TOWN OF TIBURON
Tiburon Town Hall
1505 Tiburon Boulevard
Tiburon, CA 94920

Parks Open Space and Trails Commission
Regular Meeting - 6:00 p.m
March 29, 2016

AGENDA

PARKS, OPEN SPACE AND TRAILS COMMISSION

CALL TO ORDER AND ROLL CALL

Chair Winkler, Vice Chair Allen, Commissioners Feldman, McMullen, Their

ORAL COMMUNICATIONS

Persons wishing to address the Parks, Open Space & Trails Commission on any subject not on the agenda may do so under this portion of the agenda. Please note that the Parks, Open Space & Trails Commission is not able to undertake extended discussion, or take action on, items that do not appear on this agenda. Matters requiring action or follow-up may be referred to Town Staff or placed on a future Parks, Open Space & Trails Commission agenda. Please limit your comments to no more than three (3) minutes. Testimony regarding matters not on the agenda will not be considered part of the administrative record.

MINUTES

Approval of Minutes - Regular Meeting of January 19, 2016

COMMISSION AND STAFF BRIEFING

BUSINESS ITEMS

1. TRESTLE TRAIL PROJECT
   Review and Make Recommendations to the Town Council Regarding Proposed Improvements to the Railroad Berm Area of Blackie's Pasture Park, located on the inside (bayward side) of the curve at the Tiburon Boulevard intersection with Trestle Glen Boulevard; Jim Wood, Phil Cassou, Tom O'Neill, David Holscher, and the Tiburon Peninsula Foundation, project sponsors; Assessor Parcels 055-071-01 and 02

   Documents: TRESTLE TRAIL STAFF REPORT.PDF, TRESTLE TRAIL EXHIBIT 1.PDF, TRESTLE TRAIL EXHIBIT 2.PDF, TRESTLE TRAIL EXHIBIT 3.PDF, TRESTLE TRAIL EXHIBIT 4.PDF

2. BICYCLE & PEDESTRIAN MASTER PLAN UPDATE
   Review and Make Recommendations to the Town Council Regarding the Draft Update of the Town of Tiburon Bicycle & Pedestrian Master Plan

   Documents: BIKE PED STAFF REPORT.PDF, BIKE PED DRAFT PLAN.PDF

ADJOURNMENT

GENERAL PUBLIC INFORMATION

ASSISTANCE FOR PEOPLE WITH DISABILITIES

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Planning Division Secretary at (415) 435-7390. Notification 48 hours prior to the meeting will enable the Town to make reasonable arrangements to ensure accessibility to this meeting.

AVAILABILITY OF INFORMATION

Copies of all Parks, Open Space & Trails Commission Agendas, staff reports, and support ing data are available for viewing and inspection at Town Hall and at the Belvedere-Tiburon Library located adjacent to Town Hall. Agendas and staff reports are also available on the Tiburon website (www.townoftiburon.org) after 5:00 PM on the Friday prior to the regularly scheduled meeting.
Any documents produced by the Town and distributed to a majority of the Parks, Open Space & Trails Commission members regarding any item on this agenda, including agenda-related documents produced by the Town after distribution of the agenda packet 72 hours in advance of the Commission meeting, will be available for public inspection at Town Hall, 1505 Tiburon Boulevard, Tiburon, CA 94920.
Upon request, the Town will provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. Please deliver or cause to be delivered a written request (including your name, mailing address, phone number and brief description of the requested materials and preferred alternative format or auxiliary aid or service) at least 5 days before the meeting to the Planning Division Secretary at the above address.

PUBLIC HEARINGS AND DISCUSSION ITEMS

Public Hearings and Discussion Items provide the general public and interested parties an opportunity to give testimony on agenda items typically involving an action or recommendation of the Commission. If you challenge any decision in court, you may be limited to raising only those issues you or someone else raised at the Public Hearing, or in written correspondence delivered to the Parks, Open Space & Trails Commission at or prior to the Public Hearing.

GUIDELINES FOR TIME LIMITS ON PRESENTATIONS AND PUBLIC TESTIMONY

The Parks, Open Space & Trails Commission's general meeting procedure and time limit guidelines are as follows:

- <!--[if !supportLists]-->❖ <!--[endif]-->Staff Report Presentation – 5 to 10 minutes
- <!--[if !supportLists]-->❖ <!--[endif]-->Parks, Open Space & Trails Commission questions to staff
- <!--[if !supportLists]-->❖ <!--[endif]-->Applicant's presentation (if any) – 10 to 20 minutes
- <!--[if !supportLists]-->❖ <!--[endif]-->Public Testimony (depending on the number of speakers) – 3 to 5 minutes for each speaker
- <!--[if !supportLists]-->❖ <!--[endif]-->Members of the audience may not allocate their testimony time to other speakers
- <!--[if !supportLists]-->❖ <!--[endif]-->Time limits may be modified at the discretion of the Chairman

Interested members of the public may speak on any item on the agenda.

TIMING OF ITEMS ON AGENDA

While the Parks, Open Space & Trails Commission attempts to hear all items in order as stated on the agenda, it reserves the right to take items out of order. No set times are assigned to items appearing on the Parks, Open Space & Trails Commission agenda.

TOWN OF TIBURON LATE MAIL POLICY
(Adopted and Effective 11/7/2007)

The following policy shall be used by the Town Council and its standing boards and commissions,

and by staff of the Town of Tiburon, in the identification, distribution and consideration of late mail.

DEFINITION

"Late Mail" is defined as correspondence or other materials that are received by the Town after completion of the written staff report on an agenda item, in such a manner as to preclude such correspondence or other materials from being addressed in or attached to the staff report as an exhibit.

IDENTIFICATION OF LATE MAIL

All late mail received by Town Staff in advance of a meeting shall be marked "Late Mail" and shall be date-stamped or marked with the date of receipt by the Town. Late mail received at a meeting shall be marked as "Received at Meeting" with a date-stamp or handwritten note.

POLICY

For regular meetings of the Town Council and its standing boards and commissions:

<!--[if !supportLists]-->(1) <!--[endif]-->All late mail that is received on an agenda item prior to distribution of the agenda packet to the reviewing authority shall be stamped or marked as "Late Mail" and shall be distributed to the reviewing authority with the agenda packet.

<!--[if !supportLists]-->(2) <!--[endif]-->All late mail received on an agenda item before 5:00 PM on the Monday prior to the meeting shall be date-stamped and marked as "Late Mail" and distributed to the reviewing authority as soon as practicable. Such mail shall be read and considered by the reviewing authority whenever possible. If the Monday, or Monday and Tuesday, prior to the meeting are a Town-recognized holiday, the deadline shall be extended to the following day at Noon.

<!--[if !supportLists]-->(3) <!--[endif]-->Any late mail received on an agenda item after the deadline established in paragraph (2) above shall be date-stamped, marked as "Late Mail" and distributed to the reviewing authority as soon as reasonably possible, but may not be read or considered by the reviewing authority. There should be no expectation of, nor shall the reviewing authority have any obligation to, read or consider any such late mail, and therefore such late mail may not become part of the administrative record for the item before the reviewing authority.

These provisions shall also apply to special and adjourned meetings when sufficient lead time exists to implement these provisions. If sufficient lead time does not exist, the Town Manager shall exercise discretion in establishing a reasonable cut-off time for late mail. For controversial items or at any meeting where a high volume of correspondence is anticipated, Town staff shall have the option to require an earlier late mail deadline, provided that the written public notice for any such item clearly communicates the specifics of the early late mail deadline, and the deadline corresponds appropriately to any earlier availability of the agenda packet.

Pursuant to state law, copies of all late mail shall be available in a timely fashion for public

TOWN OF TIBURON
1505 Tiburon Boulevard
Tiburon, CA 94920

Parks Open Space & Trails
Commission Special Meeting
March 29, 2016
Agenda Item: 1

STAFF REPORT

To:	Parks, Open Space & Trails Commission
From:	Scott Anderson, Director of Community Development Pat Barnes, Director of Public Works/Town Engineer
Subject:	Consider Recommendations to Town Council Regarding Proposed Improvements to the Trestle Berm Portion of Blackie's Pasture

BACKGROUND

A committee of interested citizens and the Tiburon Peninsula Foundation (TPF) has approached the Town with a plan for proposed improvements to the "trestle berm" portion of Blackie's Pasture. These improvements would build upon earlier work undertaken and completed by the TPF and the Belvedere-Tiburon Landmarks Society (BTLS) during the years 2011-2013. A general narrative description of the proposed work is set forth in attached **Exhibit 1**.

ANALYSIS

Prior Improvements (2011-2013)

The TPF/BTLS work was envisioned to occur in three phases, but only Phase One work has been completed to date. Completed Phase One work can be summarized as follows:

- Stabilizing trestle remnants
- Removing non-native species and weeds, primarily French broom, from the vicinity
- Minor reshaping where the berm had sustained damage or had begun to erode
- Removal of accumulated trash and debris between the trestle mound and Tiburon Boulevard
- Minor smoothing of the terrain around the berm to restore proper drainage after years of debris build-up.

Phase One work was primarily funded through a grant to TPF from the Carol Ann and [former Tiburon Mayor] Dennis Rockey Fund, with some Tiburon Public Works Department and financial support and a great deal of unpaid volunteerism (see **Exhibit 4** for the final report from TPF on this phase of work). As envisioned at that time, future phases of work by TPF and BTLS would have included the following:

Phase Two

- Irrigation, gardens, and paths; with specific activities such as extending irrigation to new planting areas such as Blackie's Gravesite (recently completed by DPW) and a new Master Gardener site
- Installing new paths to the trestle berm, installing benches at overlook positions, and adding new native plantings.

Phase Three

- Installing educational and interpretive elements, such as the "then and now" display cases already in place within the Richardson Bay Lineal Park
- Installing a master gardener interpretive station
- Installing directional signage.

Proposed Improvements

Drawings of the proposed improvements are attached as **Exhibit 2**. This work appears more costly and ambitious than Phase One work. It appears to include certain elements of the previously-proposed Phase Two and Phase Three work, such as the pathway on the berm, the benches at an overlook position, and the "then and now" informational plaques. The Ark newspaper covered the proposal in a front page story in its March 9, 2016 edition. Primary components of the proposal include the following:

- Installation of an approximately 500-foot long accessible, paved, colored concrete pathway along the top of all but the final 20 feet of the railroad berm, defined by header boards that look like rails and surrounded on both sides by gravel ballast simulating Northwestern Pacific Railroad track appearance from the late 1800's and early 1900's. This new pathway would connect with the existing paved pathway at the same elevation as the top of the berm.
- The final 20 feet of the berm nearest the timbers would be fitted with actual historic railroad track and be designed with ties and surrounded by gravel ballast to appear as genuine useable track
- Installation of benches and "then and now" informational plaques near the end of the trestle mound nearest the remaining historic timbers from the wooden trestle. No sculpture or artwork displays are proposed at this time.

The project design would need to comply with California Title 24 accessibility standards as well as with the Americans with Disabilities Act (ADA). Staff review of the preliminary drawings indicates that accessibility compliance would be feasible. The design would also need to be reviewed for user safety and reasonable measures taken to ensure that the pathway is not improperly used in potentially dangerous ways.

The project requires funding via donations to be completed and the proponents are looking at various sources. One proposed source of donations is from the sale of in-ground "donor ties". These donor ties are proposed to be milled, 8 foot long, 3 inch tall by 8 inch wide wooden timbers replicating historic railroad ties and spaced at ten foot intervals along the concrete walkway, flush with the surface. The spikes holding down the final 20 feet of actual railroad

track proposed at the end of the berm might also be offered for purchase to help fund the project. The anticipated time frame for fund-raising and project installation is unknown at this time.

General Plan Consistency

Blackie's Pasture and its vicinity are part of the western end of the Richardson Bay Lineal Park, all of which is designated "Parks & Recreation" on the Tiburon General Plan Land Use Map, and which allows development for "recreational purposes". The policy in the General Plan most germane to this specific area is Parks & Recreation Element Policy PR-6, which reads as follows:

> *PR-6. The area known as Blackie's Pasture (see Diagram 8.4-1) shall be retained for passive, informal recreational use.*

Diagram 8.4-1 is attached as **Exhibit 3**. The proposed railroad berm improvements are consistent with this policy and with traditional park use in Tiburon in general.

Zoning Conformance

Consistent with the General Plan land use map designation, the subject area is zoned "Parks & Recreation" in the Tiburon Zoning Ordinance. Uses permitted in this zone include:

1. Public parks and the activities and structures allowed therein by rules and regulations adopted by the town council;
2. Conservation of natural resources;
3. Restoration of native habitats;
4. Wildlife sanctuaries;
5. Passive recreational uses such as hiking, picnicking, and the enjoyment of nature;
6. Improvement or installation of trails, paths or other similar improvements intended to enhance the enjoyment of nature while minimizing impacts on the natural qualities of the land.

The proposed railroad berm improvements would appear to be in conformance with these provisions, particularly items 1 and 6.

Conformance with Other Adopted Plans

Other than the General Plan, there are currently no secondary adopted Town plans covering the Blackie's Pasture area. Until its rescission by the Town Council in 2011, the Blackie's Pasture Development Plan, adopted in 1992, called for "grading out" of the railroad berm and the planting of hardwood trees in that portion of the Richardson Bay Lineal Park. That Plan was rescinded at the same time that the Council approved the Phase One work by TPF and BTLS, as had been recommended by POST.

Project Impacts

The proposed improvements, with a few exceptions such as the "then and now" displays and the benches, would largely be at grade and would have minimal visibility except from locations that

look down upon or across the trestle berm. View blockage is therefore not a major concern. The aesthetic appearance of the grass-covered berm would be altered by the installation of the concrete walkway and gravel ballast surrounding it, as well as the simulated rails, actual rails, and the informational plaques and benches. While this represents a change in the visual character of the top surface of the trestle berm, it attempts to emulate the historic appearance from roughly 1986 to 1968, and would not necessarily be adverse. The proposed improvements would invite increased public use of the trestle berm as few people currently walk upon it in its current condition. Construction activities would generate some degree of dust, noise, and general disruption to the immediate vicinity of the trestle berm but would be temporary in nature.

PUBLIC COMMENT AND NOTICE

As of the writing of this report (March 22), no written comments have been received. Notices to approximately 190 surrounding property owners, and to approximately 45 homeowner association contacts throughout the Town, were mailed on March 17 and 18, respectively.

ENVIRONMENTAL DETERMINATION

Staff has preliminarily determined that the proposed amendments are exempt from further review under the California Environmental Quality Act (CEQA) on the basis that they constitute Minor Alterations to Land pursuant to CEQA Guidelines Section 15304, and constitute minor alterations of existing public facilities, including topographical features, pursuant to Section 15301 (Existing Facilities) of the CEQA Guidelines. The Town Council would finalize this determination if it determines to approve the proposal.

FUTURE STEPS

Future steps would include review by the Town Council and possible referral to other boards in the discretion of the Town Council. The proposed informational plaques and any other item over three feet in height would technically require design review (staff-level) and a building permit.

If approved in concept, several issues would need to be resolved prior to start of work, including but not limited to, determination of a financially-responsible contractor and resolution with respect to ongoing maintenance responsibilities. Unlike the Phase One improvements, the proposed improvements would require occasional repair/maintenance (other than mowing and weeding) and potentially long-term replacement of components. One option is for the project sponsors to establish an endowment with the Town to cover such future costs.

RECOMMENDATION

Staff recommends that POST:

1. Hear a presentation by the Applicants.
2. Accept any public comment on the proposal.
3. Deliberate and provide comments and recommendations to the Town Council on the proposed improvements to the trestle berm area of Blackie's Pasture.

EXHIBITS

1. Project narrative received by Town of Tiburon on March 16, 2016.
2. Schematic project drawings by Holscher Architecture (2 sheets, dated 3/10/2016).
3. General Plan Diagram 8.4-1.
4. Final Report on Phase One work from Tiburon Peninsula Foundation dated 10/3/2013.

RECEIVED
MAR 16 2016
PLANNING DIVISION

PROPOSED "TRESTLE TRAIL" ALONG THE HISTORIC TRESTLE BERM OVERLOOKING BLACKIE'S PASTURE

The goal in creating the TRESTLE TRAIL is to provide a place for recreation, as well as reflection, with a connection to Tiburon's history. The trail will unofficially mark the entrance to the Belvedere-Tiburon downtown area and will be enjoyed by residents as well as visitors to the area. Sensational views of Richardson Bay are an added bonus for those who walk the trail.

This project involves constructing and maintaining a paved 550-foot walking path, from an existing extension of the Old Rail Trail, to the 130-year-old timbers that are the only remaining evidence of an 800-foot trestle that once spanned Tiburon Boulevard—the route that brought trains into downtown Tiburon for more than 80 years.

The TRESTLE TRAIL will be a subtle reminder to the thousands of people who pass the trestle site daily that Tiburon owes much of its existence to its history as a "railroad town." The trail will be the width of a railroad track (4' 8") and be defined by header boards that appear like rails and will be bordered with gravel similar to the appearance of the old Northwestern Pacific Railroad of the late 1800s and early 1900s.

At the end of the trail there will be a 20-foot stretch of actual historic rail with a 140-square-foot turn-around area where two viewing benches and an informational history plaque will sit.

The TRESTLE TRAIL will be professionally designed, engineered and constructed.

Estimated Costs:

Construction of path and retaining wall	$85,000
Acquiring and moving rails	15,000
Landscaping and maintenance	25,000

Landscaping and maintenance	25,000
Total	$125,000

Potential Sources of Income:

Town of Tiburon	$40,000
Tiburon Peninsula Foundation	15,000
Belvedere Community Foundation	20,000
Sale of "Donor Ties"*	50,000
Total	$125,000

*"Donor Ties" will be custom milled eight-foot long, 3" x 8" timbers replicating historic railroad ties. Forty of them would be placed ten feet apart along the 400-foot pathway and will prominently display the name of the donor, be it a family, neighborhood, organization or business. At present, their estimated cost to a donor ranges between $2,000 and $2,500 (Their cost to be milled and labeled has not been determined). It is also anticipated that spikes, holding down the 20-foot section of historic rail, would be offered for a yet to be decided donation amount.

The TRESTLE TRAIL has been discussed with Tiburon Town Council, town staff, Landmarks Society staff and GreenTeam. The Big Four – railroad historian Phil Cassou, architect David Holscher, businessman Tom O'Neill and Marin Magazine co-founder Jim Wood – along with Town of Tiburon staff, will manage the project to completion.

The TRESTLE TRAIL 2016 timeline is:

1st qtr	2nd qtr	3rd qtr	4th qtr
Present concept. Get feedback.	Comp. rendering. Apply to council/ foundations. Donor tie design/cost. Final design, get bids.	Sell ties/spikes. Firm up funding.	Start const.

1 A0.1 PROPOSED SITE PLAN
SCALE: 1/32" = 1'-0"

N
TRUE NORTH

HOLSCHER ARCHITECTURE

1550 Tiburon Boulevard
Belvedere, California 94920
www. harch. com
phone 415. 435. 5219
fax 415. 435. 0312

Trestle Trail

Blackie's Pasture
Tiburon, CA. 94920
APN:

Proposed Site Plan

Scale 1/32" = 1'-0"

LICENSED ARCHITECT
DAVID JOHN HOLSCHER
No. 019465
Exp. 9/11
STATE OF CALIFORNIA

no.	revisions	date
	PROGRESS	03/10/2016
1		

date issued: 03/10/2016

drawn by: NL checked by: DH

job#: X-2016

drawing number

A0.1

of sheets

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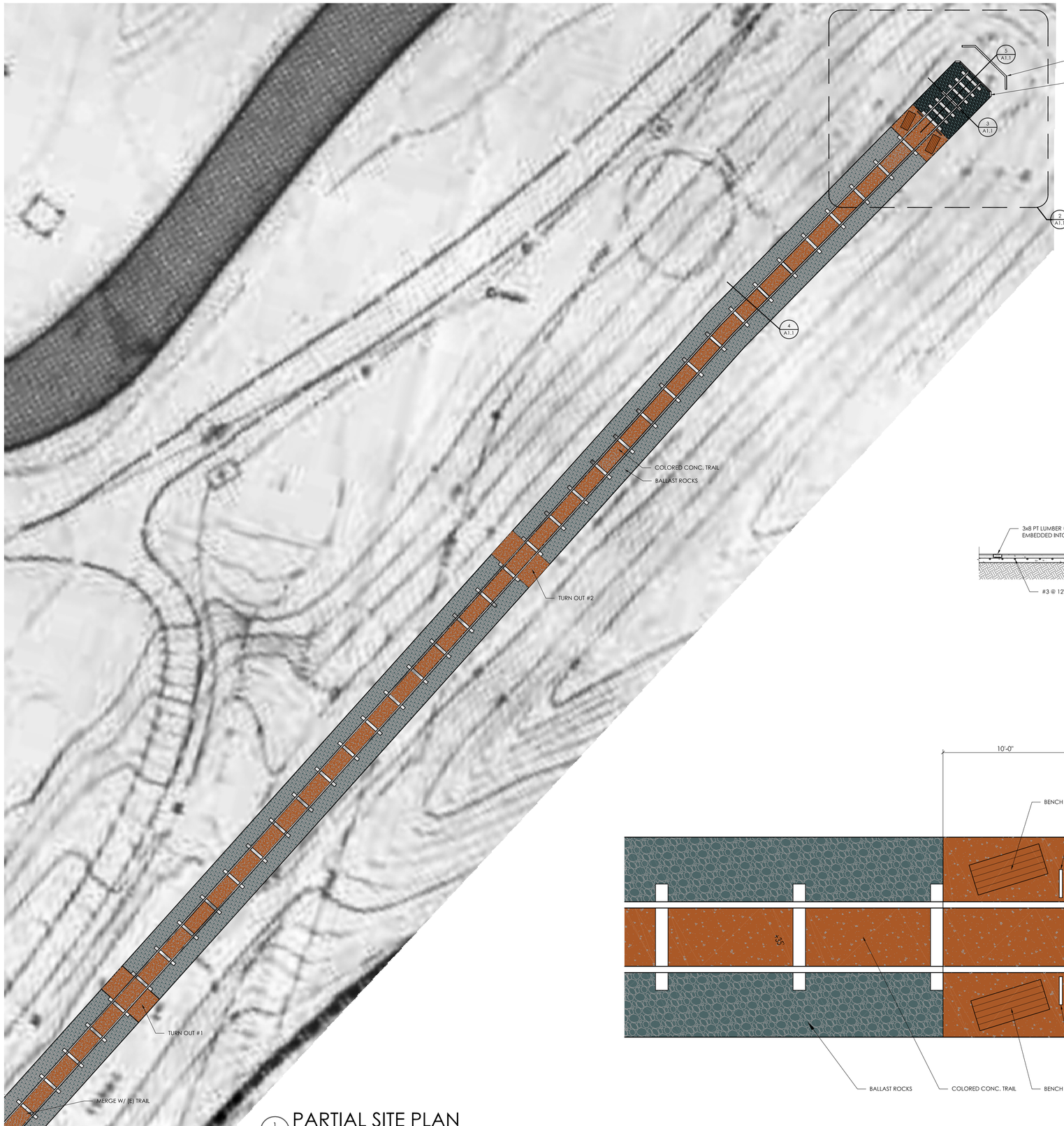
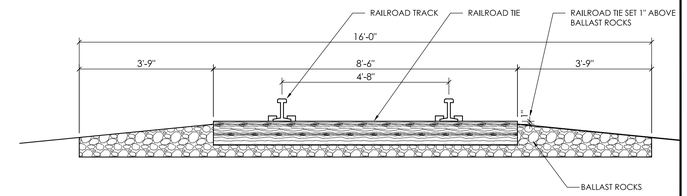
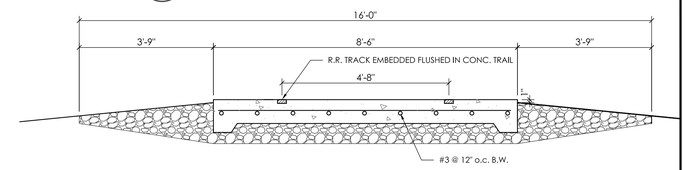


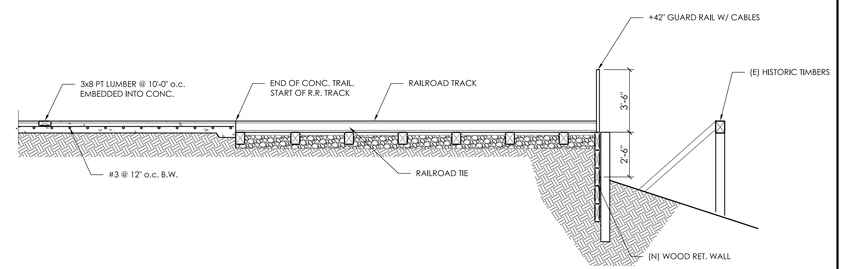
1 A1.1 PARTIAL SITE PLAN
SCALE: 1/16" = 1'-0"



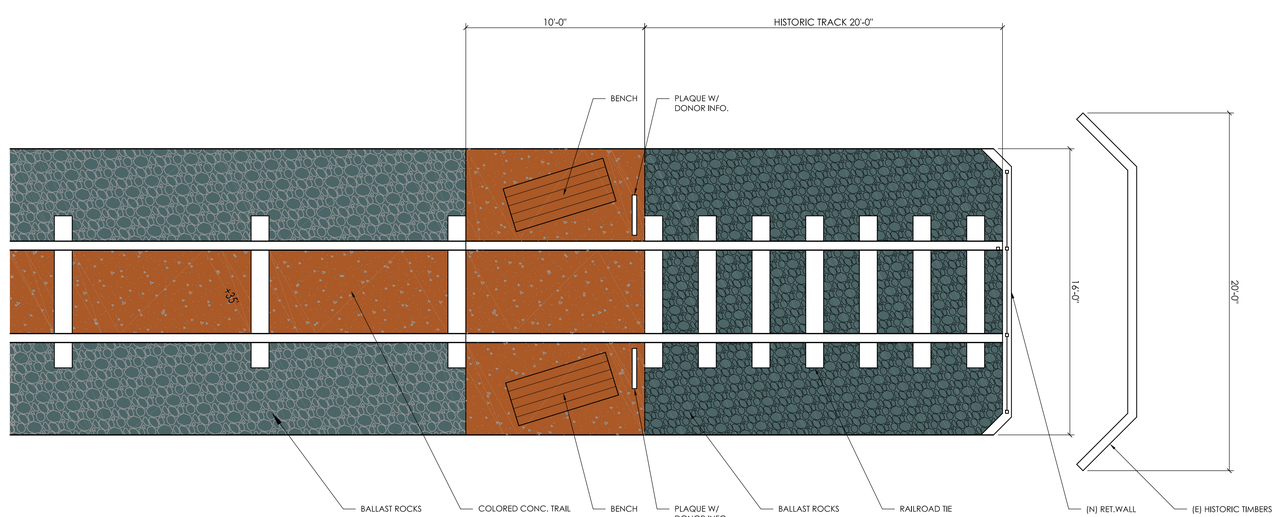
3 A1.1 TRAIL SECTION
SCALE: 1/2" = 1'-0"



4 A1.1 TRAIL SECTION
SCALE: 1/2" = 1'-0"



5 A1.1 TRAIL SECTION
SCALE: 1/4" = 1'-0"



2 A1.1 PROPOSED PLAN
SCALE: 1/4" = 1'-0"

HOLSCHER ARCHITECTURE

1550 Tiburon Boulevard
Belvedere, California 94920
www. harch. com
phone 415. 435. 5219
fax 415. 435. 0312

Trestle Trail

Blackie's Pasture
Tiburon, CA. 94920
APN:

Proposed Plan

Scale 1/4" = 1'-0"

LICENSED ARCHITECT DAVID JOHN HOLSCHER No. 019465 Exp. 9/17 STATE OF CALIFORNIA

no.	revisions	date
	PROGRESS	03/10/2016
1		

date issued: 03/10/2016

drawn by: NL checked by: DH

job#: X-2016

drawing number

A1.1

of sheets

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EXHIBIT NO. 3

Diagram 8.4-1 Blackie's Pasture Policy

0 250 500 750 1,000 Feet

NOTE:
This Diagram is developed for general planning purposes. The Town of Tiburon is not responsible or liable for use of this Diagram beyond its intended purpose.

