



City of Ukiah Safe Routes to School Plan

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with assistance from GHD



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Ukiah Schools

A special thank you to the Principals and Staff at the following schools:

Frank Zeek Elementary School

Nokomis Elementary School

Oak Manor Elementary School

Pomolita Middle School

River Oak Charter School

Ukiah High School

Yokayo Elementary School

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1 Introduction

The Mendocino Council of Governments (MCOG) provided funding to the City of Ukiah to prepare a Safe Routes to School Plan. This plan presents infrastructure and programmatic projects recommended to improve student safety and access to seven public schools in the City of Ukiah. Schools are listed below and locations are shown in Figure 1.

- Nokomis Elementary School
- Yokayo Elementary School
- River Oak Charter School
- Oak Manor Elementary School
- Pomolita Middle School
- Frank Zeek Elementary School
- Ukiah High School

Additional schools in Ukiah include St. Mary's Catholic School and South Valley Continuation High School on S. Dora Street, and the Redwood Academy of Ukiah and Accelerated Achievement Academy on N State Street. These schools were omitted from the analysis, in consultation with City of Ukiah staff, due to project budget, enrollment, and geographic location considerations.

The remainder of this chapter introduces the concept and benefits of Safe Routes to School and the purpose and format of the Ukiah Safe Routes to School plan.

1.1 What is Safe Routes to School?

Safe Routes to School (SR2S) refers to a variety of multi-disciplinary programs aimed at both increasing the number of students walking and bicycling to school, and reducing the amount of vehicle trips associated with school travel. Such programs and projects improve traffic safety and air quality around school areas, and address childhood obesity and public health issues, through education, encouragement, increased law enforcement, and engineering measures. Safe Routes to School programs typically involve partnerships among municipalities, school districts, community members, parent volunteers, and law enforcement agencies.

Comprehensive Safe Routes to School programs are developed using five complementary strategies, referred to as the “Five E’s”:

- **Engineering** – Design, implementation and maintenance of signage, striping, and infrastructure that improves the safety of pedestrians, bicyclists, and motorists along school commute routes
- **Enforcement** – Strategies to deter the unsafe behavior of drivers, bicyclists and pedestrians, and encourage all road users to obey traffic laws and share the road
- **Education** – Educational programs that teach students bicycle, pedestrian, and traffic safety skills, and teach drivers how to share the road safely
- **Encouragement** – Special events, clubs, contests and ongoing activities that encourage more walking, bicycling, or carpooling through fun activities and incentives
- **Evaluation** – Evaluating the projects and programs is fundamental to assessing successes of each of the “E’s” above and helps to determine which programs were most effective and helps to identify ways to improve programs. Certain evaluation measures, such as student hand tallies to identify school

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travel behavior and parent feedback on key concerns and attitudes, are also critical to gathering needed information to compete for outside grant funding.

1.2 Why is a Safe Routes to School Program Important?

Although most students in the United States walked or biked to school pre-1980's, the number of students walking or bicycling to school has sharply declined. National statistics¹ show that 42 percent of students between five and 18 years of age walked or bicycled to school in 1969 (with 87 percent walking or bicycling within a mile of school), while this number fell to 16 percent of students walking or bicycling in 2001. This decline is due to a number of factors, including urban growth patterns and school siting requirements that encourage school development in outlying areas, budget cuts that force expanded enrollment boundaries, increased traffic, and parental concerns about safety. The situation is self-perpetuating: As more parents drive their children to school, there is increased traffic at the school site, resulting in more parents becoming concerned about traffic and driving their children to school.

According to a 2005 survey by the Center for Disease Control, parents whose children did not walk or bike to school cited the following barriers:

- Distance to school 61.5%
- Traffic-related danger 30.4%
- Weather 18.6%
- Crime danger 11.7 %
- Prohibitive school policy 6.0%
- Other reasons (not identified) 15.0%

A comprehensive Safe Routes to School program addresses the reasons for reductions in walking and biking through a multi-pronged approach that uses education, encouragement, engineering and enforcement efforts to develop attitudes, behaviors, and physical infrastructure that improve the walking and biking environment. In its most advanced form, Safe Routes to School is also incorporated into city and school district policies/procedures and is highlighted as part of a larger vision for community sustainability.

1.3 Benefits of a Safe Routes to School Program

Safe Routes to School programs directly benefit schoolchildren, parents, and teachers by creating a safer travel environment near schools and reducing motor vehicle congestion (and related air pollution) at school drop-off and pick-up zones. Neighborhoods around schools also enjoy calmer streets and improved infrastructure. Students that choose to walk or bike to school are rewarded with the health benefits of a more active lifestyle, and a sense of responsibility and independence that come from being in charge of the way they travel. Others who carpool or take the bus more often can build stronger social bonds with fellow students and/or learn the basics of how to travel without their parents. All students can learn at an early age that walking, biking, and ridesharing can be safe, enjoyable and good for the environment.

¹ U.S. Centers for Disease Control and Prevention. Barriers to Children Walking to or from School United States 2004, Morbidity and Mortality Weekly Report September 30, 2005. Available: www.cdc.gov/mmwr/preview/mmwrhtml/mm5438a2.htm. Accessed: December 28, 2007.

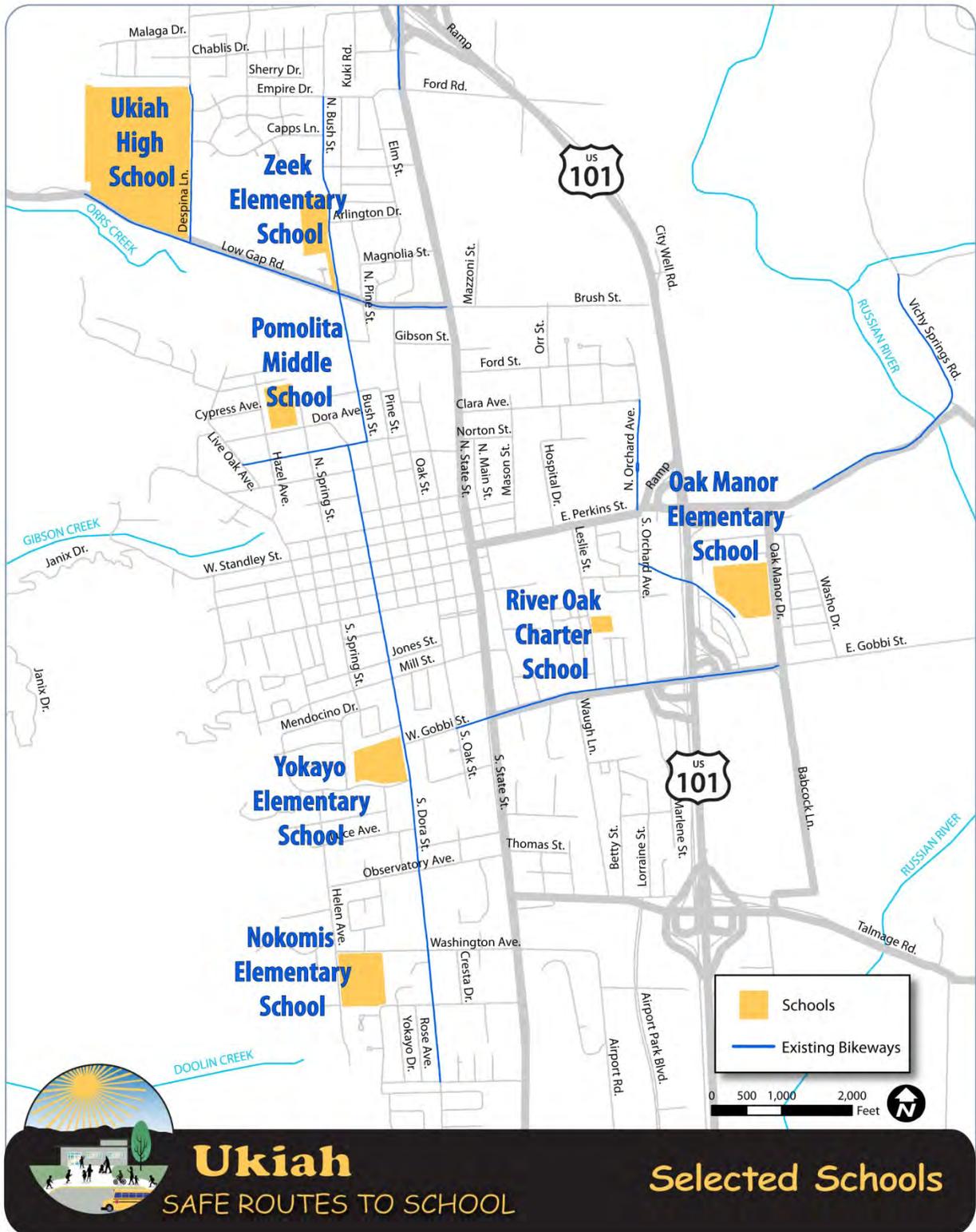


Figure 1. Ukiah Safe Routes to School – Map of Assessed Schools

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A Safe Routes to School program helps integrate physical activity into the everyday routine of school students. Since the mid-1970s the number of children who are overweight has roughly tripled from five percent to almost 17 percent. Health concerns related to sedentary lifestyles have become the focus of statewide and national efforts to reduce health risks associated with being overweight. Children who walk or bike to school have an overall higher activity level than those who are driven to school, even though the journey to school makes only a small contribution to activity levels.²

Benefits for Ukiah

Reduced Traffic and Better Air Quality

Limited data suggests that school travel behavior in Ukiah is similar to, if not worse, than the national average. At Yokayo Elementary School, only 11% of students walk or bicycle to school despite a relatively contained enrollment boundary. At River Oak Charter School, the percentage is substantially less (which is to be expected considering that students attend from throughout the District boundary).

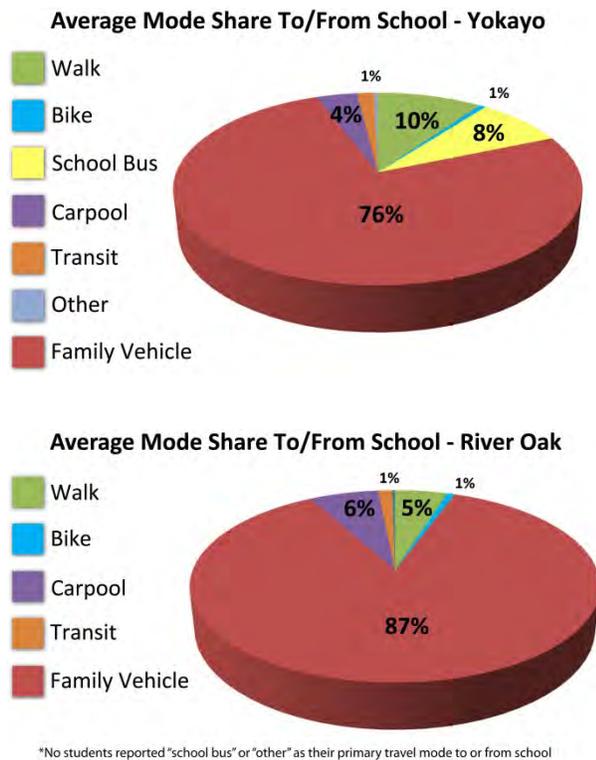


Figure 2. 2012 student hand tally travel results for Yokayo Elementary and River Oak Charter schools

While comprehensive travel information for all schools is not available, there is reason to believe these numbers are representative of the likely range of travel modes for other Ukiah schools, and that a substantial portion of morning and afternoon traffic is attributable to parents dropping off or picking up their children from school. Converting more of these trips to walking, biking, and carpools is a cost-effective way to reduce congestion and vehicle emission associated with climate change, asthma, and other respiratory problems.

Healthier, Better Performing Students

Increasing physical activity among Ukiah youth is especially important considering that approximately 35-40% of Ukiah students are significantly overweight according to recent California Physical Fitness Test (PFT) results. This figure is higher than both the state and countywide averages.³ According to several studies, including a comprehensive California study, greater physical activity among students can also lead to greater academic achievement – a fact that is supported by scientific brain research.⁴ Safe Routes programming can be a key strategy to ensuring greater

² Cooper A, Page A, Foster L, Qahwaji D. "Commuting to school: are children who walk more physically active?" *American Journal of Preventive Medicine*. 2003 November; 25(4):273-6.

Cooper A, Andersen L, Wederkopp N, Page A, Frosberg K. "Physical activity levels of children who walk, cycle, or are driven to school" *American Journal of Preventive Medicine*, 2005 October; 29(3):179-184.

³ Data from 2011-2012, accessed from <http://data1.cde.ca.gov/dataquest/>

⁴ Medina, John (2009). *Brain Rules: 12 Principles for Surviving and Thriving at Work, Home, and School*, Pear Press

levels of regular exercise among Ukiah’s youth and emphasizing holistic approaches to student learning and wellness.

Safer Streets for All

Between 2007 and 2011, there were 240 reported traffic collisions involving injury, about 20% of which involved school-age youth. In a small community like Ukiah, popular school routes are shared with those of the general public, so efforts to address student safety will benefit all roadway users. Since SR2S efforts also tend to deepen relationships among community members and between parents and law enforcement officials, safety benefits can extend beyond school travel into issues such as greater public safety and neighborhood cohesiveness.

Funding

Since its inception in 2000, the California SR2S program has had ten grant cycles, awarding approximately \$240 million for school improvements. Of this amount, \$3.17 million was awarded to projects in Mendocino County, including \$800,000 for Ukiah Unified School District schools. A similar federal Safe Routes to School (SRTS) program⁵ awarded \$157 million nationwide over three recent grant cycles. Although these dedicated funding programs for Safe Routes to School have been dropped recently, the fact remains that a school-based planning process that engages the community and builds consensus around priorities will compete more effectively for a wider range of outside grant funding opportunities.

The Ukiah Unified School District spends approximately \$1.3 million for home-to-school transportation⁶ (yellow bus service), not accounting for special education students. With funding levels continually at-risk, it makes sense to encourage lower cost (i.e., self-transport) options for students living closest to school. Potential projects that free up some of this funding could otherwise be used for student learning or physical improvements on school campuses.

1.4 Ukiah Safe Routes Plan Purpose and Format

The purpose of this plan is to identify and prioritize capital projects, non-infrastructure strategies, and next steps for establishing a Safe Routes to School program in Ukiah. The plan’s recommendations are based on input gathered from the initial discussions with City and school staff, ‘walk audit’ field observations, best practices from other communities, and additional stakeholder input gathered at a workshop in May 2012.

The plan is organized into four primary sections:

- **Engineering Projects:** Includes a synthesis of relevant background information, descriptions of priority projects and the prioritization methodology, and overall identified project costs
- **Non-Infrastructure Programs Guide:** Includes a menu of potential programs to support walking and biking to school including elements from the other “4 E’s” of Safe Routes to School: Education, Encouragement, Enforcement, and Evaluation
- **Developing and Sustaining a Safe Routes to School Program:** Provides recommendations for next steps, including establishing a stakeholder ‘task force’ and instructions for using/maintaining the project website

⁵ Often used interchangeably without practical effect, SRTS is the official acronym for the federally-funded Safe Routes to School program, while the California-funded program officially utilizes SR2S.

⁶ According to Ukiah Unified School District 2012/2013 approved budget

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- **Appendices:** Includes individual summaries of school conditions and recommendations, also known as school travel plans (Appendix A) and technical documentation that supports identified priority projects

1.5 How to Use this Plan

At the heart of every successful Safe Routes to School program is a coordinated effort by parent volunteers, school staff, school district officials, City staff, law enforcement, and other partners to support safe, sustainable student travel. This plan provides comprehensive reference material to confirm travel issues, guide formal and informal initiatives, and assist development of an ongoing coordination and implementation plan.

City staff can use this report to help document school travel routes and behaviors, existing roadway design deficiencies, and specific improvement opportunities. Engineering recommendations can be referenced when scoping new capital and maintenance projects, reviewing private development plans, applying for grant funds, and updating citywide goals and policies. Non-infrastructure priorities/themes can be integrated into existing City programs and communication materials.

School District officials can use this report to consider and prioritize investments proposed on District property and integrate programs that educate and encourage students and parents into its routine business. **School staff** can reference this document and the related website (www.ukiahSR2S.org) in parent and online communications to help increase awareness of and support for the program. Education and encouragement materials can be utilized for classroom learning modules, contests, and after-school enrichment.

Parents can use this report to understand and confirm (or clarify) the conditions at their children's school and to become familiar with the ways in which they can support program goals. In many cases, education and encouragement programs require dedicated parent volunteers to carry them out. The Ukiah Safe Routes to School website (www.ukiahSR2S.org) and non-infrastructure programs guide (Section 3 of this report) provide information about potential opportunities for programs.

Police department staff can use this report to target enforcement efforts on identified school routes and at problem areas, and to complement potential education and encouragement campaigns. Police department input can also help improve the specific design features and prioritization of recommended projects aimed at addressing safety issues and promoting active travel.

2 Engineering Projects

This chapter includes detailed discussion of the highest priority capital projects and school zone recommendations, the methods and data used to identify and prioritize projects, and a cost summary. Additional capital projects are identified and discussed within the individual school travel plans in **Appendix A** and organized by priority and responsible agency in **Appendix B**.

2.1 School Travel Patterns and Collisions Assessment

Enrollment Areas

The Ukiah Unified School District covers a large area that includes the City of Ukiah, Hopland, the Talmage and Redwood Valley areas and other subdivisions on unincorporated land. Driving – primarily parent chauffeured trips to school – is thus the dominant school travel pattern, with yellow school bus service an important component for many schools including Oak Manor Elementary, Pomolita Middle, and Ukiah High School. The latter two pull attendance from throughout the City and beyond, while the Oak Manor attendance area includes agricultural land and residential subdivisions east of Highway 101 between Vichy Springs Road and downtown Hopland. River Oak Charter School has no defined enrollment boundaries, but did complete a student hand tally travel survey as shown in **Figure 2**.

The remaining three schools assessed in this plan are “neighborhood” schools, in that their enrollment generally pulls from residential areas within close proximity to school: Frank Zeek Elementary, Nokomis Elementary, Yokayo Elementary. Specific boundaries are described in school travel plans located in **Appendix A**, but generally these are the elementary schools with the most students currently or potentially walking and biking to school.

Collision Analysis

An assessment of injury-causing collisions reported between January 2007 and December 2011 was used to identify crash patterns and safety ‘hot spot’ locations or corridors. This information was gathered through the online Transportation Injury Mapping System (TIMS) hosted and managed by the Safe Transportation Research and Education Center (SafeTREC) at the University of California, Berkeley. This system organizes and maps crash information collected by the California Highway Patrol (CHP) and stored in the California Statewide Integrated Traffic Records System (SWITRS).

The TIMS interactive mapping tool can be viewed at <http://tims.berkeley.edu/tools/gismap/index.php>. More information is also available by visiting the California Office of Traffic Safety website (<http://www.ots.ca.gov/>).

In the five year period between 2007 and 2011, 240 injury collisions were recorded within the greater City of Ukiah area, or 3 per year per 1,000 residents. Of these collisions:

- 60 (25% of all collisions) involved a bicycle or a pedestrian. 57% of these crashes involved visible or severe injury, and one-third cited a pedestrian or bicyclist at fault
- 89 (37%) involved youth between 0-19 years of age. One-third of these crashes resulted in visible or severe injury, 37% cited a youth at fault

Engineering Projects

- 23 (10%) involved a student-aged pedestrian or bicyclist
- 94 (40%) took place during the morning (6am-9am) or afternoon (noon-3pm) school commute periods
- 74 (31%) cited unsafe vehicle speed as the primary factor (the most common collision factor)
- Approximately 54, or 22% of all collisions, occurred on suggested school routes and bike ways
- One fatality was recorded, involving a youth pedestrian on N State Street at Ford Street

Additional non-injury crash information from January 2008 – July 2011 (available in the City's recent engineering and travel survey report noted below) is also referenced in individual school travel plans in Appendix A.

2.2 Relevant Planning Background

City of Ukiah Bicycle and Pedestrian Plan (1999)

The 1999 City of Ukiah Bicycle Master Plan proposes a primary north-south Class I Bikeway in the NWP ROW within the City limits, a primary north-south system of Class II bike lanes on Dora and Bush Streets, and a series of improved east-west bikeways connectors on Perkins, Gobbi, and Talmage Streets.

The City is updating the Bicycle and Pedestrian Master Plan, which provides an excellent opportunity to incorporate and expand/refine recommendations from this SR2S plan.

City of Ukiah ADA Right-of-Way Transition Plan (2006)

The City completed a study to update their transition plan and establish priorities for improvements to pedestrian sidewalks and to five city-owned parking lots. The data collection and plan focused on priority corridors in the City identified with public input. Some of these priority corridors for access improvements also directly serve schools. The plan identifies the potential for using Safe Routes to School programs as a funding source that can support some of the projects identified in the Plan. Notable deficiencies identified near schools include:

- Oak Manor Drive: Multiple ramps, driveways and crosswalks noted as deficient at or near Oak Manor Elementary School
- Perkins Street: Curb ramps at Leslie Street
- E. Gobbi Street: Ramps at intersections along the school route noted (Leslie Street, Orchard Avenue, Dora Street)
- S. Dora Street: Key intersections that serve Yokayo Elementary at Gobbi and Mendocino need curb ramp and crossing improvements. Another set of deficiencies at Washington Avenue and Dora Street have been addressed since the plan.

Ukiah Downtown Streetscape Improvement Plan Final Report (2009)

The Ukiah Downtown Streetscape Improvement Plan is part of the City of Ukiah's efforts to resolve traffic, circulation, and urban design issues associated with its downtown area. The purpose of this plan is to upgrade State Street and Main Street from Norton Street to Gobbi Street to provide for a cohesive, pedestrian-friendly, attractive, and complete downtown core. The planned improvements to State Street include updates to the intersection of E. Gobbi Street and State, which serves as a connection for multiple schools in the City.

Ukiah NWP Rail Trail Feasibility Study (2002)

In 2002, the City adopted the Ukiah NWP Rail Trail Feasibility Study, which studied the feasibility of a RWT along the NWP ROW from Brush Street to Talmage Street. The purpose of the study was to provide background on the project history and goals, identify opportunities and constraints associated with the RWT, provide design standards, estimate potential costs, and identify future funding opportunities.

The RWT could provide connections to River Oak Charter School and provide a north-south routes connecting to bikeways and other routes that serve Pomolita Middle School and Ukiah High School.

Mendocino County Regional Bikeway Plan (2012)

MCOG's Regional Bikeway Plan incorporates proposals for bikeway improvements within all jurisdictions of Mendocino County into a single document. Key elements of the Regional Bikeway Plan include a description of existing and proposed bikeways, a short-range implementation plan, non-motorized transportation policies and a description of funding sources. The Regional Bikeway Plan provides guidance to local agencies regarding existing policies and programs that enhance bicycle transportation in Mendocino County.

The projects identified for the City of Ukiah provide numerous connections to potential school routes. Class I and II routes provide separation for bicyclists. Enhanced Class III routes on streets with low traffic volumes may also function well as school routes depending on traffic volumes and speeds. The following list summarizes the proposed bikeway improvement projects that could serve as school travel routes:

- Clay Street/Peach Street Gibson Creek Corridor: Varied facilities from McPeak to Oak Manor Drive could provide an alternative to Gobbi or Perkins Street for River Oak Charter School
- Empire Drive Corridor: Class II/III from Despina to N State Street. Serves Ukiah High School and Frank Zeek students
- Gobbi Street: Class II bike lanes from Dora Street to Oak Street and from Oak Manor Drive to the end of East Gobbi Street. A consistent corridor on Gobbi could serve Yokayo Elementary, River Oak Charter and Oak Manor Elementary schools
- Oak Manor Drive: Class III Bikeway. Directly serves Oak Manor Elementary and Oak Manor Park with a connection to the Highway 101 pedestrian/bicycle overcrossing
- Babcock Lane: Class III from Gobbi Street to Talmage Road. Continues the corridor from Oak Manor Drive and connects to Oak Manor Elementary
- Orchard Avenue: Class II from Gobbi Street to Brush Street. Orchard Avenue provides access to the back pick up/drop off area for River Oak Charter
- Orr Creek Pathway: Class I from Dora Street to Ukiah High School. If formalized this path could serve both middle and high school students
- Washington Avenue: Class II/III from Helen Avenue to S State. This is a direct route to Nokomis Elementary School
- Western Bikeway Concept (Helen/Mendocino/Gardens/McPeak /Barnes/Todd/Hazel/Spring): Class III shared bikeway or "neighborhood greenway" that provides access to/from residential neighborhoods west of Dora Street.

Mendocino County Rail with Trail Plan (2012)

The Mendocino County Rail-with-Trail Corridor Plan (Plan) provides an analysis of general conditions along the length of the 103-mile corridor and identifies priority RWT projects for the Cities of Ukiah and Willits and the County of Mendocino. The Plan provides jurisdictions along the rail corridor (City of Ukiah, City of Willits, County of Mendocino, and Caltrans) with information to assist with implementation of the RWT.

There are three segments of the proposed corridor within the City of Ukiah:



Figure 3. Photosimulation of Rail with Trail segment, looking south to E Gobbi Street

Phase I: Projects expected to be completed within 5 years

- Segment S10 from East Gobbi Street to Clara Avenue. The southern half of this segment between Gobbi Street and Perkins Street is currently in design and funded for construction in 2014-2015

Phase II: projects expected to be completed in 10 years - Ukiah Segments

- Segment S9 from Norgard Lane to East Gobbi Street
- Segment S11 from Clara Avenue to Brush Street

These segments would connect to the Phase I Ukiah pathway (East Gobbi Street-Clara Avenue) to the south, providing a

connection from the south and north ends of the city. Segment S11 could connect to Mazzoni Street which provides direct access to the current campus of Redwood Academy/Accelerated Achievement Academy.

2.3 Design Guidelines/Elements

What follows is a list of priority design features and terminology that form the basic elements and intentions of engineering recommendations in the Ukiah Safe Routes to School Plan.

Complete Streets

Complete Streets refers to a relatively recent movement to ensure the routine accommodation of all travel modes in the construction and maintenance of roadway facilities. What started as a grassroots response to automobile-centric projects that did not include bike lanes or sidewalks (among other accommodations) today enjoys widespread endorsement from the California Department of Transportation (Caltrans), Federal Highway Administration (FHWA), and many regional planning bodies. More information on Complete Streets, which can also be described as Context Sensitive Solutions (CSS) or Context-Sensitive Design (CSD), is available at <http://www.smartgrowthamerica.org/complete-streets> and on the Caltrans Office of Community Planning website http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html.

CAMUTCD School Zone Signage & Markings

National design standards and guidelines for most “traffic control” devices, including signals, stop signs, signage, and roadway markings are established in the Manual on Uniform Traffic Control Devices (MUTCD). In California, a state-specific manual (the CAMUTCD) takes the federal guidelines and applies approved revisions and additions to this document.

