available or potentially available based on assessment of grant funding competitiveness or partnership opportunities?

5.2 Priority Projects/Programs & Cost Estimates

Table 7 provides a list of the top 15 ranked capital project recommendations and additional potential maintenance/non-infrastructure programs with planning level cost estimates and short descriptions of key assumptions. Project types include Class I shared use trail segments (along both the El Camino and Bay to Ridge Greenways), Class II bike lanes, Class III shared bikeways, intersection “complete street” improvements, feasibility/design studies, and programmatic funding recommendations for maintenance and non-infrastructure.

Town of Atherton Bicycle and Pedestrian Master Plan

Table 7: Priority Projects/Programs with Planning Level Cost Estimates

Town of Atherton Bicycle and Pedestrian Master Plan - Master Projects List										Prioritization Table							
Street or Intersection	Start	End	Proposed Facility	Length	Planning Level Estimate	Project Description	Agency Coordination Required	Agencies/Adjacent Community	Safety	Usage	Gap Closure	Cost	Feasibility	Multiple Benefits	Competitive mng.	Total Score	
El Camino Real Improvements (Grand Boulevard Greenway)										3= Best			2 = Middle			1 = Least	
GBG - 1	El Camino Real	Selby Lane	Fifth Ave	Class I	.23 miles	\$1,450,000	Includes Class I trail Selby Lane to southbound bus stop; hybrid pedestrian signal; median, bus stop and crosswalk enhancements	Yes	Caltrans / North Fair Oaks	3	3	3	2	3	3	3	20
GBG - 2	El Camino Real	Atherton Ave	Encinal Ave	Class I	.62 miles	\$2,250,000	Includes Class I trail improvements to Atherton/Fair Oaks intersection; hybrid pedestrian signal, median, bus stop and crosswalk enhancements at Watkins Ave/Isabella Ave. Potential for phasing with lower initial costs	Yes	Caltrans/Menlo Park	3	3	3	3/1	2	3	2	19/17
Class I Trails / Pathways (Bay to Ridge Greenway)																	
TR - 1	Watkins Ave	Caltrain	Middlefield Rd	Class I	.41 miles	\$435,000	Modify existing flood channel to widen and convert existing walkway into Class I shared use trail	Potential	Resource Agency permitting	2	3	3	2	3	3	3	19
TR - 2	Middlefield Road	Watkins Ave	Marsh Rd	Class I	.12 miles	\$100,000	One side of roadway, with grading	No		3	3	2	2	3	3	3	19
TR - 4	Holbrook-Palmer Park	Watkins Ave	Fenton Gables	Class I	250'	\$50,000	Shared use path extension through corner of park to Felton Gables pathway, requiring extensive grading and resurfacing. Cost estimate is placeholder.	Yes	Fenton Gables (County)	2	3	3	2	3	3	3	19
Class II Bike Lanes																	
BL - 1	Middlefield Rd	San Mateo County (North Fair Oaks)	City of Menlo Park	Class II (Enhanced Bikeway)	1.49 miles	\$1,550,000	Widen bike lane by improving shoulder conditions; re-stripe with high-visibility green markings at conflict zones and increased signage/wayfinding. Potential for phasing and targeted lower-cost improvements	May not be required, but strongly encouraged	Menlo Park, North Fair Oaks	3	3	2	3/1	3	3	3	20/18
BL - 2	Valparaiso Ave	N Lemon Ave	El Camino Real	Class II (Enhanced Bikeway)	1.3 miles	\$0	Green bike lane improvements to be included in upcoming Valparaiso Ave Safe Routes to School project (already funded)	Yes	Menlo Park, West Menlo Park (County)	3	3	2	2	3	3	3	19
BL - 3	Glenview Ave	Laurel Ave	Middlefield Rd	Class II (new)	2000'	\$295,000	Widen shoulders to install min 4' wide bike lanes	No	Menlo Park	2	3	3	2	2	3	3	18
Class III Bicycle Boulevards / Shared Bikeways																	
BB - 1	Elena Ave - Atherton Ave	Austin Ave	Valparaiso Ave	Class III	1.0 miles	\$70,000	Bike boulevard treatments, including minor intersection/traffic calming improvements	No	Menlo Park	2	2	3	3	3	3	3	19
BB - 2	Austin Ave	Selby Ln	Atherton Ave	Class III	.75 miles	\$90,000	Bike boulevard treatments, including medium intersection/traffic calming improvements	No		2	2	3	3	3	3	2	18
Corridor Feasibility Studies																	
STUDY - 1	El Camino Real	Selby Lane	Valparaiso Ave	Class I/II	1.6 miles	\$100,000	Travel lane reduction and Class I trail feasibility study from Selby Lane to Valparaiso Ave, with recommended approach to environmental and Caltrans approval including likely segment phasing	Yes	Caltrans/Menlo Park/County	3	3	3	3	3	3	3	21
STUDY - 2	Bay to Ridge Gnwly	El Camino Real	Bay Road	Class I/II/III	1.15 miles	\$50,000	Trail/pathway feasibility study and preliminary design along Marsh Road from Bay Road to Middlefield Avenue, and from Middlefield Ave/Watkins to the Dinkelspiel Station Lane/Caltrain tracks	Yes	Menlo Park/County/Facebook	3	2	3	3	3	3	3	20
Intersection Improvements																	
INT - 1	Middlefield Rd & Oak Grove Ave			Complete Intersection		\$250,000	Complete Streets enhancements to improve safety and performance of all modes: signal adjustments including potential lead pedestrian interval, new curb ramps with drainage inlet modifications and ADA landing areas, bus stop improvements, roadway widening and re-striping to meet Class II bike lane standards and vehicle turn radius requirements	Yes	Menlo Park	3	3	3	2	2	3	3	19
INT - 3	Middlefield Rd & Glenwood Ave			Crosswalk, median island, intersection corner access improvements		\$75,000	Pedestrian crossing and intersection daylighting/ADA improvements. North side pathway maintenance and safety markings. Consider possible center median island on the west leg of intersection and other access control measures for Linden Avenue	No		3	3	2	3	2	3	3	19