TIBURON 2020
Town of Tiburon
General Plan
September 2005

DIGEST 1.

Tiburon Peninsula Foundation
P.O. Box 210
Belvedere-Tiburon, CA 94920

THE BOARD

Sonja Bohannon
Leslie Doyle
David Holscher
Art Kern
Elizabeth Kilgore
Ed Lynch
Arlene Nielsen
Steve Sears
Jeff Smith
Petey Stein
Jim Wood

EMERITUS

Mogens Bach
Piper Berger
Robin Daly
George Gnoss
Barbara Mathew
Jim Mitchell
Sylvia Ross
Larry Smith
Gary Spratling

October 3, 2013

To: Bonnie Grossman, Marin Community Foundation

From: Arlene M. Nielsen, Tiburon Peninsula Foundation A. Nielsen

Re: Final Report, Carol Ann and Dennis Rockey Fund Grant

We received this grant of $25,000 from the Carol Ann and Dennis Rockey Fund to clear, clean and beautify the area around the old railroad track berm at Blackie's Pasture in Tiburon.

The area had become overgrown and unattractive. The trestle remains at the end of the berm, an important historical element for a town that began as the railroad connection between the North Bay and San Francisco, were falling. The Town of Tiburon had tried over the years to get agreement on a master plan and one was prepared in 1982. It was very ambitious and expensive and many objected that it did not respect the historical elements.

The Tiburon Peninsula Foundation has traditionally been the "stewards of Blackie's Pasture." Dennis and Carol Ann Rockey knew us when we fundraised for Blackie's statue and began planning and supporting community events there.

Carol Ann and Dennis Rockey would now be proud of Blackie's Trestle Berm! We were not asked to publicize their contribution but we were happy and honored to always show our appreciation for this very generous grant. This project could not have been accomplished without these funds.

As we stated upon receipt, we were confident the money could be put to good use. The Tiburon Peninsula Foundation has no staff but has a long history of working with volunteers and of partnering with others to accomplish our goals. We have spent $21,906.57. The Town of Tiburon paid the $3,450 cost of the hydro seeding. The Master Gardeners contributed the materials for the seed balls.

The pending projects, already in the planning stage, will be more than the $3,093.43 remaining from the Grant. The Tiburon Peninsula Foundations will supplement any monies needed.

EXHIBIT NO. 4

Expenses

Payee	Amount	Purpose
Garcia's Landscaping	$ 7,961.18	Vegetation, cutting, chipping, disposing.
Redwood Engineering	$12,707.89	Debris collection & disposal. Contouring and leveling. Erosion control & drainage.
Kristin Jakob	$ 262.50	Horticultural consultation
Historical plaque stands	$ 975.00	2 cortan steel stands for plaques
TOTAL:	$21,906.57	

We have not monetized the volunteer contributions.

- Ed Lynch, TPF Vice President (2010-2012) Tiburon Fire Battalion Chief, supervised Phases III and IV, the cleaning and contouring,
- Cristina Poindexter, Graduate Engineering Student, UC, prepared the elevations to restore the area to the 1982 map as required by the Town.
- Harvey Rogers and James Campbell supervised Phase V, the beautification,
- Dave Gotz, Landmarks, spent several days clearing broom and vegetation and supervised the stabilization of the trestle remains.
- James Campbell and the Peninsula Master Gardeners organized the making of the seed balls at Reed School and the fun Seed Toss at the Berm.

Tiburon Peninsula Foundation partners in this project are:

- The Town of Tiburon
- The Belvedere Tiburon Landmarks Society
- The local chapter of Master Gardeners

Phase I:
Determining the Scope:
The area around and on top of the old railroad berm had become so covered with vegetation that it was impossible to make an intelligent plan without clearing it first.

Tiburon Town Council and staff had faith in us and allowed us to proceed with an exploration. They agreed that the first step would be to clear away the growth and see what was there. They were very helpful in facilitating this process. We had to get the endorsement of the Parks and Open Space Committee and final approval from the Council. Staff provided guidance and maps. All fees were waived.

Phase II:
Clearing the area.
We set out to remove the vegetation in order to find out what was hidden by all the growth on top and on the sides of the berm and also the area surrounding it. With the help

of volunteers, principally led by Dave Gotz, Landmarks' Archivist, we started this undertaking. Soon we learned that professional assistance was needed. We contracted with Garcia's Landscaping Company. They chopped and cut and cleared several truckloads of vegetation that were taken to the dump to be recycled. Jim Wood, of the Green Team, and now on the TPF board, introduced us to this very competent landscape company and we were able to negotiate a good price.

Phase III:
Cleaning the area of debris.
To no one's surprise, we discovered mounds of dirt, discarded tree stumps and posts, broken concrete slabs... We learned we needed to bring a tractor and a large dump truck to remove the remaining debris. We contracted with Redwood Engineering to haul away several large truckloads. TPF Vice President, Battalion Chief Ed Lynch, was able to negotiate very favorably with this local company.

Phase IV:
Restoring the contour of the land as much as possible to the plan the Town of Tiburon had on file from 1982.
Essential conditions were: a) safety, b) good drainage and c) ease in maintaining the area. Mounds of dirt had been dumped altering the flow of water on the slope. A graduate student in engineering at UC Berkeley, Cristina Poindexter, volunteered and provided us with the proper elevations to restore the grading according to the record map. We were again able to contract with Redwood Engineering to do the grading of the ground around the berm. Ed Lynch worked with Town Public Works staff to insure the drainage was properly connected and he supervised the leveling including doing away with several dangerous improvised bike ramps that had been created.

Phase V:
Beautifying the area and protecting it from harmful erosion.
Following the advise of our partner, Harvey Rogers, long time Master Gardener and prime mover and creator of Blackie's Garden, we decided to hydro seed the area with a mixture of wildflower seeds. We retained a native plant specialist to advise us and, with Harvey's assistance, we contracted with a hydro seeding company, Freedlun Hydroseeding. The Town of Tiburon covered this cost of $2,250. We also had great volunteer help from James Campbell and other Master Gardeners, and the children of Reed School. They made seed balls of a mixture of wild flower seeds and clay and organized a fun seed toss on the sides of the berm.
Unfortunately, the rain did not come at the perfect time so we did not have the gorgeous display we had hoped. The California poppies did come through and we had no erosion problems.

Pending projects in Phase V:
The Town asked us to help "beautify" the side of the road at Trestle Glen and we facilitated meetings with Town staff and our Master Gardeners partners. Last spring, we were prepared to help implement their proposals. However, the Town embarked on a

major re design of all signs and approaches to the downtown, and the plans for the road side along the curve at Blackie's have been delayed. The Town Council and staff are currently planning a major campaign to beautify the medians along Tiburon Blvd. and we assume this will also include our earlier plans.
When we were discussing the hydro seeding process, we briefly explored other ways to prepare the soil and broadcast wildflower seeds. We hope this coming year we can try again perhaps on a smaller area.

Phase VI:
Stabilize the remains of the trestle, the wooden structure at the end of the berm.
This was a very important goal for our partners, the Belvedere-Tiburon Landmarks Society. David Götz, Landmarks' Archivist, investigated the proper procedures that needed to be followed and, at their request and under Dave's supervision, we again contracted with Redwood Engineering to buttress the structure. Dave was able to get several discarded telephone poles donated.

Phase VII:
Placement of historical/instructional plaques. Pending.
The iron stands have been purchased. TPF and Landmarks have partnered in the past in the creating and installing a series of "then and now" plaques along the old railroad tracks, now a historical path. Dave has located a fabulous picture in the Archives of a young boy standing on the old tracks. We had hoped to place this ON the berm, near the restored remains and on the exact spot from where the picture had been taken; however, Town staff has determined that the location would not be appropriate since it would be prohibitively expensive to comply with all the ADA requirements. Based on our experience creating, manufacturing and installing other historical plaques, we have budgeted $4,000 to place one near the remains of the trestle bridge. We will have to find a location at the base of the berm and go through the permitting process to build a cement pad and install the stand and plaque.
We will also be working with the Master Gardeners to create and install an instructional plaque.

Other remaining work:
We did not clear the inside corner of the angle formed by the berm and Tiburon Blvd. principally because we worried about not being able to cover all before the rains arrived but also because we thought we would not have enough money to address it.

We do plan to finish clearing and cleaning the last portion of the north side of the berm where it makes a narrowing angle between it and Tiburon Blvd. We have budgeted an additional $5,000 to complement the $25,000 of the original grant for this.
Town Manager, Peggy Curran, seemed receptive to a proposal to hire a flock of goats to clear the inside and to trim the sides and top of the berm. The tenacious invasive broom now covering the corner would not have a chance of surviving!

The final goal is to leave the entire area so that it can be maintained clear and beautiful on an ongoing basis. Tiburon Public Works has incorporated most of the area we were able

to clear into their maintenance schedule and now mow the flat areas. We have not yet finalized a plan for the sides and top of the berm that may have to be done with weed eaters.

Acknowledgements:
Peggy Curran, Tiburon Town Manager, was supportive and encouraging from the very beginning. She instructed staff to assist us as much as possible.

David Gotz, Archivist, Belvedere Tiburon Landmarks Society, was the most diligent volunteer. He enthusiastically showed up with his chain saw when we attempted to clear the top of the berm. He had the vision on how to properly stabilize the remains.

Harvey Rogers, Master Gardener Supreme, the creative genius behind Blackie's Garden, a beautiful demonstration garden at the entrance to the Pasture, has been a long time partner of the Tiburon Peninsula Foundation. He joined the team with courage and unflagging enthusiasm and was our technical supervisor during the beautification phase.

James Campbell, Master Gardener, was the inspiration and leader of the seed toss project. He enlisted Reed School children, supervised the making of the seeds and organized the tossing of the balls on the side of the berm.

Ed Lynch, Battalion Chief, Tiburon Fire and Vice President of the Tiburon Peninsula Foundation (1910-1912) was indispensable with his knowledge of the practical aspects of clearing, hauling and grading. He was the first line of supervision during the cleaning, leveling and grading phases. His many local contacts and friendships greatly facilitated our progress.

Attachments to official report:
1. Financial documentation
2. Official correspondence, chronological
3. Correspondence with Tammie Fraser, Trustee of Rockey Fund
4. Newspaper coverage

TOWN OF TIBURON
1505 Tiburon Boulevard
Tiburon, CA 94920

Parks, Open Space & Trails Commission
Special Meeting
March 29, 2016
Agenda Item: 2

STAFF REPORT

To: **Members of the Parks, Open Space & Trails Commission**

From: **Public Works Department**

Subject: **DRAFT Tiburon Bicycle and Pedestrian Plan 2016 Update: Review and Make Recommendations to the Town Council on the Draft Plan**

BACKGROUND

The Town of Tiburon, in conjunction with other Marin municipalities, the County of Marin, and the Transportation Authority of Marin (TAM), is in the process of updating its Bicycle Pedestrian Master Plan (BPMP), last adopted in 2008. TAM is running this update project for the various jurisdictions, which helps to ensure the plans are somewhat integrated. TAM has hired a consultant, Alta Planning + Design, for this effort.

A major benefit of the updated BPMP is that it enables the Town to qualify for certain grants and monies for which it would not otherwise be eligible. Scarcity of funds is the primary limiting factor in making significant improvements to bicycle and pedestrian infrastructure.

The updated plan reflects the policies and format established by the plan in 2008. The largest change is perhaps the number of projects that have been completed from that plan, and are no longer included in the draft update.

On May 19, 2015, POST held a Bicycle and Pedestrian Plan Update community workshop as part of the regular POST meeting. That workshop provided residents an opportunity to learn about the update process and comment on bicycle and pedestrian issues in Tiburon.

There was a subsequent public outreach electronic survey that collected information on users' opinions, experiences and priorities for pedestrian and bicycle facilities.

On January 19, 2016 POST held a second Bicycle and Pedestrian Plan Update community workshop as part of the regular POST meeting to discuss proposed projects for inclusion in the updated BPMP. At that meeting, the Commission:

1. Determined which projects should be included in the BPMP update.
2. Provided a ranking of the projects, particularly the top few.
3. Selected two projects for additional study, namely:
    a. Greenwood Beach Road: Class III bike route signs should be changed to add signage to advise bicyclists they are entering a neighborhood 'slow zone'. Signs should direct faster-moving bicyclists to use Tiburon Blvd. Explore the use of

different pavement textures to help slow bicycle traffic on Greenwood Beach Road and alert cyclists to slow zone signs. Refer to Project #3 on P. 33 of the draft Plan.

b. Tiburon Boulevard from its western Town of Tiburon limits to Trestle Glen Boulevard: Convert existing striped shoulder to Class II bike lanes. Refer to Project #7 on p. 34 of the draft Plan.

ANALYSIS

At the January 19, 2016 workshop, the POST Commission received numerous public comments regarding the Class III bike path on Greenwood Beach Road. Residents of Greenwood Beach Road complained about the number and speed of cyclists using Greenwood Beach Road, objected to nearby Bay Trail signs, and wanted Greenwood Beach Road removed as a part of the Association of Bay Area Government's (ABAG) Bay Trail.

The POST Commission reached consensus that Greenwood Beach Road should be used by slower-moving cyclists. Cyclists who wanted to move faster should use Tiburon Boulevard to reach Blackie's Pasture when travelling east. The POST Commission did not believe that slower-moving cyclists such as families and tourists should use Tiburon Boulevard for safety reasons. Therefore, POST recommended changing Greenwood Beach Road bike signage to advise bicyclists that they are entering a neighborhood "slow zone". Further, the POST Commission stated that signs should direct faster-moving cyclists to use Tiburon Boulevard, and that the Town should explore the use of different pavement textures to help slow bicycle traffic on Greenwood Beach Road. The POST Commission also made converting the existing striped shoulder along Tiburon Boulevard between Trestle Glen Boulevard and the western Town corporate limits to a Class II bike lane the next highest priority project after the Greenwood Beach Road signage project.

Sharing the concerns regarding speeding cyclists on Greenwood Beach Road, staff analyzed speeds on Greenwood Beach Road using STRAVA software data. About 13,000 people have timed their rides over the ½ mile long Greenwood Beach Road segment from about Seadrift Landing to the terminus of Greenwood Beach Road. Only 6 riders (0.05%) averaged over 25 mph on this segment. It is possible that over a short portion of the route, more cyclists exceeded 25 mph. For instance, the fastest rider recorded averaged 21.6 mph but topped out over a short segment of roadway at 28.8 mph, but even the fastest rider only exceeded the 25 mph speed limit for about 1/10 of a mile.

Greenwood Beach Road was formerly Tiburon Boulevard (the state highway) until construction of the current 4-lane bypass in 1966. In 1982, at the request of Greenwood Beach Road residents seeking reduced vehicular traffic and greater safety for pedestrians and bicycles, the Town Council initiated a trial closure of Greenwood Beach Road at its eastern end, severing vehicular traffic from reaching Blackie's Pasture Park. The trial closure was made permanent in 1985 and the current emergency vehicle-only pass through was finalized.

Recently, residents of Greenwood Beach Road have asked that signs at the intersection of Tiburon Boulevard and Greenwood Cove Drive directing bicyclists down Greenwood Cove Drive toward Blackie's Pasture and the Richardson Bay Lineal Park be removed. Staff notes that this intersection and the entire length of Greenwood Cove Drive to the Richardson Bay Audubon

Center property are outside the Town of Tiburon and under the jurisdiction of the County of Marin. The Town has no authority to alter signs in these unincorporated areas.

At the January 19, 2016 workshop, the POST Commission also received public comments and questions regarding the proposed trail improvements along Hacienda Drive where the Tiburon Ridge Trail gap occurs. Staff has since met with property owners who attended the meeting to explain the gap closure options and likely improvements.

Subsequent to the January 19, 2016 workshop, Alta Planning + Design has continued work on the draft BPMP update document and delivered administrative drafts to TAM and Tiburon staff for review. At this time, the public review draft has been released and is ready for review and comment by POST and the public.

The plan is very similar to the 2008 BPMP. The major change is in relation to the projects that have been completed since 2008, which are no longer in the plan, and the new projects that have been added or reprioritized in the update.

Of the eight proposed bicycle improvement projects listed on pp. 33-35 of the draft Plan (including one outside of the Town's jurisdiction), all but two were included in the 2008 BPMP. This indicates good continuity between Plans. The two "new" bicycle projects are connector projects at intersections, as follows:

- Bicycle and pedestrian intersection enhancements at Tiburon Boulevard/Blackfield Drive/Greenwood Cove Drive intersection. This project has previously come to POST and was recommended for grant funding by POST and Safe Routes to Schools (SRS). It is currently in design.
- Transition improvements from the Class I facility on Tiburon Boulevard west of Mar West Street to the Class II facility east of Mar West Street in the downtown area, opposite the Belvedere-Tiburon library.

The 2008 BPMP included a checklist for compliance with the California Bicycle Transportation Act. Similarly the 2016 update includes a checklist to comply with the Active Transportation Program. The checklist is found on pages 8 and 9 of the draft Plan. New requirements include:

- The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, both in absolute numbers and as a percentage of all collisions and injuries, and a goal for collision, serious injury, and fatality reduction after implementation of the plan.
- A description of existing and proposed policies related to bicycle parking in public locations, private parking garages, and parking lots and in new commercial and residential developments.
- A map and description of existing and proposed pedestrian facilities at major transit hubs. These must include, but are not limited to, rail and transit terminals, and ferry docks and landings.
- A description of proposed signage providing wayfinding along bicycle and pedestrian networks to designated destinations.

- A description of the policies and procedures for maintaining existing and proposed bicycle and pedestrian facilities, including, but not limited to, the maintenance of smooth pavement, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.
- A description of steps necessary to implement the plan and the reporting process that will be used to keep the adopting agency and community informed of the progress being made in implementing the plan.
- A resolution showing adoption of the plan by the city, county or district. If the active transportation plan was prepared by a county transportation commission, regional transportation planning agency, MPO, school district or transit district, the plan should indicate the support via resolution of the city(s) or county(s) in which the proposed facilities would be located.

The Town has hired a consultant, Leonard Charles and Associates, to assist the Town with an Initial Study for the BPMP update project.

FUTURE ACTION

After receiving comments by POST, the Planning Commission will similarly review and comment on the BPMP. After Planning Commission review, the Town Council will receive a similar presentation and will hold a public hearing to consider formal adoption of the Plan.

RECOMMENDATION

Staff recommends that the POST Commission:

1. Accept public comment on the draft Plan;
2. Make any desired comments and/or revisions to the document; and
3. Forward its recommendations on the draft BPMP to the Town Council.

EXHIBITS

1. DRAFT Town of Tiburon Bicycle Pedestrian Master Plan, 2016 Update.

Prepared By: Patrick Barnes, Director of Public Works

Tiburon
Bicycle and Pedestrian Plan

Draft Plan - March 17, 2016

PREPARED BY:
Alta Planning + Design
Parisi Transportation Consulting
CSW / Stuber -Stroeh Engineering Group

PREPARED FOR:
The Town of Tiburon

TIBURON
BY THE BAY

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1 Introduction

The 2016 Tiburon Bicycle and Pedestrian Master Plan update provides for a town-wide network of bicycle and pedestrian facilities, including sidewalks, paths, bike lanes, and bike routes, along with bicycle- and pedestrian-related programs and support facilities, intended to ensure bicycling and walking become viable transportation options for people who live, work, and recreate in Tiburon. The improvements detailed in this plan are intended to address the needs not only of Tiburon residents but also of the large numbers of bicyclists who visit the town to bicycle for recreational purposes along the "Paradise Loop" on Tiburon Boulevard and Paradise Drive. Current bikeway and pedestrian network information was gathered from a workshop with the Tiburon Parks, Open Space, and Trails (POST) Commission and Town staff, combined with information on proposed routes from the previously adopted Town of Tiburon Bicycle and Pedestrian Master Plan (2008 update). Relevant bikeway information was also gathered from the draft Marin County Unincorporated Area Bicycle and Pedestrian Master Plan (2016 update).

The purpose of this Bicycle and Pedestrian Master Plan is to identify projects, policies, and programs that will improve bicycle and pedestrian transportation in Tiburon, in part by meeting the requirements of the California Bicycle-Transportation Act (see Section 891 of the California Streets and Highways Code).

1.1 Community Participation

The Tiburon Parks, Open Space, and Trails (POST) Commission, an advisory committee charged with continuing the bicycle and pedestrian advisory role previously filled by the former Bicycle/Pedestrian Advisory Committee, allocated time from two of their regularly scheduled meetings on May 19, 2015 and January 18, 2016 for community workshops around bicycle and pedestrian issues and opportunities. The meetings were agendized and then noticed through distribution to the interested parties list of the POST Commission and in accordance with the Brown Act. Both meetings were open to the public at Tiburon Town Hall Council Chambers. Comments from the workshop are summarized below:

- Bicycle facilities on Greenwood Beach Road are controversial
- There is a need for improved on-street bicycle facilities along Tiburon Boulevard
- Tiburon Boulevard can be difficult to cross by walking or bicycling
- There is a need to improve existing steps and trails
- There is a need for youth bicycle education programs

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1.2 Goals, Objectives, and Related Plans

1.2.1 Goals

Goals are broad statements of purpose that provide the context for the specific objectives discussed in the Tiburon Bicycle and Pedestrian Master Plan. These goals provide the long-term vision and serve as the foundation of the plan.

- **Goal 1 - Increased Bicycle and Pedestrian Access**

  Expand bicycle and pedestrian facilities and provide increased access to neighborhood areas, employment centers, shopping areas, schools, and recreational sites.

- **Goal 2 - Bicycle Transportation**

  Make travel by bicycle an integral part of daily life in Tiburon by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer and more convenient.

- **Goal 3 - Pedestrian Transportation**

  Encourage walking as a daily form of transportation in Tiburon by completing a pedestrian network that services short trips and transit, improving the quality of the pedestrian environment, and increasing safety, convenience, and access opportunities for all users.

1.2.2 Objectives

Objectives are basic tools that underlie all planning and strategies and provide a bridge between goals and implementation. In general, objectives are more specific and easier to measure than goals. They serve as the basis for creating policy and evaluating performance.

- **Objective A - Implement the Bicycle and Pedestrian Master Plan, which identifies existing and future needs, and provides specific recommendations for facilities and programs.**

  Actions:

  1. Update the Plan every five (5) years as required by Caltrans to reflect new policies and/or requirements for bicycle and pedestrian funding.

  2. The POST Commission or other official commission, as appropriate, should review all Safe Routes to Schools travel plans for consistency with the Tiburon Bicycle and Pedestrian Master Plan, with the authority to refer concerns to staff and council as necessary.

  3. Coordinate between government agencies, schools, and community organizations to address bicycle and pedestrian issues of mutual concern. The Town should promote coordination between the POST Commission or other official commission and adjacent communities' advisory committees.

  4. Seek funding for bikeway projects through current local, regional, state, and federal funding programs and encourage multi-jurisdictional funding applications.

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- **Objective B - Complete a continuous network of bikeways that are feasible, fundable, and that serve bicyclists' needs, especially for travel to employment centers, schools, commercial districts, and transit stops and terminals.**

  Actions:

  1. Implement high priority projects, such as Old Rail Trail improvements and Safe Routes to Schools improvements.
  2. Prioritize completion of a continuous bikeway network across jurisdictional boundaries, connecting Tiburon to unincorporated areas and neighboring communities.
  3. Connect bicycle paths in Tiburon with other paths and trails where practical.
  4. Consider construction of relevant planned bikeways as an integral part of any transportation facility maintenance or construction project.
  5. Construct a network that encourages bicycling to and for recreational purposes, as feasible.
  6. At a minimum, construct all bikeways according to Caltrans Chapter 1000 Design Guidelines.

