



HUMBOLDT COUNTY REGIONAL PEDESTRIAN PLAN

PREPARED BY:

Alta Planning + Design
Redwood Community Action Agency
SHN Consultant Engineers

PREPARED FOR:

Humboldt County Association of Governments
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TABLE OF CONTENTS

I. INTRODUCTION	1-1
1.1. Project Setting.....	1-1
1.2. Overview of the Study Area.....	1-1
1.3. Plan Contents	1-2
II. PURPOSE OF THE PLAN	2-1
2.1. Need for Pedestrian Facilities in Humboldt County.....	2-1
2.2. Previous Pedestrian Plans.....	2-1
2.3. Goals and Objectives.....	2-1
III. STUDY PROCESS	3-1
3.1. Advisory Committee.....	3-1
3.2. Public Input	3-1
3.2.1. Public Survey.....	3-1
3.2.2. Public Workshops.....	3-3
IV. PLANNING & POLICY CONTEXT	4-1
4.1. Affected Agencies	4-1
4.1.1. California Department of Transportation	4-1
4.1.2. Humboldt County Association of Governments	4-1
4.1.3. Humboldt County	4-1
4.2. Relevant Planning Documents.....	4-2
4.2.1. Humboldt County Plans.....	4-2
4.2.2. Humboldt County Association of Governments' Plans.....	4-3
4.2.3. Other Agencies - Hoopa Valley Tribe.....	4-4
4.2.4. Other Agencies - Yurok Tribal Transportation Plan (2006).....	4-7
4.2.5. Other Agencies - Redwood Community Action Agency	4-7
4.2.6. Other Agencies - Humboldt Partnership for Active Living	4-8
V. PEDESTRIAN PROJECTS	5-1
5.1. Community Details.....	5-1
5.1.1. Pedestrian Collision Data	5-1
5.1.2. Humboldt County General Findings.....	5-1
5.2. Countywide Projects.....	5-10
5.2.1. Regional Trails.....	5-10
5.2.2. Safe Routes to School.....	5-11
5.2.3. School Safety Improvements.....	5-15
5.3. Incorporated Communities	5-16
5.3.1. Arcata.....	5-16
5.3.2. Blue Lake	5-29
5.3.3. Eureka	5-37

5.3.4. Ferndale.....	5-47
5.3.5. Fortuna.....	5-53
5.3.6. Rio Dell.....	5-63
5.3.7. Trinidad.....	5-67
5.4. Unincorporated Communities.....	5-71
5.4.1. Eureka’s Surrounding Communities.....	5-71
5.4.2. Southern Humboldt.....	5-73
5.4.3. Avenue of the Giants Communities.....	5-74
5.4.4. Coastal Communities.....	5-81
5.4.5. Fieldbrook / Glendale.....	5-82
5.4.6. Hoopa.....	5-83
5.4.7. Hydesville and Carlotta.....	5-89
5.4.8. Loleta.....	5-89
5.4.9. Samoa Peninsula.....	5-95
5.4.10. McKinleyville.....	5-101
5.4.11. Orleans.....	5-109
5.4.12. Scotia.....	5-115
5.4.13. Trinidad Rancheria.....	5-115
5.4.14. Weitchpec.....	5-116
5.4.15. Willow Creek.....	5-121

VI. PROJECT PRIORITIZATION..... 6-1

6.1. Ranking Criteria.....	6-1
6.1.1. Trip Generators.....	6-1
6.1.2. Transit Access.....	6-1
6.1.3. Street Classification.....	6-1
6.1.4. Traffic Speed.....	6-2
6.1.5. Collisions.....	6-2
6.1.6. Median Income.....	6-2
6.2. Phasing Plan.....	6-4

VII. PEDESTRIAN PROGRAMS..... 7-1

7.1. Pedestrian Education Programs.....	7-1
7.1.1. Individualized Marketing.....	7-1
7.1.2. Safety Education Campaign.....	7-1
7.1.3. Pedestrian Awareness Campaign.....	7-3
7.1.4. Multi-Media Campaign.....	7-4
7.1.5. Public Service Announcements.....	7-4
7.1.6. Other Promotional Activities.....	7-5
7.1.7. Enforcement of Pedestrian Laws.....	7-6

VIII. FUNDING..... 8-1

8.1. Federal Funding Sources.....	8-1
8.1.1. Federal Lands Highway Funds.....	8-1
8.1.2. Transportation, Community and System Preservation Program.....	8-2
8.1.3. Regional Surface Transportation Program.....	8-2
8.1.4. Regional Transportation Improvement Program.....	8-2

8.1.5. Recreational Trails Program.....	8-2
8.1.6. Land and Water Conservation Fund	8-3
8.1.7. Rivers, Trails and Conservation Assistance Program	8-3
8.1.8. Indian Reservation Roads Program.....	8-3
8.2. Statewide Funding Sources.....	8-4
8.2.1. Wildlife Conservation Board Public Access Program	8-4
8.2.2. California Conservation Corps	8-4
8.2.3. Federal Safe Routes to School (SRTS) and California Safe Routes to School (SR2S).....	8-4
8.2.4. Environmental Justice: Context Sensitive Planning Grants.....	8-5
8.2.5. Office of Traffic Safety (OTS) Grants	8-5
8.2.6. Community Based Transportation Planning Demonstration Grant Program.....	8-5
8.2.7. Coastal Conservancy Non-Profit Grants Program	8-5
8.2.8. State Highway Operations & Protection Program	8-6
8.3. Local Funding Sources	8-6
8.3.1. TDA Article 3	8-6
8.3.2. Mello-Roos Community Facilities Act	8-6
8.3.3. Requirements for New Development	8-7
8.3.4. Impact Fees	8-7
8.3.5. New Construction	8-7
8.3.6. General Funds.....	8-7
8.3.7. Special Improvement Districts	8-7
8.3.8. Parks and Recreation Funds	8-8
8.4. Non-Traditional Funding Sources.....	8-8
8.4.1. Integration into Larger Projects	8-8
8.4.2. Community Development Block Grants.....	8-8

APPENDIX A: PEDESTRIAN PLANNING & DESIGN

A.1. California Manual of Uniform Traffic Control Devices	A-1
A.2. Accessibility Guidelines.....	A-1
A.3. Sidewalks	A-2
A.3.1. Sidewalk Widths.....	A-2
A.3.2. Design of the Furnishing Zones	A-3
A.3.3. Design of the Through Passage Zone.....	A-5
A.3.4. Design of the Frontage Zone	A-8
A.3.5. Driveways.....	A-9
A.3.6. Corners	A-9
A.4. Intersections.....	A-11
A.4.1. Curb Ramps.....	A-12
A.4.2. Crosswalks	A-14
A.5. Traffic Signal Enhancements	A-17
A.5.1. Countdown Pedestrian Signals	A-17
A.5.2. Signal Timing.....	A-17
A.5.3. Pedestrian Pushbutton.....	A-17
A.5.4. Accessible Pedestrian Signals (APS)	A-18
A.6. Alternative Design Treatments For Rural Roadways.....	A-19
A.6.1. Shoulders.....	A-19
A.6.2. Maintenance.....	A-20

APPENDIX B: PUBLIC WORKSHOPS

B.1. Workshops’ Discussion Summary	B-1
B.1.1. SR 255.....	B-1
B.1.2. Crossings	B-1
B.1.3. One Way Couplets.....	B-1
B.1.4. Education Programs	B-1
B.1.5. Youth	B-2
B.1.6. Disabled.....	B-2
B.1.7. Non-Motorized Facilities & Land Use	B-2
B.2. Pedestrian Regional Plan Stakeholder Workshop Notes	B-2
B.2.1. Where Highways Are Main Street	B-2
B.2.2. Education Programs	B-3
B.2.3. Trails.....	B-5
B.2.4. Geographic Discussion	B-5
B.2.5. Facility Types of Interest	B-6
B.2.6. Skateboards & Scooters	B-6
B.3. Pedestrian Regional Plan Public Workshop Notes	B-7
B.3.1. Highways As Main Street.....	B-7
B.3.2. Eureka.....	B-8
B.3.3. Arcata.....	B-8
B.3.4. Facilities of Interest	B-8
B.3.5. Schools/Youth	B-8
B.3.6. Education Campaign.....	B-9
B.3.7. Disabled Community.....	B-9
B.3.8. Land Use	B-9
B.3.9. Overall about this plan.....	B-9
B.4. Workshop Feedback & Comments Summary	B-9
B.4.1. What was most valuable about this workshop?	B-9
B.4.2. What was least valuable about this workshop?.....	B-10
B.4.3. Additional Comments.	B-10
B.5. Stakeholder Workshop Participants	B-10

APPENDIX C: CRITERIA SCORING

Incorporated Projects	C-2
Unincorporated Projects	C-4

TABLES

Table 6-1 Incorporated Pedestrian Projects.....	6-3
Table 6-2 Unincorporated Pedestrian Projects.....	6-4
Table 6-3 Phasing Plan	6-5
Table A-1 Recommended Minimum Zone Widths by Street Type	A-3
Table A-2 Sidewalk Material Comparison	A-7
Table A-3 Crosswalk Markings	A-15

FIGURES

Figure 3-1 Gender of Survey Respondents	3-2
Figure 3-2 Age of Survey Respondents.....	3-2
Figure 3-3 Reasons Do Not Walk More Often.....	3-2
Figure 4-1 Humboldt Bay Trail Feasibility Study – Study Area Segments	4-5
Figure 4-2 Hoopa Valley Concept Plan	4-5
Figure 4-3 Hoopa Valley Indian Reservation Proposed Recreational Trails Project.....	4-6
Figure 5-1: Study Areas – Humboldt County	5-3
Figure 5-2: Eureka and Arcata – Pedestrian Collision Locations 2002-2006.....	5-4
Figure 5-3: Greater Eureka Area - Pedestrian Collision Locations 2002-2006.....	5-5
Figure 5-4: Fortuna - Pedestrian Collision Locations 2002-2006	5-6
Figure 5-5: Blue Lake Area - Pedestrian Collision Locations 2002-2006	5-7
Figure 5-6: Arcata Area Map	5-27
Figure 5-7: Blue Lake Area Map	5-35
Figure 5-8: Eureka Area Map	5-45
Figure 5-9: Ferndale Area Map.....	5-51
Figure 5-10: Fortuna Area Map.....	5-61
Figure 5-11: Rio Dell Map.....	5-65
Figure 5-12: Trinidad Map	5-69
Figure 5-13: Avenue of the Giants Area Map.....	5-79
Figure 5-14: Hoopa Area Map.....	5-87
Figure 5-15: Loleta and Table Bluff Area Map.....	5-93
Figure 5-16: Manila, Somoa and Fairhaven Areas Map.....	5-99
Figure 5-17: McKinleyville Area Map	5-107
Figure 5-18: Orleans Area Map	5-113
Figure 5-19: Weitchpec Area Map	5-119
Figure 5-20: Willow Creek Area Map.....	5-125
Figure A-1: Sidewalk Zones.....	A-2
Figure A-2: Pedestrian Scale Lighting	A-4
Figure A-3: Accessible Bus Bulb Out.....	A-5
Figure A-4: Cross Slope.....	A-6
Figure A-5: Driveway Design	A-9
Figure A-6: Curb Radius Comparison.....	A-11
Figure A-7: Common Curb Ramp Types	A-12

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I. INTRODUCTION

The Humboldt County Pedestrian Plan guides future development and pedestrian infrastructure in the county. The Plan aims to make walking an integral transportation mode in Humboldt County by proposing improvements to the pedestrian network. This Pedestrian Plan has been developed with input from the public, local jurisdictions, and an inventory of existing conditions to help develop safe and comfortable walking environments.



Humboldt County residents have identified the need for safer, more interconnected pedestrian facilities through participation in organizations that promote non-motorized transportation alternatives. These include Tri-County Independent Living, Area 1 Agency for Aging, Senior Resource Center, Lighthouse for the Blind, Humboldt Partnership for Active Living, Trails Trust of Humboldt Bay, and Green Wheels. Specifically, these grassroots efforts have facilitated trail development, support for the expansion of the Hammond Coastal Trail, and participated in and supported pedestrian facility improvements.

1.1. PROJECT SETTING

Humboldt County, located on California's North Coast, encompasses approximately 3,500 square miles (nearly 2.3 million acres), 80 percent of which is forestlands, protected redwoods, and recreation areas. Home to a population of approximately 128,000 persons, the county is bound by Del Norte County on the north, the Pacific Ocean on the west, Siskiyou and Trinity Counties on the east, and by Mendocino County on the south. Humboldt County is located approximately 225 miles - or roughly five hours by car - north of San Francisco, the closest major city. US 101, which runs north/south, is the county's major transportation corridor. State Route 299, which runs east/west, links the county to Interstate 5 to the east.

1.2. OVERVIEW OF THE STUDY AREA

The project study area includes all of Humboldt County, however, it focuses on areas that contain the highest density of pedestrian activity, community centers, civic sites, major shopping/service destinations, and schools. Like the 2003 Pedestrian Needs Assessment, this Plan revisits the needs of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad along with the unincorporated communities of McKinleyville, Willow Creek, Orick, and Loleta as well as the following Community Planning Areas and unincorporated communities: Avenue of the Giants Community Planning Area, Blue Lake Rancheria, Cutten, Hoopa Valley, Humboldt Hill, Hydesville, Myrtle town, Pine Hills, Redway, Table Bluff Reservation, Westhaven/Moonstone, Freshwater, Fields Landing, King Salmon, Ridgewood Heights, Garberville, Honeydew, Weitchpec, Orleans, and Petrolia.

1.3. PLAN CONTENTS

The Humboldt County Pedestrian Plan is organized into the following chapters:

Chapter 2. Purpose of the Plan

This chapter describes the need for a countywide pedestrian plan and lists a series of goals and objectives for pedestrian planning in Humboldt County.

Chapter 3. Plan Process

This chapter presents how the Plan was developed, including the input received from the public and relevant stakeholders.

Chapter 4. Planning & Policy Context

This chapter presents an overview of existing plans and policies in Humboldt that relate to walking and the pedestrian environment.

Chapter 5. Priority Projects

This chapter presents pedestrian projects to improve pedestrian accessibility and circulation in Humboldt County.

Chapter 6. Project Prioritization

This chapter ranks and prioritizes the list of countywide pedestrian projects in Chapter 5. The projects are then broken into implementation phases based on priority and location.

Chapter 7. Pedestrian Programs

This chapter presents pedestrian programs to improve pedestrian accessibility and circulation in Humboldt County.

Chapter 8. Funding

This chapter outlines federal, state, regional and local sources of pedestrian funding, as well as some non-traditional funding sources that have been used by local agencies to fund pedestrian infrastructure and programs.

II. PURPOSE OF THE PLAN

2.1. NEED FOR PEDESTRIAN FACILITIES IN HUMBOLDT COUNTY

The Humboldt County Pedestrian Plan addresses the need to provide pedestrian access and improve conditions to ensure the County and its communities are walkable and vibrant places to live. The Plan looked at the county's population centers - over nineteen were evaluated - to identify the existing pedestrian network and develop recommendations to improve pedestrian access throughout Humboldt County with a specific focus routes through intersections, to destinations, such as schools, transit, downtowns, civic centers, commercial districts, recreation resources, and neighborhoods. By providing a range of transportation alternatives for its residents, the region becomes a more livable and attractive place to call home. The Pedestrian Plan will assist Humboldt County Association of Governments (HCAOG) and its member agencies to plan, design, and acquire funding for the construction of pedestrian improvements and pedestrian programs in Humboldt County.

2.2. PREVIOUS PEDESTRIAN PLANS

The Regional Pedestrian Needs Assessment Study was completed in 1999 as a part of HCAOG's effort to provide a comprehensive assessment of transportation needs in Humboldt County. The 1999 Assessment involved extensive public outreach, which included direct mailing of surveys to schools, agencies, and select individuals; public agency interviews; as well as four public meetings that were held across the county. In 2003, this Plan was updated with new information. This included additional surveys and a public workshop as well as a modified set of proposed projects. This Plan reassess pedestrian projects, including an updated list of priority projects in Humboldt County as well as descriptions of recommended pedestrian programs.

2.3. GOALS AND OBJECTIVES

With the development of the Regional Pedestrian Needs Assessment Study in 1999, the 2006 Regional Transportation Plan, and numerous specific transportation plans, Humboldt County and its cities have been educating the public about future transportation needs and planning pedestrian facilities for residents and visitors. HCAOG recognizes the improvements to overall health, transportation, and air quality that result from encouraging pedestrian trips, and wants to increase the county's alternative modes facilities to address safety, access, and congestion and for its growing population.



Eureka High students use a crosswalk on I Street near the High School.

The overall goals and objectives for the project are identified below. These policies could be adopted by the County and integrated into the General Plan.

GOAL 1: Make Humboldt County a pedestrian safe environment.

Objective A: **Safety.** Maximize safety and security for pedestrians and all other roadway users alike.

Objective B: **Conflicts.** Minimize potential conflicts between pedestrians, motor vehicles, and bicycles.

Objective C: **Enforcement.** Work with local law enforcement agencies to increase enforcement of the vehicle code in high volume pedestrian areas.

Objective D: **Collaboration.** Work together with the County's jurisdictions to establish a connected regional pedestrian network.

GOAL 2: Improve pedestrian access.

Objective A: **Connectivity.** Provide links and improve access to important destinations including transit, schools, colleges, commercial/shopping and employment generators, residential neighborhoods, recreation opportunities, and civic destinations.

Objective B: **Function.** Provide improvements that maximize functional aspects for pedestrians including access, convenience, directness, and connectivity to major destinations.

Objective C: **Design.** Improve the pedestrian experience throughout Humboldt County with additional infrastructure, thoughtful design and integration, and routine maintenance.

Objective D: **Development.** Plan, design and construct new development to invite walking, particularly in the County's Central Business Districts and Community Centers.

Objective E: **Equity.** Provide equitable investments throughout Humboldt County for pedestrian improvements.

GOAL 3: Educate Humboldt County citizens about the benefits of walkable communities.

Objective A: **Promotion:** Work with community groups, businesses/employers, government, and public health organizations to promote the civic benefits of walking.

Objective B: **Education:** Support education programs to increase walking to school, work, and for utilitarian trips.

III. STUDY PROCESS

The development of the Pedestrian Plan occurred between March and June of 2008. To identify community needs, the project team worked with HCAOG member agencies and its Technical Advisory Committee. In addition, fieldwork was performed, a public workshop was held, and interviews with local staff and transportation professions were conducted.



3.1. ADVISORY COMMITTEE

Humboldt County Association of Governments' Technical Advisory Committee (TAC) served as the advisory committee for this Study. The TAC is composed of city engineers, public works directors, transit agency directors, the California Highway Patrol, Caltrans, and Members of Native American Tribal organizations who discuss countywide transportation issues. TAC members provided the Project Team with projects to remove from the last plan as well as new projects to add.

3.2. PUBLIC INPUT

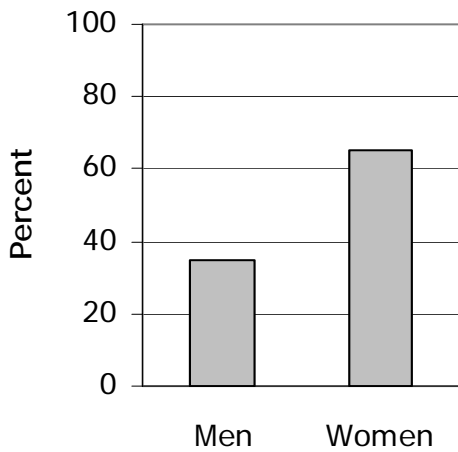
As part of the 2003 Update, an online public survey was used to garner input on pedestrian needs and potential projects in Humboldt County. A review of this effort is included below. This section also includes a review of the information collected at the public workshop.



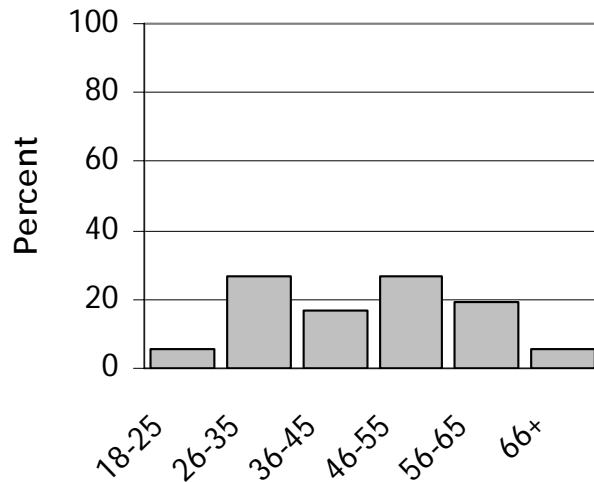
Children walk to school in Rio Dell.

3.2.1. Public Survey

A public survey was posted online during the pedestrian planning process. The link was provided on the HCAOG homepage (<http://www.hcaog.net/>). In addition to members of the public filling out the survey at the public workshops (discussed in the next section), RCAA distributed the link to its email list helping to prompt the 201 responses. **Figures 3-1 and 3-2** show some basic demographic information from the survey respondents. The majority of survey respondents were women and respondents varied in aged with the majority of people being between 26 and 55.

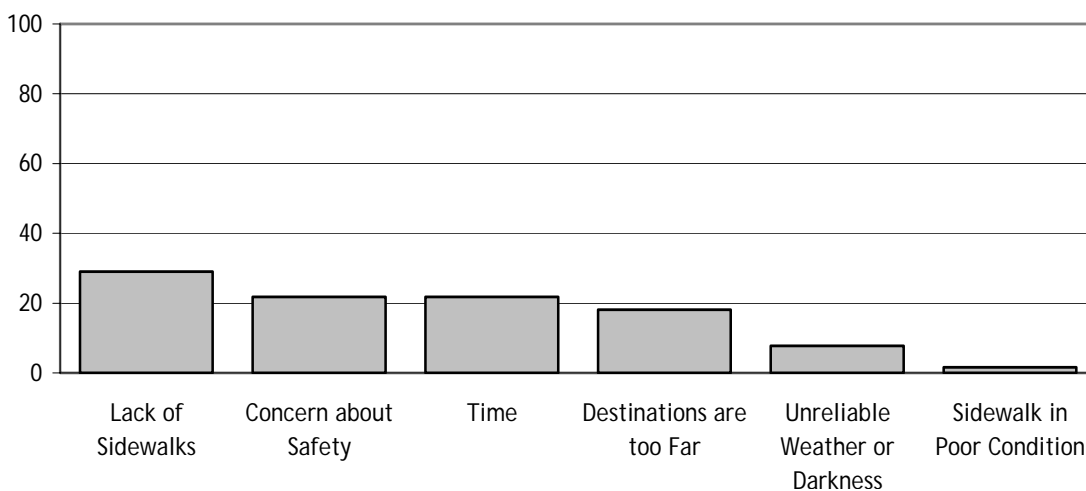


Figures 3-1 Gender of Survey Respondents



Figures 3-2 Age of Survey Respondents

More than 70 percent of the respondents stated that they walk 1 or 2 days a week and almost all respondents walk less than five miles per outing. Over 50 percent of these walking trips are for recreational purposes, over 30 percent are utility trips, and the remaining trips are for other purposes. Most respondents were from the cities in Humboldt County. This was derived from the zip code question as well as from the question regarding surface types respondents walk on the most often -the majority of respondents stated that they walk on sidewalks and in most rural areas of the County, sidewalks are not present. Lastly, as **Figure 3-3** shows, the survey found that a lack of sidewalks and safety concerns were the largest reasons that prevent people from walking more often. These are improvements that the Pedestrian Plan addresses in the project and program recommendations.



Figures 3-3 Reasons Do Not Walk More Often

3.2.2. Public Workshops

On Wednesday, May 21, the project team hosted an afternoon workshop targeting stakeholder groups and an evening workshop targeting the general public. Two meetings were held because each interest generally has different times they are available. Stakeholder groups were targeted to help them consider opportunities for partnerships and for addressing needs in Humboldt communities. Workshop announcements were released to print, radio, and television media as well as via email lists like the Humboldt Partnership for Active Living (with almost 500 subscribers).

Workshop participants learned about the Update process, its purpose, and received an overview of content in the Draft Plan. A summary of the Workshops' public input is in Appendix B. Discussion topics included:

- Youth as pedestrians - safe routes to schools
- Seniors as pedestrians: living in place, mobility, and transit
- Highways as main streets
- Pedestrian needs of differently abled: sight, physically impaired
- Pedestrian and motorist safety education programs
- Specific needs in particular geographic areas of the County

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IV. PLANNING & POLICY CONTEXT

The Regional Pedestrian Needs Assessment Study, Update, and the current Regional Plan are part of Humboldt County Association of Governments' (HCAOG) effort to provide a comprehensive assessment of transportation needs. The 1999 Assessment involved extensive public outreach, which included direct mailing of surveys to schools, agencies, and select individuals; public agency interviews; and four public meetings that were held across the county. In 2003, two survey were conducted, one for the public and the other at County schools. The 2003 Update also included a public workshop as discussed in Chapter III.

This section discusses the key public agencies involved in the Regional Pedestrian Plan, and major relevant planning and policy documents that relate to Humboldt County's pedestrian planning.

4.1. AFFECTED AGENCIES

4.1.1. *California Department of Transportation*

The State of California, Department of Transportation (Caltrans) is responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as that portion of the Interstate Highway System within the state's boundaries. Caltrans has jurisdiction over State Routes 169, 96, 299, 200, 36, 211, 254, 255, and portions of 101 in Humboldt County. As previously stated in the Plan, many of these routes serve as the main streets through Humboldt County's cities, towns, and business districts.

4.1.2. *Humboldt County Association of Governments*

The Humboldt County Association of Governments was created under a Joint Powers Agreement in 1968. It is designated as the Regional Transportation Planning Agency (RTPA) for Humboldt County and is responsible for programming federal, state and regional transportation funds and for developing the Regional Transportation Plan, which includes the development of roads, transit, rideshare, rail, bicycle, and pedestrian facilities. HCAOG's eight member agencies include the incorporated cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad, and the County of Humboldt.

4.1.3. *Humboldt County*

Humboldt County is comprised of mostly unincorporated area. Over 80 percent of the County is forestlands, protected redwoods and recreation areas. The other 20 percent of the County are important areas with destinations for pedestrians. This makes the County an important stakeholder for this study.

4.2. RELEVANT PLANNING DOCUMENTS

4.2.1. *Humboldt County Plans*

4.2.1.1. Humboldt County General Plan Update (2007)

The County is currently undergoing a General Plan update. The Preliminary Hearing Draft's Circulation Element has many policies that relate to pedestrian infrastructure and striving for the goal to *"provide a balanced multi-modal transportation system that accommodates motorized vehicles, public transit, bicycles, and pedestrians."* There are many relevant policies to this Plan. They include investing in pedestrian facilities, encouraging the Annie and Mary Trail and Northwest Pacific Railroad rights of Way for trails, considering pedestrian circulation on new roads, with road repair and intersection design, and providing comfortable walking environments.

4.2.1.2. Humboldt County 2006 Regional Transportation Plan Update

The 2006 Regional Transportation Plan (RTP) is a 20-year transportation planning document for Humboldt County. The Plan includes a needs assessment, policy element, action element, financial element, and environmental clearance. The RTP reflects the balance of maintaining the County's transportation system, increasing transportation capacity where population growth occurs, and integrating bicycling and walking as integral transportation modes. The overall goal of the RTP is:

"To develop, operate, and maintain a well-coordinated, balanced, countywide multimodal transportation system that is safe, efficient, and provides good access to all cities, communities, and recreational facilities, and into adjoining regions. A balanced multimodal transportation system includes but is not limited to highway, public transit, aviation, marine, railroads, recreation, bicycle, pedestrian, and utility systems."

The RTP establishes five policies to meet this goal. These include preserving the road system, encouraging interconnectivity, link inter-county systems, promoting a multimodal transportation system, and promoting transportation system management. The Plan's projects are currently being updated.

4.2.1.3. Humboldt County Trails Master Plan, 1978

The Humboldt County trails system is also an important part of the county's pedestrian network. The following trails identified in the Trails Master Plan, a sub-element of the county General Plan, are designated for pedestrians, either dedicated or shared and are still relevant today:

- Orick Area: Redwood Creek Levee Trail (2.9 miles)
- McKinleyville-Fieldbrook Area: Hammond Trail (6.3 miles)
- Arcata Area: Bayview Levee Trail (5.0 miles)
- Eureka Area: Elk River Spit Trail (1.8 miles)

Listed in the following section are the goals and policies from this 20 year old plan.

Goals

1. To provide guidelines for establishing a safe, efficient, and enjoyable County trails program for the transportation and recreation needs of bicyclists, equestrians, hikers, and joggers.
2. To increase participation in bicycling, horseback riding, and hiking activities which can provide physical, social, environmental, and economic benefits for County residents and tourists.

Policies

1. Develop an accessible trails network as shown on trails map which includes trails within and between communities, parks and other publicly owned lands.
2. Provide safe bicycle and pedestrian trails to schools, when it is determined that inadequate access exists.
3. Encourage development of trails with varying lengths and difficulty through diverse terrain, scenery, and points of attraction.
4. Blend trails into the natural environment to reduce environmental disruption.

4.2.1.4. Manila Community Transportation Plan - Phase II (2005)

Manila is a small town in unincorporated Humboldt County. The town created a Highway 255 Traffic Safety Committee to reduce traffic speeds through Manila on SR 255, provide enhanced pedestrian crossings on SR 255, and increase the accessibility of local streets from SR255. Phase I of the Community Transportation Plan focused on public outreach and Phase II documents the technical aspects of the study area. A number of improvements are recommended in the Study, the pedestrian improvements include:

- Installing medians
- Installing Share the Road and Pedestrian Crossing signage
- Installing Vehicle Speed Feedback Signs
- Providing flashing lights at pedestrian crossings
- Consider roundabouts
- Install a pedestrian path between Lupin Avenue and Pacific Avenue

4.2.2. *Humboldt County Association of Governments' Plans*

4.2.2.1. Humboldt County (CA) Regional Bicycle Transportation Plan Update

The purpose of the 2004 Bicycle Transportation Plan Update is to develop a unified bicycle system throughout Humboldt County for recreational and commuting bicyclists. The Plan meets Bicycle Transportation Account guidelines and is therefore eligible for state funding. In relation to the

Pedestrian Plan, the Regional Bicycle Plan outlines a series of Class I bike paths. These paths provide as walking paths for pedestrians. These are:

- Annie and Mary Rail Trail
- School Access Trail, Rio Dell
- Arcata Corridor (Humboldt Bay Trail East), Eureka
- Hoopa Path (SR 96)
- Redway Multi-Use Path Study, Garberville

4.2.2.2. Humboldt Bay Trail Feasibility Study (2007)

The Humboldt Bay Trail Assessment Study: Eureka to Arcata was a cooperative effort undertaken by the HCAOG, Humboldt County, the City of Eureka, the City of Arcata, District 1 of the California Department of Transportation (Caltrans), the North Coast Rail Authority (NCRA), the Humboldt Bay Harbor Recreation & Conservation District, the State Coastal Commission, and other local partners. The goal of the Study was to analyze the feasibility of developing a Class I bikeway/multi-use trail between Arcata and Eureka. The trail would be a link in the California Coastal Trail. The Study summarizes the existing conditions in the area, examines constraints and opportunities, and describes and evaluates five trail options, including a “No Project” option. The Study recommends a Rail with Trail option. The study area for the proposed alignment is shown in **Figure 4-1**.

4.2.3. *Other Agencies - Hoopa Valley Tribe*

4.2.3.1. Traffic Calming and Safety Enhancement in the Hoopa Valley Indian Reservation (2006)

A Caltrans Context Sensitive Planning Grant funded the Traffic Calming and Safety Enhancement Study for the Hoopa Valley Indian Valley Reservation. The Plan focuses on improving traffic safety on a .5 mile stretch of State Highway 96 from Pine Creek Road, across the Trinity River bridge, through the downtown area to Hostler Field Road. A concept plan is based on a design workshop that included approximately 50 people. Five different elements were discussed for the concept plan: pedestrian connections and traffic calming, gateway and unifying theme, a new village center, and a village grid system and main street design. **Figure 4-2** shows the Hoopa Valley Concept Plan.

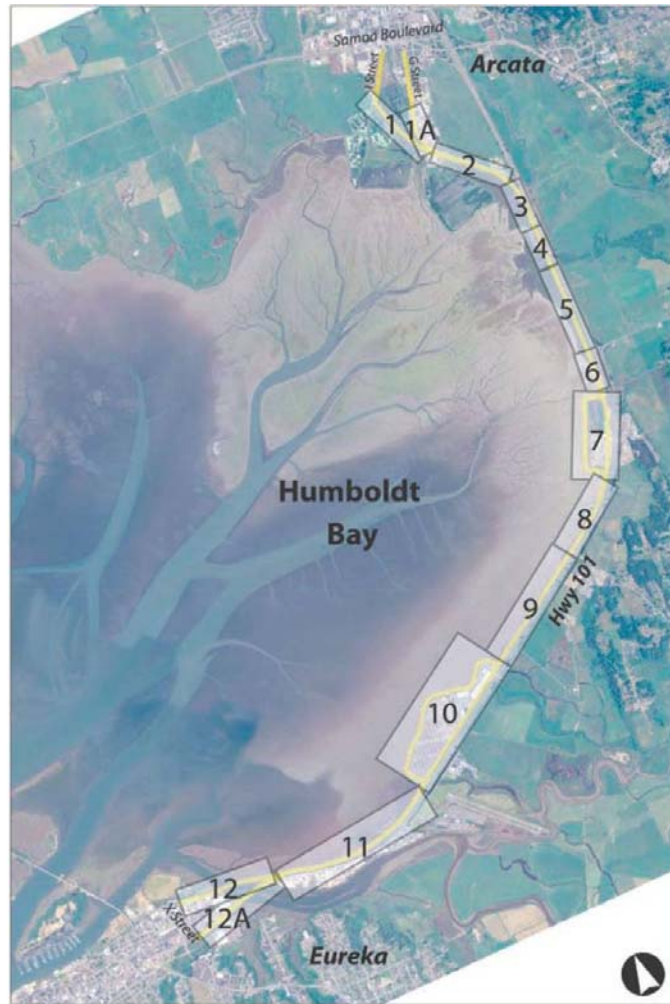


Figure 4-1: Humboldt Bay Trail Feasibility Study - Study Area Segments



Figure 4-2: Hoopa Valley Concept Plan

4.2.3.2. Hoopa Trail Project (2008)

The Hoopa Trail Project is the development of a Reservation-wide bike and jogging trail system for use as a means of promoting healthy alternatives for community members, as a business opportunity (like guide services), to foster community and family events and recreation activities, and to tie the Hoopa Trail System to others in Northern California. The Hoopa trails will average twelve feet in width, an eight-foot wide paved area for bicycling, walking, and jogging and four feet of unpaved area for jogging and horseback riding. To the extent feasible, the Hoopa Trails System will be constructed on either Hoopa irrigation terraces, which will create a means of making funds available for constructing the trail system as well as for upgrading the irrigation system at the same time, or on old Community Conservation Corp trails that traverse the upper Hoopa Valley view shed area. The anticipated length of the Hoopa Trail System is 35 miles, including the Bald Hill segment is shown in **Figure 4-3**.

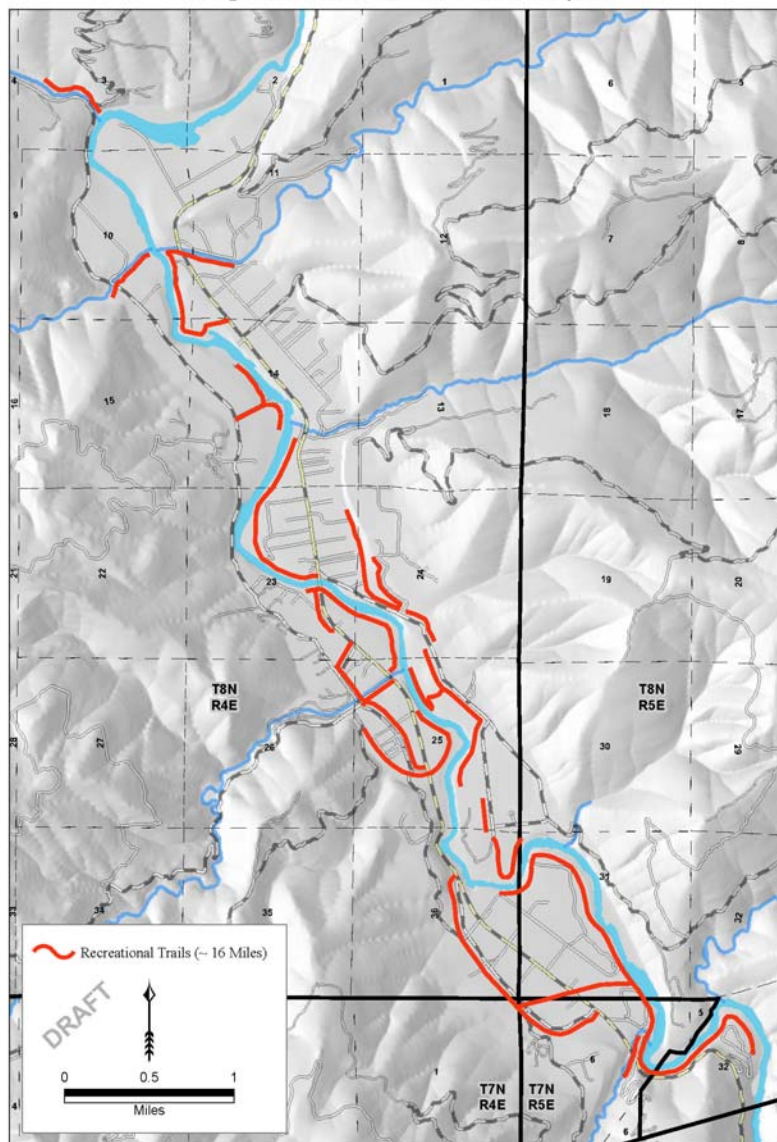


Figure 4-3: Hoopa Valley Indian Reservation Proposed Recreational Trails Project

4.2.4. Other Agencies - Yurok Tribal Transportation Plan (2006)

The Yurok Tribal Transportation Plan is a 20 year plan for all modes of transportation in the Yurok Indian Reservation. The plan was funded by a Caltrans Environmental Justice: Context-Sensitive Planning for Communities grant. The process included stakeholders and an extensive public involvement process. The result of the Plan was 23 transportation recommendations. The recommendation specifically related to pedestrian transportation is pedestrian paths in the Klamath & Klamath Glen areas along HWY 101 and 169 in Del Norte

4.2.5. Other Agencies - Redwood Community Action Agency

4.2.5.1. Humboldt Bay Trails Feasibility Study (2001)

The Humboldt Bay Trails Feasibility Study was developed to encourage non-motorized access to and around Humboldt Bay. The Study recommended immediate and future projects as well as programs such as trail signing and a water trails program. The top four projects were identified as:

- Eureka's Elk River Wildlife Area Access Project
- Humboldt Bay National Wildlife Refuge South Bay Trail System
- Arcata-Eureka 101 Corridor Bicycle Path
- Waterfront Drive Pathway Project
- Other projects that had support but required more research included:
 - Samoa Peninsula from the North jetty to the Mad River Slough
 - Northeastern Bay from Mad River Slough to Fay Slough
 - Eureka from the Eureka Slough to the Elk River
 - South Bay from King Salmon around to the South Spit

4.2.5.2. Planning for Active Transportation and Health (2006)

The Planning for Active Transportation and Health (PATH) is an initiative organized by the Redwood Community Action Agency to encourage transportation planning and funding that promotes equitable access to goods and services for all residents. For this to occur, PATH works toward integrating transportation, land use, and economic development. The PATH effort was the result of a Caltrans Environmental Justice Program grant and an extensive process that included a summary of past research, professional input opportunities, attention to underserved populations in Humboldt County, tools for underserved communities, and strategy recommendations.

4.2.5.3. Annie & Mary Rail-Trail Feasibility Study (2003)

The Annie & Mary railroad line, one of the first operational railroads in the West, begins in Arcata where it departs from the Northwestern Pacific Railroad and travels through Glendale and Blue Lake before ending in the mill town of Korb. Trains have not run on this line since 1992. The Feasibility Study focuses on developing a multiple-use trail in this corridor.

One of the first actions the study recommends is rail banking the corridor so it is useable for non-rail related purposes. Although renovating existing trestles and bridges will require a significant budget, some sections of trail on the corridor can be implemented relatively easily. A trail developed along this corridor will provide a tremendous recreational asset to the Humboldt Bay area and a commuting asset to the Blue Lake and Arcata areas.

4.2.5.4. Redwood Pathways Implementation Strategy (2002)

The Redwood Pathways Implementation Strategy was developed to further examine two priorities identified by local residents during the update of the Avenue of the Giants Community Plan and visioning process. These priorities were: 1) stimulating the local economy and 2) development of an interconnected trail network. The strategy addressed these issues by evaluating the overall feasibility of multi-use trails along the Avenue of the Giants.

The Implementation Strategy includes a summary of 32 proposed projects developed to enhance non-motorized use and access along the Avenue. The Strategy recommends two priority projects. These are:

- The South Fork High Trail, approximately six miles in length, would stretch from Miranda to Myers Flat paralleling Highway 254 on west side of the road along the river.
- The Garberville - Benbow River Trail would provide a scenic alternative to Highway 101. The strategy outlines several options for the proposed route.

4.2.5.5. Eureka Waterfront Trail & Promenade Recommendations (2005)

RCAA worked with the Eureka Trails Committee on the Eureka Waterfront Trail & Promenade Recommendations. The Study provides recommendations about the location and specifications for a contiguous non-motorized recreation and transportation facility along the City of Eureka's Humboldt Bay waterfront by filling in the gaps of the existing trail segments along the water. Project maps include types of facilities recommended and proposed amenities along the routes. The total length of the proposed segments is 6.5 miles and they are broken into five segments:

- Eureka Slough – Myrtle Avenue to the foot of T Street
- Inner Reach – Foot of T Street to foot of G Street;
- Old Town – Foot of H Street to foot of C Street;
- Working Waterfront – Foot of C Street to Del Norte Street; and
- South Waterfront – Del Norte Street to Pound Road

4.2.6. *Other Agencies - Humboldt Partnership for Active Living*

4.2.6.1. Humboldt Partnership for Active Living Strategic Plan (2006)

Humboldt Partnership for Active Living (HumPAL) is a group of professionals and citizens who are trying to integrate physical activity through policy, education, and design. The most basic for of

activity is walking and therefore there effort is applicable to this plan. HumPAL has established a Strategic Plan and the policy goal is to:

- Ensure regional, neighborhood, and transportation planning, design and redevelopment processes consider active living principles, including elimination of barriers to bicycle and pedestrian travel and increased opportunities for all types of daily physical activity.

To achieve this goal, HumPAL is working with planners countywide to integrate pedestrian needs into plans and projects. Developing pedestrian facilities will help increase activity of Humboldt residents.

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V. PEDESTRIAN PROJECTS

The proposed projects are intended to be a planning tool that allows Humboldt County and its cities to focus and prioritize implementation efforts where they will provide the greatest community benefit. It is important to remember that these serve only as guidelines to local agencies responsible for implementation. Local agencies will always maintain control over which projects they choose to implement and when they choose to pursue funding. The projects will change over time as a result of changing patterns, constraints, and opportunities. This Chapter includes a summary of countywide and projects for individual jurisdictions and countywide communities. **Figure 5-1** shows the study area that includes all of Humboldt County

5.1. COMMUNITY DETAILS

Information about the walking conditions and proposed projects for each community was gathered from interviews with staff and citizens, reviewing past plans, and observation. This section of the study provides insight into the existing pedestrian environment in each community and the recommended projects.



Pedestrians, both locals and visitors, enjoy the scenery on the Hammond Trail near Knox Cove.

5.1.1. Pedestrian Collision Data

Statewide Integrated Traffic Records System collision data was collected for the study areas in Humboldt County.

Figures 5-2 – 5-5 show pedestrian related collisions from 2002 to 2006 in the County. During this period, in total, there were 213 collisions countywide - 175 in Eureka, 17 in Arcata, 2 in the Greater Eureka (unincorporated) area, 18 in Fortuna, and one in Blue Lake. These only include reported collisions so there may be others that went unreported. Of these collisions, seven were fatal.

