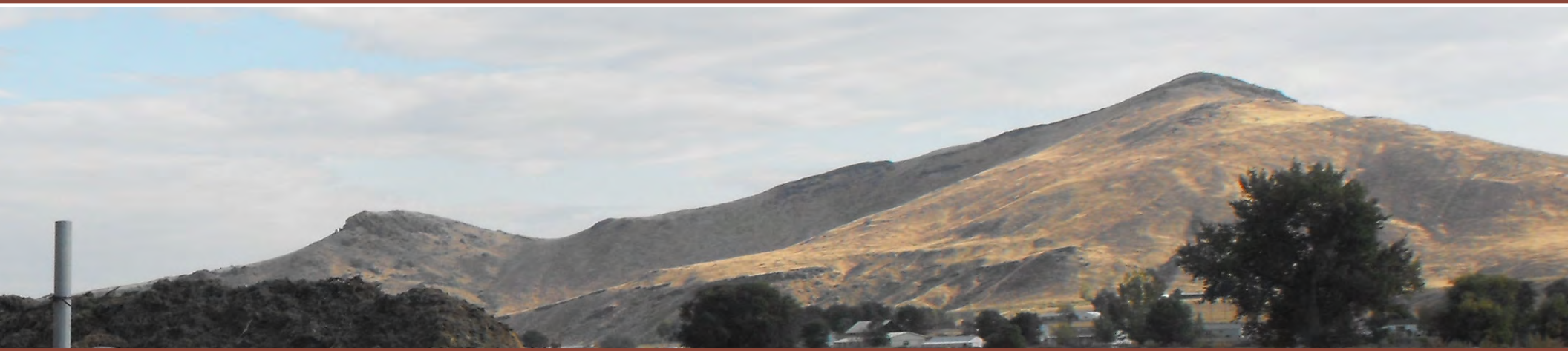




Non-Motorized Transportation System Plan

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ACKNOWLEDGEMENTS

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The development of the City of Vale's Bicycle and Pedestrian Transportation System plan elements was coordinated by a collection of engaged and dedicated people. Their commitment and dedication has led to the development of a foundation of projects and policy, which has the opportunity to greater improve the quality of life and experience for residents and guests for years to come.



June 2011.

This project is partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), local government, and state of Oregon funds. The contents of this document do not necessarily reflect views or policies of the state of Oregon.

ODOT State Traffic Engineer approval is required for any changes to State Highways.

Some planning concepts described in the following plan potentially reduce the vehicle-carrying capacity of State Highways. Further evaluation of the project design will be required at the time of implementation to assure compliance with ORS 366.215.

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EXECUTIVE SUMMARY



This amendment to the City of Vale's Transportation System Plan updates the non-motorized elements of the current plan. The recommendations included here are intended to improve safety and mobility for non-motorized transportation modes including walking, bicycling, wheelchair use, skateboarding, and others. In addition, improvements to non-motorized facilities including sidewalks, trails, and improved pedestrian environments often have secondary benefits of improving a sense of community, enhancing quality of life, and contributing to economic development in communities.

The Planning Process

The update to the non-motorized plan was developed with guidance from City elected officials, City staff, a stakeholder Technical Advisory Committee (TAC), and the general public. Outreach included public workshops, public open houses, and presentations to City Council. Additionally, the planning process included workshops with high school students, coordination with the school district, and coordination with the Oregon Department of Transportation (ODOT).

Need for the Plan Update

The current Transportation System Plan was adopted in 1998. Since that time some major improvements, primarily the A Street and Washington Street streetscape project adding bike lanes and curb extensions for pedestrian crossings, has been completed. Also, since 1998 practices for developing safe and attractive facilities for non-motorized travel have undergone significant change. The City has not, to date, experienced high accident rates for non-motorized travel within the community. There are, however, perceived safety concerns related to inadequacies in current non-motorized facilities. There are also newly-identified opportunities for development of non-motorized trail facilities that could enhance the community. This plan update responds to these needs by:

- Updating guidelines for non-motorized facilities associated with local streets and state highways within the planning area.
- Identifying potentially unsafe locations for non-motorized travel and recommending appropriate improvements
- Identifying trail opportunities and connections between proposed trails and the on-street non-motorized network.

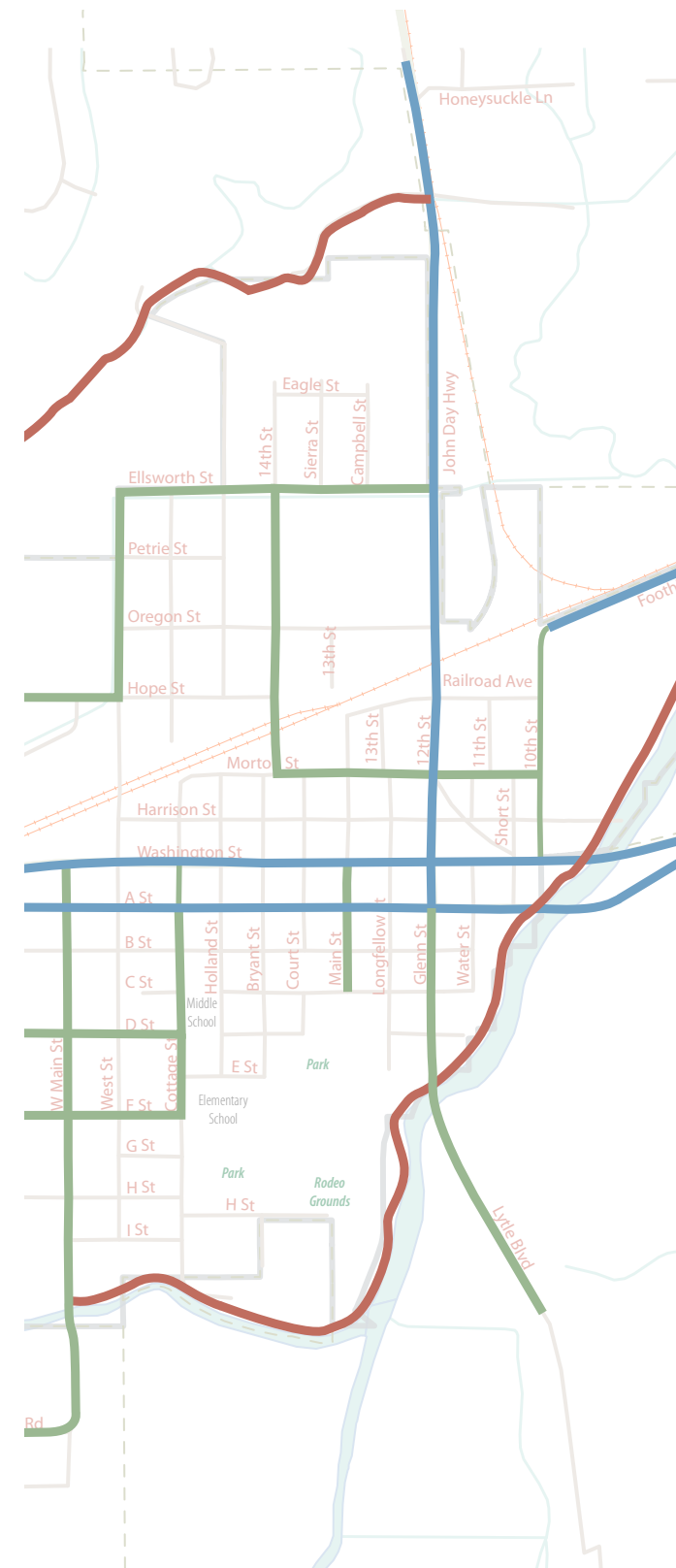
Major Elements of the Plan

The major elements of this plan update include both system-wide recommendations and projects identified for specific locations. Three primary types of non-motorized routes are identified in the non-motorized system plan:

- **Routes with on-street bike lanes.** A few higher volume streets are identified for dedicated on-street lanes to provide bicycle circulation, and sidewalks on one or both sides to accommodate safe pedestrian travel.
- **Non-motorized priority routes.** Typical local streets identified as priority non-motorized routes make up the majority of the non-motorized system. These streets would include pavement markings to indicate that bicycles are sharing the road with motor vehicles, would include sidewalks on one or both sides for pedestrian circulation, and would be emphasis streets for improving pavement and sidewalk quality. Certain intersections with safety concerns would be considered for potential traffic calming measures, with an emphasis on traffic circles.
- **Non-motorized trails.** Dedicated non-motorized trails would be developed in their own rights-of-way. These trails would be for non-motorized use only, with the exception of maintenance and emergency vehicles. Trails would typically be paved, and may include accessory features such as trailheads, parking, viewpoints, and recreational facilities such as water access points.

These three types of facilities are intended to complement each other, and ultimately to create a connected non-motorized system serving the entire community. Projects in the plan identified for specific locations respond to safety or access concerns. These locations are primarily crossing locations, and typically are part of routes to the school property:

- **Viking Drive at Graham Boulevard.** This is a well-used location for high school students to cross the state highway at an unmarked crossing location. The proposed improvement for this location includes construction of a new refuge island, a new striped crosswalk, and a pedestrian-activated warning light system.
- **Main Street at D and F Streets.** D and F streets are heavily used routes to the elementary, middle and high schools. Main Street crosses both of these streets as a through street without stop control, making it difficult for children to identify a safe crossing time. The plan proposes safety improvements including improved warning signs for drivers on Main Street, marked crosswalks, and flashing warning lights at the crossings. The warning lights could be pedestrian-activated (preferred) or be set to turn on during set times of the day during the school year during morning and afternoon.



Implementation

A prioritized project list with planning-level cost estimates for individual improvements is included in Chapters 4 and 5. In general, the non-motorized projects identified in the plan will be implemented through a variety of funding strategies:

- In some cases, non-motorized improvements could be funded as part of a larger multi-modal project, for example an arterial improvement project could include sidewalks and the appropriate on-street bicycle facilities.
- Projects that improve non-motorized safety on school routes may be eligible for grant funding through dedicated programs for safe routes to school.
- Non-motorized trails may also be eligible for grant funding through state or federal grants that support trail development.
- Many of the smaller non-motorized improvement projects, for example infilling missing sidewalk or improving the paving quality on a priority non-motorized street, could be completed as part of the City's regular maintenance program.

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1

INTRODUCTION TO THE TRANSPORTATION SYSTEM PLAN UPDATE

Most daily travel for Vale residents –to school, work, errands or to visit friends and family– takes place in areas maintained and regulated by public agencies including the City of Vale, Oregon Department of Transportation, and Malheur County.

This plan addresses opportunities to improve the safety and quality of non-motorized travel in Vale. Planning for non-motorized transportation can improve safety and make non-motorized travel a more attractive option when choosing between driving, walking or biking. At the same time, there are limited resources for street, sidewalk, and trail improvements. Planning for an effective non-motorized system is critical to identify priorities for future improvements.

Currently in Vale, walking, biking, and rolling, are relatively safe and convenient. However, there are locations that need improvement to encourage non-motorized travel. This is especially true because motor vehicle volumes increase in the future.

The types of travel considered in this transportation system plan update are considered as non-motorized travel modes. This includes walking, bicycling, roller blading, roller skating, skateboarding, and wheelchairs.

Motorized travel modes include personal autos, transit, freight trucks, and trains. It is important to consider how all of these modes interact to improve the level of mobility and safety for all people and all modes.

Some people are able to take advantage of many different types of non-motorized travel; others may be limited in their ability to get around. However, with careful planning and design, many limitations to mobility can be overcome. Travel areas free of obstructions, with controlled grades and smooth surfaces, and providing special guidance for the seeing impaired can make non-motorized travel safer and more convenient for all.

Improved non-motorized opportunities increase opportunities for recreation and improved quality of life. It also can reduce reliance on personal cars, improving the quality of the environment, and quality of life.



PURPOSE OF THIS WALKING AND BICYCLING AMENDMENT

This plan will become a bicycle and pedestrian amendment to the existing Transportation System Plan, adopted in 1999. The purpose of this amendment is to document the efforts that Vale residents, students, city staff, and other stakeholders undertook to better the walking and bicycling environment in Vale. Also, the purpose is to develop an implementation plan and identify funding sources to construct those walking and bicycling improvements.

This plan provides an updated framework for improving the quality of life by establishing a foundation of projects developed by locals and stakeholders. These projects are tailored to meet the current and potential future needs for walking and bicycling in and around Vale. This plan recommends an updated set of city ordinances, which support bicycle and pedestrian travel.

LOCAL COORDINATION AND INVOLVEMENT

This plan was developed as part of a coordinated effort between residents, city staff, city leadership, the Oregon Department of Transportation (ODOT), and stakeholders.

A technical advisory committee (TAC) was formed consisting of engaged and committed people (acknowledged at the beginning of this plan). These people directed the development of this plan.

On August 3rd a group of citizens, city staff, members of council, and the mayor toured Vale by foot and by wheels. The tour developed the foundation of opportunities and constraints for improving mobility for walkers and bicyclists. The tour explored ways to improve access, safety, and amenities at a number of key destinations in Vale, including downtown, around city schools, the Malheur River, parks and open spaces, and local roadways.

Two workshops for students were held October 19th, 2010; one at the High School and one at the Middle School. On October 20th, 2010 a public workshop was held at City Hall, which was open to all residents.

PLAN CONTENTS

This plan explores the possibilities and opportunities for improving access, connectivity, mobility and safety. The opportunities presented in this plan demonstrate how the pedestrian and bicycle environment could be improved to meet the needs of current and future travel.

- Chapter 1.** An introduction to the non-motorized transportation system plan.
- Chapter 2.** Provides a discussion of opportunities and constraints related to non-motorized transportation in Vale. Topics include access and connectivity, comfort and safety, and destinations.
- Chapter 3.** Describes the area of the roadway and makes recommendations for system plan improvements for bicycles bicycle lanes and routes, sidewalks, and pedestrian crossing locations.
- Chapter 4.** Outlines the changes to the bicycle and pedestrian facilities since the previous plan. Also, includes the updates for facility and maintenance costs.
- Chapter 5.** Provides the prioritized list of improvements and descriptions of the elements used to evaluate the proposed projects. Additional details for the high priority projects and items for strategizing implementation are also summarized.
- Chapter 6.** Outlines federal, statewide and regional, and other funding programs.



WHY PLAN FOR WALKING AND BIKING?

Safe, efficient, and pleasant places to walk and bike contribute to healthy and livable communities—great places to live and visit. This planning process will provide the roadmap to:

- Provide a safe environment for non-motorized transportation throughout town
- Provide safe routes for kids from home to school, parks, and other destinations
- Encourage walking and bicycling for transportation within town
- Support a healthy downtown retail and services core
- Provide walking, running and bicycling routes for health and wellness
- Improve the experience of visitors to Vale

2

TRANSPORTATION IN VALE

The City of Vale is a rural agricultural community with approximately 1,970 residents. Residents and visitors enjoy the city's scenic setting, historic character, parks, a shopping and restaurant district, and the annual rodeo. Residents who participated in outreach events for this plan value Vale's small town character and high quality schools, which make it a good place to raise a family. Vale is also the Malheur County seat and the first permanent community in Oregon settled along the Oregon Trail.

Most auto traffic is concentrated on the downtown couplet of A Street and Washington Street. Travelers passing through the city primarily use state routes 20 and 26 (SR 20/26), John Day Highway, Lytle Boulevard, and Graham Boulevard.

There are three public schools in town. The high school is located on the west side of town, west of Viking Drive and south of State Route 20. The middle school and elementary school are located south of downtown near D Street. All of the Vale school properties are bounded by local streets. However, any student traveling from north of town to school must cross a state highway to reach school.

Wadleigh Park is a destination for active recreation and is frequently used for organized sport events. The park's swimming pool is an extremely popular summer destination, and an important traffic generator for walking and biking.

One of Vale's unique assets is the collection of large historical murals painted on buildings throughout town. The murals are an important part of Vale's identity, illustrating the connection between the city's past and present. The murals are a source of local pride and a popular tourism attraction. Although not related to many of the typical non-motorized trips, like home-to-school or home-to-store routes, the Vale mural tour was an important non-motorized route to consider.

Major local streets include West Main Street, West Street South/17th Street North, Cottage Street South, and Foothill Drive/Lagoon Street. Elm Street, Barkley Drive, and Hope Street West are truck routes with seasonally heavy traffic.

Non-motorized transportation in Vale includes walking, bicycling, and other forms of wheeled travel such including wheelchair use, skateboarding, and

Access

A means of entering or approaching a place and the opportunity or right to experience or make use of a place.

Connectivity

Linking people to places and other travel choices providing a direct route of travel to a destination.

in-line skating. A Street and Washington Street have excellent sidewalk and bicycle lane facilities. However, much of the city lacks continuous sidewalks. Non-motorized travelers are typically seen walking or riding in the street, choosing lower volume roads for traveling. With the low traffic volumes of most local streets in Vale this is relatively safe practice. However, it is a potential safety concern and non-motorized travel would likely be safer and more popular in the city if there were improved facilities to support it. In public outreach sessions for the plan many residents expressed concern for the safety of non-motorized travelers, particularly children and the elderly.

