

# Appendix UNC-A: Benchmarking Table

UNINCORPORATED COUNTY PROGRAMS, POLICIES, AND PRACTICES BENCHMARKING ANALYSIS			
Plans, Policies, & Programs	Benchmark	County Current Practice	Best Practice Examples
<b>Collision Reporting</b> Identifying and responding to collision patterns on a regular basis is an important reactive approach to pedestrian safety (which may be combined with proactive measures).	Key Strength	Collisions are geo-coded (mapped), reviewed, and monitored for recurring patterns by county staff.	<ul style="list-style-type: none"> <li>Expanding monitoring practices to include collision typing for countermeasure selection could allow for more proactive pedestrian safety projects.</li> <li>Pedestrian volume data could be used to prioritize collision locations based on collision rates (collisions/daily pedestrian volume). This could lead to a proactive approach to identify treatments and program funding. Volunteers can collect pedestrian volumes and other data at collision locations.</li> </ul>
<b>Public Involvement</b> Responding to public concerns through public feedback mechanisms represents a more proactive and inclusive approach to pedestrian safety compared to a conventional approach of reacting to pedestrian collisions. Advisory committees serve as important sounding boards for new policies, programs, and practices. A citizens' pedestrian advisory committee is also a key component of proactive public involvement for identifying pedestrian safety issues and opportunities.	Key Strength	<p>The County has a road safety form on their website which allows the public to send emails reporting roadside hazards, potholes, flooding, or streetlight outages.</p> <p>The Napa County Transportation and Planning Agency has an Active Transportation Advisory Committee that addresses pedestrian and bicycle issues countywide.</p>	<ul style="list-style-type: none"> <li>Consider adding a page to the County's website dedicated to receiving public input regarding transportation issues and a subsection for pedestrian topics. This category or subcategory may allow residents to file comments or complaints for traffic control devices or dangerous conditions.</li> </ul>



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<b>Transportation Demand Management</b> Transportation Demand Management (TDM) programs encourage multi-modal travel by incentivizing non-auto options. As new development occurs, TDM programs can be expanded, formalized, and strengthened.	Key Strength	Employers of 50 or more full-time workers in the Bay Area are required to provide commuter benefits to their employees through The Bay Area Commuter Benefits Program to comply with California SB 1339. The Program includes benefit options like transit passes, employer-provided shuttles, and vanpool subsidies.	<ul style="list-style-type: none"> <li>Implement education strategies that collaborate with local hotels to support the “Car Free” tourism program of the Napa Valley Destination Council, to provide wayfinding, shuttle, and transit information to visitors so they can plan a trip without relying solely on a car. Prioritize improved access to transit in the unincorporated areas as part of these efforts.</li> </ul>
<b>Coordination with Health Agencies</b> Involving non-traditional partners such as public health agencies, pediatricians, etc., in the planning or design of pedestrian facilities may create opportunities to be more proactive with pedestrian safety, identify pedestrian safety challenges and education venues, and secure funding. Additionally, under-reporting of pedestrian-vehicle collisions could be a problem that may be partially mitigated by involving the medical community in pedestrian safety planning. <sup>1</sup>	Key Strength	<p>Live Healthy Napa County, a coalition of community stakeholders for improving health in Napa County, recently completed the countywide program Napa County Community Health Improvement Plan (CHIP) in February 2014. The document proposes a plan to address health issues through new countywide policies and health promotion strategies, including transportation policies that encourage walking and biking.</p> <p>Live Healthy Napa County completed the first ever Napa County Community Obesity Prevention Plan (Jan. 2015)<sup>2</sup>, which addresses the need to increase active transportation options countywide.</p>	<ul style="list-style-type: none"> <li>Seek opportunities to include sidewalk projects and other pedestrian improvements in the unincorporated areas through the County’s Capital Improvement Program to align with goals in the CHIP for improving the built environment to encourage active transportation.</li> <li>Ensure consistency with the CHIP by seeking partnership opportunities between County health agencies and SRTS to expand the reach of education and promotion of walking in the unincorporated areas.</li> </ul>

<sup>1</sup> Sciortino, S., Vassar, M., Radetsky, M. and M. Knudson, “San Francisco Pedestrian Injury Surveillance: Mapping, Underreporting, and Injury Severity in Police and Hospital Records,” *Accident Analysis and Prevention*, Volume 37, Issue 6, November 2005, Pages 1102-1113

<sup>2</sup> [http://www.livehealthynapacounty.org/uploads/5/1/4/4/51449431/napa\\_county\\_community\\_obesity\\_prevention\\_plan\\_\(final\).pdf](http://www.livehealthynapacounty.org/uploads/5/1/4/4/51449431/napa_county_community_obesity_prevention_plan_(final).pdf)