Humboldt County has a large number of pedestrian collisions given its population. In 2006, the County ranked sixth by vehicle miles traveled out of California's 58 counties for the number of pedestrian collisions. In 2006, Eureka ranked third of 97 California cities for the most pedestrian collisions.¹

5.1.2. Humboldt County General Findings

Pedestrian facilities are most commonly provided in Humboldt County's urbanized areas. Sidewalks of varying width are found in community centers, residential neighborhoods, and many commercial districts. However, most of these facilities meet only the minimum ADA standards and there are many sidewalks obstructed by utility poles, signposts, or other obstacles that force pedestrians and people with disabilities into roadways. Additionally, numerous sidewalk gaps, uncontrolled intersections, and street crossings that are difficult to negotiate can make pedestrian travel difficult.

¹ California Office of Traffic Safety, OTS Collision Rankings: http://www.ots.ca.gov/Media_and_Research/Rankings/default.asp

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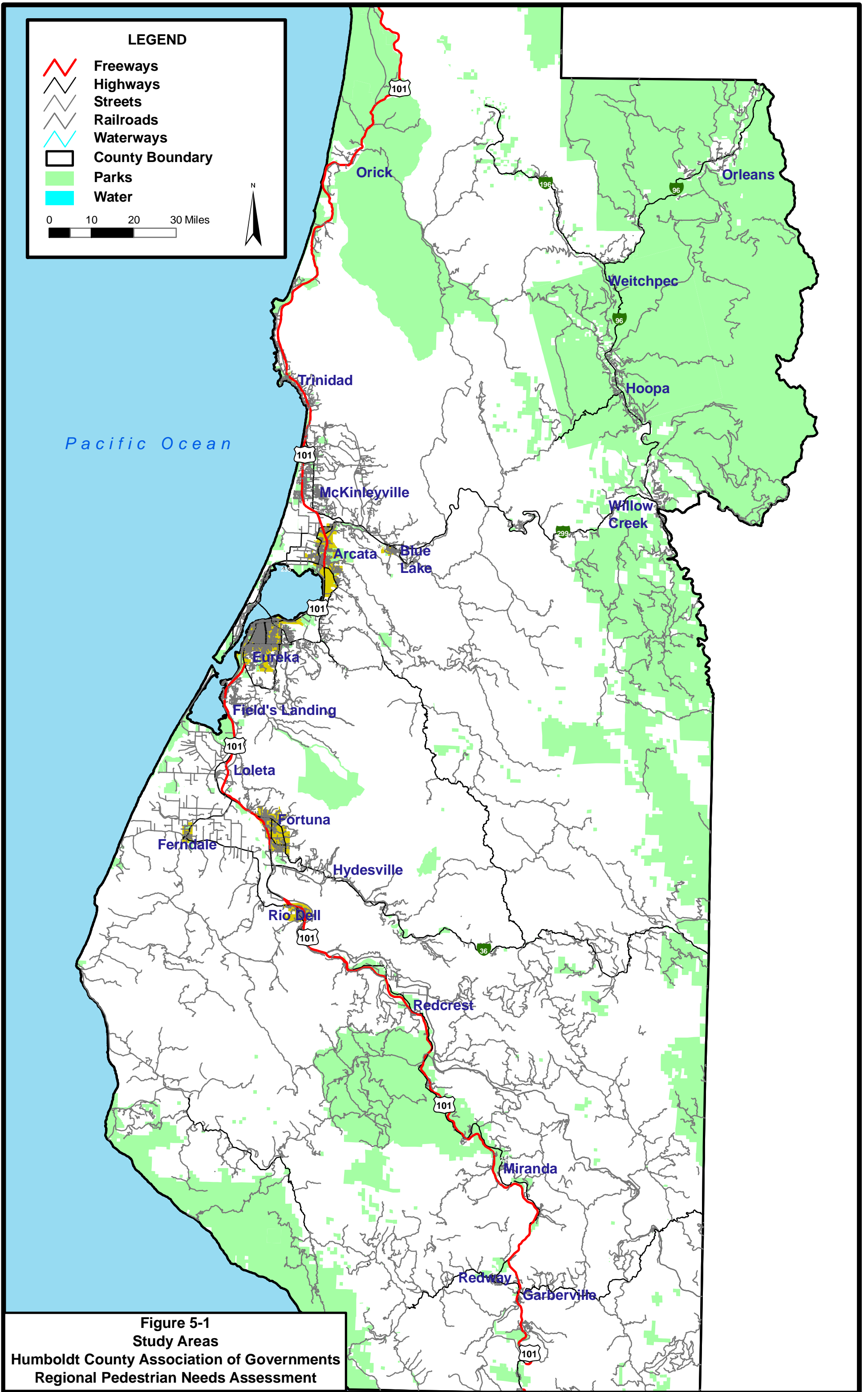
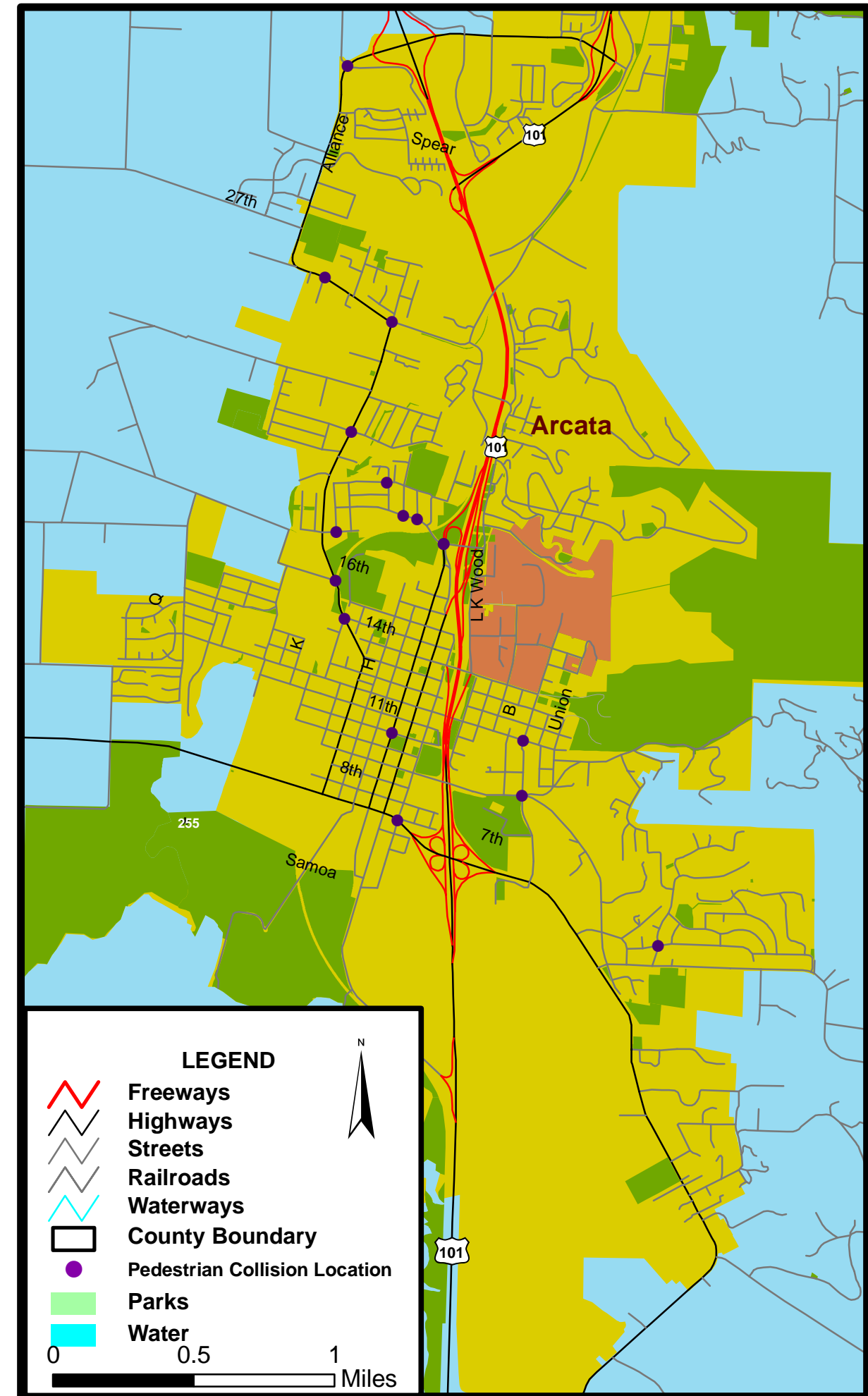
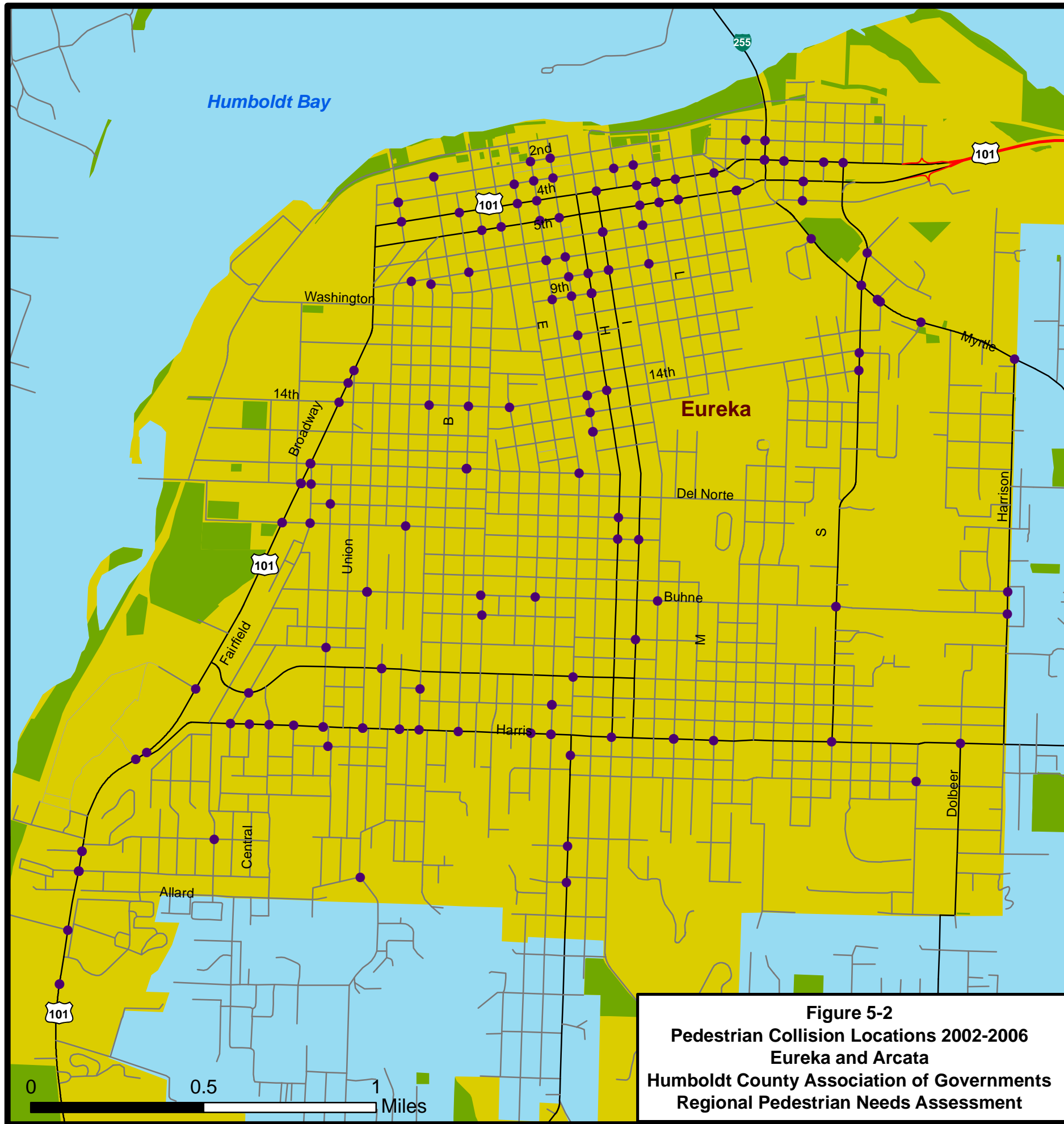
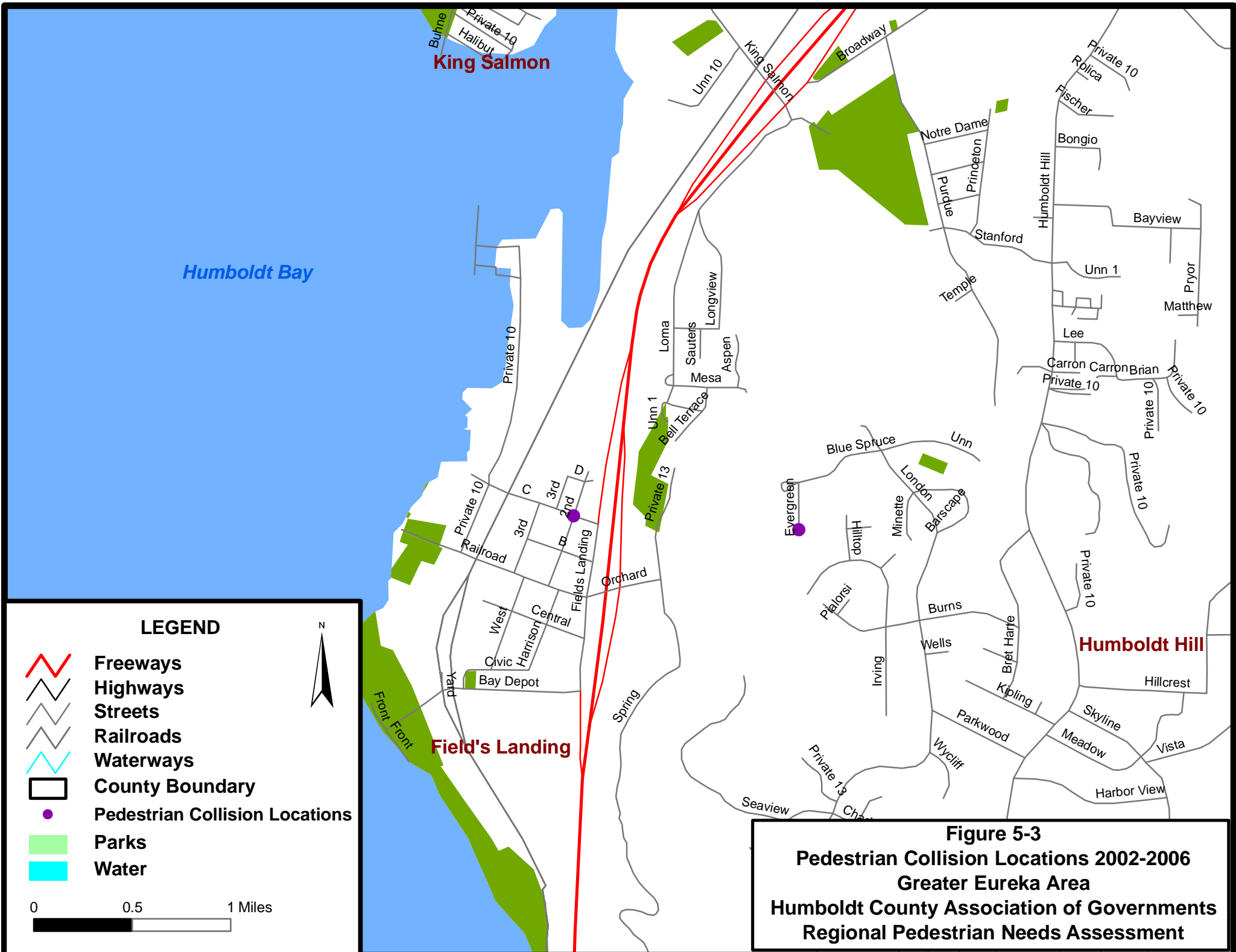









Figure 5-1
Study Areas
 Humboldt County Association of Governments
 Regional Pedestrian Needs Assessment





LEGEND

-  **Freeways**
-  **Highways**
-  **Streets**
-  **Railroads**
-  **Waterways**
-  **County Boundary**
-  **Pedestrian Collision Locations**
-  **Parks**
-  **Water**



0 0.5 1 Miles


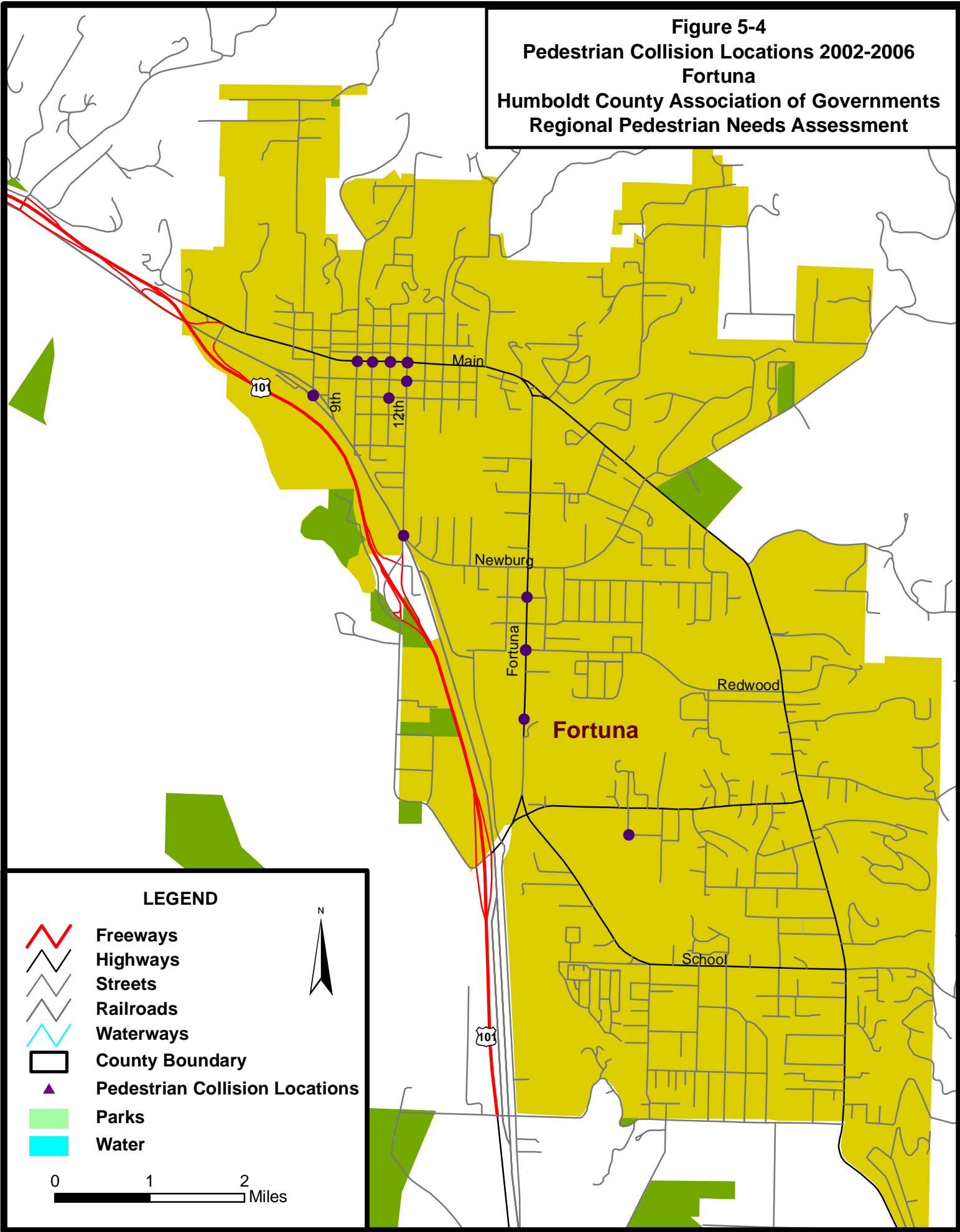


Figure 5-3
Pedestrian Collision Locations 2002-2006
Greater Eureka Area
Humboldt County Association of Governments
Regional Pedestrian Needs Assessment

Figure 5-4
Pedestrian Collision Locations 2002-2006
Fortuna
Humboldt County Association of Governments
Regional Pedestrian Needs Assessment



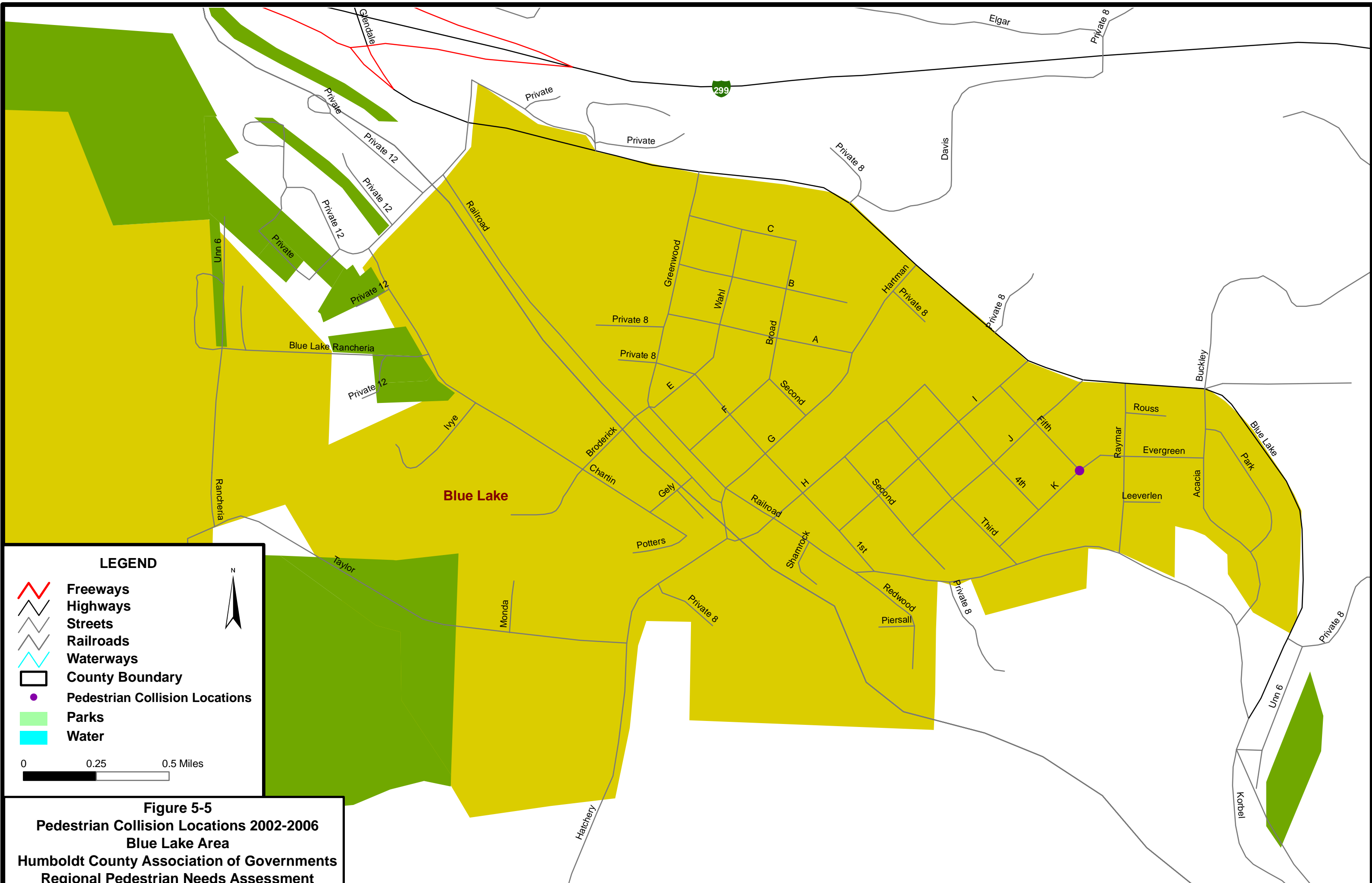


Figure 5-5
Pedestrian Collision Locations 2002-2006
Blue Lake Area
Humboldt County Association of Governments
Regional Pedestrian Needs Assessment

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These locations represent a significant challenge to the mobility-impaired. Many smaller communities and neighborhoods in the County's outlying areas have no dedicated pedestrian facilities. In and between most of these smaller communities, pedestrians must use roadways due to the lack of separate pedestrian facilities. It is common to see pedestrians sharing the roadway with automobiles, trucks, horses, and bicycles in these locations.

5.1.2.1. Opportunities

The following points summarize the walkable aspects of Humboldt County:

- Humboldt County's smaller sized cities and towns make pedestrian trips a viable alternative to automobile trips.
- In Humboldt County's historical areas, there are local land use patterns that contain a mix of residential, commercial, industrial, and civic uses places destinations within easy walking distance.
- Existing transportation and utility corridors, and shorelines and waterways provide potential intercity pedestrian connections.
- Coordination of the County's and the incorporated cities' General Plan Circulation Elements with the Pedestrian Regional Plan.
- Currently, the unincorporated County has limited pedestrian facilities and traffic calming.

5.1.2.2. Constraints

- State highways bisect many Humboldt County communities and serve as the "Main Street" for many of the county's smaller communities. These highways carry a significant volume of through traffic and have limited pedestrian facilities for local residents.
- Vehicle speeds along state routes and rural roads are high, a safety concern for pedestrians.
- The rural nature of the county leaves few alternative routes between communities. Pedestrians traveling between communities share rural highways with automobiles, trucks, and all other modes of transportation.
- A number of county schools are located on rural highways.
- Roadway erosion due to active geology and inclement weather requires significant resources from the County's public works departments, reducing the amount of resources available for pedestrian projects and programs.



SR 299 bisects and serves as the main street for the community of Willow Creek.



Hammond Trail Coastal Access

5.2. COUNTYWIDE PROJECTS

The implementation of projects countywide needs collaboration between different jurisdictions. These projects are included in this section. They include regional trail projects as well as school safety improvements. School improvement recommendations are the development of a safe routes to school program and safety improvements including installation of fluorescent yellow-green signage and speed feedback signs.

5.2.1. Regional Trails

Pathways benefit recreational and commuting pedestrians and they serve pedestrians of all ages.

5.2.1.1. California Coastal Trail

The California Coastal Trail is a partially completed trail from the Mexican border to the Oregon border following Highway 1 and the California Coast. Within Humboldt County, the Coastal Trail would use existing public (State, City, County and Federal) lands where possible that is within the coastal corridor. Specific recommendations for Humboldt County include:

1. Support implementation of the Humboldt Bay Trails Feasibility Study to develop a continuous trail system around the east side of Humboldt Bay (See Humboldt Bay Trail).
2. Complete the extension of the Hammond Trail from the Mad River bridge south, developing links to Arcata and Eureka. (See Hammond Trail)
3. Restore the Hammond Trail pedestrian/bicycle bridge across the Mad River.
4. Using abandoned railroad right-of-way, develop the Annie and Mary Trail to encourage non-motorized access to the coast by linking Arcata with Blue Lake and other inland communities.
5. Work with private landowners to acquire public access rights at several locations from Centerville Beach to Cape Mendocino.
6. Encourage Caltrans to design improvements for pedestrians and bicycles on the bridges crossing the Eel River and Mattole River.

5.2.1.2. Humboldt Bay Trail

Residents in the cities of Arcata and Eureka often find themselves traveling from one city to the other for shopping, jobs, school, and recreation. A six and a half mile Class I shared use path between Arcata and Eureka was as a top priority proposed in the Humboldt Bay Trails Feasibility Study (2001). The alignment would follow the North Coast Railroad, rail corridor and parallel US-101. The project is also identified as a potential dedicated corridor in the 2000-2002 Humboldt County Regional Transportation Plan. In 2007, a Feasibility Study was completed and a multi-agency planning team is now looking for opportunities to implement the Study's projects.

5.2.1.3. Annie and Mary Trail

The Annie and Mary Trail is a proposed 6.8 mile trail corridor that runs east from the Arcata Business Park to the City of Blue Lake. The proposed trail follow the inactive railroad corridor owned by the North Coast Railroad Authority and a segment along SR 299. The railroad was formerly the Arcata and Mad River Railroad Company. A trail feasibility study was completed in 2003. The infrastructure along the trail, including wooden trestle bridges and steel bridges has deteriorated since the railroad ceased operation. Efforts are underway by the City of Blue Lake to construct a first phase of the project within the city limits. Friends of the Annie and Mary Trail with North Coast Railroad Authority are working to develop the remainder of the corridor.

5.2.1.4. Hammond Trail:

The Hammond Trail is a partially completed trail that links the south bank of the Mad River with Clam Beach County Park and travels through McKinleyville. The Hammond Trail is approximately 5.5 miles long and uses an abandoned railroad corridor. The Hammond Trail is a designated part of the California Coastal Trail. Future connections include links to the City of Arcata and Westhaven. **Figure 5-6** shows the completed portion of the Hammond Trail.

5.2.1.5. Hoopa Valley Trail

The Hoopa Valley Trail is proposed as one segment along Highway 96 with the goal of eventually expanding it throughout the Hoopa Valley. This segment is a six mile stretch beginning on the south end of Shoemaker Road and extending six miles north. This proposed project is in Caltrans right-of-way. Several of the segments are through difficult to terrain.

5.2.2. *Safe Routes to School*

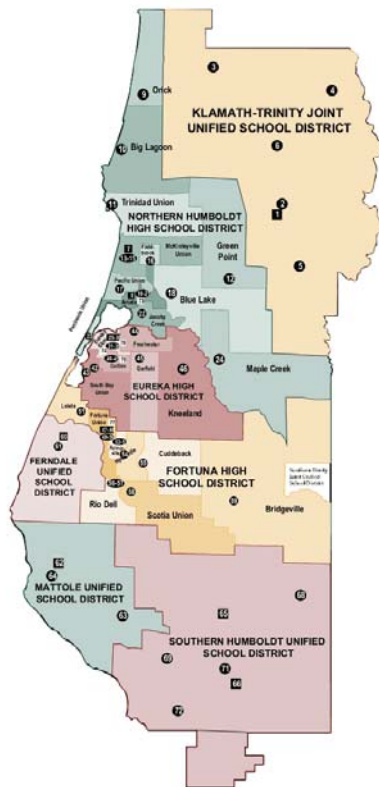
The County, HCAOG, and local jurisdictions should assist school districts and interested schools in developing comprehensive Safe Routes to



Figure 5-6: Existing Portion of the Hammond Trail

Schools programs. This section outlines the steps that other communities have used to develop successful Safe Routes to Schools programs. These steps have been compiled from the Safe Routes to Schools Guide, published by the National Center for Safe Routes to School. The guide is available at <http://www.saferoutesinfo.org/guide/>. These steps are intended as suggested guidelines and should be implemented as appropriate for each school's needs.

The purpose of the proposed Safe Routes to School program is to identify and improve school commute routes, to increase the number of students who walk and/or bicycle to school in Humboldt County, to lessen traffic congestion, to improve health and to help meet California's wellness goals. Identifying and improving routes for children to walk and bicycle to school is one of the most cost effective means of reducing AM traffic congestion.



The basic components of the program include:

- **Encouragement** – school commute events and frequent commuter contests are used to encourage participation.
- **Education** – students are taught safety skills.
- **Engineering** – infrastructure improvements are constructed to improve the safety of school commute routes.
- **Enforcement** – various techniques are employed to ensure traffic laws are obeyed.
- **Evaluation** – commute surveys are done before and after implementation to confirm the success of the program.
- **Equity** – consideration for schools serving communities that do not have other transportation options.

5.2.2.1. Step 1: Bring Together the Right People

There are thirty-one school districts and seventy-two schools in Humboldt County.



Cones are used to accentuate the school crossing and calm traffic in front of the Lafayette Elementary School in Myrtletonn.

In order to be successful, a Safe Routes to School program in Humboldt County will need participation from individuals, groups and organizations throughout the community. Potential coalition members include school officials, parents, residents, the Sheriff's Department and County staff to ensure that appropriate and effective school-area traffic calming and bicycle and pedestrian projects will be developed. Involving various stakeholders also improves the chances that projects and programs will be funded by State, Federal or other grant funding and increases the likelihood that educational and enforcement programs will be implemented.

The organizational structure of a successful Safe Routes to School program generally includes **champions** (individuals at each school who spearhead their school's organizing effort), **stakeholders** (a team of parents, teachers, and neighbors from an individual school that support the champion) and a task force that **task force** that coordinates county, city- or district-wide activities, facilitates the sharing of ideas between schools, and identifies district or city-wide opportunities for funding.

Champions from each school provide the basis for a successful SR2S program. Whether they are a school teacher or official, a concerned parent, or even a student, champions organize an individual school's stakeholder team, coordinate activities within their school, and work with other schools to ensure coordination and community buy-in.

An active and committed stakeholder team is necessary for organizing and implementing the Safe Routes to School program at each school. A school's Safe Routes to School team should include all stakeholders to that school including parents, children, teachers, school officials, and neighbors. In the beginning, it may be easiest to form a team as part of an already established official organization or committee, such as a school PTA, or school district safety committee. The program should ensure that school officials are willing to help promote events and contests. The team initiates a school's efforts by gathering as much information about their school and surrounding area as possible, works with the county to develop improvement recommendations, organizes incentive-based events and contests to encourage students to try walking and biking to school, and promotes the program through school newsletters and other means to reach parents and students.



The County's role in the Safe Routes to School process is to provide resources to support the school-based Safe Routes to School stakeholder teams and to provide assistance in funding, construction, and program implementation. An effective Safe Routes to School will require technical support and implementation assistance from the County's Public Works Department and Humboldt County Sheriff's Department. Public Works personnel trained in engineering, traffic management and innovative bicycle and pedestrian treatments and programs can work with schools to determine the best way to improve school area bicycle and pedestrian safety. The Sheriff's Department can work with schools to determine appropriate and effective enforcement techniques and schedules, and can work directly with students through presenting safety education classes and special events such as bicycle rodeos.

5.2.2.2. Step 2: Build a Partnership

Once a champion and potential stakeholders are identified, each school or set of schools can hold a kick-off meeting. Attendees of the meeting should include staff from the local jurisdiction, teachers and the principle, motivated parents, and other relevant community groups. The purpose of a kick-off meeting is to create a vision for the safe routes to school program and to generate a list of next steps in developing the program. The meeting can also serve to educate parents, students and school officials about Safe Routes to School programs and to generate enthusiasm and support for the program. The kick-off meeting should include parents, interested neighbors, students, county and city and law enforcement officials. The kick-off meeting is a good place to develop a list of committees that will take on specific tasks and determine committee members. Some examples of

committees include: mapping and information gathering, outreach, education and encouragement activities, enforcement and engineering, and traffic safety committee.

5.2.2.3. Step 3: Gather existing conditions information and identify issues

Information gathering is a key step in development and ongoing maintenance of a Safe Routes to School program. Gathering information before a program is fully implemented is important: 1) to establish baseline data so that the effectiveness of programs can be evaluated, 2) to fully understand the conditions around the school, 3) for promotion and education purposes, 4) to identify the attitudes and 4) to assist with grant applications. This information gathering should include how students get to and from school and if they walk or ride a bike, the safety issues that are present. Gathering these existing conditions can occur in several ways, for example, the group of stakeholders can meet as school lets out and watch students vacating the property, taking pictures and notes of the existing conditions. Another method is through surveys, asking parents, students, and teachers what they see as the challenges for students walking and riding bicycles to school.

5.2.2.4. Step 4: Identify solutions

After information has been gathered and the stakeholder group understands the existing conditions and issues at the school, the group can begin to develop a list of potential solutions. Solutions should encompass all five E's of a Safe Routes to Schools program: Engineering, Enforcement, Education, Encouragement, and Equity. Different issues will require different types of solutions. It is important to involve those that will be implementing the solutions in this stage of the process. For example, the jurisdictions with Caltrans, HCAOG and County Public Works staff should be involved in brainstorming engineering solutions, the Humboldt County Sheriff's Department should be involved in brainstorming enforcement solutions.

After a list of potential solutions is created, the stakeholder group should prioritize the solutions. Safety should be a first priority in implementing any strategy. If conditions around the school are unsafe to bike or walk, these conditions should be addressed first before students are encouraged to bike or walk. Solutions that are easy to implement may also rank higher on the priority list.

5.2.2.5. Step 5: Develop a School Plan

Drawing from the information gathered in Step 3 and the Solutions identified in Step 4, the stakeholder group should develop a Safe Routes to School plan for their school. The Plan does not have to be very long, but should include engineering, enforcement, education, encouragement, and equity strategies; a schedule for delivery of the strategies; a map of the area covered by the Plan; and an explanation of how the Plan will be evaluated. Plans that include strategies that can be implemented quickly help keep momentum going while the stakeholder group waits for longer-term strategies to begin.² Having a Plan opens possibilities for grant funding.

5.2.2.6. Step 6: Fund the Plan

Some Safe Routes to Schools strategies can cost very little money. Education and encouragement programs tend to be less expensive than engineering and enforcement solutions. For example, a

² An example of a Countywide Safe Routes to School Plan that includes a number of smaller, school plans can be found here: <http://www.sta.dst.ca.us/sr2s.html>

school may spend only a few hundred dollars to publicize International Walk and Bike to School Day by printing flyers for the students to take home to parents and asking teachers to discuss the event in their classrooms. More expensive strategies, like sidewalk construction, signal installation and other physical infrastructure improvements may cost hundreds of thousands of dollars.

There are three main sources for Safe Routes to Schools Funding: Federal Safe Routes to Schools grant money administered through Caltrans, local funding and private funding. Generally, a school or school district must team with a government entity to apply for government funding. Funding sources are listed in more detail in Chapter 7 Funding.

5.2.2.7. Step 7: Act on the Plan

The stakeholder team does not have to wait until funding is received before starting the Safe Routes to School Plan. Low-cost activities can be started right away. These may include holding a kick-off event or press conference, publicizing and supporting International Walk and Bike to School Day, and educating parents.

5.2.2.8. Step 8: Evaluate, make improvements and keep moving

Evaluation of the Safe Routes to School program is important to understand the effectiveness of the program, to identify improvements that are needed, and to ensure that the program can continue in the long-term. The evaluation process should include before and after studies, and it may be appropriate to regularly collect information at the beginning and end of the school year. Evaluation can measure shift in mode share, attitudes toward biking and walking, recognition of the program, grant money received, and infrastructure projects constructed.

In addition to evaluating the effectiveness of the Safe Routes to School program, the stakeholder team should also evaluate how the program is being run and should take steps to ensure the continuation of the program. This may include identifying new “champions,” publicizing successes to increase community support, encouraging school and city policy changes to help make walking and biking to school safer and easier throughout the community, and by creating a permanent Safe Routes to School committee.

5.2.3. *School Safety Improvements*

One of the focal points of the Pedestrian Regional Plan was the evaluation of school pedestrian needs. In addition to site-specific improvement projects, this effort yielded the following recommendations for “Safe Routes to School” programs and school zone improvements that can be implemented countywide. These recommendations are designed to improve safety for student commuters and motorists through education efforts and the use of high visibility school zone markings. It is important to note that while this planning effort focused solely on pedestrian needs, school commuters include children who both walk and bicycle to school, thus the recommendations below are intended to meet the needs of student commuters in Humboldt County, whether they commute to school on foot or by bike.

5.2.3.1. Fluorescent Yellow-Green Warning Signs

The “fluorescent yellow-green” (FYG) designation is the name of a color the FHWA approved as an option for warning signs about schools, pedestrians, and bicycles in an amendment to the *Manual on Uniform Traffic Control Devices*. Fluorescent yellow-green has been an optional background color for use in warning signs for bicycle crossings, pedestrian crossings, school bus stops, and school zones in California since 1998. Although FYG was initially slow to gain popularity, the color is seeing increased use statewide.



Speed feedback sign

FYG signage has been installed in Humboldt County in several locations. These include near Cutten, Grant, and Morris Elementary Schools. This Study recommends FYG signs for projects in school zones and at unprotected crosswalks on high volume roadways. Cities and the County may want to consider replacing existing yellow warning signs for the FYG signs at locations where pedestrians and vehicles are known to have conflicts.

5.2.3.2. Speed Feedback Signs

Speed feedback signs are proposed for the arterial roadways adjacent to the schools. These signs use a radar to flash the motorist's speed if it is over the 25 mph school speed limit. The signs can be set up to only operate during the school AM and PM commute periods, thereby increasing their long-term effectiveness. These signs are expected to reduce overall speeds along the school corridor during the school commute periods.

5.2.3.3. Sidewalks around Schools

To help students walk to and from school, the Humboldt Pedestrian Plan recommends the development of sidewalks or shoulders within a one mile radius of schools on county roadways. This is a lofty goal that is attainable with time. Developing these facilities will serve as a backbone for the pedestrian network countywide.

5.3. INCORPORATED COMMUNITIES

5.3.1. *Arcata*



Downtown Arcata is a well-utilized pedestrian district.

The City of Arcata has a population of approximately 16,700 persons. Arcata’s downtown has a grid street network and a traditional design with a town center and a plaza surrounded by shops, restaurants and other amenities. The speed limit on most streets within the city is 25 or 30 mph. Outside of the traditional town center, the development pattern is more contemporary suburban in style and primarily residential. In general, these areas have more sidewalk gaps. Arcata is bordered by agricultural pastures to the west, the Arcata Community Forest to the east, Humboldt Bay and the Arcata Marsh & Wildlife Sanctuary to the

south, and the Mad River to the north. The Arcata Community Forest and Arcata Marsh both have trail systems that attract significant recreational use.

Arcata was bisected by US 101 in the 1960's, and a number of challenges for pedestrians are related to several highway overcrossings. The Sunny Brae and Valley West areas function as "satellite" neighborhoods to the downtown core of Arcata. Both of these areas have a substantial residential populations and significant barriers to walking to or from these neighborhoods. The influence of Humboldt State University as a pedestrian trip generator in Arcata is extremely significant. The primary intersections for access to the university are also highway on- and off-ramps – creating complicated intersections for all modes.

Primary challenges for pedestrians, other than highway on- and off-ramp interactions and access to/from outlying neighborhoods, are substandard sidewalks and curb cuts, sidewalk obstructions and drainage problems, sidewalk gaps on arterial and collector streets, and traffic not slowing for pedestrians in crosswalks. The Arcata projects are undeveloped projects from the 2004 Arcata Pedestrian and Bicycle Master Plan Update.

5.3.1.1. Major Pedestrian Trip Generators

- Alliance Road/K Street – Westwood Market, commercial services west of K Street
- G and H Streets – Downtown, Northtown commercial services between SR 255 and 17th, Arcata Marsh
- I Street – Arcata Marsh, Market and Restaurants
- 8th and 9th Streets – Plaza, Post Office, Market, Transit Center, Assistance Center
- 7th Street – Community Center, Health Club, City Hall, Shopping Center
- 14th Street – Multiple HSU Entrances, Community Forest, Veteran's Hall, D Street Community Center
- 16th Street – Arcata High School, Community Pool
- 17th Street – Pedestrian Overpass, Northtown commercial center
- Sunset Avenue and US 101 Overpass – Access to HSU, Skate Park, Sunset Elementary
- Janes Road – Pacific Union School, Mad River Hospital and Medical Center
- Buttermilk Lane – Sunny Brae Shopping Center, Sunny Brae Middle School
- Bayside Road – Sunny Brae Shopping Center, Big Lagoon Charter School
- Old Arcata Road – Jacoby Creek School, Bayside Post Office, Bayside Grange
- Giuntoli Lane/Valley West Boulevard – Valley West Shopping Center, Aldergrove Industrial Park

5.3.1.2. Completed Projects since the 2003 Plan

- Streets leading to Sunset School
- Alliance Road: Spear Avenue to 27th Street

- St. Louis Road: west of the bridge
- LK Wood at St. Louis
- Sunset Avenue sidewalks
- F Street at 14th Street intersection improvements
- Bayside Road - Union Street to Crescent Way; may require major redesign (one-way) of street to incorporate walkways within constrained right-of-way
- Sunset School – along several streets leading to the school including Jay Street, Grant Street
- Sunset Avenue – no sidewalks along south side leading to bus stop

5.3.1.3. Projects

The recommended projects in this study are:

- Alliance Road/Shay Park Path
- G Street Pathway to Sunset Avenue
- Intersection of D Street and 14th Street
- Intersection of Samoa Boulevard and I Street
- Valley West Overcrossing: trail and US 101 overcrossing between Janes Road and Valley West Boulevard
- Intersection of L.K. Wood Boulevard and Sunset Avenue

Additional locations for consideration:

- South I Street: Samoa Boulevard to the Marsh
- Intersection of L.K. Wood Boulevard and 14th Street
- North H Street: Sunset Avenue to 18th Street
- Old Arcata Road in Bayside
- 11th Street: D Street to Union Street
- West End Road: Aldergrove Industrial Park to Spear Avenue
- Janes Road and Giuntoli Road: Heindon to West End Road
- Annie & Mary rail corridor: Aldergrove Industrial Park to Arcata Marsh
- Hammond Trail: Mad River Bridge to into Arcata city limits
- St. Louis Road – west of bridge; connection to new residential development
- South I Street – Samoa Boulevard to Marsh; may be incorporated in future redevelopment plans

- 11th Street – Union Street to D Street; many gaps
- West End Road – pedestrians must use bike lanes
- Old Arcata Road – poor pedestrian access to Bayside Post Office
- Fickle Hill Road – must walk on street with fast cars traveling into Arcata
- Samoa Boulevard – no pedestrian access over U.S. 101
- West End Road

ALLIANCE ROAD/SHAY PARK PATH

Sidewalk In-Fill

Many Arcata High School students walk along Alliance Road to reach the pedestrian path uphill to the school campus. Several students walk to and from school using the paths in Shay Park that lead to Alliance Road. Because there are no sidewalks on the east side of the road, pedestrians must walk in the bike lane.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	450	\$5	\$11,250
	Width		5		
Curb Ramps	1/corner	corner	1	\$1,000	\$1,000
Sub Total					\$12,250
30% Contingency					\$3,675
TOTAL					\$15,925

RECOMMENDATIONS:

Sidewalk/curb/gutter/curb ramps along one side.