ACCESS AND CONNECTIVITY

How well does Vale's transportation system work? Access and connectivity are measures that are frequently used to describe a transportation system. Access concerns giving people the means of entering or approaching a place. It answers the question "can I get where I want to go?"

In general, Vale's street system offers good access throughout the community. Most of Vale's streets are in a north-south and east-west grid, allowing travelers to choose from different routes to reach their destination—the street system is an efficient network providing good access. People can also complete the majority of trips safely and conveniently by driving, walking, or bicycling.

However, there are also some barriers to access, including the railroad line and large industrial areas that break up the street grid. As a result, residences on the north side of the city have relatively more restricted access to downtown, schools, and the most popular park facilities in town.

Connectivity often refers to the effectiveness of linking different modes of travel – for example

between walking and transit. Because Vale is relatively small community, connectivity is more usefully described as how effectively major destinations are connected. Because the emphasis of this plan is non-motorized travel, connectivity described within this plan focuses on the continuity of non-motorized routes in the community. From this perspective, non-motorized connectivity in town is relatively poor, with few dedicated bicycle facilities and frequent gaps in the sidewalk network.

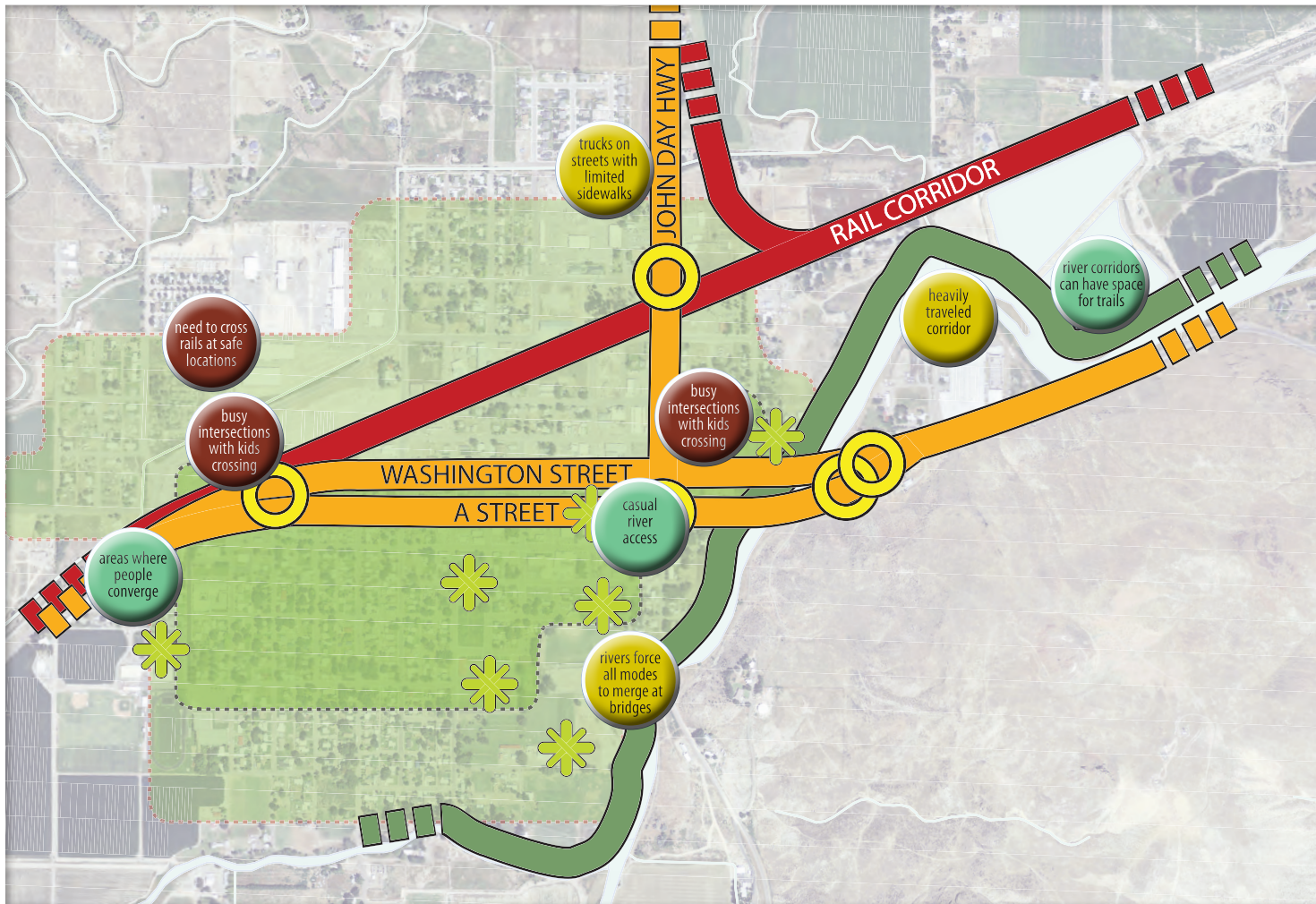
CONSTRAINTS AND OPPORTUNITIES

There are natural and constructed barriers that impede access and connectivity in Vale. These barriers include the railroad corridor, the Malheur River, major roadways and truck routes, and dikes. For most of these barriers, the impact to walking and bicycling can be overcome with good design and a little out of the way travel. These opportunities and barriers to transportation in Vale are illustrated on the following page and described in detail following.

Railroad Corridor

The railroad corridor runs primarily east-west through the city, separating the northern section of town from downtown, Wadleigh Park, and schools. Its impact on access and mobility mostly concerns safe pedestrian crossings and freight trucks and crossing. Developed crossings are located at A Street, 17th Street, and 12th Street/John Day Highway. 17th Street has a high-quality bike/pedestrian crossing, however its location in the agricultural processing/light industrial section of the city limits its use by pedestrians. Both Graham Boulevard and 17th Street are used by trucks to access property north of the railroad.

WALKING AND BICYCLING OPPORTUNITIES AND CONSTRAINTS



The adjacent graphic was used early in the planning process to identify areas of opportunities and constraints.



Destinations

Where people want to go.

The Malheur River

The Malheur River is situated along the southern and eastern edges of downtown. Access and connectivity within town for walking and bicycling is not directly impacted by the river. The primary destinations east and south of the Malheur River would be for bicyclists traveling longer distances, such as touring riders. In comments during the public outreach process, residents noted an interest in improved access to the farmer's market location on the east side of the river, near the mushroom plant.

An indirect impact of the river is the availability of only one crossing point heading east and south out of town. This serves to funnel the majority of traffic along A Street and Lytle Boulevard, which means more autos and trucks passing through crosswalks and beside on-street bicyclists. The Malheur River and adjacent land is a wonderful opportunity for open space development, an area for wildlife to flourish, and creates a buffer between different land uses. These areas along the Snake River can be a strategic place for the City of Vale to improve transportation choices, including a non-motorized trail hugging the river.

Major Roadways and Truck Routes

The State Routes through town and the John Day Highway have the highest number of autos and trucks traveling along them. These higher volume roadways have a greater need for maintaining a positive pedestrian and bicycling environment. This means incorporating good design principals to increase access and safety. Examples of positive improvements in Vale include bicycle lanes and curb extensions along most of A Street and Washington Street through downtown.

Vale Truck Route

Vale has a truck route running north of downtown, which follows Barkley Drive, Hope Street, 14th Street, and Oregon Street. This routes reduces the number of trucks traveling through downtown on Washington Street and A Street, however it also .

DIKES

Raised dikes can have restricted access. These features can interrupt connectivity between destinations because people have to travel greater distances around them to reach potential destination. Dikes are often located close to water features, like the river, which can influence where roadways converge and connect to reach existing crossing locations. In some areas, dikes can impact the ability to reach river access points. However, the dike along the Malheur River is used regularly and casually by many residents in Vale, and has little negative impact on access and connectivity. In fact, the drainage ditch provides an opportunity for an alternative connection and is commonly used by pedestrians and bicyclists. The dike along the Malheur River also provides an opportunity for travel because it could be used by walkers, bicyclists, and equestrians. Informal river access can be reached by crossing the dike.

DESTINATIONS AND TRAVEL GENERATORS

Certain locations in the city are popular destinations and generate higher volumes of non-motorized traffic. Understanding where these destinations are and how people travel to them is an important step in identifying priority non-motorized routes. The following discussion of destinations includes the major parks, streets, businesses, and civic buildings in Vale. Opportunities and constrains for improving connections to these destinations is presented in subsequent sections.

Washington Street and A Street Retail District

Washington Street and A Street are the busiest corridors in Vale for both motorized traffic and pedestrians and bicyclists. Washington and A Streets make up the two legs of a one-way couplet system, with Washington accommodating westbound traffic and A Street westbound. Of the two, A street includes the highest proportion of pedestrian-oriented retail and

CONCERNS FOR BIKING AND WALKING IN VALE

- Many key pedestrian routes lack sidewalks, and many existing sidewalks are in poor condition.
- Many students walk along roadways without sidewalks, sharing the road with cars and buses. This is especially a concern along school bus routes.
- Pick-up and drop-off times at school can be chaotic, with potential risks to walkers and cyclists.
- Truck traffic, sometimes heavy depending on the season, often shares the streets with walkers and cyclists.
- There are few continuous, safe routes (especially loops) to use for exercise walking, running, or cycling.
- The railroad tracks divide the town, and create a barrier for walkers and cyclists. Few of the crossings are well-designed for non-motorized traffic.
- The Malheur River, potentially one of the community's best recreational assets, has limited access and recreational opportunities.



service businesses. Washington Street has a higher proportion of auto-dependent destinations.

Generous sidewalks accommodate students, people heading to lunch, and those shopping and strolling around town. On-street parking is available free of charge on both sides of the streets.

Schools

Vale's elementary school, middle school, and high school are located on the south side of the city. The elementary and middle school grounds are adjacent to each other along Cottage Street, while the high school is in the southwest corner of the city on Viking Drive.

Logan's Market

The grocery located on the east side of town is a popular destination for many of Vale's residents. The majority of people travel to the market by auto but a significant number of customers come on-foot and by bike, especially students for school time lunch hours. Logan's is a popular destination for school-age children.

John Day Highway (SR 26)

John Day Highway is a major roadway heading north out of town. It is also known as State Route 26. It experiences heavy truck and auto volumes. It is a wide roadway with intermittent sidewalks on both sides of the roadway. The development along this roadway is mostly commercial and light industrial, including access to the Bureau of Land Management offices.

Lytle Boulevard

Lytle Boulevard is a two-lane roadway traveling south out of downtown, with a narrow bridge. The bridge provides a choke-point where bicyclists, pedestrians, and motor vehicles compete for lane space to cross.

Wadleigh Park

Wadleigh Park is the largest park and most heavily used park in Vale. It is often busy throughout the day because people

enjoy lunch, and evenings and weekends for sports activities. Wadleigh Park also includes the city pool, which is a major destination in the summer.

People filter into Wadleigh Park along neighborhood streets arriving by auto, bicycle, and foot. From the north, Cottage Street, Main Street, and Longfellow Street connect residential areas to the park. This park provides a skateboard area, open space, pool, play equipment, picnic shelter, rest rooms, drinking fountain, and on-street parking. Public concern was expressed regarding the speed of vehicles traveling on roadways adjacent to the park.

City Hall and Malheur County Administration

Vale City Hall and the Malheur County Administration and Courthouse buildings are located one block south of downtown along B Street. This area is easily accessible by walking and bicycling along various roadways in town. The buildings are pedestrian-oriented—the primary entrance way is at the back of sidewalks and parking is provided in front of the buildings on-street.

Lewin City Park

Lewin Park is located in the nook of A Street and Washington Street on the west edge of town. A marquee for the Starlight restaurant, a grassy area for picnicking, a water decoration, and drinking fountain can be found here. The park is easily accessible via on-street bike lanes, and on-street parking surrounds most of the park.

Cottonwood Park

Cottonwood Park is situated on the north side of town near Ellsworth Street and 15th Street. Currently undeveloped, Cottonwood Park has the potential to become a popular destination for residents on the north side of the city.

Mayor's Park

Mayor's Park is north of Washington Street, immediately west of Logan's Market. Located on the abandoned right of way for Short Street, which provided a cut-through between

Washington Street and John Day Highway, the park is generally unimproved and does not include amenities for local residents. The park's primary feature is an interpretative display for the Oregon Trail and it also provides informal parking, primarily for visitors to the city.

Future Sports Complex and Park Facility

A future sports complex and park facility is currently being discussed by city staff, council, and residents. The sports complex is proposed to include ball diamonds, soccer fields, and a recreational track. The potential location for this park complex is south of Lagoon Drive and east of the new wastewater treatment facility. The sports complex is envisioned to be connected to downtown and other areas of Vale via a non-motorized trail system and local roadways for auto access. Connections to the proposed park would require improvements like paved roadways, sidewalks, bicycle facilities, and a non-motorized trail.

COMFORT AND SAFETY

The level of comfort and degree of safety a transportation network provides its users can be challenging to measure. The lack of reported bicycle and pedestrian collisions in Vale suggests people are relatively safe as they travel. Although when considered independently, it does not tell the complete story. In practice, accidents are localized and result from events that would be difficult to prevent. Also, reported collisions do not capture the near-misses or places people avoid because they don't feel comfortable or safe walking or bicycling. Comfort and safety has a number of components, which includes careful planning, visibility, location, and communication. Generally, to improve comfort, pedestrians and bicyclists prefer some separation or protection from vehicular traffic, such as a dedicated bike lane, wide shoulder, or sidewalk. Crossing locations, like those around the school campus, could be enhanced to provide greater visibility for drivers of the formal crossing locations. Other areas where safety could be improved include the at-grade railroad crossings, and streets and intersections with high truck and auto volumes.

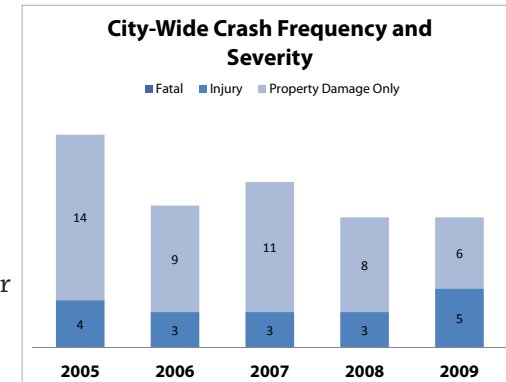
TRAFFIC ANALYSIS AND COLLISION REVIEW

A City-wide crash analysis was completed for the five most recent, complete, and consecutive years (2005-2009). The results of the traffic and collision analysis can be found in the "Vale Transportation System Plan Update: Traffic and Crash Analysis Report" 2011. The adjacent *City-Wide Crash Frequency and Severity* chart from the report, illustrates that crashes are generally decreasing from 2005 to 2009. Because the total number of annual crashes (between 11 and 18) is relatively low, the annual differences may not be statistically meaningful (see adjacent chart).

In the traffic analysis report, one intersection was analyzed in greater detail to summarize the types of collisions occurring and the crash-rate. However, the Washington Street/10th Street N intersection experienced no crashes and is project to operate substantially better than its respective future mobility standard. Because Washington Street and A Street have already been improved by the Oregon Department of Transportation to include bike lanes and sidewalks, and none of the adjacent streets preclude walking or bicycling, the proposed re-focusing of connections would have little to no impact on the transportation system. The designation of preferred alignment for walking and bicycling may concentrate the number of people crossing the roadway at a particular location; however, because these locations are unsignalized, walker and bicyclists must yield to vehicular traffic.

PUBLIC TRANSIT

There are no transit routes that serve only Vale. Snake River Transit operates a regional service, which stops at the Vale Senior Center. A partnership between the Bureau of Land Management and Snake River Transit was formed to provide a bus connection between Vale and Ontario. Public information relating to Vale transit service is limited and the Snake River Transit website does not list transit routes serving Vale.



The types of crashes at other intersections in Vale is reported in the report, and states that none of the other intersections experienced a frequency of crashes at a level of concern—the traffic engineering community considers crash rates of 1.00 crashes per million entering vehicles to signify a high crash frequency.

STUDENT WORKSHOP AND SURVEY FEEDBACK

Two student access school workshops were held on October 20, 2010: an elementary school class and the high school student body representatives. During the in-class visit, the students worked in groups to complete a trip log of a trip they made to school, including any stops along the way and a trip during the weekend. The reasons for choosing their route to in-between destinations and the final destination was discussed as well as how the trip was completed (bike, bus, walk, and/or drive).