Among the many school-related provisions included in the CAMUTCD are typical groups, or assemblies, of lime-yellow traffic signs known as Assembly A, B, C, and D. These signs, with various combinations and placement options, provide highly-visible advisory and regulatory guidance for traveling in school zones.

Assembly A



May be installed up to 500 feet in advance of a school

Assembly B



Shall be installed at an uncontrolled crosswalk (no stop sign)

Assembly C



Shall be installed when conditional school zone speed limits apply

Assembly D



May be installed in advance of an uncontrolled crosswalk



High Visibility Crosswalks

High visibility crosswalks include markings beyond the basic double parallel lines to elevate the visibility of pedestrian crossing areas and increase the yielding rate of drivers at uncontrolled intersections.⁷ High visibility crosswalks also help reduce the instances of drivers encroaching upon the crosswalk at a signalized intersection. Providing high visibility crosswalks, which are typically designed as a ladder or ‘continental’ style (shown, left), can help improve the

comfort and ease with which pedestrians cross the street. In California, crosswalks within 600 feet of a school on school routes are identified by a yellow, as opposed to white, striping color.

Additional safety devices at uncontrolled crosswalks can include pedestrian-actuated rapid flashing beacons, which produce a ‘stutter flash’ when activated to alert motorists to crossing pedestrians. Flashing beacons are most commonly used at crossings with more than two travel lanes, i.e. a ‘double threat’ condition⁸, and tend to be more effective and have less maintenance issues than in-pavement flashers.

⁷ For a good summary of the discussion of pedestrian safety and marked crosswalks, see Mitman, et al (2007). “The Marked Crosswalk Dilemma: Uncovering Some Missing Links in a 35-Year Debate,” Transportation Research Board 2008 Annual Meeting CD-ROM.

⁸ A ‘double threat’ condition refers to a scenario in the crosswalk when the nearest lane of vehicle traffic yields to a pedestrian but not the vehicle on the inside travel lane.



Americans with Disabilities Act (ADA) Curb Ramps

Curb ramp retrofit projects help expand and correct deficient intersection crossings, adding space and accessibility for pedestrians and wheeled device users (including young children in strollers). Whenever practical, curb ramps should seek to reduce curb radii in order to limit the crossing distance for pedestrians and to compel drivers to make turns at a slower speeds.

Key features of accessible curb ramps include uniform grades, level landing areas, and a detectable, color-contrasting warning mat. These changes can be the difference between a truly accessible and enjoyable active travel route to school for families, and a stressful route that forces users into travel lanes and potential conflicts with vehicles.

Curb Extensions/Bulb-Outs and Intersection ‘Daylighting’

Curb extensions physically and visually narrow the roadway in a way that brings down driver speeds, reduces pedestrian crossing distances, and can reduce parking enforcement issues near crosswalks and street corners. Curb extensions are appropriate on streets with on-street parking and should not impede a bike lane or similar bicycle facility. Where feasibility and/or cost is a concern, curb bulbs can extend into the roadway and still maintain the curb edge by utilizing a trench drain (shown in the image above, left).

If funding is limited or other problems exist (e.g. drainage issues or no sidewalks), roadway hatch markings can be used as an interim measure to help visually narrow the street and increase waiting space for pedestrians at intersections. Such treatments can also allow the relocation of stop or school assembly signs from narrow sidewalks to more visible on-street locations for drivers, and can be filled in when a more permanent solution is identified. At a minimum, crossings on streets with parking should include red painted curb for a preferred minimum crosswalk setback of 20 feet.



Pedestrian Refuge Islands

Pedestrian refuge islands should be considered where pedestrians must cross arterial, high volume, or otherwise high-stress roadways at uncontrolled locations. A refuge island allows pedestrians to focus on one direction of traffic at a time while crossing the street, and provides space for additional crosswalk assembly signage. The minimum width for a refuge island to be accessible is six feet, which can be achieved without dropping existing bike lanes by ensuring sufficient parking setbacks ahead of the crosswalk (see Figure 6).



Reduced Lane Widths & Addressing Overly Wide Streets

Overly wide travel lanes may induce higher speeds from drivers, whose speed perception is related to the width and length of their vista. As an alternative to moving the curb line for reduced width (which is cost prohibitive), other measures include striping or widening a bike lane, adding a “fog line” for parking lanes, and introducing pedestrian refuge islands, landscaped medians, or traffic circles to visually break up the corridor. Engineering guidelines have historically preferred a minimum lane width of 12 feet to accommodate larger vehicles, although studies have shown no negative safety impacts with 11-foot travel lanes and many communities provide 10-foot travel lanes on streets with few heavy vehicles (or where space is not available). Several important streets in Ukiah, such as Dora Street and Grove Avenue, currently include 15-foot wide travel lanes. However, both Dora Street and Grove Avenue are striped with Class II bicycle lanes.

Enhanced Bicycle Facilities

The California Highway Design Manual (HDM) has long identified distinct categories of bicycle facilities: ‘Class I’ multi-use trails, ‘Class II’ dedicated bicycle lanes, and ‘Class III’ shared bikeways. While off-street design guidelines and practices have remained consistent over the last decade, a host of advanced and “experimental” design measures have been tested and applied to on-street bikeways. For Class II facilities, introduction of striped buffers, intersection through-markings, and use of green paint are increasingly used to improve bicycle comfort in higher stress environments and connectivity across intersections. In several communities, two-way on-street cycletracks – or dedicated bikeways separated from vehicle traffic and sidewalks – have also been introduced to encourage new ridership among sensitive groups, including children and families.



Class III facilities, traditionally ‘implemented’ through minimal signage, are now more regularly employing shared lane markings (sharrows), custom wayfinding signage, and bicycle-friendly traffic calming measures to emphasize a safely shared environment where active travel and neighborhood play are promoted on equal measure with vehicular access and convenience. Low-volume streets identified as priority school routes and Class III bikeways are strong candidates for these measures, which are also known as bicycle ‘boulevards’ or neighborhood greenways.

More information on and support for enhanced bikeway facilities can be found in the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide, available online at: <http://nacto.org/cities-for-cycling/design-guide/>



Efficient School Load Zones and Non-Motorized Gateways

Historically when more students walked and biked to school, the intense spike in travel demand right before and after bell times was manageable. Now that boundaries have expanded and student travel behavior has changed, many campuses (and adjacent residential streets) are struggling to handle the large influx of vehicles during drop-off and pick-up times. Outdated

parking lots and load zones result in longer vehicle queues and greater emissions, and tend to lack sidewalk facilities, landscaping, and accommodating bicycle facilities (including parking).

To address existing challenge areas and issues, design efforts should focus on more efficient loading patterns and creation of protected, inviting walkways to/from primary entrance points.⁹ Secure bicycle parking should be located in convenient areas that are logical extensions of the bikeway network and easily surveillable by school staff. Trees and benches should be added for increased shade and overall comfort.



Credit: Habitats, Inc.

Green Infrastructure and Low Impact Development

Designs that collect, slow down, and recharge stormwater back into the ground, or filter it before entering the drainage pipe system, are known as ‘green’ infrastructure or Low Impact Development (LID). LID solutions include drought tolerant, native plant selection and careful soil preparation to help conserve water, reduce flooding, and promote habitat. The City and School District should consider integrating LID and SR2S

improvement priorities where feasible to achieve multi-faceted, sustainable projects that can attract community attention and offer teaching/volunteer maintenance opportunities for students. The Yokayo Elementary School curb bulb-out with rain garden at is a high priority project for which green infrastructure design principles and funding sources will be important to pursue.

2.4 Project Selection and Prioritization

School improvement concepts were identified for each of the seven Ukiah schools by conducting initial interviews with school staff and team site observations during the morning drop-off or afternoon pick-up times. Projects were added and refined based on additional review of information and concept designs outlined above in Sections 2.2 and 2.3, and follow-up consultation with City and School District staff.

The prioritization process utilized a low/medium/high scoring system to subjectively rank each project according to set of five general criteria, described in Table 1. Based on a composite ranking, projects have been organized into Tier 1 high priority and Tier 2 recommendations to facilitate project review, funding, and implementation. Project rankings are subject to change based on additional city, school, and community feedback and advanced project design/cost estimation.

Other criteria were also considered for project ranking, but for the most part did not result in useful indicators for one reason or another. These criteria included serving ‘low income schools’ (percent of enrollment eligible for free and reduced lunch) and public health disparities (physical fitness test results and other measures), both of which lacked substantial differentiation in the datasets.

A detailed prioritization matrix of all identified projects is provided in Appendix B. Other considerations not documented here are included in the prioritization matrix “Notes” column. Project rankings are also included in individual school travel plans in Appendix A, while a description of criteria rankings is also provided for high priority projects in Section 2.5 below.

⁹ Non-infrastructure strategies that achieve similar purposes include school safety officers and student valet programs that expedite the vehicle load/unload process.

Table 1. Project Prioritization Criteria

Criterion	Description/Metrics
Addresses a known safety issue	Proximity to prior crash locations, with severity and type of crash included in ranking where information is available. Other metrics may include existence of a condition known to pose safety risks (e.g. an uncontrolled marked crossing of more than two vehicle lanes) and safety issues observed/reported during walk audits.
Potential to serve the most students and increase rate of walking/biking	Prioritizes schools with the most students within walking/bicycling distance and projects identified on key school routes. Metrics may include school enrollment, number of students living within (or residential density within) ½ mile of school, and results from student/parent surveys if available.
Existing community support	Project is identified in a city or regional planning document or previous Safe Routes to School application, or receives significant positive attention during public/City review.
Feasibility and cost	Project has few outstanding issues or impacts that need additional analysis, and can utilize funding efficiently.
Communitywide benefits	Projects are located on routes that provide benefits to multiple destinations, serve other priority demographics, and/or serve multiple travel modes

2.5 Tier 1 Individual Project Descriptions

The following is a summary of the highest ranking capital project recommendations derived from the school travel plans. Each project description includes an overall project ranking, cost estimate, and a reference to related project(s). Graphical information about each project is provided on the individual school improvement maps in Appendix A. Additional information about the prioritization ranking for Tier 2 projects is provided in Appendix B.

Reduced and Extended School Zone Speed Limits (All Schools)

Overall Priority Ranking: High			Estimated Cost: \$90,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	Medium	High	High	High
<i>Related School Travel Plan Project IDs (see Appendices A and B): PIC, N2, Z2B, Z4, RIC, R5, U1, Y6, O4</i>				

Project Description

This project will install reduced and extended speed limits in school zones on streets identified in the local improvement plans. Implementation can occur on an individual site basis, but is recommended as a citywide project due to the need for an advance resolution from City Council and tandem public education and outreach. In many cases, reduced speed limits should be combined with other traffic calming or bikeway improvements and/or targeted enforcement to assist with compliance. The goal of this project is to bring down the risk of injury and promote walking and biking on key routes to school, especially those with documented speeding issues.

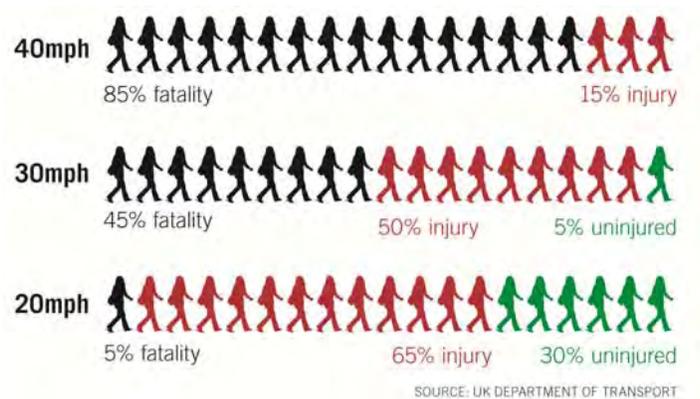


Figure 4. Typical risk of non-motorized collision injury based on vehicle speed at impact

Project Background: A relatively new law in California allows for reduced or extended school zone speed limits on residential streets with a total of two vehicle travel lanes and an existing posted speed limit no greater than 30 mph. Speed limits within 500 feet of a school can be as low as 15 mph when children are present, and limits between 500 to 1,000 feet can be 25 mph. Previously, conditional school limits could not be less than 25 mph under most conditions and could not extend beyond 500 feet from a school. Throughout Ukiah, a 20mph conditional speed limit (within 500 feet of a school) is recommended as the standard for residential streets to promote a consistent and reasonable expectation among drivers.

Recommended streets for considering a reduced school zone speed limit of 20 mph include:

- Frank Zeek: N Bush Street, Arlington Drive, Garrett Drive, N Pine Street
- Nokomis: Helen Avenue, Washington Avenue, Marwen Drive, Wabash/Laurel Avenue
- Oak Manor: Oak Manor Drive
- Pomolita Middle: Grove Avenue, N Dora Avenue, N Spring Street, Cypress Avenue, Hazel Avenue, Maple Avenue
- River Oak: Leslie Street
- Ukiah High: Despina Drive, Capps Lane, Empire Drive
- Yokayo: Mendocino Drive, Alice Avenue, Pomolita Drive

Individual school travel plans can be found in **Appendix A**. Both documents utilize and reference recorded 85th percentile vehicle speeds from the 2012 Engineering and Traffic Surveys report to support specific recommendations.

Dora Street and Gobbi Street Intersection Improvements (Yokayo Project #1)

Overall Priority Ranking: High			Estimated Cost: \$175,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	High	High	Medium	High
Related School Travel Plan Project IDs (see Appendices A and B): Y3, Y5, Y4; also see similar projects Z1, U2				

Project Description

Provide high visibility crosswalks on north and south crossings, a curb extension on the west side encompassing the full intersection, and curb extensions/ramps on the northeast and southeast corners. Consider a demonstration rain garden that encompasses the west side curb extension, and integration with bike lane gap closure project on Gobbi Street (see Figure 5).

Project Background: This three-way “T”, stop-controlled intersection is the primary crossing point for Yokayo Elementary School, and the eventual connection point for the City’s two most important on-street bikeways.



S Dora Street at Yokayo Elementary and terminus with W Gobbi Street. A top priority project is to address student crowding, accessibility, vehicle compliance, and drainage issues at this all-way stop immediately adjacent to the school entrance. *Image: Google Streetview*

Sidewalk width and curb ramps are especially deficient on the approach to Dora Street from Gobbi Street, although crowding is also an issue on the school-fronting sidewalk. A crossing guard is positioned at this location in the morning and afternoon and has noted significant drainage problems in the winter that require that students to go outside of the marked crosswalk to access the sidewalk. Additional concerns include compliance of motorists stopping fully at the intersection and parking/loading on the adjacent curb.

Gobbi Street Bike Lanes (Yokayo Project #3)

Overall Priority Ranking: High			Estimated Cost: \$32,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	Medium	High	High	High
<i>Related School Travel Plan Project IDs (see Appendices A and B): Y1, Y3, Y4</i>				

Project Description

Close the gap in dedicated bicycle facilities between S Dora Street and Oak Street on Gobbi Street to link the city’s two most important on-street bikeways, both of which serve multiple schools. Preliminary concept design includes five-foot bike lanes in each direction, with transitioning of the westbound bike lane to a shared bike lane/right turn lane at S Dora Street (see Figure 5 and school improvement plan). Project requires parking prohibition on the north side of the street, and can be implemented in tandem with or independent from intersection improvements described in Project Y1 and proposed curb ramp and crosswalk improvements at Oak Street (Project Y4).

Project Background: This project is specifically identified as a high priority for near term implementation in the County’s 2012 Bikeway Plan.

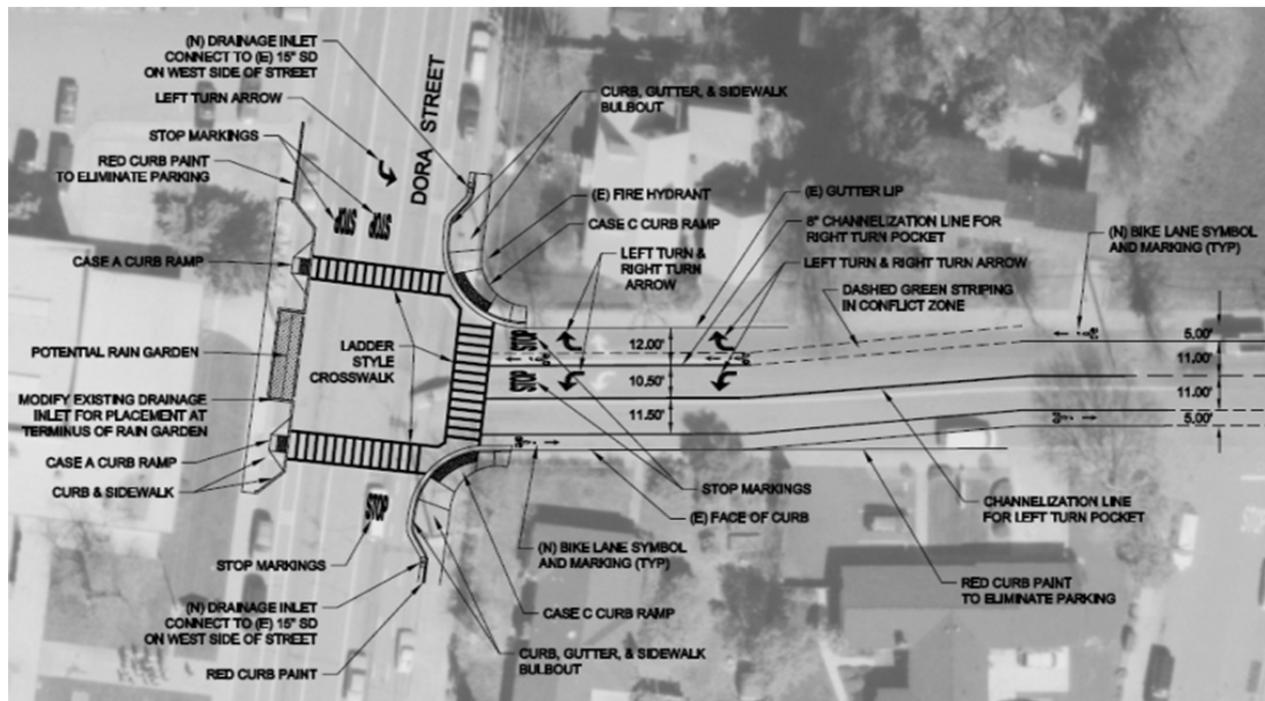


Figure 5. Preliminary concept plan (partial) for W Gobbi Street bike lanes and intersection improvements at S Dora Street. Complete engineering concept plans are provided in the individual school travel plans in Appendix A.

“Level 1” Uncontrolled Crosswalk Enhancements (Pomolita Project #1A, 1B, 1C)

Overall Priority Ranking: High			Estimated Cost: \$75,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	High	Medium	High	High
<i>Related School Travel Plan Project IDs (see Appendices A and B): Y3, PID, P2, P3</i>				

Project Description

Upgrade four uncontrolled school route crossings (at Bush Street/Cypress Avenue, Grove Avenue/Dora Street, and Grove Avenue at Spring Street and Walnut Street). Recommended improvements include pedestrian refuge islands, high-visibility ladder striping, yield limit lines, interim (hatched) pedestrian extensions, red curb paint, and signage improvements. Consider also speed feedback signs on Bush Street and removal of eastern crosswalk at Dora Street/Grove Avenue. Project goals are to improve motorist yield compliance and pedestrian safety/comfort, and to provide traffic calming that complements proposed school zone speed limit reductions and buffered bicycle lanes (see Figure 6).

Project Background: Grove Avenue, Bush Street, and Walnut Avenue are the busiest streets near the school that many students must cross without protection from traffic (i.e., there are no stop signs or traffic control devices). Speeding and collisions are also documented issues, particularly for Grove Avenue.



The intersection of N Dora Street with Grove Avenue (near Pomolita Middle School) includes two uncontrolled crosswalks that are representative of many found along key school routes. These crossings typically lack enhanced markings, crosswalk signage, and curb ramps that can improve user safety and comfort (among other measures) *Image: Google Streetview*

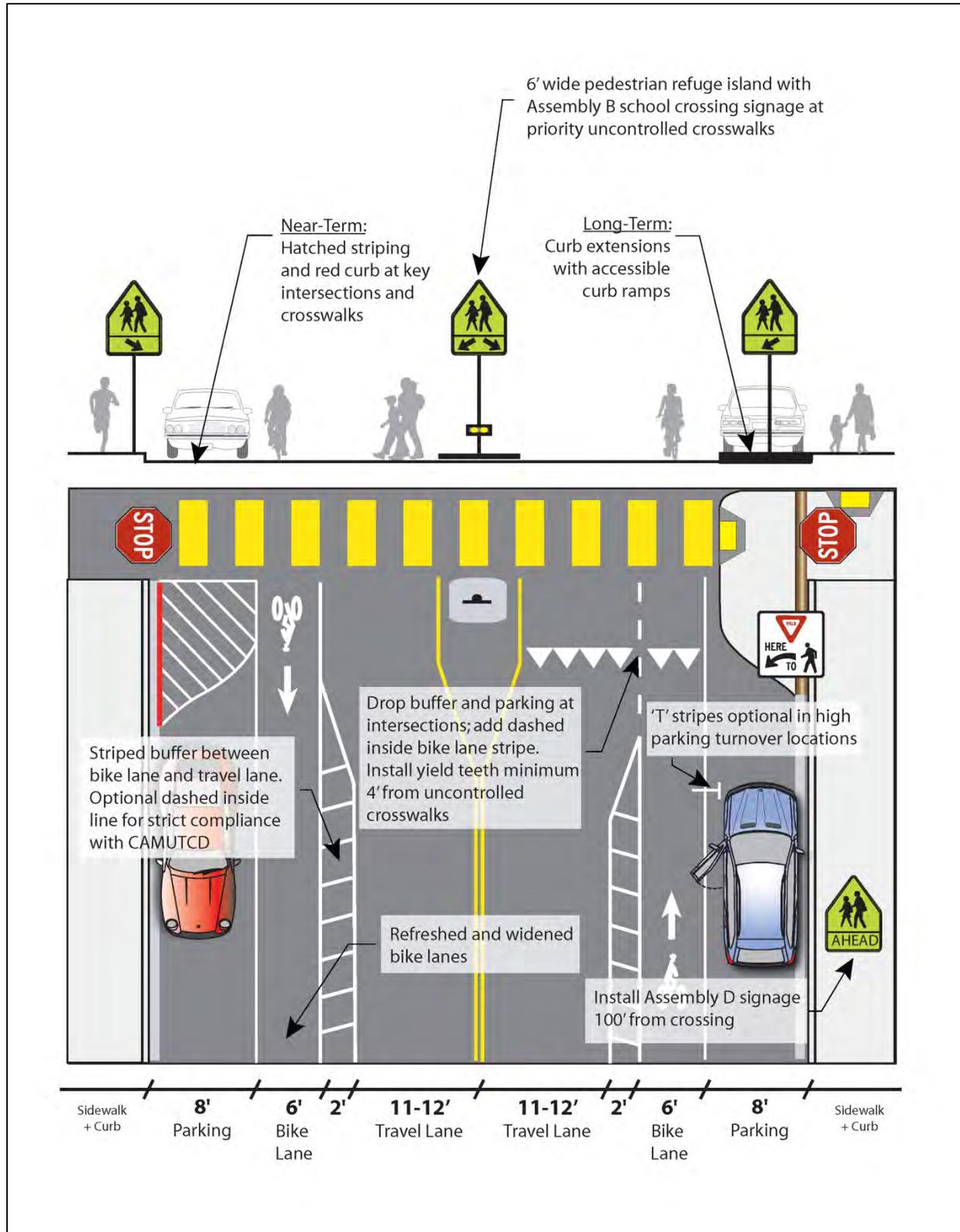


Figure 6. Uncontrolled Crossing Improvements (Typical) with Potential Buffered Bike Lanes (Dora Street, Grove Avenue only)

Grove Avenue/ Bush Street Buffered Bike Lanes (Pomolita Project #2A)

Overall Priority Ranking: High/Medium			Estimated Cost: \$170,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
Medium	High	High	Medium	High
Related School Travel Plan Project IDs (see Appendices A and B): P1A, PIC, Y5, P3, Z3				

Project Description

Restripe existing bicycle lanes on Grove Avenue to be six feet wide with an additional two-foot striped buffer zone between Dora Street and Live Oak Avenue (see Figure 6). Higher priority is Grove Avenue (estimated at \$65,000), due to available width and ability to integrate with other priority projects P1A and PIC. Install similar improvements on Dora Street (see Yokayo Project 5 below for cost estimate and details).

Goals of this multi-corridor project are to enhance the attractiveness of the existing core bikeway network serving Pomolita by providing visual and physical separation between cyclists and vehicle traffic.

Dora Street Buffered Bike Lanes (Yokayo Project #5)

Overall Priority Ranking: High			Estimated Cost: \$200,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	High	High	M/H	High
Related School Travel Plan Project IDs (see Appendices A and B): P2A, P3, Y1				

Project Description

Restripe existing bicycle lanes to be six feet wide with an additional two-foot striped buffer zone between Pomolita Drive and Grove Avenue to help provide visual and physical separation between cyclists and vehicle traffic (see Figure 6). Identify key crossing locations that may require a center pedestrian refuge median, re-striping enhancements, and/or pedestrian-actuated flashing beacons. (One enhanced crosswalk treatment without beacons is assumed for cost estimating purposes.)

Project Background: Like Grove Avenue, Dora Street (north of Pomolita Drive to Grove Avenue only) has excessively wide travel lanes and minimum width bike lanes. The corridor is the



most important in the City for student travel, directly serving three schools (Yokayo Elementary, St Mary’s Catholic School, and South Valley Continuation High) as well as middle and high school students traveling from greater distances.

N Bush Street/Low Gap Road Roundabout (Frank Zeek Project #Z3)

Overall Priority Ranking: High			Estimated Cost: \$700,000 ¹⁰	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	High	High	Medium	High
<i>Related School Travel Plan Project IDs (see Appendices A and B): Z2, Z4, Z5, Z6, P2A</i>				

Project Description

Reconstruct the intersection of Low Gap Road and N Bush Street to provide a modern single-lane roundabout with pedestrian and bicycle accommodation, including median-protected crossings and bicycle ramps. Roundabouts provide traffic-calming benefits and are more sustainable than signals due to lower ongoing maintenance/energy use and reduced greenhouse gas (GHG) emissions from vehicles. This project should be considered in conjunction with Project Z2 to provide a continuous, accessible multi-use pathway from this major intersection to the school entrance.



Project Background: This four-way, stop-controlled arterial intersection serves multiple schools, including Frank Zeek Elementary. The intersection experiences chronic congestion during peak travel periods and is problematic for active travel due to a slightly skewed angle, large curb radii, and multiple vehicle lanes that result in very long crossing distances (particularly from east to west). The Mendocino Council of Governments recently approved \$675,000 in grant funds to the City of Ukiah for project environmental clearance, design, and construction (to begin in 2015). Additional funding is required to include best practice design accommodation for pedestrians and bicyclists.