Table 7 (continued)

Town of Atherton Bicycle and Pedestrian Master Plan - Priority Projects (Draft)							Prioritization Table									
Street or Intersection	Start	End	Proposed Facility	Length	Planning Level Estimate	Project Description	Agency Coordination Required	Agencies/Adjacent Community	Safety	Usage	Gap Closure	Cost	Feasibility	Multiple Benefits	Competitiveness	Total Score
INT - 6	Valparaiso Ave & Elena Ave		Intersection Improvements		\$5,000	Placeholder estimate for minor intersection improvements (may be included in upcoming Valparaiso Ave Safe Routes to School project)	Yes	Menlo Park	3	3	3	3	2	2	3	19
Maintenance Projects																
M - 1	Annual Facility Maintenance		Reserve Fund		\$50,000	Additional enhanced maintenance account (pending development of new facilities)	Yes	Menlo Park	Not scored / programmatic funding							
Non-Infrastructure Projects																
NI - 1	Encouragement & Education Annual Programming		Multi-year budget outlay		\$30,000	Training, curriculum, communications, awareness campaigns, and contests that educate and encourage users to walk and bike safely, more often	Yes	Menlo Park	Not scored / programmatic funding							
NI - 2	Annual Enforcement (Enhancements)		Multi-year budget outlay		\$30,000	Enhanced school enforcement, coordinated events/campaigns	No, but Encouraged	California Highway Patrol, County, Menlo Park								
NI - 3	Opportunity Fund		Multi-year budget outlay		\$15,000	Placeholder funds for grant applications, matching funds	Yes	Menlo Park								