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<b>Design and Development Standards</b> Design policies and development standards can improve the pedestrian walking experience, encourage walking, enhance economic vitality, and offer funding opportunities for pedestrian improvements.	Enhancement	<p>The Napa County 2011 Road and Street Standards include typical cross-sections for roadways based on development density. Cross-sections for new high-density development include sidewalks on both sides of the street. Although the Standards state that an improved walkway will be provided on both sides of urban arterials and collectors in low density developments, typical cross sections for low density show an asphalt concrete sidewalk on one side of the road.</p> <p>For development on existing bus routes, the Standards require collaborating with the Napa County Transportation and Planning Agency.</p> <p>The Airport Industrial Area Specific Plan includes sidewalks and parkways as part of its typical street sections.</p>	<ul style="list-style-type: none"> <li>Review the County Road and Street Standards to ensure improved walkways are provided on both sides of urban arterials and collectors for low density development.</li> <li>Develop a pedestrian typology hierarchy for existing unincorporated roadways and assign appropriate pedestrian cross-sections for each. Include roadways with transit stops as a higher pedestrian priority. Identify baseline safety enhancements for roadways where separate pedestrian facilities will not be provided, potentially due to remote location, narrow right-of-way, high speeds, or a safety concern for pedestrians.</li> </ul>
<b>Complete Streets Policy</b> Routine Accommodations or Complete Streets Policies accommodate all modes of travel and travelers of all ages and abilities.	Enhancement	<p>The County of Napa has a Complete Streets policy that was adopted in 2013. The policy applies to public works projects only; however, the General Plan does include a policy to evaluate development projects on the extent of integrating pedestrian access to parking lots.</p> <p>As part of policy implementation, all transportation projects in the County must be reviewed by the Active Transportation Advisory Committee (ATAC) of NVTA early in the planning stages to provide comments and recommendations. Routine data collection is also required to evaluate how well all users are being served by the transportation network.</p> <p>Sidewalks and parkways are the responsibility of each fronting property owner to construct during development, as impact fees are minimal and pay for traffic projects (typically lane expansions) only.</p>	<ul style="list-style-type: none"> <li>Develop a checklist for project review to ensure routine application of the Complete Streets policy.</li> <li>Consider mapping data collected as part of the policy evaluation in GIS, to include pedestrian volumes collected in this plan.</li> </ul>



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<p><b>ADA Improvements</b></p> <p>Compliance with the Americans with Disability Act (ADA) guidelines is important not only to enhance community accessibility, but also to improve walking conditions for all pedestrians.</p> <p>An ADA Transition Plan sets forth the process for bringing public facilities into compliance with ADA regulations.</p>	Enhancement	ADA accessibility is a concern in the unincorporated County near transit stops, especially along Solano Avenue.	<ul style="list-style-type: none"> <li>Consider adopting an ADA Transition Plan to track ADA improvements and create a plan for future priorities and enhancements.</li> <li>Set aside funding for identified ADA improvements in this plan.</li> <li>Conduct detailed ADA field surveys of additional priority corridors listed in this plan to document potential deficiencies.</li> </ul>
<p><b>Historical Preservation</b></p> <p>Historic walking routes, such as the famous Freedom Trail in Boston, encourage walking and enhance economic vitality.</p>	Enhancement	<p>The Community Character Element of the General Plan highlights historic and cultural resources in the County and the importance of preserving the history of the native tribes that lived in the Napa region. Multiple historic resources are listed in the Element and include a variety of houses, wineries, resorts, and bridges.</p> <p>Policies in the Community Character Element focus on creating a more comprehensive inventory of historic resources and improving public awareness of cultural preservation through education, public outreach, and partnerships with other stakeholders.</p>	<ul style="list-style-type: none"> <li>Expand the listed public awareness programs in Community Character Element Policy CC-20 to include development of a map to showcase natural or local sites of interest, with links to key features in the County. Identify feasibility of a walking tour/route map between sites, especially for historic buildings and public open spaces.</li> <li>Maps of the recommended tour route and historic documentation materials could be made available online along with way-finding signs and plaques, recommended in the Community Character Element, throughout the County.</li> </ul>

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<b>Pedestrian Safety Education Program</b> Education is a critical element for a complete and balanced approach to improving pedestrian safety. Education campaigns may target pedestrians of all ages.	Enhancement	In accordance with policies in the Napa Bike Plan and the General Plan, NVTa is planning to pursue grant funding through the California Office of Traffic Safety (OTS) for a media safety campaign for motorists. The campaign will use Pittsburgh's Drive With Care campaign for inspiration, which characterizes bicyclists and pedestrians as our firefighters, doctors, and neighbors and uses the slogan "someone you care about rides a bike". The OTS will release a call for projects around November 2015 for their 2017 funding cycle.	<ul style="list-style-type: none"> <li>Coordinate with NVTa on pursuing a media safety campaign, and consider the following methods to distribute the campaign in the unincorporated County:               <ul style="list-style-type: none"> <li>Include advertisements on buses and bus shelters, through SRTS and in-school curriculum, public service announcements, and/or brochures distributed by law enforcement, among many other strategies.</li> </ul> </li> <li>Pedestrian safety brochures should be distributed to the public independent of the media campaign to promote walking to community events.</li> </ul>
<b>Safe Routes to Schools</b> Safe-Routes-to-School (SRTS) programs encourage children to safely walk or bicycle to school. The programs are important both for increasing physical activity (and reducing childhood obesity) and for reducing morning traffic associated with school drop-off.  Funding for educational programs and/or infrastructure projects is available at the state and federal levels.	Enhancement	The Napa County Office of Education currently has a three year grant to administer a Safe Routes To School Program through 2016. Program leaders have a goal of reaching every interested school by the end of the grant term, and plan to work with schools in American Canyon, Napa, Howell Mountain, and Calistoga in 2015.  Events such as Walk and Roll to School Day have been hosted in Napa, as well as Safe Walking education presentations for students in grades K-3. Brochures are handed out during this program as well as at staff meetings, PTA/parent meetings, community health fairs, and farmers markets. Parent presentations include a review of pedestrian laws and ordinances.  Although materials for these programs are available each year for schools across the County, reaching schools on a weekly or yearly basis has not been possible due to understaffing and scarcity of volunteers.	<ul style="list-style-type: none"> <li>Seek partners to form school-specific committees of community agencies, parents, advocates, city staff, community health representatives, and other stakeholders to administer SRTS programs at each school in Napa. Hold regular meetings to maintain stakeholder involvement.</li> <li>Use distances from schools from parent survey results to determine feasibility of rolling out Walking School Bus program for unincorporated schools.</li> <li>Coordinate with NVTa to seek additional funding for SRTS.</li> </ul>