- **Objective C - Complete a network of walkways that serves pedestrian needs, especially for short trips to schools, downtown, and transit stops and terminals.**

  Actions:

  1. Implement high priority projects, such as Safe Routes to Schools improvements.
  2. Establish pedestrian routes that focus on the needs of school children for each neighborhood in Tiburon.
  3. Complete missing connections to make direct routes for walking, especially connections between residential neighborhoods and the downtown area, schools, and the Old Rail Trail.
  4. Where feasible, identify and reduce or eliminate impediments and obstacles to walking to school.
  5. Connect pedestrian paths in Tiburon with other paths and trails where practical.
  6. For new development or redevelopment projects, consider construction of planned pedestrian facilities.
  7. Work with transit authorities to ensure that pedestrian concerns are addressed in the design of transit stops.
  8. Enhance opportunities for walking for recreational purposes.

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- **Objective D - Maintain and improve the quality, operation, and integrity of bikeway and walkway network facilities.**

  Actions:

  1. Undertake routine maintenance of bikeway and walkway network facilities, such as sweeping bicycle lanes and sidewalks and trimming back encroaching vegetation.
  2. Undertake regular inspection of surface conditions and periodic maintenance of bicycle and pedestrian facilities such as striping and signing to reduce safety issues for users.
  3. Ensure that construction projects minimize disruption to the bicycling and walking environment and that safe, direct alternate routes are signed in advance of construction for the duration of the project. All projects undertaken by outside agencies should be coordinated with the Town to ensure compliance with this policy.
  4. Ensure that repair or construction of any transportation facility does not result in the permanent removal of an existing bicycle or pedestrian facility.
  5. Ensure that the pedestrian walkway network is accessible to, and usable by, persons with disabilities where feasible.

- **Objective E - Provide short- and long-term bicycle parking and end-of-trip facilities in employment and commercial areas, in multifamily housing, at schools, and at transit facilities.**

  Actions:

  1. Consider requiring bicycle parking spaces as part of new development or redevelopment projects.
  2. Encourage the installation of short- and long-term public bicycle parking in and around the Downtown area.
  3. Work with local schools to promote bicycle commuting and to assist in purchasing and installing long- and short-term bicycle parking.
  4. Require the provision of bicycle parking at all town-permitted large events to help reduce automobile traffic and parking.

- **Objective F - Develop and implement safety, education, and encouragement plans aimed at people walking, bicycling, and driving.**

  Actions:

  1. Expand adult and youth bicycle and pedestrian education, encouragement, and safety programs, particularly Share the Road programs aimed at reducing bicyclist-motorist conflicts.
  2. Promote the health and environmental benefits of walking and bicycling.

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1.2.3 Consistency with Adopted Plans and Policies

The following section provides context for this plan update in terms of past and ongoing planning efforts related to bicycling and walking. The Tiburon Bicycle and Pedestrian Master Plan is consistent with the plans, studies, reports, programs, and policy documents listed below. It is intended that this document will be fully integrated into any future long-range plans and capital improvement plans in Tiburon.

Tiburon 2020 – All proposed improvements contained within the Tiburon Bicycle and Pedestrian Master Plan must be consistent with policies within the Tiburon General Plan that encourage connection of Downtown pedestrian and bicycle trails with other trails in Tiburon and providing safe access to schools. Goals, policies, and programs included in the Circulation Element and the Downtown Element of the General Plan are listed in **Appendix B**.

Open Space Resource Management Plan (2010) – The Town of Tiburon owns and manages approximately 250 acres of open space distributed among 21 parcels. These open space areas vary considerably in size, vegetation, occurrence of special-status species, and proximity to residences. The primary purpose of this plan was the management of vegetation, in particular, the management of non-native species. Other topic areas, such as erosion and passive recreation are treated in this plan, but with more emphasis on how these issues relate to the primary vegetation management goals of the Town.

Complete Streets Policy (Resolution No. 42-2012) – The Town of Tiburon adopted a Complete Streets Policy that expresses its commitment to creating and maintaining "Complete Streets" which are defined as comprehensive, integrated transportation network with infrastructure and design that allows safe and convenient travel along and across streets for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth, and families, among others.

Climate Action Plan (2011) – The purpose of the Climate Action Plan was to compile existing and potential strategies (i.e., actions, projects, and programs) that the Town's government and the community can take to address climate change. It provides a brief background on what climate change is and its potential impacts, but focuses on the efforts Tiburon can take to reduce its greenhouse gas (GHG) emissions and mitigate, to the extent feasible at the local level, the potential impacts of climate change.

While it is difficult to predict with a high degree of accuracy the sea level rise that will impact Marin County residents, the San Francisco Bay Conservation and Development Commission's most recent assessment assumes a 1.8° to 5.4° F rise in global temperature over the next century and a corresponding sea level rise in San Francisco Bay of 16 inches by mid-century and 55 inches by 2100. A 16-inch rise in sea level would result in the flooding of 180,000 acres of shoreline, which is roughly equivalent to today's 100-year floodplain.

In 2006, Marin County developed a strategic plan to reduce annual GHG emissions to 15 percent below 1990 levels by 2020. GHG emission estimates by sector reveal that the transportation industry contributes to 62 percent of all emissions in Marin County and 41 percent of all emissions in Tiburon. See **Appendix C** project-related details.

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Downtown Circulation and Parking Analysis (2012) – In recent years, the Town of Tiburon has undertaken several efforts designed to make it more convenient and more attractive for residents and tourists to visit Downtown. The Town is in the process of implementing a Downtown vibrancy initiative which aims to comprehensively address how Downtown can be improved for all those that work, live, play, and visit Tiburon.

Through extensive outreach to stakeholders and the community, inefficient parking and circulation of the transportation network emerged as one of the primary concerns. One of the major findings of the vibrancy project was that a perceived parking problem exists among local businesses and residents, namely inadequate supply and restrictive regulations, despite evidence that much of the parking Downtown is underutilized. Circulation issues revealed by the vibrancy project included a local desire for enhanced pedestrian and bicycle connections as well as more usable public spaces, especially west of the Main Street area. Community members highlighted the need for better signage and wayfinding to local destinations such as Ark Row, the ferry terminal, and Main Street, as well as strategies that reduce the reliance on automobiles for circulation within and access to Downtown.

Active transportation-related findings from the report:

Bicycle parking utilization is also highly concentrated, and some parking facilities should be improved. Utilization of bicycle parking facilities varies dramatically based upon location. The highest utilization rates are near the ferry terminal and near the cafes and restaurants along Main Street, where many bicyclists stop to eat and drink. Other facilities, especially those along Tiburon Boulevard, see very low utilization rates, either due to their inconvenient location, their "insecure" appearance, or rack design issues that leave bicycles vulnerable to theft.

See **Appendix C** for recommendations and project-related details.

Tiburon Bay Trail Gap Study (2012) – This feasibility study represented an opportunity for the Town of Tiburon, in coordination with the Bay Trail, County of Marin, and Caltrans, to prepare a plan for closing important gaps in the San Francisco Bay Trail System, as well as the Town's and Marin County's local and regional bicycle and pedestrian circulation systems. The objective of the study was to evaluate and develop concepts to enhance service of bicycle and pedestrian traffic between McKegney Green and Strawberry Drive, including portions of Tiburon Boulevard and Greenwood Beach Road/Greenwood Cove Drive.

The primary focus of the study was the analysis and preliminary design of a clear and continuous Bay Trail route for bicyclists, pedestrians, and other trail users. See **Appendix C** for recommendations.

Community Action to Reduce Traffic (CART) Summary Report (2013) – CART, a committee comprised of elected officials, school officials, Safe Routes to Schools participants, town staff, and police staff, was convened in October 2011 to investigate and tackle the problem of traffic congestion on Tiburon Boulevard. After conducting an initial information gathering phase about the options available to the Town for reducing congestion on Tiburon Boulevard, the committee held a Community Traffic Forum to share the options and to solicit feedback on the various approaches. No overarching solution was identified, but CART concluded that many smaller changes could be implemented to improve traffic conditions, including:

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- Traffic signal synchronization along Tiburon Boulevard (completed)
- Addition of new school bus to Reed Union School District (completed)
- Creation of a "bike train" from Blackie's Pasture or The Boardwalk Shopping Center parking lot to local schools (created)
- Replacing Marin Transit Route 19 with smaller shuttle buses with shorter, 30-minute headways along Tiburon Boulevard called Route 219, in addition to a weekday "ferry feeder" route component (Route 219 and Route 119 replaced Route 19)

Marin County Unincorporated Bicycle and Pedestrian Master Plan (2007) – This plan, adopted in late 2007, provides countywide policy guidance on integration of bicycling, walking, and accessibility into the transportation network. An update to the county plan is being coordinated with the 2016 Tiburon Bicycle and Pedestrian Master Plan update and is scheduled to be released in 2016.

Non-motorized Transportation Pilot Program (NTPP) – Begun in 2006 and administered through 2010, this Federal Highway Administration program allocated $25 million to bicycle and pedestrian projects throughout Marin County. The program included an extensive public and planning process to identify, rank, and select infrastructure projects and educational programs to be funded by the program.

Steps, Lanes, and Paths (SLP) Program – The SLP Program involved a number of communities within Marin County in an effort to address the need for pedestrian connections in areas that are not easily served by conventional sidewalk networks. Challenges such as limited right-of-way, steep grades, and narrow roads have constrained the ability of residential areas of Tiburon to connect to downtown. Tiburon has long recognized this challenge and has worked to identify solutions to step, lane, and path issues.

In some cases, the exact condition and legal status of some of these pedestrian connectors may not be known and some may currently be in use by adjacent property owners who are not aware of their history of status. Improvement and maintenance of these connectors by the Town would create greater accessibility for users with limited mobility but would also increase maintenance costs and liability exposure. Addressing these challenges will help the Town achieve **Objective B**, **Objective C**, and **Objective D** from **Section 1.2.2**.

<u>Recent projects under the SLP Program include:</u>

- Lower Racoon Path
- Cayford Path
- Jefferson Steps
- The Ranch to Reed Elementary School Steps

Reed Union School District Safe Routes to Schools – The mission of the Marin County Safe Routes to Schools Program is to increase the number of children bicycling and walking to school. The Reed Union School District launched a pilot Safe Routes to Schools Program at the start of the 2013-14 school year to run bike trains and walking school buses along the Tiburon Historical Trail from downtown Belvedere and Tiburon to Bel Aire Elementary School.

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1.3 ATP Compliance Checklist

The State of California adopted Active Transportation Program (ATP) guidelines that encourage increased use of active modes of transportation, such and bicycling and walking, and provide guidance on the inclusion of specific active transportation plan elements in order to apply for grant funding. The Tiburon Bicycle and Pedestrian Master Plan should include the following provisions to fully comply with ATP guidelines:

Table 1-1: Tiburon ATP Compliance Checklist

Required Plan Elements		
(a)	The estimated number of existing bicycle trips and pedestrian trips in the plan area, both in absolute numbers and as a percentage of all trips, and the estimated increase in the number of bicycle trips and pedestrian trips resulting from implementation of the plan.	Table 3-2
(b)	The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, both in absolute numbers and as a percentage of all collisions and injuries, and a goal for collision, serious injury, and fatality reduction after implementation of the plan.	Section 3.6
(c)	A map and description of existing and proposed land use and settlement patterns which must include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, major employment centers, and other destinations.	Section 3.2
(d)	A map and description of existing and proposed bicycle transportation facilities.	Chapter 2 & Chapter 4
(e)	A map and description of existing and proposed end-of-trip bicycle parking facilities.	Section 2.1
(f)	A description of existing and proposed policies related to bicycle parking in public locations, private parking garages, and parking lots and in new commercial and residential developments.	Section 4.1
(g)	A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These must include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.	N/A
(h)	A map and description of existing and proposed pedestrian facilities at major transit hubs. These must include, but are not limited to, rail and transit terminals, and ferry docks and landings.	N/A
(i)	A description of proposed signage providing wayfinding along bicycle and pedestrian networks to designated destinations.	Section 2.1

Required Plan Elements		
(j)	A description of the policies and procedures for maintaining existing and proposed bicycle and pedestrian facilities, including, but not limited to, the maintenance of smooth pavement, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.	Appendix B
(k)	A description of bicycle and pedestrian safety, education, and encouragement programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the law impacting bicycle and pedestrian safety, and the resulting effect on accidents involving bicyclists and pedestrians.	Section 4.3
(l)	A description of the extent of community involvement in development of the plan, including disadvantaged and underserved communities.	Section 1.1
(m)	A description of how the active transportation plan has been coordinated with neighboring jurisdictions, including school districts within the plan area, and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, general plans and a Sustainable Community Strategy in a Regional Transportation Plan.	Section 1.2
(n)	A description of the projects and programs proposed in the plan and a listing of their priorities for implementation, including the methodology for project prioritization and a proposed timeline for implementation.	Section 5.2
(o)	A description of past expenditures for bicycle and pedestrian facilities and programs, and future financial needs for projects and programs that improve safety and convenience for bicyclists and pedestrians in the plan area. Include anticipated revenue sources and potential grant funding for bicycle and pedestrian uses.	Section 2.1
(p)	A description of steps necessary to implement the plan and the reporting process that will be used to keep the adopting agency and community informed of the progress being made in implementing the plan.	Chapter 5
(q)	A resolution showing adoption of the plan by the city, county or district. If the active transportation plan was prepared by a county transportation commission, regional transportation planning agency, MPO, school district or transit district, the plan should indicate the support via resolution of the city(s) or county(s) in which the proposed facilities would be located.	Appendix E

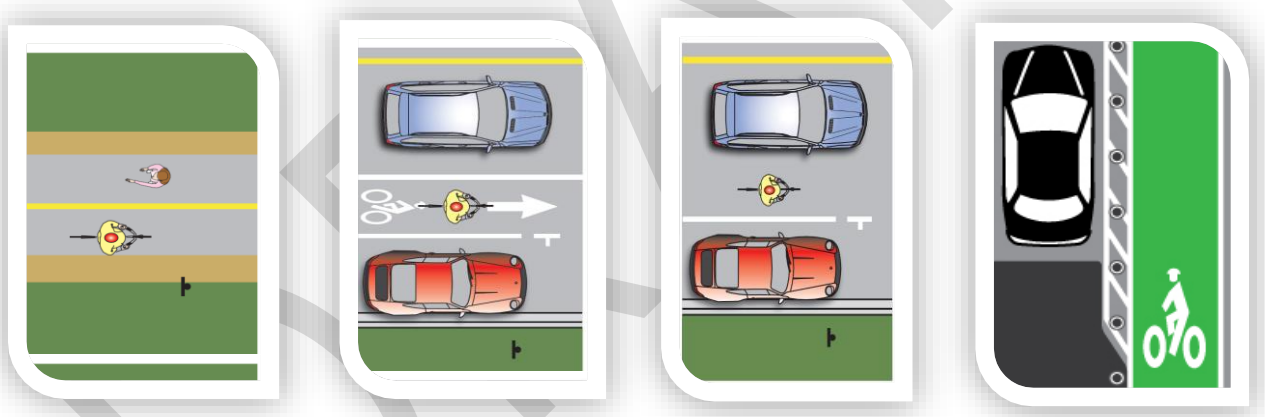
2 Existing Conditions

In the years since the adoption of the first Tiburon Bicycle and Pedestrian Master Plan in 2001, significant progress has been made in improving conditions for bicycling and walking. This section of the plan describes the existing conditions in Tiburon in terms of bikeways, bicycle parking, and pedestrian facilities as well as education, encouragement, and enforcement activities.

The bicycle map which accompanies this Plan designates Tiburon's bicycle facilities and those in adjacent unincorporated areas by Class I, II, III, or IV in accordance with Chapter 1000 on Bikeway Planning and Design of the California Department of Transportation, Highway Design Manual. Class I Bikeways serve the exclusive use of bicycles and pedestrians. Class II Bikeways serve the preferential use of bicycles on marked lanes on paved streets. Class III Bikeways serve bicycles on streets connecting Class I or Class II bikeways. Protected bicycle lanes, which recently have been officially permitted for use in California, are referred in this plan as Class IV bikeways. This is a working title and subject to change as Caltrans and other agencies develop more detailed guidelines and standards regarding protected bicycle lanes.

2.1 Existing Conditions for Bicycling

2.1.1 Definition of Bikeways



Class I Class II Class III Class IV

The four types of bikeways identified by Caltrans in Chapter 1000 of the Highway Design Manual are as follows:

Class I Bikeway - Typically called a shared-use path, a Class I Bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway. It is usually shared with pedestrians and other active transportation users.

Class II Bikeway - Often referred to as a bicycle lane, a Class II Bikeway provides a striped lane accompanied by stenciled markings for one-way bicycle travel on a street or highway. Class II facilities can also include painted buffers to help provide a physical separation between motor vehicle travel lanes and the bicycle lane.

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Class III Bikeway - Generally referred to as a bicycle route, a Class III Bikeway provides for shared use with motor vehicle traffic and is identified only by signing and/or pavement markings. A subset of this type of bikeway is a Bicycle Boulevard, which is a local street that has been optimized for bicycle travel by reducing motor vehicle speeds and volumes and by improving arterial crossings and operating speeds for bicyclists.

Class IV Bikeway - Often referred to as protected bicycle lanes, separated bikeways, cycle tracks, or green lanes, Class IV bikeways are located within a street or highway right-of-way, provide a designated area for one-way or two-way bicycle travel, and offer physical protection from adjacent motor vehicle traffic using barriers, bollards, curbing, parked cars, posts, planters, or other vertical-oriented elements.

It is important to note that bicycles are permitted on *all* roads in the State of California and in Tiburon (with the exception of designated freeways). As such, Tiburon's entire street network is effectively the Town's bicycle network, regardless of whether or not a bikeway stripe, stencil, or sign is present on a given street. The designation of certain roads as Class II, III, or IV bicycle facilities is not intended to imply that these are the only roadways intended for bicycle use, or that bicyclists should not be riding on other streets. Rather, the designation of a network of Class II, III, and IV on-street bikeways recognizes that certain roadways are optimal bicycle routes, for reasons such as directness or access to significant destinations, and allows the Town of Tiburon to then focus resources on building out this primary network. The town's existing network of designated bikeways is shown in **Table 2-1.** Specific facility segments are discussed in more detail below.

Table 2-1: Existing Tiburon Bikeways

Class	Bikeway Type	Total Mileage
I	Shared-use Path	2.57 miles
II	Bicycle Lanes	0.72 miles
III	Bicycle Routes	2.84 miles
IV	Protected Bicycle Lanes	0.00 miles
	Total Bikeways	**6.13 miles**
	Total Roadways (centerline miles)	**56.54 miles**
	Bikeway to Roadway Ratio	**1 : 9.22**

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2.1.2 Existing Bikeway Facilities

The town's existing bikeway system is composed of over 6 miles of bikeways, including 2.6 miles of Class I shared-use pathways, 0.7 miles of Class II bicycle lanes, and 2.8 miles of Class III bicycle routes. The existing bicycle facilities follow "Paradise Loop" which runs along Tiburon Boulevard and Paradise Drive and forms the primary bicycle transportation and recreation spine of the Tiburon Peninsula.

The Old Rail Trail is classified as a Class I bicycle path, and runs the full length of the Richardson Bay Lineal Park, from Blackie's Pasture in the north to Downtown Tiburon. The Old Rail Trail is in close proximity to schools, shopping areas, parks, and public facilities. Between the 2008 plan update and the 2016 plan update, access improvements to the Old Rail Trail were implemented and allowed for better access to Del Mar Middle School and McKegney Green.

Existing bikeways are shown in **Figure 2-1.**

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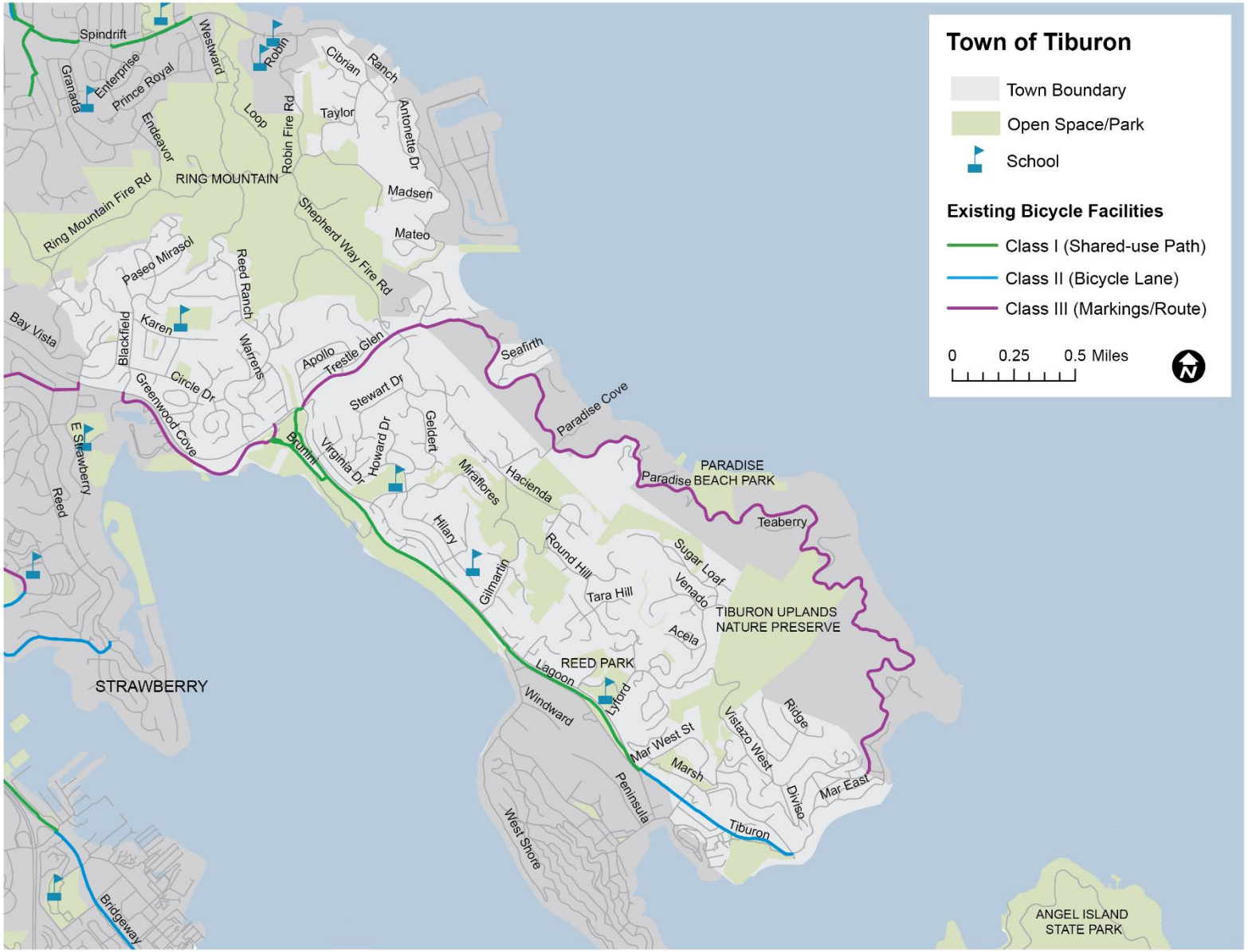
Figure 2-1: Existing Bicycle Facilities



2.1.3 Bikeway Signage

In 2005, the County of Marin received $189,000 in grant funding to design and implement a Countywide Bicycle Route Guide Signage project in partnership with local jurisdictions. The goal of the project was to encourage commuting by bicycle through Marin and make recreational bicycling more attractive to the public. The signage provides bicyclists with directions and destinations at key intersections, so that residents and visitors will be able to navigate more easily. The Marin Public Works Directors Association selected a uniform sign for the County which has a logo of Mount Tamalpais in the background. The countywide bikeway route network can be viewed at http://www.marinbike.org/map.

The County has installed numbered bike route signs between Tiburon and Mill Valley and through the unincorporated area of Strawberry. The Town of Tiburon received numbered signs from the County which were installed within the Town along the Old Rail Trail, Tiburon Boulevard, and Trestle Glen Boulevard. Town staff secured encroachment permits to install additional signs in Caltrans-controlled areas.

2.1.4 Bicycle Support Facilities

Bicycle support facilities include bicycle parking racks, bicycle corrals, lockers, and changing facilities. Any facility that assists bicyclists in completing their journey is also considered a support facility. Bicycle parking is important not only for local residents but for the large numbers of bicyclists who visit Tiburon to bicycle for recreational purposes along the "Paradise Loop" along Tiburon Boulevard and Paradise Drive and to take the ferry to Angel Island and back.

Approximately 98 bicycle parking spaces are currently provided in the immediate vicinity of the Downtown Tiburon Ferry Terminal, within the plaza near the intersection of Tiburon Boulevard and Paradise Drive. Additional bicycle parking racks are provided adjacent to bus stops at Point Tiburon Plaza and near the Donahue Building in Shoreline Park, the Elephant Rock fishing pier, and the Belvedere-Tiburon Library. Bicycle parking spaces are also located near several private businesses, including the Tiburon Playhouse theaters, the Main Street parking lot, Ark Row, and the Fountain Plaza vicinity. Bicycle parking facilities are also located on the grounds of all existing schools in Tiburon.

There are public restrooms adjacent to the Angel Island Ferry dock, within Tiburon Town Hall and the Belvedere-Tiburon Library, and at various locations adjacent to or near the Old Rail Trail, including South-of-Knoll Park and Blackie's Pasture. Drinking fountains and telephones are available near the Angel Island Ferry Dock, at various downtown establishments, and at the Belvedere-Tiburon Library and Tiburon Town Hall at the southeast terminus of the Old Rail Trail.

Currently there are no publicly accessible locker rooms or shower facilities, although such facilities may exist in private buildings.