The class was engaged and interested in improving bicycle and pedestrian connections in town. Students discussed potential location for facility improvements and ways to improve the quality of life and increase the attractiveness of Vale to outside visitors. The students captured their concerns and opportunities on large scale maps, which the high school students presented at the Open House in the evening.

A summary of the student interests and concerns included:

- Identifying potential problem areas along their trip such as challenging intersection, crossing locations, and incomplete pedestrian and bicycle system (connectivity of sidewalk and bicycle routes)
- Improving the destinations within the City to walk and bicycle too, including places for young adults and children, such as the skate park and access to the River.
- All students believed the natural resources of Vale were strong link to build tourism, such as the natural hot springs, the river, and potential for scenic view points.

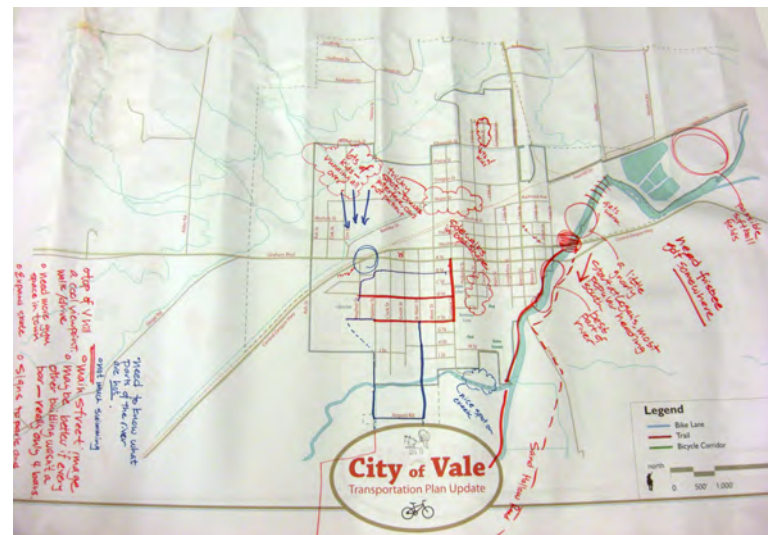
VALE ELEMENTARY SCHOOL - GROUP 1



Key recommendations:

- Improve walking and bicycling corridors.
- Identify safe routes to school and parks, provide improved signage.
- Develop sports complex, with baseball fields and improved skateboard park.
- River trail connecting through town.
- No goatheads please.

VALE ELEMENTARY SCHOOL - GROUP 2



Key recommendations:

- Improve railroad crossings, routes to school first.
- Recreational opportunities such as frisbee golf, sports complex, and swimming.
- Improve links between High School and Middle and Elementary schools, which is also a bus route.
- Improve main street image and signing and striping for destinations, such as parks and the mural tour.

SUMMARY OF ISSUES AND GOALS FOR NON-MOTORIZED TRAVEL

MAJOR CONCERNS AND ISSUES

Many key pedestrian routes lack sidewalks, and many existing sidewalks are in poor condition.

Many students walk along roadways without sidewalks, sharing the road with cars and buses. This is especially a concern along school bus routes.

Pick-up and drop-off times at school can be chaotic, with potential risks to walkers and cyclists.

Truck traffic, sometimes heavy depending on the season, often shares the streets with walkers and cyclists.

There are few continuous, safe routes (especially loops) to use for exercise walking, running, or cycling.

The railroad tracks divide the town, and create a barrier for walkers and cyclists. Few of the crossings are well-designed for non-motorized traffic.

The Malheur River, potentially one of the community's best recreational assets, has limited access and recreational opportunities.



THEMES AND GOALS

Provide a safe environment for non-motorized transportation throughout town

Provide safe routes for kids from home to school, parks, and other destinations

Encourage walking and bicycling for transportation within town

Support a healthy downtown retail and services core

Provide walking, running and bicycling routes for health and wellness

Improve the experience of visitors to Vale





3

STREETS FOR WALKING AND BICYCLING

Encouraging walking and bicycling begins with comfortable and convenient places for people to travel. Streets, sidewalks, and public rights of way are the places where people collect, experience the city, and predominantly the facilities people use to get where they are going. Bicyclists and walkers of all ages and abilities must be able to safely move along and/or across our roadways.

Because none of the roads in Vale are restricted access roadways, such as Interstates, walkers, bikers, and automobiles can be present in the right-of-way. The lower vehicle traffic volumes on neighborhood streets in Vale makes these streets feel relatively safe for some walkers and bicyclists to be in the street and not on a separated facility like a bike lane or sidewalk.

In Vale, the majority of school children use local streets to walk or bike to school and a few must cross a state highway to get to school. These local streets are also used by all residents and guests to access places, such as downtown (concentrated along A Street) and other city spaces. Vale's streets provide access and connectivity, mobility, and safety for walking and bicycling. The purpose of this section is to provide ways to improve mobility in Vale. The development

of improvements and enhancements for streets was created by understanding the character of each street and through a collaborative effort with City of Vale staff, residents, and stakeholders.

Improving a street for non-motorized travel does not necessarily require substantial investment or a significant change in the roadway. Filling in gaps between sidewalks, repairing sidewalks where they are not smooth enough for safe travel, adding warning signs or street graphics to alert drivers are all relatively low-cost ways to improve the safety and attractiveness of non-motorized travel in the community.

IMPROVED STREETS FOR NON-MOTORIZED TRAVEL

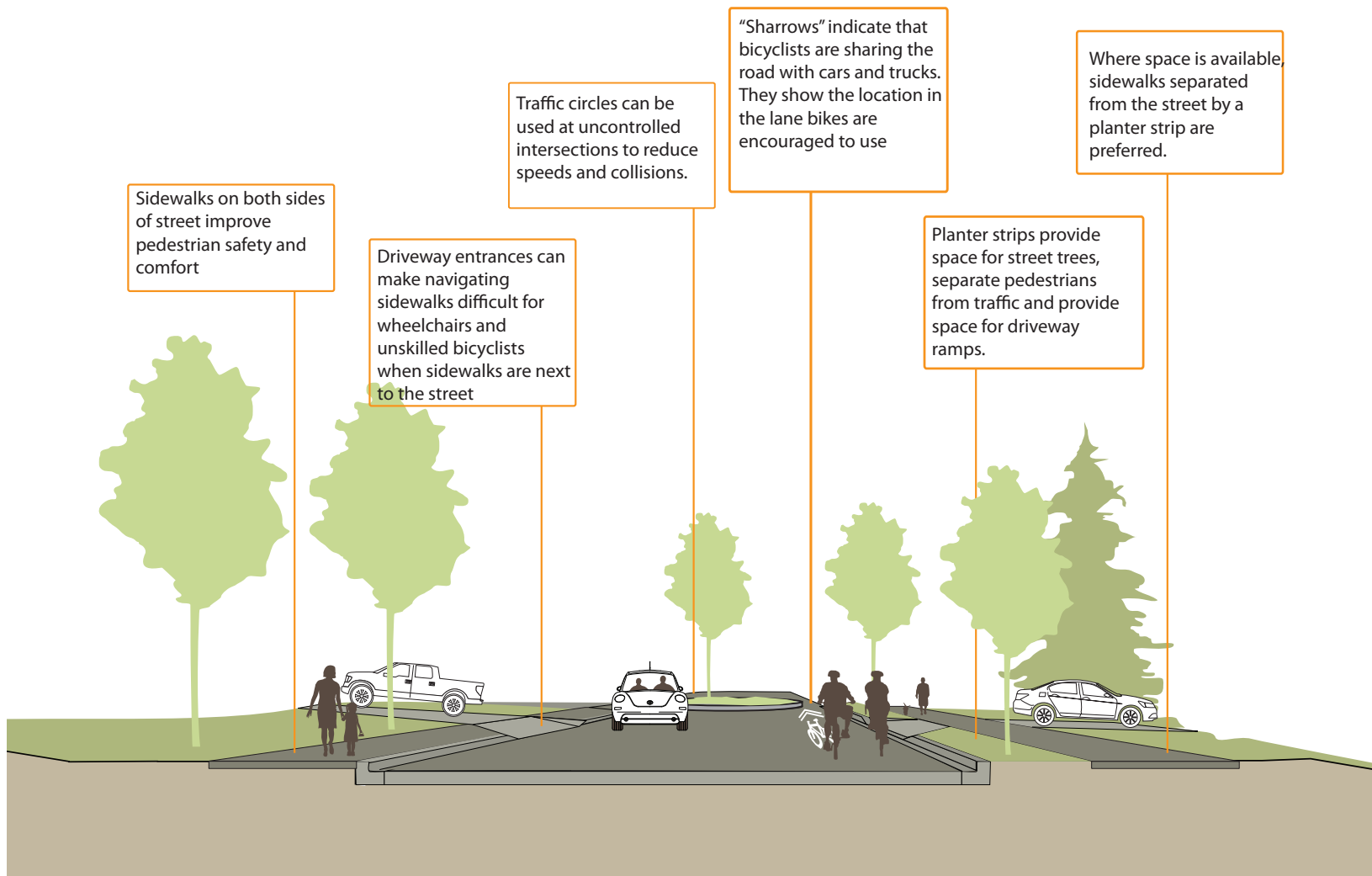
One of the highest priorities for citizens involved in the planning process was improved safety for pedestrians and bicyclists throughout the city. Participants emphasized safety for children as they made their way from home to school, parks, or popular destinations downtown. There was also a strong concern for improving walking routes through town for exercise, and for less mobile residents of the city.

To meet these goals, the plan identifies a series of streets as priority locations for non-motorized improvements. These non-motorized emphasis streets form a network that connect schools, parks, downtown, and major community destinations including Logan's Market. The proposed non-motorized system is shown on the following page.

The specific improvements for streets identified for non-motorized emphasis vary depending on their current layout, available right-of-way and adjacent development. However, the general types of improvements that would be suggested for these streets are similar, and summarized in the figure for a typical non-motorized emphasis street. Typical elements for a good non-motorized street would include smooth, continuous sidewalks on both sides of the street, and a good paving surface with painted street markings indicating a bike route.

Where possible, curb ramps should be included when building new sidewalks at street crossings, using current ADA guidelines. Curb ramps are important for wheelchair users, and also benefit pedestrians with strollers and younger children who are not skilled enough to bicycle safely in the street.

Where high-speed traffic is a concern, but residents want to maintain free-flow at intersections rather than adding a stop control, traffic calming measures may be considered. Traffic circles are preferred.

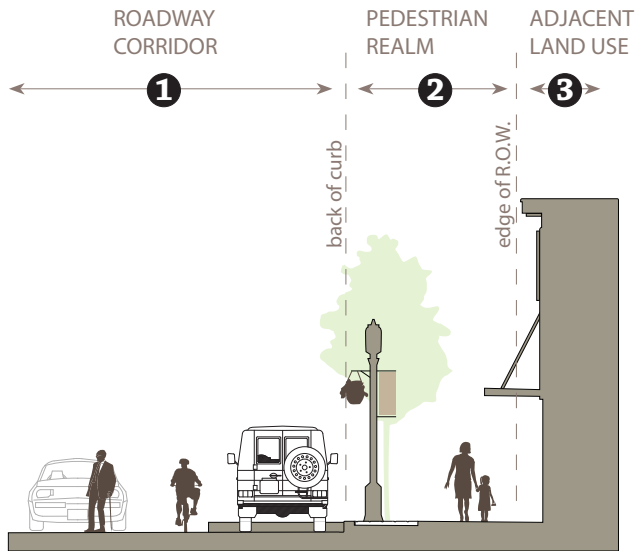


Potential improvements for priority non-motorized routes

THE AREAS OF A ROADWAY

All streets can be divided into three general areas, the roadway corridor, pedestrian realm, and adjacent land use. Understanding how a street addresses these three focus areas and the goal for the street can lead to action plans for improvements and enhancements. Generally, specific improvements for walking and bicycling can be targeted to each focus area.

Depending on the type of street, some of the roadway areas could be combined. The adjacent graphic is representative of a downtown street, such as A Street in Vale. It also represents a more complete-street that has provided safe and accommodating facilities for vehicles, bicyclists and other pedestrians. Neighborhood streets often compress roadway areas by mixing vehicle and bicycle traffic, sometimes even pedestrians are forced to walk in the street for lack of sidewalks.



AREAS OF THE ROADWAY DEFINED

All streets can be divided into three general areas, the roadway corridor, pedestrian realm, and adjacent land use. Understanding how a street can be designed to accommodate these three focus areas can lead to action plans for improvements and enhancements.

1 The Roadway Corridor

The roadway corridor area is where all motorized vehicles travel and includes driveways and alleyways. It is where the greatest vehicle, bicycle, and pedestrian conflicts occur. It is the space where the greatest efforts for improving pedestrian visibility, awareness, and safety are often targeted. Improvements to the roadway corridor could include bike lanes and pavement markings for visibility and wayfinding, enhanced crossings locations, passive traffic managements (such as traffic calming) and more.

2 The Pedestrian Realm

The pedestrian realm is the space pedestrians use to travel, typically on sidewalks. It also competes with space needed for utilities, such as street lighting, and roadway signs. When sidewalks are absent, pedestrians may be found in the roadway corridor, which can be dangerous, or on casual pathways (often paths where grass has been worn down to create a dirt path). A planting strip provides space for trees or street furniture. The sidewalk area should have adequate height and width for flow of pedestrians--this space often becomes wider in areas with higher pedestrian use, such as downtown and around schools. Improvements in the pedestrian realm can include sidewalks (or improving existing sidewalks), signage, street furniture and plantings, bus zones, and more.

3 Adjacent Land Use

Adjacent land use typically refers to the distance a building is located (referred to as the setback) from the back of the street, curb, or sidewalk depending on the street. This area contains the space needed for building doors to open or for displays and planters outside of buildings. It can also refer to the types of rules and regulations cities impose on land owners in the redevelopment or improvement of properties adjacent street—discussed further in subsequent chapter.

Recommended improvements to the roadway corridor area includes the following elements: bike lanes; bike routes; street crossings; and traffic calming.

NON-MOTORIZED PLAN ELEMENTS

A coordinated non-motorized transportation system includes a variety of tools for street design, road and rail crossings, sidewalk improvements, and amenities for the pedestrian environment. Elements of a non-motorized plan are the basic building blocks for improving safety and effectiveness of non-motorized travel. They are also important for developing attractive pedestrian-oriented retail streets.

Selecting appropriate treatments for non-motorized travel in public rights-of-way requires consideration of three general areas of the roadway; the roadway corridor, the pedestrian realm, and the adjacent land use. The improvements that are the focus of this plan include elements constructed in the roadway corridor or pedestrian realm such as bike lanes, bike routes, street crossings, and trails.

Bike Lanes

Bike lanes provide dedicated space on roads for bicyclists to travel, which is adjacent to vehicular traffic. Bike lanes can attract new cyclists to roadways as they can increase a cyclist's safety and comfort. However, the design and placement of bike lanes at intersection should consider the continuation of bike lanes through busy intersections. Intersections are locations where street space can be constrained and providing the additional space for bike lanes is challenging. Generally, bike lanes are found on streets with higher vehicle volumes. Bike lanes on lower volume roadways or roadways that experience very high bicycle traffic can be beneficial to less experienced riders.

The typical white lane stripe, stencil depicting a bike lane, and appropriate signage is typically adequate for marking a bike lane along a roadway. However, where increased safety for cyclists is required, the visibility of a bike lane can be increased by coloring the bike lane. In the United States, increasing bike lane visibility is done by painting the bike lane a different color than the roadway, usually green or blue. Careful consideration to paint lane standards is necessary to ensure the bike lane does not become slippery when wet, creating a dangerous situation for cyclists.

There are a number of ways in which bike lanes can be accommodated in a corridor. The least expensive option for adding bike lanes is to narrow lane widths or to paint defined lane lines, providing the existing roadway has adequate space—a cross section of 34 feet is recommended for two bike lanes and two lanes of traffic. More expensive options include widening the paved section of the roadway and if necessary, installation of storm water management, replacement of sidewalks and planting strips, and potentially property acquisition.



Bike lanes (shown here in Vale) provide increase visibility and safety for users. Standards and guidelines for the placement of signs and striping for bicycle facilities can be found in the Manual on Uniform Traffic Control Devices. Bike lanes should be at least 5 feet wide.



Providing additional visibility by painting a bike lane blue (or green) alerts bicyclists and motorists that they must share this zone and to use extra caution for increased safety. In some jurisdictions entire bike lanes are painted. Other jurisdictions paint sections of the bike lane at intersections to alert bicyclists and drivers that crossing traffic should be expected.

Bike lane facilities recommended for the City of Vale include:

John Day Highway. (1.2 miles) Provide improved bicycle and pedestrian facilities from A Street in downtown Vale to the north City Limits, which is near Cemetery Road. The emphasis would be for providing sidewalk and paved shoulders because John Day Highway is a major route north out of the city.