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<b>Open Space Requirements</b> Residents typically rate open space as among a jurisdiction's key assets and needs. Open space may encourage walking, especially for recreational trips.	Enhancement	Rural urban limit lines prevent development in the unincorporated areas, preserving vast areas of open space. The County has designated priority open spaces as part of the Association of Bay Area Governments (ABAG) Priority Conservation Area (PCA) program.	<ul style="list-style-type: none"> <li>Prioritize connections to surrounding public open space.</li> </ul>
<b>Inventory of Pedestrian Facilities</b> A GIS-based sidewalk inventory enables project identification and prioritization, as well as project coordination with new development, roadway resurfacing, etc.	Opportunity	The unincorporated County maintains a countywide GIS database, but it does not include pedestrian facilities.	<ul style="list-style-type: none"> <li>Maintain the GIS facility database created by this plan by updating the inventory as facilities are added or changed and to the extent that staff has local knowledge, expand inventory to areas outside of initial 50 miles.</li> <li>Expand the GIS sidewalk inventory to include informal pathways and potential pedestrian opportunity areas in the County.</li> </ul>
<b>Pedestrian Volumes</b> Pedestrian volume data is important for prioritizing projects, developing collision rates, and determining appropriate pedestrian infrastructure.	Opportunity	The County of Napa does not collect pedestrian volumes as a matter of routine.	<ul style="list-style-type: none"> <li>Routinely collect pedestrian volumes with all transportation impact studies (TIAs). Consider using volumes for collision monitoring and justification for pedestrian improvements.</li> <li>Use collected pedestrian volumes from this plan to identify pedestrian nodes in the next update to the General Plan.</li> <li>Consider using volumes for collision monitoring and justification for pedestrian improvements.</li> </ul>

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<b>Identifying Crossing Barriers</b> Crossing barriers such as railroads, freeways, and major arterials may discourage or even prevent pedestrian access. Additionally, crossing barriers are often associated with vehicle-pedestrian collisions. Identifying barriers and developing alternative methods of crossing or improving designated crossings, as well as preventing new barriers, is essential for improving walkability and pedestrian safety.	Opportunity	Pedestrian facilities are continued along County overcrossings of roadways with existing pedestrian accommodations.  General barriers to walking include terrain and topography as well as high speed roadways, which often have narrow shoulders and serve as roadways to carry vehicles through the County. The low rural density of development also limits walking to many destinations in the County.	Identify specific locations where potential crossing barriers exist in this plan. This could include needs for improved trail crossings, access to transit stops, or tourist areas.
<b>Street Tree Ordinance</b> Street trees enhance the pedestrian environment by providing shade and a buffer from vehicles. Street trees may also enhance property values, especially in residential neighborhoods. However, street trees, when improperly selected, planted, or maintained, may cause damage to adjacent public infrastructure and/or utilities.	Opportunity	The County does not have a street tree ordinance.	Ensure proper maintenance and pedestrian clearance for any street trees that may be planted in residential pedestrian areas or near transit stops.



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<p><b>Pedestrian-Oriented Traffic Warrants / Traffic Control Devices</b></p> <p>Providing all-ways stop or signal control at an intersection may improve pedestrian safety by reducing speeds and controlling pedestrian-vehicle conflicts. The MUTCD defines warrants for installing signals and stop signs.</p> <p>The 2014 California <i>Manual of Uniform Traffic Control Devices</i> (MUTCD) requires the installation of countdown pedestrian signals for all crosswalks at new or modified signals where the pedestrian interval is more than 7 seconds.</p> <p>Leading Pedestrian Intervals (LPIs) can reduce conflicts between turning vehicles and pedestrians by providing pedestrians with a “head start” signal timing before vehicles on the parallel street are allowed to proceed through an intersection.</p>	Opportunity	<p>The County uses MUTCD warrants for signals and stop signs.</p> <p>The County of Napa has few traffic signals, and relies on the City of Napa for maintenance and operation. Countdown signals have not been installed at any of the County signals.</p>	<ul style="list-style-type: none"> <li>Expand the GIS-based inventory to include pedestrian-related markings and traffic signals with pedestrian facilities.</li> </ul>