2.1.5 Access to Transit by Bicycle

Providing bicycle access to transit allows bicyclists to extend the distance they are able to travel, enabling bicycling as a regional mode of travel. Tiburon residents have access to three transit services: Golden Gate Transit buses (commuter and regular service to Marin County, Sonoma County and San Francisco), Blue and Gold Ferry (commuter and regular service San Francisco which will soon be taken over by the Golden Gate Bridge Highway and Transportation District), and the Tiburon-Angel Island Ferry Company (serving

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recreational trips to Angel Island State Park). All local bus transit service in Marin County is operated under contract with the Marin County Transit District (MCTD).

Most bus stops within the Town of Tiburon do not have bicycle racks located at the stops, with the exceptions noted above. The Tiburon Ferry Terminal has bicycle parking and bicycles are allowed on all ferry vehicles. Up to two bicycles can fit on racks mounted to the front of all Golden Gate Transit buses and shuttles less than 60 feet long. "MCI" type buses longer than 60 feet were recently outfitted with luggage bay racks that allow two bicycles to ride in the underfloor luggage area. In addition, the MCTD has included an element in their long-range transit plan to upgrade all bus-mounted front bicycle racks from two to three capacity fixtures.

2.1.6 Share the Road Signs

Yellow "Share the Road" bicycle warning signs are posted at several locations within and near the town, primarily on the Tiburon Boulevard and Paradise Drive corridors. These signs are intended to increase motorist and bicyclist awareness of the need to share narrow roadways with limited sightlines or potential safety concerns.

2.2 Existing Conditions for Walking

2.2.1 Definition of Pedestrian Facilities

Generally, there are two types of pedestrian facilities, those intended for exclusive use by pedestrians, such as sidewalks, and those shared with other users (i.e. Class I Multi-Use Pathways). Pedestrian facilities at intersections can include crosswalks, pedestrian crosswalk signals, warning signage, curb ramps, and other treatments to promote accessibility for disabled users and safety.

The California Vehicle Code Section 275 defines a crosswalk as either:

- That portion of a roadway included within the prolongation or connection of the boundary lines of sidewalks at intersections where the intersecting roadways meet at approximately right angles, except the prolongation of such lines from an alley across a street.

- Any portion of a roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface.

At intersections, a crosswalk is effectively a legal extension of the sidewalk across the roadway. Crosswalks are present at all intersections, whether marked or unmarked, unless the pedestrian crossing is specifically prohibited by the local jurisdiction. At mid-block locations, crosswalks only exist if they are marked.

Traffic control devices must follow the procedures set forth in the California version of the Manual of Uniform Traffic Control Devices (CAMUTCD), while elements such as sidewalks and curb cuts must comply with guidelines for implementing the federal Americans with Disabilities Act (ADA).

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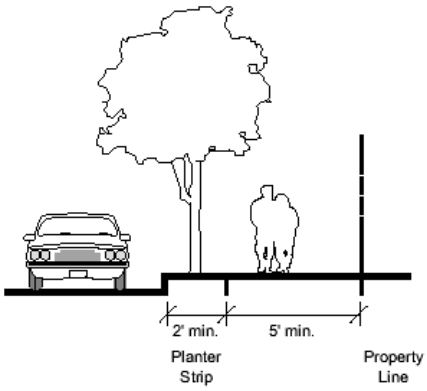
2.2.2 Existing Walkways

In addition to the Old Rail Trail, the Town of Tiburon has a variety of pedestrian facilities consisting of sidewalks, crosswalks, stairways, and walkways. A number of these facilities are more or less developed, consisting of historic stairways and unpaved or narrow footpaths. Examples of high-use pedestrian areas include the downtown area and crossings of Tiburon Boulevard to access destinations such as schools, the post office, and library. In addition, a walkway extends along a segment of Mar West Street to the Tiburon Peninsula Club.



Some of these walkways do not meet ADA requirements for width, obstructions, tripping hazards or curb ramps. With the exception of recreational trails and undeveloped pathways, walkways are generally lacking in the hillside neighborhood areas.

2.2.3 Existing Crosswalk and Other Facilities

Pedestrian exposure at intersections directly affects safety, especially for senior citizens and children who may not be able to cross streets quickly or discern (or be seen by) oncoming traffic. Generally intersections along Tiburon Boulevard and elsewhere in the downtown area have marked crosswalks. In addition, a number of intersections are marked along Tiburon Boulevard, primarily at access points to the Old Rail Trail.

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2.3 Safety, Education, and Encouragement Programs

The Town of Tiburon, the Transportation Authority of Marin, the POST Commission, and nonprofit groups such as the Marin County Bicycle Coalition, have sponsored or participated in a variety of programs to promote safe bicycling and walking in the Town.

2.3.1 Tiburon Police Department Partnerships

The Tiburon Police Department, in partnership with the Marin County Bicycle Coalition, participates in a trail etiquette outreach program in which police officers and volunteers hand out flyers to pedestrians and bicyclists along the Old Rail Trail. The flyers notify trail users of rules regarding bicycle speeds and adherence to stop signs on the trail.

As part of a crosswalk awareness program, the Tiburon Police Department conducted several "pedestrian decoy" ticketing efforts targeting motorists who don't yield to pedestrians in crosswalks. However, this program is now longer running.

The Tiburon Police Department previously conducted an annual bicycle safety awareness programs at Reed Elementary School, including a bicycle riding course.

2.3.2 Share the Path and Share the Road Efforts

Although Tiburon has a low rate of bicycle- and pedestrian-involved collisions, the Town receives reports of near-misses, especially between people bicycling and walking on the Old Rail Trail. The POST Commission and the Town have been working on a "Share the Path" outreach and education project. The project involves putting up new safety signs and creating and distributing a pathway safety pamphlet. In 2005, the former Bicycle and Pedestrian Advisory Committee (now the POST Commission), Marin County Bicycle Coalition (MCBC), and the Tiburon Police Department sponsored a Share the Path Day event, including a checkpoint table to distribute safety information and "goodie bags". These activities were well-received by the public and carried in local news media.

Basic Street Skills Classes are provided free of charge by the Marin County Bicycle Coalition. Classes provide information on how to avoid collisions and citations, how to ride safely, improve visibility, and the legal rights of bicyclists. Bicyclists who have received a bicycle violation may attend this class to reduce their fine.

The Marin County Bicycle Coalition also provides a Share the Road presentation for the public. The presentation is available by request, and includes information on the rights and responsibilities of bicyclists and drivers while focusing on ways each group can behave courteously to avoid collisions.

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2.3.3 Safe Routes to Schools

The countywide Safe Routes to Schools program began in 2000 in an effort to reduce congestion and encourage healthy exercise and transportation habits among school-aged children in Marin County. The program has since expanded to its current level, with 60 schools and over 20,000 students participating countywide. Each year, the program has successfully decreased the percentage of drive-alone students at participating schools through innovative classroom activities, contests and events, and implementation of engineering improvements.

The program consists of five components – education, engineering, encouragement, enforcement, and evaluation – which are described below:

- Education - Classroom lessons teach children the skills necessary to navigate through busy streets and show them how to be active participants in the program. **Table 2-2** shows education programs completed at Tiburon schools.

- Engineering – The program's licensed traffic engineer works with schools and the Town in developing a plan to provide a safer environment for children to bicycle and walk to school. The focus is on creating physical improvements to the infrastructure surrounding the school, reducing speeds, and establishing improved crosswalks and pathways.

- Encouragement – Events, contests, and promotional materials are incentives that encourage children and parents to try walking and biking. **Table 2-2** shows encouragement programs completed at Tiburon schools.

- Enforcement – Police officers, crossing guards, and law enforcement officials participate throughout the Safe Routes process to encourage safer travel through the community. Targeted enforcement of speed limits and other traffic laws around schools make the trip to school more predictable for students. This plan also includes enforcement enhancements and outreach to drivers through driver safety campaigns.

- Evaluation – Program participation is regularly monitored to determine the growth in student and parent participation.

As detailed in **Table 2-2,** Reed Elementary, Bel Aire Elementary, and Del Mar Middle Schools participated in the program. The Reed Union School District created a Safe Routes to Schools Task Force which develops Safe Routes to Schools Travel Plans that include engineering and enforcement recommendations and driver education and encouragement programs.

The Town of Tiburon launched a pilot program in 2013-14 school year to run bike trains along the Old Rail Trail from downtown Belvedere/Tiburon to Bel Aire School. Adult bicycling "conductors" and volunteers escorted students to school every Wednesday.

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Table 2-2: Tiburon Safe Routes to School Education and Encouragement Programs

2010-2011	Grades	Enrollment	Helmet Safety[1]	Traffic Safety[2]	WIM[3]	Safety Art[4]	International Walk to School Day[5]	SchoolPool[6]
Reed	K-2	454					X	
Bel Aire	3,4,5	413	150	150	150		X	
Del Mar	Middle	370				20	X	X

X = Previously Completed
Source: Marin County Safe Routes to Schools Program Evaluation (2011)

1 Helmet Safety – A demonstration-based lesson that teaches the importance of wearing a helmet and proper helmet fit (i.e. why, how, and when to wear a helmet).
2 Traffic Safety – Class designed to help students avoid the most common traffic scenarios that lead to youth-involved bicycle and pedestrian collisions.
3 WIM (Wheels in Motion Bike Skills Challenge) – offers children an opportunity to practice and apply the lessons learned in the Helmet Safety and Traffic Safety classes, such as the importance of stopping at every edge, looking for/communicating with traffic, traffic laws, and remaining in control at all times when riding a bicycle. This is achieved through a series of bicycle handling drills and simulations of traffic situations. Each session begins with a safety check of the bicycles and the helmet. Four stations give students the opportunity to practice a variety of specific bicycle handling skills and procedures for operating a bicycle safely and legally in traffic.
4 Safety Art – Prepares children for International Walk to School Day by reviewing the four best reasons to walk and bicycle, as well as six simple steps to staying safe. The children make picket style signs to carry and large banners to place at staging areas in front of schools.
5 International Walk to School Day – annual event in October that encourages all kids to walk to school
6 SchoolPool – Website designed to help parents share the duties of carpooling, walk pools ("walking school buses"), bike pools ("bike trains"), or arranging bus buddies for school buses or public transit.

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3 Needs Analysis

3.1 Land Use and Demand for Bicycling

The "demand" for bicycle facilities can be difficult to predict. Unlike automobile use where historical trip generation studies and traffic counts allow one to estimate future "demand" for travel, bicycle trip generation methods are less advanced and standardized. Land use patterns can help predict demand and are important to bikeway planning because changes in land use (and particularly employment areas) will affect average commute distance, which in turn affects the attractiveness of bicycling as a commute mode. **Figure 3-1**, the land use map from the Tiburon General Plan, is included on the next page.

Tiburon bikeway network connects the neighborhoods where people live to the places they work, shop, engage in recreation, or go to school. An emphasis is placed on regional bikeways and transit connections centered on the major activity centers in Tiburon, including:

- Downtown commercial district
- Civic buildings such as the Town Hall and Library
- Schools
- Bus stops and the Ferry Terminal
- Neighborhood parks and regional recreational areas
- Employment centers

3.2 Settlement Patterns and Destinations

Tiburon history of rail and ferry transport has largely shaped the town's development patterns. The Northwestern Pacific Railway lines which formerly connected Mill Valley and Corte Madera to downtown Tiburon encouraged development within walking distance of the former downtown Tiburon train station.

As automobile use grew, new roads were placed on or alongside the train beds, creating the existing arterial road system that includes Tiburon Boulevard. After World War II, Tiburon grew away from its original dense settlement pattern around the downtown area, creating a variety of neighborhoods in the hilly areas of town which were less accessible by walking or bicycling.

The Town of Tiburon is a predominantly residential community, consisting of relatively low density single-family housing, some medium density multiple-family homes, and limited commercial and office uses clustered primarily within the downtown area. The existing land uses in Tiburon are shown in **Figure 3-1**. This map includes the location of land uses such as commercial areas, which represent potential bicycle and pedestrian destinations in Tiburon.

The employed population of Tiburon commute to three major employment centers: San Francisco, San Rafael, and businesses within Tiburon. Most get to their Marin County jobs by car and some by bus or bicycle. Section 3.4 details commute patterns in Tiburon. Other major activity centers includes Reed Elementary School, Bel Aire Elementary School, and Del Mar Intermediate School.

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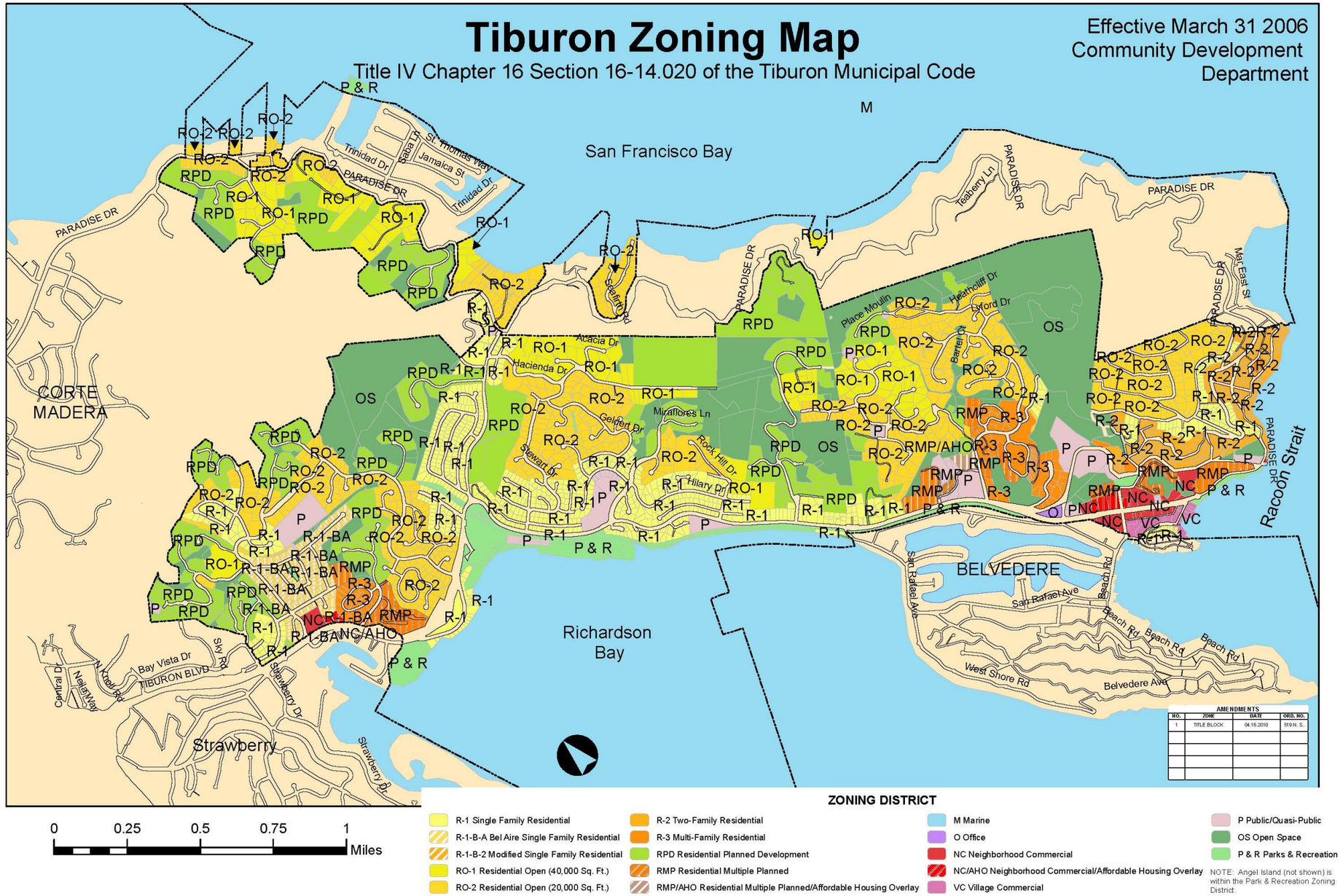
Figure 3-1: Tiburon General Plan Land Use Map



3.3 Bicycle and Pedestrian Activity

In 2007, the Non-motorized Transportation Pilot Program (NTPP), a federally-funded project of the Marin County Department of Public Works, conducted counts and surveys of bicyclists and pedestrians throughout Marin County. The five places in Marin County with the highest volumes of combined bicycle and pedestrian activity included the intersection of Tiburon Boulevard and Main Street (1,800 people). Of all counted locations, this intersection ranked in the top four for highest combined bicycle and pedestrian commuter activity during weekday peak periods and ranked as the second most popular weekend bicycling and walking location in the county. These results may be influenced by weekday access to the Ferry Terminal and may reflect the weekend popularity of Tiburon's Old Rail Trail, the "Paradise Loop" along Tiburon Boulevard and Paradise Drive, and the relationship between tourism and pedestrian activity in Tiburon.

3.4 Commute Patterns

A central focus of presenting commute information is to identify the current "mode split" of people that travel in Tiburon. Mode split refers to the choice of transportation a person selects to reach their destinations, be it walking, bicycling, taking a bus, or driving. One major objective of any bicycle or pedestrian facility improvement is to increase the percentage of people who choose to bicycle or walk rather than drive or be driven. Every saved vehicle trip or vehicle mile represents quantifiable reductions in air pollution and can help in lessening automobile traffic congestion.

Journey to work data was obtained from the most recent five-year American Community Survey estimates (2009-2013) for Tiburon, Marin County, California, and the United States. The percent breakdown for primary mode of travel during commute trips conducted by the employed population over the age of 15 is shown in **Table 3-1.**

Table 3-1: Means of Transportation to Work (ACS, 2009-2013)

MODE CHOICE	UNITED STATES	CALIFORNIA	MARIN COUNTY	TIBURON
Drove Alone	76.3%	73.2%	66.2%	59.6%
Carpooled	9.8%	11.3%	8.8%	7.0%
Transit (includes ferry)	5.0%	5.2%	8.9%	11.0%
Taxi	0.1%	0.0%	0.0%	0.0%
Motorcycle	0.2%	0.3%	0.2%	0.5%
Bicycle	0.6%	1.1%	1.6%	1.7%
Walked	2.8%	2.7%	3.3%	1.9%
Other Means	0.9%	0.9%	0.7%	2.1%
Worked at Home	4.3%	5.2%	10.3%	16.4%

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As shown, about 1.7 percent of all employed Tiburon residents above the age of 15 commute primarily by bicycle. The American Community Survey does not include the number of people who bicycle for recreation or for utilitarian purposes, students who bicycle to school, bicycle commuters who travel from outside Tiburon, or commuters who bicycle to transit, and, therefore, the data likely undercounts true bicycling rates. Recreational bicycling is especially popular in Tiburon, with its easy access to popular recreational routes along Paradise Drive and other areas.

Comparatively, Tiburon's rate of bicycle commuting is roughly equivalent to the Marin County average (1.7 percent compared to 1.6 percent) and above statewide and national averages (1.1 percent and 0.6 percent, respectively). The percentage of commuters who primarily use transit to get to work in Tiburon is over double that of the state and national averages (11.0 percent compared to 5.2 percent across the state and 5.0 percent across the country). Conversely, Tiburon displays a lower percentage of residents of who walk to work (1.9 percent) compared to county, state, and national averages (3.3 percent, 2.7 percent, and 2.8 percent, respectively). This may be explained by the large number of Tiburon residents who work from home (16.4 percent).

3.5 Potential Future Air Quality Improvements

Tiburon lies within the San Francisco Bay Area Basin, which is regulated by the Bay Area Air Quality Management District (BAAQMD). As of July 2005, the air quality in the San Francisco Bay Area Basin did not meet the minimum State health-based standards for one-hour concentrations ground-level ozone and the State standards for Particulate Matter (PM10) and Fine Particulate Matter (PM2.5).[2] Currently, the Basin is classified as marginal non-attainment area for the Federal 8-hour ozone standard.

According to the BAAQMD, motor vehicles are responsible for approximately 75 percent of the smog in the Bay Area. Reducing vehicle-miles traveled (VMTs) is a key goal of the BAAQMD, and fully implementing Tiburon's bicycle and pedestrian network may help achieve this goal by providing residents improved options for getting to work, school, or shopping that are not automobile dependent. Based on data from the 2009-2013 American Community Survey and estimates of bicycle mode share for students, the current number of daily bicycle and pedestrian commuters in Tiburon is estimated to be 659 people and approximately 2,300 trips per day.

In an effort to estimate the potential increase in the number of daily bicycle and walk trips in Tiburon after implementation of the changes proposed in Chapter 4, **Table 3-2** shows that a modest potential increase of daily bicycle and pedestrian could result, conservatively, in the diversion of 100 automobile trips per day and the reduction of 1.3 metric tons of hydrocarbons, 9.4 metric tons of carbon oxides, 0.6 metric tons of nitrous oxides, and 188 metric tons of carbon dioxides per year.

[2] BAAQMD. Ambient Air Quality Standards & Bay Area Attainment Status. Last updated July 15, 2005. <www.baaqmd.gov/pln/air_quality/ambient_air_quality.htm>

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Table 3-2: Bicycle and Pedestrian Commute and Air Quality Projections

Topic	Value	Source
Population	9,042	2009-2013 American Community Survey (ACS)
Number of Commuters	3,788	2009-2013 ACS (Employed persons minus those working at home)
Number of Bicycle-to-Work Commuters	64	2009-2013 ACS
Bicycle-to-Work Mode Share	1.7%	2009-2013 ACS
Number of Walk-to-Work Commuters	72	2009-2013 ACS
Walk-to-Work Mode Share	1.9%	2009-2013 ACS
School Children Grades K-12	1,541	2009-2013 ACS
Estimated School Bicycle and Walk Commuters	447	Marin County Safe Routes to Schools, 2011 Program Evaluation (29 percent of hand tally respondents)
Number of College Students	467	2009-2013 ACS
Estimated College Bicycle Commuters	23	National Bicycling & Walking Study, FHWA, Case Study No. 1, 1995. Review of bicycle commute share in seven university communities (5%)
Average Weekday Marin Ridership	870	Average weekday activity (boardings and alightings) for Strawberry-Tiburon-Belvedere, Marin Transit Ridecheck Report – 2011 Local Bus Survey
Number of Daily Bike Marin Transit Users	18	Average weekday activity (boardings and alightings) for Strawberry-Tiburon-Belvedere, Marin Transit Ridecheck Report – 2011 Local Bus Survey
Estimated Total Number of Bicycle and Walk Commuters	624	Total weekday average of bike and walk to work, transit, school, college commuters

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Topic	Value	Source
Estimated Utilitarian, Social/Recreational, and Other Bike/Walk Trips Per Day	4,300	Assume 7 utilitarian, social/recreational, other bicycling and walking trips per 1 active commute/school trip, rounded down (NHTS, 2009)
Total Daily Bicycle and Walking Trips	9,848	Total active commuters x 2 (for round trips)
Reduced Vehicle Trips per Weekday	7,386	Assume 75% of trips would otherwise be taken by a motorized vehicle
Reduced Vehicle Miles per Weekday	7,386	Assumes each trip is approximately 1 mile

Potential Future Active Commuters	Value	Source
Number of Workers with Commutes 9 Minutes or Less	326	2009-2013 ACS
Number of Workers who Already Bicycle or Walk to Work	136	2009-2013 ACS
Number of Potential Bicycle Commuters (Non-Transit)	190	Calculated by subtracting number of workers who already bike or walk from the number of workers who have commutes 9 minutes or less
Future Number of New Active Commuters	29	Based on capture rate goal of 15% of potential bike and walk commuters
Total Future Daily Bicycle and Walk Commuters	165	Current daily bike and walk commuters plus future bicycle commuters
Future Total Daily Bicycle or Walking Trips	330	Total future daily bicycle and walk commuters x 2 (for round trips)
Future Reduced Vehicle Trips per Weekday	248	Assumes 79% motor vehicle trip replacement
Future Reduced Vehicle Miles per Weekday	248	Assumes each trip is approximately 1 mile

Future Reduced Vehicle Miles traveled per Year	90,000	Assumes 365 days per year, rounded down

Future Air Quality Benefits	Value	*Source*
Reduced VOC (lbs/year)	200	EPA report 420-F-08-024 "Emission Facts: Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks." 2008.
Reduced Hydrocarbons (lbs/year)	200	
Reduced Carbon Monoxide (lbs/year)	1,800	
Reduced Nitrogen Oxide (lbs/year)	100	
Reduced Carbon Dioxide (lbs/year)	73,000	

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3.6 Collision History

In the five years between January 1, 2008 and December 31, 2012 (the five-year period with the most recently available data), Tiburon experienced a total of ten reported collisions that resulted in an injury to a bicyclist or a pedestrian. None of those collisions resulted in a fatality. Below is a detailed analysis of each type of collision.

3.6.1 Bicycle Collisions

Table 3-3 summarizes the number and type of reported bicycle-involved collisions from January 1, 2008 to December 31, 2012. Over that time period, the number of bicycle collisions remained relatively consistent, ranging between zero and one collision per year.

Table 3-3: Reported Bicycle-involved Collisions, 2008-2012

	2008	2009	2010	2011	2012	Total
Total Collisions	**10**	**14**	**14**	**11**	**7**	**56**
Total Collisions Involving a Bicyclist	**1**	**1**	**1**	**0**	**1**	**4**
Total Non-Fatal Injuries Involving a Bicyclist	**1**	**1**	**1**	**0**	**1**	**4**
Sever Injury/Fatal Collisions Involving a Bicyclist	**0**	**0**	**0**	**0**	**0**	**0**
Percent Bicyclists Injured per Total Collisions	**10.0%**	**7.1%**	**7.1%**	**0.0%**	**14.3%**	**7.1%**

Between 2008 and 2012, all reported bicycle-involved collisions occurred during daylight hours (9AM – 5PM). These are the times when the most car and bicycle traffic is on the streets.