¹⁰ Construction only; does not include already-approved funding for design in 2014/2015.

Enhanced Uncontrolled Crosswalks (Nokomis Project #2)

Overall Priority Ranking: High			Estimated Cost: \$15,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	Medium	Medium	High	High
<i>Related School Travel Plan Project IDs (see Appendices A and B): N1, N4, N5, N6</i>				

Project Description

Stripe high-visibility crosswalks at five existing uncontrolled school crossings (on Washington Avenue, Marwen Drive, and Wabash Avenue) and install Assembly B or in-road paddle warning signage, red curb parking prohibitions, and advance yield limit lines (aka ‘sharks teeth’). Consider removing the crosswalk at Rose Avenue to better channelize pedestrians and implementing in conjunction with reduced speed zone signage (new Assembly C signage).

Helen Ave and Washington Ave Class III Shared Bikeways (Nokomis Project #5)

Overall Priority Ranking: High			Estimated Cost: \$15,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	High	High	High	High
<i>Related School Travel Plan Project IDs (see Appendices A and B): N1, N2, N4, N6, P2B</i>				

Project Description

Implement Class III bikeways on Washington Avenue (from Helen Avenue to State Streets) and Helen Avenue (from Nokomis Elementary to Mendocino Drive) with sharrow markings, wayfinding signage, and minor traffic calming. This project is best implemented in conjunction with reduced school zone speed limits and enhanced crossings (N2) for maximum benefits, and as an interim pedestrian strategy to mitigate the effects of existing sidewalk gaps along key routes to school. If feasible, coordinate with bicycle education/safety promotion for students and student families and provision of increased bicycle parking at or near school grounds (N5).



Helen Avenue is a wide residential street with low traffic volumes that would benefit from bikeway signage and markings to help control vehicle speeds and promote active school travel

Project Background: Both corridors directly serve Nokomis Elementary and are prioritized in the 2012 County Bike Plan, with Helen Avenue identified as part of a larger potential north/south bikeway corridor. Both streets contain missing sidewalk segments (especially Helen Avenue).

Despina Drive / Low Gap Road Intersection Improvements(UHS Project #3)

Overall Priority Ranking: High			Estimated Cost: \$90,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	Medium	Medium	High	High
<i>Related School Travel Plan Project IDs (see Appendices A and B): U1, U4, U5, Z3</i>				



Despina Drive at Low Gap Road
Image: Google

Project Description

Install curb extensions at both sides of northern crosswalk and restripe north and east crosswalks as high-visibility with advance stop lines. These improvements will address deficient curb ramps and excessively large turning radii (to improve crossing distances and accessibility) at the school’s primary, multi-modal gateway. This project should be considered in conjunction with Project #U5, which seeks to further understand the possible connections to the Orr Creek pathway/Pomolita Middle School and bikeway configurations along Low Gap Road.

Project Background: This intersection directly serves the school parking lot, bus zone(s), and connecting bikeways. Two injury collisions were recorded between 2007-2011, including a severe crash involving a bicyclist. An adjacent multi-use pathway segment provides access for pedestrians and bicyclists, which is also recommended for extension through the school parking lot.

Clay/Peach Street Sidewalk and Bikeway Gap Closure (River Oak Project #3B,3C)

Overall Priority Ranking: High			Estimated Cost: \$90,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	Medium	High	High	High
Related School Travel Plan Project IDs (see Appendices A and B): R1, R2, R4; see also Rail with Trail and County Courthouse projects by others				

Project Description

Construct approximately 400 feet of sidewalk on the south side of Clay Street between Hudson-Carpenter Park and the rail corridor in coordination with, or as part of, the proposed Courthouse development on the vacant train depot parcel and extension of Clay Street to Leslie Street. Include shared bikeway treatments (sharrows, wayfinding signage) on Peach Street to link with the future Orchard Avenue Bikeway and existing overpass of Highway 101 at Gibson Creek.

Project Background: Existing access to Leslie Street is provided by E Gobbi Street and E Perkins Street, two busy arterial corridors that act as barriers to active travel for elementary student families. A proposed public development project may offer a new alternative east-west route by connecting Leslie Street with Clay Street, which will also connect to the north/south trail currently being designed for the rail corridor. This project seeks to include and/or leverage closure of a key sidewalk gap with these projects in order to extend safe, dedicated pedestrian facilities further toward the city’s center and western residential neighborhoods.

E Perkins Street Road Diet Study (River Oak Project #4)

Overall Priority Ranking: High			Estimated Cost: \$115,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	Medium	High	High	High
Related School Travel Plan Project IDs (see Appendices A and B): R1, R2, R3; see also Rail with Trail and County Courthouse projects by others				

Project Description

Study feasibility and potential safety benefits of converting the E Perkins Street corridor from Main Street to Orchard Avenue from a four-lane roadway to three lanes (including a center two-way left turn lane with opportunities for median-protected pedestrian crossings). While this project is primarily to address pedestrian safety, consideration of curbside Class II bicycle lanes should also be included.

Engineering Projects

Project Background: E Perkins Street is a high growth corridor between downtown and existing commercial services/Highway 101 that was the focus of a recent downtown zoning code update. E Perkins Street will also be the primary access road for the new County Courthouse development at the vacant railroad depot site. Consistent with other efforts to leverage this development, the Perkins Street study would leverage or expand anticipated design and analysis by others in order to improve access to River Oak Charter (and at a larger scale, improve non-motorized connectivity in southeast Ukiah).

Leslie Street Curb Extensions and Sidewalk Improvements (River Oak Project #1A, 1B)

Overall Priority Ranking: High/Medium			Estimated Cost: \$115,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
Medium	Medium	High	High	High
Related School Travel Plan Project IDs (see Appendices A and B): R1C, R2, R3; see also Rail with Trail and County Courthouse projects by others				



Leslie Street is the primary access to the school. There are significant gaps in the sidewalks and an opportunity to leverage upcoming projects

Project Description

Leverage planned sidewalk gap closure to occur with development of the nearby rail depot site by extending sidewalk improvements south 200 feet to existing midblock school crossing. Improvements would include converting existing sidewalk to landscaping with new sidewalk behind, as well as adding curb extensions on both sides of the street.

Project Background: Leslie Street provides the sole access to River Oak Charter School and has substantial gaps in the existing sidewalk along with no alternative routes to the busy Gobbi Street and Perkins Street arterials. Proposed development will address these issues and provide an opportunity to continue a high-quality sidewalk design to the school’s primary crossing with connections to a proposed Clay Street extension and Phase One rail with trail segment.

Notably, this crosswalk and pedestrian route also serves the Ukiah Senior Center and an adjacent bus stop.

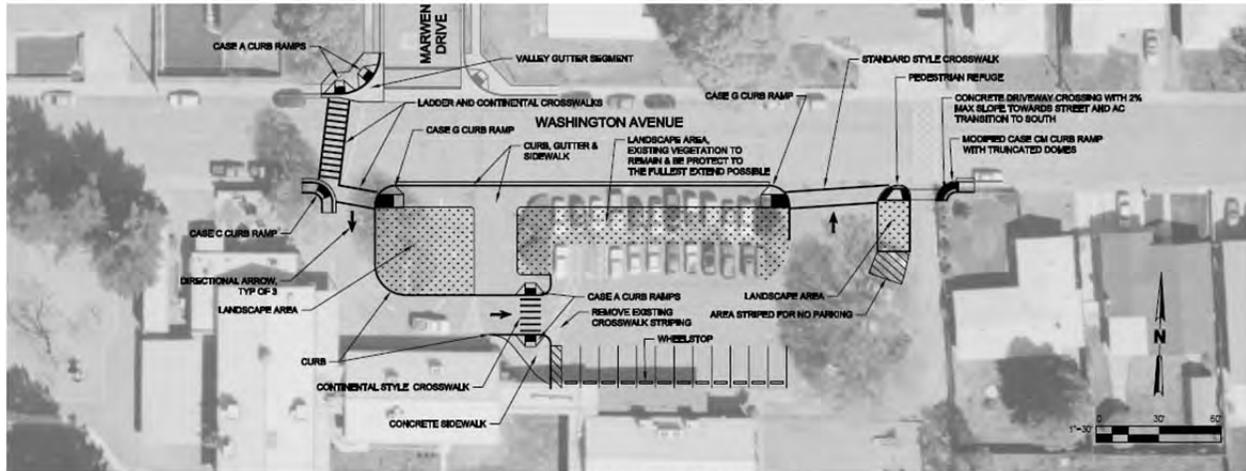
School Parking Lot Redesign Options (Nokomis Project #1A, 1B)

Overall Priority Ranking: High/Medium			Estimated Cost: \$55k - \$415k	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
High	High	Medium	Medium	Medium
<i>Related School Travel Plan Project IDs (see Appendices A and B): N2, N4, N5</i>				

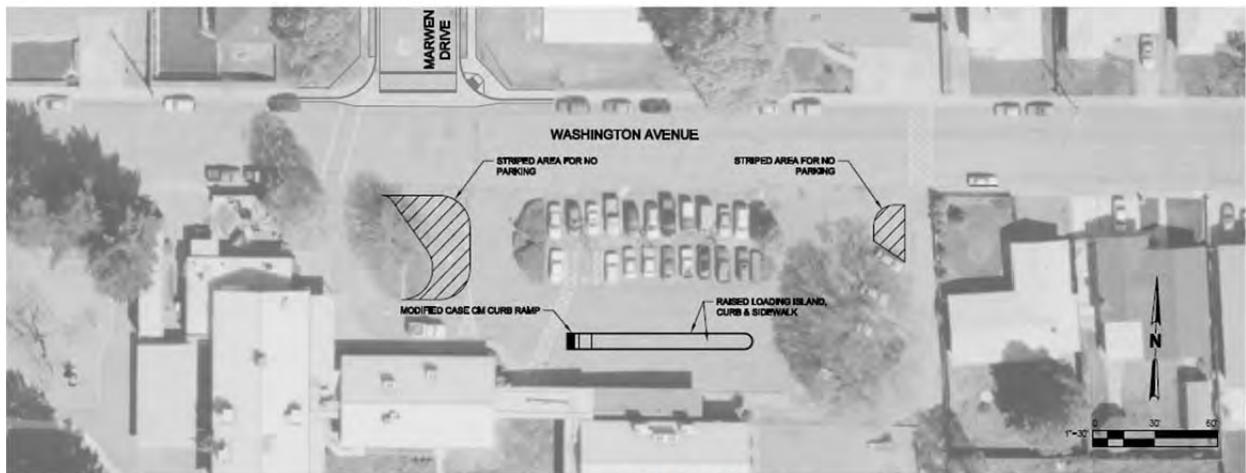
Project Description

Reconfigure the school’s current parking lot to reduce conflicts for all modes. Option A includes replacing perpendicular street parking with a sidewalk and parallel school loading in order to address school accessibility and community pedestrian needs. Under this option, the crosswalk at Marwen Drive would be relocated slightly and improved with new curb ramps. Under Option B (a lower cost option) a pedestrian median island would be installed on school property to increase off-street loading capacity, and existing wide driveways would be visually narrowed using hatch striping.

Project Background: The current layout of the Nokomis campus main entrance and parking lot represents an approximate 300-foot sidewalk gap along Washington Avenue, and is responsible for excessive vehicle congestion during drop-off and pick-up times. As a natural confluence of vehicle, bus, bicycle, and pedestrian activity, this project seeks to provide a multi-modal solution.



WASHINGTON AVENUE & SCHOOL - OPT A
PARKING LOT & ROADWAY IMPROVEMENTS



WASHINGTON AVENUE & SCHOOL - OPT B

Figure 7. Nokomis Elementary Parking Lot – Improvement Options A and B

N Bush Street – Island Pathway Access Upgrades (Frank Zeek Project #2A)

Overall Priority Ranking: High/Medium			Estimated Cost: \$100,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
Medium	High	High	Medium	High
<i>Related School Travel Plan Project IDs (see Appendices A and B): Z1, Z2C, Z3, Z4, Z5;</i>				



Existing pathway between the school parking lot and N Bush Street, looking north from Low Gap Road

Project Description

Upgrade curb ramps, driveway markings, signage, and existing pavement conditions along island pathway connecting Low Gap Road with the school’s front entrance. Consider formal multi-use (i.e. bicycle) access improvements in conjunction with the design and construction of the roundabout at Low Gap Road and Bush Street (Frank Zeek Project #3). Also consider Low Impact Development (LID) landscaping opportunities, and realignment of the school load loop exit driveway (see School Improvement Plan for more details).

Arlington Drive at N Bush Street Enhanced Crosswalks and Curb Extensions (Frank Zeek #1A, 1B)

Overall Priority Ranking: Medium/High			Estimated Cost: \$175,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
M/H	High	High	Medium	Medium
Related School Travel Plan Project IDs (see Appendices A and B): Z1C, Z4; see also similar projects Y1, U2				



The intersection of Arlington Drive and N Bush Street can be intimidating for students during peak travel periods.

Project Description

Stripe high-visibility crosswalks with advance stop bars on the north and south legs, and provide curb extensions with new ramps for the entire west side and northeast and southeast corners of the intersection. Similar to Yokayo Project #1, consider Low Impact Development (LID) designs, including a potential ‘teaching’ raingarden, to provide a functional placemaking and sustainability component to this project. Goals are to shorten crossing distances, improve accessibility, and provide a highly-visible, welcoming gateway that helps motivate students to walk and bicycle to school. Consider design and implementation with Project Z1C, which recommends related contiguous improvements on school property.

Project Background: This three-way, stop-controlled intersection is the primary access point for Frank Zeek Elementary. The crossing guard reports low compliance and aggressive behavior by motorists, and the pedestrian environment is generally lacking. An adjacent bus loop includes problematic driveways that

increase potential conflicts with intersection users. With ample room to relocate bus operations, a separate school-led project could transform this area into a more accessible, protected ‘front door’ for local students.

Gobbi Street at Oak Street Curb Ramps and Crosswalk (Yokayo Project #4)

Overall Priority Ranking: Medium/High			Estimated Cost: \$12,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
H/M	Medium	High	Medium	High
<i>Related School Travel Plan Project IDs (see Appendices A and B): Y2, Y7; see also similar projects N2, P1A</i>				

Project Description

Provide ADA curb ramps and high-visibility striping at existing uncontrolled marked crossing along suggested walking route to school.

Mendocino Drive at Alice Avenue Crossing Improvements (Yokayo Project #6)

Overall Priority Ranking: Medium/High			Estimated Cost: \$12,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
Medium	High	Medium	High	Medium
<i>Related School Travel Plan Project IDs (see Appendices A and B): Y2, Y7; see also similar projects N2, P1A</i>				

Project Description

Provide ADA curb ramps and high-visibility striping at existing uncontrolled marked crossing along suggested walking route to school.

Despina Drive and Capps Lane Enhanced Intersection (UHS Project #2)

Overall Priority Ranking: Medium/High			Estimated Cost: \$150,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
H/M	High	Medium	M/H	Medium
Related School Travel Plan Project IDs (see Appendices A and B): U1,U3, U6; see also similar projects Y1, Z3				

Project Description

Install large curb extensions on the entire west side of intersection and northeast and southeast corners. Re-stripe crosswalk as high-visibility with advanced yield limit lines (aka ‘sharks teeth’) and Assembly B signage. Consider integration of Low Impact Development (LID) design concepts.

This project is substantially similar to proposed Yokayo Project #1 that includes a teaching raingarden concept.

Project Background: This uncontrolled “T” intersection is a well-used alternative access point for both student walkers/bicyclists and remote loading location. A short pathway extends from the intersection onto school campus toward the back of the school building. To reduce costs and potentially increase priority, this project could be implemented with striping and Assembly B signage only as a first phase.



Existing crosswalk leading to Ukiah High School campus pathway at Capps Lane and Despina Drive

Low Gap Road/ Orr Creek Pathway Study (UHS Project #5)

Overall Priority Ranking: Medium/High			Estimated Cost: \$150,000	
Addresses Known Safety Issues	Increased Student Walk/Bike Potential	In Other Plans, Supports Sustainability	Feasibility and Cost/Benefit	Serves Multiple Community Destinations
M	High	Medium	Medium	High
Related School Travel Plan Project IDs (see Appendices A and B): U1,U3, U4; see also P4				

Project Description

Study options for formalizing a multi-use pathway connection between Ukiah High and Pomolita Middle School/Orr Creek via County property.

2.6 Cost Summary

Table 2 below provides a cost summary for Tier 1 and Tier 2 projects by responsible agency. Partnership projects include multiple responsible parties. Cost estimates and descriptions for all project improvement concepts are provided in individual school travel plans in Appendix A and the Project Prioritization Matrix in Appendix B. Cost estimates are planning-level only and may not represent all costs associated with project development, approval, and construction.

Table 2. Proposed Capital Projects Cost Summary by Priority and Responsible Agency

	City of Ukiah	Ukiah Unified School District	Partnership Projects	Total
Tier 1 Projects (Highest Priority)	\$1.84 million	\$55,000 - \$415,000	\$115,000	\$1.9 million – 2.37 million
Tier 2 Projects	\$1.52 million	\$570,000	\$345,000	\$2.45 million
Total	\$3.36 million	\$985,000	\$460,000	\$4.82 million



Figure 8. Priority (Tier 1) Project Locations Map

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3 Non-Infrastructure Programs Guide

Safe Routes to School programs have a simple goal: helping more children safely get to school by walking and bicycling. They envision active kids using safe streets, helped by engaged adults (from teachers to parents to police officers), surrounded by responsible drivers.

Safe Routes to School programs use a variety of strategies to make it easy, fun, and safe for children to walk and bike to school. These strategies represent four of the five “Es” – along with Engineering – that form the basis of most successful transportation planning programs:

- **Education:** Programs designed to teach children about traffic safety, bicycle and pedestrian skills, and traffic decision-making
- **Encouragement:** Programs that make it fun for kids to walk and bike. These programs may be challenges, incentive programs, regular events (e.g. “Walk and Bike Wednesdays”) or classroom activities.
- **Enforcement:** Law enforcement strategies to improve driver behavior near schools
- **Evaluation:** Strategies to help understand program effectiveness, identify improvements, and ensure program sustainability

This chapter provides a select summary of ‘Four E’ programs and strategies for consideration in Ukiah. Each strategy discussion identifies a target audience, primary staff involved, program partners, and key elements. Several links to online resources are also provided, as are additional resource links on the Ukiah Safe Routes to School website www.ukiahsr2s.org.

3.1 Education

Education programs are an essential component of a Safe Routes to School program. Education programs generally include outreach to students, parents and guardians, and motorists. Students are taught bicycle, pedestrian, and traffic safety skills. Parents and motorists receive information on transportation options and driving safely near schools.

Pedestrian and Bicycle Safety Education

Pedestrian and bicycle safety education makes sure that each child understands basic traffic laws and safety rules. Pedestrian safety education teaches children basic traffic safety rules, sign identification and decision-making tools. Many communities around the country begin teaching pedestrian safety skills in second grade and bicycle skills after third grade.

Target audience	Students in all grades can participate as funding allows	
Primary staff	School faculty and staff; local instructors; local law enforcement	
Partners	Parents, community volunteers	
Key elements	Age-appropriate curriculum and activities for learning pedestrian and bicycling skills and safety	
Time frame	Twice per year, once in the fall and spring, or also as part of summer camp/recreational offerings	
Sample programs	LAB's Kids I and Kids II curriculum: http://www.bikeleague.org/programs/education/courses.php#kids1 BTA's Bike Safety Education Program:	

Bicycle safety education should include on-bike skills training

Build Walking and Bicycling Education into School Curriculum

Class curriculum can be tailored to highlight walking and bicycling, making the connection between active transportation and health, the environment, urban planning, geography, and even math. Examples include mapping safe walking and bicycling routes in geography class, calculating greenhouse gas emissions saved by not driving in math class, or discussing the benefits of walking and biking in health or environmental lessons. Lessons should be grade-appropriate. Sample lesson plans are available at the sample program websites listed below.

Target audience	Students, particularly older students	
Primary staff	School faculty	
Partners	School administrators and staff	
Key elements	Math, environmental science, and other lessons related to walking and bicycling	
Time frame	During school year, as appropriate	
Sample programs	National Highway Safety Administration: http://icsw.nhtsa.gov/people/injury/pedbimot/bike/safe-routes-2002/toc.html National Center for Safe Routes to School: http://www.saferoutesinfo.org/guide/education/strategies_for_educating_children.cfm	

The benefits of walking and bicycling can easily be incorporated into classroom curriculum.

Back-to-School Blitz

Families set transportation habits during the first few weeks of the school year and many families are not aware of the many transportation options available to them. Because of this, most families will develop the habit of driving to school. A “Back to School Blitz” can be used at the beginning of the school year to promote bus, carpool, walking, and bicycling as school transportation options.

The “Back to School Blitz” can include many of the other recommended programs, including Suggested Route Maps, articles in school newsletters, and enforcement activity. An additional element can be a packet given to each family containing information about the Safe Routes to School plan/program and transportation options, including:

- Cover letter signed by the principal encouraging parents to create transportation habits with students that promote physical activity, reduce congestion, increase school safety and improve air quality
- School transportation maps or suggested routes to school maps that include bicycling and walking routes, transit and school bus stops, drop-off and parking areas and bike parking locations
- Transit schedules, SR2S bumper stickers
- Pledge forms about reducing the number of times that families drive to school; entries go in raffle for a prize donated by local businesses

In addition to the packet, the following strategies can be included:

- A table at back-to-school night with materials and trained volunteers who can answer questions about transportation issues, including upcoming construction projects in the area
- An article in first school newsletter about transportation options and resources
- The kick-off of organized walking school buses/bike trains or school competitions, as described above

Non-Infrastructure Programs

- Local law enforcement activities, such as regular school zone speed and crosswalk enforcement, and targeted oversight of parking and drop-off/pick-up policies during first month of school

Target audience	Incoming and returning parents and students
Primary staff	School administrators, faculty, and staff
Partners	Law enforcement; interested parents
Key elements	Distribution of suggested route maps and other helpful resources; walking and bicycling events and incentives; traffic enforcement activities
Time frame	Annually

School Zone Traffic Safety Campaign

A School Zone Traffic Safety Campaign at school in Ukiah would help create awareness of students walking and bicycling to school. A safety campaign is an effective way to reach the general public (those affiliated with the school and those not) and encourage drivers, including parents and bus drivers, to slow down and look for students walking and biking to school. This could be done in combination with schools throughout the city or for one school at a time.

A School Zone Traffic Safety Campaign uses signs and banners located near schools (for example, in windows of businesses, yards of people’s homes, and print publications) to remind drivers to slow down and be careful in school zones. The campaign can also include a pledge for parents and bus drivers to take (like the one that is part of the Traffic Tamers program, link below). The pledge commits parents and bus drivers to driving slower in school zones and can help educate parents about new policies such as drop-off/pick-up procedures. The campaign can kick off at the start of each school year or in conjunction with special events or policy changes.

Large banners with memorable catch phrases may be hung along roadways near schools cautioning traffic to slow down, stop at stop signs, or watch for students in crosswalks.

Target audience	Parents, bus drivers, general public
Primary staff	School administrators, faculty, and staff
Partners	Students, parents
Key elements	Awareness and education campaign including signs, backpack mail, pledges, etc.
Time frame	Can vary: in tandem with policy changes, at the beginning of the school year, in conjunction with special events
Sample program	http://www.traffictamers.com/school.htm

3.2 Encouragement

Encouragement programs focus on the bringing the fun back to walking and bicycling while increasing public awareness of the benefits of walking and biking to school. Encouragement events and activities help increase the number of students walking and biking to school. The activities often include a variety of special events and contests, outreach campaigns, and presentations to school and community groups. Encouragement programs can be used to educate parents, school personnel, students and the community about the health and safety benefits of a successful Safe Routes to School program.

Encouragement programs do not need much funding, but their success depends on a school champion or group of volunteers for sustained support.

Walk and Bike to School Day/Week/Month

Walk and Bike to School Day/Week/Month are special events encouraging students to try walking or bicycle to school. The most well-known of these is International Walk to School Day, a major annual event that attracts millions of participants in over 30 countries in October.

Walk and bike to school days can be held yearly, monthly, or even weekly, depending on the level of support and participation from students, parents and school and local officials.

Target audience	Students and their parents	
Primary staff	School administration, faculty, and staff	
Potential Partners	Parents, Walk Bike Mendocino, Mendocino County Public Health, City of Ukiah Police Department	
Key elements	Activities to celebrate walking and bicycling to school	
Time frame	Annually	
Sample program	http://www.walktoschool-usa.org/	

Suggested Route to School Maps

Suggested Route to School maps show stop signs, signals, crosswalks, sidewalks, trails, overcrossings, and crossing guard locations around a school. These can be used by families to identify the best way to walk or bike to school. Suggested Route to School Maps should be distributed at the beginning of the school year as part of the Back-to-School Blitz and at any other appropriate times such as during special events. Maps should also be made available on an ongoing basis, either online or in paper form from the school office. Maps should be updated annually, if needed, to account for changes to the walking and bicycling routes due to construction, new facilities or treatments, or other changes.

Target audience	Students and their families	
Primary staff	School administrators, faculty, and staff	
Partners	Parents; community volunteers	
Key elements	Maps with recommended walking and bicycling routes, including sidewalks, bikeways, and the safest places to cross streets	
Time frame	Distribute at the beginning of the school year, as part of the Back-to-School Blitz; make available throughout the year, online and/or at the school office	

Friendly Walking/Biking Competitions (Incentive Programs)

Contests and incentive programs reward students by tracking the number of times they walk, bike, carpool or take transit to school. Contests can be individual, classroom competition or interschool competitions. Local businesses may be willing to provide incentive prizes for these activities. Students and classrooms with the highest percentage of students walking, biking or carpooling compete for prizes and “bragging rights.” Small incentives, such as shoelaces, stickers and bike helmets, can be used to increase participation. It can also be effective to allow different grades and schools (high school vs. grade school vs. middle school) to compete against each other in a mobility challenge.

Examples of Walking and Biking Competitions include:

On-campus walking clubs (mileage clubs): Children are issued tally cards to keep track of “points” for the each time they walk, bike, bus or carpool to or from school. When they earn a specified number of points they get a small prize and are entered in a raffle for a larger prize. At the end of the school year, there is a drawing for major prizes.

Pollution Punchcard: This year-round program is designed to encourage school children and their families to consider other options for getting to school, such as biking, walking, carpooling and public transportation. Every time a student walks, bikes, or carpools to school, a parent volunteer or school representative stamps the card. Then students receive a reward when the punch card is complete.

Walk and Bike Challenge Week/Month: This month-long encouragement event is generally held in conjunction with National Bike Month in May. Students are asked to record the number of times they walk and bike during the program. The results are tallied and competing school or classrooms compare results. Students who are unable to walk or bike to school can participate by either walking during a lunch or gym period or getting dropped off further away from the school and walking with their parents the last several blocks.

Golden Sneaker Award: Each class keeps track of the number of times the students walk, bike, carpool or take the bus to school and compiles these figures monthly. The class that has the most participation gets the

Golden Sneaker Award. (The award can be created by taking a sneaker, mounting it to a board like a trophy, and spray painting it gold.)