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<b>Speed Limits and Speed Surveys</b> Pedestrian fatality rates increase exponentially with vehicle speed. Thus, reducing vehicle speeds in pedestrian zones may be one of the most important strategies for enhancing pedestrian safety.	Opportunity	In Napa County, speed surveys are conducted every five years, along with an Engineering & Traffic Survey, following MUTCD guidelines.  The statutory maximum speed on roads in the unincorporated area is 55 mph.	<ul style="list-style-type: none"> <li>Consider employing traffic calming strategies in potential pedestrian locations near incorporated areas or other pedestrian generators where speed surveys suggest traffic speeds are too high for pedestrian areas.</li> <li>Ensure design standards do not contribute to a routine need for traffic calming in potential pedestrian areas.</li> </ul>
<b>Crosswalk Design Guidelines</b> A formal policy for crosswalk installation, removal, and enhancement provides transparency in decision-making and creates a consistent application of treatments citywide.	Opportunity	The County uses the MUTCD warrants for decisions on placing crosswalks. Crosswalks are not always placed on all approaches of signalized intersections.	<ul style="list-style-type: none"> <li>Consider adopting a crosswalk policy as part of this plan that reflects best practices and recent research to include criteria for appropriate locations to install crosswalk enhancements such as flashing beacons, advanced yield markings, or in-roadway pedestrian signs.</li> <li>Include criteria in the crosswalk policy for identifying, installing, and enhancing crossings where strong desire lines exist, especially near transit stops in the County.</li> </ul>



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<b>Law Enforcement</b> Enforcement of pedestrian right-of-way laws and speed limits is an important complement to engineering treatments and education programs.	Opportunity	<p>Traffic enforcement in the unincorporated area is covered by the California Highway Patrol. As a result, this service is not a function of the County government and the capacity to expand efforts may be more constrained than with local city police operations. While the County has no designated traffic safety officers, traffic safety is incorporated into all CHP officer positions.</p> <p>An officer from the Golden Gate Division of the CHP who partners with the Napa Police Department recently made outreach efforts to educate motorists about pedestrian safety laws at community events and has attended ATAC meetings. NVTa is working to provide educational outreach materials to CHP officers to work on similar efforts countywide.</p>	<ul style="list-style-type: none"> <li>Seek opportunities for increased enforcement of speeding on roadways near incorporated areas and potential pedestrian nodes to align with countywide collision reduction goals. Invite CHP officers to ATAC meetings on a quarterly basis for participation in potential discussion topics below.</li> <li>Seek opportunities for increased enforcement of speeding on unincorporated roadways near incorporated areas and potential pedestrian nodes.</li> <li>Consider working with neighboring incorporated police departments to designate traffic safety officers who conduct pedestrian related enforcement activities, such as monitoring school circulation activity at unincorporated schools.</li> <li>Coordinate with NVTa on the media safety campaign that NVTa is pursuing, as an opportunity for education by providing pedestrian safety pamphlets to officers to distribute in-lieu of, or in addition to, citations.</li> </ul>
<b>Traffic Calming Programs</b> Traffic Calming Programs and policies set forth a systematic and consistent approach for addressing neighborhood requests and approvals, as well as standard treatments and criteria.	Opportunity	<p>The County of Napa does not have a Traffic Calming Program.</p>	<ul style="list-style-type: none"> <li>Consider adopting a Traffic Calming program for pedestrian concerns that arise from residents who live in or near unincorporated roadways. This could be a hybrid of existing programs in the incorporated areas of the County.</li> </ul>

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<p><b>General Plan</b></p> <p>Planning principles contained in a city's General Plan can provide an important policy context for developing pedestrian-oriented, walkable areas. Transit-oriented development, higher densities, and mixed uses are important planning tools for pedestrian-oriented areas. A city's General Plan is also a key opportunity to establish the framework for pedestrian orientation. The Circulation Element of the plan typically assigns roadway typologies, which can include a layered network approach with prioritized corridors for transit, pedestrian, bicycle, and auto travel.</p>	Opportunity	<p>Density is very low in the unincorporated area. Pockets of commercial development exist in Rutherford and Oakville and are within walking distance of small residential developments. There are also areas of commercial and residential development on the fringes of incorporated areas, as well as several schools.</p> <p>While the General Plan supports and encourages pedestrian activity, it also has a policy to preserve the rural character of the roadways outside urbanized areas.</p> <p>A Ridge Trail crossing for pedestrians and bicyclists over Jamieson Canyon Road is listed as a supported improvement to be implemented when funding becomes available. The General Plan also includes an objective to decrease the percentage of single-occupant vehicle work trips in the County to 50% by the year 2030.</p>	<ul style="list-style-type: none"> <li>• Use collected pedestrian volumes from this plan to identify pedestrian nodes in the next update to the General Plan, especially near transit stops in the County.</li> <li>• Develop roadway typologies in the County General Plan to identify any prioritized corridors for pedestrians.</li> </ul>
<p><b>Coordination with Emergency Response and Transit Providers</b></p> <p>Emergency response vehicles require special roadway design considerations that sometimes conflict with bicycle and pedestrian treatments. For example, while pedestrians benefit from reduced speeds of smaller curb radii, larger vehicles such as fire trucks and buses have more difficulty performing the turn within the smaller space. These conflicts require consensus building between the city and the respective departments.</p>	Opportunity	<p>EMS is involved in some aspects of the general planning process, and recently weighed in on road improvements for the SR 29 channelization.</p>	<ul style="list-style-type: none"> <li>• Seek opportunities for technical collaboration and funding with first responders and transit providers.</li> <li>• In accordance with the General Plan and the Napa Bike Plan, explore ways to implement a Safe Routes to Transit Program that prioritizes bike and pedestrian access to major transit connection points and transit centers.</li> </ul>





# Appendix UNC-B: Existing Pedestrian Policies

Unincorporated Napa County has adopted policies as part of its general plan in support of walking. Most such policies appear in the circulation element of the county's general plan. Additional supportive policies appear in the conservation and the recreation and open space elements as well as in the county's bicycle plan and in "specific plans" prepared for particular districts or areas. These policies typically express support for making walking safer, more convenient and more pleasant.