Table 3-4: Reported Bicycle-involved Collisions – Time of Day Comparison

	2008	2009	2010	2011	2012	Total
Daylight (9AM – 5PM)	**1**	**1**	**1**	**0**	**1**	**4**
Dawn & Dusk (6-9AM & 5-8PM	**0**	**0**	**0**	**0**	**0**	**0**
Night Time (8PM – 6AM)	**0**	**0**	**0**	**0**	**0**	**0**
Total	**1**	**1**	**1**	**0**	**1**	**4**

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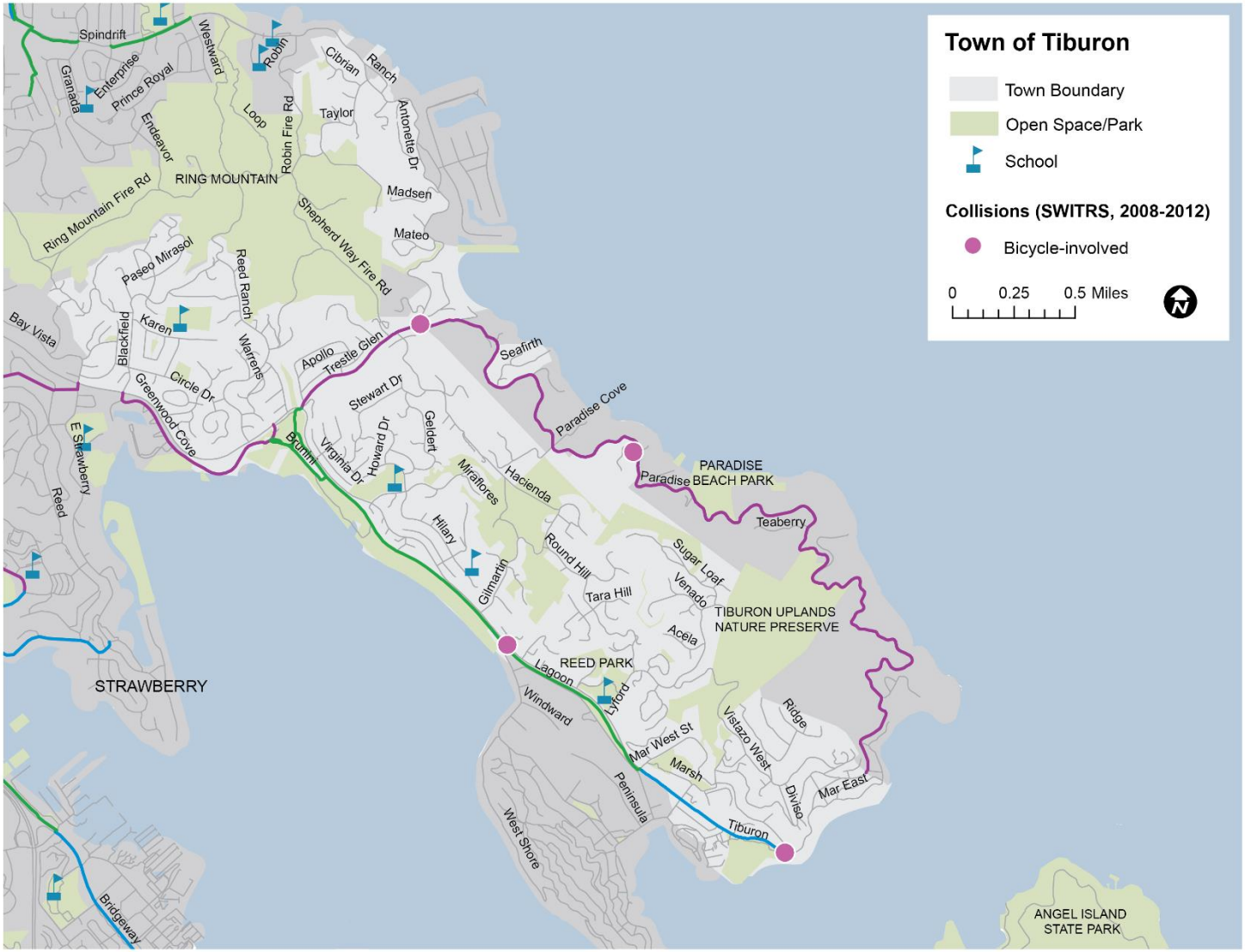
Figure 3-2: Reported Bicycle-involved Collisions, 2008-2012



3.6.2 Pedestrian Collisions

Table 3-5 identifies reported pedestrian collisions within Tiburon involving injury for the last five years of available data. From January 1, 2008 to December 31, 2012, there were six reported pedestrian-involved collisions. Of the six collisions, five resulted in minor injuries and one resulted in a severe injury. A map of the collisions is shown in **Figure 3-3**.

Table 3-5: Reported Pedestrian-involved Collisions, 2008-2012

	2008	2009	2010	2011	2012	Total
Total Collisions	**10**	**14**	**14**	**11**	**7**	**56**
Total Collisions Involving a Pedestrian	**0**	**4**	**2**	**0**	**0**	**6**
Total Non-Fatal Injuries Involving a Pedestrian	**0**	**3**	**2**	**0**	**0**	**5**
Severe Injury/Fatal Collisions Involving a Pedestrian	**0**	**1**	**0**	**0**	**0**	**1**
Percent Pedestrian Injured per Total Collisions	**0.0%**	**28.6%**	**14.3%**	**0.0%**	**0.0%**	**10.7%**

No pedestrian fatalities occurred in Tiburon over the five-year period. Similar to bicycle-involved collisions, all pedestrian-involved collisions took place during daylight hours (9 AM to 5 PM).

Table 3-6: Reported Pedestrian-involved Collisions – Time of Day Comparison

	2008	2009	2010	2011	2012	Total
Daylight (9AM – 5PM)	**0**	**4**	**2**	**0**	**0**	**6**
Dawn & Dusk (6-9AM & 5-8PM	**0**	**0**	**0**	**0**	**0**	**0**
Night Time (8PM – 6AM)	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**	**4**	**2**	**0**	**0**	**6**

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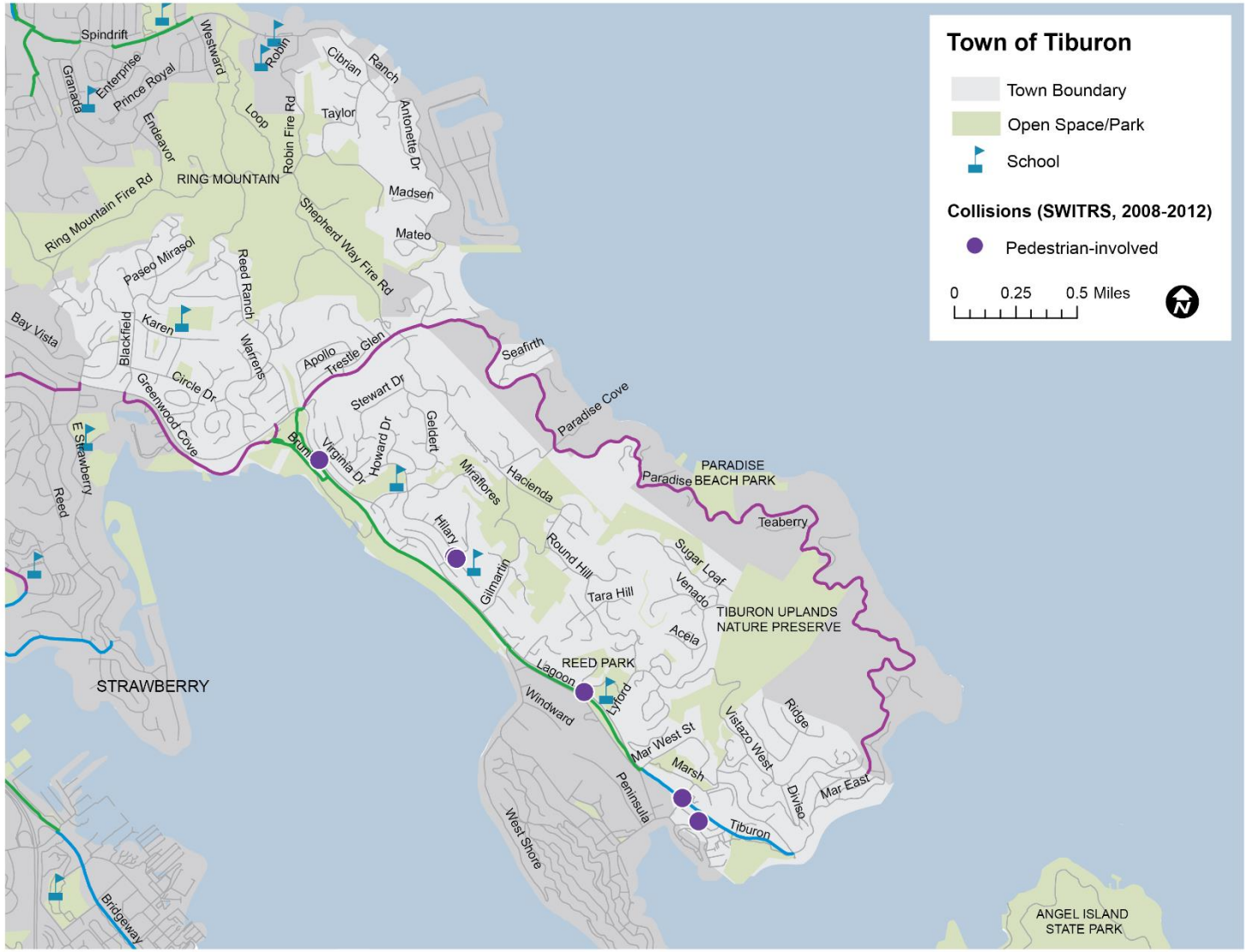
Figure 3-3: Reported Pedestrian-involved Collisions, 2008-2012



4 Proposed Improvements

This section provides information about the proposed improvements for bicycling and walking in the Town of Tiburon including both physical improvements (multi-use paths, bicycle lanes, bicycle routes, bicycle parking, sidewalks, and crossing improvements) and education, enforcement, and encouragement programs (e.g. Safe Routes to Schools).

As shown in the preceding Existing Conditions chapter, Tiburon's current walkway and bikeway system provides opportunities for non-motorized travel through a network of sidewalks, Class I pathways, Class II bicycle lanes, and Class III bicycle routes. However, gaps remain in the bicycle and pedestrian network which are critical to providing good connectivity for people bicycling and walking both within the Town of Tiburon and attempting to travel to neighboring communities. The connections from residential areas to schools and from the town to Strawberry, Mill Valley, and Corte Madera still present significant obstacles to bicyclists, although the issue areas largely fall outside of Tiburon. Improvements in pedestrian circulation are also needed to increase access from neighborhood areas to downtown and schools, as well as to encourage safe walking throughout the town.

4.1 Proposed Bicycle Facility Improvements

The vision for bicycling includes completing and improving existing bicycle paths, lanes and routes, including signing and stenciling, and implementing programs. For walking the vision is to maintain and improve existing walkways and crosswalks, and improve access from the neighborhood areas to the Old Rail Trail, downtown, and schools through a series of stairway and mid-block crossing improvements.

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Figure 4-1: Proposed Bicycle Projects

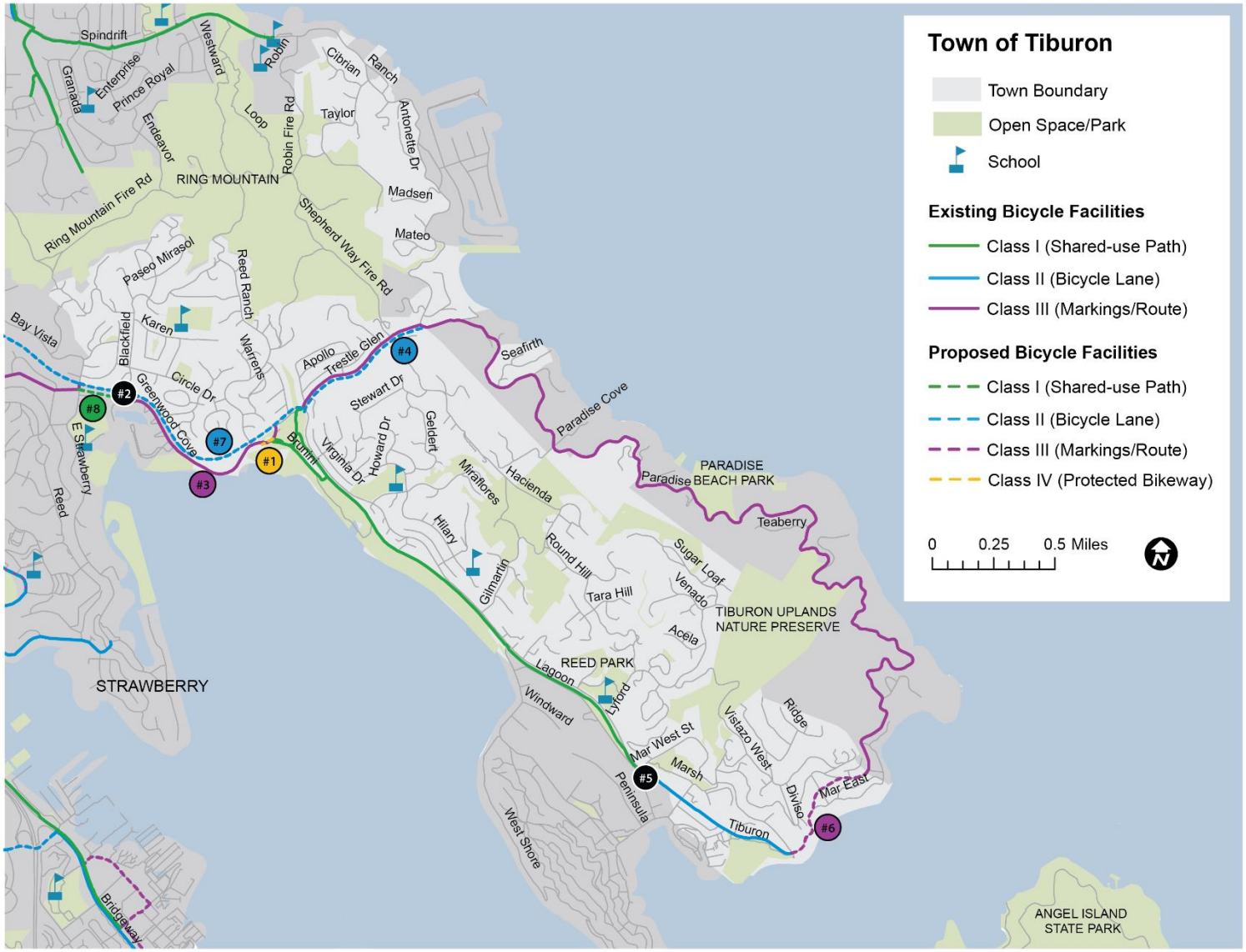

Table 4-1: Proposed Bicycle Projects and Actions

Name	Begin	End	Facility Type	Length	Estimated Cost*	Description
Project #1: Blackie's Pasture Connection	Blackie's Grove	Blackie's Pasture	Class IV (parking and buffer protected bikeway) and pedestrian path	0.03	$50,000 (Town of Tiburon Bay Trail Gap Study, 2012)	Improved pedestrian and bicycle path along access road south of the Blackie's Pasture parking lot; pave gravel shoulder that serves as on-street parking and provide a 4-foot wide striped buffer between the 10-foot wide multi-use path and the parking aisle. Move the existing fence approximately 4 feet to the south. (Town of Tiburon Bay Trail Gap Study, 2012) Add signage to advise bicyclists they are entering a neighborhood 'slow zone.'
Project #2: Tiburon Boulevard at Blackfield Drive/Greenwood Cove Drive	N/A	N/A	Intersection enhancements	N/A	$116,000	Bicycle and pedestrian intersection enhancements currently under study. Includes addition of a high-visibility crosswalk, pedestrian-activated Leading Pedestrian Interval, buffered bicycle lanes, dashed green bicycle lanes to indicate a mixing zone, and "bike box". (Safe Pathways to School)
Project #3: Greenwood Beach Road	Town/County Boundary (approximately 150 feet south of Barbaree Way	Blackie's Grove	Class III (bicycle route)	0.43	$35,000	Class III bike route signs should be changed to advise bicyclists of a neighborhood 'slow zone'; signs should direct faster bicyclists to use Tiburon Blvd.; and explore the use of different pavement textures to help slow bicycle traffic on Greenwood Beach Road or alert bicyclist to slow zone signs.
Project #4: Trestle Glen Boulevard	Tiburon Boulevard	Paradise Drive	Class II (bicycle lane)/Class III (bicycle route)	0.61	$2 million+	Class II bike lanes on both sides *or* a combination Class II/III with bike lanes on uphill direction.

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Name	Begin	End	Facility Type	Length	Estimated Cost*	Description
Project #5: Tiburon Boulevard	Mar West Street	Lagoon Road/Cove Road	To Be Determined	0.01	$100,000	Improve transition from Class I facility on Tiburon Boulevard west of Mar West Street to Class II facility east of Mar West Street. Coordinate with planned signal or roundabout at this location.
Project #6: Paradise Drive	Mar West Street	East Town Limit near Agreste Way	Class III (bicycle route)	0.54	$10,000	Stencil or sign Class III bicycle routes
Project #7: Tiburon Boulevard	Town limits	Trestle Glen Boulevard	Class II (bike lanes)	1.0	$237,000	Subject to Caltrans and County approval; convert existing striped shoulder to Class II bike lanes
Total Proposed Class I Bikeways				0.0	$0	
Total Proposed Class II Bikeways				1.61	$2,237,000+	
Total Proposed Class III Bikeways				0.97	$45,000	
Total Proposed Class IV Bikeways				0.03	$50,000	
Total Other Proposed Bicycle Facilities				0.01	$216,000	
Total Proposed Bikeways				**2.62**	**$2,548,000+**	

* Planning level cost estimates are based on latest available actual implementation unit costs in the Bay Area, and include all design, environmental, and other costs. Many projects are undefined at this level, and the final type and scope of the project is yet to be determined. The estimates do not include any major right-of-way, environmental, or engineering costs that may be discovered in the feasibility design process. Costs from available feasibility studies are used where available.

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Table 4-2: Proposed Projects and Actions Outside of Town Boundaries

Name	Begin	End	Facility Type	Length	Estimated Cost*	Description
Project #8: Tiburon Boulevard	East Strawberry Drive	Greenwood Cove Drive	Class I (Multi-use Path)	0.19	$2,550,000	Advocate for and support County implementation of a Class I multi-use path along the south side of Tiburon Boulevard; maintain Caltrans shoulder (path separated with barrier at highway elevation OR path below highway on bench); single span bridge over slough. (Town of Tiburon Bay Trail Gap Study, 2012)

* Planning level cost estimates are based on latest available actual implementation unit costs in the Bay Area, and include all design, environmental, and other costs. Many projects are undefined at this level, and the final type and scope of the project is yet to be determined. The estimates do not include any major right-of-way, environmental, or engineering costs that may be discovered in the feasibility design process. Costs from available feasibility studies are used where available.

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4.1.1 Proposed Class I – Multi-Use Pathway

The following potential improvements are presented for future study and action by the Town:

- Advocate for the County of Marin to study a potential Class I multi-use path on Tiburon Boulevard from East Strawberry Drive to Greenwood Cove Drive.

4.1.2 Proposed Class II – Striped Bicycle Lanes

Proposed bicycle lanes in Tiburon are intended primarily to complete bikeways gaps on the Tiburon Peninsula as well as connecting to neighboring communities.

- Convert the existing shoulder on Tiburon Boulevard from the western Town limit to Trestle Glen Boulevard to a striped Class II bicycle lane. The project is subject to Caltrans and County approval.
- Stripe Class II bicycle lanes in both directions on Trestle Glen Boulevard between Tiburon Boulevard and Paradise or stripe Class II bicycle lanes along the uphill segment of Trestle Glen Boulevard from Tiburon Boulevard to Paradise Drive and a Class III bicycle route along the downhill segment. This would connect Tiburon Boulevard and the Old Rail Trail to existing and proposed residential areas along Trestle Glen Boulevard and Paradise Drive and would provide better access to Corte Madera. The Town completed a feasibility study of this project in 2003, which identified significant obstacles to implementation of Class II bicycle lanes in both the uphill and downhill directions.

4.1.3 Proposed Class III – Signed Bicycle Routes

Proposed bicycle routes in Tiburon are intended to improve connections to neighboring communities where Class I and Class II bicycle facilities may not be feasible, to provide wayfinding, and to improve safety on recreational routes. The minimum treatment for these routes would be standard Bicycle Route signage. Areas with on-street parking should be considered for Shared Roadway Bicycle Markings ("Sharrows"). Additional safety signage such as Share the Road signs or other Manual on Uniform Traffic Control Devices (MUTCD) safety signage is recommended for all segments. In addition, narrow curvy roadways should be considered for shoulder widening or addition of pullouts and passing areas along with Share the Road signage.

- Stencil "sharrows" and/or install bicycle route signage along Paradise Drive from Mar West Street to the east Town Limit near Agreste Way.

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4.1.4 Bicycle Parking and End-of-Trip Facilities

Bicycle parking includes standard bike racks, weather-protected bicycle parking, enclosed lockers, and secure "corrals." Due to lack of sidewalk space for bicycle rack placement, the POST Commission recommended a trial installation of "on-street" bicycle parking areas which would take the place of unused red curb zone areas in the downtown area. Other end-of-trip facilities include showers and changing facilities.

4.1.5 Share the Road Signs

Yellow "Share the Road" bicycle warning signs have been installed by the County of Marin at several locations near the town, and additional signs are being installed in early 2016. These signs are intended to increase motorist and bicyclist awareness of the need to share narrow roadways with limited sightlines or other potential safety issues. The Share the Road signs are intended to complement the County Bicycle Route Guide Sign System.

4.1.6 County Bicycle Route Signs

The County of Marin has undertaken a bicycle route guide signage project that marks countywide bicycle routes and have installed new bicycle route signs along roadways within Town boundaries.

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4.2 Proposed Pedestrian Facility Improvements

This section discusses capital project recommendations for Tiburon's pedestrian network. These infrastructure improvements are intended to enhance pedestrian access and circulation, as well as help pedestrians feel more comfortable when walking in Tiburon.

A number of recommendations are made for infrastructure projects that should be implemented on a town-wide basis. These projects were divided into several categories of improvements: walkway gaps, curb ramps, signalized intersections, signal timing, and unsignalized intersections. Following the town-wide project recommendations, a number of example project recommendations are identified. These projects seek to improve specific intersections, corridors, or other locations that were identified through the existing conditions and public input process as needed improvement areas.

4.2.1 Infill of Walkway Gaps

Walkway gaps are areas in Tiburon where there is no walkway, or the walkway ends abruptly, resulting in a discontinuous network. Areas without walkways may force pedestrians to walk along the edge of the roadway, or may cause pedestrians to cross at undesignated crossing locations. Where feasible, providing a continuous pedestrian sidewalk along at least one or both sides of all of Tiburon's roadways is recommended. However, this practice is probably not feasible for many of the residential areas in town, outside the downtown, and commercial areas along Tiburon Boulevard.

A complete town-wide inventory of walkway gaps was not within the scope of this plan update. The Town should consider conducting a comprehensive sidewalk and pathway inventory in order to develop a detailed digital inventory of sidewalk gaps and develop a process for prioritizing and filling these gaps. In addition, the town should continue working to establish walkways as part of the proposed Steps, Lanes, and Paths routes identified by the Town.

4.2.2 Reduction of Curb Radii

Historically, roadway design standards called for wide curb radii at intersections to promote intersection capacity for motor vehicles. As a result, many of Tiburon's intersections have corners that force pedestrians to walk further to cross the street than at intersections with small or medium turning radii. This design also allows vehicles to make right-turns at relatively high speeds compared to smaller intersections. As a Town-wide policy, Tiburon should consider reducing corner curb radii when re-paving streets and installing curb ramps.

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4.2.3 Curb Ramp Improvements

4.2.3.1 Curb Ramps

The Town adopted an ADA Transition Plan, and completed all the identified curb ramp projects in this self-assessment. Remaining curb ramps are located on Caltrans jurisdiction.

Tiburon should continue to install curb ramps as a part of repaving or other capital construction, as needed, if none currently exist. This would occur primarily in the downtown and commercial areas of the town, and potentially around schools and other key pedestrian destinations. The Town should work with Caltrans to install curb ramps at locations within the town which are in Caltrans jurisdiction.

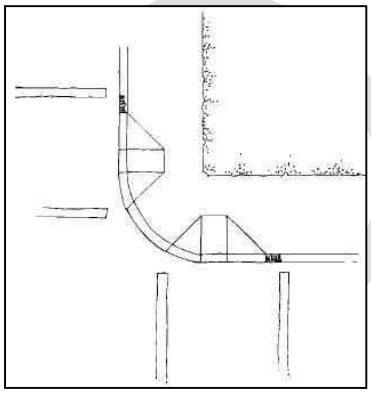
A curb ramp with truncated domes

4.2.3.2 Truncated Domes

Truncated domes provide a cue to visually-impaired pedestrians that they are entering a street or intersection. Since 2002, ADA Guidelines have called for truncated domes on curb ramps.

Although it is not required for Tiburon to install truncated domes at existing curb ramps that were built prior to 2002, the Town should continue installing these devices at high-priority pedestrian locations and when re-paving and upgrading existing curb ramps to meet ADA guidelines. Truncated domes are relatively inexpensive to install.

Tiburon should continue to install truncated domes in high pedestrian use areas around the downtown and along streets that provide access to the commercial and school areas. Tiburon should also install truncated domes when re-paving streets and improving existing curb ramps and elsewhere to be in compliance with ADA requirements. In locations where Caltrans owns the right-of-way, Tiburon should encourage Caltrans to install truncated domes.



4.2.3.3 Perpendicular Curb Ramps

Perpendicular curb ramps are designed such that two ramps are included at intersection corners. Perpendicular ramps allow pedestrians and people in wheelchairs to access the sidewalk perpendicular to stopped traffic, and to enter into the crosswalk directly in their line of travel. Perpendicular ramps are not required by ADA or any other standard. However, perpendicular ramps are the preferred curb ramp style from a pedestrian standpoint since they provide the most direct access into the crosswalk. Perpendicular ramps do require more space to install than a single diagonal ramp, are more costly, and sometimes cannot be accommodated due to utilities or other obstructions at the corner. However, especially at major intersections in high pedestrian zones, it is recommended that they be installed where feasible.

