



AIRPORT AREA BICYCLE ROUTE STUDY

EXECUTIVE SUMMARY



**NAPA COUNTY DEPARTMENT
OF PUBLIC WORKS**



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1.0 Introduction

The County of Napa is currently planning for the construction of future bicycle and pedestrian facilities to connect with existing and proposed facilities in the area between the City of Napa and the City of American Canyon, in southeastern Napa County. These bicycle and pedestrian facilities will be constructed as public infrastructure and private improvements are constructed in the area. The current study will provide the basis for the coordinated development of bicycle and pedestrian routes in this area, including the San Francisco Bay Trail route. This work is funded by a grant from the National Oceanic and Atmospheric Administration's Coastal Impact Assistance Program.

1.1 Study Objectives

The study objective is to determine the most cost effective bicycle and pedestrian routes through the City of Napa and the unincorporated area of Napa County from Streblow Drive south to Green Island Road (see Figure 1: Study Area) with the goal of connecting to existing and proposed facilities in the City of American Canyon and the City of Napa, and to serve the needs of commuter and recreational bicyclists and pedestrians in the Airport Area. A secondary objective is to achieve the requirements of the recreation-oriented regional trail projects described below.

The primary tasks are to identify and assess alternative routes, evaluate and contrast their specific opportunities and constraints, prepare design concepts for those routes that merit consideration, and prepare general cost estimates for implementing the principal alternative routes, and the preferred route.

1.2 Related Trail Projects

City of Napa's Napa River Trail

The City of Napa's *Citywide Trail Plan* (covered in more detail in Appendix A of the full Study document) includes plans for a Napa River Trail following the east bank of the river as closely as possible. Portions of the trail in and north of Kennedy Park have been completed as paved multi-use paths, and the City has completed studies and acquired some access rights to extend the trail to the south, though there are significant gaps, as identified in the current study.

The Bay Area Ridge Trail

Founded in 1987, the Bay Area Ridge Trail Council is a non-profit volunteer-driven organization working to create a 400 mile ridgeline trail system connecting the Bay Area's greenbelt of parks and open spaces with its communities. Upon completion, the Ridge Trail will connect 9 counties and serve 100 communities. The efforts of the organization to date have resulted in the dedication of over 215 miles of Ridge Trail. In the study area the Ridge Trail alignment is shared with the Bay Trail alignment until such time as the ridgeline connections can be completed. The "River to the Ridge Trail" is a recently completed Ridge Trail project that connects from Kennedy Park through Napa

Valley College at the north end of the study area, and east to Skyline Wilderness Park in the form of an unpaved multi-use recreational trail.

San Francisco Bay Trail Project

In 1987, then-state Senator Bill Lockyer conceived of a plan for a so-called "Ring around the Bay," a hiking and bicycling trail that would encircle San Francisco and San Pablo bays. He authored Senate Bill 100 (SB 100) authorizing the Association of Bay Area Governments (ABAG) to "develop and adopt a plan ... for a continuous recreational corridor which will extend around the perimeter of San Francisco and San Pablo bays."

SB 100 required that the plan include a specific trail route; the relationship of the route to parks and other recreational facilities; links to existing and proposed public transportation facilities; an implementation and funding program for the trail; and provisions for implementing the trail without adversely affecting the natural environment of the bay. The Bay Trail Plan was adopted by ABAG in July 1989, and its policies and proposed alignment continue to guide the development of the Bay Trail. The San Francisco Bay Trail Project, a nonprofit organization administered by ABAG, was created in 1990 to plan, promote and advocate implementation of the Bay Trail. To date, slightly more than half the Bay Trail's ultimate alignment—approximately 250 miles—has been developed.

The Bay Trail Project's current maps covering the study area show the Northern Pacific Railroad and Highway 29 as potential alignments. However, the Bay Trail Project's general objectives are to have a trail as close to the bay as possible, with scenic views and connections to recreational opportunities. In this case the objective is to be as close as possible to the Napa River and the associated wetlands. The design objective for the trail is a 12' wide paved multi-use trail with 2' shoulders.

The Bay Trail Project's objectives are similar to the City of Napa's Napa River Trail objectives, and the trails would presumably coincide within the City.