G STREET PATHWAY TO SUNSET AVENUE

Pathway

Many HSU students park along the northern part of G Street but do not have a walkway to reach Sunset Avenue. A pathway should be constructed from Sunset Avenue to 455 feet south. At this southern terminus, a crosswalk should be installed to link to the sidewalk in Alliance Road facing south from Spear Avenue. Alliance Road near Shay Park G Street near Sunset Avenue front of North Pointe Apartments. This route would also benefit pedestrians walking north of Northtown towards Sunset without the necessity of using H Street.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	455	\$5	\$11,375
	Width		5		
Curb Ramps	1/corner	corner	1	\$1,000	\$1,000
Crosswalk	Continental	Each	1	\$400	\$400
Sub Total					\$12,775
30% Contingency					\$3,833
TOTAL					\$16,608

D STREET AND 14TH STREET

Intersection Improvement

D Street dead ends at 14th Street, directly across the street from the main entrance path into the HSU campus, with a sidewalk leading to the intersection of 14th and L.K. Wood. Pedestrians walking north on D Street rarely cross at the intersection, choosing instead to cross about 100 feet east because the sidewalk along the east side of D Street lines up with the wide pedestrian path into campus.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalks	Ladder	Each	2	\$700	\$1,400
Curb Ramps	1/corner	corner	4	\$1,000	\$4,000
Sub Total					\$5,400
30% Contingency					\$1,620
TOTAL					\$7,020

RECOMMENDATIONS:

Two crosswalks across 14th Street

SAMOA BOULEVARD AND I STREET

Intersection Improvement

South I Street is a popular walking and bicycling route to the Arcata Marsh & Wildlife Sanctuary. The only signalized intersections on Samoa Boulevard are at G, H, and K Streets, so bicyclists and pedestrians crossing at I Street are unprotected. This intersection should be designed to serve as a gateway to the Marsh with more prominent pedestrian crossings.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalks	Ladder	Each	2	\$700	\$1,400
Curb Ramps	1/corner	corner	2	\$1,000	\$2,000
Sub Total					\$3,400
30% Contingency					\$1,020
TOTAL					\$4,420

RECOMMENDATIONS:

Two crosswalks across I Street

VALLEY WEST / US 101 OVERCROSSING

Overcrossing

The Valley West neighborhood is home to many apartment complexes and provides essential services to residents in northern Arcata as well as visitors. Access to and from the area is limited as it is bordered by US 101, SR 299, and Giuntoli Lane. The only pedestrian access into the neighborhood is by Giuntoli Lane, which has very few sidewalk facilities and requires pedestrians to cross busy highway interchanges. An overcrossing not only provides the Valley West residents with another access point, but also gives the residents at the mobile home park on the west side of U.S. 101 a short-cut to shopping in Valley West.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Trail	10' wide, asphalt	mile	0.7	\$630,000	\$441,000
Overcrossing		each	1	\$2,400,000	\$2,400,000
Sub Total					\$2,841,000
30% Contingency					\$852,300
TOTAL					\$3,693,300

RECOMMENDATIONS:

Overcrossing at US 101; trail leading to overcrossing from Valley West Boulevard (in Valley West Park) on east side, trail connecting to Janes Road on west side.

L.K. WOOD BOULEVARD / SUNSET AVENUE

Intersection

The intersection of L.K. Wood Boulevard and Sunset Avenue is complicated by US 101 on- and off-ramps. Major problems include long crossings with no separation measures. The southwest section of the intersection is particularly challenging due to multiple lanes of traffic crossing the pedestrian walkway from different entrance points. Autos exiting highways must often pull into the crosswalk in order to see well enough to make a turn.

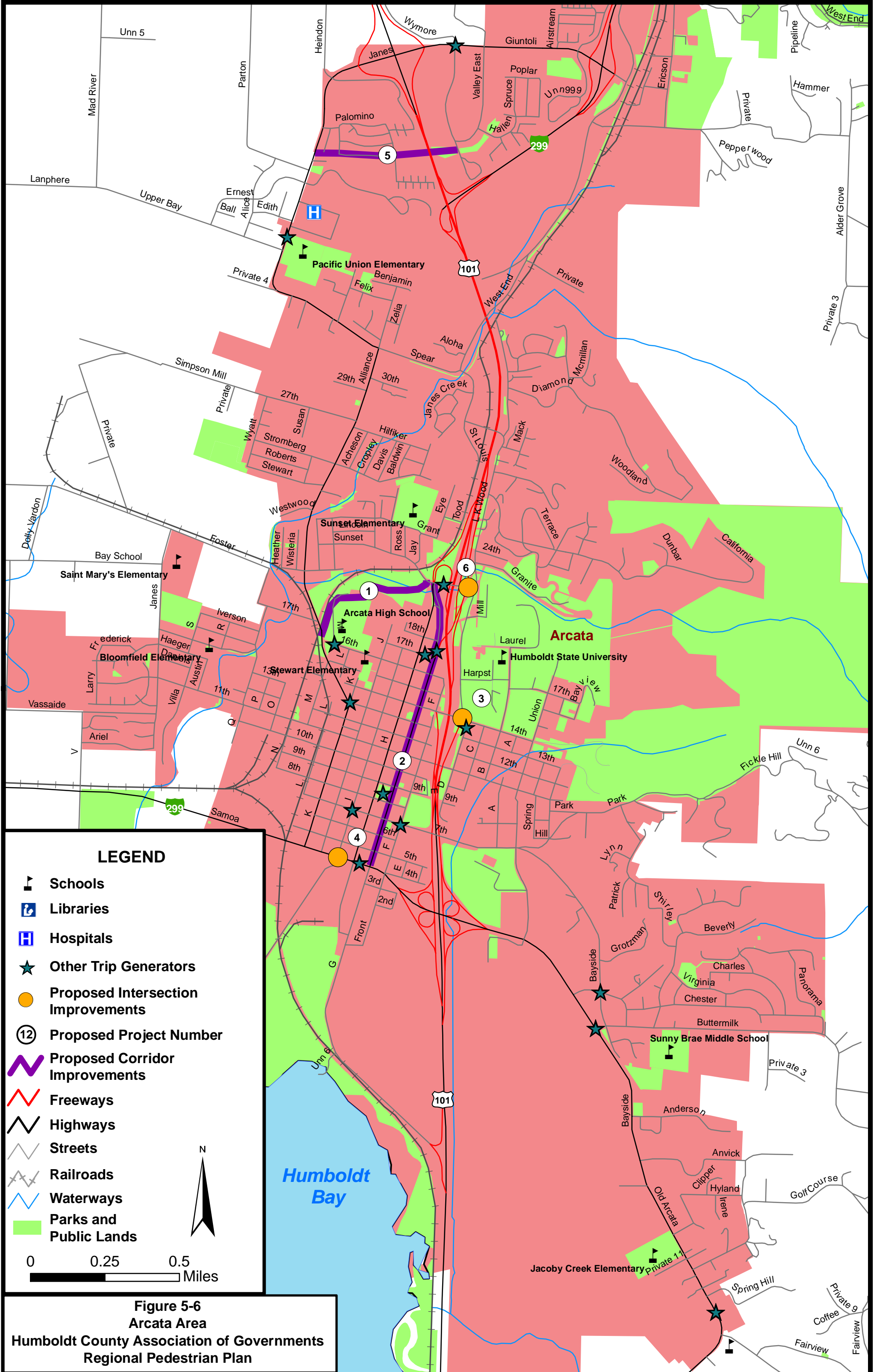
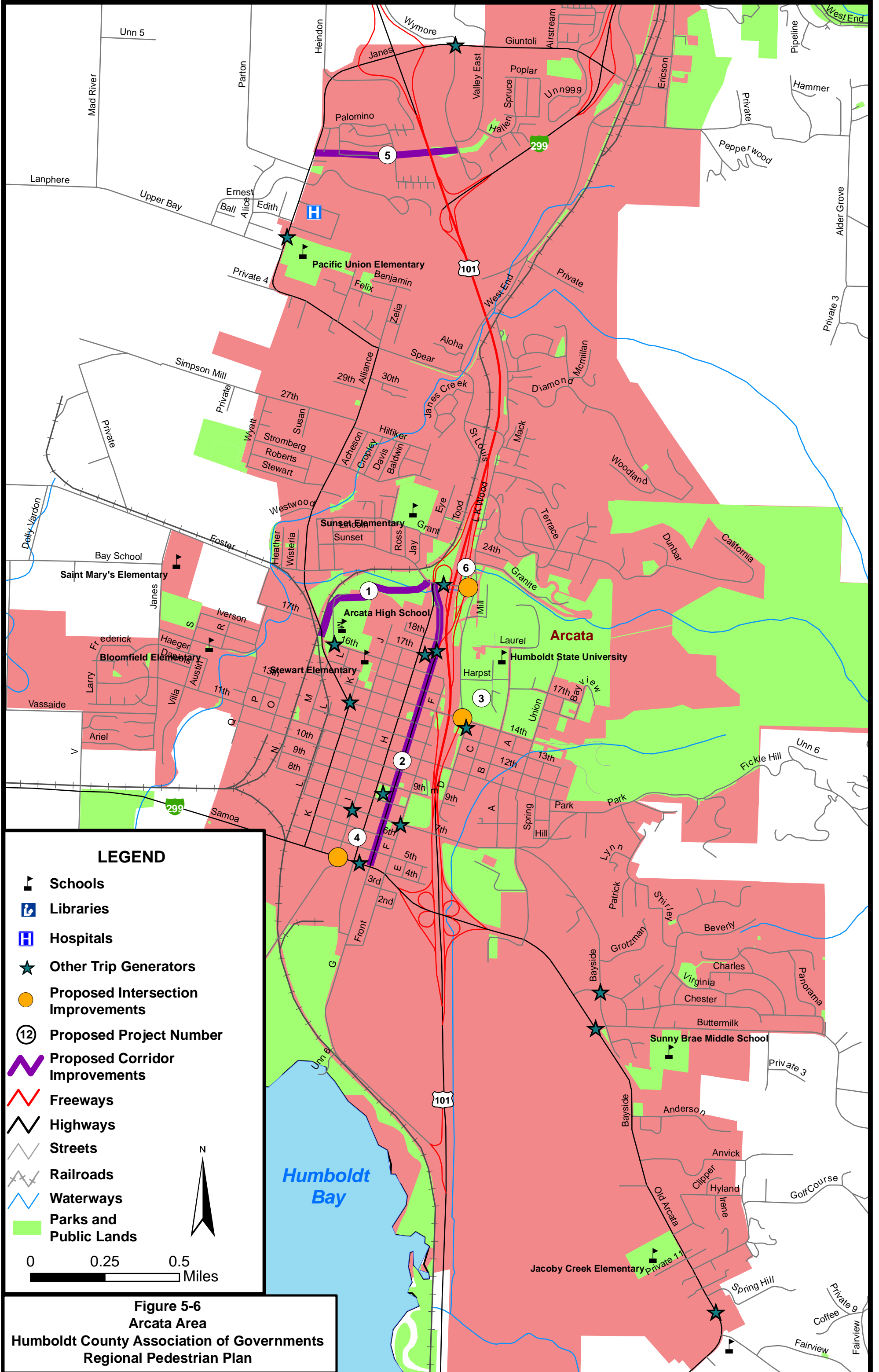
ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	2	\$400	\$800
Curbed Island	Hardscape	100 ft	135	\$18,000	\$24,300
Sub Total					\$25,100
30% Contingency					\$7,530
TOTAL					\$32,630

RECOMMENDATIONS:

Pedestrian refuge islands where stripping currently exists.

More visual crosswalk - either continental marking or colored.

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5.3.2. Blue Lake

Blue Lake is a small, primarily residential community with around 1,200 residents. It is located approximately six miles east of US 101, and to the immediate south of SR 299. Much of the downtown and community core was constructed in the late 19th and early 20th centuries, and a number of small housing subdivisions have been constructed in recent decades. Many residents travel out of town by car for work, shopping and other needs. Within the town there is significant pedestrian activity by those who live and work in Blue Lake, children going to and from school, and for recreation.

Sidewalks throughout the town are intermittent. In the downtown area near H Street and Railroad Avenue, most areas have sidewalks but outside of that immediate downtown area, sidewalks are sparse except in the most recent of subdivisions.

5.3.2.1. Major Trip Generators

- Chartin Road – Blue Lake Casino and Blue Lake Rancheria
- South Railroad Avenue – City Hall, Perigot Park, Casino
- Railroad Avenue – Access to downtown
- Hatchery Road – Industrial Park, Business Park Trail Loop, Mad River Levee
- Greenwood Road – Blue Lake School, City Hall
- I Street – Video Store, Playground



Sidewalks and bike lanes accommodate non-motorized travelers on Chartin Road.

5.3.2.2. Completed Projects since the 2003 Plan

- One block of I Street sidewalk construction programmed with 2008 STIP funds

Projects

The recommended projects in this study are:

- Greenwood Road: Blue Lake Boulevard to Redwood Avenue
- I Street: Blue Lake Boulevard to 1st Street
- Railroad Avenue: H Street to Blue Lake Boulevard
- South Side Railroad Avenue: Chartin Road to H Street (Annie & Mary Trail)

Additional location for consideration:

- Pedestrian bridge at Second Street over Powers Creek



Pedestrians are forced to walk in the travel lanes on Hatchery Road.

GREENWOOD ROAD

LIMITS: Blue Lake Boulevard to Redwood Avenue

Greenwood Road is a neighborhood street with a large number of pedestrians that walk to Blue Lake Union Elementary School. The main concern on this road is slowing traffic speeds near the school. Cars coming from Blue Lake Boulevard to downtown turn directly into the school area and pick up speed almost immediately. The road is fairly wide (40'), with little on-street parking near the school. Residents noted that there should be improvements that could help to facilitate safer drop off/pick up. A crosswalk is located near the south end of the school. Pavement markings are faded and should be repainted.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	1	\$400	\$400
Signs		each	2	\$200	\$400
Curb Extension		corner	2	\$12,000	\$24,000
Sub Total					\$24,800
30% Contingency					\$7,440
TOTAL					\$32,240

RECOMMENDATIONS:

- Install continental crosswalk at school with bulb outs.
- Replace "SCHOOL XING" stenciling.
- Replace existing school zone signs with Fluorescant Yellow-Green signs.

NOTES:

Residents are interested in traffic calming. Conduct studies to determine whether this is appropriate.

I STREET

LIMITS: Blue Lake Boulevard to 1st Street

I Street sees a large number of pedestrians despite the fact that the roadway is narrow with no sidewalks. Many residents use this route to get to the video store at the corner of Blue Lake Boulevard, often after dark. In addition, there is a very popular play structure at the corner of I and Fourth, one block south of Blue Lake Boulevard. The block between Blue Lake Boulevard and Fifth Street is narrow with little lighting. An adjacent homeowner on west side has mentioned interest in donating land for a sidewalk. The other side has mature redwoods growing right to the pavement.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	1320	\$5	\$33,000
	Width		5		
Curb Ramps	1/corner	corner	8	\$1,000	\$12,000
	2/corner	corner	2	\$2,000	
Crosswalk	Continental (or ladder)	each	1	\$400	\$400
Curb & Gutter	Length	LF	1320	\$17	\$22,440
Sub Total					\$67,840
30% Contingency					\$20,352
TOTAL					\$88,192

RAILROAD AVENUE

LIMITS: H Street to Blue Lake Boulevard

Railroad Avenue is a narrow roadway with most of its development - primarily residential - along the north side. Of particular concern for pedestrians is the intersection of Railroad, 1st Street, and Redwood where the intersection crossings are long – 72 and 90 feet - and uncontrolled on Railroad. It is very difficult for pedestrians to see oncoming traffic on the east corner of Redwood and Railroad. The narrowest section of road is just east of the "blind" corner. There is an extensive stacked concrete retaining wall on one side of the road, and a small stream on the other between Redwood and Silva. Because of these physical constraints and a strong desire to maintain rural character, sidewalks may not be the best option for this site.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	1575	\$5	\$39,375
	Width		5		
Curb Ramps	1/corner	corner	4	\$1,000	\$4,000
Crosswalk	Continental (or ladder)	each	1	\$400	\$400
Curb & Gutter	Length	LF	1575	\$17	\$26,775
Speed Hump	Incl. signs, markings	each	3	\$1,500	\$4,500
Sub Total					\$75,050
30% Contingency					\$22,515
TOTAL					\$97,565

RECOMMENDATIONS:

Sidewalk, curb/gutter along north side, where feasible.

Install a series of speed humps on west end of Railroad if traffic and drainage analysis allows and fire department and neighbors approve.

SOUTH SIDE RAILROAD AVENUE (ANNIE & MARY TRAIL)

LIMITS: Chartin Road to H Street

South Side Railroad Avenue is a very narrow roadway parallel to the abandoned Annie & Mary Railroad line. This road provides a pedestrian route to numerous trip generators and is a popular recreational walking route, even though it has no existing facilities. The railroad corridor is currently used for walking but also for parking by some residents. Formalization of this route has been identified as a priority for the community through numerous plans.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	2	\$400	\$800
Signs		each	5	\$200	\$1,000
Trail		mile	2640	\$600,000	#####
Bridge	Pre-fab	SF	600	\$110	\$66,000
Sub Total					#####
30% Contingency					\$475,220,340
TOTAL					#####

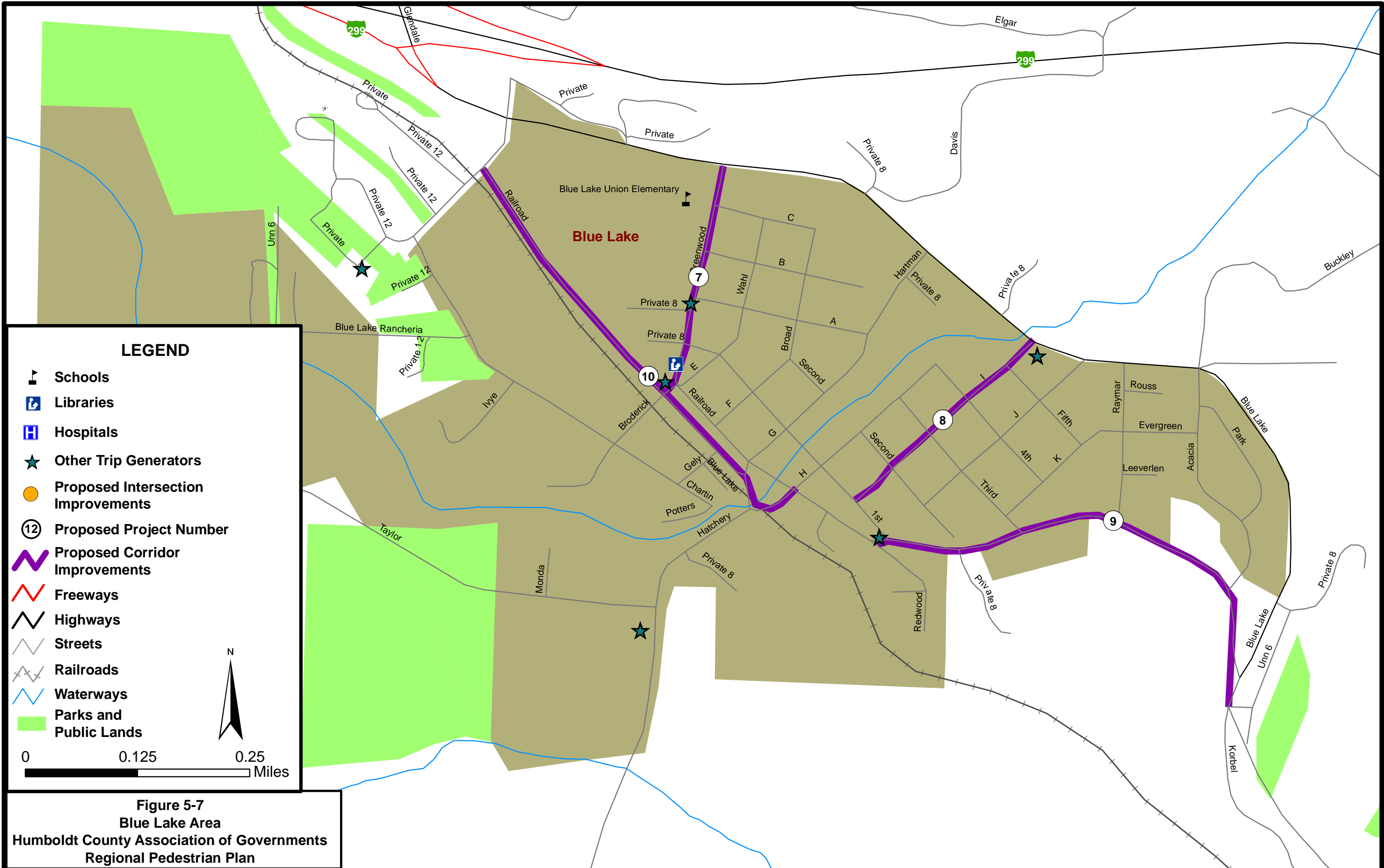
RECOMMENDATIONS:

Trail in railroad corridor.














At-grade roadway crossings at Hatchery and Chartin.

Bridge over Powers Creek.

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LEGEND

-  Schools
-  Libraries
-  Hospitals
-  Other Trip Generators
-  Proposed Intersection Improvements
-  Proposed Project Number
-  Proposed Corridor Improvements
-  Freeways
-  Highways
-  Streets
-  Railroads
-  Waterways
-  Parks and Public Lands



0 0.125 0.25 Miles

Figure 5-7
Blue Lake Area
 Humboldt County Association of Governments
 Regional Pedestrian Plan

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5.3.3. Eureka

Eureka, the seat of Humboldt County and population center of the North Coast of California, has a population of approximately 26,100 persons. The City is surrounded by rapidly growing unincorporated communities, though most residents do not differentiate unincorporated Eureka from the area within city limits, for the purposes of this Plan, a tool for local jurisdictions, the unincorporated areas of Eureka's population center are described separately. Eureka is characterized by:

- Large residential neighborhoods;
- A number of small- to moderate-sized commercial centers;
- Four large parks and wildlife areas;
- Remnant “gulches” or functioning riparian stream corridors that add topographic relief to the city’s coastal plain geography and more or less divide neighborhoods in eastern Eureka;
- A waterfront around the north and west sides of the city which is used for commercial, industrial, public access and open space purposes; and
- US 101, a four- to six-lane at-grade highway which divides the core part of the city from its waterfront and “Old Town” commercial district, and which is flanked by commercial and industrial uses.



US 101 through Eureka, with its high speeds and multiple travel lanes, can be a formidable obstacle for pedestrians, especially those with special needs, children, and the elderly.

The core of the City proper – built primarily between the 1850’s and 1940’s – is for the most part of “traditional” design: a grid street network, wide sidewalks, garages set back from the streets, small neighborhood markets and commercial districts and, commonly, alleyways. This layout makes for excellent walking conditions on existing sidewalks in much of the city. Contemporary developments, such as infill, small subdivisions, and commercial areas west of US 101, have many sidewalk gaps and narrower sidewalks. In the eastern portion of the city, on roads along the “gulches,” there are sidewalk gaps where properties will not be developed. J Street is blocked off during school hours between the two Eureka High School campuses to eliminate through traffic at the student crossing site.

The primary challenge facing pedestrians in Eureka appears to be street and highway crossings. In particular, several one-way couplets and US 101 pose challenges to pedestrians who must contend with long crossing distances.

Several schools are located on or near one-way couplets. Eureka High School (H and I Streets) stood out as the most in need of pedestrian visibility and traffic calming improvements. Other schools located on major collectors also have pedestrian safety needs, such as Zane Junior High (S Street), Washington Elementary (Dolbeer Street), and Grant Elementary (South H Street). Though St. Bernard’s – a private school on Dollison Street – does not appear to have many walking students. Other Eureka schools with significant pedestrian needs are addressed in the “Eureka Surrounding Communities” section, as they are outside city limits.

One example of the interest in improved walking facilities in Eureka and Humboldt County, in general, is the Eureka Boardwalk. Since construction of this public waterfront space, use of the Eureka waterfront in Old Town has increased.

5.3.3.1. Major Pedestrian Trip Generators

- Downtown and Old Town commercial districts, including the waterfront boardwalk – Waterfront Drive/E & L Streets
- Henderson Center Commercial District -Henderson Street/Summer Street
- Three Elementary, one Junior High, one High School and one Continuation School
- Eureka Mall - Harris Street/Prospect Avenue
- Burre Shopping Center - Myrtle Avenue
- County Library, Carson Mansion, Adorni Center and waterfront trail - 3rd Street/N St
- Downtown Post Office, County Courthouse, City Hall and market - 6th Street/K Street
- Neighborhood markets: numerous and dispersed throughout the city
- Boys & Girls Club and Teen Center - I Street/Russ Street
- Harrison Street Commercial District, Hospitals and Medical Centers - Harrison Avenue/Bhune Street
- Food Stamp Distribution Center - 5th Street/I Street
- Human Services Office - 5th Street/I Street
- Rescue Mission - Broadway/Clark Street
- Multiple Assistance Center - 2nd Street/X Street
- Sequoia Park, Zoo and ballpark - Sequoia Park Drive/W Street; T Street/Sequoia Park Drive
- Cooper Gulch Park - End of R and S Streets
- Eureka (Palco) Marsh - Along Broadway,south of Hawthorne Street
- Elk River Wildlife Area - Between Hilfiker Lane and Broadway
- Eureka Boat Basin - Waterfront Drive/Marina Way
- Bayshore Mall - Broadway/Mall Entrance
- Main Post Office and Broadway Theater - Cedar Street/Broadway
- Eureka Theater and Morris Graves Gallery - 7th Street/E Street
- Eureka Municipal Auditorium and Ink People Gallery - E Street/13th Street

5.3.3.2. Completed Projects since the 2003 Plan

- L Street traffic signal installation

- US 101 sharktooth yield markings scheduled for construction in 2008
- 4th Street and 5th Street crosswalks and signal installation
- Wabash Avenue street trees and bulbouts
- West Avenue in-pavement crossing lights

5.3.3.3. Projects

The recommended projects in this study are:

- 6th and 7th Streets: Broadway to Myrtle Avenue
- Broadway/US 101: 4th Street to Kmart
- Harris Street: Broadway to Hall Avenue
- Henderson Street: Broadway to I Street
- Waterfront Trail: Truesdale Vista Point to Elk River Wildlife Area Trailhead (Cost = \$1,740,000)

Additional locations for consideration:

- Waterfront Trail remaining segments
- 4th/5th Streets/US 101 traffic calming and signal timing improvements
- Sidewalk gaps near all schools
- Sidewalk gaps along all thoroughfares
- 14th Street: N Street to R Street
- Wabash Avenue
- South H Street
- Del Norte Street
- F Street: Old Town to Henderson Center
- West and S Streets: US 101 to Tydd Street
- Buhne Street: east of J Street

6th STREET & 7th STREET

LIMITS: Broadway to Myrtle Avenue

6th and 7th Streets is a one-way couplet that relieves traffic from 4th and 5th Streets. These streets are mostly commercial between US 101 and K Street, and primarily residential between K Street and Myrtle Avenue. Pedestrians who want to travel from the neighborhoods to the south to the downtown area must cross 6th and 7th Streets and US 101 as well.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	1375	\$5	\$41,250
	Width		6		
Curb Ramps	2/corner	corner	2	\$2,000	\$4,000
Crosswalk	Continental (or ladder)	each	20	\$400	\$8,000
Signs		each	8	\$200	\$1,600
Sub Total					\$54,850
30% Contingency					\$16,455
TOTAL					\$71,305

RECOMMENDATIONS:

Fill sidewalk gaps and add curb ramps.

Replace high-demand crosswalks with ladder or continental crosswalk markings.

Install pedestrian crossing signs at uncontrolled intersections with high pedestrian volumes.

BROADWAY/US 101

LIMITS: 4th Street to Kmart

Broadway (US 101) is an extremely wide roadway flanked by heavy commercial and retail uses. High speeds, infrequent controlled crossings, and numerous driveways make for less than favorable walking conditions. Though Caltrans and the City are working together to fill sidewalk gaps, the high speeds and volumes of traffic coupled with minimum and challenging pedestrian facilities make this the most difficult pedestrian environment in the city. Along much of this corridor, existing sidewalks are virtual "islands" between parking areas and US 101, and these are frequently disrupted by commercial-access driveways that could be consolidated in many cases. A center turn lane along the entire length of Broadway ensures that vehicles can make a variety of turning movements across sidewalk. Crosswalks are relatively few - at eight signalized intersections - long, and have no added visibility or safety amenities for pedestrians other than standard striping.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	5065	\$5	\$151,950
	Width		6		
Curb Ramps	1/corner	corner	10	\$1,000	\$26,000
	2/corner	corner	8	\$2,000	
Crosswalk	Continental (or ladder)	each	10	\$400	\$4,000
Sub Total					\$181,950
30% Contingency					\$54,585
TOTAL					\$236,535

RECOMMENDATIONS:

Fill sidewalk gaps along both sides of roadway (does not include portions of east side that would require extensive retaining walls).

Restripe crosswalks using continental or ladder markings.

NOTES:

A center median is planned for some time in the future that will limit turning movements to intersections only. This type of structure could also greatly improve the pedestrian environment, particularly as a refuge and as a traffic calming influence, especially if it extends through the crosswalks. The City of Eureka may want to consider an urban design study for this corridor.

Need to re-evaluate intersection with Henderson.

Eureka residents have expressed interest in a contiguous waterfront trail route to serve as a pedestrian and bicycle alternate to Broadway.

HARRIS STREET

LIMITS: Broadway to Hall Avenue

Harris Street is a one-way roadway between Broadway and I Street. This corridor is the only contiguous east-west arterial through Eureka, and it connects to all of the primary north-south arterials. Significant trip generators along Harris include Eureka Mall, Henderson Center, and the Boys & Girls Club. Crosswalks are wide (approximately 45 feet), and are mostly uncontrolled except at six signalized intersections. At any time of day and early evening, one can see pedestrians both in and out of crosswalks running across Harris Street between Central and Spring Streets to the Eureka Mall (and then negotiating a parking lot lacking pedestrian facilities). The intersection with I Street is very difficult for pedestrians – an uncontrolled crossing with traffic coming through a diverter from both directions.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	1925	\$5	\$57,750
	Width		6		
Curb Ramps	1/corner	corner	4	\$1,000	\$4,000
Crosswalk	Continental (or ladder)	each	9	\$400	\$3,600
Sub Total					\$65,350
30% Contingency					\$19,605
TOTAL					\$84,955

RECOMMENDATIONS:

Fill sidewalk gaps along north side (1925')
 Improve crosswalks at Spring, Prospect, Central, Pine, Summer, J, K, T
 Pedestrian signal at Central.

NOTES:

Increase enforcement to help decrease vehicle speeds
 A new traffic signal with protected pedestrian crossings is planned for 2009

HENDERSON STREET

LIMITS: Broadway to I Street

Henderson Street carries westbound traffic including westbound traffic diverted from Harris Street at I Street. Eureka Mall, St. Bernard's High School, and Henderson Center are the primary pedestrian generators. Henderson Street is very similar in character to Harris Street - long crosswalks at uncontrolled intersections - except that it is shorter and supports a high volume of traffic only between I street and US 101. The signalized intersection of Henderson and US 101/Broadway is difficult for pedestrians, who must cross both streets to get across the highway.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	5	\$0	\$0
Signs		each	3	\$200	\$600
Curb Extension		corner	6	\$12,000	\$72,000
Sub Total					\$72,600
30% Contingency					\$21,780
TOTAL					\$94,380

RECOMMENDATIONS:














Improve crossings at Summer, Pine, B Street, A Street, F Street with ladder crosswalks.

Curb extensions at Summer Street, F Street.

Replace pedestrian crossing signs at Eureka Mall and St. Bernards with FYG signs.

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LEGEND

-  Schools
-  Libraries
-  Hospitals
-  Other Trip Generators
-  Proposed Intersection Improvements
-  Proposed Project Number
-  Proposed Corridor Improvements
-  Freeways
-  Highways
-  Streets
-  Railroads
-  Waterways
-  Parks and Public Lands

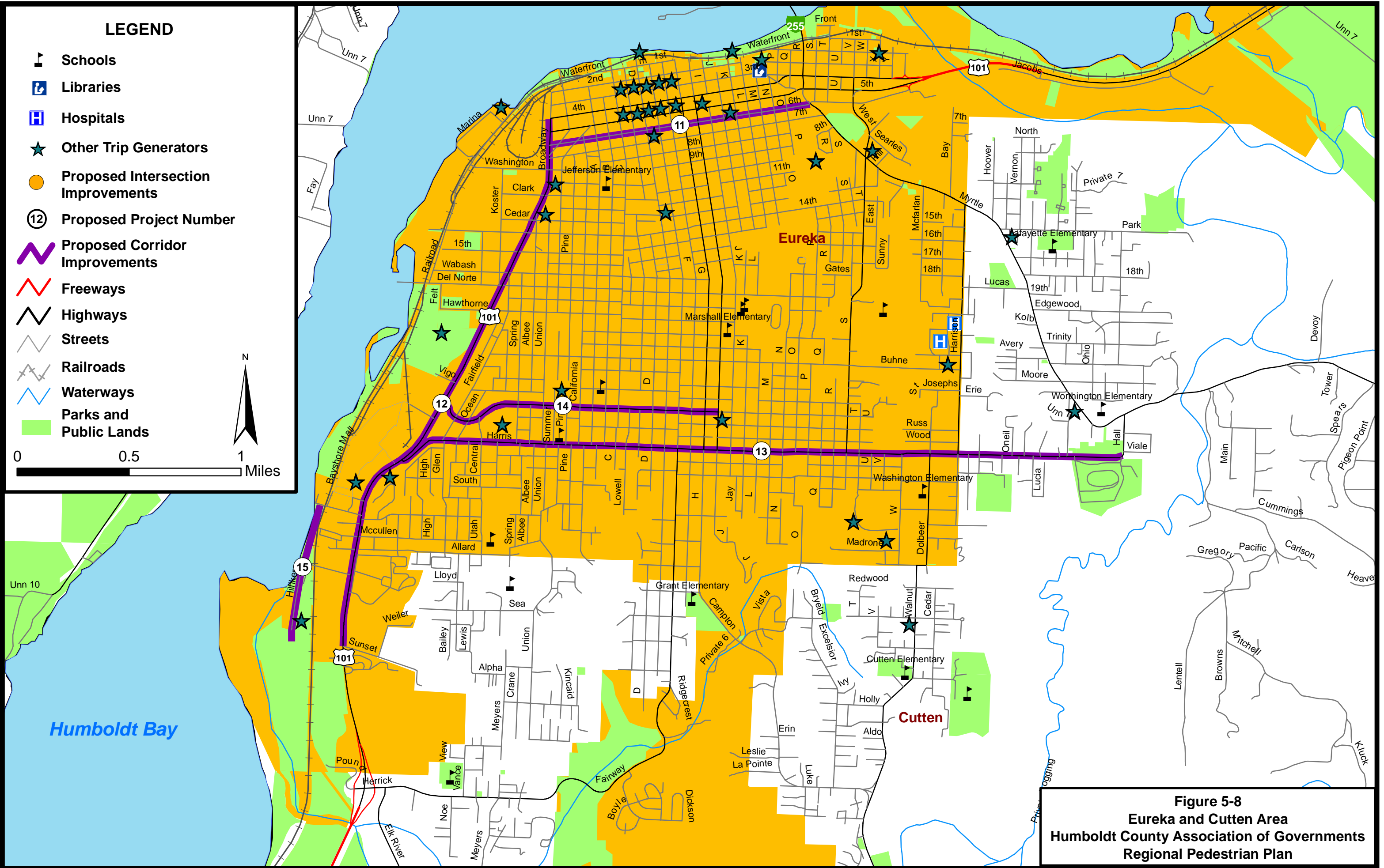
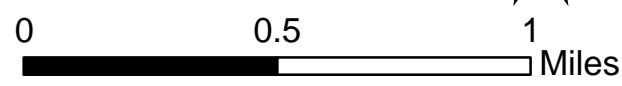


Figure 5-8
Eureka and Cutten Area
Humboldt County Association of Governments
Regional Pedestrian Plan

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5.3.4. Ferndale

Ferndale is a small city that is well known nationally for its Main Street's Victorian architecture. The city's economic base is primarily tourism and agriculture. The primary access to town, on SR 211 (which turns into Main Street) from US 101 is across Fernbridge, a narrow two lane historic bridge without any pedestrian or bicycle facilities. Thus, most tourists and residents drive into town and then walk in the Main Street area. Pedestrian use is heavy in the downtown area and traffic speeds there are generally slow along Main Street. The downtown, schools, and a few recreational areas are the primary trip generators. In the downtown area, sidewalks are predominantly complete – although some are old and in disrepair.



Downtown Ferndale is a popular tourist destination.

There are two schools in the city, an elementary and a high school, that serve outlying areas and that need sidewalk gaps filled in their vicinities. The High School is located on SR 211/Main Street. The Elementary School, on site, has good visibility and traffic calming measures for pedestrians, such as mid-block bulb-outs. The County Fairgrounds and Russ Park are on the outskirts of the downtown area do not have complete sidewalks or other pedestrian facilities.

5.3.4.1. Major Pedestrian Trip Generators

- Main Street – Market, Theatre, Downtown business zone
- Arlington and 5th – High School, Elementary School, Fair Grounds
- Bluff Street – Russ Park

5.3.4.2. Completed Projects since the 2003 Plan

- 5th Street: Arlington Avenue to Shaw Avenue is programmed for 2008 with Transportation Enhancement Activities
- Arlington Avenue: 5th Street to Main Street is programmed for 2008 with Transportation Enhancement Activities

5.3.4.3. Projects

The recommended projects in this study are:

- Bluff Street: sidewalks Craig Street to Russ Park
- Herbert Street: Rose Avenue to Berding Street

BLUFF STREET

Craig Street to Russ Park

Install a sidewalk connecting Ferndale with Park.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	2500	\$5	\$62,500
	Width		5		
Sub Total					\$62,500
30% Contingency					\$18,750
TOTAL					\$81,250

HERBERT STREET














Rose Avenue to Berding Street

Install a sidewalk connecting Herbert Street between Rose Avenue and Berding Street.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	850	\$5	\$21,250
	Width		5		
Curb Ramps	1/corner	corner	2	\$1,000	\$2,000
Crosswalk	Continental (or ladder)	each	1	\$400	\$400
Sub Total					\$23,650
30% Contingency					\$7,095
TOTAL					\$30,745

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LEGEND

-  Schools
-  Libraries
-  Hospitals
-  Other Trip Generators
-  Proposed Intersection Improvements
-  Proposed Project Number
-  Proposed Corridor Improvements
-  Freeways
-  Highways
-  Streets
-  Railroads
-  Waterways
-  Parks and Public Lands



0 0.125 0.25 Miles

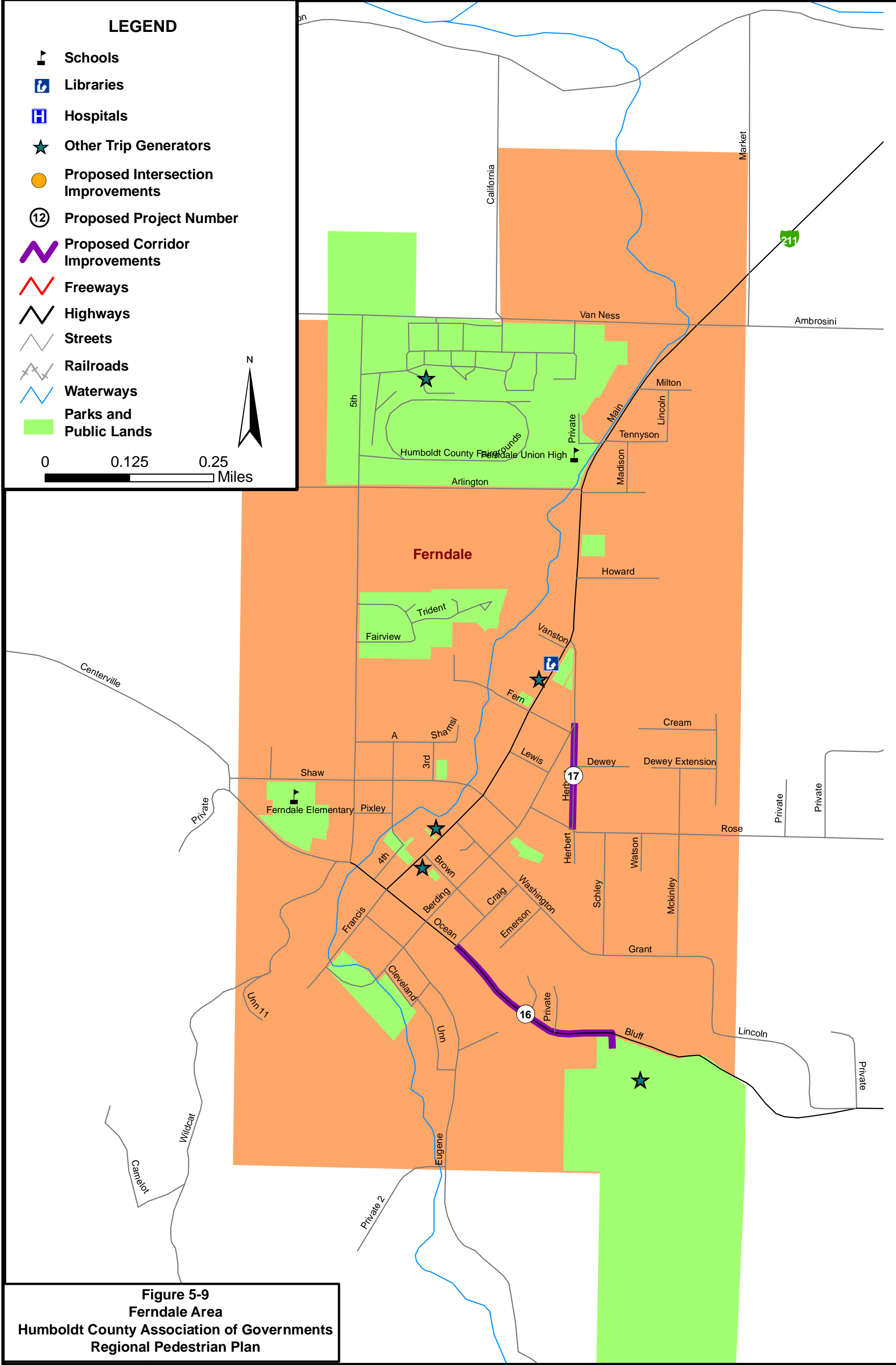


Figure 5-9
Ferndale Area
Humboldt County Association of Governments
Regional Pedestrian Plan

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5.3.5. Fortuna

Fortuna is the third-largest incorporated city in Humboldt County, with a population of approximately 10,500. It, like Arcata, has a small traditionally designed downtown core surrounded by more recently developed residential subdivisions. Fortuna also has several commercial strips along Fortuna Boulevard, Rohnerville Road, and Riverwalk Drive. Many students from outlying communities travel to Fortuna for school, and there are consequently a significant number of schools in Fortuna for its size: three elementary schools, a middle school and a high school.