Master Projects List Total estimated Cost	\$6,895,000
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Notes:		
Grants and Other Outside Sources (Target)	\$5,124,000	Assumes 80% of complex, potentially competitive projects (with local match)
Grants and Other Outside Sources (Target)	\$600,000	Based on proposed project adjacencies
Local Funds Total (All Priority Projects)	\$1,171,000	Difference between total cost and potential outside funding
Local Funds Annual Total (6yr completion target)	\$195,166.67	Annual estimate for funding priority projects and ongoing program within 6 years
Local Funds Annual Total (10yr completion target)	\$117,100	Annual estimate for funding priority projects and ongoing program within 10 years

In total, nearly \$7 million in priority project/program recommendations is identified among the identified corridors and project types. A separate list of all identified project needs, totaling over \$13 million, is provided as **Appendix E**. This ‘master list’ can help serve long-term planning needs and priorities and provide a Complete Streets reference for coordinating re-striping and repaving projects in the Capital Improvement Plan (see **Figure 27**). Of note, this list (and the associated cost summary) does not include high priority legislative actions identified in Section 3.3, which may be implemented and enforced within existing budget resources.

Within both the priority and master project lists, trail segments along the El Camino Real Grand Boulevard Greenway and Bay to Ridge Greenway account for approximately half of all project related costs. Except for a portion of El Camino Real and several other intersection improvement projects, no specific recommendations or cost estimates are provided for pedestrian walkway corridors, as these facilities are anticipated to be developed in conjunction with legislative policy changes and private property owner investments.

5.3 Funding & Implementation

There are a variety of potential funding sources that can be used to build the proposed improvements, including local, state, regional and federal funding programs, as well as private sector funding. In terms of local funding, sources include the Town General Fund (of which approximately \$30,000 is budgeted annually for bicycle and pedestrian maintenance and improvements) and mitigation funds from nearby projects. Additional implementation of recommended projects and design concepts may occur as streets are repaved (see [Figure 27](#)), or as other capital projects (such as the Town’s Civic Center) are moved forward.

At the regional level, the Town has been successful in partnering with Menlo Park to receive OneBayArea grant (OBAG) funding for nearly \$700,000 in bike lane and pedestrian crossing improvements, and funding is increasingly focused on providing for active transportation and Complete Streets. San Mateo County Measure A sales tax revenue is also available, with a portion dedicated to funding non-motorized improvements.

At the statewide and federal level, non-motorized funding is increasingly competitive but there are many potential sources. The California Active Transportation Program (ATP) is one promising source, which is a recent program that consolidates past programs including the state Safe Routes to School (SR2S) program, the Bicycle Transportation Account (BTA) program, and Recreational Trails program. More information on potential funding sources is located in [Appendix D: Funding Sources](#).