1.3 Summary of Study Results

Preferred Transportation Route

After thorough review of four main alternative routes and several variations of these alternatives (covered in detail in Appendix B of the full Study Report) the Steering Committee identified a bicycle transportation route consisting of local streets paralleling Highways 29 and 221 as a clear favorite due to the combination of a direct route, local connections, relative safety, generally good aesthetic conditions, relatively low cost, and low environmental impact. The primary drawbacks are the potential wait for the intervening developments that will complete Devlin Road and Green Island Road to proceed, and particularly the gap at the Syar property at Asylum Slough. However, the latter constraint also applies to any of the alternative routes.

A summary of the preferred route is presented below and broken into segments, each beginning with the segment number and title, followed by the recommended improvements and estimated costs. Two costs are provided – one figure for the estimated

construction costs only, and a second figure for total cost per segment (including construction costs plus ‘other’ costs such as design, environmental, review and inspection, and contingencies). The costs do not include land acquisition costs, which are generally not anticipated to be required, except potentially for access at Segment 4a. The preferred transportation route includes the following study segments, moving north to south (see Figure 2, and the detailed Concept Plan and cost estimate for the route presented in Section 2.0 of the full Study Report):

Segment 1a – Hwy 221, between Streblow Drive and Kaiser Road

- Add bike lane signing and marking (optional).
- Add video activation for bikes to existing traffic signal at Streblow.
- Add pedestrian/bicyclist signal and crosswalk on Highway 221 at Kaiser Road, with video activation for bikes.
- Add 50 feet of sidewalk on each side of each intersection.

Estimated Construction Cost: \$35,400

Total Estimated Cost: \$54,870

Segment 4a – from Kennedy Park to Syar Industrial Way/Kaiser Road intersection (this is a preferred alternative to 1a, but may have a long horizon for implementation).

- Construct Class I pathway in Kennedy Park or golf course.
- Secure approval; construct rail crossing or construct trail bridge at Asylum Slough.
- Secure easement(s); construct trail along edge of railroad right-of-way to Kaiser Road.
- Construct overcrossing or gated crossing of Kaiser Road.
- Connection south or east depends on redevelopment of Napa Pipe property.

Estimated Construction Cost: \$821,148

Total Estimated Cost: \$1,272,779

Segment 2a – Kaiser Road, Public Portion (an important connection from segment 1a)

- Bike lane signing, marking and striping on south side.
- Add crosswalks.

Estimated Construction Cost: \$1,866

Total Estimated Cost: \$2,892

Segment 2b – Napa Valley Corporate Drive, from Kaiser Road to Soscol Ferry Road

- Add bike lane signing and marking.
- Add meandering 5’ concrete sidewalk on both sides.
- Add crosswalks.

Estimated Construction Cost: \$359,785

Total Estimated Cost: \$557,667

Segment 2c – Soscol Ferry Road and Devlin Road to Airport Boulevard

- Add bike lane signing, striping and marking on Soscol Ferry Road.
- Add interim pedestrian path on portions without sidewalks.
- Add sidewalk or parallel bridge at Suscol Creek (optional).
- Add crosswalks.
- Complete full bike lanes and 5' sidewalks in conjunction with future development and roadway extension.

Estimated Construction Cost: \$220,236

Total Estimated Cost: \$341,366

Segment 2d –Devlin Road from Airport Boulevard south to Green Island Road

- Re-stripe roadway, add bike lane striping, signing and marking between Tower and S. Kelly.
- Add 5' sidewalk on east side.
- Add crosswalks.
- Complete full bike lanes and 5' sidewalks in conjunction w/ future development and roadway extension.

Estimated Construction Cost: \$170,705

Total Estimated Cost: \$264,593

Segment 4e – Green Island Road between Highway 29 and Commerce Boulevard (connects to planned Bay Trail route along Commerce Boulevard in American Canyon)

- Add interim Class I path on south side.
- Complete Class I path on north side in conjunction with future development and roadway widening.
- Add crosswalks and pedestrian/bicyclist-activated signal at Green Island Road and Devlin, and at Commerce Boulevard .

Estimated Construction Cost: \$235,991

Total Estimated Cost: \$365,785

Total estimated implementation cost for public portion of bicycle route improvements, including design, environmental, review and inspection costs, and contingencies:

- **Segment 4a excluded: \$1,587,174**
- **Segment 4a included: \$2,859,953**

Note that the above costs do not include portions of the trail improvements that are anticipated to be constructed as part of private developments.