Walk Across America/California: This is a year-round program and is designed to encourage school children to track the number of miles they walk throughout the year. Students will be taught how to track their own mileage through learning about how many steps or blocks are in a mile and will also learn about places in the United States on their way. Teacher or volunteer support is required.

Target audience	Students	
Primary staff	School administrators, faculty, and staff	
Partners	Parents	
Key elements	Individual, classroom, or grade level incentives and rewards for walking and bicycling to school	
Time frame	One-time or ongoing	

Example of a Pollution Punchcard from an Elementary School Program

3.2.1 Walking School Buses

Parents and guardians often cite distrust of strangers and the dangers of traffic as reasons why they do not allow their students to walk to school. Walking School Buses are a way to make sure that children have adult supervision as they walk to school. Walking School Buses are formed when a group of children walk together to school and are accompanied by one or two adults (usually parents or guardians of the children on the “bus”). As the walking school bus continues on the route to school they pick up students at designated meeting locations.

3.2.2 Bike Trains

A bicycle train is very similar to a walking school bus; groups of students accompanied by adults bicycle together on a pre-planned route to school. Routes can originate from a particular neighborhood or, in order to include children who live too far to bicycle, begin from a park, parking lot or other meeting place. They may operate daily, weekly or monthly. Bike trains help address parents’ concerns about traffic and personal safety while providing a chance for parents and children to socialize and be active.

Target audience	Students and parents	
Primary staff	Parent volunteers, school administrators, faculty, and staff; parent volunteers	
Partners	Community volunteers	
Key elements	Volunteers staff daily 'bus' routes for groups of children who are walking or bicycling to school. The 'bus' picks up students along a regular route at consistent times.	
Time frame	Monthly, weekly, or daily during school year	
Sample programs	http://www.walkingschoolbus.org/ http://www.saferoutesinfo.org/guide/walking_school_bus/index.cfm	

Walking school buses and bike trains escort younger students to school on fixed routes.

3.3 Enforcement

Enforcement tools are aimed at ensuring compliance with traffic and parking laws in school zones. Enforcement activities help to reduce common poor driving behavior, such as speeding, failing to yield to pedestrians, turning illegally, parking illegally and other violations. Enforcement strategies, in conjunction with education efforts, are intended to clearly demonstrate what is expected of drivers of motor vehicles and to hold them accountable for the consequences of their actions. While most enforcement is the responsibility of police and other law enforcement, there are numerous complementary strategies that can be undertaken by school officials, crossing guards, parents and volunteers.

Crosswalk Sting

In a crosswalk sting operation, the local police department targets motorists who fail to yield to pedestrians in school crosswalk. A plain-clothes "decoy" police officer ventures into a crosswalk or crossing guard-monitored location, and motorists who do not yield are given a citation by a second officer stationed nearby. The police department or school district may alert the media to crosswalk stings to increase public awareness of the issue of crosswalk safety, and news cameras may accompany the police officers to report on the sting.

Speed Feedback Sign

A permanent speed radar sign can be used to display approaching vehicle speeds and speed limits on roadways approaching the school site. The unit is a fixed speed limit sign with built-in radar display unit that operates similar to a radar trailer. In order to maximize effectiveness for school settings, the radar display unit should be set to only activate during school commute hours.

Roadways approaching the school site are the most appropriate location to display speeds, instead of streets along the school frontage that will likely have lower speeds due to pick-up/drop-off traffic.

3.4 Evaluation

Evaluation of the Safe Routes to School program is important to understand the effectiveness of the program, identify improvements that are needed and ensure that the program can continue in the long-term. Evaluation can measure shift in travel behavior, changes in attitudes toward biking and walking, awareness of the Safe Routes to School program, grant money received and projects completed.

School Site Audit

A school site audit, sometimes called a walking audit or walkabout, is an evaluation of the pedestrian and bicycling conditions around the school environment. Typically school site audits are conducted by the local school group or task force on foot by walking the routes that the students use to get to school. A site audit may also be conducted on bicycle in order to better evaluate bicycling conditions.

The goal of a site audit is to document conditions that may discourage walking and bicycling to school, and to identify solutions to improve those conditions. The audit should involve an assessment of the built environment around a school (for example, streets, sidewalks, pathways, crosswalks and intersections, bike routes, traffic controls), drop-off and pick-up operations (e.g. presence of designated loading areas), as well as behaviors of students, parents, and motorists that could contribute to unsafe conditions for bicyclists or pedestrians (e.g. speeding, jaywalking, failure to yield to pedestrians).

Program Evaluation

There are many different education, encouragement, and enforcement programs that can be implemented in a school environment to help increase the number of students walking and biking to school. Not every program is the correct fit for every school. It is important to evaluate programs in the context of the school environment prior to deciding what would be a good choice for your school. Once the programs have been implemented it is necessary determine whether or not it was a good choice for your school and what about the program worked and what did not work quite as well. Below are some suggested steps for proceeding with the program evaluation process.

Program evaluation can be administered by following these steps:

1. Survey local traffic conditions and issues (much of this information can be found from the school site audit)
2. Determine the goals of the program
3. Identify methods to implement programs
4. Determine success benchmarks to evaluate the effectiveness of the program efforts
5. Interview program administrators (teachers, volunteers) and participants (students) to discuss what worked and what did not

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4 Establishing & Maintaining a SR2S Program

4.1 Task Force

Ongoing Safe Routes to School programming and project advancement requires dedicated staff attention and a formal review and approval process. Since multiple City departments and agencies are involved, this typically requires establishing a new, collaborative task force composed of City and School District staff and ideally representatives from the parent and active transportation communities. In many smaller cities with limited available staff time (as is the case for Ukiah), the SR2S task force can take the form of a special meeting of an existing review committee.

Such a task force is recommended for Ukiah, and can be accommodated by scheduling ad hoc or quarterly meetings as part of the City’s Traffic Engineering Committee. This committee already includes engineering, law enforcement, planning, transit, and public representatives, each of which has a role in planning and implementing potential Safe Routes activities. Additional representatives from the School District business office, maintenance/transportation department and priority schools may also be invited, as well as liaisons from public health and Mendocino County.

4.2 Funding

This section provides a summary description of the most likely funding resources to implement recommendations from this plan.

MAP-21 / Federal Transportation Bill

MAP-21, standing for “Moving Ahead for Progress in the 21st Century” is the newly-adopted federal transportation bill. MAP-21 replaces SAFETEA-LU “Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users”, the expiring former transportation bill that had established dedicated federal funding for Safe Routes to School and other non-motorized projects and programs.

All non-motorized programs in MAP-21 are now consolidated into a single fund called “Transportation Alternatives”. This fund, reduced from \$1.2 billion to \$800 million under MAP-21, can still allocate funding to Safe Routes to Schools projects, but they must now compete with all other non-motorized projects for funding. Although Caltrans is permitted to reallocate up to 50% of Transportation Alternatives funding to other projects without approval from the federal government, they chose not to exercise this option in the upcoming statewide budget.

MAP-21: <http://www.fhwa.dot.gov/map21/>

Statewide Funding Sources

Active Transportation Program (ATP)

California uses both federal and state-generated sources to fund bicycle and pedestrian projects and programs. For some statewide funding opportunities, applications are submitted to the State, while other applications are submitted to regional agencies or bodies, including the Mendocino Council of Governments.

Establishing and Maintaining a SR2S Program

Caltrans, as part of the changes to federal funding brought about by MAP-21, has consolidated multiple state funding sources (including the Safe Routes to School and Bicycle Transportation Account programs) into a single Active Transportation Program (ATP). This consolidation has resulted in an overall increase in funding for non-motorized projects, but could significantly impact the dedication of funds to Safe Routes to School. At the time of this plan's completion, details of how this program will request and allocate funding are not available.

Despite these changes, the California Safe Routes to School Technical Assistance Resource Center (CA-TARC) remains a useful resource for finding statewide funding sources for Safe Routes to School projects. The program is run by California Active Communities, established by the California Department of Public Health.

CA-TARC: <http://www.casaferoutestoschool.org/>

Emerging details may also be available on Caltrans Safe Routes to school website:

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

Caltrans Planning & Environmental Justice Grants

Caltrans also administers Transportation Planning Grant awards that improve mobility by innovatively solving problems or deficiencies in the transportation system. In the 2012/2013 fiscal year, Caltrans awarded \$10 million in grant funding to 70 applicants. It contains both Environmental Justice Grants and Community Based Transportation Plan Grants, neither of which include eligibility for project engineering or construction.

Caltrans, Transportation Planning: <http://www.dot.ca.gov/hq/tpp/grants.html>

Environmental Justice Grant Program

This program promotes the involvement of low-income and minority communities, and Native American tribal governments in the planning for transportation projects. Environmental Justice (EJ) grants have a clear focus on transportation and community development issues to prevent or mitigate disproportionate, negative impacts while improving mobility, access, safety, and opportunities for affordable housing and economic development. Grants are available to cities, counties, transit districts, and tribal governments.

Caltrans, Environmental Justice Program:

http://www.dot.ca.gov/hq/tpp/offices/ocp/completed_projects_ej.html

Community Based Transportation Grant Program

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

Caltrans, CBTP Program: http://www.dot.ca.gov/hq/tpp/offices/ocp/completed_projects_cbtp.html

Highway Safety Improvement Program (HSIP)

This program is meant to achieve a significant reduction in traffic fatalities and serious injuries through the implementation of primarily physical improvements, although related education/encouragement measures are also eligible. Caltrans awarded \$100 million of projects through their 2012 HSIP Call for Projects, and expects to award \$150 million through their most recent call for projects which closed in July 2013.

Caltrans, HSIP: <http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm>

Office of Traffic Safety (OTS) Grants

The Office of Traffic Safety distributes grants statewide to establish new traffic safety programs or fund ongoing safety programs. OTS grants may only be applied to non-infrastructure projects, such as bicyclist and pedestrian safety courses. Grant funding cannot replace existing programmatic funding. Applications are ranked on their potential safety impact and the applicant's track record on previous OTS grants.

California Office of Traffic Safety: <http://www.ots.ca.gov/>

Land and Water Conservation Fund

The Land and Water Conservation Fund is a federal program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The Fund is administered by the California State Parks Department.

Cities, Counties, and District authorized to acquire and develop park and recreation space are eligible for grant funding. While non-profits are ineligible, they are allowed to apply in partnerships with eligible agencies. Applicants must fund the project entirely and will be reimbursed for half of the cost. Over \$2 million was awarded in the 2012 call for projects. The next round of grant funding is scheduled to commence in February 2014.

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

Proposition 84 – Urban Greening

The Urban Greening Grant Program is funded under Proposition 84 and is managed by the Strategic Growth Council and the California Natural Resources Agency. Urban Greening grant funding is eligible for projects and planning efforts that decrease air or water pollution, reduce natural resource consumption, increase the reliability of local water supplies, or increase adaptability to climate change in urban areas. The grant entered its third and final round of grant funding for projects in 2013. Solicitation for the third and final round of planning grant awards will take place in the summer of 2013. In order to be eligible for this grant funding source, the project must include new community green spaces.

Online resource: http://www.sgc.ca.gov/urban_greening_grants.html

4.3 Next Steps

Step One

The first step toward establishing a Safe Routes to School program is review and acceptance of this plan by the Ukiah City Council. This should involve detailed review and general confirmation of the project concept designs and prioritization by staff on the Safe Routes to School Task Force. The anticipated Pedestrian and Bicycle Master Plan process will also be a good opportunity to review and refine elements of this plan.

Step Two

Establish goals and targets as a second step in the Safe Routes program. Utilize the first several task force meetings to outline a comprehensive set of visionary goals, achievable targets, and measurable benchmarks to guide implementation of this plan. As a starting point, set a goal of meeting at least four times annually (task force) and developing a communication work plan for integrating SR2S themes and priorities into existing communications with the public/school parents. Work with principals to complete a student hand tally evaluation for each school to provide a baseline travel analysis. Conduct a survey of parents to better understand key barriers and priorities for safer school travel.

Step Three

Begin implementing and funding plan recommendations. This can take the form of grant applications, or incorporation of improvement concepts into land use development conditions, capital programs, or as part of ongoing maintenance.

Appendices

Provided separately and also on the project website:

www.ukiahsr2s.org

Appendix A: Individual School Travel Plans

Appendix B: Project Prioritization Matrix

Appendix C: Suggested Route to School Maps

Appendix D: Ukiah SR2S Artwork Files

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Appendix A: Individual School Travel Plans

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Frank Zeek Elementary

Principal: Jeannie Yttreness

Enrollment: K-5th, 429 Students

Arrival: 8:10 A.M.

Dismissal: 2:29pm (M, T, TH & F)
1:29pm (Wed)

Walk Audit Site Visit:
Morning Drop Off, April 18th, 2012

Free & Reduced Lunch Eligible: 70.6%

Walk Score: 60*

*See www.walkscore.com for more info

Existing Conditions

Location, Layout, and Access

Frank Zeek Elementary is located in northern Ukiah on North Bush Street, just north of Low Gap Road and immediately adjacent to the Ukiah Cemetery. Residential streets otherwise surround the school: to the north past the City limits to Lovers Lane/Orr Springs Road, and to the east to N State Street. Together with residential areas north of Walnut Avenue and in the hills to the west, these edges form the enrollment boundary. The south end of the campus also includes the Ukiah Adult School and a Head Start program.

The main entrance and parent load zone are accessed from N Bush Street just south of Arlington Drive, which is an all-way stop control intersection. The one-way parent loop includes curbside loading with two aisles of angled parking in the center. Additional parking includes a linear single-aisle lot extending south toward Low Gap Road (separated from Bush Street by a 16-foot wide raised walkway) and on-street parking between the walkway and bike lane.

There are no regular school buses for Frank Zeek Elementary, although two buses for special needs students utilize a separate loading area directly across from Arlington Drive. School crossing guards are positioned at Arlington Drive and Low Gap Road on Bush Street. Class II bike lanes exist on Low Gap Road and North Bush Street, but are dropped at the approaches to where they intersect.



Bush Street at Low Gap Road is a skew-angled, all-way stop-controlled intersection with dual right turn slip lanes. Due to various reasons, a modern roundabout is planned to replace the current design.

Recommendations



www.epa.gov
Curb Extensions at main school crossing



Reduced Speed Zones



Walking School Bus

Reconstruction of N Bush Street / Low Gap Road as a single lane roundabout with bicycle/pedestrian accommodation

Build N Bush Street / Low Gap Road as a Modern Roundabout and Link to School with an Improved Pathway

A single-lane roundabout is designed to accommodate all users by both improving traffic flow efficiency and maintaining slow vehicle speeds. Research strongly documents the safety benefits of roundabouts, while modern design standards outline key elements to ensure bikeability and walkability. For example, bicyclists should be allowed either to 'take the lane' as a vehicle or utilize ramps to access (along with pedestrians) wide pathways and marked crosswalks around the intersection.

The City of Ukiah has received a grant to design a roundabout facility at this location starting in 2015. Construction of this facility is a high priority for improving access to Zeek Elementary, as well as Ukiah High School and Pomolita Middle School. As part of the design phase, improvements along the walkway on the west side of North Bush Street to school grounds should be considered.

Existing Conditions (Continued)

Traffic & Safety

N Bush Street is a two-lane collector street with an average daily traffic volume (ADT) of 4,692 vehicles. The posted speed limit during school travel times is 25 mph in front of Zeek Elementary, and is 30 mph south of Low Gap Road. Low Gap Road is a collector street with a posted speed limit of 30 mph and ADT of 7,111 vehicles. At least four non-injury collisions were reported on Bush Street within the enrollment area between 2007-2011, while two severe injury collisions were recorded on Low Gap Road at the approaches to Bush Street, including one involving a bicyclist.

Within the residential neighborhood to the east, most streets include rolled curb and valley gutter with a narrow four feet sidewalk that is occasionally blocked by parked vehicles. Sidewalk gaps also exist on Pine Street, which parallels Bush Street up to Arlington Drive and is frequently utilized by parent drivers accessing the school. No school zone or speed limit signage exists on Pine Street, which is also adjacent to a large neighborhood park (Vinewood Park).

Travel mode share data for Nokomis Elementary is not available.



Arlington Drive at N Bush Street includes the main pedestrian crossing and bus loop entrance (top), which leads to the combined bus loop exit and parent loop driveway (bottom).

Recommendations (cont.)

Arlington Drive/Bush Street Enhanced Crossing, Conversion of Campus Bus Loop

With outdated curb ramps, poor sidewalk conditions, wide driveways, and a lack of landscaping, this intersection does not currently provide a welcoming entrance for students. Providing new curb extensions, crosswalk striping, signage, landscaping, and sidewalk repair would greatly enhance conditions. Improvements should not stop at the public right-of-way, however, and efforts by the District to relocate bus loading to the street and convert the campus bus loop into an accessible, people-oriented space are encouraged.

Walking School Bus & Reduced School Speed Zones on Residential Streets

Walking school buses are groups of students walking together chaperoned by one or more adults to help reduce traffic-related and stranger danger concerns. The SR2S Plan has developed Suggested Walking Route Maps and organized resources on the website to assist the formation of walking school buses. These routes are also recommended candidates for speed reduction zones (20mph on residential streets, 25mph on busier roads), which would especially help streets with narrow and/or missing sidewalks.

ID	Project Description	Lead Agency	Plan Priority	Preliminary Cost Estimate*	Notes/Assumptions
1A,B	Arlington Drive at N Bush Street: Provide curb extensions with ramps and landscaping, high visibility crosswalks; consider 'teaching raingarden'	City of Ukiah	High/Medium	\$175,000	Similar to proposed improvements at Yokayo Elementary at Gobbi/Dora. See SR2S Plan for engineering concept & estimate
1C	Arlington Drive at N Bush Street: Remove bus loop in favor of non-motorized gateway, improved load zone	Ukiah Unified School District	Medium	\$90,000	Assumes 1A improvements are complete; de-paving of loop with landscaping, pathway, new fencing
2A	N Bush Street: Access upgrades to parking lot island pathway and school load zone sidewalk	Ukiah Unified School District (with City)	Medium/High	\$100,000	Assumes asphalt repaving, curb extensions with new ramps and landscaping; complements roundabout (Project #3)
2B,C	Bush Street Reduced Speed Zone and Speed Feedback Signs	City of Ukiah	Medium	\$35,000	Cost estimate primarily for speed feedback signs
3	Bush Street at Low Gap Road: Reconstruct intersection as single lane roundabout with bike/ped pathways	City of Ukiah	High	\$896,000	City has grant from County for project design and environmental approval; to start in 2015
4	Residential Street Reduced Speed Zones: Arlington Drive, Garrett Street, and Pine Street	City of Ukiah	High	\$4,000	Assumes 2-3 Assembly C signs per street with additional advance warning signage outside of zones
5	School Bicycle Parking	Ukiah Unified School District	Medium	\$1,500	Assumes installation of 4-6 "U" racks on campus
6	Walking School Bus	Ukiah Unified School District	High	N/A	No costs are assumed yet with this program; supporting materials are available on Plan website
Total Estimated Project Costs				\$405,000 - \$1.3 million	

* Planning level cost estimates include construction and 30% 'soft costs' for design/engineering (typical). Estimates may not represent all costs associated with project delivery, including potential right-of-way, public outreach, drainage & utility relocation. Funding for construction and maintenance is limited.

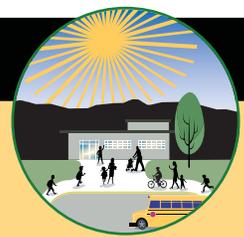
Frank Zeek Elementary School Recommendations



- 1 Bush Street at Arlington Drive/Bus Loop**
 - A. Install curb extensions on all corners of the intersection and improve curb ramps. Rebuild school driveway apron
 - B. Stripe high-visibility yellow crosswalks on north and south legs of the intersection
 - C. LONG TERM: Consider relocating bus zone and develop as non-motorized entrance for east/north neighborhoods*
- 2 N. Bush Street**
 - A. Upgrade curb ramps, driveway markings, and signage along walkway island separating road from parking lot. Ensure adequate clear zone for ADA and large groups
 - B. Reduce school zone speed limit to 20 mph north of Low Gap Road, and extend 25 mph limit to the south
 - C. Implement traffic calming strategies if necessary, such as speed feedback sign(s) or crosswalk at existing bus stops
- 3 Bush Street at Low Gap Road**
 - A. Replace all-way stop control with single lane roundabout as called for in Citywide Circulation Study (2007). Include design best practices for safe pedestrian and bicycle circulation, including splitter islands and bicycle ramps. Consider other recommendations as potential mitigation measures associated with project construction impacts.
- 4 Arlington Street/Garrett Street/Pine Street**
 - A. Introduce school zone speed limits of 20 mph. Consider additional traffic calming measures as necessary, including
- 5 School Bicycle Parking***
 - A. Install 5-6 "inverted U" bicycle racks near the front of the school to encourage parent/student bicycling to school. Expand as demand increases focusing on convenient, secure locations
- 6 Walking School Buses***
 - A. Support and encourage development of neighborhood walking school buses, focusing on neighborhoods within 1/2 mile of school

* Projects would be responsibility of UUSD

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Nokomis Elementary

Principal: John McCann

Enrollment: K-5th, 384 Students

Arrival: 8:00 A.M.

Dismissal: 2:25pm (M, T, TH & F)
12:58pm (Wed)

Walk Audit Site Visit:
Afternoon Pick Up, April 17th, 2012

Free & Reduced Lunch Eligible: 84.6%

Walk Score: 46*

*See www.walkscore.com for more info

Existing Conditions

Location, Layout, and Access

Nokomis Elementary is located in southern Ukiah west of Dora Street. The school is fronted to the north and west by the residential streets Washington Avenue and Helen Avenue, and backs up to single-family homes on the east and south. The southern half of campus is primarily sports fields, and the northwest corner includes a separate pre-school facility. The school's attendance boundary extends south past the city limits at Laws Avenue, west into Doolan Canyon, north to Luce Street, east to Highway 101, and includes an additional segment to the northeast between Perkins Street, Talmage Road, and the railroad tracks.



The parent loading and bus loop off Washington Avenue is poorly designed with conflict points at the main pedestrian entrances/crossings and insufficient storage capacity. The school lot also represents a significant sidewalk gap

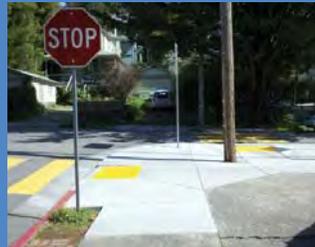
The main entrance, parent and bus drop off loops are accessed from Washington Avenue. Parents are supposed to enter the loop, stop briefly to pick up their child, and then exit; it is not intended for parking or stopping. The loop accommodates only 5 cars at one time, which can result in long queues on street. The loading area also includes a separate (larger) bus loop east of the parent loop. School staff provide supervision and help students load and unload the buses. Additional non-motorized access is provided by an open gate to the south where Wabash Avenue curves to become Laurel Avenue, and gates to the west on Helen Avenue.

(continued on back)

Recommendations



Enhanced Loading/
School Frontage



Accessible Sidewalks &
Curb Ramps



Neighborhood
Bikeways



Reduced
Speed Zones



Walking
School Bus

Reconfigure the Main Loading Loop & Parking Lot to Improve Access for All Modes

Encouraging walking, biking, and safe access to school starts at the front door. Nokomis' main parking and loading area is a frustrating layout that creates its own traffic queuing issues and represents almost 300 feet of sidewalk gap along Washington Avenue. Two improvement concepts are proposed that would address these issues in different ways. Project #1 Option A would reinvent the school frontage and parking lot by moving loading activities on-street (made possible by creating a wide, continuous sidewalk) and consolidating parking off-street. Generous new landscaping and an improved crosswalk across Washington Avenue would also be provided. Option B is a lower cost design that expands off-street loading capacity and visually narrows driveways to reduce conflicts.

Walking School Buses, Slow Speed Zones, and Enhanced Crossings

Walking school buses are groups of students walking together chaperoned by one or more adults to help reduce traffic-related and stranger danger concerns. The SR2S Plan has developed Suggested Walking Route Maps and organized resources on the website to assist the formation of walking school buses. These routes include residential streets such as Helen Avenue, Washington Avenue, Marwen/Nokomis Drives, and Wabash/Laurel Avenues that are also candidates for speed reduction (20mph) zones. Upgrades to uncontrolled crosswalks (higher visibility signage and markings) are also proposed to support these walking routes in the near term.

Existing Conditions (Continued)

Traffic & Safety*

Washington Avenue is a two-lane residential street with an average daily traffic volume (ADT) of 2,158 vehicles. The posted speed limit during school travel times is 25 mph and 30 mph the rest of the day. Helen Avenue, a residential street with a posted speed limit of 30 mph, has an ADT of just under 1,000 vehicles. Both roads include significant sidewalk gaps. Between 2007-2011, two minor crashes were reported on Helen Avenue, and one injury crash was reported at Washington Avenue and Dora Street.

S Dora Street is a wide collector street with one travel lane in each direction, five-foot bike lanes, on-street parking, and a posted speed limit of 30mph. It experiences an average daily traffic volume (ADT) of 7,468 vehicles. A recent paving project between Luce Avenue & Washington Avenue included re-stripping, sidewalk repair, ADA curb ramps, and curb extensions at the Mendocino County Public Health Building.

The principal and teachers noted the gang activity in surrounding neighborhoods as a barrier to walk and bike to school. More specifically, concerns about crime and personal safety were cited as limiting use of the back entrance off Wabash Avenue, despite high enrollment from this area.



Washington Avenue (top) and Helen Avenue (bottom) are wide residential streets with sidewalk gaps and no bicycle facilities or traffic calming

Recommendations (cont.)

*Travel mode share data for Nokomis Elementary is not available

Neighborhood Bikeways & School Pathway / Bike Parking

Washington Avenue and Helen Avenue are proposed Class III shared bikeways in the 2012 County Bike Plan. Providing shared lane markings (also known as 'sharrows'), wayfinding signage, and minor intersection improvements would elevate the visibility of the bicycle network off of Dora Street and complement potential future bicycle education and skills training efforts. On campus, these and other improvements could be supported by increased bike parking and eventually an accessible pathway from the back gate.

ADA Curb Ramps, Sidewalk Gap Closures, and Dora Street Curb Extensions

Improving the safety and accessibility of routes across Dora Street (at Wabash Avenue and south past the city limits) is a strategy to support improvements located more closely to school and reduce the perceived barrier effect of traffic. Closing sidewalk gaps along both sides of Helen Avenue is also a long term vision to improve the character of this important north/south residential street.