Historic downtown Fortuna has nearly complete sidewalk coverage. The City recently completed a project on Main Street to improve the pedestrian environment. This project included bulb outs and landscaping at key intersection crossings, with the exception of the north-south collector, 12th Street. Some crosswalks need repainting.

Outside downtown, particularly along primary travel routes to and from neighborhoods in formerly rural areas, sidewalks are intermittent or lacking. There are several primary arterial and collector roadways in the community: Main Street, 12th Street, Fortuna Boulevard, Rohnerville Road, Redwood Way, and Ross Hill Road. Most of these corridors have significant sidewalk gaps.

Fortuna's Riverwalk Trail along the Eel River west of downtown is a popular destination for walkers, however, it is most commonly accessed by vehicle because access over or under US 101 is not designed for pedestrians. Additionally, walkers from the California Conservation Corps housing and hotels west of US 101 must use highway under- or overpasses to walk to town and services.

5.3.5.1. Major Pedestrian Trip Generators

- Main Street – Shopping area from 7th to 14th, Rohner Park
- 12th Street – High School
- Fortuna Blvd – Redwood Shopping Mall at Redwood, South Fortuna Elementary at Newburg
- Redwood Way – Hospital, Redwood Shopping Mall
- Rohnerville Road – Newburg Park, Ambrosini Elementary
- Riverwalk Drive – River trail, RiverLodge, Hotels, California Conservation Corps housing



Gateway features, decorative sidewalk materials, traffic calming features, and other pedestrian amenities all contribute to the pedestrian experience in downtown Fortuna.



Crossing improvements are proposed on 12th Street at Fortuna High to improve access for student commuters.

5.3.5.2. Projects

The recommended projects in this study are:

- 12th Street: K Street to Loni Drive
- Newburg Road: Fortuna Boulevard to Virginia Street
- Intersection of Newburg Road and Rohnerville Road
- Riverwalk Drive / Kenmar Road: Riverwalk RV Park to Ross Hill Road
- Intersection of Ross Hill Road / School Street

Additional locations for consideration:

- Redwood Way: Fortuna Boulevard to Rohnerville Road
- Intersection of 12th Street/Dinsmore/Riverwalk
- Rohnerville Road
- 9th Street near middle school

12th STREET

LIMITS: K Street to Loni Drive

12th Street is an arterial roadway that passes by Fortuna Union High School and has a US 101 on- and off-ramp for access into downtown.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Curb Ramps	2/corner	corner	4	\$2,000	\$8,000
Crosswalk	Continental (or ladder)	each	2	\$400	\$800
Signs		each	4	\$200	\$800
Curb Extension		corner	2	\$12,000	\$24,000
Sub Total					\$33,600
30% Contingency					\$10,080
TOTAL					\$43,680

RECOMMENDATION:

Curb ramps at Loni Drive, I Street, J Street, K Street.

Ladder crosswalk on 12th at I Street with curb extensions for High School crossing.

Signs for school zone.

Crosswalk at Loni Drive.

NEWBURG ROAD

LIMITS: Fortuna Boulevard to Virginia Street

Newburg Road provides access to South Fortuna Elementary School, New Life Christian School, clinics, and senior housing. The residents that use these facilities - children and the elderly - are also those that rely on walking the most.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Curb Ramps	1/corner	corner	8	\$1,000	\$8,000
Crosswalk	Continental (or ladder)	each	5	\$400	\$2,000
Signs		each	2	\$200	\$400
Median Cuts		each	1	\$1,800	\$1,800
Bike Lanes	Stripes, stencils & signs	mile	0.5	\$36,000	\$18,000
Sub Total					\$30,200
30% Contingency					\$9,060
TOTAL					\$39,260

RECOMMENDATION:

- Continental crosswalks at Newburg/Fortuna intersection.
- Re-stripe school crosswalk on Newburg.
- Median cut on southbound Fortuna Boulevard at Newburg Road.
- Install curb ramps where missing.
- Install bike lanes on Newburg to slow traffic.
- Relocate utility pole on east side of drop off, install curb ramp at utility pole (end of crosswalk).
- Replace existing school signs with FYG signs.

NOTES:

- Steep driveway approaches - difficult for people in wheelchairs.
- Redesign school drop-off/pick-up location.

NEWBURG ROAD & ROHNERVILLE ROAD

Intersection

Rohnerville Road is a wide roadway on which automobiles often speed. Improved crossings are necessary at this intersection to alert motorists to the possibility of crossing pedestrians.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	300	\$5	\$7,500
	Width		5		
Curb Ramps	2/corner	corner	8	\$2,000	\$16,000
Crosswalk	Continental (or ladder)	each	3	\$400	\$1,200
Signs		each	2	\$200	\$400
Curb Extension		corner	1	\$12,000	\$12,000
Sub Total					\$37,100
30% Contingency					\$11,130
TOTAL					\$48,230

RECOMMENDATION:

Install 2 continental crosswalks on Rohnerville and one on Newburg.

Curb extension on south leg of Newburg Road to reduce the curb radius.

Install 2 FYG pedestrian crossing signs on Rohnerville Road in advance of new crosswalks.

Sidewalks needed at northeast corner.

RIVERWALK DRIVE & KENMAR ROAD

LIMITS: Interseciton of Kenmar Road, Fortuna Boulevard, & Ross Hill Road to Riverwalk
RV Park

Riverwalk Drive has many destinations that serves visitors and is has on- and off-ramps to US 101. The intersection of Kenmar Road, Fortuna Boulevard, and Ross Hill Road is complex but has few pedestrian facilities.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	1580	\$5	\$39,500
	Width		5		
Curb Ramps	1/corner	corner	10	\$1,000	\$10,000
Crosswalk	Continental (or ladder)	each	3	\$400	\$1,200
Overhead Flashing Ped. Crossing Sign		each	1	\$36,000	\$36,000
Curb & Gutter	Length	LF	300	\$17	\$5,100
Studies/Plans		each	1	\$60,000	\$60,000
Sub Total					\$151,800
30% Contingency					\$45,540
TOTAL					\$197,340

RECOMMENDATIONS:

A "gateway study" should be pursued to create a welcoming environment for motorists and pedestrians.

Sidewalk from Riverwalk RV Park to Eel River Road (east and north sides) with crosswalks and ramps at on- and off-ramps.

Sidewalk from Eel River Road to Kenmar along southwest side of roadway.

Crosswalk at Eel River Road to southwest side of roadway with overhead pedestrian crossing sign and flashing beacon.

NOTES:

Sidewalks near on- and off-ramps will require infill to provide ample space for a sidewalk.

Fence to be moved and vegetation removed along east side of Riverwalk for sidewalk construction.

Very tight underneath US 101.

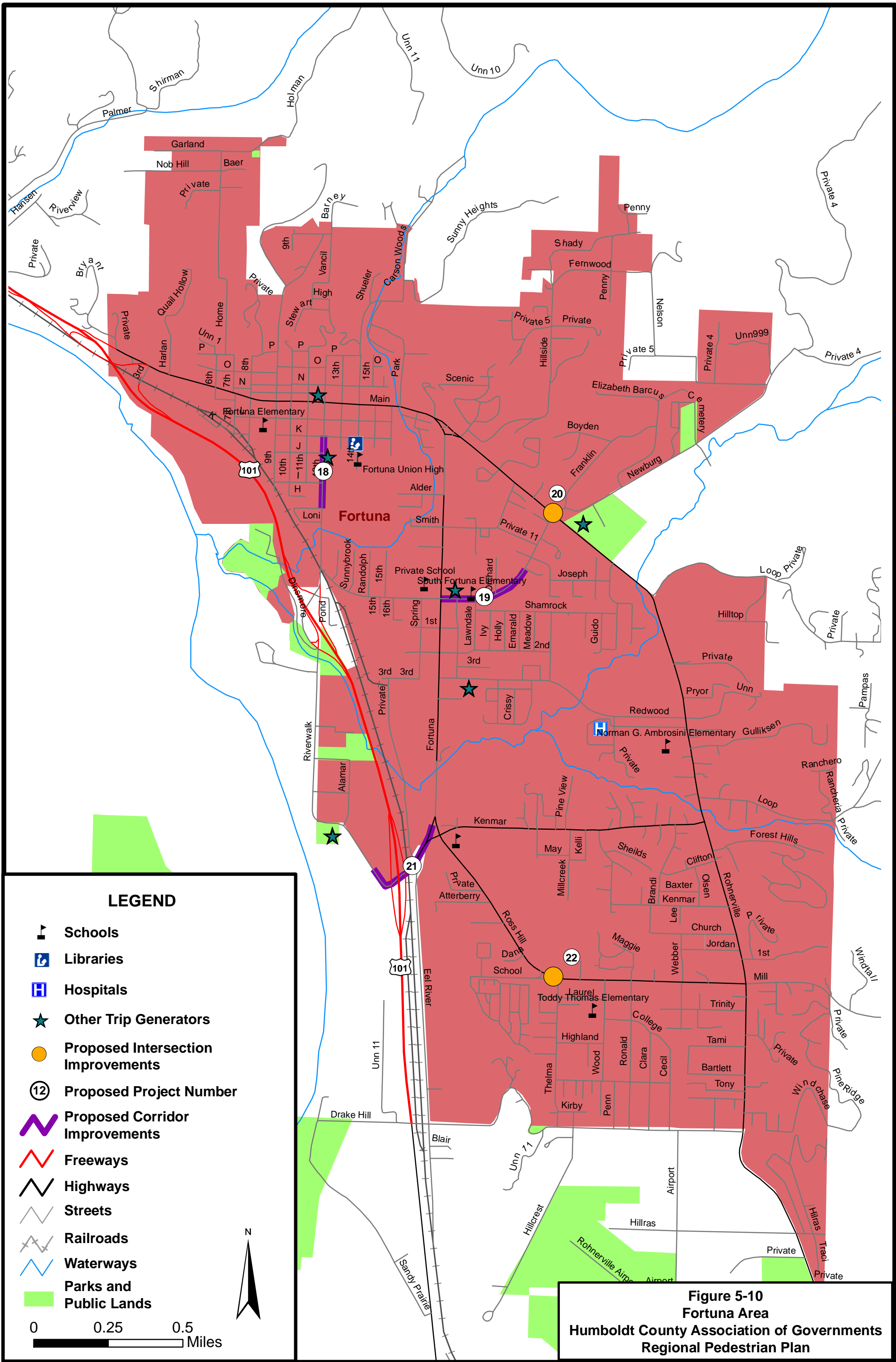
ROSS HILL ROAD & SCHOOL STREET

Intersection














Ross Hill Road & School Street is a complicated intersection with an elementary school nearby on Laurel Lane.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Ladder	each	<u>2</u>	\$400	\$800
Sub Total					\$800
30% Contingency					\$240
TOTAL					\$1,040

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LEGEND

-  Schools
-  Libraries
-  Hospitals
-  Other Trip Generators
-  Proposed Intersection Improvements
-  Proposed Project Number
-  Proposed Corridor Improvements
-  Freeways
-  Highways
-  Streets
-  Railroads
-  Waterways
-  Parks and Public Lands

0 0.25 0.5 Miles



Figure 5-10
Fortuna Area
Humboldt County Association of Governments
Regional Pedestrian Plan

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5.3.6. *Rio Dell*

Rio Dell is a small, incorporated city of approximately 3,000 people along the Eel River, south of Fortuna. The former US 101 route is now the main street of town, Wildwood Avenue. Several residential neighborhoods are located across US 101 (two overpasses and one underpass) to the east of downtown.

As with many other formerly rural communities, much of Rio Dell is lacking sidewalks. Sidewalk infill challenges include the fact that many buildings are set close to curbs, while in other places there are no curbs.



A lack of pedestrian facilities forces pedestrians into the roadway on Davis Street in Rio Dell.

There are two schools in Rio Dell – both located on Center Street one block from Wildwood. There is no bus service for students attending the elementary or middle schools, however the primary bus pickup locations for high school students are also on the same block as these school sites. There is a lack of pedestrian facilities and/or inappropriate design features that need attention near the schools.

5.3.6.1. Major Trip Generators

- Wildwood Avenue – Downtown commercial area, post office, market
- Center Street - Elementary and Middle School
- Davis Street – City Hall, school access, park

5.3.6.2. Completed Projects since the 2003 Plan

- Davis Street: Wildwood Avenue to US 101 sidewalks are funded with a Safe Routes to School grant
- Center Street: Wildwood Avenue to Ireland Street sidewalks are funded with a Safe Routes to School grant

5.3.6.3. Projects

The recommended projects in this study are:

- Wildwood Avenue: Davis Street to Scotia Bridge

WILDWOOD AVENUE

LIMITS: Davis Street to Scotia Bridge

Wildwood Avenue was once US 101, so it is characterized by a wide roadway width and acts as the main street through Rio Dell. Many crosswalks on Wildwood and cross streets are missing curb cuts. A center median through town is used as a turn lane and as a parking and loading zone for large vehicles. In places, the median is painted red to discourage use. Improved alley access could help medium and small service trucks utilize other means for loading.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Curb Ramps	1/corner	corner	12	\$1,000	\$42,000
	2/corner	corner	15	\$2,000	
Crosswalk	Continental (or ladder)	each	2	\$400	\$800
Ped Refuge Island		each	2	\$1,200	\$2,400
Sub Total					\$45,200
30% Contingency					\$13,560
TOTAL					\$58,760

RECOMMENDATIONS:

Pedestrian refuges at intersections with no parking areas at crosswalk; retripec crosswalks.
Install curb ramps where missing.

NOTES:

The City should evaluate pedestrian access onto the Eel River Bridge. Residents in electric wheelchairs use the bridge regularly.

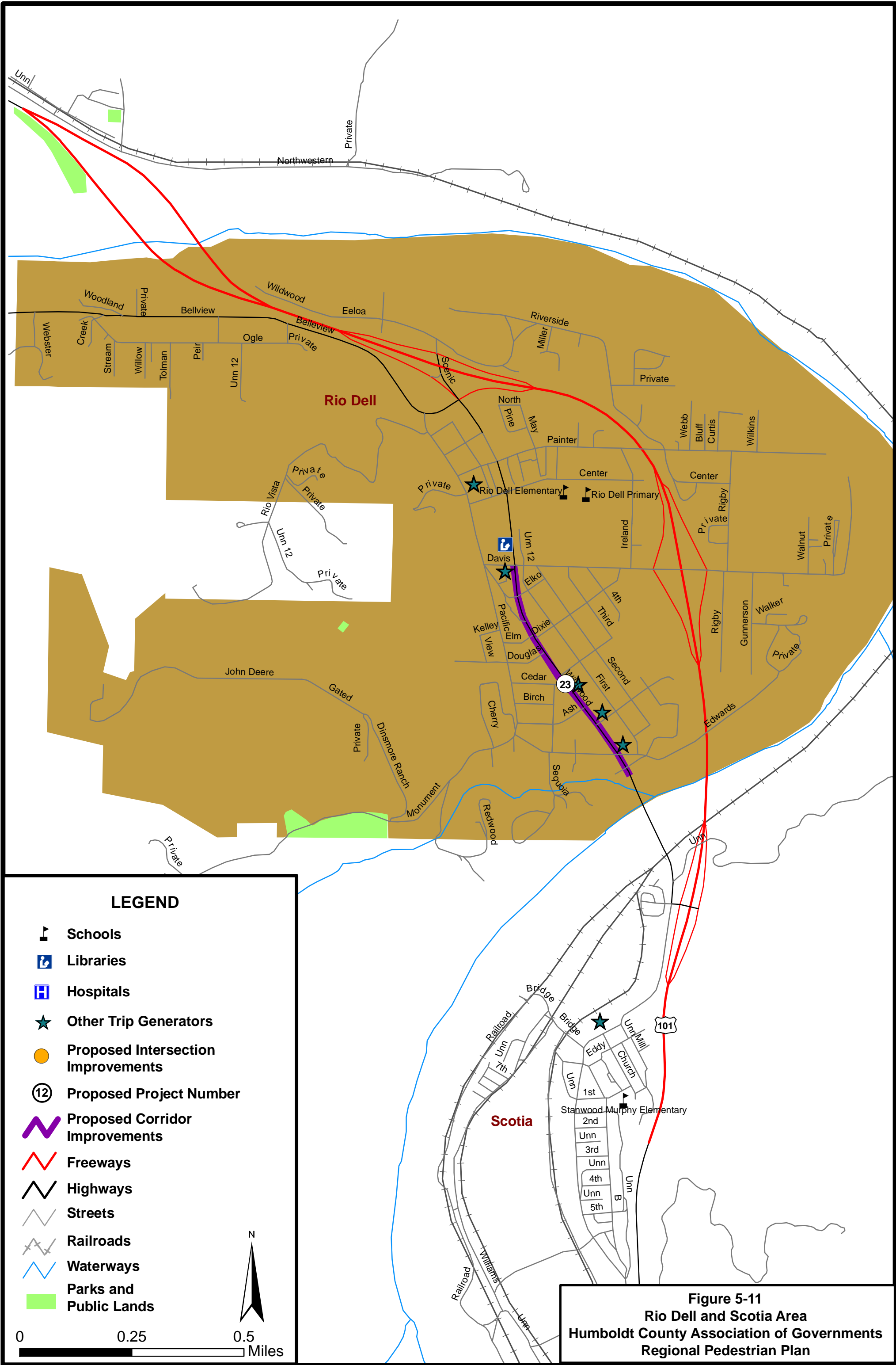


Figure 5-11
Rio Dell and Scotia Area
Humboldt County Association of Governments
Regional Pedestrian Plan

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5.3.7. Trinidad

Trinidad is a small incorporated city of approximately 360 people. The combination of its very scenic setting on a coastal point surrounded by public beaches and bluffs and the somewhat traditional architectural style of the small town attracts a great deal of visitors. The town itself is very compact, and consequently supports a great deal of walking. Though pedestrian facilities are spotty, in most places traffic speeds are relatively slow.



The Main Street / US 101 interchange sees many pedestrians because of the park and ride lots, proximity to downtown, and visitors using the RV Park.

5.3.7.1. Major Trinidad Pedestrian Trip Generators

- Trinidad Market, Post Office, and other services – corner of Main and Scenic Drive
- Trinidad Elementary – Trinity Street
- RV Park – east of US 101

5.3.7.2. Projects

The recommended projects in this study are:

- Main Street / Westhaven Drive: Scenic Drive to Hidden Creek RV Park
- Van Wycke Trail Rehabilitation Project (Edwards St. to Galindo St., Cost = \$200,000)
- Lighthouse Trail Improvement Project (Lighthouse to Beach, Cost = \$50,000)

Location for consideration:

- Westhaven Drive

MAIN STREET / WESTHAVEN DRIVE

LIMITS: Scenic Drive to Hidden Creek RV Park

The Main Street / US 101 interchange is very complex intersection because it is where five roads and four US 101 on- and off-ramps meet. This area sees many pedestrians because of the park and ride lots, proximity to downtown, walking route for elementary school children, and visitors using the RV Park.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	230	\$5	\$5,750
	Width		5		
Curb Ramps	1/corner	corner	5	\$1,000	\$5,000
Ped. Path	Width		5		\$2,140
	Asphalt	SF	107	\$4	
Median Cuts		each	3	\$1,800	\$5,400
Sub Total					\$18,290
30% Contingency					\$5,487
TOTAL					\$23,777




RECOMMENDATIONS:

Asphalt sidewalk from NB 101 off ramp to Hidden Creek RV Park (107') on south side.

Concrete sidewalk on south side between southbound 101 on-ramp and northbound 101 off-ramp.

Modify medians (3) with cut-throughs rather than ramps.

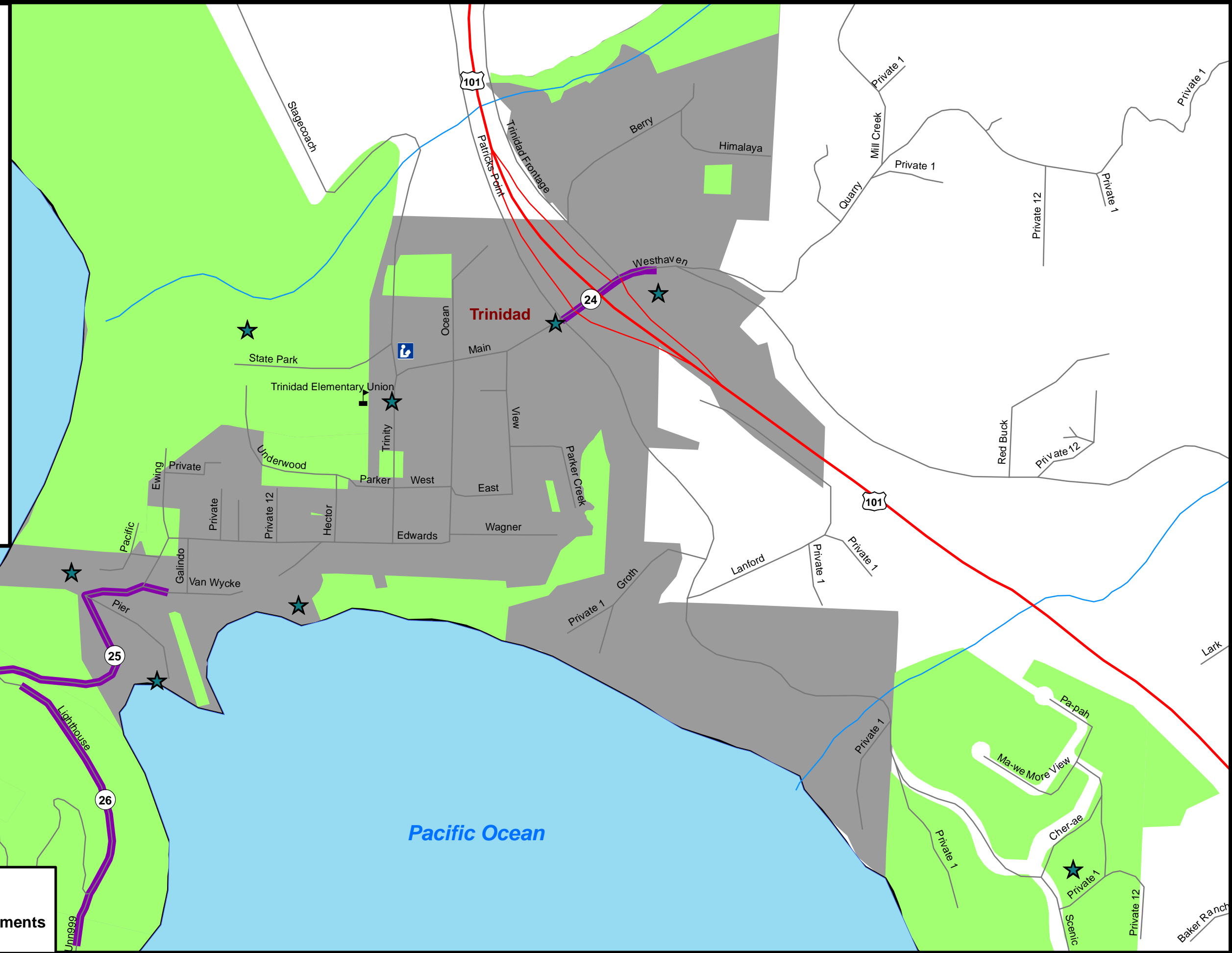
LEGEND

-  Schools
-  Libraries
-  Hospitals
-  Other Trip Generators
-  Proposed Intersection Improvements
-  Proposed Project Number
-  Proposed Corridor Improvements
-  Freeways
-  Highways
-  Streets
-  Railroads
-  Waterways
-  Parks and Public Lands



0 0.125 0.25 Miles

Figure 5-12
Trinidad Area
 Humboldt County Association of Governments
 Regional Pedestrian Plan



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5.4. UNINCORPORATED COMMUNITIES

5.4.1. Eureka's Surrounding Communities

The City of Eureka is surrounded by rapidly growing unincorporated communities – collectively home to 43,000 people, the largest population center on California's north coast. According to information presented for Humboldt County's current General Plan Update (*Building Communities: A Discussion Paper for Community Workshops*, 2002), the 1990-2000 population change in some of these city-adjacent communities was as high as 94%, and their combined population is just over 17,000. While the city proper has relatively limited residential infill potential remaining, the outlying communities are expected to continue to grow compared with much of the rest of the County.

These communities have a variety of different characteristics. They are for the most part, either still fairly rural or formerly rural areas, with corresponding lack of contiguous pedestrian facilities and/or bare minimum pedestrian facility standards.

Freshwater, immediately southeast of Eureka, and is a rural community spread around the Freshwater Creek watershed. The community center is at the junction of Myrtle Avenue and Freshwater Road, and is marked by a small market and Freshwater Elementary School. There is a County Park two miles southeast of this junction. Freshwater Road is heavily used by industrial truck traffic.

The only pedestrian facilities in Freshwater are two crosswalks and pedestrian warning signs alert motorists to the proximity of the Elementary School. These crosswalks do not connect to any sidewalks or paths. No new projects are proposed in Freshwater.

Myrtletown is predominantly east of Harrison Street and Myrtle Avenue, between the Eureka Slough and the City of Eureka. The pedestrian environment in this area is characterized by fairly wide collector streets, sidewalk gaps and limited crosswalks. A number of streets are unsurfaced and have no curbs. There is a diversity of commercial services along Myrtle Avenue, in particular a market just north of the Redwood Acres Fairgrounds. Lafayette Elementary School serves the children of Myrtletown.

Sidewalks are very intermittent in Myrtletown, which was primarily constructed after the 1940's. Sidewalk gaps and a lack of crossing sites on Myrtle Avenue make it challenging for pedestrians to leave the Myrtletown area.

Cutten is a growing suburb of Eureka, south of Sequoia Park. Cutten has a commercial center with a market and a number of other services on the corner of Walnut Drive and Fern Street, and there is a Junior High and Elementary School at the corner of Walnut Drive and Cypress Lane. Portions of Cutten have standard minimum sidewalks, while other areas are lacking pedestrian facilities and crosswalks. Sidewalks are intermittent in Cutten, which is also a predominantly post-1940's community.



Students leaving Winslip Middle School in Cutten walk in the shoulder on Cypress Street.

Ridgewood Heights is spread along Walnut Drive and

Ridgewood Drive. There is no commercial center in the area, and Ridgewood Heights Elementary is located just to the south of Walnut Drive, and much of the area lacks sidewalks or other pedestrian accommodations. No new projects are proposed in Ridgewood Heights.

Pine Hill is a southern suburb of Eureka with a fairly complex street network that is predominantly lacking in pedestrian facilities. Major collectors in this area are a winding mix of streets – no one street or road is contiguous through much of the area. Pine Hill is connected to the rest of the Eureka area and US 101 primarily by Herrick Road and Fairway Drive; a collection of streets including Little Fairfield Drive, Meyers Avenue and Union Street; and McCullens Avenue. Pine Hill Elementary is located a block north of Herrick Road, and a commercial center is located just to the east of the school on Herrick. Existing sidewalks are spotty and often quite narrow. No new projects are proposed in Pine Hill.

Humboldt Hill lies to the south of Eureka and is only accessible from US 101. Residential areas are clustered along Humboldt Hill Road. The South Bay Elementary School is located just east of US 101, at the transition between Humboldt Hill and King Salmon. Pedestrian facilities in this suburb are limited. Sidewalks are intermittent in this community. No new projects are proposed in Humboldt Hill.

King Salmon is a small coastal community due east of the entrance to Humboldt Bay. Residences are built primarily around access to fishing docks, and the western side of town is a public beach. There are no pedestrian facilities linking King Salmon to Humboldt Hill or the South Bay Elementary School, just west of US 101. The only services in King Salmon are a restaurant and fishing supplies. King Salmon is also only accessible by US 101. Sidewalks are intermittent in this community. No new projects are proposed in King Salmon.

Field's Landing is also a small coastal community that is only accessible by US 101. This small bay community is centered around commercial shipping and fishing industries. A public boat launch at the end of Railroad Avenue is a common destination, and limited services are located at the other end of Railroad Avenue, near US 101. Pedestrian facilities in this historic fishing town are limited. Sidewalks are intermittent in this community. No new projects are proposed in Fields Landing.

5.4.1.1. Completed Projects since the 2003 Plan

- Myrtle Avenue shoulder widening: Harrison Avenue to Hall Avenue (Myrtle town) construction in 2009
- Walnut Drive: Cypress Street to Fern Street
- Walnut Drive: Hemlock Street to Holly Street (Cuttan) – pending development
- Freshwater Road - Three corners to Howard Heights, pave and stripe bike lanes construction in 2009.

5.4.1.2. Projects

Locations for consideration:

- Freshwater Elementary School: Greenwood Heights and Freshwater Roads
- Ridgewood Elementary School: Avalon Street and Ridgewood Drive
- Park Street: Myrtle Avenue to Terrace Street
- Little Fairfield, Bingen, Lewis, Alpha, Myers, Eureka, and Vance Streets (Pine Hill)
- Hall Avenue: Myrtle Avenue to Harris Street
- Campton Street: Oak to Fern
- King Salmon Avenue: Herring Street to Loma Avenue
- Fields Landing Railroad Avenue: NWP Railroad Corridor to Boat Launch
- Greenwood Heights
- Maple Creek Road

5.4.2. *Southern Humboldt*

The southern portion of Humboldt County is a predominantly rural region. This assessment focuses primarily on Garberville and Redway, the commercial (and population) centers of southern Humboldt County.

Many of the smallest communities in southwestern and southeastern Humboldt County are not addressed here. These small communities are commonly separated by miles of narrow two-lane roads in steep topography. These communities consist of one, or possibly several services in a “downtown” area, with most of the population spread throughout the surrounding hills, mountains and river valleys. Distances are so great in most cases that driving is the most common mode to travel between communities. Within downtown areas, most of these communities are completely lacking pedestrian facilities.

Primary pedestrian trip generators in these communities are the central downtown service areas and schools, where they exist. As with other inland communities, summertime pedestrian needs include shade.

The town of **Garberville** is the primary service and community center of southern Humboldt County. Elements of the town retain a historic character. Garberville’s main street – Redwood Drive – is a US 101 Business Route, and at approximately 80 feet wide, is a primary feature of the downtown area. Business services are expanding in Garberville, and a number of recent commercial developments appear to have had impacts on pedestrian facilities. A non-profit organization, the Garberville Town Square, Inc., has purchased and is working to design



Wide sidewalks and awnings provide convenient access to shops and services in downtown Garberville.



The speed trailer pictured above reminds motorists to observe the speed limit and serves as a temporary traffic calming measure in front of Redway Elementary on Whitmore Road.

and construct a pedestrian-oriented town square, one block east of Redwood Drive on Maple Lane.

Redway is located two miles west of Garberville. Services in the town of Redway are also primarily located on Redwood Drive. Residential neighborhoods and a school lie predominantly to the west of the Redwood Drive “main street.” Residents from around the region also come to Redway for events at the Matteel Community Center. No new projects are proposed in Redway.

5.4.2.1. Completed Projects since the 2003 Plan

- Redwood Drive: Conger Street to Melville Road (Garberville)

5.4.2.2. Projects

Locations for consideration:

- Sprowl Creek Road at Garberville Park

5.4.3. *Avenue of the Giants*

State Route 254, better known as the Avenue of the Giants, is a remnant portion of historic US 101 that follows the South Fork of the Eel River and winds through groves of giant redwoods for 32 miles. Humboldt Redwoods State Park plays a significant role along the Avenue, and is a big part of the attraction for thousands of visitors to the Avenue every year. The communities that developed along the former highway system are relatively small, and are also generally oriented toward visitor services.



This well worn path parallels SR 254 through Miranda

Caltrans has indicated that there are no major road improvements planned for the Avenue itself. Each of the communities has some County maintained roads within them. However, most of the roads within the communities are private graveled roads.

Miranda is the site of a Junior High and High School, both located on SR 254. These schools serve most of the southeastern portion of the county – consequently most students arrive by auto or bus. Miranda has the highest traffic volume along the Avenue, nearly twice as high as the other communities.

Weott, just east of the Avenue, is the site of Agnes Johnson Elementary School. Here also, many students are bussed or driven, however there are students who walk from around the small town.

Myers Flat, Phillipsville, and Redcrest and Shively are all lacking pedestrian facilities, particularly along SR 254, as well. Pedestrians share highway and road shoulders with traffic accessing roadside businesses and residences. No new projects are proposed in Myers Flat, Phillipsville, Redcrest, or Shively.

5.4.3.1. Projects

The recommended projects in this study are:

- Intersection of Avenue of the Giants and School Road (Miranda)
- Newton Road: School Road to Sewell Drive (Weott)

Additional locations for consideration:

- Avenue of the Giants (SR 254) corridor
- School Road (Weott)



Highway 254 traffic backs up as students cross the highway in front of South Fork High School in Miranda.

AVENUE OF THE GIANTS (SR 254) / SCHOOL ROAD

Intersection

Avenue of the Giants (SR 254) is the main street through Miranda. Traffic levels in the summer months are substantially higher than in the winter months due to the tourist traffic. Miranda has the highest traffic volume along the Avenue, nearly twice as high as other communities. The Avenue has little or no shoulders throughout its entirety. The intersection of SR 254 and School Road experiences high pedestrian activity largely from South Fork High School and Miranda Junior High School students.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	1	\$400	\$400
Signs		each	2	\$200	\$400
Striping	Paint (red)	LF	250	\$2	\$500
Sub Total					\$1,300
30% Contingency					\$390
TOTAL					\$1,690

RECOMMENDATIONS:

- Replace current crosswalk across Avenue of the Giants with a continental crosswalk.
- Replace existing school crossing signs with FYG signs.
- Restrict parking at crosswalk.

NEWTON ROAD

LIMITS: School Road to Sewell Drive

Access to US 101 makes Newton Road the busiest street in the community of Weott, but the narrow right-of-way limits the ability to accommodate pedestrians. The road leads to Agnes Johnson Elementary School, and improved conditions could promote more walking to school.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Reconstructed Sidewalk	Length of old sidewalk	LF	200	\$16	\$8,000
Sidewalk	New Sidewalk	LF	200	\$24	
Curb Ramps	1/corner	corner	2	\$1,000	\$2,000
Crosswalk	Continental (or ladder)	each	2	\$400	\$800
Signs		each	4	\$200	\$800
Ped. Path	Width		5		\$21,000
	Asphalt	SF	1050	\$4	
Dike	Asphalt	LF	1000	\$9	\$9,000
Sub Total					\$41,600
30% Contingency					\$12,480
TOTAL					\$54,080

RECOMMENDATION:

Extend asphalt shoulder along south side of Newton and add dike for protection.

Replace existing crosswalk with ladder crosswalk on Newton at Weott Heights and add FYG school crossing signs.

Remove existing asphalt path at US 101 and replace with concrete.

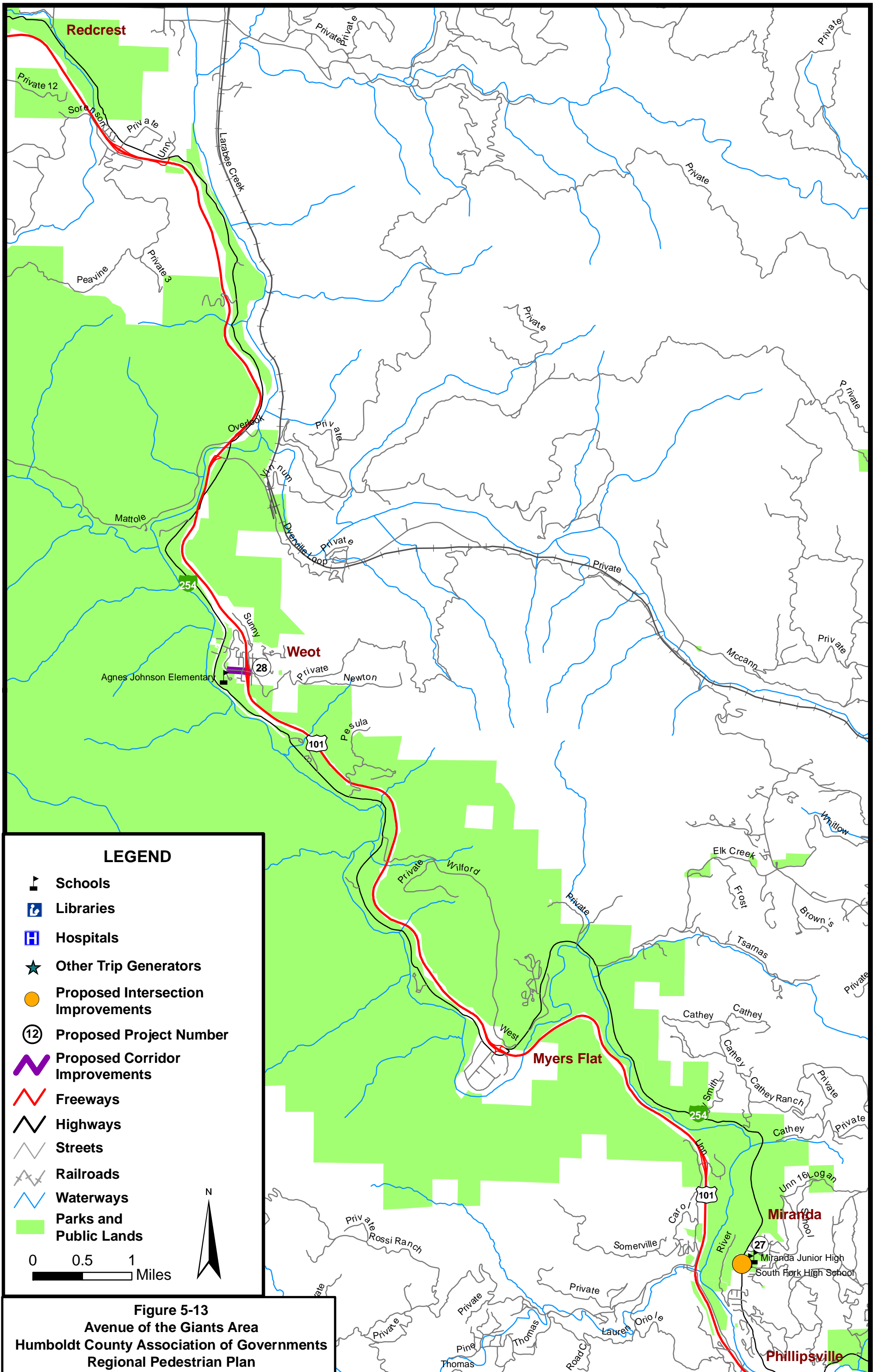
Add asphalt shoulder in front of garage on northwest corner of Newton and Weott Heights.

Install curb ramps at on- and off-ramp.

NOTES:

Asphalt path existing along north side between SB off-ramp and NB on-ramp.

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5.4.4. Coastal Communities

Shelter Cove, Petrolia, and a number of other small southwestern Humboldt County communities have small town centers with mostly dispersed populations. Other than Shelter Cove, these communities consistently lack pedestrian facilities in or near commercial centers. Petrolia Elementary School is located a short distance from the downtown services of a post office and small market, however there are no pedestrian accommodations.

Shelter Cove is predominantly a resort and retirement community built on coastal bluffs and mountainsides. Bureau of Land Management (BLM) manages trails along the ocean.

The bay village of **Fairhaven** sits across the shipping channel from Eureka on the Samoa Peninsula. Fairhaven is east of New Navy Base Road.

5.4.4.1. Projects

Locations for consideration:

- Briceland Road
- Shelter Cove Road

5.4.5. Fieldbrook / Glendale



Students headed to Fieldbrook Elementary are forced to walk in the road on Fieldbrook Road.

Fieldbrook is a rural, almost solely residential community, spread over a number of square miles in the forested hills east of McKinleyville. It is served by the narrow, winding two-lane Fieldbrook Road. The core of the community is a one-mile stretch along Fieldbrook Road that includes a grange hall, small market, elementary school, fire station and a winery. There are no sidewalks in Fieldbrook, nor would they likely be appropriate in the currently very rural setting. Most residents travel out of Fieldbrook daily for work, shopping and other needs. It is anticipated that this area will see increasing residential development in coming years.

Even with most residents traveling by car, however, there is still pedestrian activity by those who live and work in Fieldbrook, children going to and from school, and for recreation. Fieldbrook Road is also part of very popular cycling route in the area. This narrow two-lane road is not designed to accommodate all modes.

Glendale is a small, unincorporated community two miles west of Blue Lake stretching along Glendale Road, and includes a mix of residential, commercial, and industrial properties. There is a small community center with a market, bowling alley and a few other services. Pedestrians have to use Glendale Road – a rural two-lane road with no shoulder, high speeds, industrial traffic and poor sight distance in many places – to walk to services. There are no pedestrian facilities in the community of Glendale. No new projects are proposed in Glendale.

5.4.5.1. Major Fieldbrook/Glendale Pedestrian Trip Generators

- Fieldbrook Elementary School
- Fieldbrook Family Market
- Murphy's Market
- E & O Bowling Alley

5.4.5.2. Completed Projects since the 2003 Plan

- Fieldbrook Road shoulder widening: Evans Road to Cider Mill Lane scheduled for 2008
- Sutter Road: Central Avenue to Park Road

5.4.5.3. Projects

Locations for consideration:

- Glendale Road
- Sutter Road: Park Road to Camellia Drive
- Fieldbrook Road between the Elementary School and Fieldbrook Family Market

5.4.6. Hoopa

The 90,000-acre Hoopa Reservation is the largest geographical Native American reservation in California. The community of Hoopa is set in the Trinity River valley and is fairly isolated, rural, has limited opportunities for employment, and infrastructure maintenance challenges. There are approximately 2,300 local tribal members, with about 60% of population unemployed. Walking is both part of the rural culture and necessary in this community, as many residents are low income and do not have access to motor vehicles.

The reservation and the community are bisected by SR 96. Residential, commercial and community/school uses are spread along more than five miles of state highway. The downtown area – a hub for surprisingly dense pedestrian activity in such a rural region – has virtually no accommodations for pedestrians other than a long crosswalk (63-foot paved width) and pedestrian alert signs on either end of downtown. Travel lanes in the downtown are 18 feet wide and the posted speed limit is 35mph, however speeds are commonly much higher. The Trinity River Bridge is located on the southern end of the downtown area, at the junction with well-traveled Tish Tang Road. This older bridge, though it lacks pedestrian facilities or even any shoulder, is heavily used by pedestrians, bicyclists, and even equestrians who travel alongside highway traffic. Lighting in the downtown area and at all intersections in Hoopa is either poor or nonexistent.

Hoopa has four schools located in the same area on SR 96: the High School and Elementary are at the same site, and the community school and college satellite campus are located nearby to the north. The SR 96 speed limit is 25 mph when schoolchildren are present, 40 mph otherwise. Schools and community centers, as well as the downtown area, are accessed by many residents on foot. Residents and schoolchildren use narrow two-lane side roads with no shoulders – like Tish Tang, Pine Creek, Shoemaker, and Marshall (that reportedly have very high speeds) – to access and walk along the shoulders of SR 96. The SR 96 right-of-way is very wide, however in many places, especially during the rainy season, highway shoulders are a difficult place to walk. There are two stream crossings with highway bridges that have no shoulder.

The unstable “Blue Slide” area – between the schools and the northern SR 96 intersection of Shoemaker Road – is a nearly vertical pitch to the Trinity River, above which many pedestrians (including women with strollers and schoolchildren) either walk in the highway or on a treacherous trail above the river. North of the SR 96 intersection with Mill Creek Road, there is a section of SR 96 that is traveled by pedestrians from the Norton Field housing complex that is in a through-cut with no shoulders. The posted speed limit in both of these areas is 55 mph, and average speeds appear higher.



Pedestrians use the shoulder on SR 96 through Hoopa Valley.



Students use a dirt footpath to access Hoopa Elementary.

Roadways in the Hoopa Valley are managed by a mix of the tribal government and Bureau of Indian Affairs, Caltrans, and the County. There are 107 miles of former BIA roads which the tribe receives some federal dollars for maintenance; 356 miles of tribal roads for which they receive no funding, and 17 miles of County Roads.