Tiburon should continue to install perpendicular curb ramps in high pedestrian use areas and on adjacent streets or encourage Caltrans to install perpendicular curb ramps throughout the town as needed.

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4.2.4 Rectangular Rapid Flashing Beacons

These push-button activated devices are designed to improve pedestrian safety by increasing motorist and bicyclist awareness of pedestrians at mid-block crosswalk locations. When pedestrians push the button, lights attached to signage illuminate in a flashing pattern. Tiburon should consider working with Caltrans to install rectangular rapid flashing beacons at mid-block crosswalk locations such as those along Tiburon Boulevard while also taking into account the frequency of beacons along a given corridor.

4.2.5 Curb Extensions

Curb extensions, also called "bulb-outs" to describe their shape, are engineering improvements intended to reduce pedestrian crossing distance and increase visibility. In addition to shortening the crosswalk distance, curb extensions serve to increase pedestrian visibility by allowing pedestrians to safely step out to the edge of the parking lane where they can see into the street, also making them more visible to oncoming drivers. Curb extensions can also improve safety by visually narrowing the roadway, cueing drivers to reduce their speed. Despite their advantages, curb extensions can require major re-engineering of the street, can be costly, and are not appropriate for all situations.

Tiburon should study the feasibility of coordinating with Caltrans to install curb extensions at crosswalk locations in high pedestrian use areas where appropriate.

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4.2.6 Example Priority Pedestrian Projects

The following list of pedestrian projects was developed based on past public input and the input from Staff and the POST Commission. A number of these projects are already developed and funded.

Table 4-3: Proposed Pedestrian Projects and Actions

Recommended Project	Location	Description	Estimated Cost*
Project #9: Unprotected/Mid-Block Crossing Upgrade	Tiburon Boulevard (161 feet west of Juanita Lane)	Add advanced yield lines. (Downtown Circulation and Parking Analysis – Final Report, Town of Tiburon, 2012)	$2,000
Project #10: Steps, Lanes, and Paths Top Priority Project #1	Moitoza Lane (Portion between Vistazo West Street and Esperanza Street)	There is an approximately 500 foot long stretch of public recreational trail, varying in width between four and ten feer, that is unimproved within this segment that would connect two public streets. The dirt path is narrow and uneven in places and not friendly for most users. The Town has a recent detailed topographic survey of the entire segment. Installation of a paved, safe walking path made of decomposed granite along this 500-foot stretch would complete the connection. Signage would be installed at the entrances to signify access. (Tiburon Bicycle and Pedestrian Master Plan, 2008 Update)	$100,000
Project #11: Tiburon Ridge Trail	Vicinity of Rabin Property – Town Trail	Close trail gaps such as Hacienda Gap with trail enhancements to be determined	$125,000
Project #12: Las Lomas Trail	Las Lomas Lane at Centro West Street	Weather harden existing trail	$40,000
Total			**$269,000**

* Planning level cost estimates are based on latest available actual implementation unit costs in the Bay Area, and include all design, environmental, and other costs. Many projects are undefined at this level, and the final type and scope of the project is yet to be determined. The estimates do not include any major right-of-way, environmental, or engineering costs that may be discovered in the feasibility design process. Costs from available feasibility studies are used where available.

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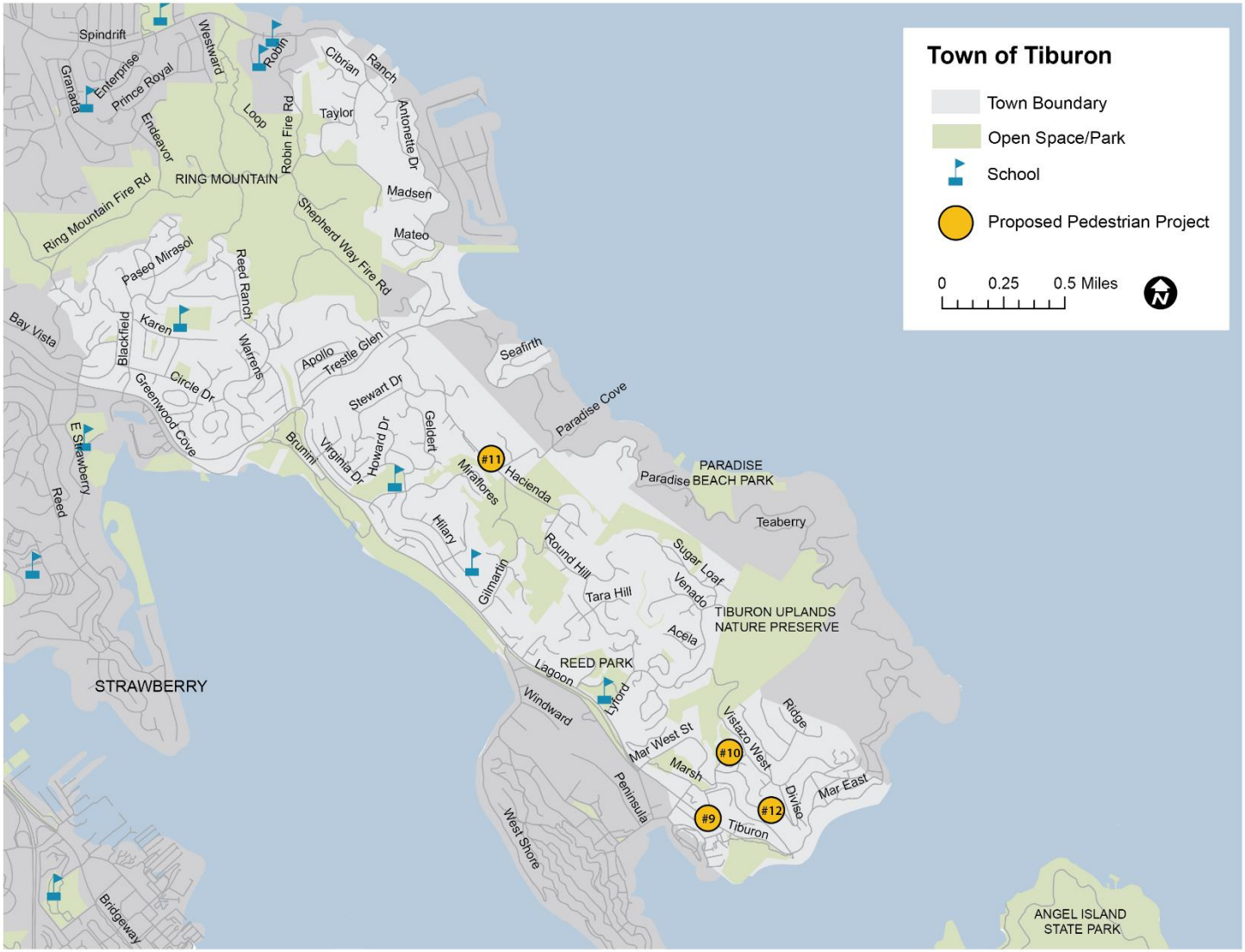
Figure 4-2: Proposed Pedestrian Projects and Actions



4.3 Recommended Policies and Programs

Supporting policies and programs are an important component of a bicycle and pedestrian transportation system. Bikeway and walkway facilities alone are not sufficient to increase bicycling and walking. Programs such as bikeway and sidewalk management and maintenance, and promotional and educational programs contribute to improved convenience and safety for pedestrians and bicyclists, and help create the cultural shift that is necessary to increase walking and bicycling as a mode of transportation. The following section includes both general and specific recommendations for programs.

4.3.1 Development and Redevelopment

One of the critical challenges of providing pedestrian and bikeway improvements is funding their construction. Private projects such as new or redevelopment and public projects such as planning Capital Improvements Projects (CIP) provide excellent opportunities for cost-effective implementation of bikeways and improved pedestrian circulation.

Tiburon should continue to require bikeway and pedestrian improvements as a condition of private redevelopment or new construction. Tiburon Bicycle and Pedestrian Master Plan and be reviewed by staff with the involvement of the POST Commission.

4.3.2 Maintenance

Maintenance is often identified as one of the chief obstacles in the implementation of local bike and pedestrian plans in Marin County. Tiburon's bikeways and walkways should be well-maintained. Some tasks, such as repairing damaged and potholed roadway surfaces, clearing plant overgrowth, and regular sweeping are associated with routine roadway maintenance. Additional care and attention should be taken to ensure bikeways and walkways are included in maintenance, such as repainting faded street lines and markings, and repositioning these lines and markings where needed. For example, street sweeping activities should include the bike lane and not transfer debris out of the roadway and into the bicycle lane or shoulder area. Other maintenance activities are bikeway specific and could include restriping lanes, repainting stencils, and replacing signs. Clearing storm debris, repairing cracks in the sidewalk and fixing trip-and-fall hazards are all typical routine sidewalk maintenance to ensure continued ADA accessibility. Roadway and other capital improvement construction projects present unique challenges for maintaining bikeways and pedestrian facilities.

4.3.2.1 "Spot improvement" Maintenance

The Town should ensure that a mechanism exists to alleviate potential hazards for bicyclists and pedestrians at specific locations. Training should be provided if necessary to ensure that public works maintenance employees recognize recurring bicycle and pedestrian issues such as:

- Improperly designed or placed drainage grates
- Cracks or seams in the pavement or sidewalk
- Overhanging tree limbs or encroaching vegetation located along bikeways and walkways
- Areas where debris accumulates in bike lanes and on sidewalks and pathways

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4.3.2.2 Integrate Maintenance into DPW Process

All printed and online bicycle education materials and maps should include the Department of Public Works maintenance request website and phone number.

4.3.3 Multi-Modal Connections

The Town of Tiburon should work with bus and ferry operators to continue to expand bicycle access to transit. Bicycle travel to transit stops and stations should be enhanced in order to make the transfer between bicycle and transit travel as convenient as possible. Key components to enhancing transit-bike connections include: providing bicycle parking at transit stops, including bike racks at key bus stops, transfer points, and the Ferry Terminal, and providing educational materials regarding transit and bikes-on-transit, including maps to and from stations and stops. Improvements to bicycle rack capacity on buses will benefit Tiburon bicyclists who take buses to the wide variety of destinations.

4.3.4 Traffic Calming

Traffic calming programs are beneficial for all roadway users, especially if programs succeed in reducing the speed differential between automobile and bicyclist travel speeds. However, if not appropriately designed, some physical traffic calming devices can present hazards for bicyclists. For example, bulb-outs or traffic islands can narrow the space between bicycles and cars and, depending the context, may compromise a bicyclist's safety if not properly designed.

All physical traffic calming solutions should take into account bicyclists' needs; incorporate design features and signage that ensure that bicyclists and motorists have enough room to share the lane; and clearly establish right-of-way priorities. In cases where bicyclists' operating space is reduced, action should be taken to clearly indicate bicyclists' recommended roadway positioning using stencils and/or signage as well as other means to increase visibility of bicyclists to motorists.

4.3.5 Education and Enforcement Programs

Most education and enforcement programs and activities will likely be cooperative efforts between the Town of Tiburon, the Tiburon Police Department, the POST Commission, the Marin County Sheriff's office, the County of Marin, the Transportation Authority of Marin, and local bicycle groups such as the Marin County Bicycle Coalition.

4.3.5.1 Continue and Expand Existing Education and Enforcement Programs

Existing school education programs should be continued. With the passage of Measure A funding for Safe Routes to Schools, the program will continue to be available to Tiburon schools and can be expanded to include non-participating schools. Measure A funding also provides Safe Pathways funding, which provides an incentive for Safe Routes programs to develop infrastructure improvement concepts.

As funding permits, the Town should consider working with law enforcement and the Marin County Bicycle Coalition to publicize MCBC's adult bicycle education and safety programs, including Share the Road, Share the Path, and Street Skills classes. The Marin County Bicycle Coalition offers Street Skills classes which can be taken as a form of "bicycle traffic school" in lieu of fines when a bicyclist receives a citation for violating traffic laws. The Town should consider working with MCBC to promote these free adult "cycling skills" classes to prevent future traffic violations and unsafe behavior. In addition, the Town

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should consider sponsoring MCBC Share the Road safety presentations to community groups. A regular Share the Path outreach effort could be developed in partnership with the POST Commission, the Tiburon Police Department, other law enforcements and MCBC, as appropriate.

In terms of other law enforcement activities, the Tiburon Police Department should consider continuing its enforcement efforts of bicycling traffic violations and officers should consider providing literature regarding bicycles and the California Vehicle Code with every citation of a bicyclist. The Tiburon Police Department, in coordination with the Safe Routes to Schools program, should consider continue traffic safety rodeos at local schools in which students are taught in a classroom setting and then led through "on-the-bike" learning exercises, in addition to other educational and encouragement programs that the Tiburon Police Department see fit.

4.3.6 Encouragement Programs

Encouragement programs are vital to the success of the Tiburon Bicycle and Pedestrian Master Plan. Encouragement programs work to get more people out of their cars and onto bicycles or walking, which will help to reduce traffic congestion and air pollution, as well as improve the quality of life in Tiburon. In addition to government efforts, involvement by the private sector in raising awareness of the benefits of bicycling and walking is important and can range from small incremental activities by local citizens, to larger coordinated efforts by established non-profit groups. Specific programs are described below.

4.3.6.1 Bike Fairs and Events

Hosting bike fairs and events in Tiburon can raise the profile of bicycling in the area and provide entertainment for all ages at the same time. Bike fairs and events, similar to bike-to-work day events and bike rodeos currently hosted in the Town, provide an opportunity to educate and encourage current and potential bicyclists. Examples include "Shop by Bike" days, when bicyclists get vouchers or coupons for use in stores, or "bicycle to the movies" days, when bicyclists receive free popcorn or a discount on a movie or refreshments.

4.3.6.2 Walking Tours and Events

Walking tours and events are an excellent way to publicize walking for recreation and transportation. Tours can showcase the Town's history and geography and take advantage of the many scenic walks in the area as well as raising awareness of the need for pedestrian improvements.

4.3.6.3 Tiburon Bicycle Route Map and Kiosks

Providing a bicycle route map is the primary tool for showing bicyclists all the designated bikeways in Tiburon and will help coordinate the Town's efforts with the County's signage project. A Bicycle Route Map of Tiburon should clearly show the type of facility (path, lane, or route) as well as include basic safety information, significant destinations, bicycle parking facilities, public bathrooms, water fountains, transit stops, and bicycle facilities in the neighboring communities. The map should clearly communicate traffic laws relevant to bicycles and the fact that Tiburon takes enforcement of those laws seriously. Posting points for the map include: Town Hall, the library, local schools, and the Ferry Terminal. Such a map could be displayed at bike shops and kiosks.

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4.3.6.4 Bike-to-Work and Bike-to-School/Walk-to-Work and Walk-to-School Days

The Town of Tiburon should consider participating in the annual Bike-to-Work day in May, in conjunction with the California and Marin County bike-to-work week activities. Town staff could help staff "energizer" stations along the typical commuter routes. The Town should also consider encouraging participation by local schools in Walk and Bike to School Day.

4.3.7 Safe Routes to Schools

Identifying and improving routes for children to walk or bicycle to school is an effective means of reducing morning traffic congestion and addressing potential safety concerns around schools. Most effective school commute programs are joint efforts of the school district and Town or County, with parent organizations adding an important element. The traffic calming, route maps and infrastructure improvements that result from an extensive Safe Routes to School plan benefit not only students walking and biking to school, but also other bicyclists and pedestrians that are using routes near schools.

The Town of Tiburon should continue its support of the Safe Routes to Schools program within the Reed Union School District. Safe Routes infrastructure improvements at local schools should be coordinated with town-wide bicycle infrastructure improvements to create a seamless network by which school-aged children can travel by bicycle and on foot.

The following five recommendations are incorporated from the Marin County Safe Routes to Schools (SR2S) Program Evaluation (2011):

- Explore options for law enforcement to develop a rotational schedule to monitor all schools, as well as other ways in which law enforcement can contribute to SR2S.
- Explore the development of Neighborhood Guides which would include route maps for bicycling and walking.
- Use social media to market the SR2S program
- Encourage students to participate in regional SR2S data clearinghouse
- Continue to conduct regular evaluations of the Marin County SR2S program

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5 Plan Implementation

This chapter identifies steps towards implementation of the proposed facilities and programs of this plan, the estimated costs for the proposed improvements and maintenance, and strategies on funding and financing.

5.1 Implementation Process

The steps between the network improvements and concepts identified in this Plan and the final completion of the improvements will vary from project to project, but typically include:

1. Adoption of the 2016 Tiburon Bicycle and Pedestrian Master Plan Update by the Tiburon Town Council.
2. Preparation of a Feasibility Study involving a conceptual design (with consideration of possible alternatives and environmental issues) and cost estimate for individual projects as needed.
3. Secure, as necessary, outside funding and any applicable environmental approvals.
4. Approval of a project by the Town Council, including the commitment by the latter to provide for any unfunded portions of project costs.
5. Completion of final plans, specifications and estimates, advertising for bids, receipt of bids and award of contract(s).
6. Construction of project.

5.2 Infrastructure Project Prioritization

Once a bikeway and pedestrian system has been identified, the next challenge is to prioritize the projects that will offer the greatest benefit to users once implemented. Tiburon projects should be prioritized according to what will bring the greatest benefit to local residents as well as serving the needs of visitors to the town such as the large numbers of bicyclists who visit to bicycle for recreational purposes along the "Paradise Loop" - Tiburon Boulevard and Paradise Drive. The project prioritization in the following section was developed through a qualitative analysis based on stated priorities of the POST Commission and Town staff, priorities communicated by the public in public meetings and workshops, priorities from the 2008 *Tiburon Bicycle and Pedestrian Master Plan* and the criteria detailed below.

- Continuity – Does the project provide new or significantly improved connectivity on established corridors or between major activity areas that does not currently exist or is not currently usable by the general public?

- Gap Closure – Does the project provide a new connection between major activity centers or on a major corridor that currently either does not exist or has convenience/safety issues?

- Demand Patterns – Does the project serve a significant existing or potential demand, as evidenced by (a) counts or observed activity, (b) comments from the public, (c) connectivity and proximity to major generators, and/or (d) projections from an acceptable demand model?

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- Safety – Does the project address a significant safety concern in a community as evidenced by collision data, field observations, and/or public perception and comments?
- Project Readiness – Are the key feasibility issues of the project (right-of-way, environmental impacts, engineering issues, cost issues, neighborhood support) understood and not expected to negatively affect or delay the project? Has any formal feasibility study, engineering or design been conducted?
- Multi-Modal Integration – Does the project provide enhanced connectivity to existing transit services?
- Cost/Benefit Analysis – Will the project provide the greatest benefit to bicyclists for the amount invested to build it?

It is important to remember that the lists of bikeway and pedestrian projects and programs are flexible concepts that serve as guidelines to those responsible for implementation. The project priorities, and perhaps even the overall system and segments themselves, may change over time as a result of changing bicycling and walking patterns and implementation constraints and opportunities. Project prioritization is not meant as an absolute value, rather as an indication of projects' relative importance only. These priorities should be considered a "living document". The POST Commission and Town staff should review the project priorities on an annual basis to ensure that it reflects the most current priorities, needs, and opportunities for implementing the bikeway and pedestrian network in a logical and efficient manner, and that in particular the list takes advantage of all available funding opportunities and grant cycles. As projects are implemented and taken off the list, new projects should be moved up in status.

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5.3 Bicycle Project Prioritization (Highest Priority to Lowest Priority):

- Project #3 – Greenwood Beach Road from Town/County Boundary (approximately 150 feet south of Barbaree Way) to Blackie's Grove
- Project #7 – Tiburon Boulevard from Town limits to Trestle Glen Boulevard
- Project #1 – Blackie's Pasture Connection from Blackie's Grove to Blackie's Pasture
- Project #2 – Tiburon Boulevard at Blackfield Drive/Greenwood Cove Drive
- Project #5 –Tiburon Boulevard from Mar West Street to Lagoon Road/Cove Road
- Project #6 –Paradise Drive from Mar West Street to East Town Limit
- Project #4 – Trestle Glen Boulevard from Tiburon Boulevard to Paradise Drive

5.4 Pedestrian Project Prioritization (Highest Priority to Lowest Priority):

- Project #9 – Unprotected/Mid-Block Crossing Upgrade at Tiburon Boulevard (161 feet west of Juanita Lane)
- Project #11 – Tiburon Ridge Trail at Rabin Property - Town Trail
- Project #10 – Steps, Lanes, and Paths Top Priority Project #1 at Moitoza Lane (Portion between Vistazo West Street and Esperanza Street)
- Project #12 – Las Lomas Trail from Las Lomas Lane to Centro West Street

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5.5 Maintenance

Additional maintenance costs for the bikeway and pedestrian network will involve surface maintenance of new paved Class I pathway and walkway facilities. In addition, bicycle lanes and crosswalks will require periodic restriping. Improvements such as in-pavement or overhead pedestrian flashers may have additional unique maintenance needs. As part of routine maintenance, extra emphasis should be put on keeping the bike lanes, bike paths, roadway shoulders, sidewalks, and walkways clear of debris and vegetation overgrowth.

5.6 Marketing the Bicycle and Pedestrian Master Plan

The success of the Tiburon Bicycle and Pedestrian Master Plan depends largely on the community's acceptance and promotion of the Plan's contents. Town departments and commissions should incorporate the policies, objectives and spirit of the Bicycle and Pedestrian Master Plan into their respective projects and responsibilities. The following steps will help ensure the plan becomes a living document, helping shape Tiburon's future.

- Distribute copies of the Plan to members of the POST Commission, Planning Commission, Design Review Board, and other commissions as appropriate.
- Distribute copies of the Plan to Town of Tiburon's Planning, Police, and Public Works Departments.
- Provide copies of the Town of Tiburon bicycle facilities map to local schools, bicycle and recreational groups, transit agencies, bicycle shops, and major employers.
- Post the plan on the Town's website.
- Publish a press release about the creation of the plan.
- Provide a copy of Tiburon Bicycle and Pedestrian Master Plan to the public library.

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Appendix A: Funding Opportunities

This chapter provides information on potential funding sources for bicycle and pedestrian improvements. Federal, state, and local government agencies invest billions of dollars every year in the nation's transportation system. Only a fraction of that funding is used in development projects, policy development and planning to improve conditions for pedestrians and bicyclists. Even though appropriate funds are limited and involve a competitive process, they are available. The most commonly accessed funds for bicycle and pedestrian projects in Marin County include MTC's One Bay Area Grant Program, Caltrans' Active Transportation Program, and Bay Area Air Quality Management District's (BAAQMD) Transportation Fund for Clean Air (TFCA). Descriptions of these programs, as well as additional funding sources that communities can monitor and may provide future opportunities, are provided below.

5.7 Federal Sources

Transportation Investments Generating Economic Recovery

The Transportation Investment Generating Economic Recovery (TIGER Discretionary Grant Program) provides a unique opportunity for the U.S. Department of Transportation to invest in road, rail, transit and port projects that promise to achieve critical national objectives. The U.S. Congress has dedicated more than $4.1 billion to the program since inception: $1.5 billion for TIGER I, $600.0 million for TIGER II, $526.9 million for FY2011, $500.0 million for FY2012, $473.8 million for FY2013, and $600.0 million for the FY2014 round to fund projects that have a significant impact on the nation, a region or a metropolitan area. The TIGER Discretionary Grant Program's highly competitive process, galvanized by tremendous applicant interest, has allowed USDOT to fund 271 innovative capital projects throughout the nation. Each project is multi-modal, multi-jurisdictional or otherwise challenging to fund through existing programs. The TIGER Discretionary Grant Program enables USDOT to use a rigorous process to select projects with exceptional benefits, explore ways to deliver projects faster and save on construction costs, and make investments in the nation's infrastructure that make communities more livable and sustainable. Many awards have been made to construct bicycle and pedestrian infrastructure, including projects in Atlanta, GA, Birmingham, AL, Fresno, Indianapolis, IN, and Philadelphia, PA.

Partnership for Sustainable Communities

Founded in 2009, the Partnership for Sustainable Communities is a joint project of the Environmental Protection Agency (EPA), the U.S. Department of Housing and Urban Development (HUD), and the U.S. Department of Transportation (USDOT). The partnership aims to "improve access to affordable housing, provide more transportation options, and lower transportation costs while protecting the environment in communities nationwide." The Partnership is based on five Livability Principles, one of which explicitly addresses the need for bicycle and pedestrian infrastructure - "Provide more transportation choices: Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health." The Partnership is not a formal agency with a regular annual grant program. Nevertheless, it is an important effort that has already led to some new grant opportunities

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(including the TIGER grants). MCOG and Caltrans should track Partnership communications and be prepared to respond proactively to announcements of new grant programs.

More information: http://www.epa.gov/smartgrowth/partnership/

Rivers, Trails, and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is the community assistance arm of the National Park Service. RTCA provides technical assistance to communities in order to preserve open space and develop trails. The assistance that RTCA provides is not for infrastructure, but rather building plans, engaging public participation, and identifying other sources of funding for conversation and outdoor recreation projects.

More information: http://www.nps.gov/pwro/rtca/who-we-are.htm

Community Development Block Grants

The Community Development Block Grants (CDBG) program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal CDBG grantees may "use Community Development Block Grant funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grant funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs." Trails and greenway projects that enhance accessibility are the best fit for this funding source. CDBG funds could also be used to write ADA Transition Plans. *More information: www.hud.gov/cdbg*

Community Transformation Grants

Community Transformation Grants administered through the Centers for Disease Control (CDC) support community–level efforts to reduce chronic diseases such as heart disease, cancer, stroke, and diabetes. Active transportation infrastructure and programs that promote healthy lifestyles are a good fit for this program, particularly if such improvements benefit groups experiencing the greatest burden of chronic disease.

More information: http://www.cdc.gov/communitytransformation/

National Scenic Byways Program

The Federal Highway Administration (FHWA), part of the USDOT manages the National Scenic Byways Grant Program, which recognizes roads having outstanding scenic, historic, cultural, natural, recreational, and archaeological qualities by providing grants that support projects that manage and protect these roads and improve visitor facilities.