## County General Plan

The Napa County General Plan was adopted in 2008 and will guide growth and development on County unincorporated land through the year 2025. Key General Plan policies that are applicable to pedestrian planning include:

### Circulation Element

- Policy CIR-1: Consistent with urban-centered growth policies in the Agricultural Preservation and Land Use Element, new residential and commercial development shall be concentrated within existing cities and towns and urbanized areas where sufficient densities can support transit services and development of pedestrian and bicycle facilities. (Page CIR-9)
- Policy CIR-2: The County will work with the cities and town through the Napa County Transportation and Planning Agency to coordinate seamless transportation systems and improve the efficiency of the transportation system by coordinating the construction of planned roadway, bicycle, pedestrian, and other transportation systems. (CIR-9)
- Policy CIR-4: The County supports a coordinated approach to land use and circulation planning to promote a healthier community by encouraging walking, bicycling, and other forms of transportation which decrease motor vehicle use. (CIR-9)
- Policy CIR-13: The County seeks to provide a roadway system that maintains current roadway capacities in most locations and is both safe and efficient in terms of providing local access. The following list of improvements, illustrated as the County's ultimate road network in Figure CIR-1, has been supported by policy makers within the County and all five incorporated cities/town, and will be implemented over time by the County and other agencies to the extent that improvements continue to enjoy political support and funding becomes available:
  - Widen Jamieson Canyon Road (Route 12) by adding one additional vehicular travel lane and room for a class II bike lane in each direction. Construct a safety median barrier in the centerline, straighten unsafe curves, lower the grade where possible, install turn lanes for safety and to allow for parcel



access as appropriate, and allow a Ridge Trail crossing for pedestrian, equestrian, and bicycle use. (CIR 13)

- Policy CIR-22: While the design of roadways shall be based on meeting local needs, the County shall also seek to meet the specific needs of senior citizens and tourist drivers, such as signage and intersections, to make driving for all users safer and easier.
  - Action Item CIR-22.1: The County shall work with the incorporated cities and town, the Napa County Transportation and Planning Agency, and Caltrans to develop a coordinated approach to roadway design to enhance driver and pedestrian safety, particularly for children and senior citizens. (CIR-17)
- Policy CIR-26: Increase the attractiveness and use of energy-efficient forms of transportation such as public transit, walking, and bicycling through a variety of means, including promoting transit-oriented development in existing municipalities and urbanized areas and the use of transit by visitors to Napa County. (CIR-17)
- Policy CIR-28: The County supports programs to reduce single-occupant vehicle use and encourage carpooling, transit use, and alternative modes such bicycle, walking, and telecommuting, and shall seek to maintain total trips in the County using travel modes other than private vehicles (transit, walking, bicycling, public transit, etc,) at least at the 2006 levels. (CIR-18)
- Policy CIR-33: Pedestrian and bicycle access shall be integrated into all parking lots where feasible and appropriate and considered in the evaluation of development proposals and public projects. (CIR-19)
- Policy CIR-34: Where they are not needed for other transportation purposes and where such use would implement the Napa Countywide Bicycle Plan or other County-adopted master plan, newly abandoned rail rights-of-way shall be used for alternative uses such as public transit routes, bicycle paths, or pedestrian/hiking routes, provided that they are compatible with adjacent uses and sufficient funding is available for right-of-way acquisition, construction, and long-term maintenance. (CIR-19)
- Policy CIR-36: The needs of pedestrians and bicyclists shall be routinely considered and, where possible, accommodated in all roadway construction and renovation projects. (CIR-19)
- Goal CIR-3: The County's transportation system shall encompass the use of private vehicles, local and regional transit, paratransit, walking, bicycling, air travel, rail, and water transport. (CIR-17)
- Objective CIR-2: Work with the Napa County Transportation and Planning Agency and incorporated jurisdictions in Napa County to reduce the percentage of work trips that are by private, single-occupant vehicles by 2030 such that Napa County's percentage decreases to 50 percent. This objective may be accomplished by increasing the percentage of trips by bicycle, walking, transit, and/or carpool, and by increasing non-traditional work schedules and work practices (e.g., working at home). (CIR-17)

## Conservation Element

- Policy CON-65 d, CON-69

## Recreation and Open Space Element

- Policy ROS-10, ROS-11, ROS-12, ROS-12.5, ROS-15

## County Bicycle Plan

The Napa Valley Transportation Authority (NVTa) developed the *Countywide Bicycle Plan Update* in 2012, with individual plans for each jurisdiction in Napa. Relevant policy statements are listed below.