Lagoon Route. (1.2 miles) Provide bike lanes or paved shoulders that connect along 10th Street, Foothill Drive/ Lagoon Drive to east City Limits.

A Street and Washington Street. Extend the existing bike lane couplet further to the east and west of downtown to provide connections to future facilities.



Example of a 'Sharrow' pavement symbol used to mark bike routes. Bicycles should travel over the 'sharrow' symbol. The placement, size and graphic design for sharrow marking can be found in current editions of the Manual for Uniform Traffic Control Devices (MUTCD). For neighborhood streets sharrows will typically be placed in the center of the travel lane.

Bike Routes

Bike routes are streets where bicycles travel in the same lane as vehicular traffic with no buffer between bicycles and vehicular traffic. Although bicycles are allowed to travel on all streets, except access restricted facilities such as interstates, bike routes let cyclists know they are using a preferred street and provide guidance on bicycle positioning through street markings, such as sharrows. Bike routes typically provide a higher level of comfort for bicyclists compared to adjacent streets—they often link destinations, experience less vehicle and truck traffic, and have less hills or lower grades.

Guidance for bicycle positioning along a bike routes is typically shown as a 'sharrow', which is a symbol painted in the street as shown on the adjacent page. One example of a sharrow appears as a bicycle with two chevrons above it indicating the direction of bicycle travel.

Bike routes provide additional focus to the use of roadways and corridors by bicyclists. Because the proposed routes in the City are low volume and low speed roadways, the designation of roadways as bike routes would have little impact on traffic movements and congestion. The increased visibility and awareness should improve bicycle and pedestrian circulation by providing dedicated routes, which are likely to receive increased priority for roadway enhancements, including resurfacing and intersection control upgrades. Because bike routes provide a favored connection between destinations within the City and other bicycle facilities, these same routes are typically favorable to pedestrians, especially the alignments connecting schools and parks. Bike route corridors would also provide preferred routes for new or in-fill sidewalk construction, and where possible, the consolidation or re-defining of property access, such as driveways should occur.

Bike route facilities recommended for the City of Vale include:

Viking Drive. (0.24 miles) This bike route and sidewalk in-fill project would connect the high school to A Street/Washington Street bike lanes and neighborhoods to the north. The corridor would provide sidewalks on west side of roadway to complement the existing east side sidewalk. Adding sidewalk to the west side without narrowing the roadway would likely require property acquisition and could be potential cost prohibitive without grant funding.

School Connector. (0.76 miles) The City of Vale schools would be connected by bike lanes and sidewalks along D Street and F Street. Wayfinding elements, such as route markers, are recommended to increase the visibility for use of these roadways by bicyclists. In-fill and sidewalk repair would also be an emphasis in these two corridors.

Hope Street Connection. (1.3 miles) This bike route would follow Oak Street, Hope Street, West Street, and Ellsworth Street, to connect Graham Boulevard and the John Day Highway.

Cottage Street Route. (0.23 miles) Cottage Street provides a logical connection from the bike lanes already constructed along A Street and Washington Street through Vale. This bike route would provide increased emphasis of Cottage Street for use by non-motorized users to connected to the middle and elementary schools. This route would also emphasize high quality sidewalks and perhaps provide additional width closest to the schools.

Graham Boulevard Extension. (0.7 miles) This route would extend from the A Street and Washington Street bike lanes, following Graham Boulevard to approximately Alder Road.

Airport Road Route. (2.9 miles) This bike route would follow W Main Street and Airport Road, which provides a route through the south central part of town and across the Malheur River. Initially, this route would connect from A Street to McLay Road and future phases could explore a potential loop along Sand Hallow Road and connecting back to Lytle Boulevard.

Market Route. (0.78 miles) This bike route would connect to the north side of town along 14th Street and Morton Street with an emphasis on providing sidewalk facilities near Logan Market and intersections with clearly marked crossing locations.

Lytle Boulevard. (1 mile) This bike route would connect along Glenn Street/Lytle Boulevard to the south near Sand Hallow Road. Future phases could connect along Sand Hallow Road to the proposed Airport Road Route.

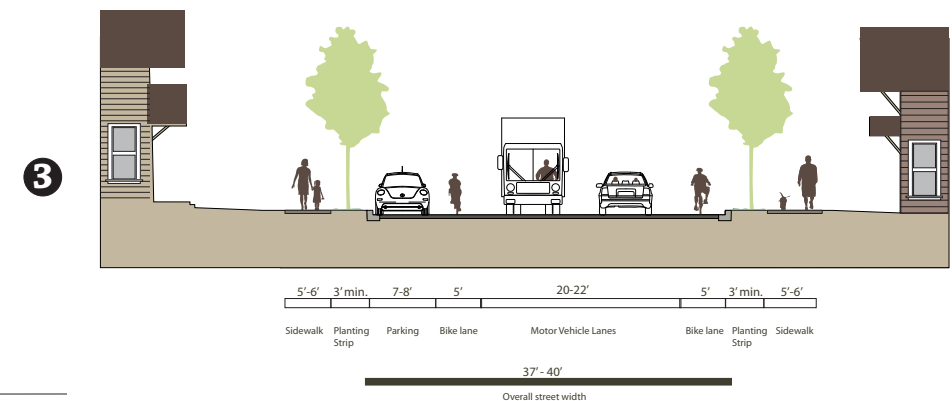
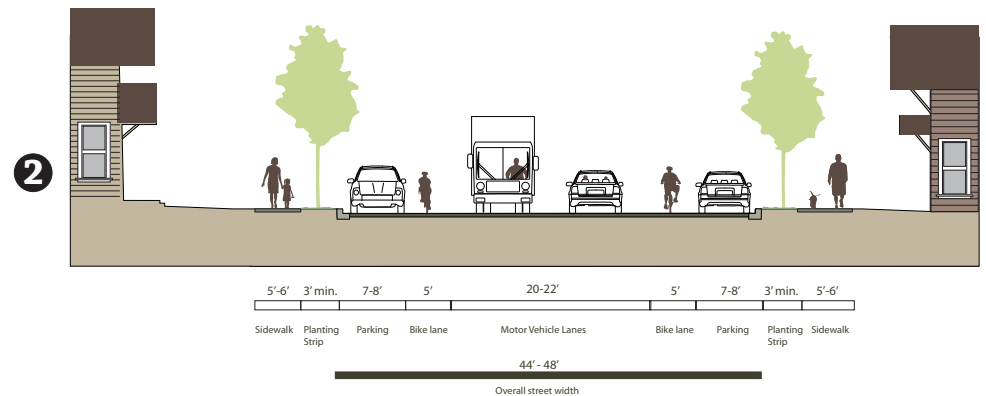
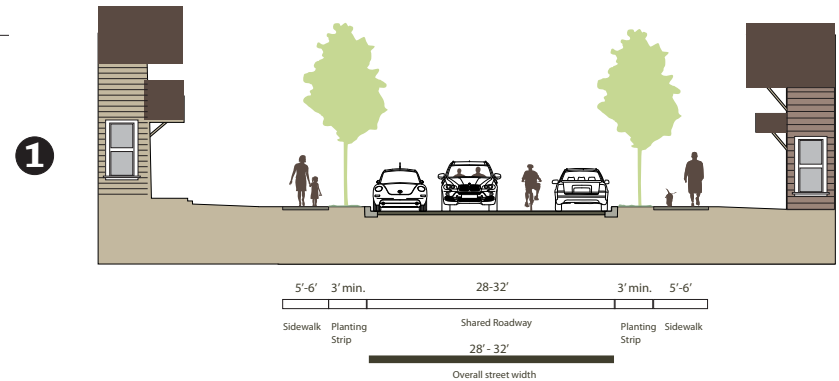
REPRESENTATIVE SECTIONS FOR ROADWAYS

The illustrations to the right represent how corridors in Vale could look with varying bicycle and pedestrian improvements.

Section #1 illustrates a narrower roadway providing a shared vehicle travel lane for bicycles and vehicles. Sidewalks would also be provided on both sides of the roadway and are shown with the preferred planting strip, which acts as a buffer from the roadway. If parking is permitted on both sides of the road, vehicles would have difficulties passing one another. This type of configuration should cause drivers to slow down when traveling this type of roadway.

Section #2, illustrates a larger roadway with dedicated travel, bike, and parking lanes. This type of treatment would be more appropriate for busier roadways and corridors designated as truck routes.

Section #3 is a narrower variant of Section #2. Two driving lanes are retained by removing one side of the street to narrow the total width of the corridor. The roadway could be narrowed further by eliminating the planting strip and/or parking from the roadway.



STREET CROSSINGS

Rarely can pedestrians complete a journey without crossing a street, driveway, or alleyway. Street crossings can occur anywhere along a street at marked and unmarked locations, unless prohibited. A safe street crossing considers the type of street and the traffic it conveys, the type of pedestrians, where crossing locations should be placed, and how they appear to pedestrians and motorists. Also, pedestrian safety is improved by motorists and pedestrians being able to see each other and being able to anticipate each other's movements.

The appropriate type of street crossing treatments are based on the number of vehicles and trucks, presence of a school or a non-motorized trail, type of pedestrians commonly using the crossing, and safety concerns. Some examples of safety concerns include a history of collisions, and difficulty for pedestrians and motorists being able to see each other. Improved street crossing areas are generally categorized as Intersection Street Crossing or Midblock Crossings.

Intersection Street Crossings

How pedestrians are accommodated at intersections is typically dependent on the adjacent land use and number of autos on the surrounding streets. Intersections at busy streets tend to provide greater accommodation for pedestrians to offset the greater potential for conflict with higher auto volumes. Intersections of streets with lower auto volumes may provide little to no indication for pedestrian crossings.

Intersections of streets with a high number of autos are typically controlled by a traffic signal or a roundabout to reduce congestion and improve the predictability of people passing through the intersection. The presence of a traffic signal requires pedestrian signals.



The intersection crosswalk shown has curb extensions on both sides of the streets—curb extensions shorten the required crossing distance and allow pedestrians to see around parked cars. Pedestrian signal heads and push buttons are also provided.



Curb ramps provide a smooth transition from the sidewalk to the street surface. Vibrotactile pads identify where pedestrians are to cross and provide a surface change identifier for visually impaired pedestrians.



Appropriate design of railroad crossing locations can provide smooth transitions surfaces to reduce trip hazards. Railroad crossing locations can be improved with warning gates, lights, and bells to warn when trains are approaching.

Some of the elements of intersection pedestrian street crossings include the following:

- **Crosswalks.** marked crosswalks provide clear indication to pedestrians and motorists where crossings will occur. A wide variety of crosswalk treatments are available to increase the visibility of the crosswalk.
- **Curb Ramps.** curb ramps provide a smooth transition form the sidewalk to the street surface. Curb ramps should face straight into the crosswalk and include a tactile surface to indicate the transition from sidewalk to street.
- **Pedestrian Signals.** the preferred pedestrian signal is a 'pedestrian countdown timer', which shows when to walk, when not to walk, and the time remaining to cross the street.
- **Signs.** signs are used to provide instructions to pedestrians on where they should cross and how to operate the signal. Signs for drivers clearly indicate a pedestrian crossing.
- **Intelligent Signals.** signals that provide feedback to pedestrians are comforting and assist the visual impaired. Signals can also automatically detect where pedestrians are waiting to cross and provide an indication that the call button (on signals where pedestrians must activate the signal to cross) has been pressed.
- **Curb Extensions.** sometimes referred to as curb bulbs, shorten the distance people are required to cross and allow people to safely see around parked cars before crossing. Many of the intersections in downtown include curb extensions.



Signs for pedestrians at street crossings communicate how signals operate and can provide useful information such as street names.



Active speed radar signs measure the speed of approach vehicles and are typically posted near cautionary or posted speed limits.

Midblock Crossings

A midblock crossing is a formal pedestrian crossing location, which occurs somewhere between two intersections. These crossings are constructed to improve pedestrian access and circulation and to avoid unnecessary out of the way travel. They can be used to avoid major intersection crossings thereby reducing any conflicts created with turning vehicles not checking for pedestrians crossing.

Many of elements used to mark midblock crossings are the same used for intersection street crossings. Most midblock crossings include curb ramps, high visibility signs, and may have lighted flashing beacons. In some areas, crossing locations have orange flags for pedestrians to carry when crossing to improve visibility.

A midblock crossing can include a traffic signal component based on criteria outlined in the Manual of Uniform Traffic and Control Devices, which is published by the American Associate of State Highway Traffic Officials. The guidelines are in place to assist in the decision making process by requiring threshold numbers of pedestrians and gaps in the traffic flow for safe crossings. Installing signalized midblock crossings with low pedestrian use have a number of safety concerns. These safety concerns result from low driver expectation that a pedestrian will cross and therefore drivers may have a slower reaction time to the signal indicator.

An example of an innovative midblock signal is the HAWK Signal—or high-intensity activated walk signal. These signals are activate by pedestrians (push button or automated detection) and provide instructions for auto traffic to come to a stop and indicate to pedestrians when it is safe to cross.



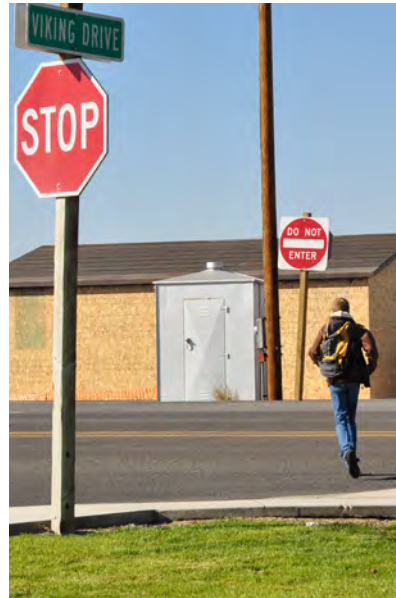
Overhead and roadside signs provide increased visibility for the presence of midblock crossings and indicate where pedestrians should cross. A pedestrian refuge allows pedestrians to cross one direction of the street at a time.



A H.A.W.K. signal is shown—High-intensity activated walk signal. These pedestrian activated street crossings couple signage, striping, and lighting to bring auto traffic to a stop so pedestrians can cross safely.

The Oregon Department of Transportation permits pedestrian crosswalks to be striped using a 'ladder' pattern (see adjacent graphic) for safe routes to school only. All other crosswalks would use standard parallel markings on shown on the previous page.

A student runs across the unmarked crossing of Washington Street (State Route 20) at Viking Drive.



An example of a pedestrian-activated warning light. Flashing lights and highly visible signage warn drivers that a pedestrian is crossing the street.



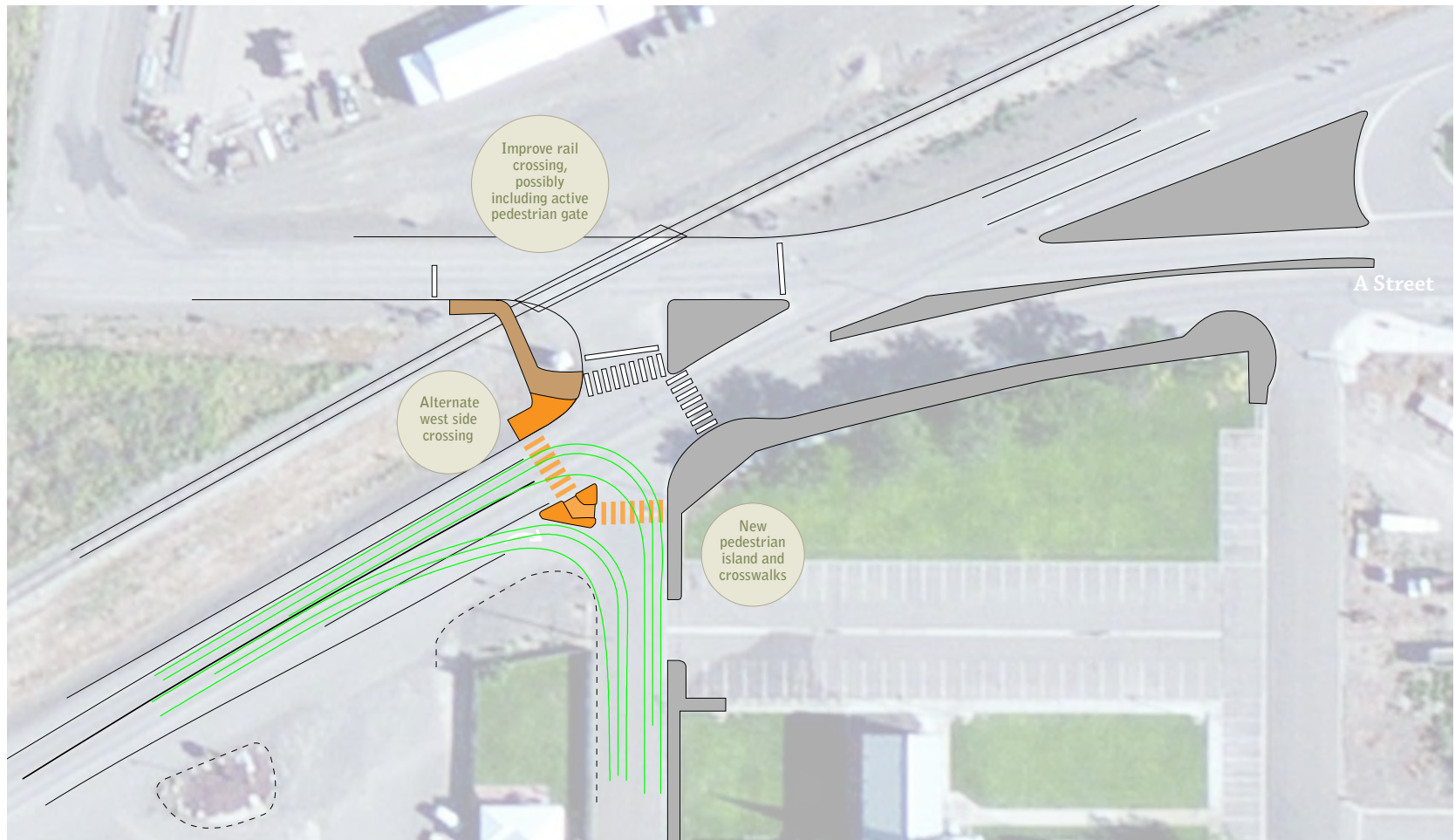
Viking Drive at Graham Boulevard: This is a well-used location for high school students to cross the state highway at an unmarked crossing location. The proposed improvement for this location includes construction of a new refuge island, a new striped crosswalk, and a pedestrian-activated warning light system.