ID	Project Description	Lead Agency	Plan Priority	Preliminary Cost Estimate*	Notes/Assumptions
1	School Parking Lot / Washington Avenue Access: Option A - Sidewalk gap closure with on-street parent loading Option B - Revised parent/bus loading	Ukiah Unified School District (Joint City/ UUSD Project if Option A)	High/ Medium	\$55,000 - \$415,000	Preliminary engineering plans and detailed cost estimate available. See SR2S Plan
2	Enhanced Uncontrolled Crosswalks / Reduced School Speed Zones	City of Ukiah	High	\$15,000	Includes high visibility striping and yield teeth markings for five crosswalks, new/ revised signage
3	Helen Avenue Sidewalk Gap Closure/ Crosswalks	City of Ukiah	Medium	\$115,000	Preliminary engineering plans available on website; closes bike lane gap from Dora to Oak Street
4A,B	Wabash Avenue Curb Ramps and Crossing Improvements at Dora Street	City of Ukiah	Medium	\$110,000	Preliminary engineering plans available on website
4C	School Back Gate & Accessible Pathway	Ukiah Unified School District	Medium	\$25,000	Assumes no major grading or drainage impacts, minor allowance for landscaping
5A	Helen Avenue and Washington Avenue Class III Shared Bikeways	City of Ukiah	High	\$25,000	Assumes sharrows, wayfinding, and minor striping; Helen Avenue Washington Ave to Mendocino Dr
5B	School Bicycle Parking	City of Ukiah	Medium	\$2,500	Assumes installation of 8-10 "U" racks on campus
6	Dora Street Southern Crossing (at Beacon Lane or outside City limits)	City of Ukiah / County	Medium/ Long Term	\$90,000	Tedford Avenue (County) is stop-controlled intersection; Beacon lacks traffic control and sidewalks
Total Estimated Project Costs				\$462,500 - \$822,500	

* Planning level cost estimates include construction and 30% 'soft costs' for design/engineering (typical). Estimates may not represent all costs associated with project delivery, including potential right-of-way, public outreach, drainage & utility relocation. Funding for construction and maintenance is limited.

Nokomis Elementary School Recommendations

1 School Parking Lot / Washington Avenue Access*

Option A - On-Street Student Loading (Higher Cost)

- Reconfigure school's roadway frontage to improve pedestrian connectivity and facilitate on-street loading
- Replace perpendicular street parking with wide sidewalk; remove middle driveway, narrow easternmost driveway
- Install new crosswalk, curb ramps in parking lot and re-stripe existing bus loading area for vehicle parking

Option B - Parking Lot Loading Island (Lower Cost)

- Expand curb space for parent drop-off/pick-up; add bus loading island and revise circulation in parking lot
- Stripe hatched areas at parking lot entrance and exit to demarcate vehicle lanes and improve pedestrian access

2 Uncontrolled Crosswalks / Reduced Speed Zone Signage

- At existing uncontrolled crosswalks, install Assembly B or R1-6 signage (Washington Avenue, Nokomis Drive only) and advance yield teeth markings
- Consider reduced school speed zones on suggested walking routes to school; install Assembly C signage

3 Helen Avenue Sidewalk Gap Closure / Crosswalks

- Fill sidewalk gaps on both sides of the street from Washington Avenue north to Mendocino Avenue
- At 3-way stop with Washington Avenue, install crosswalk at north leg, upgrade to high visibility crosswalk at east leg, and consider on-street bike racks and/or cross hatch markings to help maintain sight distances at southeast corner near daycare entrance

4 Wabash Avenue / Back School Gate

- Install curb extensions, high visibility crosswalk, and warning signage on north leg of Dora Street intersection
- Install new curb ramps at Yokayo Drive and Laurel Avenue for accessible route to back school gate
- On school grounds, remove bollards at gate and continue accessibility improvements with pathway alongside tennis courts to school 'black top' and classrooms*

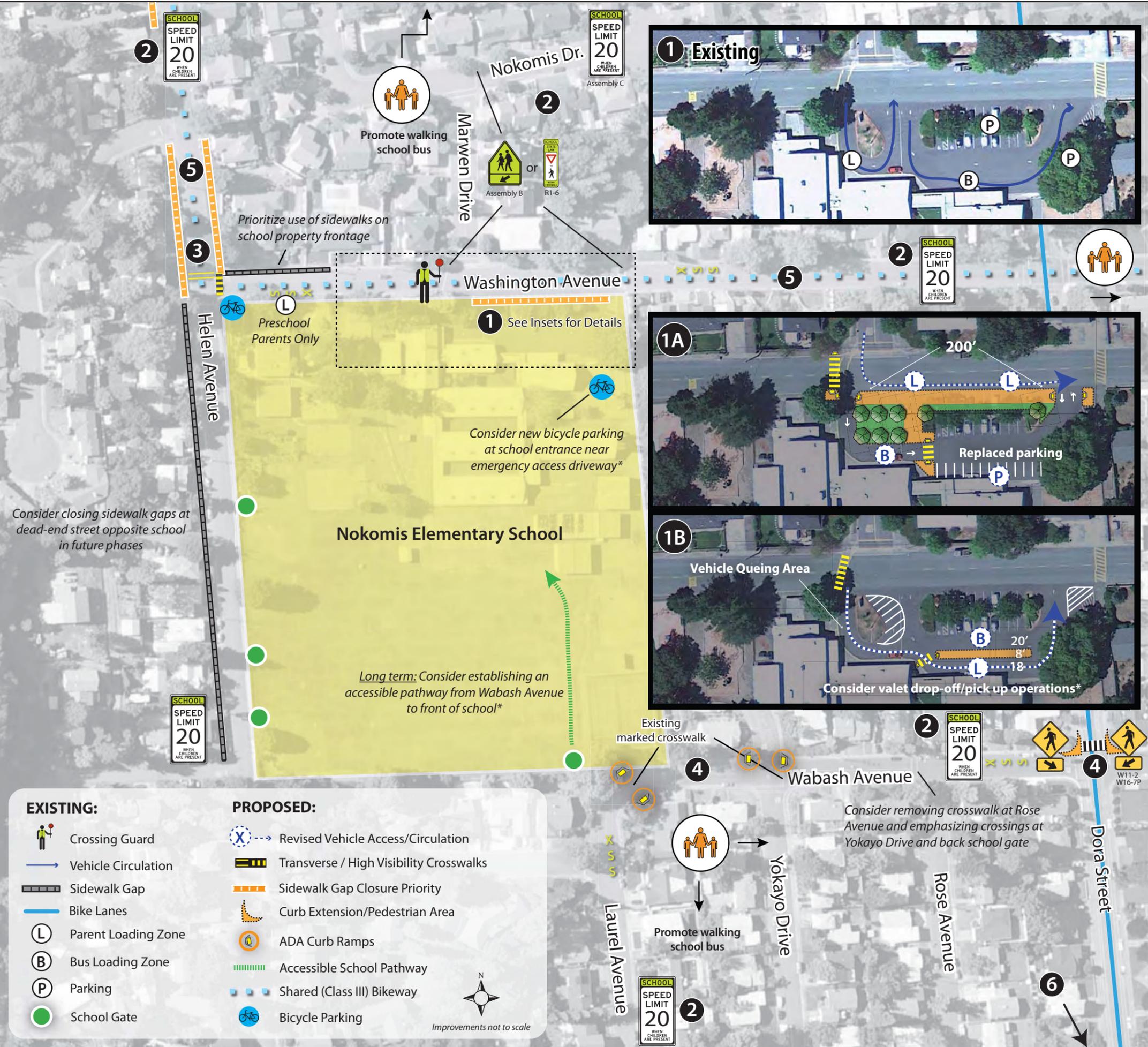
5 Bicycle Connections and Parking

- Sign and stripe Helen and Washington Avenues as Class III bikeways with sharrows and wayfinding signage
- Add convenient bicycle parking near school entrance*

6 Dora Street Southern Crossing

- Install marked crosswalk and warning signage at Beacon Lane or coordinate with County on crossing improvements at Telford Avenue (existing stop-controlled intersection)

*Improvement is responsibility of, or requires approval by, Ukiah Unified School District



EXISTING:	PROPOSED:
Crossing Guard	Revised Vehicle Access/Circulation
Vehicle Circulation	Transverse / High Visibility Crosswalks
Sidewalk Gap	Sidewalk Gap Closure Priority
Bike Lanes	Curb Extension/Pedestrian Area
Parent Loading Zone	ADA Curb Ramps
Bus Loading Zone	Accessible School Pathway
Parking	Shared (Class III) Bikeway
School Gate	Bicycle Parking

Improvements not to scale

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Oak Manor Elementary

Principal: Jinny DeVinny
 Enrollment: K-5th, 434 Students
 Arrival: 8:32 A.M.
 Dismissal: 3:02pm (M,T,TH & F)
 1:00pm (Wed)

Walk Audit Site Visit:
 Afternoon Pick-Up, April 18th, 2012
 Free & Reduced Lunch Eligible: 75.3%

Walk Score: 60*

*See www.walkscore.com for more info

Existing Conditions

Location, Layout, and Access

Oak Manor Elementary School is located at the eastern edge of Ukiah opposite Highway 101 on Oak Manor Drive between E Gobbi Street and E Perkins St. Immediately adjacent is Oak Manor Park. A back gate provides access to the existing substandard pathway, while a second gate connects with Rio Court, a short cul-de-sac. Closely surrounding the school and trail is a residential neighborhood comprised of single family houses and a mobile home park, with farmland and the Russian River separating this area from other neighborhoods outside the city limits.

The Oak Manor Elementary attendance boundary includes all areas east of Highway 101 from the City of Ukiah south to Hopland. With limited connectivity and longer distances, the majority of students are driven or take the school bus. Access from these areas is provided either by Highway 101 (drivers only), Vichy Springs Road (which becomes E Perkins Street), or by heading north from Hopland on Old River Road, west on Talmage Road, and north on Babcock Lane (which becomes Oak Manor Drive at Gobbi Street).



Neighborhood students and parents parking on Oak Manor Drive to drop-off or pick-up their child(ren) utilize a marked crosswalk approximately 40 feet south of the school's southern driveway to access school grounds.

The school parking lot and load zone includes a one-way in, one-way out loop configuration with two lanes that are marked by orange cones. Additional parent drop-off and pick-up activity occurs curbside on Oak Manor Drive, with parents that park in the northbound direction utilizing the marked crosswalk. Bus loading is staggered at the school. Students from Hopland are loaded at a separate time from students that live within Ukiah and Talmage. In addition, many students stay at school for after school programs and are bussed later in the afternoon. These staggered bussing times help to alleviate congestion during the afternoon peak.

Recommendations



Improved Bikeway and Trail Connectivity



Refreshed Crosswalks and ADA Curb Ramps at School Entrance



Update Signage



Reduced Speed Zone



Carpool Promotion & Priority Parking

Update Oak Manor Drive with Reduced 20mph Speed Zone, Shared Bikeway

The Ukiah Safe Routes to School Plan includes a citywide recommendation to consider reduced 20mph school speed zones on residential school routes. With an estimated 25-35% of Oak Manor Drive traffic being school-related, a reduced speed limit should help ensure safe school access for both neighborhood walkers and those loading on-street from the curb. To complement and take advantage of the school speed zone, a Class III (shared) bike route should be implemented as identified in the 2012 Countywide Bike Plan. These improvements are expected to include shared lane markings (sharrows) and wayfinding/regulatory signage.

Refresh and Enhance School Crosswalks, ADA Curb Ramps

The existing high-visibility crosswalk on Oak Manor does not include accessible curb ramps to the sidewalk, nor is it placed for optimal access to the school grounds. Crosswalks across the school driveway also do not have approved curb ramps and are comprised

Existing Conditions (Continued)

Traffic and Safety

Oak Manor Drive is a two-lane residential street with a posted speed limit of 25 miles per hour and an average daily traffic volume (ADT) of 2,679. Three non-injury collisions were reported between 2008-2011.

Babcock Lane is a two-lane rural roadway with average daily traffic of 2,000 vehicles, 85th percentile speeds of 26 mph, and no recent reported collision history. South of the city limits, Babcock lane becomes River Road, which leads to Talmage Road (State Route 222) Talmage Road is recommended for a Class II or Class III bike route per the 2012 County Bike Plan.

North of Oak Manor Drive, E Perkins St heading east becomes Vichy Springs Road and has Class II bike lanes. This road serves a limited number of homes.



The school campus is currently used as an access route to the existing Highway 101 pedestrian bridge. The Ukiah Unified School District should also consider providing an all-weather pathway to the school for students heading to/from Orchard Avenue, although direct benefits for school commuting are limited.

Recommendations (cont.)

of faded paint. As needed maintenance activities occur, the primary crosswalk should be relocated and all crosswalks should be refreshed as high-visibility thermoplastic. If funding allows, new school driveway curb ramps could also be installed.

Continue to Improve Access to and Along Oak Manor Trail and the Highway 101 Overpass

The Oak Manor Trail provides a convenient short-cut for students living within the Oak Manor mobile home park. To encourage all-season use, an accessible pathway on school grounds should be considered as District funding allows. The City of Ukiah could also improve the existing overpass with repaving, lighting, and wayfinding to encourage greater community and student use.

Emphasize Education and Encouragement Programs, Including Neighborhood and Staff Carpooling

With limited ability for engineering improvements to affect travel behavior, Oak Manor should focus on education and encouragement programs such as ridesharing and safe riding/travel behavior. Strategies may include holding a "carpool to school day" and providing carpool priority parking stalls within the school parking lot. More information on such programs is provided on the SR2S website.

ID	Project Description	Lead Agency	Plan Priority	Preliminary Cost Estimate*	Notes/Assumptions
1A,B	Refresh crosswalk striping across Oak Manor Drive and school driveways; update crossing paddle sign	City of Ukiah	Medium	\$4,000	Consider adding second crosswalk paddle sign (S4-3P and R1-6) at the intersection with Mohawk Drive near Oak Manor Park
1C	Install ADA curb ramps at school driveway	City of Ukiah/ Ukiah Unified School District	Medium	\$20,000	Part of citywide recommendation for 20mph zones on residential school walking routes
1D	School parking lot: Designate carpool priority parking spaces	Ukiah Unified School District	Medium/ High	\$3,000	Assumes 5 new signs, modest restriping or additional pavement markings for stalls
2A	Pave schoolyard pathway to Oak Manor Trail	Ukiah Unified School District	Low	\$60,000	Placeholder estimate pending improvements planned for Oak Manor Trail; primarily serves after-school connectivity
2B	Upgrade trail lighting and neighborhood connectivity	City of Ukiah	Low	\$115,000	Placeholder estimate pending improvements planned for Oak Manor Trail; primarily serves after-school connectivity
3	Oak Manor Class III (Shared) Bikeway: Sharrow markings and wayfinding/regulatory signage E Gobbi St to E Perkins St	City of Ukiah	Medium	\$6,000	Identified in 2012 Countywide Bike Plan; related projects include Class II on Talmage Rd, although unlikely to influence school commute behavior
4	Oak Manor Drive Reduced Speed Zone	City of Ukiah	Medium/ High	\$2,500	Part of citywide reduced school speed zone recommendation
Total Estimated Project Costs				\$206,500	

* Planning level cost estimates include construction and 30% 'soft costs' for design/engineering (typical). Estimates may not represent all costs associated with project delivery, including potential right-of-way, public outreach, drainage & utility relocation. Funding for construction and maintenance is limited.

Oak Manor Elementary School Recommendations

1 Oak Manor Drive/School Entrance

- A. Restripe crosswalks at entrance along Oak Manor Drive; consider moving the crosswalk across Oak Manor Drive north approximately 40 feet to match up with curb ramp and school driveway sidewalk
- B. Update in-roadway sign with a new S4-3P and R1-6 assembly
- C. Upgrade curb ramps at school driveways to comply with Americans with Disabilities (ADA) design guidelines
- D. Consider marking/signing carpool priority loading or parking zones*

2 School Footpath/Trail Connections

- A. Pave schoolyard footpath with hard, stable surface to/from back entrance near existing trail. When Oak Manor Trail is developed, ensure that school grounds are fenced and gated for entry*
- B. Long term, upgrade trail lighting and neighborhood connectivity of existing pedestrian overcrossing of Highway 101

3 Oak Manor Drive Signed Bike Route

- A. Provide regulatory signage and markings, and wayfinding, to develop Oak Manor as a Class III shared bikeway per 2012 Countywide Bike Plan

4 Oak Manor Drive Reduced School Speed Zone

- A. Replace existing school zone signage with lower (20mph) speed zone as part of citywide school zone speed reduction recommendation



Primary pedestrian crossing at Oak Manor Elementary



Back gates provide alternate entrances to the school, but need significant access upgrades.

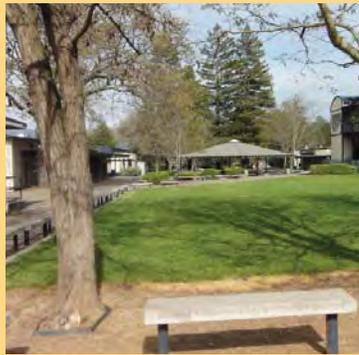
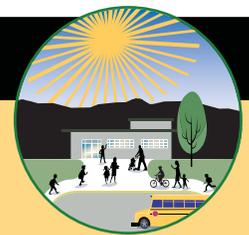
EXISTING:	PROPOSED:
Crossing Guard	High Visibility Crosswalk
Vehicle Circulation	MUTCD R1-6 Pedestrian Paddle Sign
Parent Loading Zone	School Footpath Upgrades
Bus Loading Zone	Trail /Overcrossing Upgrades
School Staff Parking	Class III Shared Bikeway
School Gate	

Improvements not to scale

* Ukiah Unified School District project

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Ukiah Safe Routes to School Plan



Pomolita Middle

Principal: Bryan Barrett
 Enrollment: 6th-8th, 691 Students
 Arrival: 8:15 A.M.
 Dismissal: 2:55pm (M, T, TH & F)
 1:25pm (Wed)

Walk Audit Site Visit:
 Morning Drop Off, April 19th, 2012
 Weather was mostly clear and cool

Walk Score: 71*

*See www.walkscore.com for more info

Existing Conditions

Location, Layout, and Access

Pomolita School is located in north central Ukiah and bounded by residential neighborhoods to the west, south and east, and by Orr Creek and the County services complex to the north. The open campus includes nine buildings that sit on a hill above the school district bus maintenance yard to the north and athletic fields to the east. Vehicle loading and staff parking are located along the southeast corner off of Spring Street (via Cypress Avenue and Dora Street) with school bus load zones along the curb of Hazel Avenue to the west.

Spring Street and Cypress Avenue are identified as suggested walking routes to school along with Dora Street and Hazel Street, with informal pathway access available to the north across Orr Creek. With the exception of Dora Street these routes include significant sidewalk gaps, and all include uncontrolled crossings of streets with relatively fast moving traffic. Class II bike lanes on Bush Street, Dora Street, and Grove Avenue stop just shy of campus but provide good access by extending well into other parts of the city. Mendocino Transit Routes 9 and 20 provide transit access opportunities with stops at N Bush Street and N Dora Street.



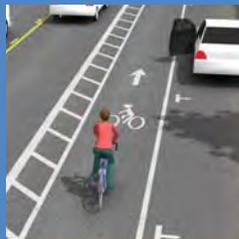
Although located among residential streets with good proximity to the city's bikeway network, access to Pomolita is complicated by numerous sidewalk gaps, few accessible curb ramps, and a lack of visible traffic control at key crossings

(continued on back)

Recommendations



Accessible Curb Ramps & Sidewalk Gap Closures



Buffered Bike Lanes



Enhanced Crossings with Pedestrian Islands



Multi-Use Pathways to/ through Campus



Speed Zones & Feedback Signs

Due to the vast need for physical improvements surrounding Pomolita Middle School, project recommendations have been organized according to their "level" of complexity and cost. While not necessarily the same as project phasing or prioritization, the practical effect may be similar in that higher level (Level 2 and 3) projects are anticipated to take longer to implement.

"Level 1" Safety and Access Improvements

A suite of lower cost improvements are recommended to improve safety for all users, with an emphasis on slowing down motorists and enhancing uncontrolled crosswalks on key routes to school. School zone speed limits on Grove Avenue, Dora Street, Cypress Avenue, and potentially Maple Avenue would be reduced to 20mph. Crossings of wide streets with heavier traffic would receive higher-visibility markings, new pedestrian refuge islands, and other treatments to improve motorist yielding and pedestrian comfort. On the school campus, lower cost improvements include expanded bike parking (to anticipate all those new riders as the bikeway network is improved/expanded) and shade trees for priority pathways to make their usage more appealing.

"Level 2" Improvements, including Grove Avenue, Dora Street, and Bush Street Buffered Bike Lanes

While standard bike lanes are critical elements of the existing bikeway network, there is sufficient width on these streets to make them more attractive to a wider array of potential riders - with minimal downsides for other users. By narrowing the vehicle travel lanes by a few feet (but still maintaining adequate width), a wider bike lane and two-foot striped 'buffer' can be implemented that improves the physical and visual separation between bicyclists and vehicles. These wider bike lanes are especially helpful for group rides (a common practice for middle schoolers) and have been implemented in many other California communities, including several



Existing Conditions (Continued)

Traffic and Safety*

Grove Avenue is a wide (56 feet curb-to-curb) collector street with one travel lane in each direction, five-foot bike lanes, on-street parking, and a posted speed limit of 30mph. Grove Avenue experiences an average daily traffic volume (ADT) of 1,972 vehicles. Although this roadway includes three marked school crossings, school 'Assembly B' signage is not provided and there is no traffic control between Live Oak Avenue and Bush Street. Between 2007-2011, three crashes resulting in injury were reported (one at Spring Street, two at Dora Street) including one involving a pedestrian and one severe injuries. All three appear to have occurred during the school commute period.

N Bush Street is a wide (54 feet curb-to-curb) collector/arterial with one travel lane in each direction, five-foot bike lanes, on-street parking, and a posted speed limit of 25 mph during school times (30 mph at other times). ADT is approximately 4,692. Between Grove Avenue and Low Gap Road (a distance of 0.4 miles) there is no traffic control and a pair of marked crosswalks at Cypress Avenue. One injury collision was reported at Walnut Avenue between 2007-2011.

N Dora Street (south of Grove to the City limits) is a wide minor arterial with one travel lane in each direction, five-foot bike lanes, on-street parking, and a posted speed limit of 30 mph near Pomolita Middle School. North of Grove Avenue, Dora Street is 36 feet curb-to-curb minor arterial street with direct school access but no bicycle lanes. All other nearby streets are narrow residential roadways with frequent stop signs, with the exception of Walnut Avenue which like the parallel Grove Avenue has few traffic control restrictions.

*Travel mode share data is not available for Pomolita Middle School

Recommendations (cont.)

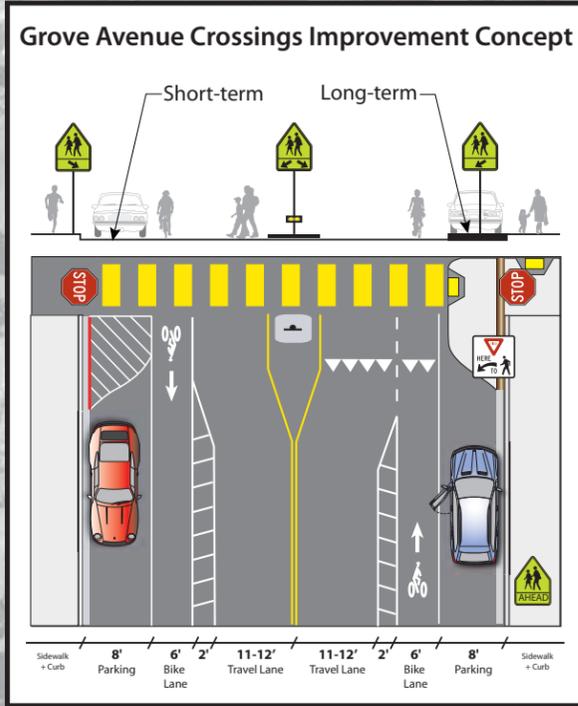
on Caltrans-controlled roadways. Other 'Level 2' improvements include speed feedback signs on Bush Street to help encourage 'self-enforcement' of the 25mph school zone speed limit, and development of an alternative north/south bikeway for the western Ukiah neighborhoods that would utilize low volume streets to reach to and through Pomolita Middle School.

"Level 3" Improvements: Focusing on Continuous, Accessible Pathways and Minimized Roadway Crossings

There is no way to get around it: providing safe routes to school means providing them for everyone, including those with mobility impairments and/or for those with acute sensitivities to traffic and terrain. To do so requires a commitment to invest resources over time. The Pomolita Middle School Level 3 recommendations include a targeted program of Americans with Disabilities Act (ADA) curb ramp upgrades, sidewalk gap closures, and curb extensions that, when completed, will extend continuous and accessible walking routes deep into the heart of Ukiah's nearby residential neighborhoods. As a similar project, the potential to formalize a publicly accessible, shared use pathway through the school and County complex to Low Gap Road should also be considered.

ID	Project Description	Lead Agency	Plan Priority	Planning Level Cost Estimate*	Notes/Assumptions
1	"Level 1" Access Improvements: <u>A. & B.</u> Upgrade uncontrolled crosswalks and add refuge islands; implement reduced speed zones	City of Ukiah	High	\$55,000	Two speed feedback signs are estimated at \$30k. Refuge islands at Spring/Grove, Spring/Walnut, Dora/Grove, and Cypress/Bush
1	"Level 1" Access Improvements: <u>C.</u> Campus bike parking & shade trees along Spring Street/maintenance road	Ukiah Unified School District	Medium	\$10,000	Assumes up to 16 "U" bicycle racks with fencing, \$4,000 for landscaping, and 10% 'soft' costs
2	"Level 2" Access Improvements: <u>A.</u> Grove Avenue, Bush Street, and Dora Street buffered bike lanes	City of Ukiah	High/ Medium	\$170,000 (\$65k for Grove, \$105k for Bush)	Bush Street requires parking removal on one side; See Plan for more details and Dora St estimate
2	"Level 2" Access Improvements: <u>B,C & D.</u> Install speed feedback signs on Bush St, remove problematic stop signs, and implement "western bikeway"	City of Ukiah	Medium	\$85,000	Bikeway assumes sharrow markings & wayfinding signs on Spring St from Cypress to Grove, and south on Hazel/Todd/Barnes/McPeak
3	"Level 3" Access Improvements: <u>A,B & C.</u> Install 16 ADA curb ramps, three large curb extensions, and fill priority sidewalk gaps on Cypress Ave, Spring St, and Hazel St	City of Ukiah	Medium / LongTerm	\$650,000 (\$150k for ramps, \$285k for curb extensions, and \$215k for sidewalks)	ADA curb ramps assume sidewalk repair, crosswalk re-stripping, and allocation for drainage; 40% 'soft costs' assumed due to complexity
4	North/South Connector at Orr Creek: Multi-use pathway improvements between Pomolita/Bush St & Low Gap Rd	Mendocino County / Ukiah Unified School District	Medium / Long Term	\$250,000 (not including ROW/environmental)	See related Ukiah High School #5; identify as focus area for future planning & joint use agreement(s)
4	Orr Creek Trail at Bush St: Widen sidewalk to Cypress St and provide curb extensions if trail improved	City of Ukiah	Medium / Long Term	\$50,000	Assumptions: sidewalk widening behind curb, no structural impacts to creek bridge
Total Estimated Project Costs				Approximately \$1.27 Million	

* Planning level estimates typically include construction and 30% 'soft costs' for design/engineering. Estimates may not represent all costs associated with project delivery, including potential right-of-way, public outreach, drainage & utility relocation. Funding for construction and maintenance is limited.