- Policy 1.2: Develop and maintain continuous north-south and east-west Class I multi-use pathways to provide inter-city connections and serve as primary bikeways in the Countywide Bikeway System [NVTa, cities, towns, County] (page 24)
- Policy 2.3: Provide consistent enhanced crossing features at uncontrolled intersections with Class I multi-use paths. [NVTa, cities, towns, County] (page 25)
- NC-2a: Consider design options, including signage, striping, pavement color, wider cross sections, and wide gravel shoulders etc. to address potential use conflicts along class I multi-use pathways in the County. (page 26)
- Policy 3.4: Consider a “Safe Routes to Transit” program that prioritizes bicycle and pedestrian access to transit stops and centers. [NVTa, cities, towns, County] (page 26)
- Policy 4.7: Design Class I paths to incorporate pedestrian scale lighting, street furniture, drinking fountains, wayfinding signs, interpretive elements, high-visibility crossing treatments, and other amenities where appropriate. [NVTa, cities, towns, County] (page 27)
- Policy 5.2: Focus on improving safety at intersections by using or installing routine pedestrian signal cycles; pedestrian push buttons; high-visibility crosswalk markings; appropriate warning and directional signs; and reassurance or directional markings for bicyclists such as shared lane markings, skip lines, etc.; and through the use of focused education. (page 27)
- Policy 6.3: Encourage school districts to participate in providing safe and continuous bicycle and pedestrian connections from surrounding neighborhoods when constructing new or improving existing school facilities. [NVTa, cities, towns, County] (page 28)
- Policy 7.1: Develop and implement a multimedia countywide bicycle safety and education campaign to increase knowledge of riding rules, improve etiquette between motorized and non-motorized modes, to promote bicycle tourism, and increase the awareness of the benefits of bicycling and walking as transportation modes. [NVTa, cities, towns, County- potentially jointly] (page 28)
- Short Term Action: Napa Bike Program – Support the development and implementation of a countywide multimedia bicycle and pedestrian safety and education campaign to increase knowledge of riding rules, improve etiquette between motorized and non-motorized modes, to promote bicycle tourism, and increase the awareness of the benefits of bicycling and walking as transportation modes. (page 77)
- Bicycle Safety Education for Students
  - Action: Provide bicycle/walking safety education to all students in County of Napa from second grade through high school on an annual basis. (page 78)
  - Action: Develop a sustainable Walking School Bus/Bicycle Train Program for interested schools. (page 78)



- Bicycle Safety Education for Adults
  - Action: Develop and deliver bicycle safety education to adult bicyclists throughout the community using a variety of media targeted towards specific user groups: migrant workers, college students, commuter bicyclists, recreational bicyclists, families, senior citizens, and large employers.
  - Measure: Traffic citations, bicycle crash data, and bicycle/traffic complaints will be analyzed on an annual basis to determine trends. Surveys may be conducted on trails and/or as a component of regular bicycle counts to determine the effectiveness of the outreach and if bicycle/vehicle/pedestrian interactions have improved. (Page 79)

## Napa County Regional Parks and Open Space District Master Plan

The Napa County Regional Parks and Open Space District Master Plan was adopted in 2009 as a guide for District projects through the year 2013. The first update to this Plan was drafted in 2012, which includes a status update of the work program and next steps for each project. The Plan identifies 31 separate projects; the following 17 are trail projects:

- A.1 Oat Hill Mine Trail Improvements
- A.2 Milliken Creek Trails and Picnic Area Development
- A.4 Rector Ridge / Stag's Leap Trail Development
- A.5/A.6 Napa River and Bay Trail Development from American Canyon to Napa
- A.7 Lake Hennessey North Shore Trail Expansion
- A.9 Newell Preserve Access Improvement
- A.10 Lake Berryessa Trail Development
- A.11 Berryessa Peak and Blue Ridge Public Access Development
- A.12 Berryessa Vista Wilderness Park Development
- A.13 Pope and Putah Creeks Trail Development
- A.15 Camp Berryessa to Knoxville Wildlife Area Trail Development
- A.19 Bay Area Ridge Trail Completion
- A.22 Moore Creek Trail, Picnic Area and Camping Facilities Development
- A. 24 Napa Valley Greenway / Vine Trail Development
- A.25 Henry Road / Milliken Peak Area Trail Development



- A,26 Countywide Trail Network Development



# Appendix UNC-C: Detailed Project List and Prioritization

UNINCORPORATED PEDESTRIAN IMPROVEMENT LIST				
ID	Roadway	Limits or Intersection	Recommendations	Infrastructure Category
<b>TIER ZERO (FUNDED OR RECENTLY CONSTRUCTED PROJECTS)</b>				
T0-1 Howell Mountain Elementary School Advance Warning Signage	White Cottage Road N	North of Howell Mountain Elementary School	<ul style="list-style-type: none"> <li>Advance warning school zone signage with pavement markings prior to curve</li> </ul>	Traffic Calming
<b>TIER ONE</b>				
UNC-10 Howell Mountain Road Traffic Calming	Howell Mountain Road	College to Clark Way	<ul style="list-style-type: none"> <li>Lane width reduction and speed feedback signs</li> </ul>	Traffic Calming
UNC-4 Advance Traffic Calming for Howell Mountain Elementary School	White Cottage Road N	North of Howell Mountain Elementary School	<ul style="list-style-type: none"> <li>Radar feedback sign in advance of school in southbound direction and assessment for rumble strips</li> </ul>	Traffic calming
UNC-9 Angwin Trail Improvements	Howell Mountain Road	College to Clark Way	<u>Medium Term:</u> <ul style="list-style-type: none"> <li>Off-street path to follow old road alignment and western ridgeline</li> <li>Trail crossing approximately 600' north of College Way with Pedestrian Hybrid Beacon</li> </ul>	Pathway Crossing treatments
			<u>Long Term (in addition to above):</u> <ul style="list-style-type: none"> <li>Improved/formalized hiking trail along west embankment for access to neighborhoods</li> </ul>	Pathway