Main Street at D and F Streets: D and F streets are heavily used routes to the elementary, middle and high schools. Main Street crosses both of these streets as a through street without stop control, making it difficult for children to identify a safe crossing time. The plan proposes safety improvements including improved warning signs for drivers on Main Street, marked crosswalks, and flashing warning lights at the crossings. The warning lights could be pedestrian-activated (preferred) or be set to turn on during set times of the day during the school year during morning and afternoon.

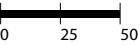
General Intersection Control: Consideration should be given to intersections on bicycle routes and routes to school for defining the type of control elements provided at each intersection, such as traffic circles, stop signs, crosswalk striping, and/or yield signs.

In addition to general street improvements for non-motorized travel throughout the City, a few key intersections were identified as safety concerns along school routes. These locations are also show on the city-wide non-motorized system map.

The following illustration is a conceptual layout for an improved pedestrian crossing of Washington Street (SR 20) at Viking Drive. City Council identified the west crossing as the initially preferred crossing location to connect to existing sidewalk on Viking Drive. Future improvements to Viking Drive could include adding sidewalks to the west side of the road. During this future phase, a more direct crossing (shown in orange) of Washington Street would be considered. Proposed elements include developing a safe crossing of the railroad tracks and adding an improved crossing of Graham Boulevard with marked sidewalks, a pedestrian refuge island, and pedestrian-activated warning light. Because this crossing is a route to school, the Oregon Department of Transportation would permit the continental-style crosswalks depicted.



Pedestrian Crossing at Viking Street
(showing school bus turning requirements)





Traffic circles are placed in the center of intersections and provide a positive aesthetic value to neighborhood streets. Traffic circles also reduce the speed of autos and are constructed to permit emergency and maintenance vehicles access.



Speed humps are constructed to allow autos to pass over them safely and with minimal disruptions when traveling the appropriate speed limit. Speed humps are clearly marked to warn drivers and bicyclists of their presence.

TRAFFIC CALMING

Traffic calming measures are commonly classed into two groups including volume control measures and speed control measures. Volume control measures are used to address cut-through traffic problems by restricting certain movements or making those movements inconvenient. Currently, there are no locations in Vale experiencing cut-through problems.

Speed control measures are used to passively mitigate vehicle speed. They modify the design of the roadway to slow vehicles down by adding directional travel curves, raising sections of the roadway, and even narrowing travel lanes.

Placements of traffic calming measures should be constructed based on careful analysis. General areas where speed control measures could be constructed included roadways adjacent to City parks.

STREET FURNISHINGS

Street furnishings can enhance the pedestrian and bicycle environment. Street furnishings include bike racks, trash receptacles, seating, pedestrian scale lighting, and more. For example, bike racks could be provided at major destinations (schools, park, and recreation facilities) and in the downtown area to provide necessary facilities.



Irrigation ditch maintenance roads and the Malheur River levee provide good opportunities for non-motorized trail development throughout Vale

MULTI-USE TRAILS

Multi-use trails can support a wide range of non-motorized activities—from walking and bicycling to equestrian use—and serve as both transportation and recreational facilities. Typically, multi-use trails are developed in their own rights-of-way, separated from roadways and sidewalks. Vale currently does not have a developed trail system, but there are good opportunities for locating new multi-use trails that would enhance non-motorized transportation in the community and provide access to attractive destinations around town.

Multi-use trails can be paved, unpaved, or a combination of both, depending on community preferences and the intended use of the trail. They are relatively straightforward transportation facilities to design, build, and operate. Depending on community preferences, trails can be simple, with few amenities or associated design elements, or more complex, including elements like developed trailheads, off-trail locations for resting, interpretive sites, viewpoints, or associated recreational elements like boat launches or mini-parks. Trail systems are often built in phases, with new trail segments and community amenities being added over time.

Multi-use trails offer a variety of benefits:

- **Safety.** Multi-use trails separate non-motorized traffic from motor vehicles, and are generally safer both for children and other users.
- **Non-motorized transportation.** When multi-use trails are part of an integrated non-motorized system, or connect to major destinations, they can encourage more non-motorized trips and reduce motor vehicle miles traveled.
- **Health.** Multi-use trails are popular exercise facilities, and can support a variety of health-promoting activities.
- **Recreation.** Multi-use trails are effective recreational facilities, complementing community parks.

Potential trail locations under considerations for Vale include a riverfront trail that would provide access to the water and connect several recreational sites, as well as sections of irrigation canal levees that traverse the northern edge of the city.

TRAILS AS AN ELEMENT OF VALE'S NON-MOTORIZED TRANSPORTATION SYSTEM

While longer trails function well as independent facilities, shorter trails are most effective as part of a larger non-motorized system. Connections between trails and other biking and walking routes can improve access to the trail system, create options for longer itineraries and loops, and improve safety for trail users as they move from a starting point, to the trail, and then to another destination. Each of the potential multi-use trail segments described here also connects with designated on-street bike routes and priority pedestrian routes to create integrated opportunities for longer trips and connect with the major neighborhoods and non-motorized destinations in the city.

In public outreach sessions, there was some interest in development of equestrian trails as part of the city's non-motorized trail system. There are potential opportunities for equestrian trail development, but there are also some concerns about equestrian trails that should be considered in the routes selection, planning, and design process:

- **Access.** Horses are challenging to ride inside the city, with many horses disliking pavement and motor vehicles. Effective equestrian trails need effective access at least at one of the trail for horse trailer circulation and parking.
- **Sufficient distance and quality.** Given the difficulties of transporting horses to a trailhead, the trail needs to provide sufficient interest and quality to attract riders. This is especially true in a rural setting where there are a variety of riding opportunities in the surrounding undeveloped area.
- **Road crossings.** Road crossings are a challenge for equestrian trails, and should be minimized. Many riders need to dismount at road crossings to lead their horses. Special facilities such as mounting blocks to assist in re-mounting the horse may need to be provided.

GENERAL CONSTRAINTS TO TRAIL CONSTRUCTION

Specific constraints for each of the trail sections identified in the plan are described in more detail below, however there are also some considerations that are relevant to trail development in general.

- **Right-of-Way.** The most difficult step in trail development is often acquisition of a continuous right-of-way. Existing rights-of-way often used for trail development include rail lines, road rights-of-way, utility rights-of-way or easements, and levees. Piecing together a trail right-of-way can often take years of persistent work. Although it is used infrequently, eminent domain can be used to acquire trail right-of-way if there is not a willing seller. In area where land is being developed or re-developed, dedication of a trail route can be made a condition of the required land use permits.
- **Adjacent landowner concerns.** In areas where a right-of-way may be available but there has not been public access in the past, adjacent landowners are often concerned about loss of privacy and increased trespass. Effective outreach to adjacent landowners is important to clearly understand their concerns, identify potential mitigation, and provide them with accurate information about any proposed project.
- **Terrain.** Hilly areas or rough terrain can be difficult for trail development, increasing cost and often significantly increasing the right-of-way required for trail development. Relatively flat routes are strongly preferred for multi-use trails, and even short sections of difficult terrain or steep grades can be a significant feasibility challenge for trails.
- **Crossings.** Trails must be carefully designed when crossing roadways, driveways, or train tracks. In many cases potential crossing locations will be limited, and may require acquisition of additional right-of-way to allow access to an acceptable location.
- **Sensitive Areas.** Sensitive areas including wetlands, floodplains, shorelines, or stream crossings may be impacted by trail development or require additional permit review. Trail alignments should be evaluated for their compatibility with sensitive natural areas



Paved trails accommodate a wide range of users and require less annual maintenance than unpaved trails. They are not preferred for equestrian trails.



Soft-surface trails can be used by walkers, runners, mountain bikers, and equestrians, although there are safety concerns when horses share trails with other users. Soft-surface trails do not accommodate wheelchairs. Soft-surface trails cost less than paved trails to install, but have significantly higher annual maintenance costs.

DESIGN STANDARDS FOR MULTI-USE TRAILS

Surfacing

Trails may be designed with either a paved surface (generally asphalt) or compacted gravel. In general, gravel trails have a lower initial cost, but require a much higher level of annual maintenance to maintain a usable, smooth, and weed-free surface. Paved trails have a higher initial cost, but require less regular maintenance. Paved trails also accommodate the widest range of non-motorized users, from walkers to wheelchairs. With the increasing popularity of mountain bikes, unpaved trails are able to serve a wider population. However, they are still not suitable for wheelchairs, parents with strollers, in-line skates, or skateboards.

Where possible multi-use trails serve the broadest user groups when they include a paved primary trail, and soft-surface shoulders for some runners and walkers. Where an equestrian path is also included in the trail section, the path can often be surfaced with native soil.

Dimensions

Multi-use trails should be developed with a minimum 8-foot paved width. Wider is preferred, with 10 or 12 feet providing adequate space to accommodate user volumes in most rural settings (very high-volume trails in urban settings may require widths of 14 feet or more.) Trails less than 8 feet in width may create unsafe user conflicts, and often will not meet requirements for federal or state grant-based funding.

Equestrian trails have more flexible dimensional requirements. Where there will be high volume, two-way use of equestrian trails, preferred width is 10 feet. For lower volume use a trail width of 4 feet can be adequate if there is available space to allow a horse to temporarily leave the trail and allow passing. Paved multi-use trails and equestrian trails should be separated by at least 6-foot of buffer. There are potential conflicts between equestrians and other users of multi-use trail facilities, and when these are accommodated in the same corridor it is a good practice to provide as much separation as practical to avoid potential issues of horses

being disturbed by other users. Horses that are disturbed by trail users can potentially endanger their rider, other trail users, and the animals themselves.

In most cases management agencies are interested in designing multi-use trails to accommodate access by a pickup truck or other small maintenance vehicle as well as emergency vehicles. The city should consider maintenance practices and access needs during the design phase of any trail project.

Clearances

Trails require both vertical and horizontal clearances for user safety. Hazards that need to be considered include steep grades, roads, active railroad lines, trees, power poles, and similar obstructions. Design standards for clearances and the possible requirement of barriers or other treatments to protect trail users change periodically. To ensure compliance with federal requirements for grant funding

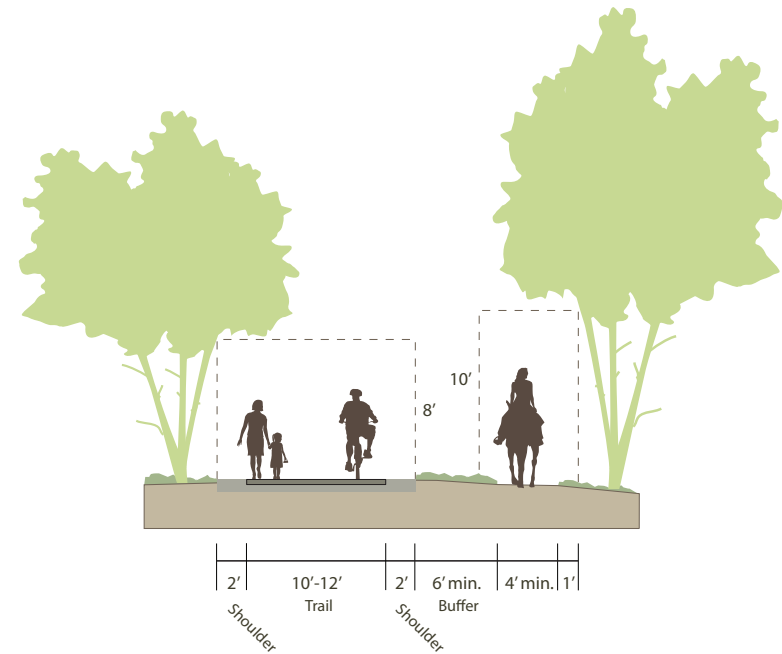
Lighting

Lighting is not typically provided for multi-use trails. They are generally closed from sunset to sunrise and nighttime use is discouraged. Lighting should be provided at under crossings, and may be appropriate at developed trailheads depending on specific user safety and management needs.

Furnishings and amenities

Furnishings and amenities including benches, water fountains, interpretive displays, bike racks, and equestrian facilities are desirable, but not required components of multi-use trails. In addition to initial capital costs these elements require ongoing maintenance and are often targets of graffiti or other vandalism. Commitment to maintaining amenities associated with trails should be evaluated before including these elements in final design.

However, where resources are available to install and maintain amenities, they can enhance the experience of trail users and the popularity of the trail. Where trail segments are short—including all of the proposed trails in Vale—development of most amenities can be focused on trailheads. Other locations can be developed in response to unique opportunities including quality views, heritage sites with interpretive opportunities, and water access.



Paved multi-use trails are typically 10 feet to 12 feet wide unless they are expected to accommodate very high levels of use. Separation between multi-use trails and equestrian trails is important for the safety of trail users. A minimum of 6 feet is recommended to provide safe separation between the trail and horse riders.

OPPORTUNITIES FOR MULTI-USE TRAILS

Three potential trail corridors are good opportunities for consideration. All of them follow water bodies and make at least partial use of levee or ditch access roads to provide a connected corridor:

- **The Malheur River Trail North** is located along the river between the city's wastewater treatment plant and Washington Street.
- **The Malheur River Trail South** follows the river from Washington Street to the confluence with Bully Creek, then follows the Creek to Airport Drive/Main Street. The River Trail South is described in two separate phases, the first from Washington Street to Wadleigh Park, and the second from Wadleigh Park to Airport Drive.
- **The North Ditch Trail** follows the access road for an irrigation channel between Elm Street (approximately) and the John Day Highway.

Opportunities and constraints for each of these potential alignments is discussed in more detail below.





This viewpoint along a river trail includes safety fencing and amenities including an interpretive display, bench, garbage can, and landscaping. In Vale, there are also opportunities to provide river access and boat launching. While amenities offer benefits for trail users, maintenance requirements should be taken into consideration in the planning and design phase.

MALHEUR RIVERTRAIL NORTH

This segment of multi-use trail would follow the river from a starting point north of Washington Street, and continue to a connection with Lagoon drive near the city's wastewater treatment system. The alignment offers an excellent experience of the river, with broad views up and down the valley and potential to develop recreational river access facilities. At the south end of the segment the trail has the potential to make a strong connection to Vale's downtown, while at the north end there is a potential connection to future recreational facilities developed on city-owned land. This segment of trail could be developed as an out-and-back route, or there is an opportunity to improve non-motorized facilities on Lagoon Drive to create a loop connecting to the broader citywide non-motorized network. Proposed access point would include Washington Street and Lagoon Drive.

Trail type

Public comments on this segment of trail favored a paved, multi-use facility with a parallel soft-surface trail for equestrian use. There are potential conflicts between equestrians and other users of multi-use trail facilities, and when these are accommodated in the same corridor it is a good practice to provide as much separation as practical to avoid potential issues of horses being disturbed by other users. Horses that are disturbed by trail users can potentially endanger their rider, other trail users, and the animals themselves.

Opportunities for enhancements and amenities

Oregon Trail Interpretive Site Trailhead

A signature opportunity for this trail route is redevelopment of the existing Oregon Trail interpretive site as a trailhead, visitor orientation site, and interpretive park. The site has adequate space to provide parking for trail users while also accommodating out-of-town visitors stopping for orientation and to take advantage of improved interpretive

displays. Providing parking here would also help to avoid trail user parking in the Logan's parking lot.