More information: ***http://www.fhwa.dot.gov/discretionary/2012nsbp.cfm***

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Federal Recovery Act State Fiscal Stabilization Funding

As part of the Federal Recovery Act of 2009, states will be receiving $53.6 billion in state fiscal stabilization funding. States must use 18.2% of their funding – or $9.7 billion – for public safety and government services. An eligible activity under this section is to provide funding to K-12 schools and institutions of higher education to make repairs, modernize, and make renovations to meet green building standards. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), addresses green standards for schools that include bicycle and pedestrian facilities and access to schools. Another $5.0 billion is provided for the Energy Efficiency and Conservation Block Grant Program. This provides formula funding to cities, counties and states to undertake a range of energy efficiency activities. One eligible use of funding is for bicycle and pedestrian infrastructure.

More information: http://www2.ed.gov/policy/gen/leg/recovery/factsheet/stabilization-fund.html

5.8 State Sources

5.8.1 Active Transportation Program

With the consolidation of federal funding sources in MAP-21 (and now through the FAST Act), the California State Legislature has moved to consolidate a number of state-funded programs centered on active transportation into a single program. The resulting Active Transportation Program (ATP) will consolidate the federal programs, Bicycle Transportation Account, the Safe Routes to Schools Program, and the Recreational Trails Program. The ATP's authorizing legislation (signed into law by the Governor on September 26, 2013) also includes placeholder language to allow the ATP to receive funding from the newly established Cap-and-Trade Program in the future. The Statewide Competitive ATP will have $180 million available statewide for the 2014/2015 and 2015/2016 fiscal cycles. The Regional Competitive ATP will have $30 million available for the Metropolitan Transportation Commission (MTC) region 2014/2015 and 2015/2016 fiscal cycles. The California Transportation Commission writes guidelines and allocates funds for the ATP, while the ATP will be administered by the Caltrans Division of Local Assistance. Goals of the ATP are currently defined as the following:

- Increasing the proportion of trips accomplished by biking and walking;
- Increasing safety and mobility for active transportation users;
- Advancing active transportation efforts of regional agencies to achieve the greenhouse gas reduction goals;
- Enhancing public health;
- Ensuring that disadvantaged communities fully share in the benefit of the program; and,
- Providing a broad spectrum of projects to benefit many types of active transportation users.

More information: http://www.dot.ca.gov/hq/LocalPrograms/atp/index.html

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5.8.2 Caltrans Planning Grants

Caltrans also administers the Transportation Planning Grant Program that funds projects to improve mobility. In the past year, Caltrans awarded $10.0 million in grant funding to 70 applicants, in two sub-categories: Environmental Justice grants and Community Based Transportation Plan grants.

More information: http://www.dot.ca.gov/hq/tpp/grants.html

5.8.3 Community Based Transportation Planning Grant Program

The Community Based Transportation Planning (CBTP) grant program promotes transportation and land use planning projects that encourage community involvement and partnership. These grants include community and key stakeholder input, collaboration, and consensus building through an active public engagement process. CBTP grants support livable and sustainable community concepts with a transportation or mobility objective to promote community identity and quality of life.

More information: http://www.dot.ca.gov/hq/tpp/offices/ocp/completed_projects_cbtp.html

5.8.4 Office of Traffic Safety Grants

The Office of Traffic Safety (OTS) distributes grants statewide to establish new traffic safety programs or fund ongoing safety programs. OTS grants are supported by federal funding under the National Highway Safety Act and MAP-21. Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Bicycle safety is included in the list of traffic safety priority areas. Eligible grantees are governmental agencies, state colleges, state universities, local town and county government agencies, school districts, fire departments, and public emergency services providers. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation, or construction. Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include potential traffic safety impact, collision statistics and rankings, seriousness of problems, and performance on previous OTS grants. The California application deadline is January of each year. There is no maximum cap to the amount requested; however, all items in the proposal must be justified to meet the objectives of the proposal.

OTS grantees conduct traffic safety rodeos for elementary, middle, and high schools, as well as community groups in an effort to increase awareness among various age groups. To boost compliance with the law and decrease injuries, safety helmets are properly fitted and distributed to children in need. Court diversion courses may be established in communities for those violating the bicycle helmet law. Other programs target high-risk populations and areas with multicultural public education addressing safer driving, bicycling, or walking behaviors.

In 2014, OTS helped fund the Santa Cruz County Public Health Department's partnership with CHP, Friday Night, and numerous community agencies to prove teen driver, child passenger, bicycle, and pedestrian safety educational activities. The department conducted 29 bicycle and safety presentations reaching 629 people, 16 trainings and community events impacting 943 people, and distributed 620 helmets and 50 sets of safety lights/reflector sets to residents.

More information: http://www.ots.ca.gov/Grants/Apply/default.asp

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5.8.5 Land and Water Conservation Fund

The Land and Water Conservation Fund is a federal program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The fund is administered by the California State Parks Department. Cities, counties, and districts authorized to acquire and develop park and recreation space are eligible for grant funding. While non-profits are ineligible, they are allowed to apply in partnerships with eligible agencies. Applicants must fund the project entirely and will be reimbursed for half of the cost. Up to $2.0 million was available in California in the 2012 round of grant funding.

More Information: http://www.parks.ca.gov/?Page_id=21360

5.9 Regional & Local Sources

5.9.1 Developer Impact Fees

As a condition for development approval, municipalities can require developers to provide certain infrastructure improvements, which can include bikeway projects. These projects have commonly provided Class II facilities for portions of on-street, previously-planned routes. They can also be used to provide bicycle parking or shower and locker facilities. The type of facility that should be required to be built by developers should reflect the greatest need for the particular project and its local area. Legal challenges to these types of fees have resulted in the requirement to illustrate a clear nexus between the particular project and the mandated improvement and cost.

5.9.2 Roadway Construction, Repair and Upgrade

Future road widening and construction projects are one means of providing improved pedestrian and bicycle facilities. To ensure that roadway construction projects provide these facilities where needed, it is important that the review process includes input pertaining to consistency with the proposed system. In addition, California's 2008 Complete Streets Act and Caltrans's Deputy Directive 64 require that the needs of all roadway users be considered during "all phases of state highway projects, from planning to construction to maintenance and repair."

More information: http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html

5.9.3 Utility Projects

By monitoring the capital improvement plans of local utility companies, it may be possible to coordinate upcoming utility projects with the installation of bicycle and pedestrian infrastructure within the same area or corridor. Often times, the utility companies will mobilize the same type of forces required to construct bikeways and sidewalks, resulting in the potential for a significant cost savings. These types of joint projects require a great deal of coordination, a careful delineation of scope items and some type of agreement or memorandum of understanding, which may need to be approved by multiple governing bodies.

5.9.4 Cable Installation Projects

Cable television and telephone companies sometimes need new cable routes within public right-of-way. Recently, this has most commonly occurred during expansion of fiber optic networks. Since these projects require a significant amount of advance planning and disruption of curb lanes, it may be possible to request reimbursement for affected bicycle facilities to mitigate construction impacts. In cases where cable routes

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cross undeveloped areas, it may be possible to provide for new bikeway facilities following completion of the cable trenching, such as sharing the use of maintenance roads.

5.9.5 Marin County Measure A

A one-quarter cent retail transactions and use tax passed as Measure A in November 2012 to care for Marin's existing parks and open spaces, support regional community parks projects and programs, and further farmland preservation. An expenditure plan guides the use of the funds, as follows:

- 65 percent will be used by Marin County Parks to restore natural resources, maintain county parks and open space preserves, restore and improve public access, and protect natural lands.
- 20 percent will be dedicated to saving family farms and ranches through the purchase of agricultural conservation easements in voluntary transactions and landowners.
- 15 percent will be used by cities, towns, and applicable special districts to enhance and manage parks, nature preserves, recreation programs, and vegetation to reduce wildfire risk.

Several grant programs have been established to distribute funds including the Breathe/Respira Community Grant Program, Marin County Park and Open Space Program, and the City, Town, and Special District Program.

More information: http://www.marincountyparks.org/depts/pk/about-us/main/measurea

5.9.6 BAAQMD Grants

The Bay Area Air Quality Management District (BAAQMD) established several grant programs aimed at reducing emissions of oxides of nitrogen, reactive organic gasses, and particulate matter.

- Transportation Fund for Clean Air (TFCA) – provides grants to projects that implement the most cost-effective projects in the Bay Area that will decrease motor vehicle emissions, and thereby improve air quality. Projects must be consistent with the 1988 California Clean Air Act and the Bay Area Ozone Strategy.
- Environmental Justice Small Grants Program – provides up to $20,000 in grants to eligible community-based grassroots organizations and federally recognized tribal governments that are located in areas adversely affected by environmental pollution and hazards and are involved in addressing environmental justice concerns.

More information: *http://www.baaqmd.gov/Divisions/Strategic-Incentives/Funding-Sources.aspx*

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5.9.7 MTC Grants

The One Bay Area Grant Program (OBAG) established program commitments and policies for investing roughly $800 million over the four-year Cycle 2 period (FY's 2012-13 through 2015-16), funded by federal funds authorized by Congress in Moving Ahead for Progress in the 21st Century (MAP 21).

OBAG is a new funding approach that integrates the region's federal transportation program with California's climate law (Senate Bill 375, Steinberg, 2008) and the Sustainable Communities Strategy. Funding distribution to the counties will consider progress toward achieving local land use and housing policies by:

- Rewarding jurisdictions that accept housing allocations through the Regional Housing Need Allocation (RHNA) process and produce housing using transportation dollars as incentives.
- Supporting the Sustainable Communities Strategy for the Bay Area by promoting transportation investments in Priority Development Areas (PDAs) and by initiating a pilot program that will support open space preservation in Priority Conservation Areas (PCAs) such as the Tiburon Ridge Lands
- Providing a higher proportion of funding to local agencies and additional investment flexibility by eliminating required program investment targets. The OBAG program allows flexibility to invest in transportation categories such as Transportation for Livable Communities, bicycle and pedestrian improvements, local streets and roads preservation, and planning activities, while also providing specific funding opportunities for Safe Routes to Schools (SR2s) and Priority Conservation Areas.

More information: *http://www.mtc.ca.gov/funding/onebayarea/*

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5.10 Private Sources

Private funding sources can be acquired by applying through the advocacy groups such as the League of American Bicyclists and the Bikes Belong Coalition. Most of the private funding comes from foundations seeking to enhance and improve bicycle facilities and advocacy. Grant applications will typically be through the advocacy groups as they leverage funding from federal, state and private sources. Following are several examples of private funding opportunities available.

5.10.1 PeopleForBikes Community Grant Program

PeopleForBikes (FKA Bikes Belong) is a coalition of bicycle suppliers and retailers that has awarded $2.5 million in grants and leveraged an additional $650.0 million since its inception in 1999. The program funds small corridor improvements, mountain bike trails, BMX parks, trail, and park access. PeopleForBikes also administers the Green Lane Project, which is a technical support and peer exchange program for U.S. cities working on the installation of protected bicycle lanes and cycle tracks. PeopleForBikes is funded through private donations.

More information: http://www.peopleforbikes.org/pages/community-grants

5.10.2 The Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation was established as a national philanthropy in 1972, and today, it is the largest U.S. foundation devoted to improving the health and health care of all Americans. Grant making is concentrated in four areas:

- To assure that all Americans have access to basic health care at a reasonable cost
- To improve care and support for people with chronic health conditions
- To promote healthy communities and lifestyles
- To reduce the personal, social and economic harm caused by substance abuse: tobacco, alcohol, and illicit drugs

More information: http://www.rwjf.org/applications/

5.10.3 The Kodak American Greenways Program

The Conservation Fund's American Greenways Program has teamed with the Eastman Kodak Corporation and the National Geographic Society to award small grants ($250 to $2,000) to stimulate the planning, design and development of greenways. These grants can be used for activities such as mapping, conducting ecological assessments, surveying land, holding conferences, developing brochures, producing interpretive displays, incorporating land trusts, and building trails. Grants cannot be used for academic research, institutional support, lobbying or political activities.

More information: http://www.conservationfund.org

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5.10.4 Community Action for a Renewed Environment (CARE)

CARE is a competitive grant program that offers an innovative way for a community to organize and take action to re-duce toxic pollution in its local environment. Through CARE, a community creates a partnership that implements solutions to reduce releases of toxic pollutants and minimize people's exposure to them. By providing financial and technical assistance, EPA helps CARE communities get on the path to a renewed environment. Transportation and "smart-growth" types of projects are eligible. Grants range between $90,000 and $275,000.

More information: http://www.epa.gov/care/

5.10.5 Corporate Donations

Corporate donations are often received in the form of liquid investments (i.e. cash, stock, bonds) and in the form of land. Employers recognize that creating places to bike and walk is one way to build community and attract a quality work force. Bicycling and outdoor recreation businesses often support local projects and programs. Municipalities typically create funds to facilitate and simplify a transaction from a corporation's donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented. Such donations can improve capital budgets and/or projects.

5.11 Other Sources

Local sales taxes, fees and permits may be implemented as new funding sources for pedestrian and bicycling projects, such as Measure A approved by voters in 2004. However, any of these potential sources would require a local election. Volunteer programs may be developed to substantially reduce the cost of implementing some routes, particularly multi-use paths. For example, a local college design class may use such a multi-use route as a student project, working with a local landscape architectural or engineering firm. Work parties could be formed to help clear the right of way for the route. A local construction company may donate or discount services beyond what the volunteers can do. A challenge grant program with local businesses may be a good source of local funding, in which the businesses can "adopt" a route or segment of one to help construct and maintain it.

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Appendix B: Bicycle and Pedestrian Policies

Tiburon 2020 (2016)

- **C-1 Right-of-Ways.** The Town shall preserve and manage rights-of-way consistent with the goal to provide Complete Streets, and the Town's goals for preserving residential quality of life and aesthetics.
- **C-2 Emergency Services.** The Town shall prioritize emergency service needs when developing transportation plans and making transportation network changes.
- **C-3 Facilities and Infrastructure.** The Town shall prioritize the maintenance and operation of the existing transportation network over major expansions to the transportation network when investing discretionary revenue.
- **C-4 Multimodal Choices**. The Town shall strive to achieve an integrated, multimodal transportation system that improves the attractiveness of walking, bicycling, and riding transit. This would increase travel choices and aid in achieving a more balanced transportation system, thereby reducing air pollution and greenhouse gas emissions.
- **C-5 Multimodal Access**. The Town shall facilitate multimodal access along appropriate corridors, to major facilities destinations such as Blackie's Pasture, schools, and Downtown Tiburon.
- **C-6 Eliminate Gaps.** The Town shall eliminate "gaps" in bikeways and pedestrian networks where feasible and appropriate.
- **C-7 Improve Transit Access.** The Town shall support Marin Transit and the Golden Gate Bridge, Highway and Transportation District in addressing identified gaps in public transit networks by working together to appropriately locate passenger facilities and stations, providing and maintaining pedestrian walkways and bicycle access to transit stations and stops, and dedicating public rights of way as necessary for transit stops.
- **C-8 Barrier Removal for Accessibility.** The Town shall remove barriers, where feasible, to allow people of all abilities to move freely and efficiently throughout the Planning Area, with the highest priority given to areas that are near Downtown or in other flat areas.
- **C-9 Connections to Transit Stations.** The Town shall work to ensure adequate connections to transit stations by identifying, prioritizing, and seeking funding to plan and construct roadway, bikeway, and pedestrian improvements within ½ mile of existing and planned transit stations. Such improvements shall emphasize the development of complete streets.
- **C-11 Transportation Impacts of Land Use.** Land use decisions shall take into consideration potential multimodal access and automobile traffic impacts.
- **C-12 Transportation Mitigation Fee.** All new projects shall be required to pay a pro rata share of needed multimodal access improvements (a transportation mitigation fee) in accordance with the burden created by such new projects.
- **C-13 Updating the Transportation Mitigation Fee.** The transportation mitigation fee program shall be periodically reviewed and updated to ensure that it continues to provide funds for addressing multimodal transportation impacts generated by new projects.

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- **C-14 Level of Service.** For signalized intersections in the Tiburon Planning Area, the Town shall strive to achieve and maintain the average peak hour level of service (LOS) at LOS C, with the exception of:
- Intersections from U.S. Highway 101 interchange to E. Strawberry Drive/Bay Vista Drive (inclusive), which the Town shall strive to achieve and maintain at LOS D.
- Locations where Complete Streets roadway engineering improvements are necessary to ensure safe access for pedestrians and bicyclists, which shall be evaluated on a case-by-case basis, weighing safety with traffic delay considerations.
- The Town acknowledges that actual conditions may not meet the above LOS levels during certain peak periods.
- **C-15 Traffic signals.** At such time as any unsignalized intersection along Tiburon Boulevard meets signal warrants, the Town shall approach Caltrans to approve and/or provide signalization or other appropriate improvements.
- **C-16 Congestion Management Plan.** The Town shall comply with the Transportation Authority of Marin's Congestion Management Plan (CMP), including adopting and monitoring the level of service (LOS) of the CMP network. As of 2015, the CMP LOS standards are LOS E for U.S. Highway 101 during the P.M. peak hour and LOS D for Tiburon Boulevard during the P.M. peak hour.
- **C-19 Tiburon Ridge and Significant Ridgelines.** In connection with the ridgeline policies of the Open Space & Conservation Element, the Town shall ensure that no new streets, driveways, or utilities are installed along or over the Tiburon Ridge or Significant Ridgelines except for the use of emergency services, or where no other access is viable.
- **C-20 Traffic Calming Measures.** The Town should consider traffic calming measures, where safe, warranted, and appropriate given topographical and other physical conditions, to increase safety in residential areas by reducing vehicle speeds and volumes and encouraging walking and bicycling. Specific measures may include, but are not limited to, marked crosswalks, curb extensions, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts, traffic circles, on-street parking, planter strips with street trees, chicanes, and other geometric design features.
- **C-23 Accommodate All Users.** The Town shall ensure that, where feasible and appropriate, all new roadway projects and any reconstruction projects designate sufficient travel space for all users including bicyclists, pedestrians, transit riders, and motorists except where pedestrians and bicyclists are prohibited by law from using a given facility.
- **C-24 Pedestrian and Bicycle-Friendly Streets.** The Town shall ensure that all street construction projects support pedestrian travel. Improvements may include sidewalks, roundabouts, traffic circles, narrow lanes and other traffic calming devices, target speeds less than 35 miles per hour, street trees, high-visibility pedestrian crossings, and bikeways.
- **C-25 Identify and Fill Gaps in Complete Streets.** The Town shall identify streets that can be made more "complete" through a reduction in the width of travel lanes, with consideration for emergency vehicle operations. The Town shall consider including new bikeways, sidewalks, and on-street parking on these streets by re-arranging and/or re-allocating how the available space within the public right of way is utilized. All new street configurations shall provide for adequate

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emergency vehicle operation. The Town shall explore the addition or enhancement of crosswalks on Tiburon Boulevard at key locations in conjunction with safety improvements to ensure that vehicular collisions with pedestrians are reduced.

- **C-26 Roadway Classification.** Tiburon Boulevard has three distinction segments, and future design treatments should reflect the character of each segment. Between Highway 101 and Trestle Glen Boulevard, Tiburon Boulevard is classified as a major arterial with priority for vehicle movement. Between Trestle Glen Boulevard and Mar West Street, Tiburon Boulevard is classified as a minor arterial with consideration for both vehicle traffic and the need for residential access as well as biking and walking. From Mar West Street to Ferry Plaza, Tiburon Boulevard is classified as a downtown thoroughfare (a type of local street), with priority given to pedestrians and bicyclists.
- **C-27 Curb Cuts.** Additional curb cuts should be discouraged on Tiburon Boulevard except where other access points are not feasible or if necessary for emergency vehicle access. Unnecessary curb cuts should be eliminated.
- **C-28 Parking Lot Frontages.** The Town should discourage parking lots that have substantial frontage on Tiburon Boulevard. Consistent with Downtown Element policies, such parking lots should be located in the rear of buildings to the extent possible. Parking lots should also be screened by buffers or berms where feasible.
- **C-29 Parking.** Tiburon Boulevard between Rock Hill Road and San Rafael Avenue should remain free from parking on the water side to enhance and preserve views and the experience of a landscaped waterfront drive.
- **C-30 Water Views.** Water views for pedestrians and drivers shall not be obscured. Overgrown planting shall be trimmed to frame, rather than block, views for pedestrians and drivers to the maximum extent feasible. The Town shall consider approving selective removal or thinning of undesirable trees that block water views.
- **C-31 Access.** The Town shall attempt to work with the County of Marin to secure safe and reliable access for all users to and from the northeastern side of the Tiburon Peninsula along Paradise Drive. Due to the very high maintenance costs associated with Paradise Drive, the Town will avoid taking on the burden of maintaining additional portions of Paradise Drive unless a suitable and stable ongoing source of funding is established.
- **C-32 Views.** Scenic views from Paradise Drive shall be preserved wherever possible.
- **C-33 Overlooks.** Where appropriate, scenic overlooks should be established along Paradise Drive.
- **C-34 Driveways and Roadways.** New driveways and roadways intersecting Paradise Drive shall be kept to the minimum number possible and be situated in safe locations. To meet this objective, to the extent feasible, multiple residences shall be served by a single access from Paradise Drive.
- **C-35 Turn-Outs and Widened Shoulders.** Turn-outs and widened shoulders on Paradise Drive should be created where possible to protect
- **C-37 Bicycle Safety for Children.** School-related congestion increased noticeably on Tiburon Boulevard in recent years, reflecting a large jump in school enrollment at the Reed Union School District. To reduce single-child automobile trips to schools, the Town shall support

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infrastructure improvements and programs that encourage children to bike and/or walk safely to school, or ride a bus. This includes installation of sidewalks in critical areas where feasible.

- **C-38 Countdown Pedestrian Signals.** The Town supports, where warranted, the replacement by Caltrans of pedestrian traffic signals with "countdown-style" pedestrian signals, which inform pedestrians of the number of seconds remaining to cross safely.
- **C-39 Trail Connections.** The pedestrian paths, trails and bicycle lanes in Tiburon should connect with other paths and trails where practical.
- **C-40 Bike Facilities.** Bicycle facilities, including bike racks, shall be included as part of new public and commercial projects, particularly in Downtown Tiburon.
- **C-41 Pedestrian Streets.** Pedestrian routes, particularly for school children, shall be established for all neighborhoods where feasible and appropriate. The Town shall require that pedestrian-oriented streets be designed to provide a pleasant environment for walking and other desirable uses of public space, including such elements as shade trees; plantings; and wayfinding signage where appropriate. Pedestrian routes shall include safe crossings at major intersections.
- **C-42 Speed Management Policies.** The Town shall develop and implement speed management policies that support driving speeds that are safe for pedestrians and bicyclists, including consideration of bicycle riding speed limits on Old Rail Trail.
- **C-43 Bicycle and Pedestrian Master Plan.** In developing capital improvement budgets, the Town shall use the Bicycle and Pedestrian Master Plan as a guide for prioritizing bicycle and pedestrian improvements. New development shall be consistent with applicable provisions of the Bicycle and Pedestrian Master Plan.
- **C-44 Bay Trail.** The Town supports the completion and maintenance of the Bay Trail.
- **C-45 Old Rail Trail Multi-Use Path.** The Town shall monitor Old Rail Trail and consider periodic improvements that would enhance the safety of its users. The Town shall continue to encourage low to moderate bike speeds along Old Rail Trail to ensure pedestrian safety.
- **C-46 School Route Maps.** The Town shall work with local schools to develop maps detailing the safest routes for children to walk and bicycle to school, including trails and other shortcuts.
- **C-57 Provide Alternatives to Single-child Autos for School Trips.** The Town shall seek to reduce the number of auto trips made by parents who are picking-up and dropping-off children at local schools by supporting programs that provide viable and attractive alternatives to driving children to school.
- **C-58 Employer Incentives for Alternative Transportation Modes.** The Town shall coordinate with the Transportation Authority of Marin to encourage employers to work together to identify programs that provide incentives for employees to use alternative transportation modes, including carpools.
- **PROGRAM C-e Bay Trail Funding.** The Town shall use the designation of Paradise Drive as part of the Bay Trail as a tool in applying for improvement funding for the road.
- **PROGRAM C-f Increase Connectivity in the Downtown**. Improve pedestrian connectivity, linkages and ease of movement throughout the Downtown area through various physical and signage improvements.
- **PROGRAM C-g Bicycle and Pedestrian Master Plan.** The Town shall review and update its Bicycle and Pedestrian Master Plan periodically, and revise the list of improvements and actions

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called for in the Master Plan when implementation of adopted improvements has occurred, and/or when conditions warrant.

- **PROGRAM C-h Bay Trail Improvement.** The Town will work cooperatively with ABAG and neighboring jurisdictions to improve the Bay Trail around the Tiburon Peninsula.
- **PROGRAM C-k Safe Routes to School Program.** The Town shall continue to work with the Reed Union School District, Tamalpais Union High School District, St. Hilary School, and with the Transportation Authority of Marin as the administrator of the County's Safe Routes to Schools Program, to promote alternative transportation programs that reduce traffic congestion around schools. This will include improving safe access routes to school for children walking and biking, as well as developing appropriate measures identified by the Community Action to Reduce Traffic (CART) committee.