UNINCORPORATED PEDESTRIAN IMPROVEMENT LIST				
ID	Roadway	Limits or Intersection	Recommendations	Infrastructure Category
TIER TWO				
UNC-7 PUC Crossing Improvements	Howell Mountain Road	La Jota Drive at Howell Mountain (Intersection)	<ul style="list-style-type: none"> <li>• ADA access path from tennis court to intersection<sup>1</sup></li> </ul>	ADA
			<ul style="list-style-type: none"> <li>• Curb extensions on northeast and northwest corners with directional ramps</li> <li>• Crosswalk on north leg with additional enhancements such as Rectangular Rapid Flashing Beacons (RRFBs)</li> </ul>	Crossing treatments ADA ramps
			<ul style="list-style-type: none"> <li>• Curb extension on southeast corner with directional ramp</li> <li>• Marked crosswalk on east leg with advanced stop bar</li> </ul>	Crossing treatments ADA ramps
	Howell Mountain Road	Angwin Ave at Howell Mountain (Intersection)	<ul style="list-style-type: none"> <li>• Curb extensions on all corners with directional ramps</li> <li>• High visibility crosswalks on north, east and west legs with advanced stop bars on east and west legs</li> </ul>	Crossing treatments ADA ramps
	Angwin Avenue	East of Howell Mountain Road	<ul style="list-style-type: none"> <li>• Marked crosswalk removal on Angwin Avenue east of intersection<sup>1</sup></li> <li>• New high visibility crosswalk on Angwin Avenue mid-block to align with parking lot driveway<sup>1</sup></li> <li>• Pathway to connect to parking lot<sup>1</sup></li> </ul>	Crossing treatments Site Access
	Howell Mountain Road	PUC Driveway at Howell Mountain (Intersection)	<ul style="list-style-type: none"> <li>• Curb extensions on northwest, southwest and southeast corners with directional curb ramps</li> <li>• Marked crosswalks on east and west legs with advanced stop bars</li> <li>• High visibility crosswalk on south leg with RRFB as second phase if needed</li> </ul>	Crossing treatments ADA ramps
UNC-1 College Ave Multi- Use Path	College Avenue	Brookside Drive at Howell Mountain (Intersection)	<ul style="list-style-type: none"> <li>• Curb extensions on all corners with directional ramps</li> <li>• Marked crosswalks on east and west legs with advanced stop bars</li> <li>• High visibility crosswalk on north leg and RRFB as second phase if needed</li> </ul>	Crossing treatments ADA ramps
			<ul style="list-style-type: none"> <li>• Off-street pathway (or on-street with raised buffer) along west side of road</li> </ul>	Pathway

UNINCORPORATED PEDESTRIAN IMPROVEMENT LIST				
ID	Roadway	Limits or Intersection	Recommendations	Infrastructure Category
UNC-2 Pathway Treatments Access to School	White Cottage Road N	White Cottage Road at College Avenue (Intersection)	<ul style="list-style-type: none"><li>Curb extensions with directional curb ramps to realign intersection</li><li>High visibility crosswalks on all legs with advanced stop bars</li></ul>	Crossing treatments ADA ramps
		Howell Mountain Elementary School to College Avenue	<u>Near Term:</u> <ul style="list-style-type: none"><li>K-rail or raised buffer along shoulder on west side of street</li></ul> <u>Long Term:</u> <ul style="list-style-type: none"><li>Pedestrian path along winery fence on west side of road</li></ul>	Pathway
		White Cottage Road at Toyon St (Intersection)	<ul style="list-style-type: none"><li>Reduced curb radius at southeast corner with directional curb ramps</li><li>High visibility crosswalk on south leg</li></ul>	Crossing treatments ADA ramps
TIER THREE				
UNC-3 Howell Mtn School Improvements	White Cottage Road N	At Howell Mountain Elementary School	<ul style="list-style-type: none"><li>ADA path beside existing stairs at southeast corner of school</li><li>Marked crosswalk through parking lot <sup>2</sup></li><li>Sidewalk extension from school frontage to southeast to meet proposed marked crosswalk<sup>2</sup></li></ul>	ADA Crossing treatments Sidewalks
			<ul style="list-style-type: none"><li>Marked crosswalk removal on south leg of school driveway exit</li></ul>	Crossing treatments
			<ul style="list-style-type: none"><li>Marked crosswalk removal on north leg of school driveway entrance</li></ul>	Crossing treatments
UNC-5 PUC South Gateway Treatments	Howell Mountain Road	Bishops Place at Howell Mountain (Intersection)	<ul style="list-style-type: none"><li>Radar speed feedback sign in northbound direction</li></ul>	Traffic calming
		Cold Springs at Howell Mountain (Intersection)	<ul style="list-style-type: none"><li>Curb extension at northeast corner with directional ramps</li></ul>	Crossing treatments ADA ramps
			<ul style="list-style-type: none"><li>Feasibility study for roundabout or Pedestrian Hybrid Beacon</li></ul>	Traffic calming Crossing treatments
UNC-6 PUC Corridor	Howell Mountain Road	Cold Springs to Angwin Ave	<ul style="list-style-type: none"><li>Pathway on west side of road with pedestrian scale lighting and reinstated parking</li></ul>	Pathway