For visitors arriving in Vale from the east, this site is an important opportunity to divert traffic from Washington Street to A Street, directing more visitors to the downtown retail/services core. The site would also serve to orient visitors to the mural tour.

River Access and North Trailhead

At the northern end of the segment there is a minor opportunity to provide a small parking area and human-powered boat launch. Parking would likely be developed adjacent to the street, with a trail connection allowing access to the river.

Viewpoints and interpretive sites

Regularly spaced resting areas with benches, viewpoints, and interpretive displays would provide locations to rest, enjoy the scenery, and interpret the history and ecology of the Malheur River and the surrounding region. The trail route provides good views to the mushroom plant, and surrounding hillsides, and would be a good location to interpret the river's hot springs and their use.

Constraints to trail development

This segment of trail is relatively open, and much of the route is currently in public ownership. Assuming use of existing maintenance roads as the base for a future trail, the terrain is well-suited to trail development. There is sufficient width to develop a 10-12 foot wide asphalt trail with associated shoulders. There is also enough open land in most parts of the trail route to develop an associated equestrian trail with generous separation from the paved trail. Additional right-of-way for the trail would need to be



The Oregon Trail interpretive site would be enhanced as trailhead, visitor orientation site, and interpretive display.

Malheur River Trail North

Viewpoint/interpretive display opportunity.

secured at the southern end of this segment, including an access solution adjacent to Logan's parking lot, and through a few privately-owned parcels along the river just north of Washington Street.

MALHEUR RIVERTRAIL SOUTH, PHASE I

This segment travels south from Washington Street, following the river south to Wadleigh Park. This segment of the trail requires three major road crossings (Washington Street, A Street, and Lytle Boulevard), however it seems likely that there is sufficient clearance to allow bridge under crossings for each location and avoid surface crossings. Like the northern segment of the trail, this alignment allows good visual access to the river and generally follows an already improved access road alignment, simplifying trail development. The trail would provide an attractive non-motorized connection between downtown and Wadleigh Park. If a future recreational facility is developed north of the water treatment facility, the entire waterfront trail would provide a safe and effective non-motorized link between the city's two major recreational sites. Proposed access point would include Washington Street, C Street, and Wadleigh Park.

Trail type

This segment would likely be suitable for a paved, multi-use trail, possibly with parallel equestrian trail. As part of the city's primary trail system, trail width should be 10 to 12 feet to accommodate a range of users and potential high volumes of trail use.

Opportunities for enhancements and amenities

Wadleigh Park Trailhead

A trailhead connection at Wadleigh Park could range from a simple access path from the existing parking area to a more developed facility with dedicated parking, benches and similar amenities. If an equestrian trail is being considered for this segment, facilities for trailer load/unload and parking should be provided.



Wadleigh Park River Access

The low bench east of Wadleigh Park has been used for informal river access for many years. Minor improvements could improve access and usability for launching human-powered boats.

Viewpoints and Interpretive Sites

As with the northern trail segment, there are opportunities to develop one or two small trail-related sites offering views to the river, benches, and interpretive displays.

Constraints to trail development

The right-of-way in this section is largely in public ownership, however there are several privately owned parcels where acquisition may be necessary. This segment of the trail includes development directly on the Malheur River levee system. In general, the levee is located on easements when it is on private property. Depending on the specific easement language, the right to use the levee for a recreational trail may need to be negotiated with individual owners.

This segment of the trail includes three potential crossings of major roads, as noted above. From an initial investigation it appears that there is sufficient clearance to develop trail access underneath the bridges at Lytle Boulevard, A Street and Washington Street, however more investigation would be necessary in the design phase to be sure of feasibility. Surface crossings of these streets would also be possible, but would require careful design for safety. While the clearance under the bridges appeared adequate for pedestrians, bicyclists, and other non-motorized trail users, it appeared that it may not be sufficient for equestrians, however it may be possible to develop equestrian facilities closer to the river bank where the clearance to the bridge structure is greater.

MALHEUR RIVERTRAIL SOUTH, PHASE II

This segment of the city's trail system follows the Malheur River to its confluence with Bully creek, then follows the creek to an intersection with Main Street. The trail alignment would make use of the ditch road along the creek, following the top of the levee as it winds along the south side of the city and portions of the county. The trail segment ends at Main Street, where trail users have easy access to the city's on-street non-motorized network. Proposed access point would include C Street, Wadleigh Park, and W Main Street.

Trail type

For this segment a paved multi-use trail would be most appropriate for the anticipated range of users. This segment is constrained by the geometry of the levee, which is narrow in many locations. Depending on the available space, the levee could accommodate a trail ranging from 8 to 10 feet in width. This segment cannot accommodate an equestrian trail with the multi-use trail.

Opportunities for enhancements or amenities

Trailheads

This segment of trail would be served by the Wadleigh Park trailhead on the east end. No trailhead is anticipated at the west end.

Viewpoints and interpretive sites

This route is located in an attractive setting and should provide an excellent trail experience. The confluence of the Malheur River and Bully creek overlooks the Oregon Trail Route and John Henderson grave site across the river. This could be an opportunity for an interpretive display and viewpoint. Once the alignment begins following Bully Creek the trail corridor is not appropriate for development of amenity sites, both because of the

constrained width of the levee and the relationship to adjacent private homes.

Constrains to trail development

The trail alignment is located almost entirely on the levees adjacent to the Malheur River and Bully Creek. Most of the alignment includes a regularly maintained access road that would serve as the trail base. In some locations adjacent landowners have fenced across the levee to the creek. Conversion of the access road to a multi-use trail may require negotiation of a new right-of-way agreement with adjacent landowners. As described above, the levee is narrow once the segment turns to follow Bully creek. In some locations the slope to the creek is steep, and may require safety barriers. Selective clearing of dense vegetation would also be necessary in some locations to provide necessary clearances for a multi-use trail, and to provide visual access for user safety. At the west end of the alignment, a short section of the ditch access road is also used by adjacent homeowners to access their property. This section would likely require relocation of the driveway access as a parallel facility to the trail.



Looking south along Lytle Boulevard. Lytle Boulevard is used by locals and tourists as bicycle route to connect to other locations in Malheur County and beyond.

NORTH DITCH TRAIL

The North ditch Trail takes advantage of another ditch access road as an opportunity for a trail, this one located in the northwest section of the city. Beginning either at Ash Street or Elm Street, the trail would follow the southern bank of the irrigation canal to the northeast, winding along working farm and pasture lands to an eastern terminus at the John Day Highway. Elevated above the level of much of the city, the trail alignment offers sweeping views to the south, and winds through an attractive working agricultural landscape.

Trail type

This trail is constrained by the width of the levee for most of its alignment. A 10-foot wide, paved multi-use trail would be preferred, but may have to be reduced to 8 feet in some locations. This trail alignment does not provide sufficient width to accommodate a parallel equestrian facility.

Opportunities for enhancements or amenities

This trail route offers a high-quality trail and aesthetic experience. Because of constraints in the right-of-way and a more remote location compared to the trails connecting directly to downtown, this trail would likely be more appropriate for modest development of supporting features and amenities.

Trailheads

Access to the west end of the trail will require more detailed planning and coordination with adjacent landowners. Three potential access routes are possible:

Intersection of the ditch with Ash Street. This location would provide access near the intersection of Ash and Hope Streets. As the westernmost access location it would provide the longest trail experience and directly connect the trail with a public road right-of-way. There may be space to provide parking for a few cars here if a developed trailhead is desired. Beginning the trail at this location would require development

of the trail as a sidepath for a short section of Elm Street, as well as a mid-block crossing of Elm Street.

Intersection of the ditch with the east side of Elm Street. Here the trail would begin directly adjacent to Elm Street just north of the mobile home community and continue west. Trail users would most likely use Elm Street as their access way, sharing the street with motor vehicles. If this location is selected the project should include development of a sidewalk along the east side of Elm Street connecting between Hope Street and the connection with the trail. No vehicle parking would be developed as part of this trailhead location.

Intersection of the extension of Yakima Street with Hope Street. This option would develop a segment of trail along a city water line easement between the mobile home community to the east and light industrial/agricultural warehouses to the west. The trail through this section would be developed as a sidepath to the east side of the mobile home community access street, then curve around the pump station and connect to the ditchline. Motor vehicle parking would not be provided at a trailhead in this location.

The east end of the trail would intersect with the John Day Highway approximately 1500 feet north of Eagle Street. From here trail users would follow widened shoulders on the highway back to Ellsworth Street, where they would connect to the city's non-motorized transportation system, head northeast along Lagoon drive to access the North Riverfront Trail, or continue along the John Day Highway to downtown.

Another access location for the trail could possibly be developed along the extension of Ellsworth Street heading west from its intersection with 17th Street N. This undeveloped right-of-way is currently in pasture, and development of a trail connection would require coordination with the underlying land owner to identify solutions for fencing and a livestock crossing over the trail.



Constraints

The trail alignment is located almost entirely on the ditch access road. Most of the alignment includes a regularly maintained road that would serve as the trail base. In some locations adjacent landowners use the access road as part of their agricultural activities. Conversion of the access road to a multi-use trail may require negotiation of a new right-of-way agreement with adjacent landowners. In some locations the trail would be adjacent to a steep slope into the irrigation ditch, and would require safety barriers.

Depending on the final alignment, the trail may require one or two road crossings—15th Street and possibly Elm Street. These are both low-volume roads, and on initial evaluation the crossing locations appear feasible with acquisition of new right-of-way. Sight distance should be formally evaluated during detailed planning and design phases of the project.

General Design Guidelines Considerations

Illumination. Because the trail is not recommended to be illuminated, these guidelines would focus on well-lit route crossing locations.

Clear sight distances. During the development of the trail, the design would take into account standard Oregon adopted guidelines for sight-stopping distances and approaching sight-distances, as well as curve distances for trail relating to the trails design speed.

Location markings / Mileage posts / Direction Signage. The City of Vale is interested in developing a wayfinding plan, which would incorporate the Mural Tour. Until a formal wayfinding plan is established, directional signing for the trail, bike lanes, and bike routes would follow the City's design preferences and the latest Manual of Uniform Traffic Control Devices. Development of markings and signage on State facilities would be coordinated with the Oregon Department of Transportation.

Bicycle lanes. Construction of sidewalks and ramps, bike lanes and crosswalks, and pedestrian railings should consult the most recent Standard Drawings provided by ODOT.



The North Ditch Trail route provides sweeping views over Vale's agricultural land and the city beyond

ENHANCING VALE'S DOWNTOWN CORE

Vale's downtown core, especially the pedestrian-scaled business district along A Street, is an attractive place for residents and visitors to stroll and enjoy an authentic rural American town experience. It is also a good starting point for walking the Vale mural tour and exploring Vale's historic buildings.

The planning process developed a series of concepts for enhancing downtown as a pedestrian-oriented business district, however they are early concepts and will need significant input and refinement prior to implementation.

Mayor's Park Redevelopment

Mayor's park plays a potential role in meeting several of the goals of the non-motorized plan. First, as described above, it is a potential trailhead for the Malheur River Trail, providing an opportunity for parking and amenities that can't be provided in the constrained area where the trail could be accessed adjacent to the parking lot for Logan's Market.

There are also opportunities to enhance the site as a visitor welcome area, showcasing Vale's Oregon Trail heritage, and providing improved wayfinding information to direct visitors to the downtown retail core and mural walking tour.

Mayor's Park could also be an effective location for a gateway installation welcoming drivers to Vale, and alerting them to the town's resources for visitors.

Visitor Wayfinding Sign System

The majority of recreational traffic passing through Vale is traveling westbound along Washington Street. The majority of travelers, even those looking for a place to stop, do not recognize that A Street might be an attractive short-term destination, or that the mural tour might be something that they be interested in visiting.

A coordinated wayfinding sign system, including gateway installations east, west, and north, and a sign system at major decision points, could encourage drivers to stop and visit.

Revised Downtown Circulation

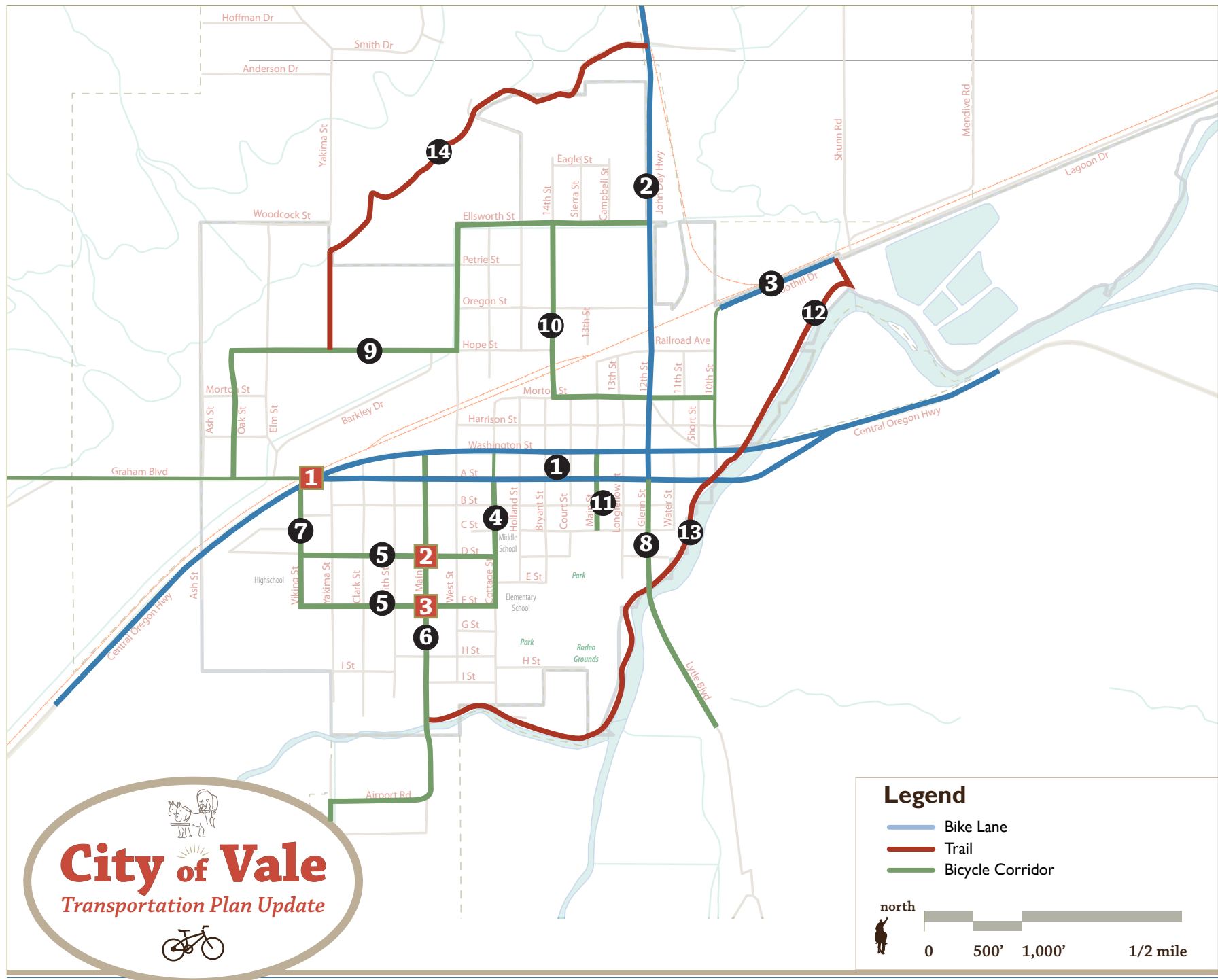
The most significant change for downtown is the opportunity to revise the couplet circulation through downtown. The current couplet is difficult to navigate for visitors, and most westbound traffic does not leave Washington Street. There is an opportunity to modify traffic flow in the downtown core, making A Street a two-way street for several blocks, while retaining Washington Street as a one-way facility.

This change to the circulation system would provide enhanced access to A Street businesses, and accompanied by effective wayfinding signage, could improve capture of recreational travelers through downtown. The change would also reduce out-of-direction travel for residents, providing more convenient access to popular stores and restaurants. At the same time, good access is maintained for the more auto-oriented businesses along Washington Street.

Providing two-way access and circulation in the critical retail core of historic A Street would enhance the pedestrian-oriented business environment and contribute to a healthier business environment in the critical few blocks along A Street.

A plan and typical roadway sections for the circulation revision are on the following page.

BICYCLE AND PEDESTRIAN SYSTEM OPPORTUNITIES



Bike Lanes/Widened Shoulders

- ① A Street and Washington Street: extend the existing bike lane couplet further to the east and west of downtown.
- ② John Day Highway: install new bike lane through Vale. Priority corridor is from Lytle Boulevard bridge south of town, north to Ellsworth Street.
- ③ Lagoon Drive: connects existing bike lanes on Washington Street to the proposed Malheur River Trail.