EXISTING:	PROPOSED:
Vehicle Circulation	High Visibility Crosswalk
Bike Lanes	New / Improved Trail
Creek/School Path	Sidewalk Gap Closure Priority
Sidewalk Gap	Sidewalk Widening
School Parking	Curb Extension
Parent Loading Zone	Pedestrian Refuge Island
Bus Loading Zone	Curb Ramp Upgrades
School Entry / Gate	'Assembly B' with optional Rapid Flashing Beacon (RRFB)
School Bike Parking	Shared (Class III) Bikeway
Bus Stop	New/Improved Bike Parking
Problematic Stop Sign Placement	New Tree

Improvements not to scale



Pomolita Middle School Recommendations

- 1 School Safety/Access Improvements - Level 1**
 - A. Upgrade uncontrolled crosswalks: pedestrian refuge islands, high-visibility ladder striping, 'sharks teeth' yield lines, interim (hatched) pedestrian extensions, red curb paint, Assembly B signage (Bush/Cypress, Spring at Grove/Walnut, Dora/Grove)
 - B. Consider 20mph reduced speed zones on Cypress Avenue, Grove Avenue, and Dora Street; conduct advance public informational campaign in conjunction with use of City speed feedback trailer and targeted police enforcement
 - C. On campus, upgrade and expand bike parking by replacing existing student "toaster" racks and adding "U" racks near office for parent visitors; plant shade trees to help delineate/improve pathways on Spring Street and maintenance road*
- 2 School Safety/Access Improvements - Level 2**
 - A. Re-stripe Grove Ave, Bush St, and Dora St with wide buffered bike lanes for greater physical/visual separation from motor vehicle traffic (Note: Bush Street requires parking removal)
 - B. Install permanent speed feedback signs on Bush Street and consider actuated rapid flashing beacon crossing at Cypress
 - C. Relocate problematic stop signs within sidewalk walking zones to on-street locations where feasible
 - D. Implement "western bikeway" corridor identified in County bike plan on Spring Street and Hazel/Todd/Barnes/McPeak
- 3 School Safety/Access Improvements - Level 3**
 - A. Install ADA-compliant curb ramps at Dora/Spring, Cypress/Spring, Walnut/Spring, Dora/Hazel, Dora/Walnut; Maple/Hazel; upgrade select crosswalks to high-visibility
 - B. Install curb extensions at Grove/Spring, Grove/Dora, and Bush/Cypress; include green stormwater treatments where practical; consider narrowing school driveway at Cypress*
 - C. Fill top priority sidewalk gaps: Cypress Avenue and Spring Street, Spring Street between Grove and Willow, Hazel Avenue (multiple segments)
- 4 North/South Connector at Orr Creek Trail**
 - A. Improve access to/from north by widening the sidewalk along the west side of Bush Street, upgrading and signing the informal schoolyard footpaths*, and working with the County to extend creek trail segments through its land to Low Gap*
 - B. If Orr Creek Trail is improved, consider curb extensions and crossing signage at Bush Street

*Indicates UUSD project

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River Oak Charter

Principal: Rima Meechan

Enrollment: K-8th, 229 Students

Arrival: 7:45 A.M.

Dismissal: 2:25pm (M, T, TH & F)
1:15pm (Wed)

Walk Audit Site Visit:
Morning Drop Off, April 16th, 2012

Free & Reduced Lunch Eligible: 51.9%

Walk Score: 78*

*See www.walkscore.com for more info

Existing Conditions

Location, Layout, and Access

River Oak Charter School is located in eastern Ukiah on Leslie Street, just north of E Gobbi Street adjacent to the Ukiah Senior Center and south of E Perkins St and the Ukiah Valley Medical Center. A back gate provides access to the Holy Trinity Episcopal Church parking lot and commercial services along Orchard Avenue, while the remainder of adjacent land use is a mix of mobile home, townhouse, and single-family residential with pockets of vacant land. A railroad corridor one block to the west limits connectivity into downtown and core residential areas, as do sidewalk gaps on Leslie Street and difficult crossings of E Perkins Street.

Students primarily access school via a parking lot with one-way in, one-way out operation from Leslie Street. A traditional load zone is not provided: cars line up in two lanes upon entering the lot and are directed out by staff managing conflicts with walking students and others headed to the front door. Immediately north of the parking lot entrance is a marked crosswalk on Leslie Street that serves a bus stop and the Ukiah Senior Center. Access to/from the Holy Trinity parking lot is primarily used for pick up in the afternoon by older students (grades 6th-8th) and their younger siblings.

To the north, a large vacant parcel between Leslie Street and the existing railroad tracks is planned to be developed as a new county courthouse complex, which will likely include a public street connection to Clay Street. The rail corridor itself is also due for change, as a multi-use trail is currently in design and funded between E Gobbi Street and Clara Avenue as Phase 1 of a larger trail vision.



Students who use the crosswalk on Leslie Street must either walk across the entrance and exit driveways on the sidewalk or use the 'yellow brick road' parking lot pathway to access the school

Recommendations



Redesign School Parking Lot



Leverage Planned Projects By Others



Curb Extension at Main School Crossing



Reduced Speed Zones

Close Sidewalk Gaps, Implement Shared Bikeway with Planned Clay Street/Peach Street Extension

The County has plans to acquire and develop the large vacant parcel on Leslie Street into a multi-use civic complex, which will include the extension of Clay Street across the railroad tracks. This is a unique opportunity to reconsider access to and along Leslie Street, which currently has sidewalk gaps and can be accessed only via heavily-trafficked arterials. Leveraging this project (scheduled for design in 2014/2015) to include sidewalk and bikeway improvements (see Projects #1 and #3) and a slower school speed zone (#2) is a high priority, as is promoting use of the future rail-with-trail segment funded between E Gobbi St and Clara Ave.

Implement Orchard Avenue Bike Lanes/Reduced School Speed Zone; Study Bike Lanes on E Perkins Street

Extending bike lanes south of E Perkins St in conjunction with a slower school zone speed limit (see Project #5) would greatly improve the attractiveness of the Orchard Ave corridor for active school travel. Likewise, efforts due to address substantial safety issues and a planned bikeway on E Perkins St are also needed. The latter should start with a focused look at the feasibility of installing a two-way center left turn lane, curbside bike lanes, and protected crossings as part of the Courthouse development.

Existing Conditions (Continued)

Traffic and Safety

Leslie St is a two-lane residential street with a posted speed limit of 25 miles per hour and an average daily traffic volume (ADT) of 2,308. Five collisions were reported between 2008-2011, three of which involved injuries.

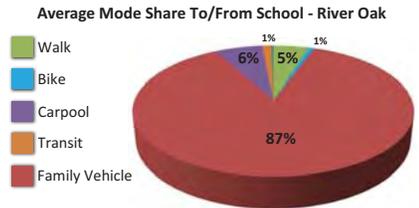
E Perkins St is a four-lane urban minor arterial north of River Oak Charter School that links Highway 101 to State St. The corridor is the city's second busiest averaging 13,607 vehicles per day. Between 2007-2011, 16 injury-inducing collisions were reported on this corridor between Main St and Orchard Ave, including three near the intersection with Leslie St (two involving a bicyclist and one a pedestrian). An additional 24 non-injury collisions were reported between 2008-2011 (many of which were 'broadside' and 'sideswipe' crashes).

E Gobbi St is a two-lane urban minor arterial with center turn lane, curbside bike lanes, and a posted speed limit of 25 mph west of Leslie St and 30mph toward Highway 101. Average daily traffic is of 13,204 vehicles. Eleven injury-inducing collisions were reported between State St and Orchard Ave between 2007-2011, including two severe crashes involving pedestrians at the railroad tracks (which is not currently a legal pedestrian crossing).

Orchard Ave is a two-lane collector with ADT of 7,888, posted speed limit of 30 mph. Class II bike lanes exist between E Perkins St and Clara Ave, and bike lane extensions south to E Gobbi St and north to Ford St are planned as a high priority.



Like others along the corridor, the uncontrolled crosswalk across E Perkins St at Leslie St is difficult to see and poses a 'double-threat' condition to pedestrians reliant on yielding motorists to cross



River Oak Charter pulls from throughout Ukiah Valley and has a high rate (87%) of chauffeured trips to/from school. Most other students walk or carpool, while a few take transit (according to spring 2012 student hand tally results)

Recommendations (cont.)

Repave and Redesign School Parking Lot with Protected Walkway, Load Zone

The existing parking lot includes a number of substandard conditions, such as parking stalls up against school buildings and no formal load zone or protected walkway. The pavement condition is also poor and will require maintenance in the foreseeable future. Project #2 offers a conceptual revised layout with a dedicated pedestrian pathway and load zone to greatly improve conditions. As part of the design increased landscaping, bike parking, and potential carpool-priority stalls should all be considered.

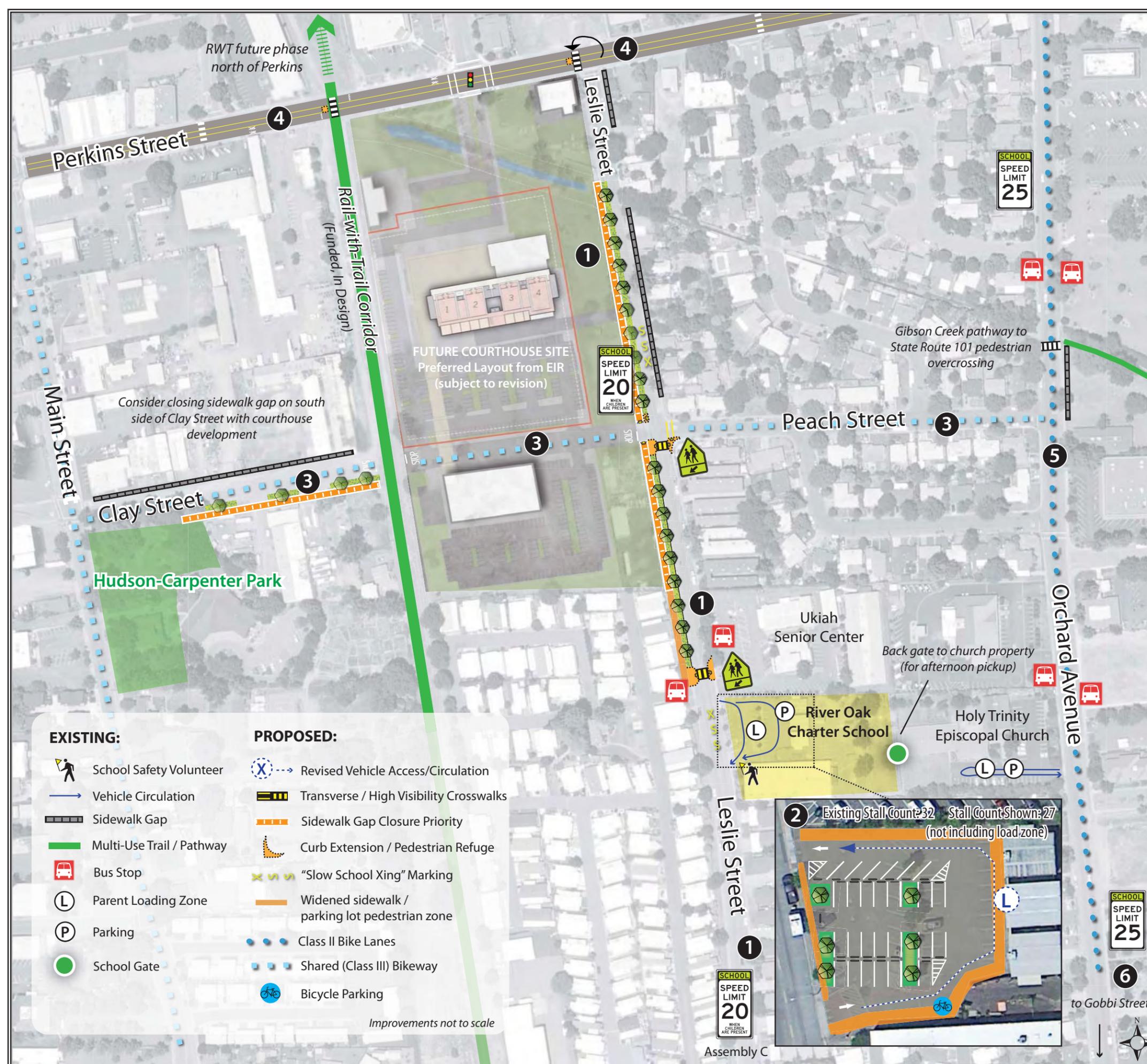
ID	Project Description	Lead Agency	Plan Priority	Preliminary Cost Estimate*	Notes/Assumptions
1A,B	Leslie Street Sidewalk Redesign and Enhanced Crosswalk: Extend sidewalk improvements from Courthouse project south to crosswalk, and provide curb extension on east side with ADA ramp	City of Ukiah	High/Medium	\$115,000 (if stand alone project)	Seek to incorporate improvements during design review of Courthouse development project if possible; serves school, senior center, and existing bus stop
1C	Leslie Street Reduced School Speed Zone: Lower conditional speed limit to 20mph; include advance warning signage	City of Ukiah	High	\$3,000	Part of citywide recommendation for 20mph zones on residential school walking routes
2	School parking lot: Repave and re-configure parking lot with perimeter walkway, "curbside" loading, modified parking layout, and landscaping	River Oak Charter School	Medium	\$300,000	Assumes asphalt repaving, 5' concrete walkway with curb along building edge, allowance for new soil/trees and bike racks
3B,C	Clay/Peach Street Extension: Fill sidewalk gap on south side of Clay Street; develop Class III shared bikeway from Main Street to Orchard Avenue	City of Ukiah	High	\$90,000	Consider requesting with approval of Project 3A (Courthouse project roadway extension); cost does not include Clay Street repaving
4	Perkins Street 'Road Diet' Study: Study feasibility of providing two-way center turn lane and bike lanes on Perkins St by reconfiguring travel lanes	City of Ukiah	High	\$25,000	Placeholder estimate pending traffic analysis available from Courthouse development; does not include costs for implementation
5	Orchard Street Bike Lanes/Reduced Speed Zone & Gibson Creek Pathway	City of Ukiah	Medium/High	\$100,000	Orchard Avenue bikeway is a high priority in 2012 County Bike Plan
6	Gobbi Street Pedestrian Countdown Signals	City of Ukiah	Medium	\$5,000	Existing pedestrian signals do not include countdown abilities; key intersection near highway ramp
Total Estimated Project Costs				\$638,000	

* Planning level cost estimates include construction and 30% 'soft costs' for design/engineering (typical). Estimates may not represent all costs associated with project delivery, including potential right-of-way, public outreach, drainage & utility relocation. Funding for construction and maintenance is limited.

River Oak Charter School Recommendations

- 1 Leslie Street**
 - A. Fill priority sidewalk gaps on west side of Leslie Street with Courthouse development; provide landscape strip to buffer pedestrians and seek to extend improvements south to existing crosswalk at bus stops
 - B. Install curb extension on east side at bus stop adjacent to school/senior center; parking is already prohibited at this location
 - C. In near term, consider reduced 20mph school speed zone
- 2 School Parking Lot***
 - A. Reconfigure and repave parking lot to provide more pedestrian-friendly perimeter with new parent loading area and potential carpool priority stalls
 - B. Depending on available budget, include “de-paved” areas with new landscaping, new or relocated trees, and bicycle parking
- 3 Clay / Peach Street Extension**
 - A. Design Courthouse development with a multi-modal connection between Clay Street and Peach Street; include bicycle markings and signage, sidewalks, railroad safety features as necessary, and priority traffic control for trail users
 - B. Fill priority sidewalk gap on south side of Clay Street next to Hudson-Carpenter Park from future trail to Main Street
 - C. Install Class III shared bikeway between Main Street and Orchard Avenue
- 4 Perkins Street Road Diet Study**
 - A. To facilitate safe and protected trail/pedestrian crossings of Perkins Street, study feasibility of a center two-way left turn lane with medians in conjunction with the Courthouse development and the vision plan for the Perkins Street corridor
 - B. At Leslie Street, relocate crosswalk to west leg to line up with expected sidewalk improvements
- 5 Orchard Avenue / Gibson Creek Pathway**
 - A. Install Class II bike lanes between Gobbi and Perkins St
 - B. Include wayfinding and other enhancements to the Gibson Creek pathway and highway overcrossing
- 6 Gobbi Street**
 - A. Install pedestrian countdown signals at Orchard Avenue

*Project is responsibility of River Oak Charter School



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Ukiah High School

Principal: Gordon Oslund
 Enrollment: 9th-12th, 1635 Students
 Arrival: 7:30 A.M.
 Dismissal: 2:45pm (M, T, TH & F)
 1:36pm (Wed)

Walk Audit Site Visit:
 Afternoon Pick Up, April 18th, 2012
 (early release day)

Walk Score: 31*

*See www.walkscore.com for more info

Existing Conditions

Location, Layout, and Access

Ukiah High School is located at the northwest corner of the City of Ukiah. School grounds are bounded by open space to the west, residential neighborhoods to the north and east, and Low Gap Regional Park and County offices to the south across Low Gap Road. Students access grounds from two primary areas: the front parking lot accessed from Low Gap Road (or Despina Drive), and a pathway from Capps Lane and Despina Drive near the athletic fields which leads toward the back of the school building area.

School bus and parent loading loops, as well as student/staff parking, are primarily accessed off Low Gap Road, with alternative access from Despina Drive. There are four entrances/exits to the loading/unloading areas. The bus loop is located in the western lot. Buses enter from Low Gap Road at the east entrance and exit at the west to finalize the turnaround loop.



A pathway on the eastern edge of campus at Despina Drive and Capps Lane provides access for neighborhood students and is also a secondary parent loading location. Sidewalks can get crowded and the existing marked crossing is not ADA accessible

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Recommendations



Curb Extensions & High Visibility Crosswalks



Study Multi-Use Trail & Cycletrack Connections



Speed Zones & Feedback Signs



Secure Bicycle/Scooter Parking



Student Bicycle Club and/or 'Green Team'

Slow It Down For Safety

Although the school's location limits the amount of "through" traffic near the school grounds, Ukiah High School and nearby parks are popular destinations in themselves. When combined with straight, relatively unimpeded roadways, the result has been high vehicle speeds during school commute hours and a number of injury-inducing collisions on Despina Drive and Low Gap Road.

Two projects (ID #'s 1 and 3) are recommended to improve safety by slowing down motorists on key access roads to school. Project #1 supports a high priority citywide recommendation to reconsider speed limits and would lower the school zone speed limit on Despina Drive and other neighborhood streets to 20mph (and Low Gap Road to 25mph). The project would also help support needed enforcement efforts by installing permanent speed feedback signs. Project #3 would tighten up the turning radius for vehicles at the Low Gap/Despina intersection and improve the stop control markings for better visibility. This intersection would also receive more accessible curb ramps and crosswalks that would improve non-motorized routes to school.

Improve Neighborhood & Bikeway Connections

Although enrollment draws from a wide area, there are improvements that would clearly support easier access for those living close by and within bicycling distance to school. Project #2 would improve the accessibility, visibility, and safety of the uncontrolled crosswalk near the side gate at Capps Lane by installing curb extensions with new curb ramps, high-visibility yellow crosswalks, and improved signage. Project #5 would help identify and design a continuous trail or protected bikeway through the Mendocino County properties to connect with existing trails (and future planned bike routes) at Pomolita Middle School. This connection could



Existing Conditions (Continued)

Traffic and Safety

Despina Drive is a collector street with one travel lane in each direction, bicycle lanes, and on-street parking. Despina Drive experiences an average daily traffic volume (ADT) of 1,953 vehicles and has a posted speed limit of 25 mph. Low Gap Road is a collector with one travel lane in each direction and curbside bicycle lanes (no on-street parking). ADT is approximately 4,278. Where Despina Drive and Low Gap Road come together is an all-way stop, "T" intersection with crosswalks and a connecting pathway to the school parking lot. Between 2007-2011, two crashes were reported here including one involving severe injuries to a bicyclist.

To the north along Despina Drive, two uncontrolled school crosswalks exist at Capps Lane (a residential street with two crashes reported between 2007-2011, including one involving a pedestrian injury) and at Empire Drive (a residential street that connects all they way to N State Street to the east). No travel mode share data is available for Ukiah High School.



Southbound traffic speeds on Despina Drive are influenced, in part, by a slight grade (hill) and long straight stretch of pavement without driveways or traffic control

Recommendations (cont.)

significantly reduce the commute distance for student bicyclists/walkers from central and southern Ukiah. Projects #4 and #6 also support bicycle access via establishing the Empire Drive neighborhood bikeway and adding trail connections and secure bicycle parking to campus.

Support a Culture of Active and "Green" Student Travel

Unlike at elementary and middle schools (where parents largely dictate travel behavior), high school students typically have more freedom in choosing how they get to/from school. They are also more likely to be influenced by their peers, and to be concerned with environmental issues. Thus strategies to support and encourage a culture of walking, biking, and other "green" forms of transportation (e.g. carpooling) have proven to be most successful with this age group. With incredible bicycle riding opportunities just out the back door, a student bicycle club is one suggestion. Another is to design student competitions to see who can have the "greenest" commute over the course of a month, semester, or year. More information on these items is provided in the SR2S Plan.

ID	Project Description	Lead Agency	Plan Priority	Planning Level Cost Estimate*	Notes/Assumptions
1	Reduced Speed School Zone: Install 20mph speed limit signage on Despina and Capps, 25mph limits on Low Gap, and permanent speed feedback signs on Despina Drive	City of Ukiah	High/ Medium	\$35,000	Two speed feedback signs are estimated at \$30,000. Project includes 10% 'soft costs' for mobilization and installation
2	Despina Drive and Capps Lane: Install curb extensions on all sides and high visibility crosswalk on north leg	City of Ukiah	Medium	\$150,000	Includes large extension on west side, two wrap-around extensions on Capps Lane, and landscaping and drainage improvements
3	Despina Drive at Low Gap Road: Install curb extensions to reduce turning radius and re-stripe crosswalks	City of Ukiah	High	\$90,000	Estimate assumes no drainage impacts with relocated curb and gutter, spot repaving, and minor sidewalk repair at existing ramps
4	School Campus: Extend school parking lot pathway from Low Gap Road and provide secure bicycle parking cage	Ukiah Unified School District	Medium	\$75,000	Assumes up to 20 standard bike racks with new fencing. Site preparation may require additional funds
5	Low Gap Road / Orr Creek Pathway Connection Feasibility Study: Funding for feasibility and conceptual design of creek pathway or on-street cycletrack between high and middle schools	City of Ukiah/ Mendocino County	Medium/ High	\$15,000	Potential focus area for future pedestrian/bicycle plan. Does not include final design or construction. On-street cycletrack would require removal of Class II bike lanes. See also Pomolita Middle Project #4.
6	Empire Drive Bikeway: Install shared lane markings, wayfinding signage, and minor traffic calming	City of Ukiah	Medium	\$12,000	Despina Dr to N Bush St only (Class II bike lanes to State St assumed as separate project)
Total Estimated Project Costs				\$377,000	

* Planning level estimates typically include construction and 30% 'soft costs' for design/engineering. Estimates may not represent all costs associated with project delivery, including potential right-of-way, public outreach, drainage & utility relocation. Funding for construction and maintenance is limited.

Ukiah High School Recommendations



An uncontrolled crosswalk at Capps Lane is heavily used by students for both walking and as an alternative drop-off/ pick up location

EXISTING:

- Vehicle Circulation
- Bike Lanes
- School Path
- Bus Stop
- School Parking
- Bus Loading Zone
- Observed Student Loading
- School Gate/ Entrance

PROPOSED:

- High Visibility Crosswalk
- Curb Extension with ADA Curb Ramps
- Multi-Use Trail or Two-Way Separated Bikeway
- Shared (Class III) Bikeway
- Permanent Speed Feedback Device
- 'Assembly D' Signage
- 'Assembly C' Signage
- 'Assembly B' Signage
- New/Expanded Bike Parking

Improvements not to scale



- 1** **Reduced Speed School Zone**
 - A. Implement 20 mph school speed zone signage on Despina Drive and a portion of Capps Lane; extend 25 mph school zone signage on Low Gap Road all the way to Bush Street
 - B. Install permanent speed feedback signs on Despina Drive in advance of Capps Lane to address speeding concerns and assist compliance with proposed school zone
- 2** **Despina Drive at Capps Lane**
 - A. Stripe high-visibility yellow crosswalk on north side of intersection and install Assembly B and C signage
 - B. Install curb extensions to reduce turning radius and pedestrian crossing, and expand pedestrian waiting areas and curb ramps to comply with ADA
 - C. Consider opportunity for green stormwater management solutions with an educational component for students
- 3** **Despina Drive at Low Gap Road**
 - A. Install curb extensions at northeast and northwest corners to reduce the turning radius, crossing distance, and to improve the visibility of students. Coordinate design with recommendation #5 below
 - B. Stripe high-visibility yellow crosswalks with advance stop bar limit lines
- 4** **School Parking Lot Trail Access & Bike Parking (UUSD)**
 - A. Develop path or sidewalk along the east side of the parking lot to connect with existing facility at Despina Dr / Low Gap Rd intersection
 - B. Provide secure bike parking cage or racks in convenient location; consider passive surveillance opportunities in addition to limited access strategies to limit theft and vandalism
- 5** **Low Gap / Orr Creek Trail Connection Feasibility Study**
 - A. Work with the County and others to consider Class I multi-use trail or two-way on-street cycletrack (dedicated bikeway) between high school and middle school (see Pomolita Middle School Project Recommendation #4)
- 6** **Empire Drive Shared Bikeway**
 - A. Implement a Class III shared bikeway with sharrows on Empire Drive between Despina Drive and State Street per the County Bicycle Plan. Consider additional 20 mph school zone signage to improve safety and convenience for riders

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Yokayo Elementary

Principal: Dana Milani
 Enrollment: K-5th, 476 Students
 Arrival: 8:00 A.M.
 Dismissal: 2:16pm (M, T, TH & F)
 1:25pm (Wed)

Walk Audit Site Visit:
 Morning Drop Off, April 17th, 2012
 Free & Reduced Lunch Eligible: 69.7%

Walk Score: 71*

*See www.walkscore.com for more info

Existing Conditions

Location, Layout, and Access

Yokayo Elementary is located at the intersection of two primary transportation corridors in the south central area of Ukiah: S Dora Street (a minor arterial street with dedicated bike lanes) and W Gobbi Street (a minor arterial with bike lanes east of Oak Street). The main entrance, parent and bus drop off loops are accessed from S Dora Street. The south end of the campus is bound by Mendocino Drive and single family residential homes. The west and north sides are also primarily single family residential. The school has a relatively "open" campus with pedestrian access points on the northwest, east, and south.