5.4.6.1. Major Trip Generators

Hwy 96

- Downtown: Markets, Deli, Gas Station, Hotel, Community School
- School Area – High School, Elementary, Continuation School, College Campus Satellite, Teen Center, and Community Center
- Tribal California Conservation Corps/Americorp Housing

Tish Tang Road

- Kima:w Medical Facility
- Big Hill Road
- Store, Public Laundromat

5.4.6.2. Completed Projects since the 2003 Plan

- Downtown Enhancement and Tish Tang realignment in Project Approval/Environmental Documentation phase
- Caltrans Environmental Justice grant for Traffic Calming and Safety Enhancement in the downtown area as reviewed in Chapter 4

5.4.6.3. Projects

The recommended project in this study is:

- SR 96: Mill Creek to Shoemaker Road

Additional locations for consideration:

- SR 96: S. Trinity Bridge to Jury Lane
- Shoemaker Road
- Pine Creek Road
- Marshall Road

SR 96

LIMITS: Mill Creek to Shoemaker Road

Pedestrians are present in the community of Hoopa during all hours of the day. SR 96 serves as a shared route for pedestrians, vehicles, bicycles, and equestrian traffic. The volume and variety of users produces regular conflicts. To improve conditions on SR 96 for pedestrians and other non-motorized users, separation measures are recommended.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Ped. Path	Width		10		\$3,061,200
	DG	LF	27720	\$3	
	Asphalt	LF	55740	\$4	
Sub Total					\$3,061,200
30% Contingency					\$918,360
TOTAL					\$3,979,560

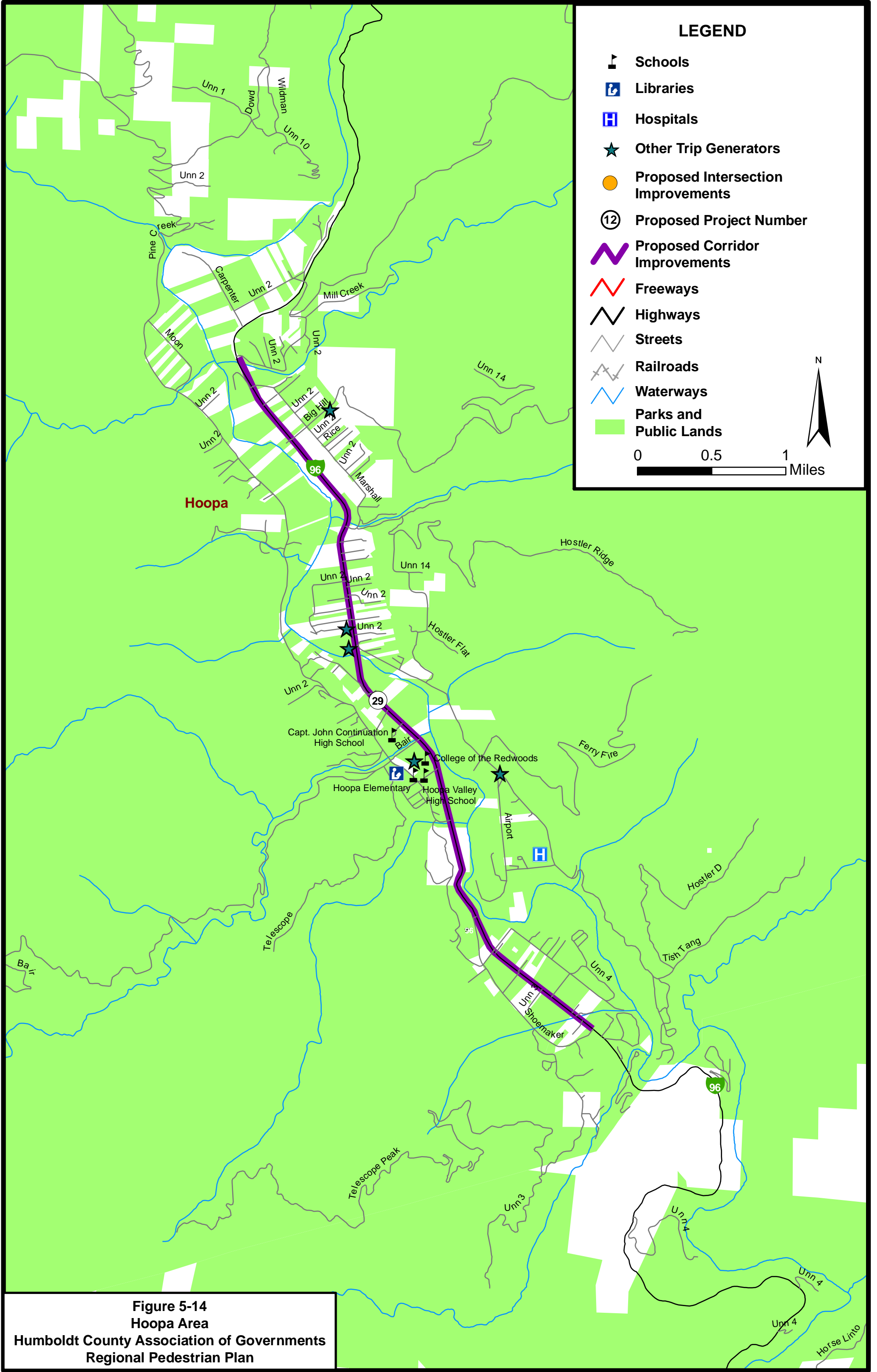
RECOMMENDATIONS:

Multi-use trail (incl. equestrian) along west side of SR 96, shared use pathway on east side.
Asphalt pathway leading to school grounds from SR 96.

NOTES:

Walkways proposed on both sides of roadway to reduce pedestrian crossings.
Multiple bridges are also needed for this project and are not considered in the estimate

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5.4.7. Hydesville and Carlotta

Hydesville and Carlotta are two widely-spread, rural communities with small core service areas and elementary schools along the SR 36 corridor between US 101 and Grizzly Creek State Park. SR 36 provides access between neighborhoods, schools and services. Rohnerville Road, also provides access and intersects with SR 36 in Hydesville and provides access north into Fortuna. Neither road is suited for pedestrian travel. SR 36 experiences high-speed traffic, does not have consistent shoulders or walking space, and is used by pedestrians and by some students. The County anticipates the 1,210 population of the Hydesville-Carlotta Community Planning Area will grow by 16% in the next twenty years (Building Communities, 2002). No projects were studied in Hydesville or Carlotta but pedestrian accommodations are needed along SR 39 and perhaps trails could be constructed along the railroad spurs parallel to SR 39 and Fischer Road.



Students in the roadway/ on the shoulder of SR 36 in Carlotta.

5.4.8. Loleta

Loleta is a small, agricultural community. Main Street, Loleta Drive and Eel River Drive are the primary traffic corridors used by residents. Within the town of Loleta, traffic speeds are generally low – 30 mph and lower. However, there are several areas where speeds are higher and pedestrian traffic is present with little or no facilities. Eel River Drive connects Loleta to Ferndale and Fortuna. It is a narrow rural two-lane road with no pedestrian facilities. Pedestrians use this corridor often because it is the only option in this area. Loleta Drive was mentioned as a concern in the 1999 assessment and it was again identified as a priority during outreach. Loleta Drive is the main access to the community from US 101 along which is Loleta Elementary School and the Fireman’s Hall – both of which generate significant pedestrian traffic.



The photos above of various routes in Myrtle town display a variety of sidewalk obstructions, ranging from permanent impasses to temporary vegetation, all of which represent a significant obstacle to pedestrians with special needs.

The Table Bluff Reservation is located in a very rural, predominantly agricultural area south of Eureka and north of Fortuna on a bluff that overlooks Humboldt Bay, Eel River, and the Pacific Ocean. The area is characterized very narrow, two-lane, winding roads often with short site distances. The Reservation has one main housing and community area with excellent accommodation for pedestrians. The residential area has speed tables, crosswalks and pedestrian safety signs. No new projects are proposed in Table Bluff.

The Bear River Band is located off Singley Road, a very narrow two lane rural road. Many of the families use the road to get into the bus stop in Fernbridge and to get to Loleta. The Band is currently working on getting a small transit service that will help residents gain

access to these destinations. However, a significant number of residents use the road for recreation.

5.4.8.1. Major Trip Generators



Despite the rural nature of Table Bluff, the community has built pedestrian facilities to serve its residents including sidewalks, pedestrian warning signs, curb, and gutter.

- Main Street – Post Office, Market
- Loleta Drive – Elementary School and Fireman’s Hall
- Eel River Drive – Access to other communities

5.4.8.2. Projects

The recommended projects in this study are:

- Loleta Drive – Main Street to Franklin Avenue
- Franklin Avenue – Park Street to Loleta Drive
- Park Street – Franklin Avenue to Loleta Drive

Additional locations for consideration:

- Eel River Road
- Cannibal Island Road
- Hookton Road
- Tompkins Hill Road
- Centerville Road west of Ferndale

LOLETA

LIMITS: Loleta Drive: Main Street to Franklin Avenue; Franklin Avenue: Park Street to Loleta Drive; Park Street: Franklin Avenue to Loleta Drive

Loleta Drive is the primary east-west roadway through Loleta with access to the elementary school, downtown, US 101, and transit. Much of the community is missing sidewalks and adequate crossing protection. Franklin Avenue and Park Street are recommended walking routes to Loleta Elementary School due to the difficulty of constructing sidewalks along the entire length of Loleta Drive.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	1500	\$5	\$37,500
	Width		5		
Reconstructed Sidewalk	Length of old sidewalk	LF	135	\$16	\$2,280
	New Sidewalk	LF	5	\$24	
Curb Ramps	1/corner	corner	12	\$1,000	\$12,000
Crosswalk	Continental (or ladder)	each	1	\$400	\$400
Ped. Path	Width		5		\$3,200
	Asphalt	SF	160	\$4	
Curb & Gutter	Length	LF	1635	\$17	\$27,795
Sub Total					\$83,175
30% Contingency					\$24,953
TOTAL					\$108,128

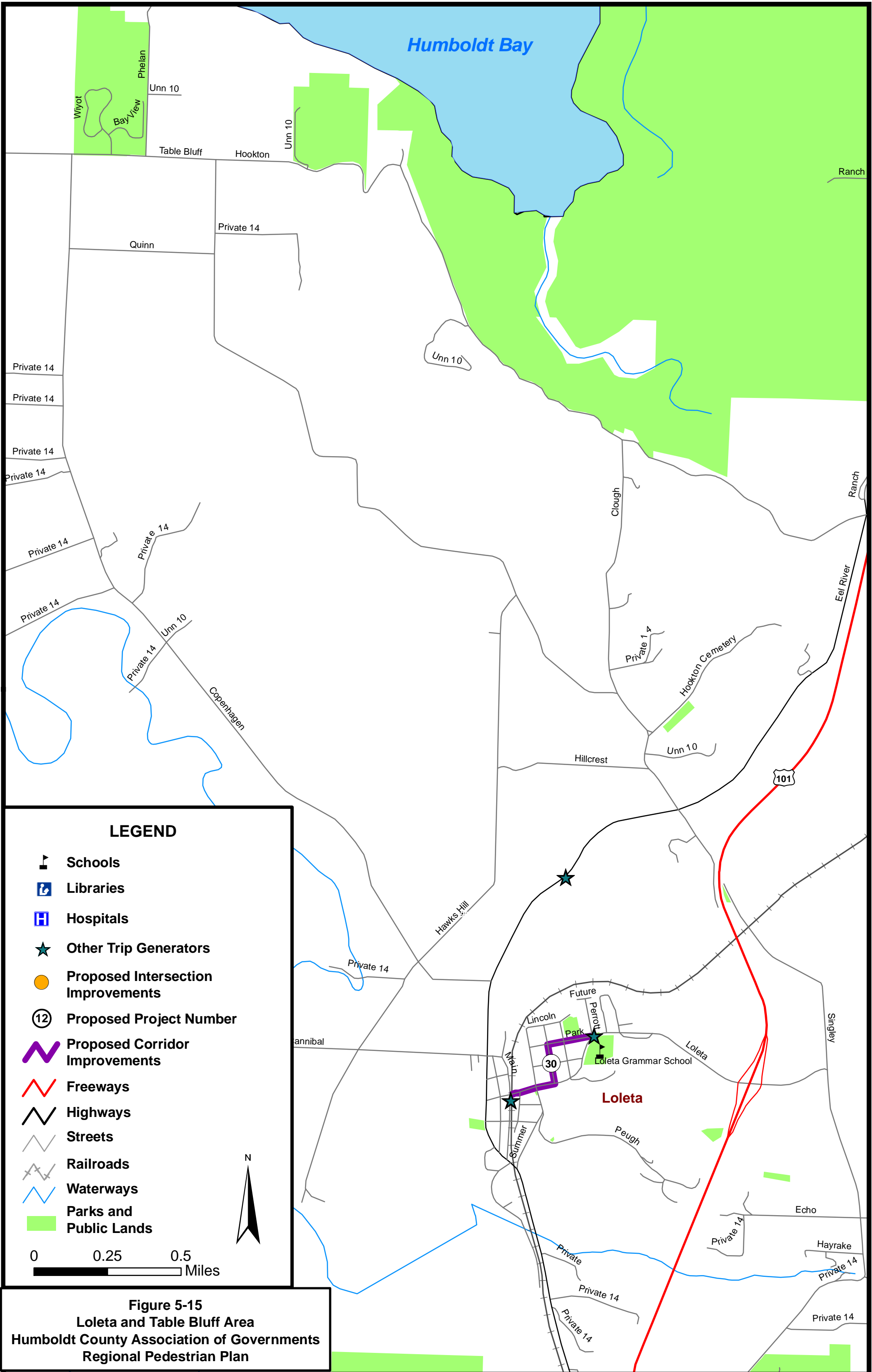
RECOMMENDATIONS:

- Concrete sidewalk along north side between Scenic Drive & Park.
- Install a crosswalk at Scenic.
- Replace asphalt sidewalk along south side from Railroad Avenue to Main Street.
- Replace existing sidewalk between Scenic and Franklin on north side.














NOTES:

- Embankment along Loleta Drive east of Franklin.

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LEGEND

-  Schools
-  Libraries
-  Hospitals
-  Other Trip Generators
-  Proposed Intersection Improvements
-  Proposed Project Number
-  Proposed Corridor Improvements
-  Freeways
-  Highways
-  Streets
-  Railroads
-  Waterways
-  Parks and Public Lands

0 0.25 0.5 Miles



Figure 5-15
Loleta and Table Bluff Area
Humboldt County Association of Governments
Regional Pedestrian Plan

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5.4.9. Samoa Peninsula

5.4.9.1. Manila

The small community of Manila is spread along the coastal dunes and Bayshore of the northern Samoa Peninsula. The community is bisected by SR 255, which is paralleled by the narrow two-lane former highway, Peninsula Drive. A neighborhood market and Bayshore Park are located on the eastern side of the community. The Manila Community Services District office, Manila Community Center and School, and Manila Community Beach & Dunes area are located on the west side of SR 255.



The long width and high speeds of SR 255 through Manila makes pedestrians crossings difficult.

The Manila Community Services District, which manages wastewater and recreation facilities and programs, has very actively developed a Community Center – at a former elementary school site – and the popular 100-acre Manila Community Beach & Dunes, and a number of community programs related to both. The Community Center serves as a charter school, preschool and adult school site and is also the primary trailhead for the dunes.

Apparently, SR 255 is classified as an expressway – the shortest one in the U.S. MCSD staff and boardmembers believe that this was the result of speculation regarding industrial development of the southern peninsula at the time of highway construction, and that the designation is erroneous. They also feel that the expressway designation has hampered their long-term efforts to work with Caltrans to pursue accommodations for non-motorized crossing of the state route. Staff and boardmembers also feel strongly that speeds on SR 255 have increased since the establishment of the US 101 “Safety Corridor” between Arcata and Eureka, and that mitigating efforts must be made in Manila to improve safety of non-motorized travelers. With funds from HCAOG, the MCSD is currently undertaking a focused study of transportation needs.

Major Manila Pedestrian Trip Generators

- Manila Community Center – schools, activities, transit stop, Beach & Dunes access
- Manila Community Park – playground, public restrooms, camping, ballfield, bay access
- Neighborhood Market
- Manila Community Services District Office – north of Lupin Avenue

5.4.9.2. Samoa

The former mill town of Samoa – south of Manila and due west of Eureka – was recently purchased from a timber company, and the owners are currently undertaking a master planning effort. Initial concepts include proposals to improve the pedestrian environment through development of paths and trails. Samoa’s streets are currently



Shoulders on SR 255 leading into Samoa.

narrow with speed bumps, traffic speeds are slow, and there are no sidewalks. No new projects are proposed in Samoa.

Major Samoa Pedestrian Trip Generators

- Samoa Cookhouse
- Community Playground
- Samoa Women's Center
- Beach access – west of New Navy Base Road

5.4.9.3. Fairhaven

The tiny bay village of Fairhaven sits across the shipping channel from Eureka on the Samoa Peninsula. It is east of New Navy Base Road, the access road to Bureau of Land Management and County public lands and boat launching facilities and the Coast Guard Station at the southern tip of the peninsula. Park And Bay Streets end at sandy bayshore beaches.

5.4.9.4. Projects

The recommended projects in this study are:

- Intersections of Lupin Drive and Pacific Road along SR 255 (Manila)
- Northwestern Pacific Railroad Trail: Sandy Road to Dean Avenue (Manila)

Additional locations for consideration:

- Peninsula Drive: SR 255 to SR 255 (Manila)
- Cantilevered Walkways on SR 255 Bridges
- Neighborhood Connectivity Trail: Park Street to Pacific Avenue
- Coastal Multi-Use Trail to Arcata

SR 255

Intersections with Lupin Drive and Pacific Road

Lupin Avenue and Pacific Road serve as the primary pedestrian and bicycle crossings of SR 255 in Manila. These are large intersections where SR 255 has a long, straight run through Manila and speeds are generally high - commonly exceeding 60 mph. Trip generators on both sides of SR 255 draw people of all ages and abilities across the highway on foot, bicycle, and sometimes on horseback. Added measures of crossing protection, enhanced visibility, and speed controls will improve conditions for pedestrians and vehicles alike.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	4	\$400	\$1,600
Ped Refuge Island		each	2	\$600	\$1,200
Overhead Flashing Ped. Crossing Sign		each	2	\$36,000	\$72,000
Sub Total					\$74,800
30% Contingency					\$22,440
TOTAL					\$97,240

RECOMMENDATIONS:

Pedestrian activated push buttons, overhead flashing pedestrian signs.

Pedestrian refuge islands and continental crosswalks at both intersections.

NWP TRAIL

LIMITS: Sandy Road to Dean Avenue

Peninsula Drive serves as Manila's "main street." The narrow, winding, former highway has no accommodations for non-motorized travelers. It is the only north-south connection in the community other than SR 255. Manila Community Service District staff and board members who provided input suggested that road-adjacent paths would be more appropriate than sidewalks. The NWP rail line was identified as a potential corridor for such a trail as its location has the ability to provide connections to all of the community's trip generators and it would serve as a viable alternative to SR 255 and Peninsula Drive.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Curb Ramps	1/corner	corner	6	\$1,000	\$6,000
Crosswalk	Continental (or ladder)	each	3	\$400	\$1,200
Trail	10' wide, asphalt	mile	4000	\$630,000	\$477,273
Studies/Plans		each	1	\$30,000	\$30,000
Sub Total					\$514,473
30% Contingency					\$154,342
TOTAL					\$668,815

RECOMMENDATIONS:

Feasibility and design study.

Trail within NWPRR right-of-way; three at-grade road crossings.

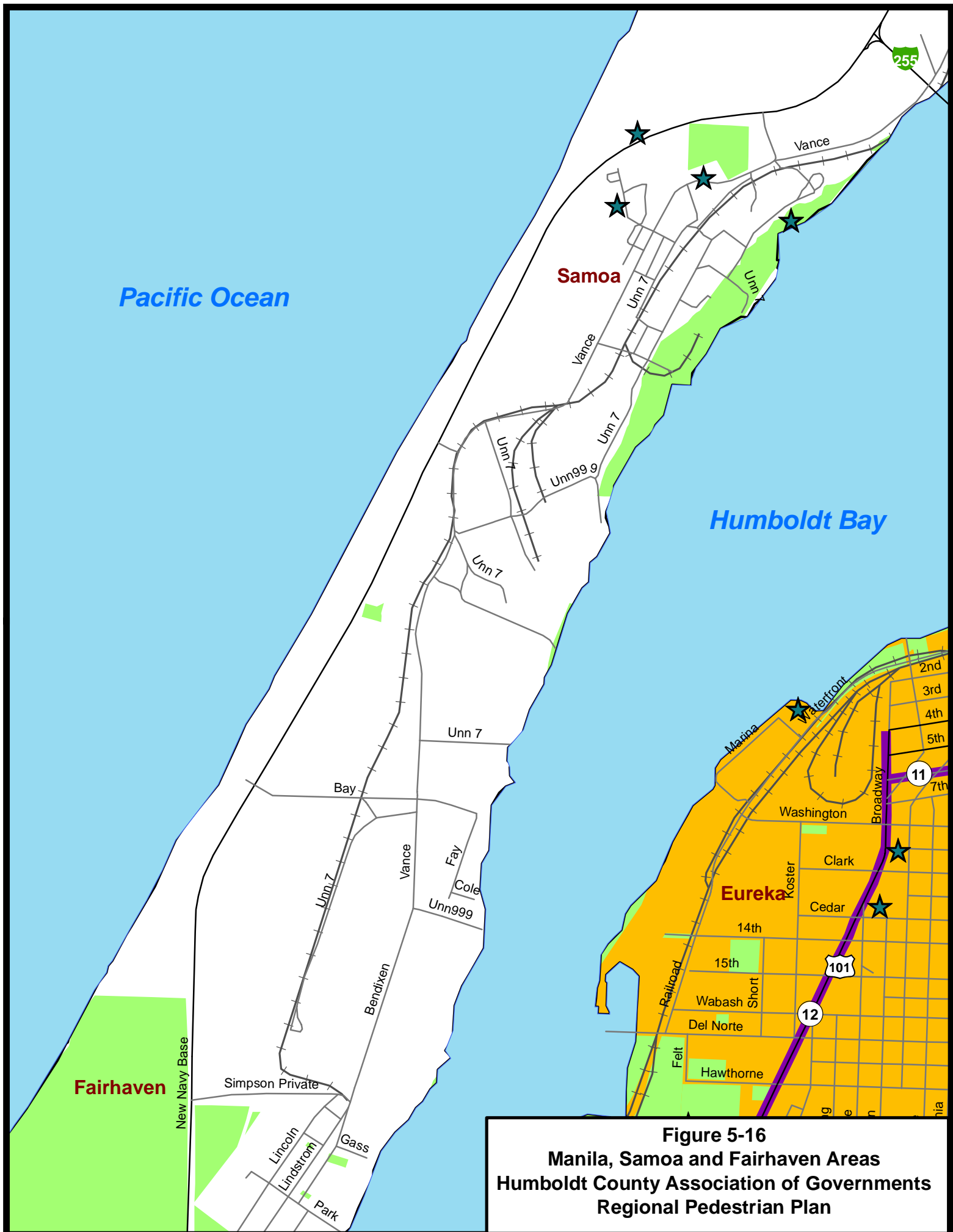
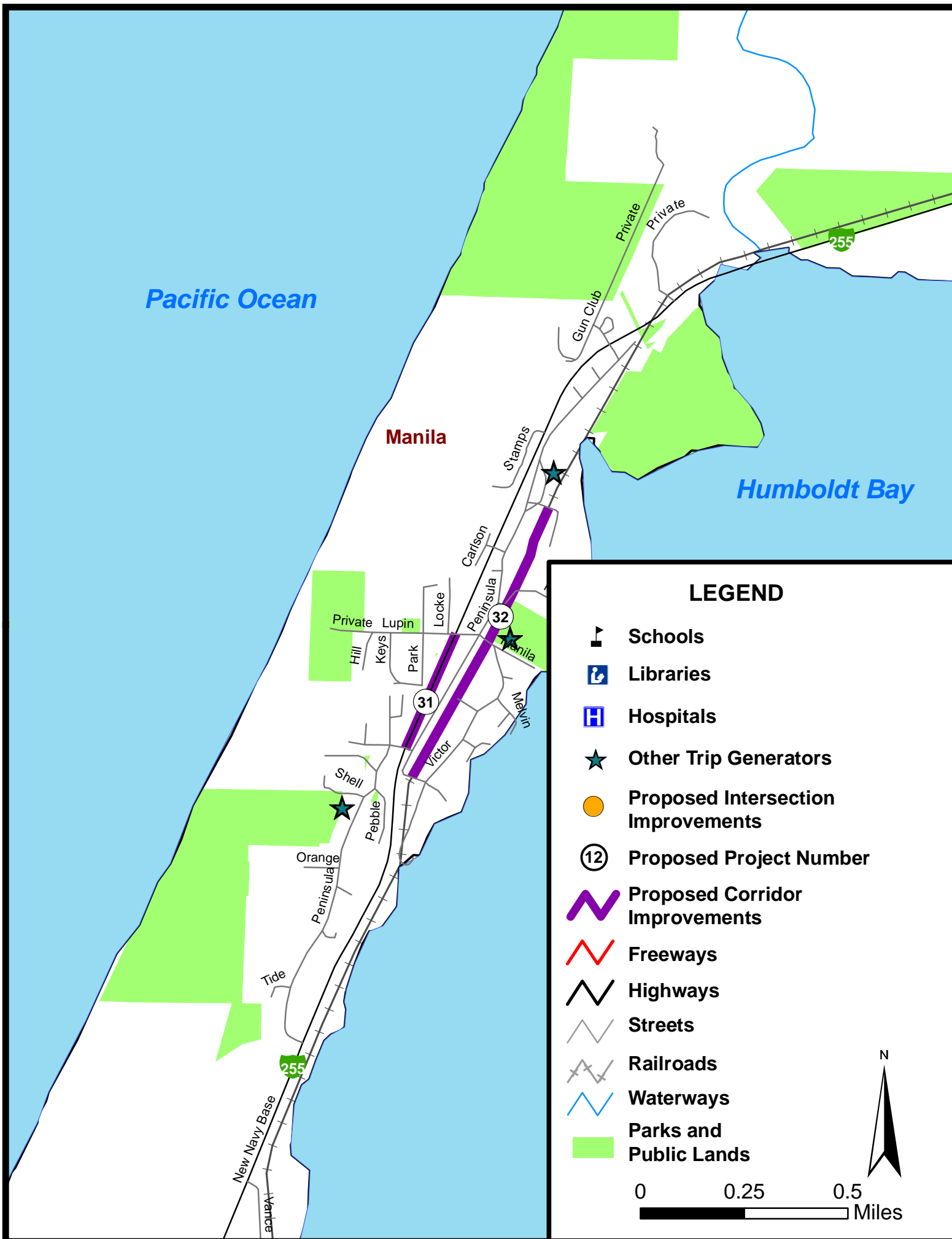


Figure 5-16
Manila, Samoa and Fairhaven Areas
Humboldt County Association of Governments
Regional Pedestrian Plan

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5.4.10. McKinleyville

McKinleyville is the largest unincorporated community in Humboldt County, with a population of 13,600. The County projects the community's growth in the next twenty years will not be as rapid as it has been in the last twenty – the 2025 projection is for close to 16,000 residents (Building Communities, 2002). It comprises the northernmost portion of the region's greater Humboldt Bay area population center, north of Arcata on US 101.



In many locations on Hiller Road, pedestrians are forced to walk in the roadway.

McKinleyville is the only large community that does not have a traditional development pattern at its core. The community is decisively a mix of development styles; it started as a mostly rural area that has filled in over the last several decades. The resulting pedestrian environment exhibits a full range of moderately functional to poor to no facilities. Most sidewalks in McKinleyville are to minimum width standards, and frequently interrupted by driveways and post obstructions. Particularly due to infilling nature of this formerly rural community, numerous sidewalk gaps exist on all major roadway corridors, in between developed areas, and in neighborhood subdivisions.

The commercial strip of Central Avenue, a five-lane arterial US 101 business alternate, serves as the community's downtown. Central Avenue's sidewalks are a unique system of meandering concrete and gravel paths, interspersed with landscaping. The history of this path is related to McKinleyville's somewhat outdated motto "Where Horses Have The Right-Of-Way."

There are three primary east-west collectors that provide routes over US 101. School Road, Hiller Road and Murray Road all serve as routes for all modes. School and Hiller Roads are almost completely lacking facilities for pedestrians and support relatively high speeds and volumes of traffic.

In newer residential areas, sidewalks are mostly complete – however, they often do not connect to important corridors and older neighborhoods. For the most part these sidewalks are constructed to minimum width standards and are frequently interrupted by driveways and obstructions. Older neighborhoods have more of a rural feel, and an almost complete lack of pedestrian facilities.

Several schools in the middle of town collectively serve much of northern Humboldt County, and they are all located on arterial or collector roads with high volumes and relatively high-speed traffic. The middle school, Morris Junior High, is located on Central Avenue.

The community is also known for the region's only Class I multiple-use trail. Developed on an abandoned railroad corridor, the Hammond Coastal Trail stretches north from a bridge over the Mad River – along a rural ranch road and as a paved, dedicated trail – to just north of Murray Road, where it currently ends. Another segment, more or less cut off from pedestrian access, extends between the north end of Letz Avenue and Clam Beach County Park. The County is currently pursuing connection of these two segments. Neighbors use the trail for transportation and recreation, while for others it is a popular recreational facility.

5.4.10.1. Major Trip Generators

- Central Avenue – Numerous Shopping Areas, Grocery, Pharmacy, Theatre, Junior High
- McKinleyville Avenue – Morris Elementary School, High School
- Railroad – Midtown trail
- Hiller – Hiller Park, MLT park property
- School – 101 Access, Hammond Trail

5.4.10.2. Completed Projects since the 2003 Plan

- Hiller Road shoulder widening: Cliff Avenue to Highway 101 Overpass
- McKinleyville Avenue: Railroad Drive to Fernwood Avenue
- Railroad Avenue: Central Avenue to McKinleyville Avenue
- Some sidewalks on Washington Avenue: McKinleyville Avenue to School Road
- US 101/Mad River Bridges with with multi-use paths to be constructed in 2008

5.4.10.3. Projects

The recommended projects in this study are:

- Hiller Road: Highway 101 Overpass to Central Avenue
- School Road: Fischer Road to Bugenig Avenue
- Fill sidewalk gaps on Washington Avenue: McKinleyville Avenue to School Road

Additional locations for consideration:

- Railroad Avenue: Central Avenue to Thiel Avenue
- Murray Road
- Railroad Drive
- Midtown Trail: Railroad Avenue to School Road
- Gassaway Road and Halfway Avenue
- Central Avenue
- Bates Road near Central Avenue
- Neighborhood Connection Trail: Holly Drive to Lime Avenue
- Ocean Drive
- East end of Sutter Road
- Azalea Avenue

HILLER ROAD

LIMITS: Cliff Avenue to Central Avenue

Hiller Road is an important east-west collector that provides access to shopping on Central Avenue, Hiller Park, and the Hammond Trail. Although the roadway right-of-way is wide enough to provide sidewalks, few exist. Hiller Road crosses 101 but it does

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	5785	\$5	\$144,625
	Width		5		
Curb Ramps	1/corner	corner	8	\$1,000	\$12,000
	2/corner	corner	2	\$2,000	
Crosswalk	Continental (or ladder)	each	2	\$400	\$800
Signs		each	2	\$200	\$400
Curb & Gutter	Length	LF	5285	\$17	\$89,845
Sub Total					\$247,670
30% Contingency					\$74,301
TOTAL					\$321,971

RECOMMENDATIONS:

Curb/gutter/sidewalk along south side of roadway from Cliff Avenue to Columbus, both sides of street from Thiel to McKinleyville Avenue, south side from McKinleyville to Central.

Curb ramps at intersections.

Crosswalk for Hammond Trail crossing.

Crosswalk at Columbus

NOTES:

Walkway along north side of US 101 overpass.

SCHOOL ROAD

LIMITS: Fischer Avenue to Bugenig Avenue

School Road is one of the main access routes between the Central Avenue commercial corridor, US 101, the Hammond Trail, and western neighborhoods. The roadway is mostly devoid of shoulders and only a few short segments of sidewalk are in place near residences. Access across US 101 is difficult due to inadequate facilities and sight distances. The intersection of School and Fischer is noted by many to be particularly challenging for pedestrians and motorists alike. This intersection is complex due to a jog in the road and large hedges on the corners that severely limit sight distance from either direction. A neighborhood market, the Hammond Trail, and the School Road multi-use trail are all located at this intersection.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	3340	\$5	\$83,500
	Width		5		
Curb Ramps	1/corner	corner	15	\$1,000	\$15,000
Crosswalk	Continental (or ladder)	each	4	\$400	\$1,600
Signs		each	6	\$200	\$1,200
Ped Refuge Island		each	2	\$6,000	\$12,000
Curb & Gutter	Length	LF	3340	\$17	\$56,780
Sub Total					\$170,080
30% Contingency					\$51,024
TOTAL					\$221,104

RECOMMENDATIONS:

Crosswalks at Hammond Trail / School / Fischer intersection (crosswalks at SB Fischer, EB School)

Improve drainage on pathway at US 101 overcrossing.

Sidewalk/curb/gutter along both sides of roadway west of Anderson, along north side from Anderson to Windsor, along south side from Windsor to Bugenig.

Pedestrian refuges at on/off ramps on north side of School Road.

Add crosswalks at Windsor and Anderson.

NOTES:

Sidewalk along north side of US 101 overpass.

Existing sidewalks along south side from Bugenig to Central.

WASHINGTON AVENUE

LIMITS: McKinleyville Avenue to School Road

Washington Avenue connects McKinleyville Avenue to School Road. A new residential development on Washington Avenue and a new theater at the intersection of Washington Avenue and School Road will generate even more trips along this roadway. Sidewalk gaps, missing curb cuts, and the transition between McKinleyville Avenue and Washington Avenue are significant obstacles to pedestrian travel through the corridor.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
New Sidewalk	Length	SF	685	\$5	\$17,125
	Width		5		
Curb Ramps	1/corner	corner	5	\$1,000	\$5,000
Crosswalk	Continental (or ladder)	each	4	\$400	\$1,600
Curb & Gutter	Length	LF	685	\$17	\$11,645
Sub Total					\$35,370
30% Contingency					\$10,611
TOTAL					\$45,981




RECOMMENDATIONS:

Complete sidewalks/curb/gutter along east side of street.

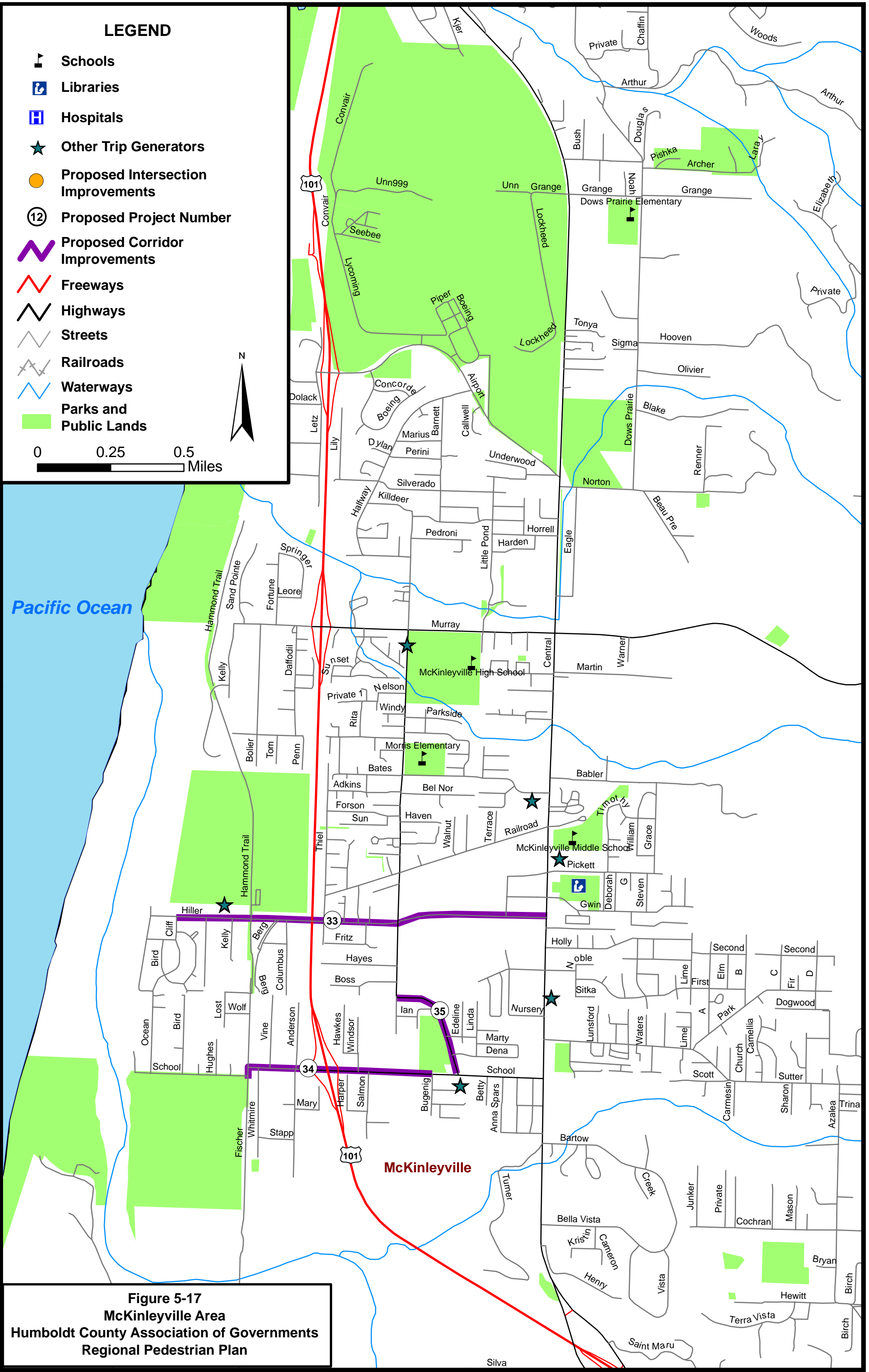
Crosswalks on Oakdale at Washington, Washington at Oakdale, McKinleyville at Washington, School at Washington.

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LEGEND

-  Schools
-  Libraries
-  Hospitals
-  Other Trip Generators
-  Proposed Intersection Improvements
-  Proposed Project Number
-  Proposed Corridor Improvements
-  Freeways
-  Highways
-  Streets
-  Railroads
-  Waterways
-  Parks and Public Lands

0 0.25 0.5 Miles



Pacific Ocean

McKinleyville

Figure 5-17
McKinleyville Area
Humboldt County Association of Governments
Regional Pedestrian Plan

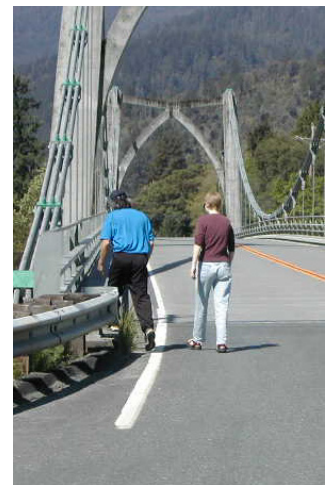
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5.4.11. Orleans

The small rural community of Orleans, known locally as Panamnik, is the northeastern most community in Humboldt County, located on terraces above the Klamath River. Orleans is a remote community – just under two hours by highway from Eureka – with limited services and employment opportunities. Residential and agricultural (farming) developments are spread along several roads that connect to the downtown area of Orleans that is served by a market, post office, general store, school, medical clinic and Karuk Tribal Office, restaurant and gas station. The Orleans Community Services District manages water and wastewater services to a localized downtown area.



Downtown Orleans is bisected by SR 96. The state highway is the only option for travel around the area between neighborhoods and services. A large, and scenic, bridge over the Klamath River delineates the northern end of the downtown area. The intersection with Red Cap Road and the Karuk Tribal Office and medical clinic are just north of the bridge. The clinic is approximately 0.65 mile from downtown. The elementary school is located just above the highway, in the middle of the downtown area south of the stores and post office.



There are no pedestrian facilities in Orleans other than one crosswalk across SR 96 at the school. Residents commonly walk in the highway shoulders, except in the winter months when shoulder conditions are poor and they are forced to walk in the highway. Local residents have been talking with Caltrans about extending pavement to widen shoulder through town significantly in an effort to provide a place out of the mud and out of the traffic for pedestrians. The Klamath River Bridge has metal walkway-type shoulders that are just less than two feet wide. Most residents do not use these walkways due to their narrowness and potential for slipping in the wet months. There is virtually no shoulder on the bridge otherwise.

SR 96 through Orleans is in need of improvements for pedestrians. Students use the footpath in the top picture to reach Orleans Elementary, pedestrians have little room on the Klamath Bridge.

There are many residents on Lower Camp Creek and Red Cap Roads who walk to town. Of particular note for pedestrian safety is the highway corridor between Lower Camp Creek and Eyesee Road, where no highway shoulders exist, sight distances are short, speeds are high (55 mph and higher), and many drivers are not aware they are entering a populated area.

5.4.11.1. Projects

The recommended projects in this study are:

- SR 96: Downtown to Clinic
- SR 96: Big Rock Road to Post Office

Additional locations for consideration:

- SR 96: Lower Camp Creek Road to Eyesee Road
- Red Cap Road: Highway 96 to Skunk Hollow Road
- Ishi Pishi Road
- Lower Camp Creek Road
- Old Red Cap Road
- Trails

SR 96

LIMITS: Downtown to Clinic

State Route 96 provides access between downtown Orleans and the clinic on the east side of the community. This segment includes the Klamath River Bridge. The bridge is approximately 770 feet long with a curb to curb roadway deck that is 22 feet wide.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Ped. Path	Width		6		\$63,360
	Decomposed Granite	SF		\$3	
	Asphalt	SF	2640	\$4	
Cantilevered SW		LF	450	\$300	\$135,000
Sub Total					\$198,360
30% Contingency					\$59,508
TOTAL					\$257,868

RECOMMENDATIONS:

Cantilevered walkway along south side of Klamath Bridge.

Asphalt pathway along south side of roadway to Clinic driveway.

SR 96

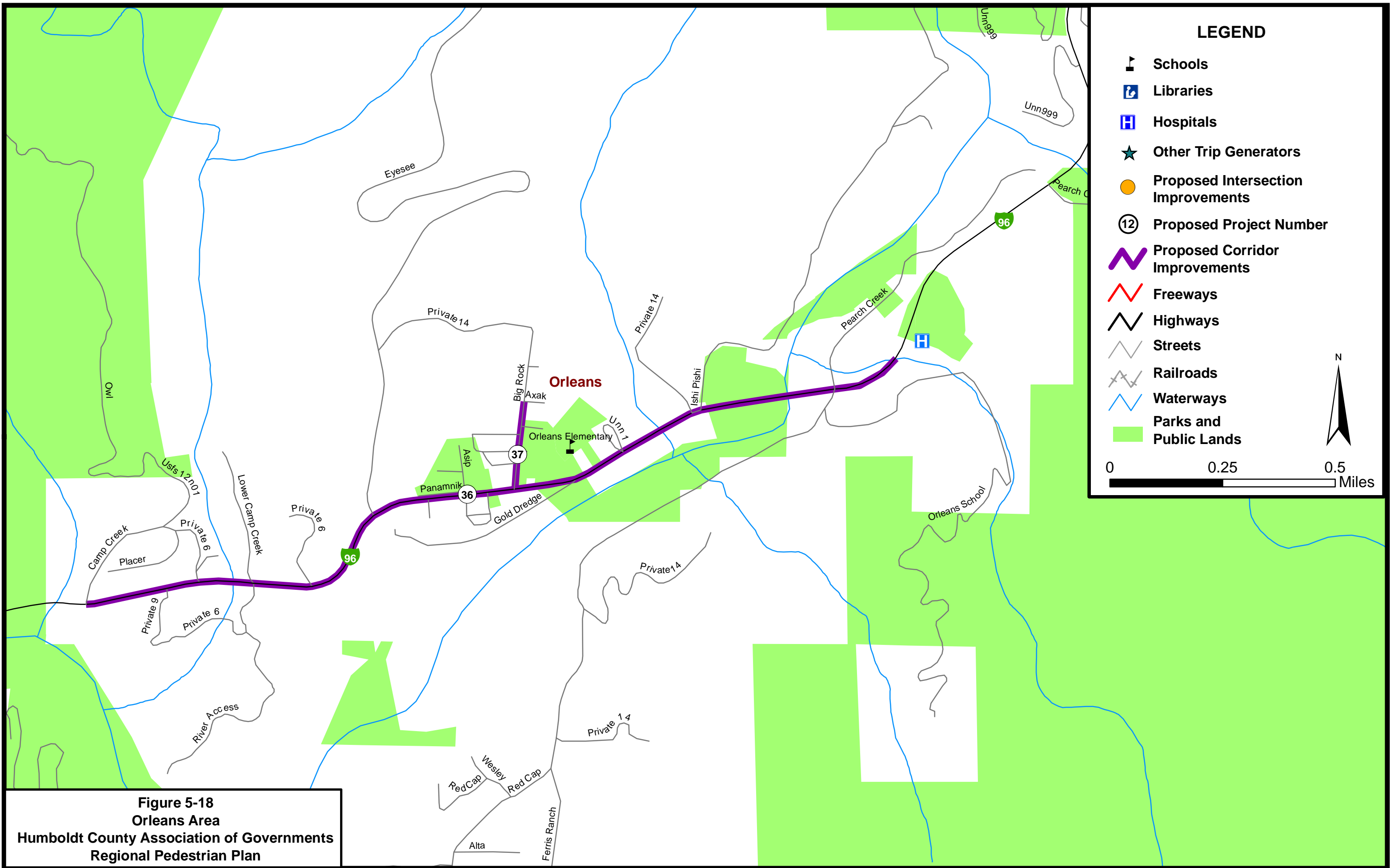
LIMITS: Big Rock Road to Post Office

This segment of SR 96 provides access to downtown Orleans and Orleans Elementary School. Separated pedestrian facilities and traffic calming measures would enhance safety for pedestrians and motorists.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	1	\$400	\$400
Signs		each	2	\$200	\$400
Ped. Path	Width		6		\$63,360
	Decomposed Granite	SF		\$3	
	Asphalt	SF	2640	\$4	
Sub Total					\$64,160
30% Contingency					\$19,248
TOTAL					\$83,408

RECOMMENDATIONS:

- Pedestrian pathway along north side of roadway.
- Restripe crosswalk with a continental/ladder marking.
- FYG pedestrian signs (W54A).