Bike Routes

- ④ Cottage Street: connects between Washington Street and E Street, passing by the middle and elementary schools.
- ⑤ D Street and F Street: connects between the high school and the middle and elementary schools.
- ⑥ West Main Street: connects through town to proposed river trail and provides a route south out of town to the airport.
- ⑦ Viking Drive: connects from Graham Boulevard and the highway to the high school and F Street.
- ⑧ Graham Boulevard: provides a connection from the west end of Vale out of town.
- ⑨ North Side Connector Route: connects Graham Boulevard to John Day Highway via Oak Street, Hope Street, 17th Street, and Ellsworth Street.
- ⑩ North Neighborhoods Market Route: connects north of Logan's Market at 10th Street to Ellsworth Street via Morton Street and 14th Street.
- ⑪ Main Street: Connects from A Street and Washington Street to Wadleigh Park through the Vale historic district.

Trails

- ⑫ North Malheur River Trail: connects from the major bend in the river northwest of town along the north side of the Malheur river to Main Street.
- ⑬ South Malheur River Trail: connects along the riverfront from A Street and Washington Street to Wadleigh Park. A continuation of the trail would follow Bully Creek to the west, eventually connecting to Airport Drive/Main Street.
- ⑭ North Ditch Trail: This trail would follow the irrigation canal maintenance road, connecting from approximately Elm Street to the John Day Highway.

Improved Pedestrian Crossings

- 1** Viking Drive/Graham Boulevard: at-grade railroad crossing, which is a favored route to school for children to the north.
- 2** D Street / W Main Street: install pedestrian crossing improvements such as pedestrian activated crossing beacons. Explore addition of in-pavement lights.
- 3** F Street / W Main Street: install pedestrian crossing improvements such as pedestrian activated crossing beacons. Explore addition of in-pavement lights.

4

TARGETED TRANSPORTATION SYSTEM IMPROVEMENTS

TARGETED TRANSPORTATION SYSTEM IMPROVEMENTS

The bicycle and pedestrian improvements recommended in this plan supersede or compliment the recommendations of the February 1998 City of Vale Transportation System Plan and the 2001 update; however, the plan for other modes remain in place. The following is a discussion of modification to the elements included in the 1998 plan.

PEDESTRIAN SYSTEM

The improvement recommended for improving the intersection at Viking Drive and Washington Street/A Street intersection meets the goals of the previous Project 2 in the 1998 plan, which was to improve safety at this intersection. However, realigning this intersection so that Graham Boulevard meets the roadway at a ninety degree angle is not included in the pedestrian proposed improvement.

The proposed sidewalk improvements listed below are carried forward from the previous 1998 plan, if these improvements have not been completed they are

recommended to carry forward as part of a sidewalk in-fill/improvement project.

BICYCLE SYSTEM

The most significant change between the 1998 plan and the proposed system plan is the focus on bicycle routes versus bike lanes. The construction cost associated with bike lanes where streets need to be widened to accommodate bicycles, vehicular travel, and oftentimes on-street parking can be prohibitive. Also, the lower vehicular volumes city street experience may not warrant the construction of bicycle lanes when bicycle routes are appropriate treatments.

In the previous plans, bike lanes were proposed on Glenn Street and Lytle Boulevard south of A Street; due to the lack of connectivity within the City of Vale this route offers, the bicycle facility type was modified to be a bicycle route. In the event funding is available for the widening of Glenn Street and Lytle Boulevard, bicycle lanes could be evaluated at that time. Bicycle lanes would provide additional separation of bicyclists from motor vehicles.

Update of Pedestrian Facility Construction Costs from the previous 1998 plan.

Location	Length (ft.)	Construction Cost per Mile
New Sidewalks		\$1,598,000
Washington Street (Yakima Street to 10th Street)	6,750	\$2,042,900
A Street (Yakima Street to 10th Street)	3,300	\$998,800
Glenn Street/Lytle Boulevard (Morton Street to C Street)	900	\$272,400
B Street (Cottage Street to Longfellow Street)	750	\$227,000
17th Street (Barkley Street to D Street)	625	\$189,200
D Street (Viking Drive to Cottage Street)	1,875	\$567,500
F Street (Viking Drive to Cottage Street)	1,125	\$340,500
Longfellow Street (Washington Street to C Street)	500	\$151,400
Cottage Street (Harrison Street to G Street)	250	\$75,700
Holland Street (Harrison Street to E Street)	190	\$57,600
Bryant Street (Washington Street to D Street)	375	\$113,500
Short Street (Washington Street to A Street)	300	\$90,800
Subtotal		\$5,127,300
Upgrade of Existing Sidewalks		\$873,000
Cottage Street (Washington Street to A Street)	400	\$66,200
D Street (Smith Street to West Main Street)	250	\$41,400
F Street (West Main Street to West Street)	500	\$82,700
Washington Street (West Street to Holland Street)	300	\$49,700
Washington Street (Court Street to Main Street)	250	\$41,400
A Street (Cottage Street to Holland Street)	250	\$41,400
Subtotal		\$322,800
TOTAL		\$5,450,100

Similarly, bicycle routes were proposed on D Street, F Street, and Cottage Street (no facility was suggested for Bryant Street) instead of bike lanes. Bicycle lanes would be a positive addition provided funding could be obtained for the expense of widening these roadways and maintain on-street parking.

TRAIL SYSTEM

The previously recommended trail connecting along the Malheur River is also proposed as part of this plan update, but breaks the trail into three phases. A new trail is also proposed along the north ditch road.

BASIC FINANCIAL ELEMENT

The following section includes the summary of the basic financial element, with planning level cost estimates for proposed routes/improvement type projects. To improve the usability of the planning level cost estimates, a hierarchy of bike lane, bike route, and intersection crossing improvements is provided on a per-block basis. A unit price section was added to allow for quick updating of construction cost elements to improve the usability of this cost estimate tool as the plan ages.

For an expanded detail of the surface design and supporting elements, please refer to the City of Vale Planning Level Cost Estimate for Pedestrian and Bicycle Facilities spreadsheet. This spreadsheet also includes assumptions for costs such as preliminary engineering, environmental/permitting, construction engineering, contingency, surveying, traffic control, mobilization, and right-of-way acquisition costs, which can be tailored with additional detail as funding becomes available or projects are able to proceed into preliminary design.

The addition of a road overlay would assume the roadway surface was inadequate for bicycling and would likely need replacing. Additional costs associated with high end improved crossing provides for the construction of intersection control improvements such as an illuminated or signalized pedestrian crossing, traffic signal, or intersection control device such as a traffic circle.

Basic Cost Elements for Facility Types

Type of Facility	General Improvements	Costs per Mile
Low End Bike Lane	Restriping and no drainage improvements	\$68,000
High End Bike Lane/Sidewalks with Overlay	Restriping, new sidewalks, drainage improvements, and roadway overlay	\$2,318,000
High End Bike Lane/Sidewalks without Overlay	Restriping, new sidewalks, and drainage improvements	\$1,994,000
Low End Bike Route	Restriping and signage	\$58,000
High End Bike Route	Restriping, signage, and roadway overlay	\$368,000
Low End Separated Trail	Paved off-road trail	\$377,000
High End Separated Trail	Paved off-road trail plus retaining wall and drainage	\$1,132,000
New Sidewalk Only	Grading, sidewalk and drainage	\$1,598,000
Improvement on Existing Sidewalk	Removal and new sidewalk	\$873,000
		Cost per Location
Low End Improved Crossing	Sign and stripe	\$14,000
High End Improved Crossing	Sign, stripe and signal improvement	\$356,000

Operation and Maintenance Costs

Type of Facility	Potential Maintenance Items	Estimated Annual O & M Costs per Mile
Low End Bike Lane	Repainting bike lane, sign and Stencil replacement as needed. Assume every 5 years.	\$6,000
High End Bike Lane/Sidewalks with Overlay	Repainting bike lane, sign, and stencil replacement as needed. Assume every 5 years. Storm water inlet cleanout every year.	\$7,000
High End Bike Lane/Sidewalks without Overlay	Repainting bike lane, sign, stencil replacement as needed. Assume every 5 years. Storm water inlet cleanout every year.	\$7,000
Low End Bike Route	Repainting bike stencil in roadway. Assume every 3 years. Sign replacement every 5 years.	\$7,000
High End Bike Route	Repainting bike stencil in roadway. Assume every 3 years. Sign replacement every 5 years.	\$7,000
Low End Separated Trail	Removal of debris/vegetation overgrowth, every year. Assume no lighting for trail	\$1,000
High End Separated Trail	Removal of debris/vegetation overgrowth, every year. Assume no lighting for trail	\$1,000
Low End Improved Crossing	Repainting crosswalk stripe. Assume every 3 years.	\$1,000
High End Improved Crossing	Repainting crosswalk stripe. Assume every 3 years. Annual signal maintenance.	\$2,000

MAINTENANCE

The following table summarizes the potential maintenance items and estimated annual operation and maintenance costs per mile or location for each type of facility. For a detailed summary of how these costs were calculated refer to the City of Vale Planning Level Cost Estimate for Pedestrian and Bicycle Facilities spreadsheet.

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PRIORITIZED LIST OF IMPROVEMENTS

This section describes the elements used to evaluate the proposed projects and develop a general list of prioritized improvements for the City of Vale for proposed pedestrian/transit accommodations, pathway, bicycle, and pedestrian improvements. Also, refer to Chapter 2 for a summary of major concerns and issues for walking, biking, and wheeling in Vale as well as themes and goals.

Elements used to evaluate and prioritize proposed projects include the following:

Relevance to Project Objectives (low / medium / high)

- Low: facility represents a connector routes
- Medium: facility connects to direct routes, the school, and key destinations
- High: facility provides direct connections to school, key destinations, and residential areas, and/or is a location of concern for pedestrian and bicycle safety

Adequacy of Existing Facility (superior / moderate / very poor)

- Superior: requires a minor upgrade to the existing facility to accommodate the proposed bicycle/pedestrian improvement
- Moderate: requires some minor geometric, intersection control, and/or storm water improvements
- Very Poor: requires significant upgrade or replacement of existing infrastructure

Realists Cost / Estimated Planning Level Cost (high / low)

- High: improvements would require substantial City financial contribution based on planning level cost estimate
- Low: improvements would require minimal City financial contribution based on planning level cost estimate

Available Funding Sources (none / some / all)

- None: City would likely be required to contribute all funds necessary for project construction

-
- Some: Project could be partially to fully funded through a competitive grant process
 - All: Project could be completely funded through a competitive grant process

Technical Implementation (complex / simple)

- Complex: coordination would be required with multiple stakeholders, such as ODOT, City, County, homeowner(s), and would likely require property acquisition
- Simple: all or most of the improvements occur within the City right-of-way

Political Implementation (difficult / easy)

- Difficult: requires local political champions to assist City staff in project implementation
- Easy: project occurs within the City right-of-way

Potential Use as Part of a Total Network (low / high)

- Low: secondary route connecting destinations
- High: primary route connecting destinations such as residential areas, downtown, and schools or completes an existing route

The ranking of projects in the table on the following page will change over time. As projects are constructed and the current funding climate evolves, projects will need to be reevaluated, which will include an updating of project costs and evaluation of project alignments. Also, if opportunities to construct facilities through partnerships arise, projects should receive increased emphasis for implementation. Also, any identification of a change in the safety of the bicycle and pedestrian facility, especially on a route to school, should be introduced into the proposed project list based on the input received from the Project Management Team, Technical Advisory Committee, and through the public involvement process.

	Relevance to Project Objectives	Adequacy of existing facility	Realists cost	Available funding sources	Technical implementation	Political implementation	Potential use as part of a total network
Ratings	High	Very Poor	Low	All	Simple	Easy	High
	Medium	Moderate	High	Some	Complex	Difficult	Low
	Low	Superior		None			
Bike Lanes							
John Day Highway	Low	Moderate	High	None	Complex	Difficult	Low
Lagoon Route	High	Moderate	Low	None	Simple	Easy	High
Washington & A	Medium	Moderate	High	Some	Complex	Difficult	Low
Bike Routes							
Viking Drive	High	Moderate	High	Some	Complex	Easy	High
School Connector	High	Moderate	High	Some	Simple	Easy	High
Hope Street Connection	Medium	Moderate	Low	Some	Simple	Easy	Low
Cottage Street Route	High	Moderate	Low	Some	Simple	Easy	High
Graham Boulevard Extension	Low	Very Poor	High	None	Complex	Easy	Low
Airport Road Route	Low	Moderate	High	None	Simple	Easy	Low
Market Route	Moderate	Moderate	Low	None	Simple	Easy	Low
Lytle Boulevard	Low	Moderate	Low	None	Simple	Easy	Low
Trails							
Malheur River Trail North	High	Very Poor	High	Some	Complex	Difficult	High
Malheur River Trail South (1)	High	Very Poor	High	Some	Complex	Difficult	High
Malheur River Trail South (2)	High	Very Poor	High	Some	Complex	Difficult	High
North Ditch Trail	Low	Very Poor	High	Some	Complex	Difficult	Low
Intersections							
Viking Drive / A Street	High	Very Poor	High	Some	Complex	Difficult	High

Timeline

The non-motorized element of the transportation plan is based on a 20-year time frame. Projects may be developed at any time, however, based on their priority and readiness for implementation, projects have been identified as likely to be implemented in near term (0-5 year), mid-term (5-10 year), and long term (10-20 year) time frames:

Near Term

Cottage Street bike route
D Street and F Street with W Main Street Intersection Improvements
School Connector, which is a bike route connecting schools via D Street and F Street
Viking Drive bike route
Malheur River North

Mid-Term

Malheur River Trail South (1 and 2)
Lagoon Route bike lane
Market bike route

Long-Term

North Ditch Trail
John Day Highway bike lane
Hope Street bike route connection
Graham Boulevard extension
Airport Route bike route
Lytle Boulevard bike route

PROPOSED PROJECTS

Inclusion in the plan is not a guarantee of funding. Suggestions for funding sources are indicated (ODOT, City, etc.) but do not assure the availability or approval of such improvements. Based on the prioritization criteria, the projects ranking as high priority projects resulted in the following:

<i>Project:</i>	Cottage Street		
<i>Description:</i>	Bike route that connects A Street/Washington Street bike lanes to the middle and elementary schools. Emphasis on high quality sidewalks in these corridors.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability	<i>Facility:</i>	Bike Route
<i>Project Readiness:</i>	Low	<i>Distance:</i>	0.23 miles
<i>Potential Partners:</i>	Schools, ODOT, County		
<i>Project:</i>	D Street and F Street with W Main Street Intersection Improvements		
<i>Description:</i>	Install pedestrian crossing improvements such as pedestrian activated crossing beacons. Explore addition of in-pavement lights.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability	<i>Facility:</i>	Intersection improvements
<i>Project Readiness:</i>	Low		
<i>Potential Partners:</i>	Schools, ODOT		
<i>Project:</i>	School Connector		
<i>Description:</i>	Bike route connecting the City of Vale schools along D Street and F Street by providing bike route markers. In-fill and sidewalk repair would be an emphasis in these corridors.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability	<i>Facility:</i>	Bike Route
<i>Project Readiness:</i>	Low	<i>Distance:</i>	0.76 miles
<i>Potential Partners:</i>	Schools, ODOT, County		
<i>Project:</i>	Viking Drive / A Street Intersection Improvement		
<i>Description:</i>	Construct curb extensions and sidewalk to facilitate alignment with improved pedestrian crosswalk at the intersection. Explore ways to improve crossing of low-use railroad tracks.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability	<i>Facility:</i>	Bike Route
<i>Project Readiness:</i>	Low		
<i>Potential Partners:</i>	Schools, ODOT		

<i>Project:</i>	Viking Drive Sidewalk Improvements		
<i>Description:</i>	Connects the high school to A Street/Washington Street bike lanes and neighborhoods to the north. Emphasis on providing a sidewalk on west side of roadway to complement the existing east side sidewalk would likely require property acquisition and could potentially be cost prohibitive without grant funding.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability	<i>Facility:</i>	Bike Route
<i>Project Readiness:</i>	Low	<i>Distance:</i>	0.24 miles
<i>Potential Partners:</i>	Schools, ODOT, County		
<i>Project:</i>	Malheur River Trail North – Phase 1		
<i>Description:</i>	Multi-use trail that follows the river from a starting point north of Washington Street, and continues to a connection with Lagoon drive near the city's wastewater treatment system.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability	<i>Facility:</i>	Multi-use trail
<i>Project Readiness:</i>	Low		
<i>Project:</i>	Malheur River Trail South – Phase 1		
<i>Description:</i>	Multi-use trail that travels south from Washington Street, following the river south to Wadleigh Park.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability	<i>Facility:</i>	Multi-use trail
<i>Project Readiness:</i>	Low		
<i>Project:</i>	Malheur River Trail South – Phase 2		
<i>Description:</i>	Multi-use trail that follows the Malheur River to its confluence with Bulley creek, then follows the creek to an intersection with Main Street.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability	<i>Facility:</i>	Multi-use trail
<i>Project Readiness:</i>	Low		
<i>Project:</i>	A Street and Washington Street Bicycle Lane Extensions		
<i>Description:</i>	Extend bicycle lanes east and west on A Street and Washington Street to the east and west. Bike lanes would transition to widened shoulders outside of the City.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability	<i>Facility:</i>	Bike Lanes
<i>Project Readiness:</i>	Low		
<i>Potential Partners:</i>	ODOT		
<i>Project:</i>	A Street and Washington Street Speed Limit Modifications		
<i>Description:</i>	Relocate speed limit transitions for both roadways further to the east on the east side of the City. This project coordinates with the Malheur River Trail South - Phase 1 project if surface crossings are necessary at A and Washington Streets.	<i>Priority:</i>	High
<i>Phasing/Timing:</i>	Based on funding availability/ccordinate with Malheur Trail project	<i>Facility:</i>	Trail crossing
<i>Project Readiness:</i>	Low		
<i>Potential Partners:</i>	ODOT		

IMPLEMENTATION STRATEGY AND PROJECT READINESS

The section describes implementation strategies and project readiness categories that apply to the high priority proposed projects found in this section.