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Appendix C: Proposed Projects in Related Plans

Climate Action Plan (2011)

Climate change mitigation activities in Tiburon related to active transportation:

- Working with funding from the Safe Routes to Schools program, the Town has implemented a bicycle and pedestrian project to improve accessibility and safety surrounding Del Mar Middle School through the following improvements:
- New pedestrian bulb-out beginning at Tiburon Boulevard and extending east along the north side of Avenida Miraflores towards the Del Mar School driveway entrance.
- New crosswalks:
    - Tiburon Boulevard and Lyford Drive
    - Tiburon Boulevard and Rock Hill Drive
    - Tiburon Boulevard at Avenida Miraflores
    - Tiburon Boulevard at Pine Terrace
    - Tiburon Boulevard at Trestle Glen
    - Tiburon Boulevard at Stewart Drive
    - Avenida Miraflores at Hilary Drive
    - Avenida Miraflores at Felipa Court
    - Rowley Circle at Hilary Drive
    - Howard Drive at Hilary Drive
- Upgraded existing sidewalk ramps for ADA compliance
    - Tiburon Boulevard at Stewart Drive
    - Tiburon Boulevard at Avenida Miraflores and Pine Terrace
    - Hilary Drive at Rowley Circle
    - Avenida Miraflores at Felipa Court
    - Tiburon Boulevard at Rock Hill Drive
    - Tiburon Boulevard at Lyford Drive

Working with funding through the Non-Motorized Transportation Pilot Program, which is intended to increase the mode share of bicycling and walking for everyday transportation, the Town has made the following improvements:

- Rehabilitated the existing walking path at Lower Racoon Lane from Centro West Street to Mar West Street by upgrading the surface of the path, improving the surface drainage, adding stairs and handrails at the steepest locations, and providing new landscaping.
- Rehabilitated the existing walking path at Cayford Drive by upgrading the surface with a more stable, firm and durable surface, and provided an ADA ramp.
- Rehabilitated the pedestrian steps and walking path from Jefferson Drive to Reed Ranch Road by replacing the existing wood and asphalt steps with new concrete steps and installing new handrails.

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The Town will consider the following list of recommended actions related to active transportation:

- Make reductions in vehicle-miles traveled and the use of alternative transportation high-priority criteria in the evaluation of policy, program, and project alternatives.
- Provide and maintain Class I, II, and III bikeways as identified in the Tiburon Bicycle and Pedestrian Plan.
- Improve bicycle and pedestrian safety at intersections and install bicycle loop detectors at signalized intersections to help bicyclists trip the traffic signal.
- Implement "Complete Streets" policies to ensure the needs of bicyclists, pedestrians, and the disabled are considered in the transportation element of any new capital improvement or development project.
- Install walkways where feasible to provide a continuous pedestrian network.
- Provide bicycle racks at public destinations as identified in the Tiburon Bicycle and Pedestrian Plan.
- Provide bicycle parking at large public events.
- Encourage employers to provide secure, covered bicycle parking, as well as shower and changing facilities for employees.
- Promote "Share the Road" strategies to improve bicycle safety and improve compliance with traffic laws.
- Participate in programs that encourage bicycling and walking, such as Safe Routes to Schools programs.
- Educate residents and employees about the health and environmental benefits of walking, bicycling, taking public transit, and ridesharing, as well as provide information to assist in these modes of travel (e.g., information available in public places and employment centers regarding bus schedules, pedestrian pathways, bikeways, and ridesharing programs).
- Provide Town employees with incentives to use alternatives to single occupant auto commuting, such as transit incentives, bicycle facilities, ridesharing services and subsidies.

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Downtown Circulation and Parking Analysis (2012)

Short-term Recommendations:

- **Initiate negotiations with Caltrans concerning jurisdiction of Tiburon Boulevard in the Downtown area.** As a state highway (Highway 131), Tiburon Boulevard is currently a state-owned highway under the control of Caltrans. This designation potentially restricts future design and engineering changes to the roadway. The Town should initiate discussions with Caltrans about the transfer of jurisdiction to the local government. Establishing jurisdiction over Tiburon Boulevard would free the Town to make its own decisions about the future of the roadway.
- **Close a targeted number of driveways along Tiburon Boulevard in the Downtown area.** These driveways include: two driveways along the south side of Tiburon Boulevard between Mar West Street and the Boardwalk Shopping Center, two on the south side of Tiburon Boulevard between Beach Road and Main Street, and one on the east side of Beach Road just south of Tiburon Boulevard. The planters could be large, cast-in-place concrete planters or a series of smaller, prefabricated planters.
- **Install new high-visibility crosswalks for all mid-block crossings along Tiburon Boulevard** and add a new mid-block crossing on Tiburon Boulevard between Beach Road and Main Street. Install advance yield lines and signs at each of the mid-block crossings on Tiburon Boulevard.
- **Transition lower Main Street into a formal "shared space".** It is recommended that Lower Main Street be clearly defined as a space that is shared by all road users equally. Main Street already currently acts as an informal shared space with pedestrians often crossing at multiple points along the street while bicyclists and drivers share the limited roadway space. Officially formalizing these spatial interactions and arrangements will alert drivers to the fact that the space is used differently than other roadways in Tiburon. In addition, this recommendation can facilitate additional temporary street closures for special events. Finally, this effort would also initiate the possible transition to a full shared space, where the distinction between spaces for the different modes is completely blurred, at some point in the future.
- **Design and implement a coordinated Downtown wayfinding system.**
- **Expand bicycle parking supply and replace some existing bicycle parking facilities.** While Downtown-wide bicycle parking is not fully utilized, there are various hotspots of demand and areas of concern. This recommendation proposes various new rack locations, including some bicycle corrals in on-street parking spaces, and identifies facilities in need of replacement and/or relocation.

Long-term Recommendations:

- **Permanently close targeted driveways on Tiburon Boulevard.** Replace the planters with expansions of the existing curb and formally close any unnecessary driveways. This recommendation allows for the construction of sidewalks along these sections of roadway, thereby improving the pedestrian environment, improving traffic flow, and limiting potential points of conflict.
- **Convert the eastern section of Tiburon Boulevard into a "Main Street" with generous public space.** Install a continuous raised landscaped median on Tiburon Boulevard between Beach Road and Main Street with a median opening in front of the firehouse. Transition all

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driveways and minor roadways to right-in, right-out only, and new mid-block crossings. Remove the access lane on the south side and convert pull-in parking to reverse angle (back-in) parking. Widen the sidewalk on the southern side to replace the access lane, leaving the gutter intact. Several options could be considered for the bicycle facilities including standard bicycle lanes, buffered bike lanes (painted buffers), or cycle tracks located behind parked vehicles.

- **Consider reallocation of roadway space on Tiburon Boulevard between Mar West Street and Beach Road and installation of a new median.** This recommendation presents two different alternative concepts for Tiburon Boulevard as a means to enhance the streetscape, improve bicycle facilities, and increase parking capacity. Each alternative was designed to reallocate the right-of-way without involving significant construction costs, such as drainage system changes, moving or installing curbs, or widening the right-of-way. These options explore the potential for adding parallel parking on both sides or converting the bike lanes to a buffered bike lane. In addition, this recommendation encourages the Town to install a raised, landscaped median on Tiburon Boulevard between Mar West Street and Beach Road, transition all driveways and minor roadways to right-in, right-out only and add new mid-block crossings.
- **Replace major four-way intersections with one-way roundabouts.** Replace Tiburon Boulevard's intersections at Mar West Street and Beach Road with single-lane roundabouts. These intersections could operate more efficiently from a traffic perspective and result in fewer conflict points if replaced by roundabouts. The intersection at Mar West Street offers the greatest benefit as it would improve circulation and reduce vehicle speed as motorists enter Downtown. In addition, the roundabout at Mar West Street offers an opportunity to create a new Downtown "gateway" that identifies the area as a unique place in Tiburon.

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Tiburon Bay Trail Gap Study (2012)

Segment 1 (McKegney Green to Blackie's Pasture Parking Lot)

- **Option A:** Enhanced wayfinding signage and markings. The northern portion of the trail would be signed for westbound bicyclists and pedestrians; the southern portion would signed for eastbound bicyclists and pedestrians
    - Estimated construction cost: $30,000
- **Option B:** Enhanced wayfinding signage and markings. The northern portion of the trail would be signed as a bi-directional bikeway; the southern portion would be signed as a bi-directional pedestrian path
    - Estimated construction cost: $30,000

Segment 2 (Blackie's Pasture/Greenwood Beach Road Connection)

- **Option A:** Improve bicycle and pedestrian path along access road south of the parking lot; pave gravel shoulder that serves as on-street parking and provide a 4-foot wide striped buffer between the 10-foot wide multi-use path and the access road.
    - Parking impact: Loss of 4-5 spaces
    - Tree impact: None
    - Estimated construction cost: $40,000
- **Option B:** Improve pedestrian and bicycle path along access road south of the parking lot; pave gravel shoulder that serves as on-street parking and provide a 4-foot wide striped buffer between the 10-foot wide multi-use path and the parking aisle. Move the existing fence approximately 4 feet to the south.
    - Parking impact: None
    - Tree impact: 1 tree
    - Estimated construction costs: $50,000
- **Option C:** Route Bay Trail south of Blackie's Pasture parking lot (avoiding Blackie's Grove)
    - Parking impact: None
    - Tree impact: None
    - Trail alignment could affect the viewshed of Blackie's Grove
    - Blackie's Grove is enjoyed for passive use. Existing use of this area would be impacted by placing a trail in this location.
    - Estimated construction cost: $50,000

Segment 3 (Greenwood Beach Road from Eastern Terminus to Town/County Boundary)

- **Option A:** Striped 6-foot (+/-) bi-directional pedestrian path along the north side of Greenwood Beach Road; shared lane use arrows (sharrows). Widen travel way to 20 feet.
    - Parking impact: Some parking limitations along the north side of the road. Parking would be allowed where adequate shoulder is available (non-sloped areas) and where parking pull-outs would be provided. Parking demand on the north side of road is generally low.
    - Retaining wall: 1,600 linear feet; height varies from 0.5 to 10.1 feet (3 wall segments)

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    - Changes to the storm drain system could affect some existing vegetation that would need to be evaluated for potential wetlands; new drains may require installation of erosion filtering components if they drain directly to the Bay.
    - Estimated construction cost: $2,2450,000
- **Option B:** Raised or separated 6-foot (+/-) bi-directional pedestrian path along north side of Greenwood Beach Road (e.g., asphalt curb/berm, curb and sidewalk, colored concrete sidewalk, decomposed granite pathway with binder); sharrows. Widen travel way to 20 feet.
    - Parking impact: Some parking limitation along the north side of the road. Parking would be allowed where adequate shoulder is available (non-sloped areas) and where parking pull-outs would be provided. Parking demand on the north side of the road is generally low.
    - Retaining wall: 1,200 linear feet; height varies from 0.5 to 9.7 feet (4 wall segments)
    - Changes to the storm drain system could affect some existing vegetation that would need to be evaluated for potential wetlands; new drains may require installation of erosion filtering components if they drain directly to the Bay.
    - Estimated construction cost: $2,450,000
- **Option C:** Raised or separated 6-foot (+/-) bi-directional pedestrian path along north side of Greenwood Beach Road (e.g., asphalt curb/berm, curb and sidewalk, colored concrete sidewalk, decomposed granite pathway with binder); sharrows. Maintain 16- to 18-foot wide travel way with passing bays. Remove double yellow centerline marking and add edge lines.
    - Parking impact: Some parking limitations along the north side of the road. Parking would be allowed where adequate shoulder is available (non-sloped areas) and where parking pull-outs would be provided. Parking demand on the north side of road is generally low.
    - Retaining wall: 1,000 linear feet; height varies from 0.5 to 6 feet (2 wall segments).
    - Changes to the storm drain system could affect some existing vegetation that would need to be evaluated for potential wetlands; new drains may require installation of erosion filtering components if they drain directly to the Bay.
    - Estimated construction cost: $1,600,000

<u>Segment 3/Segment 4 (Possible Gateway Treatment)</u>

- Crosswalk and possible gateway treatment near Town/county/Audubon property for options where pedestrian path on north side on Greenwood Beach Road ends at Town/County boundary. Consider Audubon parking lot improvements where parking ingress/egress would cross the path.

<u>Segment 4 (Greenwood Cove Drive from Town/County Boundary to Tiburon Boulevard)</u>

- **Option A:** Maintain 5-foot wide sidewalk. Add sharrows.
    - Parking impact: None
    - Tree impact: None
    - Estimated construction cost: $30,000
- **Option B:** 6-foot (+/-) wide bi-directional pedestrian walkway on north side of Greenwood Cove Drive/south side of Tiburon Boulevard or between Greenwood Cove Drive and Tiburon

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Boulevard. Walkway could be a natural surface (e.g., decomposed granite with binder) or asphalt. Add sharrows.

  - Parking impact; None
  - Tree impact: up to 40 trees
  - Retaining wall at east end – 220 linear feet; height varies from 0.5 to 5.7 feet
  - Minor modifications to Tiburon Boulevard/Greenwood Cove Drive intersection
  - Estimated construction cost: $550,000

- **Option C:** 5-foot (+/-) wide bike lanes and 8-foot (+/-) wide parking aisle on south side of Greenwood Cove Drive. Two 11-foot wide vehicle travel lanes. No change to existing 5-foot wide sidewalk. Remove parking along north side of Greenwood Cove Drive.
  - Parking impact: Parking prohibited for 1,400 linear feet on north side; however, existing parking demand is limited and can be accommodated on south side of street. Any proposed parking restrictions would require approval by the County of Marin
  - Estimated construction cost: $40,000
- **Option D:** 5-foot (+/-) wide bike lanes and 8-foot (+/-) wide parking aisle on south side of Greenwood Cove Drive. Tow 11-foot wide vehicle lanes. No change to existing 5-foot wide sidewalk. Remove parking along north side of Greenwood Cove Drive. Add 6-foot walk way no north side of curb.
  - Parking impact: Parking prohibited for 1,400 linear feet on north side; however, existing parking demand is limited and be accommodated on south side of street
  - Tree impact: up to 40 trees
  - Retaining wall at east end: 220 linear feet; height varies from 0.5 to 5.7 feet
  - Minor modifications to Tiburon Boulevard/Greenwood Cove Drive intersection
  - Estimated construction cost: $550,000

<u>Segment 5 (Tiburon Boulevard from Greenwood Cove Drive to East Strawberry Drive)</u>

  - **Option A:** 8-foot (+/-) wide sidewalk along the south side of Tiburon Boulevard; maintain Caltrans shoulder. Single span bridge over slough
  - Retaining wall: 740 linear feet; height varies from 0.5 to 68 feet
  - Roadway excavation: 130 cubic yards; import: 120 cubic yards
  - Pedestrian bridge: 1
  - Tree impact: 35 to 45 trees
  - Removal of eucalyptus trees would result in some visual impact and loss of privacy and could affect nesting habitat for birds
  - Would require BMPs to avoid sedimentation entering the slough
  - A drainage plan would be required to avoid site drainage into back yards of homes
  - Minor modifications to Tiburon Boulevard/East Strawberry Drive intersection
  - Estimated construction cost: $2,100,000
- **Option B:** 12-foot (+/-) wide Class I path along the south side of Tiburon Boulevard; maintain Caltrans shoulder (path separated with barrier at highway elevation OR path below highway on bench). Single span bridge over slough.
  - Retaining wall: 740 linear feet; height varies from 0.5 to 10.7 feet

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- Roadway excavation: 80 cubic yards; import: 330 cubic yards
- Pedestrian Bridge: 1
- Tree impact: up to 45 trees
- Removal of eucalyptus trees would result in some visual impact and loss of privacy and could affect nesting habitat for birds
- Would require BMPS to avoid sedimentation entering the slough
- A drainage plan would be required to avoid site drainage into back yards of homes
- Minor modifications to Tiburon Boulevard/East Strawberry Drive intersection
- Estimated construction cost: $2,550,000

Segment 6 (San Francisco Bay Trail from Greenwood Bay Drive/Greenwood Cove Drive Intersection to Harbor Cove Way)

- **Option A:** Pavement improvements and wayfinding signage and markings.
  - Roadway excavation: 160 cubic yards
  - Estimated construction costs: $150,000

Segment 7 (Harbor Cove Way): No change

Segment 8 (Tiburon Boulevard from Blackie's Pasture Road to Greenwood Cove Drive

- Option A: 12-foot (+/-) wide Class I path along the south side of Tiburon Boulevard from Blackie's Pasture to Blackfield Drive intersection; maintains Caltrans shoulder (path separated with barrier at highway elevation OR path below highway on bench).
  - Parking impact: None
  - Retaining wall: 1,200 linear feet; height varies from 0.5 to 5.8 feet (at-grade path); 1,700 linear feet; height varies from 0.5 to 5.1 feet (lowered path)
  - Tree impact: up to 75 trees
  - Cantilever path over existing retaining wall: 100 linear feet
  - Emissions along arterial road would result in adverse conditions for many path users
  - Would require substantial grading and mitigation for erosion
  - High speed corridor would not provide a relaxing recreation amenity
  - As a commuter route, existing and projected noise levels would be tolerable for path users; as a recreation route, noise levels would deter potential path users
  - Connects Blackie's Pasture with Strawberry Drive but lacks amenities for recreation users
  - Minor modifications to Tiburon Boulevard/Greenwood Cove Drive intersection
  - Estimated construction cost: $3,000,000 (at-grade path) to $3,100,000 (lowered path)
- **Option B:** 12-foot (+/-) wide Class I path along the south side of Tiburon Boulevard from Blackie's Pasture to approximately the Town/County boundary; maintains Caltrans shoulder (path separated with barrier at highway elevation OR path below highway on bench). West of the Town/County boundary, 12-foot (+/-) wide Class I path along north side of Greenwood Cove Drive.

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- Parking impact: Parking prohibited for 1,400 linear feet on north side of Greenwood Cove Drive; however, existing parking demand is limited and can be accommodated on south side of street
- Retaining wall: 1,200 linear feet; height varies from 0.5 to 5.8 feet (at-grade path); 1,700 linear feet; height varies from 0.5 to 5.7 feet (lowered path)
- Tree impact: up to 65 trees
- Cantilever path over existing retaining wall: 100 linear feet
- Emissions along arterial road would result in adverse conditions for many path users
- Would require substantial grading and mitigation for erosion
- High speed corridor would not provide a relaxing recreation amenity
- As a commuter route, existing and projected noise levels would be tolerable for path users; as a recreation route, noise levels would deter potential path users
- Connects Blackie's Pasture with Strawberry Drive but lacks amenities for recreation users
- Minor modifications to Tiburon Boulevard/Greenwood Cove Drive intersection
- Estimated construction cost: $2,800,000 (at-grade path) to $3,000,000 (lowered path)

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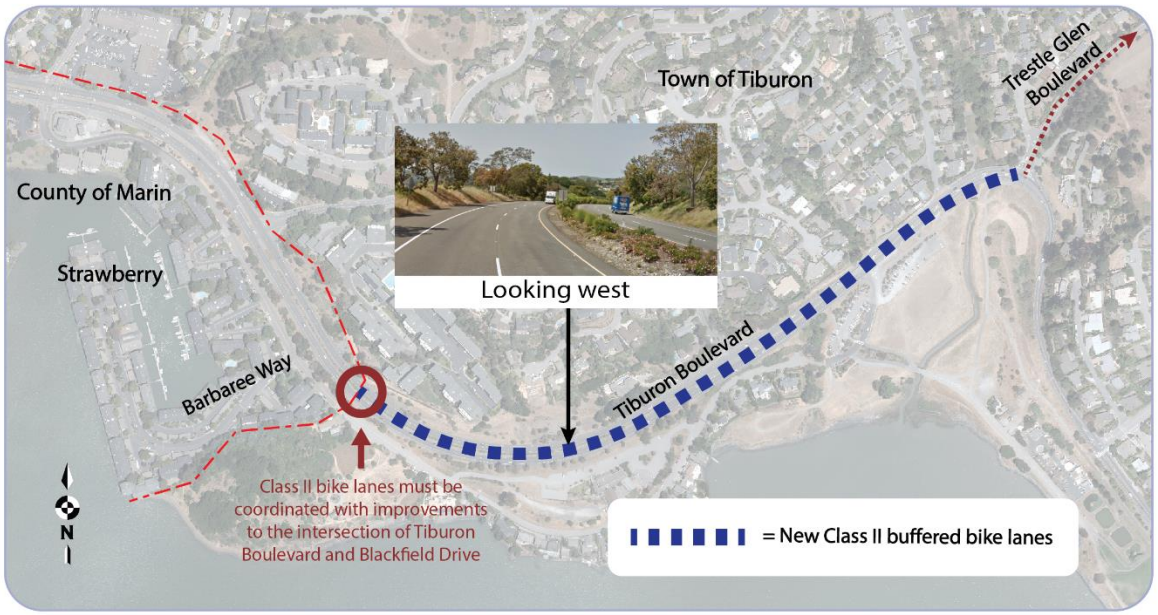
Appendix D: Project Cut Sheets

Town of Tiburon - Class II Buffered Bicycle Lanes

Tiburon Boulevard - Town/County Border to Trestle Glen Boulevard

Vicinity Map and Project Extents



Project Concept

SAMPLE CROSS SECTION: EXISTING CONDITIONS
LOOKING WEST*

SAMPLE CROSS SECTION: PROPOSED CONDITIONS
LOOKING WEST*

* Concept is preliminary in nature and shows approximate dimensions. This concept serves as an example location; roadway widths vary throughout corridor.

EXISTING CONDITIONS

Tiburon Boulevard is the main east-west arterial roadway connecting the Town of Tiburon, City of Belvedere, and Strawberry with Highway 101, Mill Valley and the rest of Marin County. It is a designated as State Route 131, and is owned and maintained by Caltrans. Tiburon Boulevard between the Town of Tiburon/Strawberry border and Trestle Glen Boulevard is a 0.58-mile four-vehicular lane boulevard which transitions to two travel lanes and center-turn pockets approximately 600 feet west of Trestle Glen Boulevard. Class III bicycle facilities exist on Trestle Glen Boulevard but have no marked connection on Tiburon Boulevard.

The roadway's travel lane shoulders in each direction are generally 8 feet wide, but vary between less than 6 feet up to 12 feet in some locations. There are no designated bicycle facilities, and high peak traffic volumes and speeds make it uncomfortable for bicyclists to ride without seperation from vehicular lanes.

PROJECT DESCRIPTION

The project would provide buffered bicycle lanes on Tiburon Boulevard between the Town of Tiburon/Strawberry border and Trestle Glen Boulevard to improve bicyclist safety and east-west bicycle network connectivity. The project would include the following:

- Provision of 5-foot wide bicycle lanes with 3-foot buffered separation from vehicular travel lanes. Where existing shoulder widths are more than 8-foot, bicycle lane widths could be increased. In spot locations where shoulder widths are less, the buffer would be decreased or removed.
- The majority of this project can be completed within existing striping alignments; in spot locations where shoulder is less than four-foot, new striping alignment will be necessary.

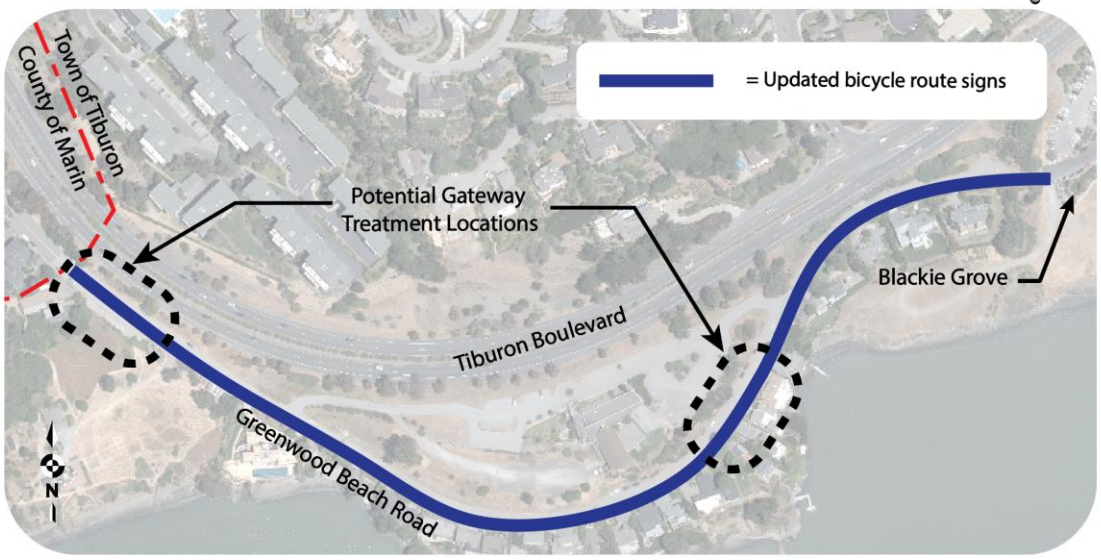
COST ESTIMATE

Design	$22,500
Environmental Planning and Permitting	$15,000
Construction Management	$12,000
Construction	$150,000
Contingency	$37,500
Total Cost	$237,000

Town of Tiburon - Class III Bicycle Route Upgrades

Greenwood Beach Road- Town/County Border to Blackie's Grove

Vicinity Map and Project Concepts



Gateway Treatment & Proposed Sign Upgrade

Stamped/textured and colored crosswalk

Monument signs and gateway structures

Proposed Bicycle Route
"SLOW ZONE" Sign

EXISTING CONDITIONS

Greenwood Beach Road is a collector street connecting to bicycle, pedestrian, and emergency access on the east and transitions into Greenwood Cove Road at the Town/County border on the west. It is part of the San Francisco Bay Trail Route and Marin County Bicycle Route 10. Numerous bicyclists travel along the route, which has residential uses along part of it. There are no traffic calming measures in place to regulate travel speeds, including for bicyclists.

PROJECT DESCRIPTION

The project would add "SLOW ZONE" signs to the existing class III bicycle route signs between the Town of Tiburon/County border and Blackie's Grove on Greenwood Beach Road to improve multimodal safety and bicyclist awareness. The project could also include a gateway treatment at the County/Town border on Greenwood Beach Road which could calm bicyclist and vehicular traffic and identify the shared nature of the road. The gateway could incorporate a Town entry monument or gateway structure, landscaping, and stamped/textured and colored pavement. Examples of these treatments are shown on the previous page.

COST ESTIMATE

Old Sign Removal, New Sign Purchase, and Installation.....$5,000

Gateway Construction.....$15,000

Pavement Treatment Feasbility Study.....$15,000

Total Cost.....$35,000

Appendix E: Town Council Adoption

DRAFT