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5.4.12. Scotia

The town of Scotia is owned and managed by the Pacific Lumber Company. The pedestrian environment throughout the community is generally favorable. Most streets are narrow with slow speeds. The only school is located at a dead end residential street with very slow speeds and well-marked crosswalks. Near the shopping area on Main Street, the major trip generator, crossings have small bulb outs and textured paving. As this is a company owned town and pedestrians are well accommodated, there were no priorities identified for this community. No new projects are proposed in Scotia.

5.4.13. Trinidad Rancheria

The Trinidad Rancheria is comprised of 83 acres of three separate parcels in the Humboldt County area. The largest parcel, located on the west side of Highway 101 along the Pacific Coast is made up of 46.5 acres and is home to Tribal Members, Tribal Offices and Operations and the Cher-Ae Heights Casino.

Highway 101 bisects the Rancheria on the north eastern corner which leaves a small nine acre parcel on the eastern side of Highway 101. A third 27.5 acre parcel resides in McKinleyville east of the Arcata Eureka Airport and includes twelve residential properties. In addition to Rancheria property, the Trinidad Rancheria also owns the Trinidad Pier and Seascape Restaurant in the City of Trinidad.

The Trinidad Rancheria has identified numerous goals in their Long Range Transportation Plan (Cher-Ae Heights Indian Community of the Trinidad Rancheria Tribal Transportation Plan 2006-2026) which includes “a need for improved pedestrian/bicycle transportation infrastructure on the Rancheria.”

Trinidad Rancheria is developing a Plan to look at transportation connectivity, long range planning for cultural preservation, housing, land, environmental, and economical development. Finding solutions to the existing barriers to pedestrian and bicycle travel, safe routes to school, and alternative access to the Rancheria are transportation issues which will be addressed as priorities. Currently, the Trinidad Rancheria is engaged in three major projects pertinent to the Rancheria’s long range planning and development. One of these is relevant to the pedestrian plan and is included as this area’s priority project. The other two projects, rehabilitating Scenic Drive and developing a new 101 interchange require roadway improvements that should include pedestrian improvements.

5.4.13.1. Major Trip Generators

- Public Beaches, Trinidad Head, and coast trail system – west and south of town
- Fishing Pier and Restaurant – south of town

5.4.13.2. Projects

The recommended projects in this study are:

- Pier Project ADA ramp (currently under design)

Additional locations for consideration:

- Scenic Drive
- 101 Interchange



Highway 96 through Weitchpec has no pedestrian facilities despite frequent pedestrian activity.

5.4.14. *Weitchpec*

The tiny town center of Weitchpec serves a community that is widely spread in the forested hills nearby and along the Klamath River on the Yurok Indian Reservation (YIR), which includes some of SR 96, but is served primarily by Highway 169. The market and general store in Weitchpec are separated from the community center by a 540-foot bridge over the Klamath River. The bridge is not very wide (only 24 feet) and has narrow metal walkways. Further north on SR 96 is the Weitchpec School access road. The school bus stop is on SR 96, opposite the highway from the access road.

State Route 169 is the main route linking the communities in the YIR, including Weitchpec, Ke'pel, and Wautec. This highway is a one-lane narrow road with an average width of 16 feet. The route connects with the Bald Hills Road and US 101 over the mountains from the Klamath River. Many residents and Tribal members who live along 169 walk as their primary mode of transportation to work, school, health services, shopping, and postal pick up.

Improved pedestrian access to services such as the store, community center and schools on Highway 96 and SR 169 were noted to be top priorities by Tribal Engineer Nancy Atkinson. Significant consideration should also be given to accommodate pedestrians near special cultural sites, such as the Brush and Jump Dance ceremonial sites along SR 169. These sites can draw hundreds of people to gathering points along SR 169.

5.4.14.1. Project

The recommended project in this study is:

- SR 96: Downtown to Weitchpec Road

Additional locations for consideration:

- Bald Hills Road

Caltrans characterizes SR 169 as a “very substandard primitive highway” between Weitchpec and Wautec. As a one-lane roadway flanked by forestlands and steep terrain, improvements to the

infrastructure are difficult. Despite its condition, the roadway is vital to the Yurok Tribe as the connecting roadway to villages and access route to cultural sites that can see hundreds of people at a time.

In the short-term, pedestrian crossing signs should be considered in locations where crossings are common, including:

- Near Weitchpec volunteer fire station at PM 31.14
- High School and Elementary bus stops from PM 13.20 to PM 33.48
- Johnson's Village Road near Wautec
- Cultural Sites (not posted) at PM 14.46,15.5 and 32.75
- Driveway to Jack Norton School
- 169 and McKinnon Hill – near Morekwan Community Center and Head Start

SR 96

LIMITS: Downtown to Weitchpec Road

SR 96 is the primary roadway through Weitchpec. Pedestrian use is heavy with residents traveling to ride shares, the elementary school, shopping, community center, and Yurok Tribe activities.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	3	\$400	\$1,200
Signs		each	6	\$200	\$1,200
Ped. Path	Width		6		\$50,400
	Decomposed Granite	SF		\$3	
	Asphalt	SF	2100	\$4	
Flashing Beacons	Mounted on signs	xing	1	\$12,000	\$12,000
Sub Total					\$64,800
30% Contingency					\$19,440
TOTAL					\$84,240

RECOMMENDATIONS:

Marked crosswalks at store, 169 (community center), Weitchpec Road (school).

All-weather pathway from store to Weitchpec Road.

Install FYG school crossing signs and flashing beacons (activated only during drop-off/pick-up peak hours)

NOTES:

School drop-off/pick-up often on both sides of SR 96 at Weitchpec Road.

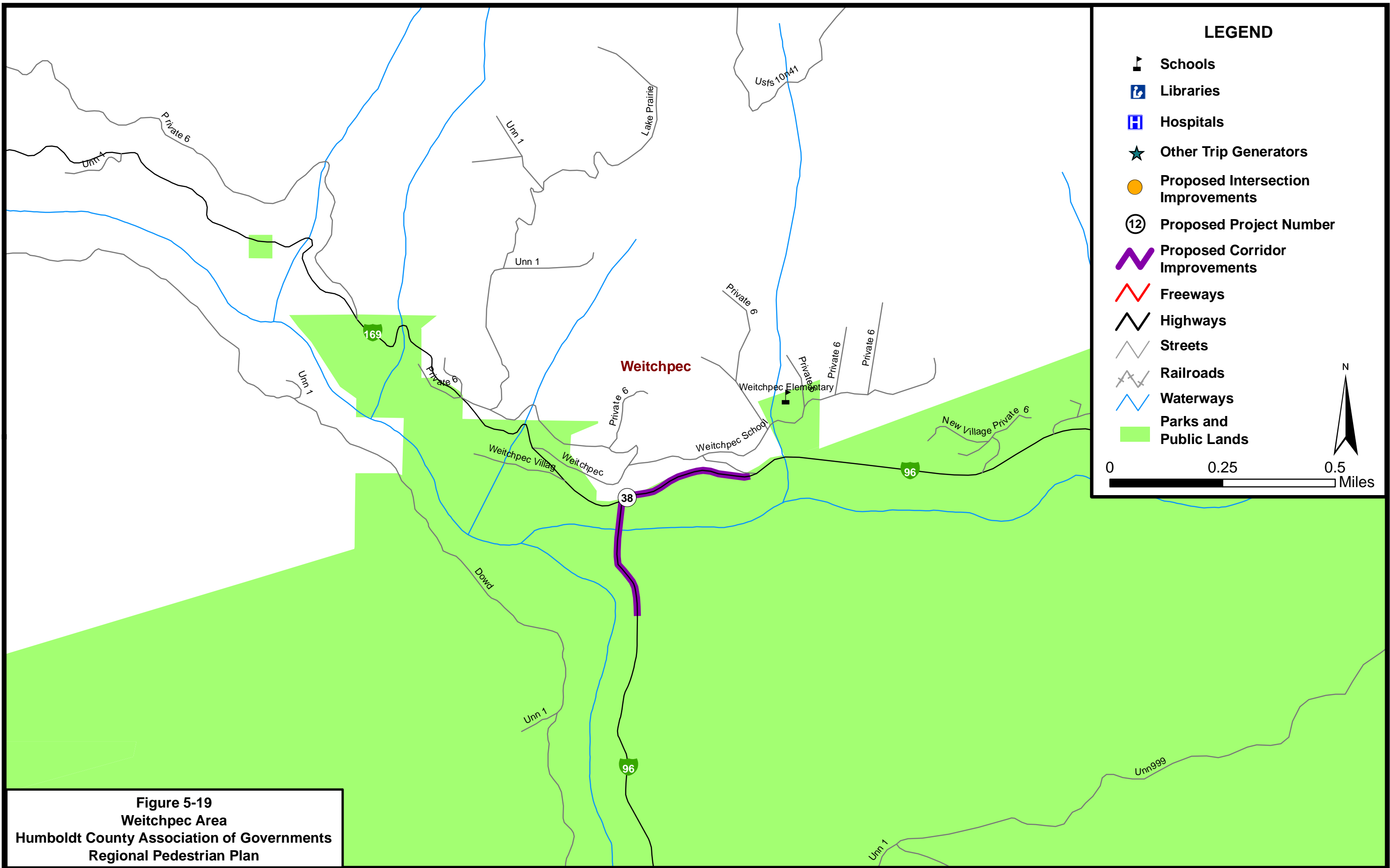


Figure 5-19
Weitchpec Area
 Humboldt County Association of Governments
 Regional Pedestrian Plan

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5.4.15. Willow Creek

Willow Creek lies at the junction of two state highways, SR 299 and SR 96. Willow Creek, access point to the Trinity River, is a popular destination for coastal residents in the summer. The town is a major service center to highway travelers. Much of the residential development is in the outlying areas from the core downtown area along SR 299. The area is experiencing increased residential development that is expected to continue. The Willow Creek Community Services District is playing a lead role in all actions regarding community infrastructure improvements.



SR 96 serves as main street through Willow Creek.

The Community Services District has been working with Caltrans for several years to redesign the SR 299 corridor as a more multi-modal-friendly “main street.” This summer, a significant portion of the “Scenic Highway and Downtown Enhancement” (SHADE) project is to be constructed. The SHADE project did not successfully compete with other Humboldt governments at the RTIP level, so the Community Services District pursued funds directly from the state. The project will reduce highway width by five to six feet on both sides, and dedicate that space to more pedestrian facilities, including sidewalks, landscaped medians, and bulb-outs.

5.4.15.1. Projects

The recommended project in this study is:

- SR 96: SR 299 to Trinity Valley Elementary School
- SR 299: Roth Road to Panther Creek Road
- River Trail/Kimtu Trail Connector (cost = \$15,000 for negotiations/easements with land owner)

Additional locations for consideration:

- Country Club Road: SR 299 to Post Office
- Country Club Road: SR 299 to Veterans’ Memorial Park

SR 96

LIMITS: SR 299 to Trinity Elementary School

SR 96 connects downtown Willow Creek to Trinity Valley Elementary School. SR 96 carries seasonal traffic and serves rural developments outside of Willow Creek. Students and other pedestrians are forced to use SR 96 alongside vehicle traffic.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	1	\$400	\$400
Signs		each	2	\$200	\$400
Ped. Path	Width		10		\$132,000
	Decomposed Granite	SF		\$3	
	Asphalt	SF	3300	\$4	
Cantilevered SW		LF	380	\$300	\$114,000
Sub Total					\$246,800
30% Contingency					\$74,040
TOTAL					\$320,840

RECOMMENDATIONS:

- Shared use trail west side of roadway.
- Cantilevered bikeway on Trinity River Bridge.
- Trail crossing on Brannan Mountain Road.

SR 299

LIMITS: Roth Road to Panther Creek Road

This portion of SR 299 links downtown businesses to the commercial services near Marigold Lane. High traffic speeds – often exceeding 55mph - make pedestrian travel along SR 299 difficult.

ITEM	DESCRIPTION	UNIT	# / FT.	UNIT COST	ITEM COST
Crosswalk	Continental (or ladder)	each	1	\$400	\$400
Signs		each	2	\$200	\$400
Ped. Path	Width		6		\$50,400
	Decomposed Granite	SF		\$3	
	Asphalt	SF	2100	\$4	
Sub Total					\$51,200
30% Contingency					\$15,360
TOTAL					\$66,560

RECOMMENDATIONS:

Paved pathway along northeast side of roadway

Crosswalk at Panther Creek Road

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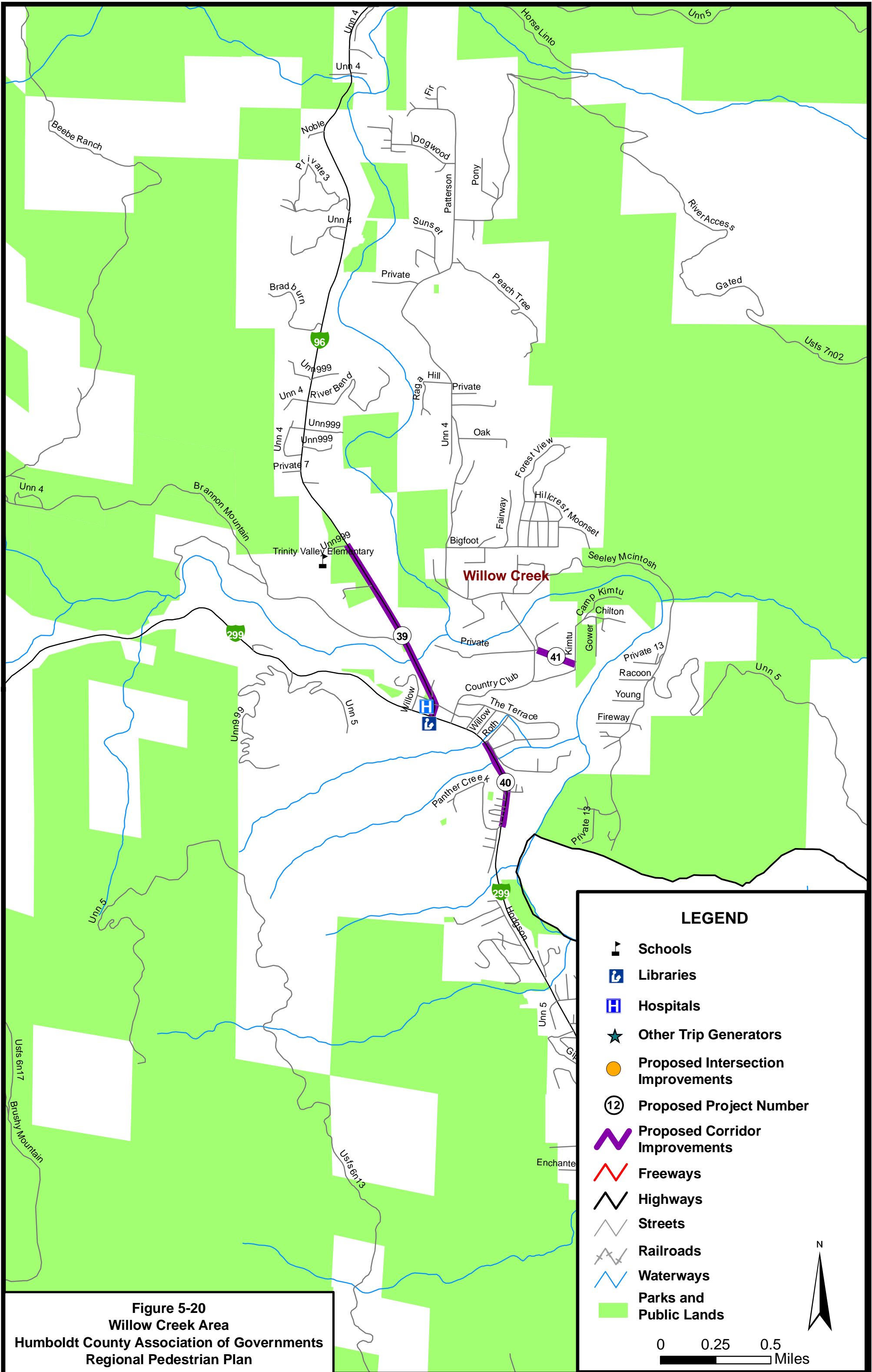


Figure 5-20
Willow Creek Area
Humboldt County Association of Governments
Regional Pedestrian Plan

LEGEND

- Schools
- Libraries
- Hospitals
- Other Trip Generators
- Proposed Intersection Improvements
- Proposed Project Number
- Proposed Corridor Improvements
- Freeways
- Highways
- Streets
- Railroads
- Waterways
- Parks and Public Lands

0 0.25 0.5 Miles

N

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VI. PROJECT PRIORITIZATION

With 41 projects recommended in this study, a ranking process determined priorities. Below is a description of the criteria used, its importance to pedestrians, and the point scheme used for each criterion. Following is a list of the 41 projects, ranking number, and the score they received under each criterion. Based on these rankings and locations of the projects, the plan includes a phasing plan for implementation.

6.1. RANKING CRITERIA

6.1.1. TRIP GENERATORS

Nearby attractors influence the level of pedestrian activity in an area. Although some destinations draw more pedestrians than others, a major goal of this study is to encourage pedestrian trips, especially where they may replace short automobile trips. Proximity to commercial and retail centers receive the most points for these reasons and because of their benefits to the larger population and tourists. Preference was also given to schools, with more points given to locations closer to elementary schools.

Commercial / Retail within 1/2 mile	5 points
Elementary School within 1/3 mile	4
Middle School within 1/2 mile	3
High School within 1/2 mile	2
Park within 1/4 mile	1

6.1.2. TRANSIT ACCESS

Transit services have the ability to greatly extend the commute range of pedestrians and other non-motorized groups. Given the high percentage of transit trips that start with a pedestrian trip to reach a transit stop, the weighting system assigns points to projects that provide transit access. Projects with transit stops within 1/4 miles receive points.

On two or more bus routes	2 points
On one bus route	1

6.1.3. STREET CLASSIFICATION

Just as arterial and collector streets are primary routes for motorists, they serve the same purpose for pedestrians. State highways bisect most communities in Humboldt County, which serve as the “main street” and are also the addresses for the community’s commercial businesses. “Main Streets” generally have the most destinations and require comprehensive pedestrian facilities. Projects along collectors, arterials, and highways, as well as the “main street” in a community scored points.

Highway or Main Street	2 points
Collector or Arterial	1

6.1.4. TRAFFIC SPEED

As speeds rise, so does the perception of unsafe conditions, and potential risks to pedestrians. Posted speed limits are in the analysis and scored as:

Greater than or equal to 55 mph	5 points
Greater than or equal to 45 mph	2
Greater than or equal to 35 mph	1

6.1.5. COLLISIONS

Pedestrian collision data from the California Highway Patrol's Statewide Integrated Traffic Records System was collected for the years 2002 – 2006 for all of Humboldt County. Projects with collisions within ¼ miles receive two points.

6.1.6. MEDIAN INCOME

Studies have shown that lower income people walk more. Using the median income results from the 2000 Census, communities with lower median incomes were allotted more points for their projects.

Less than \$24,000	4 points
Greater than or equal to \$24,000	3
Greater than or equal to \$29,000	2
Greater than or equal to \$35,000	1
Greater than or equal to \$40,000	0

Table 6-1 and **6-2** list all evaluated projects and cost estimates for planning purposes only and are *not* in ranking order. The ultimate cost of the projects will depend upon engineering and traffic studies, level of design elements incorporated into the project, and local preferences. These tables also show the scoring based on the criteria. A summary of all the scores is in Appendix C of the Study.

Table 6-1 Incorporated Pedestrian Projects

#	Projects	City	Cost Estimate	Total Score
1	Alliance Road/Shay Park Path	Arcata	\$15,925	15
2	G Street Pathway to Sunset Avenue	Arcata	\$16,608	16
3	Intersection of D Street and 14th Street	Arcata	\$7,020	15
4	Intersection of Somoa Boulevard and I Street	Arcata	\$4,420	13
5	Valley West Overcrossing: trail and US 101 overcrossing between Janes Road and Valley West Boulevard	Arcata	\$3,693,300	8
6	Intersection of L.K. Wood Boulevard and Sunset Avenue	Arcata	\$32,630	14
7	Greenwood Road: Blue Lake Boulevard to Redwood Avenue	Blue Lake	\$32,240	12
8	I Street: Blue Lake Boulevard to 1st Street	Blue Lake	\$88,192	13
9	Railroad Avenue: H Street to Blue Lake Boulevard	Blue Lake	\$97,565	11
10	South Side Railroad Avenue: Chartin Road to H Street	Blue Lake	\$478,140	12
11	6th and 7th Streets: Broadway to Myrtle Avenue	Eureka	\$71,305	16
12	Broadway: 4th Street to Kmart	Eureka	\$236,535	17
13	Harris Street: Broadway to Hall Avenue	Eureka	\$84,955	13
14	Henderson Street: Broadway to I Street	Eureka	\$94,380	14
15	Waterfront Trail: Truesdale Vista Point to Elk Riv	Eureka	\$1,740,000	12
16	Bluff Street: sidewalks Craig Street to Russ Park	Ferndale	\$81,250	6
17	Herbert Street: Rose Avenue to Berding Street	Ferndale	\$30,745	7
18	12th Street: K Street to Loni Drive	Fortuna	\$43,680	12
19	Newburg Road: Fortuna Boulevard to Virginia Street	Fortuna	\$39,260	13
20	Intersection of Newburg Road and Rohnerville Road	Fortuna	\$48,230	5
21	Riverwalk Drive / Kenmar Road: Riverwalk RV Park to Ross Hill Road	Fortuna	\$197,340	7
22	Intersection of Ross Hill Road / School Street	Fortuna	\$1,040	2
23	Wildwood Avenue: Davis Street to Scotia Bridge	Rio Dell	\$58,760	9
24	Main Street / Westhaven Drive: Scenic Drive to Hidden Creek RV Park	Trinidad	\$23,777	9
25	Van Wycke Trail Rehabilitation Project	Trinidad	\$200,000	6
26	Lighthouse Trail Improvement Project	Trinidad	\$50,000	7
	Total		\$7,467,297	

Table 6-2 Unincorporated Pedestrian Projects

#	Unincorporated	City	Cost Estimate	Total Score
27	Intersection of Avenue of the Giants and School Road	Miranda	\$1,690	9
28	Newton Road: School Road to Sewell Drive	Weot	\$54,080	12
29	SR 96: Mill Creek to Shoemaker Road	Hoopaa	\$3,979,560	11
30	Loleta Drive – Main Street to Franklin Avenue, Franklin Avenue – Park Street to Loleta Drive, Park Street – Franklin Avenue to Loleta Drive	Loleta	\$108,128	10
31	Intersections of Lupin Drive and Pacific Road along SR 255 (Manila)	Manila	\$97,240	7
32	Northwestern Pacific Railroad Trail: Sandy Road to Dean Avenue (Manila)	Manila	\$668,815	3
33	Hiller Road: Highway 101 Overpass to Central Avenue	McKinleyville	\$321,971	3
34	School Road: Fischer Road to Bugenig Avenue	McKinleyville	\$221,104	4
35	Continue filling sidewalk gaps on Washington Avenue: McKinleyville Avenue to School Road	McKinleyville	\$45,981	4
36	SR 96: Downtown to Clinic	Orleans	\$257,868	8
37	SR 96: Big Rock Road to Post Office	Orleans	\$83,408	5
38	SR 96: Downtown to Weitchpec Road	Weitchpec	\$84,240	9
39	SR 96: SR 299 to Trinity Valley Elementary School	Willow Creek	\$320,840	7
40	SR 299: Roth Road to Panther Creek Road	Willow Creek	\$66,560	9
41	River Trail/Kimtu Trail Connector	Willow Creek	\$15,000	4
	Total		\$6,326,485	

6.2. PHASING PLAN

Based on input received from the public and from previous planning efforts in Humboldt County, equity of the project funding is important. Based on this, the implementation plan breaks the projects into three phases. In each phase, there are an approximately proportional number of projects in unincorporated communities as in incorporated communities. If the basis for implementation is on scoring alone, the unincorporated projects would not be in the first phase. Therefore, this Study balances the priorities between these locations. **Table 6-3** summarizes the projects' phases and the phases' costs. Also included are the high priced items that may require special funding needs. Otherwise, descriptions of available funding sources are in Chapter 7.

Table 6-3 Phasing Plan

Phase I						
Location	#	Projects	City	Criteria Score	Project Cost	Phase Total Cost
Incorporated	12	Broadway: 4th Street to Kmart	Eureka	17	\$236,535	
Incorporated	2	G Street Pathway to Sunset Avenue	Arcata	16	\$16,608	
Incorporated	11	6th and 7th Streets: Broadway to Myrtle Avenue	Eureka	16	\$71,305	
Incorporated	1	Alliance Road/Shay Park Path	Arcata	15	\$15,925	
Incorporated	3	Intersection of D Street and 14th Street	Arcata	15	\$7,020	
Incorporated	6	Intersection of L.K. Wood Boulevard and Sunset Avenue	Arcata	14	\$32,630	
Incorporated	14	Henderson Street: Broadway to I Street	Eureka	14	\$94,380	
Unincorporated	28	Newton Road: School Road to Sewell Drive (Weott)	Weott	12	\$54,080	
Unincorporated	29	SR 96: Mill Creek to Shoemaker Road***	Hoopla	11	\$3,979,560	
Unincorporated	30	Loleta Drive – Main Street to Franklin Avenue, Franklin Avenue – Park Street to Loleta Drive, Park Street – Franklin Avenue to Loleta Drive	Loleta	10	\$108,128	
Unincorporated	27	Intersection of Avenue of the Giants and School Road (Miranda)	Miranda	9	\$1,690	
Unincorporated	38	SR 96: Downtown to Weitchpec Road	Weitchpec	9	\$84,240	
Unincorporated	40	SR 299: Roth Road to Panther Creek Road	Willow Creek	9	\$66,560	\$4,768,661
Phase II						
Incorporated	4	Intersection of Somoa Boulevard and I Street	Arcata	13	\$4,420	
Incorporated	8	I Street: Blue Lake Boulevard to 1st Street	Blue Lake	13	\$88,192	
Incorporated	13	Harris Street: Broadway to Hall Avenue	Eureka	13	\$84,955	
Incorporated	19	Newburg Road: Fortuna Boulevard to Virginia Street	Fortuna	13	\$39,260	
Incorporated	7	Greenwood Road: Blue Lake Boulevard to Redwood Avenue	Blue Lake	12	\$32,240	
Incorporated	10	South Side Railroad Avenue: Chartin Road to H Street*	Blue Lake	12	\$478,140	
Incorporated	15	Waterfront Trail: Truesdale Vista Point to Elk River**	Eureka	12	\$1,740,000	
Incorporated	18	12th Street: K Street to Loni Drive	Fortuna	12	\$43,680	
Incorporated	9	Railroad Avenue: H Street to Blue Lake Boulevard	Blue Lake	11	\$97,565	
Incorporated	23	Wildwood Avenue: Davis Street to Scotia Bridge	Rio Dell	9	\$58,760	
Incorporated	24	Main Street / Westhaven Drive: Scenic Drive to Hidden Creek RV Park	Trinidad	9	\$23,777	

Location	#	Projects	City	Criteria Score	Project Cost	Phase Total Cost
Unincorporated	36	SR 96: Downtown to Clinic	Orleans	8	\$257,868	\$3,450,345
Unincorporated	31	Intersections of Lupin Drive and Pacific Road along SR 255 (Manila)	Manila	7	\$97,240	
Unincorporated	39	SR 96: SR 299 to Trinity Valley Elementary School*	Willow Creek	7	\$320,840	
Unincorporated	37	SR 96: Big Rock Road to Post Office	Orleans	5	\$83,408	
Phase III						
Incorporated	5	Valley West Overcrossing: trail and US 101 overcrossing between Janes Road and Valley West Boulevard***	Arcata	8	\$3,693,300	\$5,574,776
Incorporated	17	Herbert Street: Rose Avenue to Berding Street	Ferndale	7	\$30,745	
Incorporated	21	Riverwalk Drive / Kenmar Road: Riverwalk RV Park to Ross Hill Road	Fortuna	7	\$197,340	
Incorporated	26	Lighthouse Trail Improvement Project (Lighthouse to Beach, Cos	Trinidad	7	\$50,000	
Incorporated	16	Bluff Street: sidewalks Craig Street to Russ Park	Ferndale	6	\$81,250	
Incorporated	25	Van Wycke Trail Rehabilitation Project (Edwards St. to Galindo St.)	Trinidad	6	\$200,000	
Incorporated	20	Intersection of Newburg Road and Rohnerville Road	Fortuna	5	\$48,230	
Incorporated	22	Intersection of Ross Hill Road / School Street	Fortuna	2	\$1,040	
Unincorporated	34	School Road: Fischer Road to Bugenig Avenue	McKinleyville	4	\$221,104	
Unincorporated	35	Continue filling sidewalk gaps on Washington Avenue: McKinleyville Avenue to School Road	McKinleyville	4	\$45,981	
Unincorporated	41	River Trail/Kimtu Trail Connector	Willow Creek	4	\$15,000	
Unincorporated	32	Northwestern Pacific Railroad Trail: Sandy Road to Dean Avenue**	Manila	3	\$668,815	
Unincorporated	33	Hiller Road: Highway 101 Overpass to Central Avenue*	McKinleyville	3	\$321,971	

*Projects costing over \$300,000

**Projects costing over \$500,000

***Projects costing over \$3,000,000

VII. PEDESTRIAN PROGRAMS

Public awareness and education programs are important complements to the proposed pedestrian improvements of this Plan. In addition to programs promoting walking, it is necessary to make certain that there is an education component that covers pedestrian and motorist laws. For example, many people do not understand that motorists must yield to pedestrians crossing at intersections, regardless of whether there is a marked crosswalk in place or not. Others may be confused as to when crossing a street mid-block constitutes jaywalking. Of course, all of these elements are most effective when accompanied by a robust campaign of enforcement of the existing laws that protect pedestrians.

7.1. PEDESTRIAN EDUCATION PROGRAMS

Education can make pedestrians and motorists more aware of potentially hazardous environments and teach them the skills needed to make walking a more effective and enjoyable way to travel. There are a number of broad-based educational subjects that address particular issues, with individual programs that can be tailored around specific themes.

7.1.1. *Individualized Social Marketing*

Many regions are increasingly interested in an emerging type of transportation demand management program based on individualized socialized marketing. The first such program was created in Perth, Australia and named TravelSmart®. Several communities, including Portland, Oregon, Marin County and Alameda, California have planned and implemented similar individualized marketing programs aimed at shifting residents' travel mode away from drive-alone trips to walking, biking, and taking transit. These programs are proven to be successful.

7.1.2. *Safety Education Campaign*

HCAOG could take on a variety of safety education campaigns to educate motorists on the rights of pedestrians, and to educate pedestrians on safe behavior. The campaign could include messages related to speeding, yielding to pedestrians in crosswalks, stopping at stop signs, red light running, or jaywalking.

Elements of a successful pedestrian education program include:

Media Coverage and Events, including statements of support from County officials, support of the local police, and development of a press kit outlining the program for coverage.

Print Campaign, incorporating the promotional themes in maps, posters, bumper stickers, guides, and television public service announcements.

Street Banners, displaying a safety message such as “SLOWER TRAFFIC=SAFER PEDESTRIANS” and “Everybody Walks in Humboldt County!” Rotating banners to different areas of the county on a regular basis can keep the message fresh and help reach new audiences.

The County could develop its own original campaign materials, or purchase an existing campaign “kit” such as the Street Smarts campaign developed by the City of San Jose. Street Smarts has been adopted by a number of jurisdictions in California, and is a modular program that can be customized by each jurisdiction and is set up to utilize a broad mix of media including billboards, print ads, bus shelters, bumper stickers, and neighborhood lawn signs.

7.1.2.1. Programs

There are a variety of different pedestrian educational programs that could be adapted for different groups including drivers, seniors, parents, school kids, high school drivers, and seniors. This section includes the various parties and the applicable programs.

Driver Programs

- **Speakers**

A pedestrian expert could visit traffic schools to talk about the rights, responsibilities, and proper behavior of pedestrians in relation to traffic. The expert could be a public official, consultant, non-profit representative or member of the police or fire department.

- **Share the Road**

The Share the Road message could be included all printed material to be distributed at worksites, parking structures, and retail sites.

Senior Citizen and Disabled Pedestrian Education

- **Speakers**

These programs could include instructors and guest speakers to provide information specific to the needs of the seniors and disabled. Presentations could occur at community centers, churches, clubs, senior citizen centers, physician offices, and hospitals. The presentation could address the sensitive issues of physical limitations of many seniors and the crucial need for them to reach their destinations (e.g. medical appointments, food shopping, etc.).

Education for School Children

7.1.2.2. Programs

The programs for elementary schoolchildren include rodeos as defined below and classroom curricula and could be tailored to meet the needs of schoolchildren, parents, and teachers in pre-school through 6th grade.

- **Community-Based Rodeos**

Community-based rodeos could be conducted bi-monthly for families of school-aged children and could include bicycle and pedestrian education. Volunteers—including parents,

senior citizens, bike enthusiasts, and other screened/qualified volunteers—could staff the rodeo.

Each rodeo could feature a traffic simulation course consisting of a miniature city with streets, sidewalks, intersections, traffic signs, traffic signals, a residential area, a business area, bike lanes, trucks, and buses. The course could allow children with their parents to practice bicycle handling and pedestrian skills. By utilizing this simulated environment, the ability of children to recognize traffic hazards is improved. These rodeos could also allow parents to participate in the educational process by involving them in the lesson plans. Potential partnering agencies are the local jurisdictions and police departments. The City of Arcata has hosted similar programs in the past.

- Curriculum

Curricula could be implemented in pre-schools, childcare centers, and elementary schools in the County. The curricula could be designed to target specific grade levels: pre-school, kindergarten, 1st, 2nd, 3rd, 4th, 5th, and 6th grades. Each grade level program could include basic information, demonstrations, activities, and printed material for walking safety. International Walk to School has some curriculum opportunities on their website (www.iwalktoschool.org). Another program in place in US jurisdictions is the Safe Moves/Smart Moves program for Kindergarten through 6th grades, administered by the non-profit group Smart Moves. Topic areas include:

- Recognition and avoidance of common pedestrian collisions
- Understanding of motorists, rights, and responsibilities
- Awareness of the California Vehicle Code governing pedestrians
- Physical, social, and economic consequences
- Promotion of benefits of walking as an effective mode of transportation
- Traffic knowledge assessment and skills
- Pedestrian Education at Bus Stops
- Proper behavior around bus stops
- Schedules, fares, and passenger skills

7.1.3. Pedestrian Awareness Campaign

A public awareness campaign of walking as a means of transportation emphasizes crossing safety and contributes to helping people make healthier lifestyle choices. Humboldt County includes a wide spectrum of people who can benefit from walking, including an active senior community, immigrant populations, visitors, tourists, students, employees and, employers. Encouraging people to walk can provide the invitation necessary to start a lifestyle change. An awareness campaign overlaps with the educational components of pedestrian programs.

A public awareness campaign, through literature and public service announcements, can make walking seem like a more enticing transportation option. There are a variety of different ways to

undertake these campaigns. One way is through partnerships, for example the HCAOG could partner with its jurisdictions, public health departments, and highway injury prevention efforts. Partnerships could become regional where neighboring cities or Native Tribes work together to improve pedestrian and traffic safety. More details are described in this section.

7.1.4. Multi-Media Campaign

7.1.4.1. Program

Print campaigns could include guides with map inserts, bumper stickers, and posters. They are specific to one area whether it is a downtown or central business district. Printed brochures could include:

- Maps highlighting routes and sites
- Health benefits of walking
- Rules of the road and sidewalk
- Information/hotline number

Additionally, bumper stickers could serve as a way to spread the program's message, such as "Walk Humboldt!"

7.1.4.2. Distribution

The brochures, maps, and bumper stickers could be distributed in and around the County to businesses and community groups. Materials could also be available at:

- Worksites
- Retail sites
- Chamber of Commerce
- Visitors Bureau
- Hotels and motels
- Gas stations
- Libraries
- Community centers
- DMV
- Churches
- Schools

HCAOG, public agencies, and Native Tribes could also have it available on their websites so individuals could access it.

7.1.5. Public Service Announcements

A cost-effective way for the County to promote the pedestrian mode as an effective and enjoyable way to travel is to use existing television public service announcements made available through the National Highway Traffic Safety Administration (NHTSA), Safe Kids Coalition, and the California Office of Traffic Safety (OTS). These agencies provide existing award-winning television public service announcements on the following topics:

- Pedestrian education for seniors

- Pedestrian education for the general public
- Pedestrian education for children and their families
- Driver education on pedestrians
- Drivers running red lights

HCAOG could provide existing public service to local movie theatres to be included as trailers on-screen. Theatres often use slides for community announcements and HCAOG could provide a slide or digital photo of the slogan “Humboldt Walks!”

A spokesperson from HCAOG or from a partner organization could work with local media, developing opportunities for interviews and outreach. The spokespeople would discuss the “Humboldt Walks!” campaign and the importance of walking as an alternative mode of transportation in the County.

7.1.6. Other Promotional Activities

The “Humboldt Walks!” campaign could be promoted in other ways. Such as:

7.1.6.1. Commuter of the Month

Implement a contest for residents and employers to nominate a person who walks and/or uses transit to travel around Humboldt County. Entry forms available at employer sites, retail sites, churches, and recreation and community centers could promote the contest. Seasonal winners would receive prizes that may include gift certificates to dinner, retail stores, and merchandise. A biography of the commuter of the month would be posted on the HCAOG or a partner agency’s website.

7.1.6.2. Murals

Murals have successfully been used to promote ideals and inform the community of important issues. The mural program could solicit help from local volunteers, artists, children, seniors, and other community members. Costs for the production of the murals could be generated by grants through public art foundations.

7.1.6.3. Retail/Events Involvement

Partnerships with local retailers could be established to promote walking. These partnerships could involve the campaign theme being promoted on bag stuffers and pre-printed bags. The costs of the bag stuffers and pre-printed bags could be born by retailers and could act as a donation. Retailers could, if possible, agree to provide counter space for guides and window space for promotional posters.

The County could require all community events to promote walking (and bicycling) in all event literature, advertisements, and other collateral materials as a mode of transportation to their event. The County could include this requirement as part of the permit process for events.

7.1.7. Enforcement of Pedestrian Laws

Targeted pedestrian enforcement action should be focused in those areas with high pedestrian volumes or where pedestrians are especially vulnerable. Law enforcement efforts should be targeted during periods and at locations where motorists and the general public can become aware of pedestrian laws and their penalties. It is recommended that such targeted enforcement occur at least four times per year and last for one week. Focused enforcement should also take place at the start of the school year, at selected schools near their primary access points where children walk. Police should be surveyed for input on appropriate educational material, advisory and warning signs, and other tools to help inform pedestrians of the laws. Finally, it is recommended that the police vigorously pursue legal action against motorists who cause a pedestrian injury or fatality.

Pedestrians are protected in the public right-of-way by the California Vehicle Code. Some of the key provisions of the California Vehicle Code as it relates to pedestrians are shown below.

21950. (a) The driver of a vehicle shall yield the right-of-way to a pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at an intersection, except as otherwise provided in this chapter.

(b) This section does not relieve a pedestrian from the duty of using due care for his or her safety. No pedestrian may suddenly leave a curb or other place of safety and walk or run into the path of a vehicle that is so close as to constitute an immediate hazard. No pedestrian may unnecessarily stop or delay traffic while in a marked or unmarked crosswalk.

(c) The driver of a vehicle approaching a pedestrian within any marked or unmarked crosswalk shall exercise all due care and shall reduce the speed of the vehicle or take any other action relating to the operation of the vehicle as necessary to safeguard the safety of the pedestrian.

(d) Subdivision (b) does not relieve a driver of a vehicle from the duty of exercising due care for the safety of any pedestrian within any marked crosswalk or within any unmarked crosswalk at an intersection.

21950.5. (a) An existing marked crosswalk may not be removed unless notice and opportunity to be heard is provided to the public not less than 30 days prior to the scheduled date of removal. In addition to any other public notice requirements, the notice of proposed removal shall be posted at the crosswalk identified for removal.

(b) The notice required by subdivision (a) shall include, but is not limited to, notification to the public of both of the following:

(1) That the public may provide input relating to the scheduled removal.

(2) The form and method of providing the input authorized by paragraph (1).

Added Sec. 9, Ch. 833, Stats. 2000. Effective January 1, 2001.

21951. Whenever any vehicle has stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway the driver of any other vehicle approaching from the rear shall not overtake and pass the stopped vehicle.

21954. (a) Every pedestrian upon a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway so near as to constitute an immediate hazard.

(b) The provisions of this section shall not relieve the driver of a vehicle from the duty to exercise due care for the safety of any pedestrian upon a roadway.

Amended Ch. 1015, Stats. 1971. Operative May 3, 1972.

21955. Between adjacent intersections controlled by traffic control signal devices or by police officers, pedestrians shall not cross the roadway at any place except in a crosswalk.

21956. (a) No pedestrian may walk upon any roadway outside of a business or residence district otherwise than close to his or her left-hand edge of the roadway.

(b) A pedestrian may walk close to his or her right-hand edge of the roadway if a crosswalk or other means of safely crossing the roadway is not available or if existing traffic or other conditions could compromise the safety of a pedestrian attempting to cross the road.

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VIII. Funding

This chapter outlines federal, state, regional and local sources of pedestrian funding, as well as some non-traditional funding sources that have been used by local agencies to fund pedestrian infrastructure and programs.

8.1. FEDERAL FUNDING SOURCES

The primary federal source of surface transportation funding—including bicycle and pedestrian facilities—is SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. SAFETEA-LU is the fourth iteration of the transportation vision established by Congress in 1991 with the Intermodal Surface Transportation Efficiency Act (ISTEA) and renewed in 1998 and 2003 through the Transportation Equity Act for the 21st Century (TEA-21) and the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA). Also known as the federal transportation bill, the \$286.5 billion SAFETEA-LU bill passed in 2005 and authorizes Federal surface transportation programs for the five-year period between 2005 and 2009.

Administration of SAFETEA-LU funding is through the State (Caltrans and the State Resources Agency) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. SAFETEA-LU programs require a local match of 11.47%. SAFETEA-LU funding is intended for capital improvements and safety and education programs and projects must relate to the surface transportation system.

Specific funding programs under SAFETEA-LU include, but are not limited to:

- Congestion Mitigation and Air Quality (CMAQ) – Funds projects that are likely to contribute to the attainment of national ambient air quality standards
- Recreational Trails Program—\$370 million nationally through 2009 for non-motorized trail projects
- Safe Routes to School Program—\$612 million nationally through 2009
- Transportation, Community and System Preservation Program—\$270 million nationally over five years
- Federal Lands Highway Funds—Approximately \$4.5 billion dollars are available nationally through 2009

8.1.1. *Federal Lands Highway Funds*

Federal Lands Highway Funds may be used to build pedestrian facilities in conjunction with roads and parkways at the discretion of the department charged with administration of the funds. The

projects must be transportation-related and tied to a plan adopted by the State. Federal Lands Highway Funds are for project planning and construction.