Yokayo's attendance boundary extends north to Walnut Avenue, east to the railroad tracks (with additional areas to the northeast between Brush Street, Hwy 101, and Perkins Street), south to Luce Street, and west into the hills. The few buses that serve Yokayo Elementary use a pullout in front of the school on Dora Street. A short parent loading zone is at the southeast corner of campus and requires parents to enter from Dora Avenue and exit to Mendocino Drive. The school tries to maintain right turns only onto Mendocino Drive during drop off/pick up times by stationing teachers and/or the principal to ensure compliance. In the afternoon prior to dismissal, many parents park curbside on Mendocino Drive to wait for students.



The school's primary access route - the intersection of S Dora Street and W Gobbi Street - includes high traffic volumes, narrow sidewalks with barriers, poor curb ramps and crosswalks, and drainage issues. A gap also exists between existing bicycle lanes on each street

(continued on back)

Recommendations



Source: EPA.gov

'Teaching' Raingarden



Accessible Curb Extensions/
Curb Ramps



Buffered Bike Lane



Speed Zones



Walking School Bus

Dora Street at Gobbi Street - A High Priority Confluence of Two Critical Corridors

This intersection is an all-way stop-controlled, "T" intersection directly adjacent to the school. None of the existing curb ramps meet current Americans with Disabilities (ADA) design guidelines and the crosswalks are narrow, lack advanced stop lines for vehicles, and could include higher visibility striping. Within 900 feet of this intersection, seven injury collisions were reported between 2007-2011, one of which included a pedestrian. Observations from the crossing guard at this location¹ include aggressive driver behavior, rolling stops, failure to yield to pedestrians, student crowding, and drainage issues (ponding) in the winter. ¹Interview conducted May 17, 2012

Three projects (ID #'s 1,3, and 5) are recommended to increase bicycle/pedestrian safety at and towards this intersection, all of which are rated high priority. Project #1 would expand space for pedestrians, shorten crossing distances, and solve drainage issues utilizing low impact development (LID) techniques to capture and infiltrate stormwater. Educational signage could be included to teach students about watershed management and natural ecosystems within the urban environment. Project #3 would extend bike lanes on Gobbi Street from Oak Street to the school, which is identified as a high priority in the 2012 County Bike Plan. This project would require the prohibition of parking on the north side of the street. Project #5 would focus on re-striping wider bike lanes on Dora Street north of the school with an additional two-foot striped 'buffer' to increase visual awareness and separation between bicyclists and vehicles.



Existing Conditions (Continued)

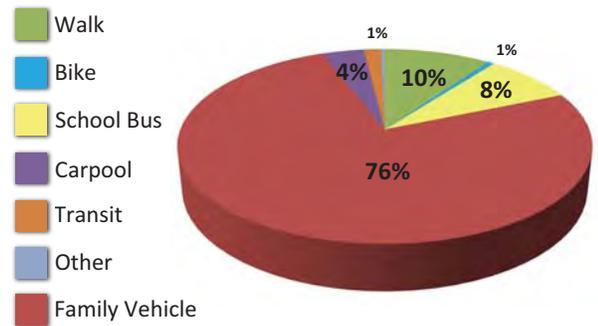
Travel Mode Share

Despite a relatively compact enrollment boundary, flat terrain, and available sidewalk and bikeway network, over three-quarters of students are still chauffeured to school by a parent or guardian. Ten percent of students walk to school, eight percent take the school bus, and four percent carpool. These figures are from a 2012 student hand tally conducted by teachers in accordance with National Safe Routes to School Partnership methods.

Traffic & Safety

W Gobbi Street is a two lane, minor arterial with on-street parking that experiences an average daily traffic volume (ADT) of 13,200 vehicles. Between 2007-2011, five injury collisions were recorded between Dora Street and Oak Street (four of which were at Oak Street). On Dora Street, ADT is approximately 7,500. Mendocino Drive traffic volumes are limited, although the downhill grade towards the school and wide travel lanes can encourage higher travel speeds.

Average Mode Share To/From School - Yokayo



Recommendations (cont.)

Improving Other Uncontrolled Crossings

To improve driver yielding compliance and pedestrian comfort and safety, additional crossing enhancements (curb extensions with new curb ramps, high-visibility yellow crosswalks, improved signage) are recommended along Dora Street at Mendocino Drive and at Luce Street. A new curb ramp and crosswalk at Alice Street and Mendocino Drive would also improve access from the south for walkers and for students getting picked up from school.

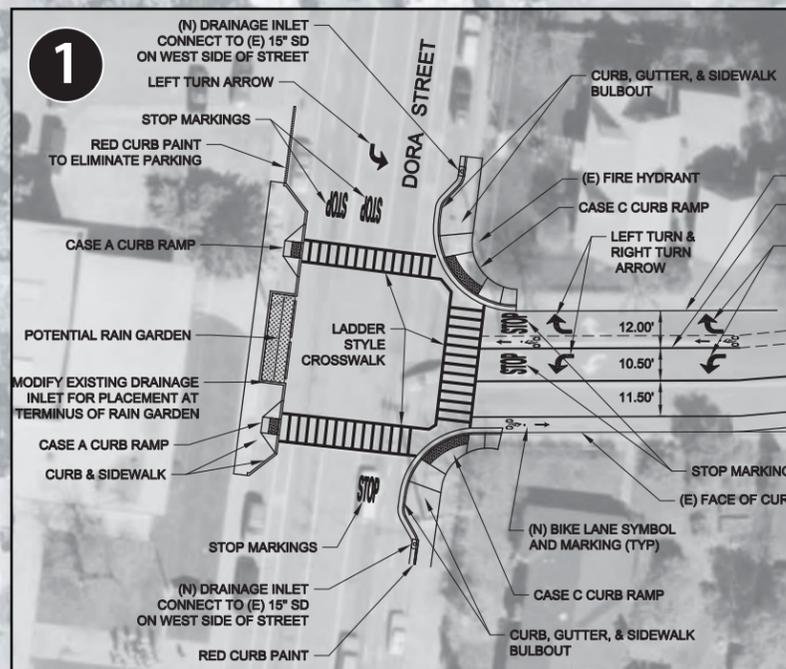
Walking School Buses and Slow Speed Zones

Walking school buses are groups of students walking together chaperoned by one or more adults to help reduce traffic-related and stranger danger concerns. The SR2S Plan has developed Suggested Walking Route Maps and organized resources on the website to assist the formation of walking school buses. These routes include quieter residential streets such as Mendocino Drive and Alice Avenue, which are also good candidates for speed reduction (20mph) zones.

ID	Project Description	Lead Agency	Plan Priority	Preliminary Cost Estimate*	Notes/Assumptions
1	Dora Street/Gobbi Street Enhanced Intersection with "Teaching Raingarden"	City of Ukiah	High	\$175,000	Preliminary engineering plans available on website/in plan
2	Dora Street/Mendocino Avenue Crossing Improvements	City of Ukiah	High	\$110,000	Preliminary engineering plans available on website/in plan
3	Gobbi Street Bike Lanes	City of Ukiah	High	\$32,000	Preliminary engineering plans available; closes bike lane gap from Dora St to Oak St; requires parking removal on north side
4	Gobbi Street at Oak Street ADA Curb Ramps and New Crosswalk	City of Ukiah	High/Medium	\$20,000	Preliminary engineering plans available; collision history at this location
5	Dora Street Buffered Bike Lanes (Gobbi Street to Grove Street)	City of Ukiah	High	\$175,000 - \$225,000	Serves multiple schools; assumes restriping of bike corridor with up to two new crosswalks with pedestrian refuge islands and actuated flashing beacons
6	Mendocino Avenue at Alice Avenue - ADA curb ramp, crosswalk, and reduced school speed 20 mph zone	City of Ukiah	Medium/High	\$12,000	Reduced 20mph speed zones on Alice and Mendocino may be implemented separately (low cost)
7	Dora Street/Luce Street Crossing Improvements	City of Ukiah	Longer Term	\$125,000	Impacts drainage inlet on west side; improved crossing nearby
8	Additional Bicycle Parking	Ukiah Unified School District	Medium	\$2,500	Higher priority with implementation of bicycle projects
Total Estimated Project Costs				\$651,500 - \$701,500	

* Planning level cost estimates include construction and 30% 'soft costs' for design/engineering (typical). Estimates may not represent all costs associated with project delivery, including potential right-of-way, public outreach, drainage & utility relocation. Funding for construction and maintenance is limited.

Yokayo Elementary School Recommendations



- 1 Dora Street at Gobbi Street Enhanced Intersection**
 - Install curb extension on west side of Dora Street to improve pedestrian safety and alleviate drainage issues. Consider demonstration or "teaching" raingarden with green stormwater management in lieu of standard inlet design.
 - Install curb extensions on NE and SE corners on Dora Street to reduce crossing distances. Install warning signage for bicyclists and northbound, right-turning vehicles.
 - Stripe high-visibility yellow crosswalks on north and south legs. Consider additional pedestrian refuge island or paddle signage on south leg in center "dead space."
- 2 Mendocino Drive at Dora Street Crosswalk**
 - Install curb extensions on northeast and northwest corners of the intersection to reduce crossing distance and increase pedestrian visibility. Include pedestrian paddle signage for maximizing driver compliance.
- 3 Gobbi Street Bike Lanes**
 - Connect exiting bike lanes on Gobbi Street to Dora Street; prohibit parking on north side of roadway.
 - If bike lanes prove infeasible, install enhanced Class III (shared) bikeway with sharrow markings, SHARE THE ROAD signage, and possible speed reduction to 20mph.
- 4 Gobbi Street at Oak Street Enhanced Crossing**
 - Install a high-visibility white crosswalk across Gobbi Street at high collision location. Recommend pedestrian paddle sign.
 - Install ADA curb ramps on NW, SW, and SE corners and white transverse crosswalks across Oak Street.
- 5 Dora Street Buffered Bike Lanes**
 - North of Gobbi Street, re-stripe with wider (6') bike lanes and 2' striped buffer from traffic.
- 6 Mendocino Drive at Alice Avenue**
 - Install ADA curb ramp and high-visibility crosswalk on east leg of intersection.
 - Consider reduced school speed zone of 20mph and traffic calming treatments on Mendocino Avenue.
- 7 Dora Street at Luce Street Crossing**
 - Install curb extensions, high-visibility crosswalk, and pedestrian paddle sign on north leg of intersection.

EXISTING:	PROPOSED:
Crossing Guard	High Visibility Crosswalk
Vehicle Circulation	Curb Extension with Ramp(s)
Bike Lanes	Pedestrian Refuge Island
Bike Parking	ADA Curb Ramps
Parent Loading Zone	Demonstration or "Teaching" Raingarden
Bus Loading Zone	Bicycle Lanes (Class II)
Parking	Bicycle Parking
On-Street Loading/Parking Observed	
School Gate	

Improvements not to scale

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Appendix B: Project Prioritization Matrix

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School(s) Served	ID	Project Description	Lead Agency	Cost Estimate	Priority	Notes	Prioritization Criteria - Detailed				
							Addresses a Known Safety Issue	Serves Walking/Biking Students	In Other Plans, Supports Sustainability	Cost Efficiency / Feasibility	Access to Community Destinations
All	None (Citywide Project)	Reduced School Zone Speed Limits	City of Ukiah	\$75,000	High	Project generally combines signage recommendations/costs from individual projects and thus is not included in matrix summary totals. Estimate assumes installation of 15 'units' consisting of six assembly signs, two sign removals, one crosswalk restriping, red curb painting, 10% contingency, 10% engineering, 3% mobilization	H Targets key indicator of safety (general) and documented speeding issues on specific streets	M Slower speeds focused on bikeways and suggested walking routes to school	H Expands existing school signage program and supports bikeway network; can be combined with recommended education and encouragement strategies for maximum impact	H Highly feasible project with relatively low costs	H Serves multiple school and community routes
Yokayo	Y1	Dora Street/Gobbi Street Enhanced Intersection with "Teaching Raingarden"	City of Ukiah	\$175,000	High	Preliminary engineering plans available; related projects Gobbi St bike lanes, Oak Street crosswalks; Dora buffered bike lanes	H High ADT; Heavy vehicle turn volumes together with narrow sidewalks, poor ADA accessibility; identified as high priority in walk audit with input from school crossing guard	H Serves city's two most important bikeways; neighborhood school with strong potential for increased walking, biking; on suggested school walking route	H On City/County Bike Network; supports needed drainage improvements	M Highly feasible project with relatively high costs	H High walk score; serves multiple school routes
Yokayo	Y3	Gobbi Street Bike Lanes	City of Ukiah	\$32,000	High	Preliminary engineering plans available	M High ADT, vehicle turn volumes; bike lanes dropped before major intersection	H Closes last gap between city's two most important bikeways; neighborhood school with strong potential for increased walking, biking; on suggested school walking route	H In City/County bikeway network and high priority project from 2012 County Bike Plan; highly compatible with Projects #1, 4	H Highly feasible project with relatively medium/low costs compared to benefits	H Improves access to S State Street and crosstown destinations, including school(s)
Yokayo	Y5	Dora Street Buffered Bike Lanes (Pomolita Dr to Grove St)	City of Ukiah	\$200,000	High	Assumes restriping of corridor with up to two new crosswalks and potential rapid flashing beacon	H Increases separation of bicyclists and vehicles on high volume, relatively high speed collector street; narrows wide travel lanes; collision history along corridor, but less so than parallel alternative route (State St) that lacks dedicated bike lanes	H Buffered bike lane facilities help serve a wider range of potential users; increase buffer from sidewalk as well; neighborhood school	H Existing Class II bikeway; highly visible commitment to active transportation	M/H Highly feasible project with relatively low cost per mile, but high overall cost; does not impact vehicle capacity or parking despite visible benefits	H Primary north/south bikeway with mixed uses serving multiple schools
Pomolita	P1 (A,B,C)	Level 1 Access Improvements: Upgrade uncontrolled crosswalks, signage, speed zones	City of Ukiah	\$55,000	High	Includes two speed feedback signs estimated at \$30k, pedestrian refuge islands	H Addresses intersections with relevant crash history, corridors with documented speeding issues; proven safety countermeasures	H Improves multiple pedestrian /bicycle crossings from different neighborhoods	M Complements other projects and anticipated plans	H Highly feasible with relatively low costs, known safety benefits	H Improves walkability and safe access toward State Street, Todd Grove Park
Nokomis	N2	Enhanced Uncontrolled Crossings/ Reduced Speed Signage	City of Ukiah	\$15,000	High	High visibility striping for five crosswalks, implements slow speed zone	H Adds proven safety countermeasures to important with documented speeding issues	H Enhances safety and comfort for both modes; school has high student densities within 1/2 mile	M Supports key city/county bikeways; crossing improvements consistent with others along Dora Street	H Highly feasible with relatively low costs, known safety benefits	H Improves access to and across Dora Street, which has commercial, community services; residential streets are identified cross-town routes

Nokomis	Helen Ave and Washington Ave N5(A) Class III Shared Bikeways	City of Ukiah	\$25,000	High	Project includes sharrow markings, wayfinding signage, minor traffic calming; bicycle education/safety promotion should accompany implementation	H Complements slow speed zones on these streets, which have known speeding issues; sidewalk gaps force additional shared roadway with pedestrians	H Expands bikeway network for high density of students within close proximity to school; supports pedestrian activity through traffic calming and wayfinding	H In City/County bikeway network and high priority project from 2012 County Bike Plan; highly compatible with Projects #2	H Highly feasible with low costs; short-term measure to support pedestrian safety on streets with sidewalk gaps	H Expands bikeway network for crosstown travel; serves multiple schools (Yokayo and Pomolita)
Ukiah High	Despina Drive at Low Gap Road: Install curb extensions and restripe U3 crosswalk	City of Ukiah	\$90,000	High	Estimate assumes no impact to drainage, spot repaving, minor sidewalk repair	H Relevant crash history at site, including bicycle injury; intersection includes wide turning radii, high traffic volumes	H Improves intersection of two bikeways at major entrance to school; highly visible improvement could attract more bicyclists	M Improves existing bikeway network, supports ADA transition plan	H Highly feasible project with relatively low/medium costs	H Improves access to County services, athletic fields, Low Gap Park in addition to neighborhood and school
Frank Zeek	Bush Street at Low Gap Road: Install Z3 Roundabout	City of Ukiah	\$700,000	High	Placeholder estimate to complete funding for roundabout construction with pedestrian/bicycle accommodations (in addition to \$750,000 already secured); consider with Frank Zeek Project 2A;	H Addresses substandard pedestrian and bicycle crossing design, and reduces potential conflicts for all modes, at high volume intersection with nearby crash history	H Serves elementary, middle, and high school bicycle and walking routes; highly visible improvement supports mode shift	H City has applied and received County funding for design; support climate action goals of reducing vehicle emissions associated with stop and go congestion	M Project requires right-of-way and has high capital costs, although proven design avoids higher ongoing maintenance of traffic signal	H Major intersection provides access to/from much of North Ukiah for all modes
Frank Zeek	Residential Street Reduced Speed Z4 Zones	City of Ukiah	\$4,000	High		H Streets have rolled curbs and sidewalk gaps that require vehicles and residents/walkers to share roadway; streets currently lack speed/school signage	H Improvements in residential neighborhood in close walking/biking distance to school	M Supports citywide speed zone recommendations and may be considered mitigation for anticipated construction impacts for Low Gap Rd/Bush St roundabout	H Highly feasible, low cost project with potential to improve safety for all modes	H Supports safe access to Vinewood Park and N State Street
River Oak	R1C Leslie St Reduced Speed Zone	City of Ukiah	\$3,000	High		H Street has existing sidewalk gaps and documented speeding issues, collision history	M Unclear benefits due to high rate of driving to school, but addresses comfort and safety of primary school route	H Supports citywide reduced school speed zone recommendation, travel safety for high growth focus area	H Highly feasible, proven safety countermeasure with low cost	H Supports safety and access to senior center, bus stops, future rail-with-trail and high growth focus area
River Oak	Clay/Peach Street Sidewalk and R3 (B,C) Bikeway Gap Closure	City of Ukiah	\$90,000	High		H Adds alternative route to high speed, high volume arterial corridors with significant collision histories	M Unclear benefits due to high rate of driving to school, but focused on active travel and connection to future rail trail	H Complements and expands upon planned project in high growth focus area, supports climate action goals	H Project can leverage, be coordinated with Courthouse development to reduce cost, construction impacts; bikeway striping highly feasible, low cost	H Supports safety and access to senior center, bus stops, future rail-with-trail and high growth focus area
River Oak	R4 Perkins Street Road Diet Study	City of Ukiah	\$25,000	High	Potential short-term action coordination opportunity with Courthouse redevelopment site; eligible for a wider array of funds than other projects	H Study to address corridor with high density of collisions, documented issues with "double threat" uncontrolled crosswalks, and lack of dedicated space for bicycles (despite importance for network)	M Unclear benefits due to high rate of driving to school, but addresses major barrier for both modes and after school travel	H Supports recent Perkins Street form-based code effort, Courthouse development transportation access needs, rail with trail project, and climate action goals	H Despite potential political/communication challenges, traffic volume data indicates road diet concept is feasible and study can be completed in coordination with County Courthouse development; extremely high potential benefits	H Supports safety and access to major commercial and community services, senior center, bus stops, future rail-with-trail and high growth focus area

Pomolita	Level 2 - Grove Ave and Bush Street P2A Buffered Bike Lanes	City of Ukiah	\$170,000	High/Medium	Grove Avenue improvements higher priority than Bush Street (estimated at \$65k)	M Corridors have existing bike lanes, but high speeds; buffered treatments would increase separation from traffic and encourage lower vehicle speeds	H Enhances primary bikeway network serving multiple schools and neighborhoods	H City/County bike network; highly visible improvements support climate action goals	M Feasible projects with medium cost; Grove Ave fewer issues than Bush St, which requires parking removal on one side	H Primary corridors in citywide bikeway network, with access to parks, schools, commercial areas
Nokomis	N1 School Parking Lot Options A, B	UUSD	\$55,000 - \$415,000	High/Medium	Preliminary engineering plans available; possible joint project with City of Ukiah for sidewalk improvements	H Closes major sidewalk gap on street with known speeding issues (Option A); supports fewer vehicle conflicts and need for pedestrian crossings at uncontrolled location (both options)	H Closes sidewalk gap in front of primary school entrance and supports improved conditions for bicycling on Washington Street	M Supports climate action and other comprehensive goals, but is not identified in school district budget or plans	M Both options are technically feasible but additional feedback is needed to understand efficiencies; Option B has lower costs but less benefits than Option A	M Removes major sidewalk gap and improves on-street travel conditions for all modes on identified bikeway, supports access to Dora Street services
Ukiah High	U1 Reduced School Zone Speed Limits	City of Ukiah	\$35,000	High/Medium	Cost estimate primarily for optional speed feedback signs (x2)	H Addresses documenting speeding issues on high volume streets with collision histories	M Streets have existing bike lanes and sidewalks, but active travel benefits	M Supports citywide speed zone recommendations and existing bikeway corridors	H Highly feasible, low cost project; effect of speed feedback signs can be maximized with school education/encouragement	H Improves key streets that access County services, Low Gap Park, transit route
Frank Zeek	N Bush Street - Access upgrades Z2A along island pathway	UUSD/City of Ukiah	\$100,000	High/Medium		M Corridor has existing sidewalk and bike lanes, but ADA deficiencies and high vehicle speeds; is more important if roundabout constructed	H Supports more direct access to school via separated pathway for active travel	H Supports and complements planned roundabout and ADA transition, climate action goals	M Highly feasible project can be scaled to accommodate budget; medium overall benefits/costs	H Improves access to Ukiah Adult School, Headstart, transit route, county services to southwest
River Oak	Leslie St Sidewalk Redesign & R1 (A,B) Enhanced Crosswalk	City of Ukiah	\$115,000	High/Medium	Opportunity to leverage/coordinate with Courthouse development	M Project does not directly address sidewalk gaps (assumed by others) but adds landscape buffer to sidewalk and shortens crossing distances	M School currently has low walking rates, but with Courthouse improvements may support mode shift	H Project consistent with planned Courthouse project, supports climate action goals and safety in high growth area	H Opportunity to leverage/coordinate with planned project; project appears highly feasible with potential for medium/high impacts	H Project serves access to existing senior center and transit stop, also future development with Courthouse project
Ukiah High	Low Gap Road/Orr Creek Pathway U5 Study	County/City	\$15,000	Medium/High	Could be limited to review of on-street cycletrack feasibility, or could expand to include consideration of north/south connector (see Pomolita Project #4)	M Project to study alternative trail route separated from high traffic volume roadway with collision history	M Impacts to be determined with project feasibility, but would improve conditions over existing bike lanes/sidewalks and informal pathways on County property	H Project focuses on existing bikeway network, and potential connections to/along Orr Creek are considered in 2012 County Bike Plan; supports climate action goals	M Construction/design feasibility to be determined in study; multiple parties may complicate study scope and approval	H Supports school, city, county destinations including athletic fields and parks, creek amenities
Ukiah High	Despina Drive and Capps Lane: Uncontrolled Crossing U2 Improvements/Curb Extensions	City of Ukiah	\$150,000	Medium/High	Low Impact Development (LID) opportunities similar to Projects Y1, Z1, and R1; consider also potential construction-related traffic diversion impacts of planned Low Gap/Bush roundabout	M Uncontrolled crosswalk of street with documented speeding issues; existing conflicts with drop off/pick up activities & high use	H Supports both bicycling and walking routes with direct improvements to non-motorized school trail	H Supports ADA transition plan and complements project recommendations in this plan; potential for LID design	M/H Feasible project with drainage impacts; could be implemented with lower cost striping improvements as first phase	M Supports access to local bus route (Route 9); project on key street for local neighborhood access
Yokayo	Gobbi Street at Oak Street ADA Curb Y4 Ramps and New Crosswalk	City of Ukiah	\$20,000	Medium/High	Preliminary engineering plans available	H/M Relatively strong demand for n/s crossing of high ADT urban arterial; poor ADA accessibility; collision history	M Contributes to improved accessibility along suggested walking route and traffic calming on key bikeway; neighborhood school	H Supports ADA transition plan, improved commercial access to State Street	M Impacts to drainage with proper curb ramps; potential for improvements with development of adjacent vacant lots	H Directly serves commercial services on State Street and multiple school routes, nearby church

Yokayo	Mendocino Ave at Alice Ave - ADA Curb Ramp, Crosswalk, Reduced Y6 Speed Zone	City of Ukiah	\$12,000	Medium/High	Reduced speed zone on roads may be implemented separately	M Project on residential street with existing 25mph signage, but roadway slope encourages high speeds; no ADA accessibility and dated striping at uncontrolled crossing; adjacent curbside loading	H Improves suggested walking route at neighborhood school; provides alternative to busier Dora St	M Supports ADA transition plan, suggested walking route	H Relatively low cost, highly feasible project	M High walk score, but mainly addresses school access
Frank Zeek	Arlington Drive at N Bush Street - Z1(A,B) Curb Extensions	City of Ukiah	\$175,000	Medium/High	Can be implemented independent of or in conjunction with Project #1C; also consider in relation to potential construction/detour impacts for planned roundabout at Bush Street/Low Gap Road	M/H Addresses large crossing distances and access issues at busy intersection near school load loop	H Highly visible improvement at major school gateway; high potential walk/bike rate for neighborhood school	H Support comprehensive improvements on existing bikeway, climate action goals, and potential non-infrastructure education and encouragement efforts	M Project requires additional engineering, includes relatively high costs and medium/high benefits	M Supports access to Ukiah Adult School and Headstart, nearby park, and route to Pomolita Middle School
Oak Manor	Oak Manor Drive Reduced Speed O4 Zone	City of Ukiah	\$2,500	Medium/High	Part of citywide recommendation for slower school speed limit zones	M Proven safety countermeasure on street with limited collisions, speeding issues	L Low rate of walking/biking to school, but improvement would support local neighborhood walkability/bikeability	H Supports citywide reduced school speed zone recommendation, route identified in county bikeway network	H Highly feasible, low cost project	H Supports improved access to Oak Manor Park, Highway 101 pedestrian bridge