Target Revenue for Priority Projects/Programs

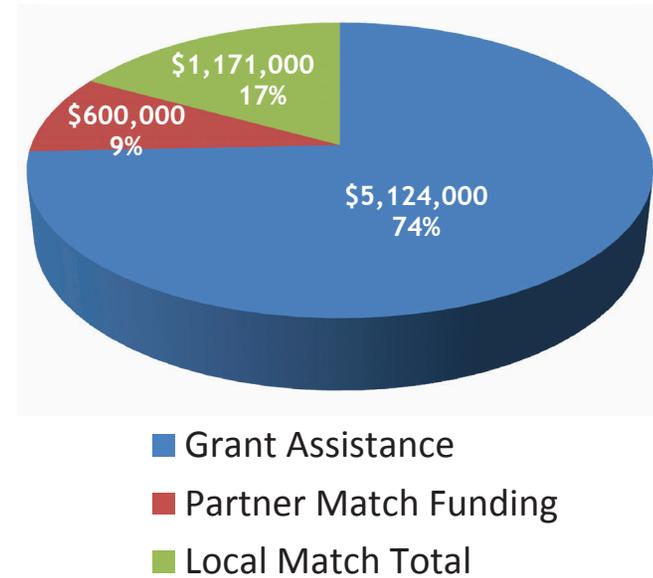


Figure 26: Target Revenue for Priority Projects/Programs

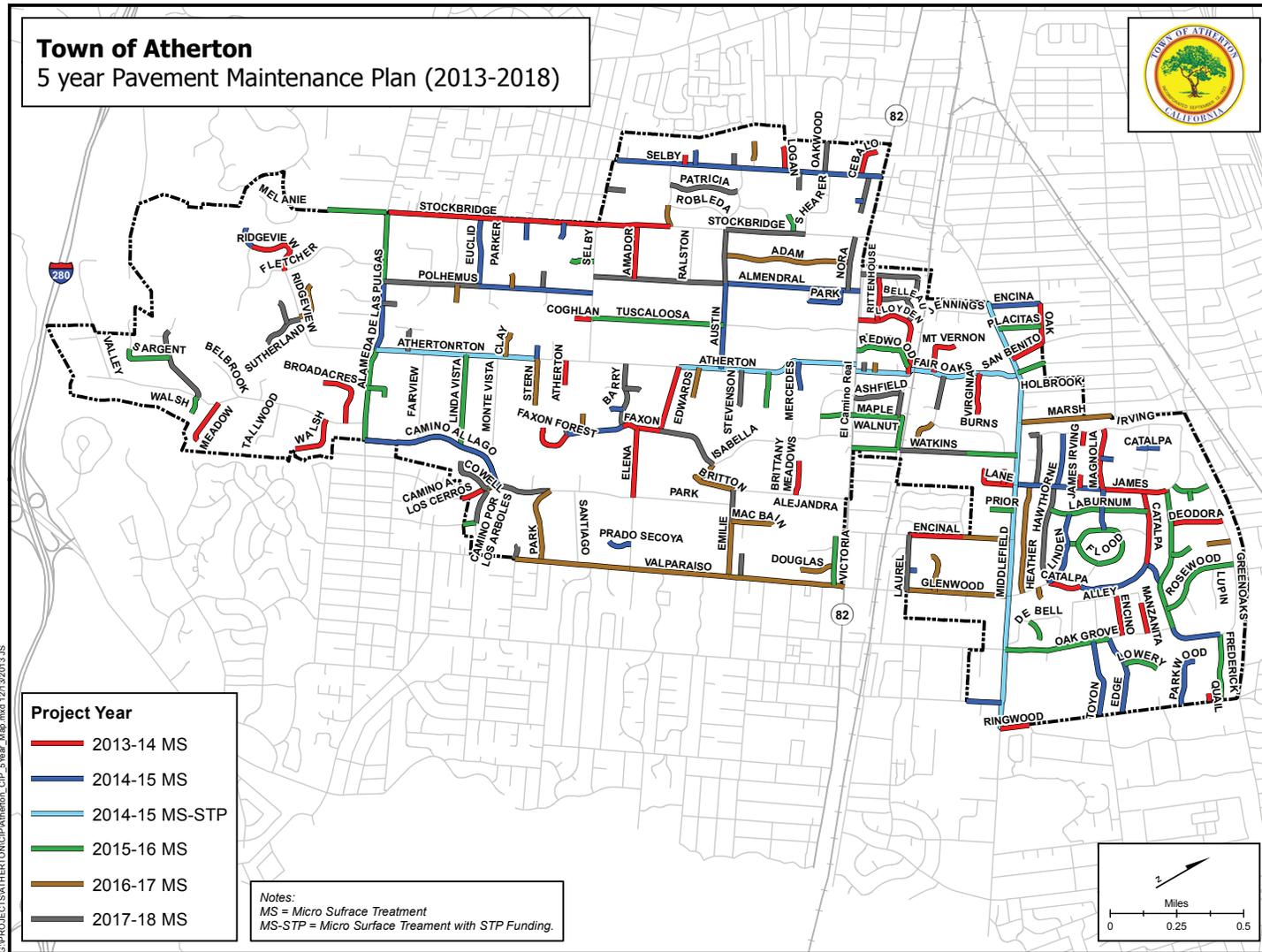


Figure 27: Town of Atherton Five Year Pavement Maintenance Plan