8.1.2. Transportation, Community and System Preservation Program

The Transportation, Community and System Preservation (TCSP) Program provides federal funding for transit oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. The program is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. TCSP Program funds require a 20% match.

8.1.3. Regional Surface Transportation Program

The Regional Surface Transportation Program (RSTP) is a block grant program which provides funding for bicycle and pedestrian projects, among many other transportation projects. Under the RSTP, HCAOG prioritizes and approves projects that receive RSTP funds. Agencies can transfer funding from other federal transportation sources to the RSTP program in order to gain more flexibility in the way the monies are allocated. In California, 62.5% of RSTP funds are allocated according to population. The remaining 37.5% is available statewide.

8.1.4. Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is a derivative of the STIP program and identifies projects which are needed to improve regional transportation. Such projects may include pedestrian facilities, safety projects and grade separation, among many others. RTIP project planning, programming and monitoring may be funded up to 2 percent of total RTIP funds in non-urbanized regions. HCAOG prepares a RTIP, consisting of projects to be funded through STIP. The Regional Transportation Plan helps prioritize projects for the RTIP. Projects to be funded by RTIP funds must be identified in the current or next Regional Transportation Plan.

8.1.5. Recreational Trails Program

The Recreational Trails Program of SAFETEA-LU provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, and equestrian use. In California, the funds are administered by the California Department of Parks and Recreation. RTP projects must be ADA compliant. Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails;
- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails; including unpaved trails;
- Acquisition of easements or property for trails;

- State administrative costs related to this program (limited to seven percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds).

Six million dollars was available in 2008. More information is available at www.fhwa.dot.gov/environmnet/rectrails/index.htm

8.1.6. Land and Water Conservation Fund

Land and Water Conservation Fund is a federally funded program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The Fund is administered by the National Parks Service and the California Department of Parks and Recreation and has been reauthorized until 2015.

Cities, counties and districts authorized to acquire, develop, operate and maintain park and recreation facilities are eligible to apply. Applicants must fund the entire project, and will be reimbursed for 50 percent of costs. Property acquired or developed under the program must be retained in perpetuity for public recreational use. The grant process for local agencies is competitive, and 40 percent of grants are reserved for Northern California.

In 2007, approximately \$1.27 million was available for projects in California.

8.1.7. Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program which provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based upon criteria which include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation and focusing on lasting accomplishments. This program has provided technical assistance funding for the Eureka-Arcata trail planning effort.

8.1.8. Indian Reservation Roads Program

The Indian Reservation Roads Program is a Federal Lands Highway fund allocated to native tribes for road planning, designing, construction, and maintenance. Funds can be applied to Bureau of Indian Affairs as well as state roadways. Nationwide in 2007, there was over \$27 million allocated from this source. Projects can include roadway construction and sidewalk and drainage installation. Applications are due in November.

Indian Reservation Roads Program: <http://www.fhwa.dot.gov/flh/indresrd.htm>

8.2. STATEWIDE FUNDING SOURCES

The State of California uses both federal sources and its own budget to fund the following pedestrian projects and programs.

8.2.1. Wildlife Conservation Board Public Access Program

Funding for the acquisition of lands or improvements that preserve wildlife habitat or provide recreational access for hunting, fishing or other wildlife-oriented activities. Up to \$250,000 dollars available per project, applications accepted quarterly. Projects eligible for funding include interpretive trails, river access, and trailhead parking areas. The State of California must have a proprietary interest in the project. Local agencies are generally responsible for the planning and engineering phases of each project.

<http://www.wcb.ca.gov/>

8.2.2. California Conservation Corps

The California Conservation Corps (CCC) is a public service program which occasionally provides assistance on construction projects. The CCC may be written into grant applications as a project partner. In order to utilize CCC labor, project sites must be public land or be publicly accessible. CCC labor cannot be used to perform regular maintenance, however, they will perform annual maintenance, such as the opening of trails in the spring.

<http://www.ccc.ca.gov/>

8.2.3. Federal Safe Routes to School (SRTS) and California Safe Routes to School (SR2S)

Caltrans administers funding for Safe Routes to School projects through two separate and distinct programs: the state-legislated Program (SR2S) and the federally-legislated Program (SRTS). Both programs competitively award reimbursement grants with the goal of increasing the number of children who walk or bicycle to school. The programs differ in some important respects.

California Safe Routes to School Program expires January 1, 2013, requires a 10% local match, is eligible to cities and counties and targets children in grades K-12. The fund is primarily for construction, but up to 10% of the program funds can be used for education, encouragement, enforcement and evaluation activities. Fifty-two million dollars are available for Cycle 7 (FY 06/07 and 07/08).

The State Safe Routes to School Program expires September 30, 2009, reimburses 100%, is eligible for cities, counties, school districts, non-profits, and tribal organizations, and targets children in grades K-8. Program funds can be used for construction or for education, encouragement, enforcement and evaluation activities. Construction must be within 2 miles of a grade school or middle school. Forty-six million dollars are available for Cycle 2 (FY 08/09 and 09/10).

Caltrans, SR2S and SRTS Programs

<http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm>

8.2.4. Environmental Justice: Context Sensitive Planning Grants

The Caltrans-administered Environmental Justice: Context Sensitive Planning Grants promotes context sensitive planning in diverse communities and funds planning activities that assist low-income, minority and Native American communities to become active participants in transportation planning and project development. Grants are available to transit districts, cities, counties and tribal governments. This grant is funded by the State Highway Account at \$1.5 million annually state-wide. Grants are capped at \$250,000.

<http://www.dot.ca.gov/hq/tpp/grants.html>

8.2.5. Office of Traffic Safety (OTS) Grants

The California Office of Traffic Safety distributes federal funding apportioned to California under the National Highway Safety Act and SAFETEA-LU. Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Pedestrian safety is included in the list of traffic safety priority areas. Eligible grantees are: governmental agencies, state colleges, and state universities, local city 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. OTS had \$56 million in funding available statewide for FY 2006/07.

<http://www.dot.ca.gov/hq/traffops/saferesr/>

8.2.6. Community Based Transportation Planning Demonstration Grant Program

This fund, administered by Caltrans, provides funding for projects that exemplify livable community concepts including pedestrian improvement projects. Eligible applicants include local governments, MPO's and RPTA's. A 20% local match is required and projects must demonstrate a transportation component or objective. There are \$3 million dollars available annually statewide.

<http://www.dot.ca.gov/hq/tpp/grants.html>

8.2.7. Coastal Conservancy Non-Profit Grants Program

The Coastal Conservancy provides grants to non-profit organizations for projects which provide access to the California coast and preserve coastal lands, including the construction of trails, public piers, urban waterfronts, and other public access facilities.

8.2.8. State Highway Operations & Protection Program

The State Highway Operations and Protection Program (SHOPP) is a Caltrans funding source. There are different categories of funds for improvements that could relate to pedestrian improvements. SHOPP projects are capital improvements relative to maintenance, safety, and rehabilitation of State highways and bridges. These can include bridge sign and lighting rehabilitation and mobility improvements. Jurisdictions work with Caltrans' districts to have projects placed on the ten-year SHOPP list

\$61 million of State Highway Operation and Protection Program funds are allocated in Humboldt County in 2008/09 and \$24 million in 2009/10. This amount varies annually.

<http://www.dot.ca.gov/hq/transprog/shopp.htm>

8.3. LOCAL FUNDING SOURCES

8.3.1. TDA Article 3

Transportation Development Act (TDA) Article 3 funds are available for transit, bicycle and pedestrian projects in California. According to the Act, pedestrian and bicycle projects are allocated two percent of the revenue from a ¼ cent of the general state sales tax, which is dedicated to local transportation. These funds are collected by the State, returned to each county based on sales tax revenues, and typically apportioned to areas within the county based on population. Eligible pedestrian projects include construction and engineering for capital projects and development of comprehensive pedestrian facilities plans. A city or county is allowed to apply for funding for pedestrian plans not more than once every five years. These funds may be used to meet local match requirements for federal funding sources.

\$1.4 million of TDA Article 3 funds were allocated in Humboldt County in 2006/07.

8.3.2. Mello-Roos Community Facilities Act

The Mello-Roos Community Facilities Act was passed by the Legislature in 1982 in response to reduced funding opportunities brought about by the passage of Proposition 13. The Mello-Roos Act allows any county, city, special district, school district, or joint powers of authority to establish a Community Facility Districts (CFD) for the purpose of selling tax-exempt bonds to fund public improvements within that district. CFDs must be approved by a two-thirds margin of qualified voters in the district. Property owners within the district are responsible for paying back the bonds. Pedestrian facilities are eligible for funding under CFD bonds.

Mello-Roos Fact Sheet

<http://mello-roos.com/pdf/mrpdf.pdf>

8.3.3. Requirements for New Development

With the increasing support for “routine accommodation” and “complete streets,” requirements for new development, road widening, and new commercial development provide opportunities to efficiently construct pedestrian facilities.

8.3.4. Impact Fees

One potential local source of funding is developer impact fees, typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may attempt to reduce the number of trips (and hence impacts and cost) by paying for on- and off-site pedestrian improvements designed to encourage residents, employees and visitors to the new development to walk rather than drive. Establishing a clear nexus or connection between the impact fee and the project’s impacts is critical for avoiding a potential lawsuit.

8.3.5. New Construction

Future road widening and construction projects are a means of providing sidewalks and other pedestrian facilities. To ensure that roadway construction projects provide facilities where needed and feasible, it is important that an effective review process be in place so that new roads meet the County’s and cities’ standards and guidelines for the development of sidewalks and pedestrian facilities.

8.3.6. General Funds

One of the local revenue sources of cities, towns, and counties available for use on pedestrian improvements are general funds resulting from sales taxes, property taxes, and other miscellaneous taxes and fees. There are generally few restrictions on the use of these funds, which are utilized for a large variety of local budget needs. As such, there is typically high demand for these funds for numerous government services. Design and construction of sidewalks and pathways, through use of this funding source usually receives limited support from local governments unless their constituents lobby effectively for such use.

In some cases, a component of local general funds can be dedicated to transportation improvements including the construction and repair of sidewalks. For instance, local jurisdictions in Humboldt County use some general fund revenues to pay for sidewalk repair and wheelchair ramp installation.

8.3.7. Special Improvement Districts

Counties and cities may establish special improvement districts to provide funding for specified public improvement projects within the designated district. Property owners in the district are assessed for the improvements and can pay the amount immediately or over a span of 10 to 20 years. Street pavement, curb and gutter, sidewalks, and streetlights are some of the common improvements funded by special improvement districts.

8.3.8. Parks and Recreation Funds

Local parks and recreation funds are generally derived from property and sales taxes and some fee revenues, and they are sometimes used directly for pathway or pathway related facilities, including bathrooms, pocket parks, lighting, parking, and landscaping. Parks and recreation funds are also utilized to cover pathway maintenance costs incurred by these departments.

8.4. NON-TRADITIONAL FUNDING SOURCES

8.4.1. Integration into Larger Projects

The State of California's "routine accommodation" policy requires Caltrans to design, construct, operate, and maintain transportation facilities using best practices for pedestrians. Local jurisdictions can begin to expect that some portion of pedestrian project costs, when they are built as part of larger transportation projects, will be covered in project construction budgets. This applies to Caltrans facilities.

8.4.2. Community Development Block Grants

The CDBG program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal Community Development Block Grant Grantees may use CDBG funds for activities that include (but are not limited to) acquiring real property; building public facilities and improvements, such as streets, sidewalks, and recreational facilities; and planning and administrative expenses, such as costs related to developing a consolidated Plan and managing CDBG funds.

\$39 million in CDBG funds were distributed statewide in 2008.

CDBG program

www.hud.gov/offices/cpd/communitydevelopment/programs/index.cfm

APPENDIX A: PEDESTRIAN PLANNING & DESIGN

This chapter provides a summary of pedestrian facility design requirements and recommendations. The design of many pedestrian elements is regulated by state and federal law. Traffic control devices must follow the standards set forth in the California Manual of Uniform Traffic Control Devices (MUTCD), while elements such as sidewalks and curb cuts must comply with guidelines implementing the Americans with Disabilities Act (ADA). Many sections in the Pedestrian Design Guidelines address accessibility needs for pedestrians with limited mobility or assistance devices.

A.1. CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

When installing traffic control devices, Humboldt County follows the procedures and policies set out in the California Manual of Uniform Traffic Control Devices (MUTCD), it provides uniform standards and specifications for the placement, construction, and maintenance of all traffic control devices including traffic signals, traffic signs, and street markings. The California MUTCD emphasizes uniformity of traffic control devices to protect the clarity of their message and provide a sense of what to expect for



both drivers and pedestrians. “Uniformity” means devices that conform to regulations for dimensions, color, wording, and graphics and means treating similar situations in the same way. Sections of the California MUTCD that are most applicable to pedestrian planning include Part 2: Signs (which covers devices such as pedestrian warning signs), Part 3: Markings (which covers pavement markings including crosswalks), and Part 7: Traffic Controls for School Areas (which covers a variety of specific signs and markings for use in school zones). These Pedestrian Design Guidelines refer frequently to the California MUTCD standards for signage and markings. The California MUTCD is available at the following website:

http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm

A.2. ACCESSIBILITY GUIDELINES

The Architectural and Transportation Barriers Compliance Board (Access Board) is a Federal agency formed in 1973 to improve accessibility for people with disabilities. The Access Board’s primary duties are to develop and maintain accessibility requirements, provide technical assistance and training, and enforce accessibility standards on facilities funded by the federal government. The ADA Accessibility Guidelines (ADAAG) were developed by the Access Board and serve as the lawful design standards as cited in Title V of ADA. These standards are minimum requirements, and therefore, are not best practices.

ADAAG does not address every situation; it is an evolving document periodically updated. Even if ADAAG does not cover a specific issue, entities are still required to provide accessibility under Title II. Many of the design in this appendix are based on ADAAG’s recommendations.

A.3. SIDEWALKS

A.3.1. Sidewalk Widths

The sidewalk corridor is typically located within the public right-of-way between the curb or roadway edge and the property line. Sidewalks should have adequate width for the level of anticipated user, but at a minimum should permit two users to walk comfortably side-by-side and allow ease of passage by people using canes, wheelchairs, or other mobility assistance devices. In high-pedestrian use areas such as in downtowns, sidewalks wider than 6 feet are recommended due to higher pedestrian volumes.

For design purposes, the sidewalk corridor is broken up into four distinct zones: the **Curb Zone**, the **Furnishings Zone**, the **Through Passage Zone**, and the **Frontage Zone**. Descriptions of each zone are included in this section, with recommendations for minimum widths shown in Table 1.

Curb Zone

Curbs prevent water in the street gutters from entering the pedestrian space, discourage vehicles from driving over the pedestrian area, and make street sweeping easier. The curb helps define the pedestrian environment of a streetscape. At the corner, the curb provides an important tactile element for pedestrians who are finding their way with the use of a cane.

Furnishings Zone

The furnishings zone is the area between the curb zone and the through passage zone, where pedestrians pass. The furnishings zone creates an important buffer between pedestrians and vehicle travel lanes by providing horizontal separation. On sidewalks of ten feet or greater, the furnishings zone width should be a minimum of four feet. A wider zone should be provided in areas with large planters and/or seating areas.

Through Passage Zone

The through passage zone is the area dedicated for pedestrian travel and can also serve as public gathering space. In order for two people to walk comfortably side-by-side, a six-foot minimum through passage zone is recommended. Areas with higher pedestrian volumes warrant a wider through passage zone.

Frontage Zone

The frontage zone is the space between the through zone and the adjacent property line. Pedestrians tend to avoid walking close to barriers at the property line, such as buildings, storefronts, walls or fences, in the same way that they tend to avoid walking close to the roadway. In most cases the frontage zone should be at least 12 inches.

Figure A-1
Sidewalk Zones

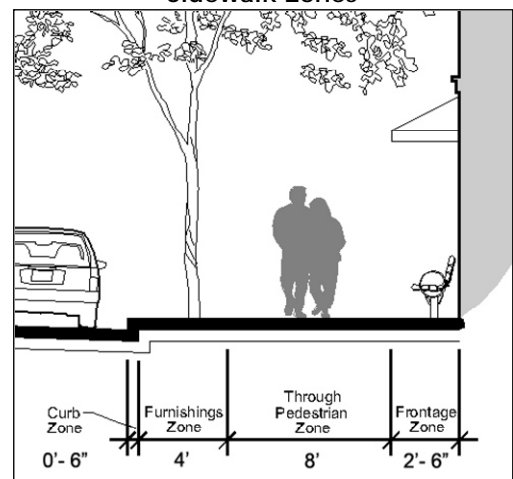


Table A-1
Recommended Minimum Zone Widths By Street Type

Street Type	Curb Zone	Furnishings Zone	Through Passage Zone	Frontage Zone	Total Sidewalk Width
Major Street, Pedestrian District	0' - 6"	4'	8'	6" - 2'	15'
Collector Street	0' - 6"	4'	6'	6" - 1'	12'
Local Street	0' - 6"	4'	6'	0' - 6"	11'

A.3.2. Design of the Furnishings Zone

Sidewalk furnishings are located in the furnishings zone to buffer pedestrians from the adjacent roadway and to keep the through passage zone clear for passage. Sidewalk furnishings provide an important buffer and should be designed to pedestrian scale. The furnishings zone is also the area where people alight from parked cars.

Elements in the furnishings zone can include:

- Bus shelters
- Benches
- Trees, planters & landscaping
- Trash & recycling receptacles
- Bicycle racks
- Public art
- Consolidated news racks
- Telephone poles
- Banners & flags
- Information kiosks
- Fountains
- Wayfinding/signage
- Street lights
- Fire hydrants
- Utility boxes

Separating pedestrians from vehicular travel lanes greatly increases their comfort as they use the sidewalk corridor. This buffer function of the furnishings zone is especially important on streets where traffic is heavy. Where possible, additional width should be given to this zone on streets with posted traffic speeds over 30 mph.

Street Trees and Plantings

Street trees are a vital element of the pedestrian landscape, providing visual interest, shade and a feeling of protection to pedestrians. Wherever the sidewalk is wide enough, the Furnishings Zone should include street trees. In commercial areas, this zone may be paved, with tree wells and planting pockets for trees, flowers, and shrubs. In other areas, this zone generally is not paved except for access walkways, but is landscaped with some combination of street trees, shrubs, ground cover, lawn, or other landscaping treatments.

In order to maintain line of sight to stop signs or other traffic control devices at intersections, when planning for new trees, care should be taken not to plant street trees within 25 feet of corners of any intersection. Care should be taken to choose street trees that are appropriate. Trees should be easy to

maintain and require little water after established. Trees with a shrubby habit, trees with thorns or sharp seed pods, and those with lots of fruit drop should be avoided.

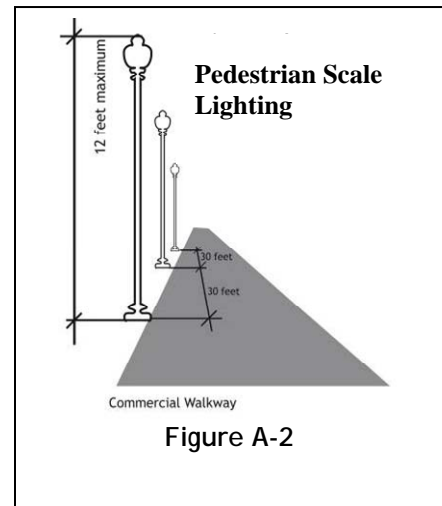
Street Furniture and Amenities

Street furniture and amenities, such as benches, artwork and information boards, humanize the scale of streets and encourages pedestrian activity. Street furniture should be placed in the furnishings zone to maintain through passage zones for pedestrians and to provide a buffer between the sidewalk and the street.

Lighting

Pedestrian scale lighting improves visibility and can provide a vertical buffer between the sidewalk and the street, defining pedestrian areas. Pedestrian scale lighting should be used in areas of high pedestrian activity and where feasible based on available right of way, utilities and cost. A guideline for a pedestrian way is illumination of between 0.5 foot-candle to 1 foot-candle. Pedestrian scale lighting is a significant capital improvement and should be provided only where it will have a maximum benefit, such as public safety. When installing pedestrian scaled lighting, the following details should also be considered:

- Need for strong structures to withstand vandalism
- Materials should fit with county standards and areas character
- Glare to adjacent residents
- Color of light
 - High pressure sodium lamps have the longest life and lowest maintenance cost with a yellow light quality.
 - Metal halide lights produce a white light quality but have shorter lamp life.



Public Art

Public art adds visual interest to enhance the pedestrian environment of sidewalks, plazas or other pedestrian spaces. Art can act as a gateway or focal point, signaling arrival to a special place. Or, it can be used to define a “district” by creating a unified sense of design. Art can take the form of stand-alone pieces, or can be incorporated into functional features such as bicycle racks, benches or planters. As with all pedestrian amenities, public art should not infringe on the through passage zone.

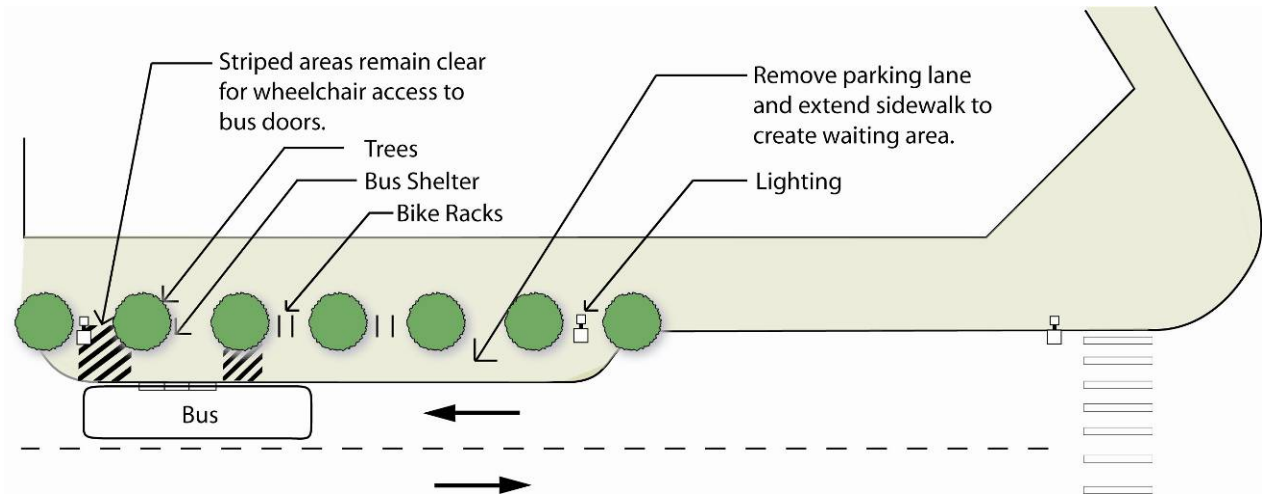
Transit Stops

Bus bulb outs can provide safe access for transit passengers. Bus bulb outs should be designed such that pedestrians in wheelchairs can access the bus shelter and board the bus, as shown below in **Figure 12**. At transit stops where neither a bus turnout nor bus bulb out can be accommodated; buses are often unable to pull directly adjacent to the curb to deploy a lift. Curb ramps in such locations allow wheelchair users to board the bus from the street; if a bus stop is not adjacent to a corner curb ramp, a curb ramp at the bus stop should be provided.

ADA Guidelines define the amount of space necessary next to bus shelters to facilitate the lift operations for passengers in wheelchairs. The ADA minimum requirements for this space are 60 inches wide (as

measured along curb or roadway edge) by 96 inches deep (as measured from the curb or roadway edge). ADA Guidelines also state that a passing space of 60 inches is required for passing space adjacent to any sidewalk amenities.

Note: The City of Roseville Alternative Transportation Division of Public Works is responsible for providing public transit service within Roseville. The City owns and maintains the bus fleet and contracts with a transit provider for the operation of Roseville Transit.¹



Source: Improving Pedestrian Access to Transit: An Advocacy Handbook

Figure A-3
Accessible Bus Bulb Out

A.3.3. Design of the Through Passage Zone

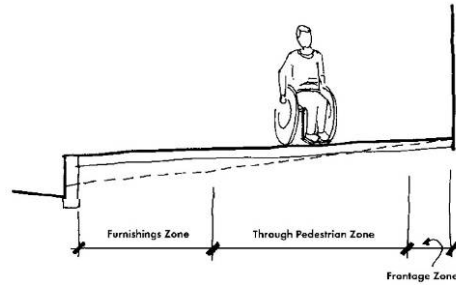
The through passage zone is the area intended for pedestrian travel. This zone should be entirely free of permanent and temporary objects. A 6-foot minimum clearance for through passage travel on the sidewalk is recommended in areas with high pedestrian volumes.

¹ More information about Roseville Transit can be found here:
http://www.roseville.ca.us/transportation/roseville_transit/default.asp

Grade & Cross slope

Grade

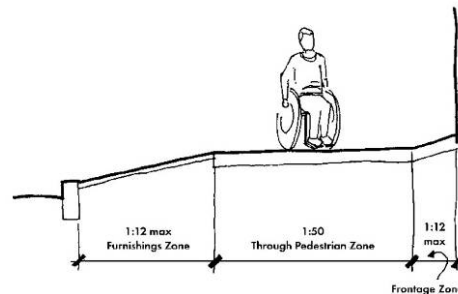
The grade of a sidewalk affects the issues of control, stability and endurance. Gentle grades are preferred to steep grades, allowing more people to go uphill, providing more control on the downhill, and minimizing loss of footing. The maximum grade of a sidewalk should be no more than 14 percent in any 2-foot section, while the running grade for a sidewalk should not exceed 5 percent, as shown in Figure 20.



Raising the curb is one approach to maintaining the preferred cross slope.

The following terms apply to standards for grades:

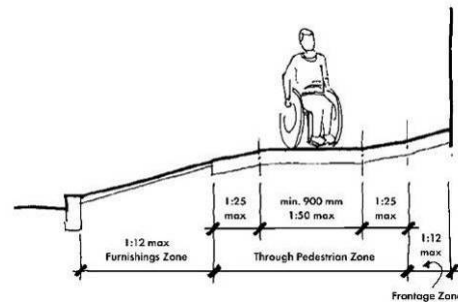
- Grade is the slope parallel to the direction of travel.
- Running grade is the average grade along an entire continuous path.
- Maximum grade covers a section of the sidewalk that is larger than the running grade. It is measured over a two-foot section.
- Rate of change is the change of the grade over a distance of two feet.
- Counter slope is the grade running opposite to the running grade.



The Furnishings Zone and the Frontage Zone may be sloped more steeply, provided the preferred cross slope is maintained in the Through Passage Zone.

Cross Slope

Cross-slope describes the angle of the sidewalk from the building line to the street, perpendicular to the direction of travel. All sidewalks require some cross-slope for drainage, but a cross-slope that is too great will present problems for people who use wheelchairs, walking aids, or who have difficulty walking but do not use aids. The maximum cross-slope should be no more than 2 percent (1:50) for compliance with ADAGG, as shown in Figure 21.²



If necessary, the Through Passage Zone may contain slopes up to 1:25, provided a 3'-0" wide area with a cross slope of no more than 1:50 is maintained within the zone.

**Figure A-4
Cross Slope**

If a greater slope is anticipated because of unusual topographic or existing conditions, the designer should maintain the preferred slope of 1:50 within the entire Through Passage Zone, if possible. This can be accomplished either by raising the curb so that the cross-slope of the entire sidewalk can be 1:50, or by placing the more steeply angled slope within the Furnishings Zone and/or the Frontage Zone, as shown in Figure 21.

² ADA Accessibility Guidelines, 4.3.7

If the above measures are not sufficient and additional slope is required to match grades, the cross slope within the Through Passage Zone may be as much as 1:25, provided that a 3-ft wide portion within the Through Passage Zone remains at 1:50 cross slope, as shown in Figure 21.

Surface Material

Sidewalks should be firm and stable, and resistant to slipping. Sidewalks are normally constructed out of Portland cement concrete. Where stamped concrete patterns are used, care should be taken to provide a surface that does not reduce mobility for wheelchair users or create vibrations.

Rubber sidewalks are an experimental design that provide softer walking surfaces and help prevent cracked or uplifted sidewalks where tree roots are present. The rubber sidewalks are installed using interlocking rubber pavers that allow for easy maintenance and replacement and allow water to pass through, so tree roots are less likely to surface in search of water. Several cities in the U.S. have installed sections of rubber sidewalk including Santa Monica, Seattle, and Washington, DC, and are reporting good results in terms of reduced uplifting.

Although multi-use pathways may be constructed out of asphalt, asphalt is not suitable for sidewalk construction due to its shorter lifespan and higher maintenance costs.

Table A-2 presents a summary of sidewalk materials and considerations for their use.

Table A-2
Sidewalk Material Comparison

Concrete	
Where to Use	Preferred material for use on standard county sidewalks.
Maintenance Life	75 years plus (with no tree root damage)
Comparative Cost (2007)	\$29.25/sq yd
20 Year Cost	\$7.80/sq yd
Concrete Pavers	
Where to Use	Acceptable material for use where aesthetic treatment is desired. May be best suited for the Furnishings Zone as streetscape accent where pedestrian through travel is not expected. Not allowed to be used on sidewalk through-zone.
Maintenance Life	20 years plus (with no tree root damage)
Comparative Cost (2007)	\$50.00/sq yd
20 Year Cost	\$50.00/sq yd
Rubber Sidewalk	
Where to Use	Experimental sidewalk material applied where cracking and tree root uplifting are problems.
Maintenance Life	15-20 years (must reset after 7-10 years)
Comparative Cost (2007)	\$80.00/sq yd
20 Year Cost	\$80.00/sq yd
Asphalt	
Where to Use	Preferred material for use on any widened shoulder alternative pathway. Acceptable but not preferred as a material for separated alternative pathways or connector paths.
Maintenance Life	40 years plus (with no tree root damage)
Comparative Cost (2007)	\$25.00/sq yd
20 Year Cost	\$12.50/sq yd

A.3.4. Design of the Frontage Zone

The frontage zone is the area between the through passage zone and the property line. This zone allows pedestrians a comfortable shy distance from the building fronts, in areas where buildings are at the lot line, or from elements such as fences and hedges on private property. In commercial areas, the frontage zone becomes an important public amenity. Pedestrians use the space for window shopping, or to gather with friends. The frontage zone can also be used for café seating or for selling merchandise as long as these activities do not encroach on the through passage zone.



Temporary uses such as sidewalk cafes may occupy the Frontage Zone, providing the Through Passage Zone remains clear.

Where no furnishings zone exists, elements that would normally be sited in that zone, such as transit shelters and benches, telephone kiosks, signal and street lighting poles and controller boxes, traffic and parking signs, and utility poles, may occupy the frontage zone. In some cases, easements from private property owners or additional right-of-way may be required to allow for these items. For residential and mixed-use buildings built to the right-of-way line, these elements should not be sited in the frontage zone, as they could block access to an existing or future building.



Elements such as standpipe systems may project into the Frontage Zone. Care must be taken to assure compliance with the ADA.

Encroachments

Elements in the frontage zone, including seating and signage, may not encroach into the through passage zone.

Elements such as standpipe systems for fire safety may project into the frontage zone, but not more than 4 inches if they project in the area between 2 ft 3 inches and 6 ft 8 inches above the sidewalk, per the ADA.

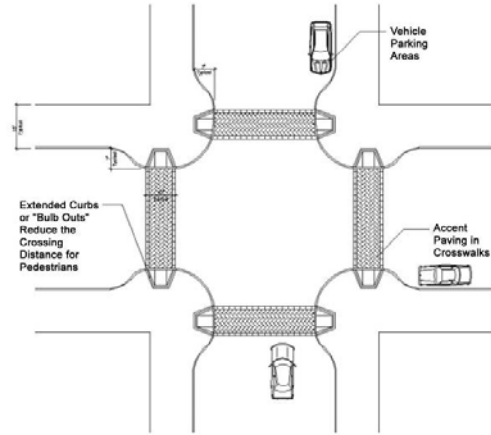
Bicycle Parking

Creating convenient linkages between walking and bicycling in will help the County encourage non-motorized trips. Placing bicycle parking adjacent to store fronts, shopping centers or municipal buildings will make it more convenient for people to bicycle to their destination.

Racks should be an inverted U style, with a capacity of two bicycles locked parallel to the rack. Additional standards include the following:

- Generally, rack installation is parallel to the curb so as to minimize needlessly taking up sidewalk space.
- Racks should be oriented such that they do not interfere with pedestrian path of travel on the sidewalk, yet are not so close to the curb that the rack can be inadvertently hit by the overhang of a car as it parks.

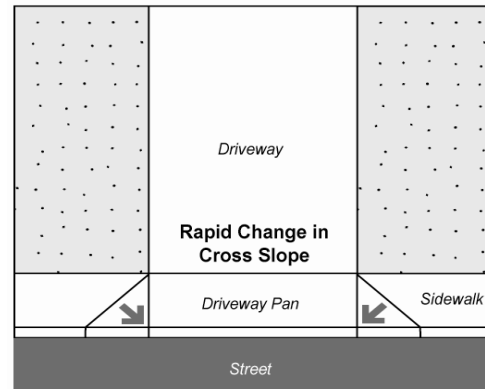
- There should be a minimum of 5½' clear for pedestrian right-of-way outside the footprint; 7' in areas of heavy pedestrian traffic.
- Rack should be located a minimum of:
 - 18" from: the curb
 - 30" from: light pole
 - 3' from: Newspaper Racks, US Mailbox, Light Pole, Sign Pole, Bus Shelter, Driveway, Street Furniture, Standpipes, Bus Benches, Trash Cans, Other sidewalk obstructions
 - 4' from: Red Zone, Loading Zone, Blue Zone (disabled parking), Curb/Curb ramps, Crosswalk



A.3.5. Driveways

Driveway crossings permit cars to cross the sidewalk and enter the street. Driveway crossings can be both dangerous and inconvenient for pedestrians. Driveway curb cuts that extend into the through passage zone may pose a tripping hazard to people on foot or obstruct wheelchairs

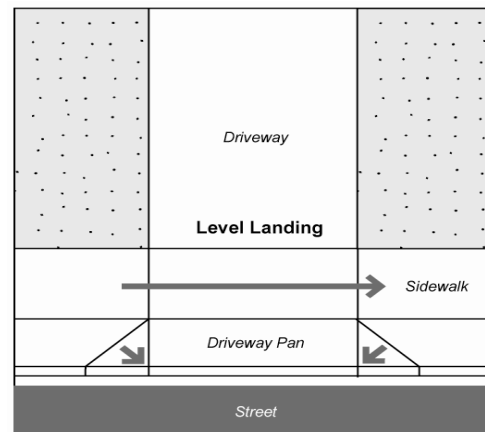
As a general guideline, minimizing the number of driveways improves pedestrian safety. Driveway designs without level landings that force sidewalk users to travel over the sidewalk flare are not allowed under ADA guidelines (maximum allowable cross slope is 2 percent). Such a design creates a rapid change in cross slope, which compromises balance and stability for people in wheelchairs and can also cause tripping for pedestrians.



Unacceptable Driveway Design

A.3.6. Corners

Street corners are hubs of pedestrian activity. These are the places where sidewalks converge, where pedestrians wait for crossing opportunities, and where people are most likely to stop and converse with one another. Street corners provide the transition between raised sidewalks and the crosswalk at street grade. The design of corners affects the speed of turning traffic and determines how visible pedestrians are to drivers. Street corners are also the logical location for providing information to pedestrians, including street signs and other wayfinding tools.



Recommended Driveway Design

**Figure A-5
Driveway Design**

Curb Extensions

Curb extensions, also called “bulbouts” to describe their shape, are engineering improvements intended to reduce pedestrian crossing distance and increase visibility. Curb extensions can either be placed at corners or at mid-block crosswalk locations, and generally extend out about 6 feet to align with the edge of the parking lane. 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. At corners, curb extensions serve to reduce the turning radius, and provide space for perpendicularly-aligned curb ramps. Where bus stops are located, bulbouts can provide additional space for passenger queuing and loading.



Despite their advantages, curb extensions can require major re-engineering of the street and are not appropriate for all situations. Installing curb extensions where there are existing storm drain catch basins can require costly drainage modifications. Curb extensions may not be possible in some locations due to existing driveways or bus pull-out areas. Curb extensions need to be designed to avoid conflict with bicycle facilities, and should never extend into a bicycle lane.

Each potential curb extension location must be evaluated on a case-by-case basis, taking into account factors such as crossing volumes, parking lane widths, infrastructure challenges such as drainage or driveways, and locations of bus stops.

Median Refuge Islands

On wide, multi-lane roadways, pedestrians can benefit from median refuge islands, which offer a place to wait after crossing only half of the street. Refuge islands increase the visibility of pedestrian crossings, and decrease pedestrian collisions by reducing pedestrian/vehicle conflicts, motor vehicle speeds, and exposure time for pedestrians. They also allow pedestrians to consider cross traffic from one direction at time, making it easier to find a gap and simplifying crossing. Accessible pedestrian medians or islands are encouraged on wide two-way streets where pedestrians have to cross more than two lanes.

The MUTCD defines an island as an area between traffic lanes for control of vehicular movements or for pedestrian refuge. Under the MUTCD definition, a refuge island can be delineated by curbs (raised), pavement markings (painted), or other devices. The MUTCD does not give any specific guidance on minimum dimensions of a refuge island.

The FHWA document “Pedestrian Accommodations at Intersections” advises that a refuge island should be a minimum of 4 feet wide and 12 feet long (or the width of the crosswalk, whichever is greater).

The recently revised ADA Access Board Guidelines on Accessible Public Rights of Way has a section on median islands. The following guidelines are applicable:

- Medians and pedestrian refuge islands in crosswalks shall contain a pedestrian access route, including passing space connecting to each crosswalk.

- Regarding a minimum width for refuge islands, the guidelines state that medians and pedestrian refuge islands shall be 1.8 m (6.0 ft) minimum in length in the direction of pedestrian travel.
- The guidelines permit both ramped up and cut-through design of refuge island, and advise that there are many factors to consider when deciding whether to ramp or cut-through a median or island. Those factors may include slope and cross slope of road, drainage, and width of median or island. They note that “curb ramps in medians and islands can add difficulty to the crossing for some users.”
- Medians and refuge islands are also required to have detectable warnings, with detectable warnings at cut-through islands separated by a 2-foot minimum length of walkway without detectable warnings.

For pedestrian refuge islands at intersections, installing a median “nose” (a small rounded area of median built to the intersection side of the crosswalk, so that the crosswalk passes through the median) can help to provide additional protection for pedestrians. Median noses can also reduce vehicles encroaching into the refuge area when making left turns. However, median noses may not be feasible to install due to turning movement restrictions they can cause from side streets. Neither the MUTCD nor the ADA Access Board Guidelines have any requirement for median noses to be installed at intersection refuge islands.

Adequate Space at Street Corners

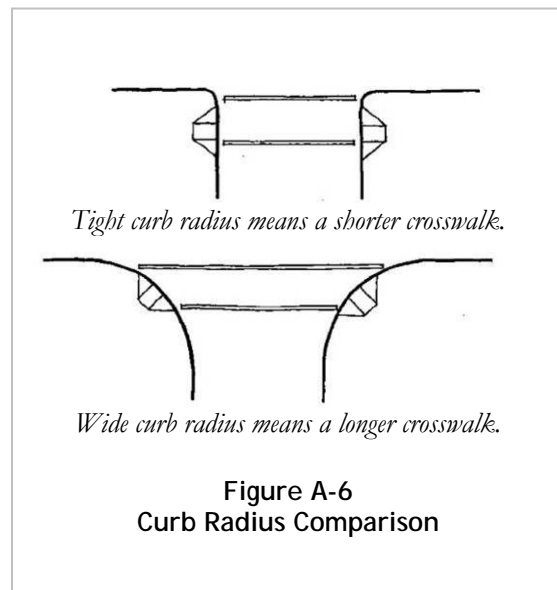
Street corners should be large enough to serve their multiple public functions. The greater the pedestrian volume, the greater the area needed at each corner. Corners in pedestrian-oriented commercial corridors and corners with transit stops require the greatest area. Ideally, a corner should provide at least five square feet for each pedestrian expected to wait in a given period.³ One particular element to be considered is the proper placement of street furnishings within this area to allow for unobstructed viewing of pedestrians at corners as they are preparing to enter the crosswalk. Curb extensions, discussed later in this document, are one way to provide additional area at a street corner.

Curb Radius

The curb radius of a street corner affects traffic speed and crosswalk length. In general, a smaller (narrow) curb radius is better for pedestrians. A larger (wide) curb radius creates a greater crosswalk length and allows vehicles to move faster around the turn. Reducing the curb radius, especially across busy multi-lane arterials, can increase pedestrian safety by slowing vehicles and minimizing pedestrian crossing distances.

A.4. INTERSECTIONS

Properly designed intersections are crucial for safe pedestrian travel. They are the locations for most vehicle-pedestrian collisions and pose the greatest challenge for people with mobility impairments. Ramps, crosswalks, and signals all require careful consideration



³ Methodology outlined in the Highway Capacity Manual, Chapter 13, Pedestrians.

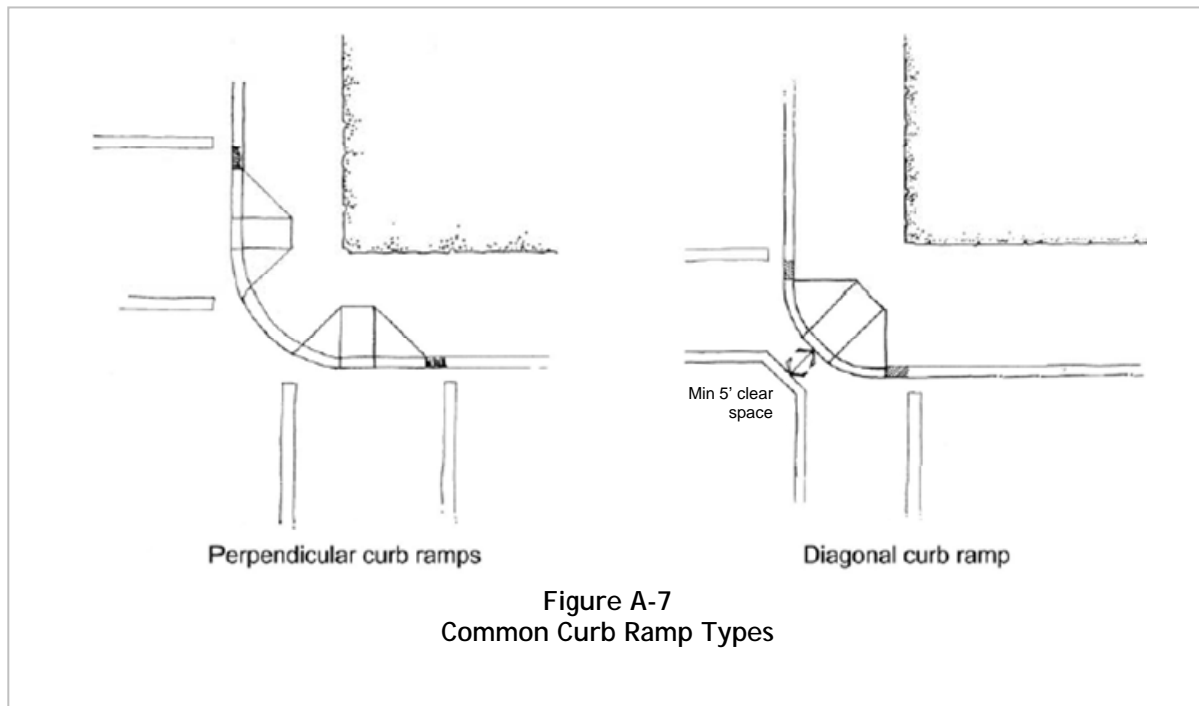
to accommodate persons of all abilities.

A.4.1. Curb Ramps

Curb ramps create a transition between the raised sidewalk and the crosswalk at street grade. Curb ramps are necessary for people who use wheelchairs or scooters, as well as people with strollers and rolling carts, but they benefit all pedestrians.