Preferred Recreation Route

The Bay Trail, the Napa River Trail and the Bay Area Ridge Trail are primarily recreational in nature, though the Bay Trail serves as an important bike commute route in many communities. For the objectives of these trail projects the preferred route is the

Wetlands/Peripheral Route. At its north end this route has the same alignment as Segment 4a described above. The route would continue around or through existing or anticipated office and light industrial developments south of Kaiser Road, under the Highway 29 overcrossing along the Napa River, around the treatment ponds of the Napa Sanitary District, along levees through wetland areas that are part of the Fagan Marsh Ecological Preserve, and finally along the western portion of Green Island Road east to Commerce Boulevard and American Canyon's planned Bay Trail alignment. The preferred transportation-oriented route along local streets could be an interim route for the Bay Trail and the Napa River Trail until such time as the Wetlands/Peripheral Route could be implemented. The local streets route could serve as a permanent transportation-oriented Bay Trail alternative route even if the recreational route is implemented. The preferred recreation route is described and mapped in Section 3.0 of the full Study Report.

1.4 Implementation

Table 1-1, Phasing and Priority Matrix, provides an overview of the preferred transportation route segments and the potential phasing and priority for implementation, along with the rationale or benefits for the phasing and priority, and the parties that would be directly or indirectly responsible for implementation. The phasing and priority for the various segments cannot be absolutely determined in advance because it depends on private development proposals and projects, and the availability of and criteria for public grant funding for bike and pedestrian improvements, as well as current public agency priorities for attention to projects of all types. Thus Table 1-1 should be considered a tool for planning further implementation steps.

A list of potential public funding sources is provided in the table. These programs are described in more detail in Appendix E. The availability, application cycle, and funding criteria for these programs frequently change, so it is not feasible to identify the best opportunities for each segment, but generally there are significant funding opportunities for bike and pedestrian facilities.

There is potential for funding through the San Francisco Bay Trail Project for both the preferred transportation route and the preferred recreational route. Eligibility for this funding will require that the two routes are formally adopted as Bay Trail alignments. The process for adoption starts with the County requesting change of the adopted alignments by the Bay Trail Project. The Bay Trail Project Steering Committee would then takes action on the request/recommendation. Other funding opportunities will be created or enhanced if the preferred routes are adopted into bike and pedestrian route plans such as the Napa Countywide Bicycle Plan, the City of Napa's Citywide Trails Plan, and the Bay Area Ridge Trail Council's plans.

Table 1-1: Phasing and Priority Matrix

Route/ Segment	Description	Estimated Public Cost *	Public or Private Development	Action/Improvement	Phasing** /Priority	Benefits/Rationale for Phasing and Priority	Responsible/ Supporting Parties
1a	Hwy 221 - between Streblow Dr. & Kaiser Rd.	\$54,870	public	Install crosswalks at Kaiser Road and video-activated bicycle and pedestrian signal at Kaiser and Streblow	Near-term/high	Accommodates bicyclists and pedestrians who currently want to use to route	City of Napa/Napa County
4a	from Kennedy Park to Syar Industrial Way/Kaiser Rd. intersection						
1	through south end of Kennedy Park or golf course	\$139,106	public	Construct Class I Trail through Kennedy Park or Golf Course	Long-term/high	Key transportation and recreation link; phasing depends on resolving Segment 2 connection	City of Napa/Napa County
2	crossing through Syar property or Asylum Slough	\$901,173	public	Construct Class I trail and bridge/overcrossing over Syar property or Asylum Slough	Long-term/high	Key transportation and recreation link but high cost, depends on negotiated access	City of Napa/Napa County/potentially Kaiser property developer?
3	along northern edge of former Napa Pipe property to Kaiser Rd.	\$0	private	Develop Class I trail as condition of approval for property development with new uses	Medium-term/high	Key recreation link and important transportation improvement; phasing depends on future development condition of approval	Kaiser property developer/City of Napa, Napa County
2a	along Kaiser Rd.	\$2,892	public	Complete bike lane marking and signing, crosswalks	Near-term/high	Low cost, completes current route	City of Napa
2b	Napa Valley Corporate Dr. - from Kaiser Rd. to Soscol Ferry Rd.						
1	Kaiser Rd. south to Trefethen Way	\$465,015	public	Amend Specific Plan, construct sidewalks both sides, add crosswalks, formalize bike lanes	Medium term/Medium	Relatively high cost, functional bike lanes exist	City of Napa
2	Trefethen Way to Hwy. 29 undercrossing	\$92,652	public	Amend Specific Plan, construct sidewalks, add crosswalks, formalize bike lanes	Medium term/Medium	Relatively high cost, functional bike lanes exist	City of Napa
2c	Soscol Ferry Rd. & Devin Rd. to Airport Blvd.						
1	Hwy. 29 undercrossing to eastern property line of All American Storage	\$35,621	public & private	Complete bike lane marking and signing, crosswalks; widen paving and construct AC path and berm to Napa San drive; development projects complete sidewalks	Medium term/High	Relatively low cost, completes connection between segments with functional bike lanes	Developers/Napa County
2	Eastern property line of All American Storage to northern edge of APN 057-020-050-000	\$77,423	public &/or private	Complete bike lane signing and striping, construct 5' AC path with berm to separate from roadway	Medium term/Low	Functional bike lanes exist; major improvements may be completed by Montecino development; project is a fall back option	Developers/Napa County