Tier One Project Costs		Sub Total	\$2,623,500			City of Ukiah	\$2,093,500	Ukiah Unified SD \$55,000 - \$415,000		Partnership Projects \$115,000
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Yokayo	Dora Street/Mendocino Avenue Y2 Crossing Improvements	City of Ukiah	\$110,000	Medium	Preliminary engineering plans available	M	M	M	M	M
Yokayo	Dora Street/Luce Street Crossing Y7 Improvements	City of Ukiah	\$125,000	Medium		H	M	M	M	M
Yokayo	Y8 Additional Bike Parking	UUSD	\$2,500	Medium		L	M	H	M	L
Pomolita	Level 1 Access Improvements: add P1D bike parking and trail landscaping	UUSD	\$10,000	Medium	Possible Tier 1? Highly achievable and good promotional/student volunteer opportunity	L	H	M	M	M
Pomolita	Level 2 - speed feedback signs, P2B western bikeway, stop sign upgrades	City of Ukiah	\$85,000	Medium		M	H	H	M	M
Pomolita	Level 3 - ramps, curb extensions, P3 sidewalk gap closures	City of Ukiah	\$650,000	Medium		H	H	M	L	M
Pomolita	P4 North/South Connector Orr Creek	County/UUSD	\$250,000	Medium		M	M	H	M	M
Pomolita	P4 Orr Creek Trail at Bush Street	City of Ukiah	\$50,000	Medium		L	M	H	M	M
Nokomis	N3 Helen Ave Sidewalk Gap Closure	City of Ukiah	\$115,000	Medium		H	H	M	L	L
Nokomis	Wabash Ave Curb Ramps, Crossing N4(A,B) Improvement at Dora St	City of Ukiah	\$110,000	Medium		M	H	M	M	H
Nokomis	School Back Gate and Accessible N4(C) Pathway	UUSD	\$25,000	Medium		M	H	M	M	L
Nokomis	N5(B) School Bike Parking	UUSD	\$2,500	Medium		L	H	M	M	L
Nokomis	N6 Dora Street Southern Crossing	Mendocino County/City	\$90,000	Medium		M	H	H	M	M
Ukiah High	School Campus: Extend Parking Lot U4 Pathway	UUSD	\$75,000	Medium		M	H	M	M	L
Ukiah High	U6 Empire Drive Bikeway	City of Ukiah	\$12,000	Medium		L	M	H	H	M
Frank Zeek	Arlington Drive at N Bush Street - Replace School Bus Loop with Non-Motorized Gateway Z1C	UUSD	\$90,000	Medium		M	H	M	M	L
Frank Zeek	Bush Street Reduced Speed Zone Z2(B,C) and Speed Feedback Signs	City of Ukiah	\$35,000	Medium		M	M	M	M	M
Frank Zeek	Z5 School Bicycle Parking	UUSD	\$1,500	Medium		L	H	M	H	L
River Oak	Repave and Redesign School Parking R2 Lot	River Oak Charter/UUSD	\$300,000	Medium		M	H	M	M	L

River Oak	Orchard Street Bike Lanes/Reduced Speed Zone & Gibson Creek Pathway R5 Improvements	City of Ukiah	\$100,000	Medium	Break out Gibson Creek Pathway for higher priority and lower cost	M	H	H	M	M
River Oak	Gobbi Street Pedestrian Countdown R6 Signals	City of Ukiah	\$5,000	Medium		M	M	L	M	M
Oak Manor	O1D Install Carpool Priority Parking Stalls	UUSD	\$3,000	Medium		L	L	H	H	L
Oak Manor	O1(A,B) Refresh Crosswalk Striping/Paddle	City of Ukiah/UUSD	\$4,000	Medium		M	M	M	H	L
Oak Manor	O1C Install ADA curb ramps	City of Ukiah/UUSD	\$20,000	Medium		M	M	M	M	L
Oak Manor	O3 Oak Manor Drive Shared Bikeway	City of Ukiah	\$6,000	Medium		L	M	M	H	M
Oak Manor	Pave schoolyard pathway to Oak O2A Manor Trail	UUSD	\$60,000	Low		L	M	M	L	L
Oak Manor	Upgrade Trail Lighting and O2B Neighborhood Connectivity	City of Ukiah	\$115,000	Low	Placeholder estimate	M	L	M	L	M
Tier Two Projects Sub Total			\$2,451,500		City of Ukiah	\$1,518,000	Ukiah Unified SD	\$569,500	Partnership Projects \$344,000	
Total Project Costs (Tier 1 + Tier 2)			\$5,075,000		City of Ukiah	\$3,611,500	Ukiah Unified SD	\$984,500	Partnership Projects \$459,000	

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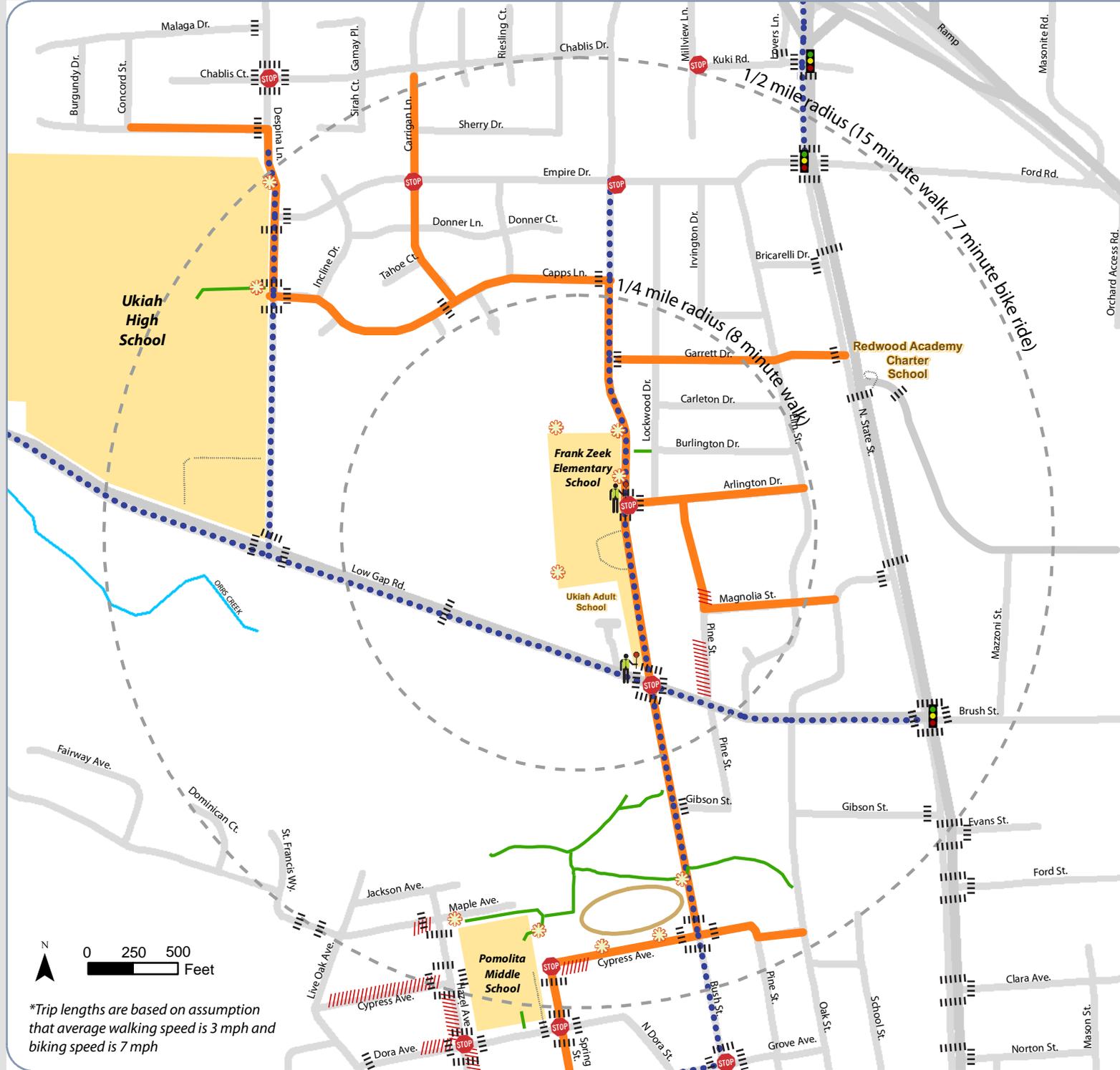
Appendix C: Suggested Route to School Maps

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Frank Zeek Elementary School Suggested Routes to School Map

1060 N Bush St Ukiah, CA 95482 | (707) 472-5100



Roadway and Safety Features

- Crossing Guard
- All Way Stop
- Traffic Signal
- Marked Crosswalk

Walkways and Bikeways

- Sidewalk Gaps
- Off-Street Footpath
- Existing Bikeways
- Suggested Routes to School

School Information

- Access Point
- 

City of Ukiah / Ukiah Unified School District

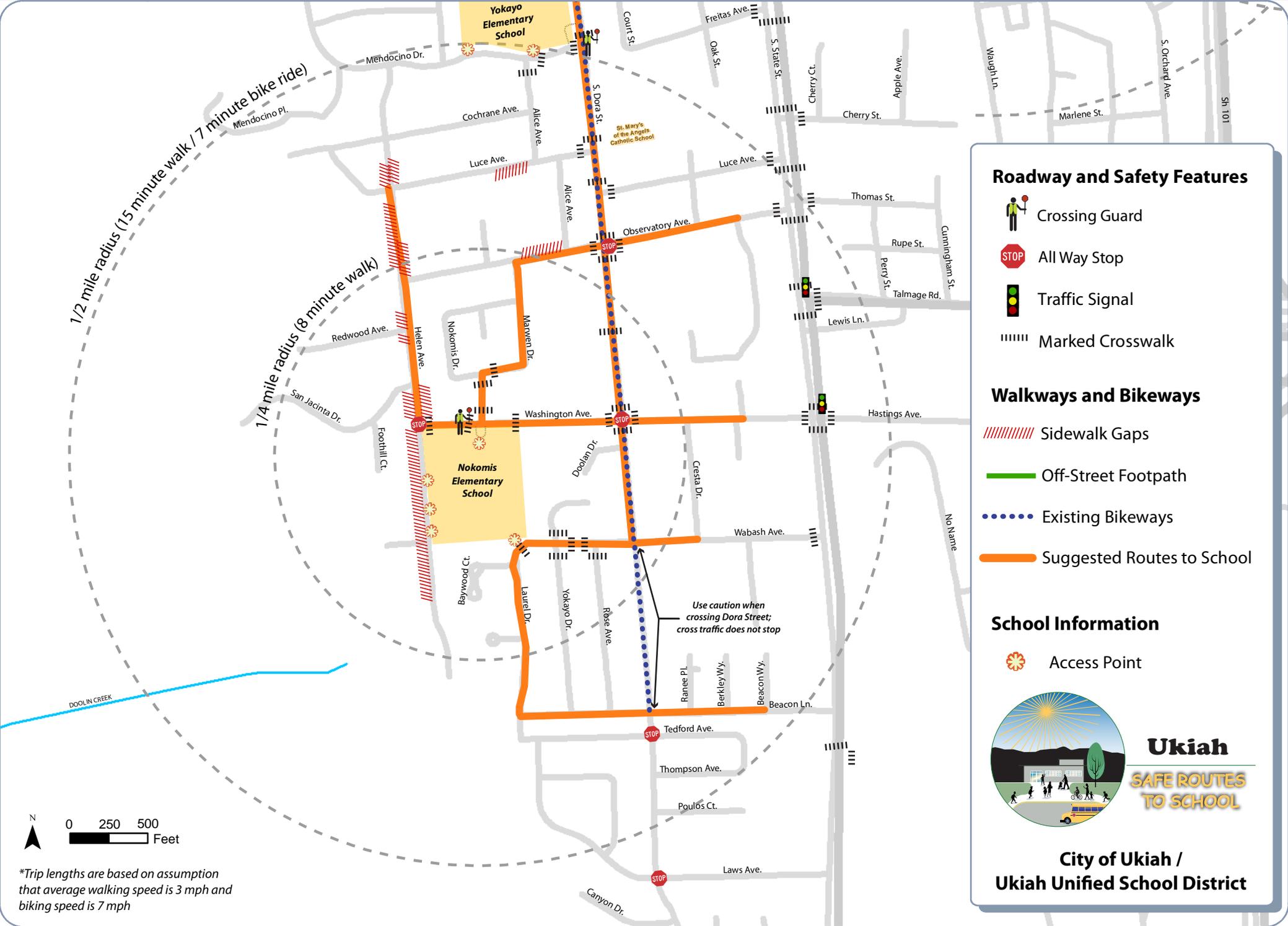


*Trip lengths are based on assumption that average walking speed is 3 mph and biking speed is 7 mph



Nokomis Elementary School Suggested Routes to School Map

495 Washington Ave Ukiah, CA 95482 | (707) 463-5242



Roadway and Safety Features

- Crossing Guard
- All Way Stop
- Traffic Signal
- Marked Crosswalk

Walkways and Bikeways

- Sidewalk Gaps
- Off-Street Footpath
- Existing Bikeways
- Suggested Routes to School

School Information

- Access Point



Ukiah
SAFE ROUTES TO SCHOOL

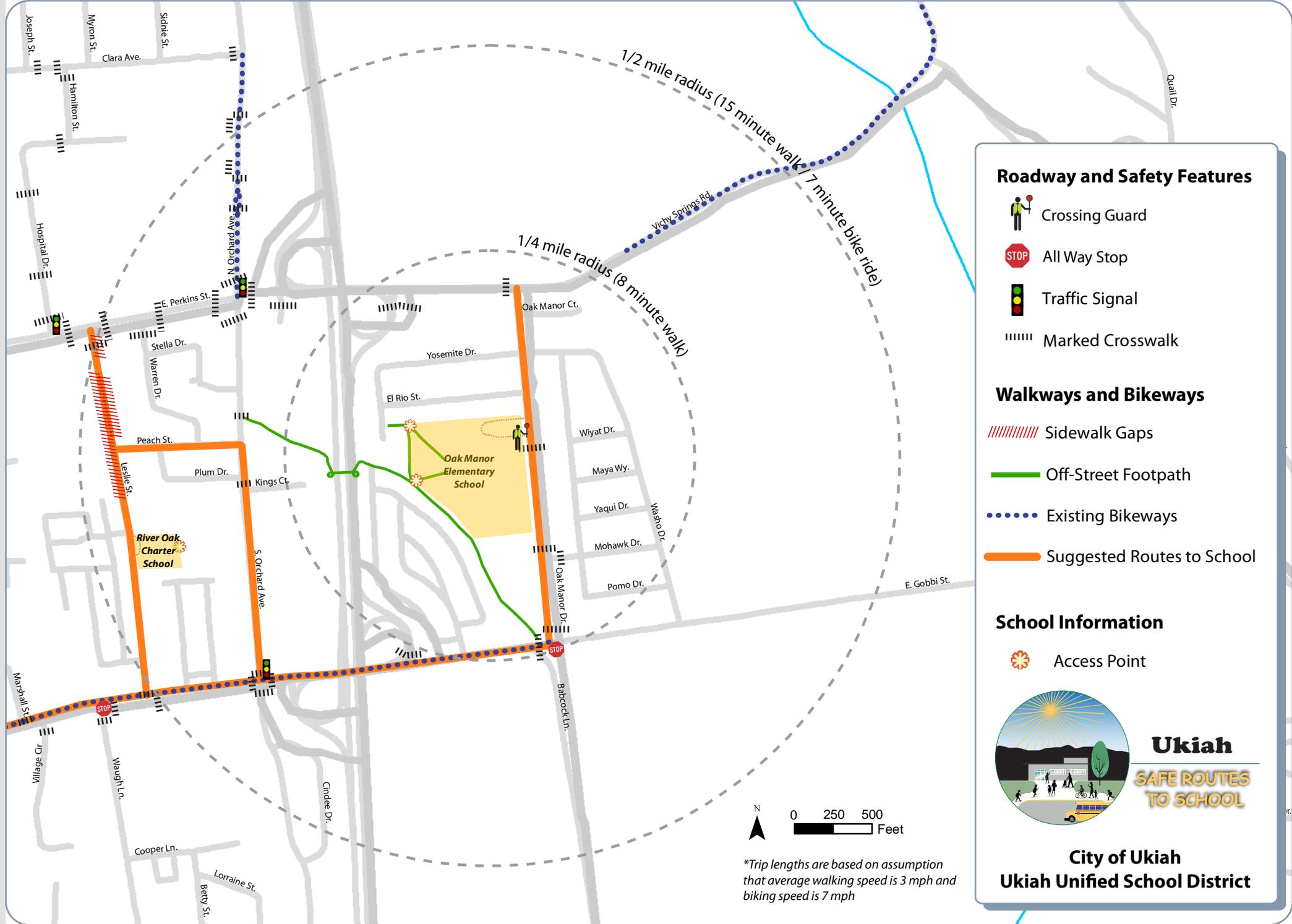
**City of Ukiah /
Ukiah Unified School District**

*Trip lengths are based on assumption that average walking speed is 3 mph and biking speed is 7 mph



Oak Manor Elementary School Suggested Routes to School Map

400 Oak Manor Drive Ukiah, CA 95482 | (707) 463-5249



Roadway and Safety Features

- Crossing Guard
- All Way Stop
- Traffic Signal
- Marked Crosswalk

Walkways and Bikeways

- Sidewalk Gaps
- Off-Street Footpath
- Existing Bikeways
- Suggested Routes to School

School Information

- Access Point



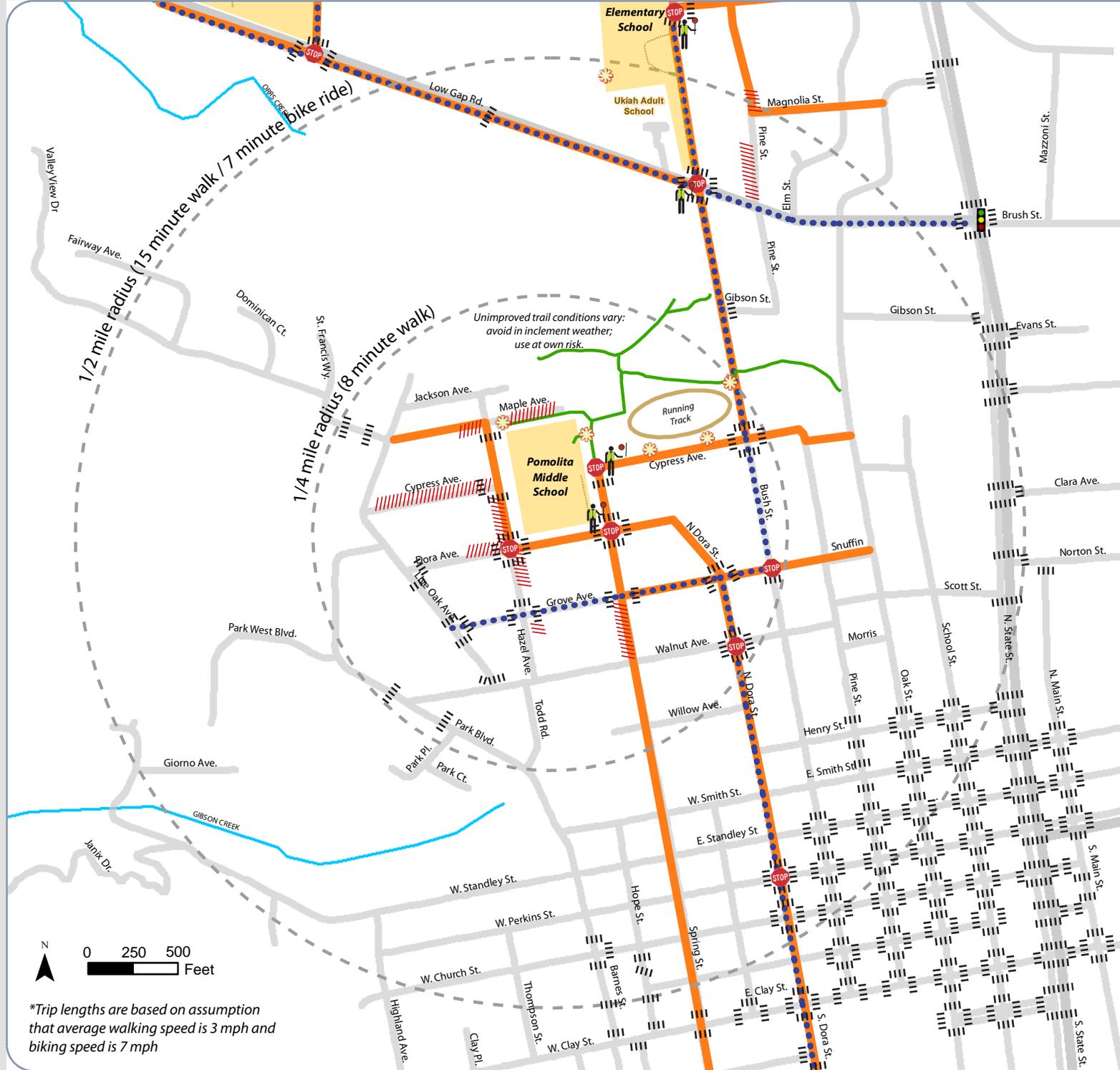

*Trip lengths are based on assumption that average walking speed is 3 mph and biking speed is 7 mph

City of Ukiah
Ukiah Unified School District



Pomolita Middle School Suggested Routes to School Map

740 N Spring St Ukiah, CA 95482 | (707) 463-5224



Roadway and Safety Features

- Crossing Guard / Safety Officer
- All Way Stop
- Traffic Signal
- Marked Crosswalk

Walkways and Bikeways

- Sidewalk Gaps
- Off-Street Footpath
- Existing Bikeways
- Suggested Routes to School

School Information

- Access Point



Ukiah
SAFE ROUTES TO SCHOOL

City of Ukiah
Ukiah Unified School District

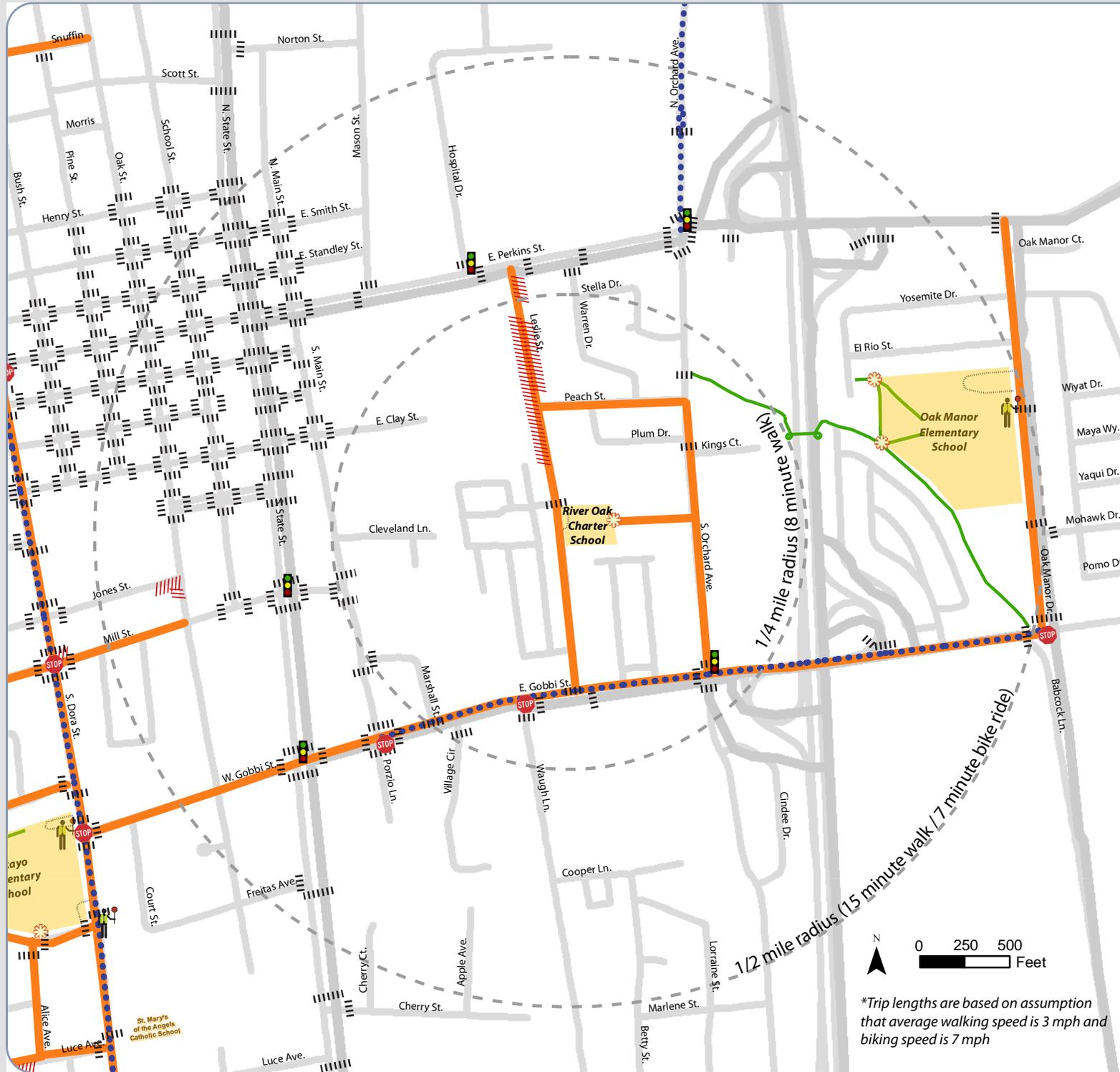


*Trip lengths are based on assumption that average walking speed is 3 mph and biking speed is 7 mph



River Oak Charter School Suggested Routes to School Map

555 Leslie St, Ukiah, CA 95482 | (707) 467-1855



Roadway and Safety Features

- Crossing Guard
- All Way Stop
- Traffic Signal
- Marked Crosswalk

Walkways and Bikeways

- Sidewalk Gaps
- Off-Street Footpath
- Existing Bikeways
- Suggested Routes to School

School Information

- Access Point



Ukiah
SAFE ROUTES
TO SCHOOL

City of Ukiah
Ukiah Unified School District



*Trip lengths are based on assumption that average walking speed is 3 mph and biking speed is 7 mph

1/4 mile radius (8 minute walk)

1/2 mile radius (15 minute walk / 7 minute bike ride)



Yokayo Elementary School Suggested Routes to School Map

790 S Dora St Ukiah, CA 95482 | (707) 463-5236

Oak Manor Elementary School
August 2014

River Oak Charter School

Roadway and Safety Features

- Crossing Guard
- All Way Stop
- Traffic Signal
- Marked Crosswalk

Walkways and Bikeways

- Sidewalk Gaps
- Off-Street Footpath
- Existing Bikeways
- Suggested Routes to School

School Information

- Access Point



Ukiah
SAFE ROUTES
TO SCHOOL

City of Ukiah /
Ukiah Unified School District

NO NAME

1/2 mile radius (5 minute walk / 7 minute bike ride)

1/4 mile radius (8 minute walk)



*Trip lengths are based on assumption that average walking speed is 3 mph and biking speed is 7 mph



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Appendix D: Ukiah SR2S Artwork Files

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Watch for Kids, Take it Slow.

UKIAH SAFE ROUTES TO SCHOOL

Learn more at www.ukiahsr2s.org



Walk & Roll for the Soul.

UKIAH SAFE ROUTES TO SCHOOL

Learn more at www.ukiahshr2s.org