Two common curb ramp types for corners – diagonal and perpendicular curb ramps – are shown in Figure 11 below. Perpendicular curb ramps are preferred for pedestrian safety because they align directly with the crosswalk. Perpendicular ramps take up more space, and in some cases due to site conditions, drainage, or utilities, installing two perpendicular ramps may not be feasible at a corner. In those cases a single diagonal curb ramp at the apex of the corner may be the only option. Diagonal ramps are less expensive to install, because they require one ramp per corner compared with two perpendicular ramps. However, diagonal ramps are not aligned directly with the crosswalk path of travel, and force wheelchair users and other pedestrians to travel a more circuitous route into the crosswalk.

The Americans with Disabilities Act (ADA) recommends ADA-compliant curb ramps at all intersections. ADA Section II-5.3000 states that public entities must give priority to walkways serving State and local government offices and facilities, transportation, places of public accommodation and



employees.

Curb ramps consist of the following components.

Curb Ramp Design Specifications

Each of the types of curb ramps described above contains combinations of the following design features:

Transition detection (Truncated Domes) People with vision impairments sometimes have difficulty detecting the transition between curb ramps and the street. The best means to accommodate all types of users is to place a 24-inch strip of raised truncated domes across the entire width of the ramp approximately six to eight inches from the bottom of all curb ramps at the boundary between the ramp and the street. The domes should be aligned in a row (not diagonally) to facilitate movement by wheelchairs. The domes are now required by ADAAG as a recent suspension of the requirement was removed as of July 26, 2001.

Truncated domes constitute the standard detectable warning because of their unique design. Other surfaces such as grooves and aggregate are not as easily detectable because they are found in other environmental features.

Ramp Grade Proposed ADAAG regulations permit a grade of 8.3 percent (1:12) on any portion of a curb ramp. Recommended practice, however, is to specify a maximum of 7.1 percent to accommodate construction tolerances. Accordingly, a 7.1 percent grade will require a longer ramp than does 8.3 percent.

Ramp Cross-Slope People with mobility impairments often have a difficult time negotiating a grade and cross-slope simultaneously. Since the grade of the ramp is usually significant, the cross-slope should be minimized. In any circumstance, the cross-slope should not exceed two percent (1:48).

Ramp Length As stated above, the greater the change in elevation, the longer the ramp will have to be in order to meet recommended grade specification. Ramp length can be calculated using the following formula:

$$\text{Ramp Length} = \text{curb height} / (\text{ramp slope} - \text{sidewalk corridor slope})$$

In no case is it required that a ramp slope exceed 15 feet in length.

Ramp Width Generally, the minimum clear width of a curb ramp is 48 inches (1.22 m). In practice, the minimum width should be the same as the width of the pedestrian zone, which itself is never less than 36 inches given the mobility requirements of those using assistive devices such as wheelchairs and crutches.

Gutter Slope The drainage slope of the gutter is the slope parallel to the curb and roadway. This gutter slope represents a cross slope to the pedestrian, and should not exceed 2 percent (1:48).

Landing Dimension And Slope All landings of ramps should be a 60-inch circle or square, with a maximum of two percent cross slope in any direction. Such landings may serve multiple ramps or overlap with other landings.

The bottom landing of a ramp *MUST* be within a crosswalk and have a minimum of 48 x 48 inches of maneuvering space outside of the parallel direction of travel. This is not possible to achieve on corners with tight curb radii using diagonal ramps.

Returned Curbs And Flares The flares adjacent to the curb ramp are not considered part of the access route, but shall be included in all ramps located where pedestrians may walk. Return curbs may be used instead of flares on ramps located where pedestrians would not normally travel (planting strips). Flares shall have a slope of 1:10 measured at the face of the curb.

Curb Ramp Surfaces Gratings, access covers, or other similar surfaces shall not be located on curb ramps, landings, transition ramps, or adjacent gutter pans. Smooth, stable and slip resistant surfaces should be used for curb ramps and landings as smooth surfaces make the detection of truncated domes easier.

Location At Intersections The optimal installation involves a pair of perpendicular ramps placed at 90-degree angles to one another. A single diagonal ramp located at the apex of a corner creates a

variety of problems because the user is directed to the center of the intersection. If sidewalk width is limited, however, a single parallel curb ramp or a diagonal ramp may be acceptable.

A.4.2. CROSSWALKS

A pedestrian crossing is defined as any location where the pedestrian leaves the sidewalk and enters the roadway. Pedestrians are at risk whenever they cross the roadway. The degree of risk depends upon the complexity of vehicular and pedestrian traffic patterns and the effectiveness of supplementary information provided about the crossing location, duration, and direction.

At street intersections, turning vehicles and the speed at which they travel pose the greatest threat to pedestrians because the motorists attention is focused primarily on other motorists. Compounding the threat is the occasional presence of movement barriers – anything that restricts an individual’s ability to physically move along or within the crosswalk or sidewalk. “Information barriers” restrict an individual’s ability to utilize information contained within the sidewalk environment.

Crosswalk crossing time calculations should be based upon a reasonable pedestrian walking speed of four feet/second, and should include a standard definition of the length of the crosswalk and one curb ramp.

Crosswalk Markings

Crosswalk markings define the pedestrian path of travel across the roadway and to alert drivers to the crosswalk location. All marked crosswalks should be designed in conformance with Manual of Uniform Traffic Control Devices (MUTCD).




Although the MUTCD provides for crosswalk design options (see figure on the following page), research indicates that the continental (ladder) design is the most visible to drivers and to pedestrians with low vision and cognitive impairments. The continental (ladder) design consists of white longitudinal lines perpendicular to the line of the crosswalk, 12 to 24 inches wide and spaced 12 to 24 inches apart. The use of a crosswalk design that is consistent in all applications is strongly encouraged – otherwise the impact of less visible markings may be weakened by comparison.

To further assist the visually impaired, a strip of truncated domes should be used on either side of the crosswalk in those instances where the pedestrian way crosses a vehicular way. These detectable warnings should *not* be used at unsignalized crossings. The location of detectable warnings at intersections with slip lanes is critical. In such situations, an audible or tactile cue must be provided to locate the pedestrian crossing, while that crossing must be provided with a pedestrian-activated traffic signal.

To alert drivers to the presence of a public or private school, crosswalks within the designated school zone must be striped yellow rather than white. The MUTCD stipulates that crosswalks directly adjacent to schools must be yellow. Crosswalks within 600 feet may be yellow, and under special circumstances crosswalks within a half mile may be yellow. Special signage should also be located near school crossings in accordance with the guidelines provided in Chapter 7 of the California MUTCD. This document provides guidelines for enhancing crossings where one of the major concerns is the presence of school-aged children

The decision to install standard or ladder crosswalk markings depends upon a variety of factors such as the number of pedestrians crossing, traffic speeds/volumes, number of lanes to cross, presence of nearby schools or senior centers, and history of collisions. In general, standard transverse markings are considered appropriate at controlled intersections, minor uncontrolled intersections, and other crossing locations with low traffic volumes/speeds, short crossing distance, and good visibility. High visibility ladder markings are generally applied at uncontrolled or mid-block locations, especially on major streets with high pedestrian volumes, heavy traffic volumes and speeds, and more than one lane each direction.

**Table A-3
Crosswalk Markings**

Style	Sample
<p>Standard – Two solid white lines, 12 to 24 inches wide, spaced at least 6 feet apart (refer to CA MUTCD Sec. 3B.17). Also called “transverse.”</p>	
<p>Ladder – Adds cross bar “rungs” to the standard crosswalk marking described above. Width of ladder lines should be 1 foot, with minimum spacing between ladder lines of 1.5 feet.</p>	
<p>School Crosswalks. Crosswalks within the designated school zone must be painted yellow, per California MUTCD. Can be marked either standard or ladder. The school zone can be set a distance up to 500 feet from the school boundary.</p>	

Stop and Yield Lines

The use of Stop Lines (commonly referred to as limit lines or stop bars) and Yield Lines is guided by California MUTCD Sec. 3B.16. Stop lines are solid white lines 12 inches to 24 inches wide that indicate where traffic must stop at STOP-controlled or signalized locations. Stop lines are only required at controlled locations where no marked crosswalk exists; where a crosswalk is present, the crosswalk itself can function as the stop line. Jurisdictions are permitted by the MUTCD to install a stop line in advance of a marked crosswalk if they desire. Installing stop lines in advance of crosswalks can help to discourage vehicle encroachment into the marked crosswalk, particularly in right-turn-on-red situations where vehicles often creep forward to get better visibility. One solution to this problem is to stripe a stop line on the left lanes farther back than the right lanes, allowing better visibility to the left for right-turning vehicles. This also allows more clearance for vehicles turning from perpendicular streets. A supplement to Stop Lines is “STOP HERE ON RED” signage with a down arrow indicating the stop line as the proper location for vehicles to stop in advance of the intersection.

Yield lines (also called yield teeth or shark’s teeth) indicate the point at which traffic should yield at uncontrolled locations, and are composed of white triangles 3 feet high by 2 feet wide, spaced 1 foot apart, as shown in Figure 11. In California, vehicles are required to “YIELD” to pedestrians in uncontrolled crosswalks, and yield lines can be used to indicate the appropriate location for vehicles to stop in advance of an uncontrolled crossing location. These markings are most effective in mid-block locations, where there is no intersection to give a motorist cues on the location to wait for a crossing pedestrian. The California MUTCD notes that yield line placement should be 20 to 50 feet back of uncontrolled mid-block intersections. On multi-lane roadways, yield lines can be used to counter the “multiple-threat” collision, which refers to the situation where a car in one lane stops and screens the pedestrian from the view of the adjacent lane. Installing yield lines 40-50 feet back (two car lengths) gives both pedestrians and motorists a better view of each other during the crossing. “YIELD HERE FOR PEDESTRIANS” signs with a down arrow can be used at the yield lines to indicate the proper location for vehicles to yield in advance of the crosswalk.

It is recommended that the County consider installing stop lines at least 4 feet back from the crosswalk at locations that have a history of vehicle encroachment into the crosswalk or vehicles failing to stop for pedestrians on right-turn-on-red. At signalized mid-block pedestrian crosswalks, the County should install stop lines at least 40 feet in advance of the signal indication. Where applicable, at uncontrolled mid-block crosswalk locations installation of yield lines should occur at least 40 feet in advance of the crosswalk.

A.5. TRAFFIC SIGNAL ENHANCEMENTS

This section discusses specific pedestrian enhancements for use at signalized intersection locations.

A.5.1. Countdown Pedestrian Signals

Countdown pedestrian signals provide information on the amount of time remaining in the pedestrian change interval, which can assist pedestrians in making safe crossing judgments. Guidance on the use of these devices is now included in the California MUTCD. It is recommended that the Humboldt County install these devices on all new pedestrian signal installations.



A.5.2. Signal Timing

Traffic signal timing can have an effect on the ability of slower-moving pedestrians to safely cross the street. The length of the pedestrian clearance phase is determined by calculating a clearance interval, which is the length of time it takes a person to walk from the curb on one side to the center of the farthest travel lane on the other using a standard walking speed and distance. The standard walking speed used to calculate pedestrian clearance intervals recommended by the California MUTCD is 4 feet per second. However, where there are populations of pedestrians who walk more slowly, a lower walking speed should be considered in determining the pedestrian clearance time. Particularly where there are seniors or persons with disabilities, the MUTCD recommends a walking speed of 2.8 ft/sec. This recommendation may also be applied to locations near elementary schools, because young children commonly walk more slowly. Where signalized crossings are in close proximity to locations such as senior centers, senior housing, elementary schools, or centers generating significant volume of pedestrians with disabilities, the County should utilize a walking speed of 2.8 ft/sec to allow for longer crossing times.

Special pedestrian phases can also be used to provide more crossing time for pedestrians at certain intersections. These include:

- Leading Pedestrian Interval (LPI) – At intersections where there are conflicts between turning vehicles and pedestrians, pedestrians are given a “walk” designation a few seconds before the associated green phase for the intersection begins.
- Pedestrian Scramble Phase – In areas with very heavy pedestrian traffic, an all-pedestrian signal phase gives pedestrians free passage in the intersection while no vehicle traffic is allowed. The intersection of Telegraph/Bancroft has a pedestrian scramble phase. Pedestrian scramble phases are only recommended where pedestrian volumes are very high and should be used sparingly, given that the additional phase increases wait times for all modes.

A.5.3. Pedestrian Pushbutton

Pedestrian pushbuttons allow for actuation of pedestrian signals, and should be located at all intersection corners where pedestrian actuation is used. As required by the California MUTCD, pedestrian pushbuttons must be accompanied by signs explaining their use. Pedestrian pushbuttons should be easily accessible for those in wheelchairs and for the sight-impaired, located approximately 3.5 ft. off the

ground on a level surface. Pedestrian pushbuttons should not be used in locations where the pedestrian phase is set on a fixed cycle and cannot be actuated. One exception to this is the use of pushbuttons to activate audible pedestrian signals at non-actuated locations. More details on push button requirements are discussed in Section 12 on Accessibility.

A.5.4. Accessible Pedestrian Signals (APS)

Accessible Pedestrian Signals (APS) provide crossing information in formats that assist persons with visual or cognitive impairments. These APS systems range from audible fixed time signals (signal indicators with automated signal phasing), pedestrian activated devices, and signals which transmit from the vicinity of the signal to a personal receiver.

The most common type of audible APS is the “cuckoo” or “chirp” signal that alerts pedestrians to the changing WALK signal. Some models use one tone to indicate a north/south crossing phase and another to indicate east/west – although some confusion is reported even in areas with standardized directional sound signals. Caltrans recommends using the “cuckoo” sound for north-south directions and a “peep-peep” for east-west movement.

Other systems have a quiet, slowly repeating tone or ticking sound that remains constant during the WALK interval. A locator tone informs the pedestrian that they need to activate the signal to request a WALK interval and the sound itself guides users to the location of the button.

A vibrotactile component most frequently installed on APS signals is a raised arrow indicating the direction of travel governed by the pushbutton. The arrow begins to vibrate when the signal changes, allowing those with hearing disabilities to get the same information as would be received from the ticking sound during DON'T WALK and Clearance intervals described above. One advantage of this technology is that no noise is emitted.

Infrared or LED transmitters can transmit speech messages to personal receivers carried by some persons with vision impediments, and usually give standardized information about the status of the signal cycle – WALK or WAIT. Speech messages can also give information about the pedestrian's location, direction of travel, name of the street being crossed, or other priority areas, such as transit stops. Only people using the system hear the transmitted messages.

According to section 9-04.8 of the Caltrans *Traffic Manual*, audible pedestrian signals may be installed when the following minimum conditions have been met:

- Proposed intersection crosswalk must be signalized
- Audible devices should be retrofittable to the existing traffic signal hardware
- Signalized intersection should be equipped with pedestrian push buttons
- Crosswalk must be suitable for the installation of audible signals, in terms of surrounding land use and traffic patterns
- Must be a demonstrated need for the audible signals in the form of a request from an individual or group that would use the audible signal

- The requesting individual or group should agree to train the visually impaired users

A.6. ALTERNATIVE DESIGN TREATMENTS FOR RURAL ROADWAYS

The design and application of alternative treatments for pedestrian facilities on rural roadways is an emerging practice. Such improvements are in many cases the result of local grass roots efforts in cooperation with local agencies. As a result design standards vary from application to application. The preferred pedestrian treatment for any location is the local city or county standard which requires a concrete sidewalk of minimum ADA width that is physically separated from the roadway by a concrete curb and preferably a zone as well. Given that this standard of development may be impractical for rural roadways and other locations around Humboldt County, there is distinct need for flexibility to design alternative treatments.

In many areas around the County, walking along country roads, enjoying solitude and scenery, is considered to be one of the greatest advantages of living in a rural area. Therefore, improvements in the rural environment require *context sensitivity*; they should be designed to ensure pedestrian safety without altering the characteristics of a location that make it enjoyable in the first place.

In many locations around the County, low traffic volumes and vehicle speeds make walking safely along the roadway edge possible, and roadway improvements may not be necessary or desirable in these circumstances. However, on State Routes, county collectors, and more widely used roadways, vehicle speeds and volumes, directly impact pedestrian usage and safety. In these instances, improvements such as roadway widening, shoulders, and separation are critical to ensure the safety of existing pedestrians and to promote expanded pedestrian use.

A.6.1. Shoulders

Roadway shoulders can serve as suitable walkways along rural roadways if they are designed properly. Roadway shoulders especially important if the alternative is no pedestrian travel area at all. Recommendations for pedestrian shoulders include:

- Best used in rural areas with lower pedestrian volumes.
- A 3- to 5-foot minimum width along roadways with less than 400 ADT.
- A 6-foot minimum width, on both sides of the roadway, for school and school bus walking routes.
- An 8-foot minimum width, on at least one side of the roadway, for school and school bus walking routes, with over 2,000 ADT.
- Shoulders can be paved or unpaved, but high visual and tactile contrast from the adjacent roadway is desirable.
- Parking should be prohibited on shoulders intended to serve as a pedestrian walkway.
- If there is only room for a shoulder on one side of the roadway to serve pedestrian travel in both directions, an asphalt dike can be constructed at the edge of the travel lane to delineate a pedestrian pathway.



An asphalt “dike” provides some protection from vehicles.

Appendix B contains descriptions and illustrations detail a range of design alternatives that are suitable for rural roadway applications. These descriptions are from the *Portland Pedestrian Design Guide* (1998), one of the few pedestrian guidebooks that provide in-depth information about pedestrian planning in rural locations.

A.6.2. Maintenance

Changes in level are vertical elevation differences between adjacent surfaces – curb ramps, landings, the street surface, and the gutter. Changes in sidewalk level are common and are often caused by tree roots pushing up from beneath the pavement; heaving and settling; uneven transitions between streets, curbs, gutters and curb ramps; as well as through poor maintenance.

Pedestrian zone changes in level must be compliant with proposed ADAAG section 302 – no more than ¼ inch vertical rise or ½ inch beveled rise is permitted, with the beveled slope no greater than 1:2. Level changes greater than those permitted by ADAAG cause several problems for pedestrians. Ambulatory pedestrians may have trouble lifting feet and may be tripped, while those with vision difficulties may not detect changes and trip. Similarly, persons using wheeled devices may catch their wheels in level changes and be tossed forward, and may even have a difficult time moving their wheelchair past a level change of no greater than ½ inch.

Corrective measures include ramping or removing any level change greater than ½ inch, while attempting to eliminate the cause of the change in level. This may include routing the path around raised roots and replacing heaved sidewalk or buckled brick walkways. Another type of corrective action involves clearly defining sidewalk edges to provide pedestrians with visual impairments the means to navigate. Increasing the visual contrast between the sidewalk, ramp, and street provides navigation clues for people with low vision.

Other hazards that protrude into the sidewalk corridor higher than 80 inches are generally not a problem for people with visual impairments, while objects on the sidewalk that extend below 27 inches are usually detectable by people using white canes to navigate. Twenty-seven inches is also the height necessary to allow a wheelchair to roll under drinking fountains.

Objects in the middle (between 27 and 80 inches) that protrude into the pedestrian corridor must be moved, raised, or lowered, depending upon the situation, such as protruding tree branches. Wall mounted and post mounted objects within this undetectable height should protrude no more than four inches outward.

APPENDIX B: PUBLIC WORKSHOPS

B.1. WORKSHOPS' DISCUSSION SUMMARY

B.1.1. SR 255

Manila has access and safety challenges due to SR 255 dividing the community and the volumes and speeds of automobile traffic. A 'SafePATHs' coalition of community members has gathered public input and developed recommendations for providing improved bicycle and pedestrian access within the Manila community and connections to the adjacent communities of Eureka and Arcata (submitted separately). Downgrading SR 255 from a designated Expressway to a Freeway will help the community and responsible jurisdictions pursue some of the crossing, transit stop, traffic calming, non-motorized trail and other access issues expressed by stakeholders and the public at the workshops. Access over Samoa Bridge needs improvement for pedestrians and bicyclists. The US 101/ SR 255 interchange in Arcata has access and safety issues for pedestrians.

B.1.2. Crossings

Signal timing, activation mechanisms and coordination were issues in both Arcata (on SR 255) and in Eureka on 4th and 5th (State Hwy. 101). Workshop participants would prefer that pedestrians not have to push a button to cross the street in these areas (or at least provide a "hot response"), the crossing signal length be extended to serve slower walkers, the signal have audio cues for the visually impaired, and be updated to include more modern features such as countdown signals.

Participants also expressed the desire for more bulbouts and curb extensions with bollards to improve pedestrian sight distance and their feeling of safety while waiting to cross the street and higher visibility crosswalks for when they are crossing.

B.1.3. One Way Couplets

These corridors promote high vehicle speeds and should be traffic-calmed or reverted to two-way streets. Motorists turning onto one-way couplets (in Eureka and Arcata) are frequently looking for gaps in oncoming traffic and fail to see pedestrians legally crossing the street in the opposite direction in front of cars. There is also confusion from drivers and pedestrians on how to safely and legally cross a multiple lane one-way couplet or stop for a pedestrian attempting this maneuver.

Caltrans will soon experiment with an advance yield/ stop line -- the concept of which received popular support from attendees.

B.1.4. Education Programs

The objective is to develop a "bike and walk culture" by addressing specific safety concerns for communities using existing materials (when applicable). Coordinate with other safety minded campaigns (Ex. Childhood Injury Prevention) for funding.

B.1.5. Youth

Participants felt that education, outreach, enforcement and other programs in addition to Safe Routes to Schools designations and other engineering treatments are needed to address this major safety concern. Need to address the safety perceptions of parents and the students perception that walking/cycling is “uncool”. Better coordination and communication between jurisdictions and the schools over school planning as well as land use decisions affecting traffic, access and recreation could benefit pedestrian/school connections. Consider targeted countermeasures to address the safety hazards associated with drop off and pick up sites like school valets, volunteer crossing guards or street closures in front of the schools.

B.1.6. Disabled

Sidewalk barriers are unlikely to be addressed as long as homeowners are responsible for sidewalks -- hence, consider a sidewalk improvement grant/matching program. Visibility issues could be improved if flags for wheelchairs were given out like free helmet programs.

B.1.7. Non-Motorized Facilities & Land Use

Participants prefer trails and separate non-motorized facilities and feel that pedestrian ‘shortcuts’ between neighborhoods or street networks should be identified, and preserved. Traffic calming could be achieved through landscaping and street trees as well as by chicanes and other aspects of creating “intrigue and uncertainty.” Buildings should put parking in back. There does not need to be extensive setbacks from the sidewalk -- put a landscaping strip as a buffer from the street. Sidewalks should be installed last in developments so they are more likely to be where people will use them. Bike parking is widely thought to be inadequate both in amount and type. Need to address planning for skateboards and scooters -- the rise of gas prices will result in an increase in both.

B.2. PEDESTRIAN REGIONAL PLAN STAKEHOLDER WORKSHOP NOTES

B.2.1. Where Highways Are Main Street

- Signal timing: observation that the lengths of time for pedestrian crossings aren’t long enough on 255 in Arcata and on 101 in Eureka.
- In Eureka: activation buttons are old; how can we get Caltrans to update buttons to current standards (like on L Street)
 - Some signal lengths are extended by holding the button longer, alters coordination of the signals on the corridor.
 - Need audio signals for the visually impaired
 - People shouldn’t have to hit a button to cross the street
- When vehicles are turning at the same time you get a walk signal, it is hard to trust and creates fear; is there a way to control turning traffic? Yes, delayed signals and ‘protected’ left turn signals, but the timing is tight for signals on 101 in Eureka
 - Improved with “Watch for Pedestrians” signage
- Pedestrians can be ticketed if they cross the street with a hand signal but there is not enough time on the walk signals for many to cross

- Lots of accidents where vehicles stop for pedestrians and get hit from behind (driver that stopped can be found at fault for causing the accident, but you can be ticketed for not stopping for a pedestrian)
- In Arcata: G and H Street signal activation is problematic, confusing
- Is there a kind of marking on the street that can help with crossing multi-lane one-ways?
 - Yes: advance stop line; Caltrans is planning some in Eureka with sharks teeth crosswalks (saturate the 4th and 5th corridors)
- Manila: unique opportunity to consolidate transit stops (as a traffic calming feature) from four stops to one in each direction and ON SR 255 instead of on side-streets (bus on those streets is tough and delays run between Eureka and Arcata)
 - Provide traffic calming
 - Improve visibility and timing of the bus
- SR 255 Expressway designation (with controlled access like a freeway) needs to be downgraded to Freeway designation; want lighting, turn lanes
- What about crossing flags or signs for pedestrians in places?
- Orick: needs some pedestrian safety improvements (crossings and hwy-adjacent paths); ask Caltrans to add it to the plan
 - Should get planning done in case funding comes from Redwood National Park
- ‘Intrigue and uncertainty’ in the roadway reduces speeds:

B.2.1.1. One Ways

- Affects pedestrians/ wheelchair/ motorists
 - Driver looking for gaps in oncoming traffic and fail to see the pedestrians crossing the street
 - Need education to tell pedestrians/ children to make eye contact with the driver (how does someone with a visual impairment do that?)
- Hazard is created with multiple lane one way streets when one lane will stop and others wont

B.2.2. *Education Programs*

- Educational needs scenario: Motorists looking upstream for traffic while pedestrians walking out in front of them; need to build motorist awareness of this situation
- Pedestrian/bike safety ads/column that present quiz scenarios for ped/bike/motorist
- County Childhood Injury Prevention committee: try to get into schools, don’t really have the staffing/ability to get to all of them; it’s the best place to work for traffic/pedestrian/bike safety; would like to work together with other groups to consolidate safety education (example, include water safety) (Making Headway, HumPAL, CHIP, Del Arte, Ink People, Mural (safety themed)
 - Schools have budgets for art and performances
 - Could Dell’Arte be a partner with these groups to do a safety roadshow?
 - Incorporate curriculum to make sure schools can embrace/have time for it
 - Traveling road show with law enforcement
- Mural in old town? About pedestrian safety?
- Communities that have a walk/ bike “culture” see higher levels of walking/ biking than those with just great facilities

B.2.2.1. Youth

- Traveling roadshow for schools to discuss pedestrian/bike safety:
 - highlight making visual contact with motorists
 - multi-lane one-way challenges of making sure cars in each lane see them
 - kids don't take motorists seriously enough
- Eureka High School intersections are full of kids not looking, chaos; blocking J Street off is excellent
- Biking still uncool, need to overcome stigma
- Bike parking on a high school campus major deterrent to teenagers riding
 - Make it less visible
- Parental protectionism increasing
- Walking school buses are great and need to be adjusted to reality: fewer kids 2-4 person team with a pre-determined route
 - Partner with senior or weight loss groups
 - Still a question of liability
- Often drive kids with bikes to schools or neighborhoods where it is safe for them to ride
- Fortuna police: give (donated) free coupons (movies, pizza) to kids seen with helmets
- Need to look at where bike racks are at schools: need to be in front, accessible, 'cool'
- Congestion pricing: have to buy a permit to drive your child to school (e.g. Jacoby Creek School) and money goes to fund for mitigation measures like crossing guards, crosswalks, bike racks, etc...
- Ambrosini School is being expanded and traffic there is really bad already:
 - Can city put a walkway from Kenwood subdivisions to the school?
 - New subdivision going in had exception made
- Land use and school locations: proximity of schools to where students live as consideration for which schools to close
- Cities/counties need to be more involved in school decision making about which schools get closed, what grades are shuttled to various places
 - Good cohesion between jurisdiction and schools makes SR2S applications more competitive
- Need fees for subdivisions to pay for school access improvements for pedestrians/bikes
- Approaching schools: go both to CTA rep AND administration AND parents
- School choice is here to stay, which causes more driving; need a system that incentivizes folks to go to school in neighborhood

B.2.2.2. Seniors

- Crosswalk timing is key
- Where there are no signals, can there be more islands?
- Respect for sidewalk space (vegetation, parking): needs to be addressed with enforcement
- In pavement lighting has not been effective for seniors (they are not aggressive enough)

B.2.2.3. Disabled

- Scooters: encourage them to use flags or other visibility measures
 - Can cities provide them like helmets?

- Are there any groups interested/willing to walk with blind people? (Sylvia Jutila question)
- See lots of wheelchairs in the road, sidewalk maintenance is a challenge, since they're mostly private
 - City of Arcata has a program that they will fix a sidewalk square for ~\$250, need to let the public know
 - Proactively contact landowners to fill in gaps when doing construction projects

B.2.3. Trails

- Concerned about removal of railroad tracks, want rail-with-trail; need the railroad
- Want commuter rail

B.2.4. Geographic Discussion

B.2.4.1. Fortuna

- Fortuna is planning a bunch of trails; trail down Kenmar Road to connect with Riverwalk?

B.2.4.2. Humboldt Bay Area

- Timeliness is key issue for pedestrian barriers: need more shortcuts developed
 - F Street crossing of 255 is terrible safety-wise, but saves time
 - Policy: encourage development of 'shortcut' paths between neighborhoods, etc...
 - Need to also incentivize private landowners to keep these shortcuts open (by removing liability)
 - Avoid liability issues for dirt paths by identifying them as a rugged/recreation trail
 - In some areas, non-recognition may actually leave them open (ex. Willow Creek)
- Arcata allows mid-block crossings as long as they're perpendicular, little known (due to mid-block needs at Plaza)
- Lawsuits to jurisdictions/ municipalities are bankrupting budgets

B.2.4.3. Manila

- Walking on Peninsula Drive west of SR 255: need connectivity where there's no connection around the CSD office... need a trail or something for pedestrians

B.2.4.4. Eureka

- (City Engineering staff): challenge getting pedestrians across major arterials: requests for calming as well as a need to move traffic on the arterials... how to do both?
- Lots of collisions on Harris
- Lots of irresponsible pedestrians and cyclists in Eureka
- Boys & Girls Club (Harris & K) looking at expanding and connecting to store across the street
- Eureka is adding more refuge islands
- Eureka installed in-pavement lights: seniors aren't as assertive, so cars don't stop

B.2.5. Facility Types of Interest

- Like raised crosswalks with painting treatments (easier to see pedestrians at night)
- Like bollards at bulb-outs
- Bus refuges: buses get trapped from being able to get out at stops in downtown Eureka, it would be cool to have a bulb-out that pinches down the lane and protects the bus; or put a sign on back of bus that says 'YIELD' when they put on their left turn signal (Example North on 5th Street at U Street)
 - Portland has a light on the back of their busses
- Trees for traffic calming and streetscape enhancement
- Chicanes are great: slows traffic, options for landscaping and alternating parking from side to side
 - Other variations in the road (like Carson Mansion, old trees, on street parking)
 - Alternate parking on either side of the street (works in neighborhood)
- Pedestrian countdowns: like them
 - Eureka increased all red time; effective at first but not so anymore
 - More people enter crosswalk enter crosswalks when it's flashing red but more are out by the time that it's holding red
 - Risk of drivers seeing the countdown and then "gunning it"
- Land use: don't set buildings back from sidewalks; don't put buildings behind parking lots; put landscaping strip out near street vs. against building
- Encourage sidewalks to be installed last, where they're actually needed (standard is to put in roads/curbs/sidewalks and then buildings... then no one uses the sidewalks because they're in the wrong place)
- Need more bike parking as more people are riding bikes; policy for bike parking requirements that is enforced (training by code enforcement inspections to make sure that required bike parking is actually built)
- Ped-activated beacons
- Roundabouts: Crossings should be in back, challenges for visually impaired, need more education

B.2.6. Skateboards & Scooters

- As gas goes up, seeing a lot more of them, need to plan for them
- Question: scooters using bike routes; where does motorized invade non-motorized?

B.3. PEDESTRIAN REGIONAL PLAN PUBLIC WORKSHOP NOTES

B.3.1. Highways As Main Street

- Manila has neighborhoods that are disconnected except by highway; need a trail connector between Lupine to Pacific and to Young, then to the Samoa Bridge, cantilever across Mad River Slough 255 bridge and along the levee to Arcata
- SafePATHS Workshop Recommendations (Submitted separately, summarized here)
 - Shoulder access for neighborhood connectivity is what currently exists (has many safety and access issues)
 - Trail Plans on West Side
 - Trail from Lupin > Pacific
 - Friends of the Dunes extended to Young Lane and then to Samoa Bridge
 - Levy converted to trail opportunity
 - Multi-Use Trail (a separate facility) from Samoa Bridge to Railroad Crossing with access over the Samoa Bridge
 - Pedestrian Trail on Levy with a small section for bike access
- Need means to get across the highways in Manila: medians, crosswalks
 - Challenge is volumes and speeds
 - Community Center & CSD office on one side of highway, park on the other
- Places for walking and bicycling next to a thoroughfare aren't appealing; Hammond Trail is wonderful
 - Non-motorized facilities adjacent to roadways not desired, separate facilities preferred
- Downtown Eureka 101 crossings: pedestrians try to cross whenever they can at signalized intersections, red or not, and are challenged to get across at unsignalized intersections
- Accidents should be more transparent: made available online (in Ped Needs document on HCAOG website)
- Scary: don't know if cars in other lanes will stop on multi-lane one-way lanes will stop
- Need more high-visibility crosswalks
- Need a way to get over the Samoa Bridges: can something be clipped to the side of them? Likely not.
- Highway 96 in Hoopa is a challenge for pedestrians; lots of equestrians on the highway
 - Common survey comments were, "all of highway is unsafe" and "don't allow kids to walk"
- Can there be in-pavement lighting in unsignalized crosswalks on 101 in Eureka
 - Library location in particular
- Need more landscaping along the highway, in medians, at intersections... highways could look like boulevards
- Shorten crossings by using curb extensions/bulb-outs in more places on 101 in Eureka
- Parking requirements for off street parking need to be revised to not force businesses to provide too much parking but have penalties for overbuilding parking
 - On street parking is more inviting to pedestrians, traffic calming

B.3.2. Eureka

- Difficult to cross on Harris and Henderson
- Cities requirements for off-street parking is often excessive... more cars on the street provides traffic calming
- South Broadway is a grim place to walk... mostly has sidewalks and crosswalks, but more landscaping would help it be more inviting (trail there is scary, otherwise would be a good
- Old Town
 - Drivers don't stop for pedestrians in crosswalk
 - Chaos Model (People don't want to wait for lights so they walk up/ down the street and cross mid block/ J walk instead)
 - One way turns are dangerous
 - Need more transparent accident data in the document
 - Street light at the Coop
 - Heavy traffic
- Lincoln School site should have a signal on Harris/Henderson if kids will still be using that campus
 - Parent surveys name Harris and Henderson as problem streets (fast traffic and faded signs)
- Harris and Henderson need to be made much more safe for pedestrians (Henderson Center has a culture of people stopping for pedestrians but still doesn't feel safe for drivers or pedestrians)
- All of the one-way couplets are bad for pedestrian safety (speeding)

B.3.3. Arcata

- 101/255 interchange is terrible for pedestrians

B.3.4. Facilities of Interest

- Develop route markers for preferred walking routes (embedded plaques, sign treatments, SR2S)
- Create a ped map
- Can use GPS on cell phones to track ped travel behavior
- In quiet neighborhoods it is more comfortable to walk in the street
- Rush does not always need to be the name of the traffic serving (all modes) game

B.3.5. Schools/Youth

- Too many parents take their kids out on the street side
- Try kid valet service at schools
- Use curriculum requirements at schools to fit in SR2S education into those parameters
- Pick up and drop off zones are very dangerous
- Universal access design will serve kids
- SR2S is not just fed and state funding programs
- Enforcement necessary

- Parents have different perspectives and more fear now that affects them letting kids walk to school: educating them about opportunities and real vs. perceived risks
- Need to motivate parents to let kids walk/bike: motivate the PARENTS to walk/bike kids to school and to work
- Adults don't want to be crossing guards in Eureka: they're afraid of the intersections

B.3.6. Education Campaign

- Since everyone's a pedestrian and we have a very friendly media machine, an education campaign could have a really significant effect (existing psa's and campaign materials out there)
- Get more people walking, then they will care about facilities and advocate for them
- Walking is weight-bearing: doctors advise it more than cycling
- What about walk to work week? There is international walk to school week.
- Cities and Counties should be sending their engineers to state and national conferences.
- Change perception of pedestrians (more sexy)
- Cycle of perceptions/ assumptions that facilities don't exist, need more facilities to get more people walking, they will advocate for more facilities

B.3.7. Disabled Community

- So many impediments in sidewalks, very challenging for folks in wheelchairs... need a program to reduce impediments
- Most impediments are in neighborhoods and not around businesses: landscaping, curb cuts, difficult asphalt, driveways
 - Greenwheels has a 'bushwhackers project' to clear vegetation from sidewalks
 - Need a matching grant/incentive program for private landowners' sidewalk improvements
 - Greenwheels is considering a volunteer sidewalk survey (can get initial data from mail carriers)

B.3.8. Land Use

- Need to encourage more neighborhood stores; they're disappearing

B.3.9. Overall about this plan

Should we change the name of this document? To make it more proactive, about why people SHOULD walk vs. why they don't and shouldn't?

B.4. WORKSHOP FEEDBACK & COMMENTS SUMMARY

B.4.1. What was most valuable about this workshop?

- The discussion was great and it was actually nice to have all of us in the same group
- Gave me a better understanding of pedestrian planning issues

- Discussion from so many perspectives
- Perspectives from folks from Willow Creek and Fortuna were great
- The sharing
- Information on broad range of the issue
- Chatting...that Spencer was here
- Learning about what's already happening in terms of encouraging walking
- Info!!

B.4.2. What was least valuable about this workshop?

- Maybe more discussion about the purpose of doing the plan and how to move forward on proposed projects
- All was good, although it's hard to talk about walking in isolation from other issues: transit, bikes, autos, land use, the railroad
- Nothing
- Not enough representation from other areas in HumCo.
- Please give figures on how much money HCAOG and other put towards these types of projects
- Pacing could have been a little more sparky

B.4.3. Additional Comments

- I'm excited about the possibility of working across agencies to address these issues.
- I'm interested in pursuing funding in partnerships with other agencies to continue these efforts
- All my questions were answered – and I got answers to questions I didn't know to ask. Thank you very much.
- I think I got to say what I wanted. Good group and good facilitation.
- No
- Family Resource Centers may be a good resource to obtain input from specific small communities
- No
- I think the more beautiful/interesting and inviting our streets are, the more we want to walk on them
- Unincorporated areas not adequately covered. Walking between communities as well as within them could be considered more (like total completion of coastal trail and connecting inland communities)

B.5. STAKEHOLDER WORKSHOP PARTICIPANTS

Name	Organization	Email	Phone
Steve Paine	Willow Creek Community Services District	willowcreekcsd@hotmail.com	(530)629-2136
Debbie Egger	HCAOG	hcaog@pacbell.net	(707)444-8208
Dawn Arledge	Department of Health and Human Services Public Health Branch	darledge@co.humboldt.ca.us	(707)445-6024

Nancy Keleher	Department of Health and Human Services Public Health Branch	nkeleher@co.humboldt.ca.us	(707)441-5070
Chris Rall	Greenwheels	chris@green-wheels.org	(707)633-4488
Sheila Parrot	City of Eureka	sparrott@ci.eureka.ca.gov	(707)441-4350
Paul Pitino	City of Arcata	ppitino@cityofarcata.org	(707)522-0387
Sylvia Jutila	Resident of Fortuna	sylvia.jutila@suddenlink.net	(707)834-4294
Spencer Clifton	HCAOG	hcaog@pacbell.net	
Kevin Wright	Greenwheels	kcwright@srvs@gmail.com	(707)445-4130
Carol Mon'e	Public	cemone@humboldt1.com	(707)677-0862
Susan Penn	Public	spenn@quik.com	(707)443-9660
Nancy Ihara	SafePATHs	nancyihara@yahoo.com	(707)442-1676
Michelle Mckeegan	Keep Eureka Beautiful	mikeymcke@suddenlink.net	(707)443-5195
Noelle Melchizedek	HumPAL	noelle@nrsrcaa.org	(707)269-2056

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APPENDIX C: CRITERIA SCORING

Incorporated Projects

ID	Project	City	Trip Generators	Transit Access	Street Class	Traffic Speed	Collisions	Median Income	Total
1	Alliance Rd/Shay Park Path	Arcata	5	2	2	0	2	4	15
2	G St Pathway to Sunset Ave	Arcata	5	2	2	1	2	4	16
3	Intersection of D St & 14th St	Arcata	5	2	1	1	2	4	15
4	Intersection of Somoa Blvd & I St	Arcata	5	0	1	1	2	4	13
5	Valley West Overcrossing: trail & US 101 overcrossing between Janes Rd & Valley West Blvd	Arcata	1	2	0	0	2	3	8
6	Intersection of L.K. Wood Blvd & Sunset Ave	Arcata	4	2	1	1	2	4	14
7	Greenwood Rd: Blue Lake Blvd to Redwood Ave	Blue Lake	5	2	2	1	0	2	12
8	I St: Blue Lake Blvd to 1st St	Blue Lake	5	2	1	1	2	2	13
9	Railroad Ave: H St to Blue Lake Blvd	Blue Lake	5	2	0	0	2	2	11
10	South Side Railroad Ave: Chartin Rd to H St	Blue Lake	5	2	2	1	0	2	12
11	6th & 7th Sts: Broadway to Myrtle Ave	Eureka	5	2	2	1	2	4	16
12	Broadway: 4th St to Kmart	Eureka	5	2	2	2	2	4	17
13	Harris St: Broadway to Hall Ave	Eureka	5	2	2	1	2	1	13
14	Henderson St: Broadway to I St	Eureka	5	2	2	1	2	2	14
15	Waterfront Trail: Truesdale Vista Point to Elk River	Eureka	5	0	1	0	2	4	12
16	Bluff St: sidewalks Craig St to Russ Park	Ferndale	1	0	2	1	0	2	6
17	Herbert St: Rose Ave to Berding St	Ferndale	5	0	1	1	0	0	7
18	12th St: K St to Loni Drive	Fortuna	5	0	1	1	2	3	12
19	Newburg Rd: Fortuna Blvd to Virginia St	Fortuna	5	0	1	1	2	4	13

ID	Project	City	Trip Generators	Transit Access	Street Class	Traffic Speed	Collisions	Median Income	Total
20	Intersection of Newburg Rd & Rohnerville Rd	Fortuna	1	0	2	2	0	0	5
21	Riverwalk Drive / Kenmar Rd: Riverwalk RV Park to Ross Hill Rd	Fortuna	5	0	1	1	0	0	7
22	Intersection of Ross Hill Rd / School St	Fortuna	0	0	1	1	0	0	2
23	Wildwood Ave: Davis St to Scotia Bridge	Rio Dell	5	0	1	1	0	2	9
24	Main St / Westhaven Drive: Scenic Drive to Hidden Creek RV Park	Trinidad	5	0	1	1	0	2	9
25	Van Wycke Trail Rehabilitation Project	Trinidad	2	0	1	1	0	2	6
26	Lighthouse Trail Improvement Project	Trinidad	2	0	1	1	0	3	7

Unincorporated Projects

ID	Project	City	Trip Generators	Transit Access	Street Class	Traffic Speed	Collisions	Median Income	Total
27	Intersection of Ave of the Giants & School Rd	Miranda	2	0	2	2	0	3	9
28	Newton Rd: School Rd to Sewell Drive	Weot	4	0	2	3	0	3	12
29	SR 96: Mill Creek to Shoemaker Rd	Hoopa	5	0	2	1	0	3	11
30	Loleta Drive – Main St to Franklin Ave, Franklin Ave – Park St to Loleta Drive, Park St – Franklin Ave to Loleta Drive	Loleta	5	0	1	1	0	3	10
31	Intersections of Lupin Drive & Pacific Rd along SR 255	Manila	1	0	1	3	0	2	7
32	Northwestern Pacific Railroad Trail: Sandy Rd to Dean Ave	Manila	1	0	0	0	0	2	3
33	Hiller Rd: Highway 101 Overpass to Central Ave	McKinleyville	1	0	1	1	0	0	3
34	School Rd: Fischer Rd to Bugenig Ave	McKinleyville	1	0	1	1	0	1	4
35	Continue filling sidewalk gaps on Washington Ave: McKinleyville Ave to School Rd	McKinleyville	1	0	1	1	0	1	4
36	SR 96: Downtown to Clinic	Orleans	0	0	2	3	0	3	8
37	SR 96: Big Rock Rd to Post Office	Orleans	0	0	1	1	0	3	5
38	SR 96: Downtown to Weitchpec Rd	Weitchpec	0	0	2	3	0	4	9
40	SR 96: SR 299 to Trinity Valley Elementary School	Willow Creek	0	0	2	1	0	4	7
41	SR 299: Roth Rd to Panther Creek Rd	Willow Creek	0	0	2	3	0	4	9