Table 1-1: Phasing and Priority Matrix (cont'd)

Route/ Segment	Description	Estimated Public Cost *	Public or Private Development	Action/Improvement	Phasing** /Priority	Benefits/Rationale for Phasing and Priority	Responsible/ Supporting Parties
2c continued							
3	Northern edge of APN 057-020-050-000 to southern edge of APN 057-020-033-000	\$3,121	public	Complete bike lane signing and striping	Medium term/ Medium	Sidewalk and functional bike lanes exist; bike lanes need to be formalized	Napa County
4	Southern edge of APN 057-020-050-000 to southern end of Devlin Rd. extension	\$151,833	public &/or private	Construct 5' AC path with berm to separate from roadway	Medium term/ Low	Formal bike lanes exist; low ped. use in this area; improvements may be completed by Montalino development; project is a fall-back option	Developers/Napa County
5	Southern end of Devlin Rd. extension to Airport Blvd.	\$13,175	public & private	Restripe/mark traffic and bike lanes to provide 5' bike lanes (public); developers complete meandering 5' sidewalks	Medium term/ Medium	Sub-standard bike lanes currently exist; sidewalks to be completed along w/ development	Developers/Napa County
2d							
1	Undeveloped Devlin Rd. - from Airport Blvd. south to Tower Rd.	\$0	private	Construct 5' bike lanes and 5' sidewalks	Long term/ High	An important connection for bikes and pedestrians as alternative to Hwy 29	Developers/Napa County
2	Tower Rd. to So. Kelly Rd.	\$166,943	public	Construct 5' bike lanes and 5' sidewalk on east side	Long term/ high	An important connection for bikes and pedestrians as alternative to Hwy 29, but phasing depends on extension of adjacent segments	Napa County
3	Undeveloped Devlin Rd. from So. Kelly Rd. to Green Island Rd.	\$0	private	Construct 5' bike lanes and 5' sidewalks	Long term/ High	An important connection for bikes and pedestrians as alternative to Hwy 29; phasing depends on Beringer project and development in American Canyon	Developers/Napa County/City of American Canyon
4e	Green Island Rd. - between Hwy. 29 & planned Bay Trail route along Commerce Blvd.	\$365,785	public &/or private	Construct 8' multi-use path on south side (interim) or on north side when Green Island Rd. completed; add crosswalks w/ bike/ped signals at Commerce and Devlin	Medium term/ High	An important connection for bikes and pedestrians as alternative to Hwy 29. Timing, configuration and funding depend on build-out of annexation area	Developers/ City of American Canyon

* Costs include 55% overhead and contingencies: Design 15%, Environmental 10%; Review and Inspection 15%, Contingencies 15%

** Timing/Phasing Periods (a general guideline) Near-term = 1 - 3 years, Medium-term = 3 - 7 years, Long-term = 7+

Potential Funding Sources List - In addition to General Fund (see Appendix C for more info)

1. MTC TLC Program
2. MTC Regional Bike & Ped Program
3. STIP
4. Transportation Development Act
5. Transportation Enhancement Activities
6. Environmental Enhancement & Mitigation
7. Bicycle Transportation Account
8. Congestion Mitigation & Air Quality
9. Community Development Block Grants
10. Recreational Trails Act Program
11. SF Bay Trail
12. Bay Area Ridge Trail

Figure 1: Study Area Overview