UNINCORPORATED PEDESTRIAN IMPROVEMENT LIST				
ID	Roadway	Limits or Intersection	Recommendations	Infrastructure Category
Improvements			<ul style="list-style-type: none"><li>Sidewalk connections on east side of street</li></ul>	Sidewalks
UNC-8 PUC North Gateway Treatments	Howell Mountain Road	College at Howell Mountain (Intersection)	<u>Near Term:</u> <ul style="list-style-type: none"><li>Advanced stop bars and high visibility crosswalk on all legs</li><li>Curb extensions with directional curb ramps on all corners</li><li>Driveway closure at southeast corner of intersection on College Avenue</li></ul>	Crossing treatments ADA ramps
			<u>Long Term:</u> <ul style="list-style-type: none"><li>Feasibility study for roundabout (with campus post office access maintained)</li></ul>	Traffic Calming
<div>1. These improvements are outside of County right-of-way on PUC property</div> <div>2. These improvements are outside of County right-of-way on Howell Mountain Elementary School property.</div> <div>Note: Tier One improvements are intended to be implemented within 5 years, Tier Two within 7-15, and Tier Three within 15 years or more, or opportunistically.</div>				

Based on feedback from NVTA TAC, improvements were evaluated based on the criteria below using a binary approach for ranking. Each improvement was ranked first based on the number of criteria it met, and second according to whether or not it had local support. Results are shown in the final table below.

PRIORITIZATION CRITERIA	
Criterion	Data Set / Metric
Local support	<ul style="list-style-type: none"> <li>CTP Project</li> <li>Critical location identified by staff / public</li> </ul>
Safety	<ul style="list-style-type: none"> <li>Collision “Hot Spot” Location</li> <li>Highway Interchange Location</li> <li>Traffic Calming</li> </ul>
Transit	<ul style="list-style-type: none"> <li>Within ½ mile of a transit stop</li> <li>Within a ¼ mile of a transit stop</li> </ul>
Connection	<ul style="list-style-type: none"> <li>Sidewalk gap closure</li> <li>Trail connection</li> </ul>
Schools	<ul style="list-style-type: none"> <li>Within ½ mile of a school</li> <li>Within ¼ mile of a school</li> </ul>
Cost	<ul style="list-style-type: none"> <li>Low Cost Level (Signing and Striping)</li> </ul>



# APPENDIX UNC-C: DETAILED PROJECT LIST AND PRIORITIZATION

EVALUATION RESULTS									
Project	Local support	Safety	Transit		Connection	Schools		Low Cost	Number of Criteria Met
			Half Mile	Quarter Mile		Half Mile	Quarter Mile		
TIER ONE									
UNC-10	✓	✓	✓			✓	✓	✓	6
UNC-4	✓	✓				✓	✓		4
UNC-9			✓		✓	✓	✓		4
TIER TWO									
UNC-7	✓	✓				✓			3
UNC-1					✓	✓	✓		3
UNC-2					✓	✓	✓		3
TIER THREE									
UNC-5	✓	✓							2
UNC-3						✓	✓		2
UNC-6					✓	✓			2
UNC-8		✓				✓			2

# Appendix UNC-D: Cost Estimates

UNINCORPORATED COUNTY PRIORITY PROJECT COST ESTIMATES			
Project ID	Project Name	Project Elements	Cost1
UNC-4	Advance Traffic Calming for Howell Mountain Elementary School	Radar feedback sign	\$5,200
		Rumble strip	\$500
Total: \$5,700			
UNC-7	PUC Crossing Improvements	14 curb extensions	\$781,800 <sup>2</sup>
		RRFB	\$45,400
		Crosswalk signage and striping	\$34,800
		Potential 2 <sup>nd</sup> Phase Elements	
		2 RRFBs	\$90,800
		PUC Right-of-Way	
		ADA access ramp	\$16,500
		PUC property crosswalk improvements and pathway	\$25,900
Total County Cost: \$862,000			
Total 2 <sup>nd</sup> Phase Elements: \$90,800			
Total PUC Cost: \$42,400			
UNC-9	Angwin Trail Improvements	Medium Term	
		Asphalt off-street pathway	\$462,000 <sup>2</sup>
		Pedestrian Hybrid Beacon	\$144,000
		High-visibility crossing	\$27,800
		Long Term	
		Unpaved trail	\$82,500
Total Medium Term: \$633,800			

<sup>1</sup> Cost includes contingencies for traffic control (5%), construction management (10%), mobilization (5%), contingency (20%), design (15%) and environmental (10%).

<sup>2</sup> Includes utility and drainage contingency (40%)





UNINCORPORATED COUNTY PRIORITY PROJECT COST ESTIMATES			
Project ID	Project Name	Project Elements	Cost1
			Total Long Term: \$716,300
UNC-10	Howell Mountain Elementary School Advance Warning Signage	Restriping travel lanes	\$8,000
		2 speed feedback signs	\$10,400
			Total: \$18,400

# Appendix UNC-E: Plan Adoption Resolution

*Plan Adoption Resolution will be inserted after this cover sheet*