IMPLEMENTATION STRATEGY

To increase the access and mobility of people in Vale, infrastructure improvements are important, but so are efforts to change people's choice and perceptions about bicycling and walking. All of the in-town destinations in the City of Vale are bikeable and walkable today. Therefore, the City should consider programs and opportunities to promote bicycling and walking in Vale. Strategies for improving bicycling and walking could include the following:

Implement Safe Routes to Schools Plan. The City could work with the City of Vale Schools and other partner agencies, such as ODOT, to implement a Safe Routes to School Strategic Plan.

Promote bicycling and walking to youth activities. The City could promote bicycling and walking among youth to activities outside of school, such as minor league sports.

Promote bicycling and walking for health purposes. The City could promote bicycling and walking for health purposes through the creation of programs in coordination with local business and tourism, such as promoting the Mural Tour and local volunteer clean-up programs for parks and bicycle and pedestrian facilities.

Promote bicycling and walking to work. The City could promote walking to work, through events such as the bike and walk to work week.

Develop bicycling and walking maps. The City could collaborate with other public and private entities to develop official walking maps, building on the existing Mural Tour maps, and showcase the great places in Vale.

Continue Mural Tours. The City should continue to promote the Mural Tour and development of murals in town as they provide a rich depiction of the areas heritage.

The implementation of projects is strengthened by identifying partnerships with cooperative management or development responsibilities exist, understanding the development and construction climate in terms of competitive bidding, but first understand what stakeholders should be notified early and who needs to be coordinated with to ensure projects are constructed to the appropriate design standards. A summary list of stakeholders and agencies likely to require notification or early coordination with are included in this Chapter. Also, approval from the ODOT State Traffic Engineer would be needed for modifications to the highways. For those projects that could impact the number of lanes on state highways or potentially reduce vehicle-carrying capacity, further evaluation of the project design would be required prior to implementation to comply with ORS 366.215.

For trails, the Memorandum Agreement developed for this project lays a solid foundation for the development of the Malheur River trail and bicycle and pedestrian facilities on County and State facilities.

PROJECT READINESS

In order to implement bicycle and pedestrian projects in the City of Vale, a demonstrated need for the improvement and an opportunity for the improvements to occur are required. For example, although projects going through the prioritization process the City of Vale Project Management Team, Technical Advisory Committee, and City Council approved ranked as a high priority, there still needs to be the opportunity to implement the improvement—the opportunity for some projects will little impact to right-of-way, low cost, and existing partnerships could be inherent in a project. However, projects requiring additional ground truthing, extensive outside funding, and coordination with many different agencies and land owners need to have the opportunity for implementation carefully created and strategized to ensure a smooth and successful project. Likewise, other projects with a lower priority may have an opportunity arise to integrate the improvements into another infrastructure improvement project in a short time frame.

A project readiness level of high, medium, or low was assigned for each potential improvement project based upon current information available. The readiness level was defined as follows:

- **High Project Readiness:** a project with bicycle and/or pedestrian improvements is in a capital program and is substantially funded.
- **Medium Project Readiness:** a project with bicycle and/or pedestrian improvements is in a capital program and has been partially funded or is included as part of a regional or statewide capital program; or, project is included in a capital program where the proposed project could be integrated into the total project package. Also, a preliminary design study has been completed or is underway.
- **Low Project Readiness:** a project not included in a capital program and that doesn't align with a project included as part of a capital program. Also, no planning or design study has been completed to demonstrate project feasibility.

6

FUNDING PROGRAMS

This Chapter outlines suggestions for funding sources, which were available in 2010, and does not assure the availability of approval for recommended improvements. Also, inclusion of projects in this plan does not guarantee funding. Due to the constant changing environment of the federal, statewide, and regional funding programs, contacts have been provided in order to update this chapter of the plan as it is implemented over time. Most funding programs are highly competitive and could require significant effort on the local jurisdiction to put together a competitive proposal; therefore, only the highest priority projects were identified for funding in this version of the plan. This chapter is organized by Federal, Statewide and Regional, and Other funding programs.

FEDERAL FUNDING PROGRAMS

The Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users Act (SAFETEA-LU) is the fourth iteration of the transportation investment strategy established by Congress in 1991. Funding is administered through the State and regional planning agencies. The majority of funding programs included in SAFETEA-LU emphasize reducing auto trips and providing inter-modal connections. Specific funding sources include the following (some of which are described in additional detail in the Local Agency Guidelines, June 2009).

SURFACE TRANSPORTATION PROGRAM

The purpose of the STP program is to develop, improve, and/or preserve an integrated transportation system that encourages multimodal choices to the public. Projects must be on roads federally functional classified higher than rural minor collector and local access roads. All transportation modes may be eligible. A number of types of projects are eligible including,

highway and transit safety improvements; highway and transit research and technology transfer; surface transportation planning; and, transportation enhancement activities. The Regional Surface Transportation Program (RSTP) is a block grant program which provides funding for bicycle projects, among many other transportation projects. Under the RSTP, Metropolitan Planning Organizations (MPOs), prioritize and approve projects which will receive RSTP funds. The MPO distributes the RSTP funds to local jurisdictions. MPOs can transfer funding from other federal transportation sources to the RSTP program to gain more flexibility with the way the monies are allocated. Contact the ODOT Regional Local Agency Liaison if clarification of eligibility is needed (FHWA reserves approval on eligibility determinations). The basic program is 80 percent federal funding with a 20 percent local match; although certain safety improvements listed in 23 USC 120(c) have a federal share of 100 percent.

TRANSPORTATION ENHANCEMENT (TE) PROGRAM

The purpose of the TE program is to strengthen the cultural, aesthetic, or environmental value of the transportation system by providing funds for projects in 12 specific TE activities, which includes activities such as pedestrian and bicycle facilities, provision of safety and educational activities for pedestrians and bicyclists; acquisition of scenic easements; landscaping and other scenic beautification; and preservation of abandoned railway corridors. The intent of the federal TE program is for such transportation improvements to become a common part of transportation investment policy and to integrate them into many projects. The minimal local match is 10.27 percent. All eligible projects must be approved by FHWA and must be included in the Statewide Transportation Improvement Program (STIP).

RAILWAY/HIGHWAY GRADE CROSSING PROGRAM

The purpose of the Rail/Highway Grade Crossing program is to reduce the number of fatalities and injuries at public highway-rail grade crossings through the elimination of hazards and/or the installation/upgrade of protective devices at crossings. This program reduces the number and severity of highway

accidents by eliminating hazards to vehicles, pedestrians, and train crews at existing railroad crossings. Railroad/highway at grade crossing improvement projects include, but are not limited to installation and upgrade of railroad protection systems to a state-of-the-art condition for at-grade crossings and grade crossing eliminations. Projects are selected based on a state-wide analysis of all public crossings using an accident prediction model. There are no matching requirements.

HIGHWAY SAFETY IMPROVEMENT PROGRAM

The purpose of Highway Safety Improvement Program (HSIP) is to provide federal-aid funds to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) creates a new Highway Safety Improvement Program (HSIP) and replaces the previous Hazard Elimination Program (STPS or HEP). HSIP is intended to make significant progress in reducing highway fatalities and serious injuries. Federal funding for HSIP was increased significantly over the previous HEP program. Federal share funding is 90 percent, with a 10 percent match required, except that the federal share is 100 percent for certain safety improvements listed in 23 USC 120(c).

HIGH RISK RURAL ROADS

The purpose of the High Risk Rural Roads (HR3) Program is to carry out safety improvement projects on rural roads, with identified safety issues, to achieve a significant reduction in traffic fatalities and serious injuries. HR3 is a federally-funded set-aside program within the Highway Safety Investment Program (HSIP) for improvements on rural roads. HSIP is managed by ODOT. To be eligible, roadways must have a crash rate for fatalities and incapacitating injuries that exceeds the statewide average for those functional classes of roadways. FHWA will reimburse costs at 92.22 percent, which requires a match of 7.78 percent.

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM

The purpose of the Congestion Mitigation and Air Quality Improvement Program (CMAQ) program is to fund transportation projects and programs that contribute to the attainment and maintenance of National Ambient Air Quality Standards (NAAQS) in non-attainment or air quality maintenance areas for ozone, carbon monoxide, or particulate matter under provision in the Federal Clean Air Act. The fund is administered by ODOT. Bicycle and pedestrian projects and programs are eligible for funding. Federal share payable is up to 100 percent for 2008 through 2009. CMAQ is a reimbursement program that requires applicants to provide non federal matching funds that are at least 10.27 percent of the project cost with a higher match rate for projects that are public-private partnerships.

TRANSPORTATION, COMMUNITY AND SYSTEM PRESERVATION PROGRAM

The Transportation, Community and System Preservation (TCSP) Program is a comprehensive initiative of research and grants, that provides federal funding for transit oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. This program provides communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. TCSP Program funds require a 20 percent match. This grant is administered by FHWA, see <http://www.fhwa.dot.gov/tcsp/index.html>.

RECREATIONAL TRAILS PROGRAM

The Recreational Trails Program of SAFETEA-LU provides funding for states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other motorized uses. The federal share will be in accordance with 23 USC 120(b), but Oregon requires a 20 percent

match. In Oregon, the funds are administered by the Oregon Department of Parks and Recreation.

RTP projects must be ADA compliant, and may be used for the following:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails; including unpaved trails
- Acquisition of easements or property for trails
- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails.

See: www.fhwa.dot.gov/environment/rectrails/index.htm

LAND AND WATER CONSERVATION FUND

Land and Water Conservation Fund is a federally funded program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The Fund is administered by the National Parks Service and the Oregon Parks and Recreation Department, and has been reauthorized until 2015. Cities, counties and districts authorized to acquire, develop, operate and maintain park and recreation facilities are eligible to apply for uses such as hiking, running, and bicycling. Types of projects include building new recreation trails, including building trail bridges and installing wayfinding signs, developing and rehabilitating trailhead facilities, acquiring land and permanent easements, and water trails. Project sponsors provide at least 20 percent of the project total costs, eligible matches include cash, force account labor, volunteer labor, donated equipment, grants, and more. Property acquired or developed under the program must be retained in perpetuity for public recreational use. See, <http://egov.oregon.gov/OPRD/GRANTS/lwcf.shtml>. Since 1964, this national grant has awarded more than \$55 million for Oregon recreational areas and facilities.

RIVERS, TRAILS AND CONSERVATION ASSISTANCE PROGRAM

The Rivers, Trails and Conservation Assistance Program (RTCA) is the community assistance arm of the National Parks Service. The RTCA is a program that provides technical assistance, via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based upon criteria which include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation and focusing on lasting accomplishments. See, <http://www.nps.gov/ncrc/programs/rtca/>.

ENERGY EFFICIENCY AND CONSERVATION GRANT BLOCK PROGRAM

The United States Department of Energy, Energy Efficiency and Conservation Grant Block (EECGB) program funds are available to assist state, local, territorial and tribal governments in implementing strategies to reduce fossil fuel emissions, energy use, and improve energy efficiency. Eligible programs include bike lanes and multi-use paths. See, <http://www1.eere.energy.gov/wip/eechg.html> and <http://www1.eere.energy.gov/financing/>

FEDERAL LANDS HIGHWAY FUNDS

The primary purpose of the Federal Lands Highway Funds (FLHP) is to provide funding for a coordinated program of public roads that serve the transportation needs of the federal lands, which are not a state or local government responsibility. These funds may be used to build bicycle facilities, in conjunction with roads and parkways, at the discretion of the department charged with administration of the funds. The projects must be transportation-related and tied to a plan adopted by the State and MPO (Metropolitan Transportation Commission). Federal Lands Highway Funds may be used for planning and construction. The federal share of the costs for any project eligible under this program is 100 percent.

SAFE ROUTES TO SCHOOL

The purpose of the Safe Routes to School program is to provide funds to states to substantially improve the ability of primary and middle school students to walk and bicycle to school safely. Additionally, program funds are used:

- To enable and encourage children, including those with disabilities, to walk and bicycle to school.
- To make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age.
- To facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity (approximately two miles) of primary and middle schools (Grades K-8).

The Federal-aid Safe Routes to School (SRTS) program was created in 2005 by section 1404 of the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users Act (SAFETEA-LU), which funded \$612 million over five years (2005 through 2009). Eligible projects are those identified projects that will reduce barriers and hazards to children, Kindergarten through Grade 8, walking or bicycling within two miles of their school and include sidewalk improvements, traffic calming, pedestrian and bicycle crossing improvements, on-street bicycle facilities, speed reduction improvements, and more. The federal share is 100 percent.

The Oregon Safe Routes to School Coordinator: See: <http://www.saferoutesinfo.org/contacts/OR.cfm>

Julie Yip: Transportation Safety Division, Oregon Department of Transportation, 235 Union Street, Salem, OR, 97301, (503) 986-4196, email: julie.a.yip@odot.state.or.us

Two groups of funding are available through the SRTS program,

- Infrastructure projects within two miles of the school,
- Non-infrastructure activities; education, encouragement, and traffic enforcement activities within two miles of the school.

STATEWIDE AND REGIONAL FUNDING PROGRAMS

OREGON'S BICYCLE AND PEDESTRIAN PROGRAM GRANTS

State law (ORS 366.514) requires ODOT, cities and counties to spend reasonable amounts of their share of the State Highway Fund on footpaths and bicycle trails. The Pedestrian and Bicycle Grant Program is a competitive grant program that provides approximately \$5 million dollars every two years to Oregon cities, counties, and ODOT regional and district offices. The ODOT local assistance grant program would be a source of funding for improvements such as filling in missing gaps in sidewalks, ADA upgrades, intersection crossing upgrades, and providing minor shoulder widening or re-striping for bicycle lanes.

See: <http://www.oregon.gov/ODOT/HWY/BIKEPED/grants1.shtml>

IMMEDIATE OPPORTUNITY FUND (IOF)

This fund supports primary economic development in Oregon. It does this by building and improving streets and roads in strategic locations. The maximum amount available for a single project is \$500,000. Starting in 2002, all new IOF projects will be represented in the Modernization Program.

REGIONAL AND COUNTY FUNDING

The Regional Transportation Improvement Program (RTIP) is a derivative of the STIP program, and identifies projects which are needed to improve regional transportation. Such projects may include bicycle facilities, safety projects and grade separations, among many others. RTIP project planning, programming and monitoring may be funded with up to 5 percent of total RTIP funds in urbanized regions. The MPO prepares the RTIP, consisting of projects to be funded through STIP, and helps to prioritize projects. Funded projects must be identified in the Regional Transportation Plan.

OTHER FUNDING PROGRAMS

COMMUNITY DEVELOPMENT BLOCK GRANTS

The Community Development Block Grants (CDBG) program provides money for streetscape revitalization. Federal Community Development Block Grant grantees may “use CDBG funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated Plan and managing CDBG funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs.” See, www.hud.gov/offices/cpd/communitydevelopment/programs/index.cfm

REQUIREMENTS FOR NEW DEVELOPMENTS

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

IMPACT FEES

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

VOLUNTEER AND PUBLIC-PRIVATE PARTNERSHIPS

Volunteer programs may substantially reduce the cost of implementing some of the proposed pathways. Use of volunteer organizations and assistance groups such as RARE, will be effective at reducing project costs. Local schools or community groups may use the bikeway projects as a project for the year, possibly working with a local designer or engineer. Work parties may be formed to help clear the right-of-way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may also be a good source of local funding, where corporations ‘adopt’ a bikeway, helping construct and maintain the facility

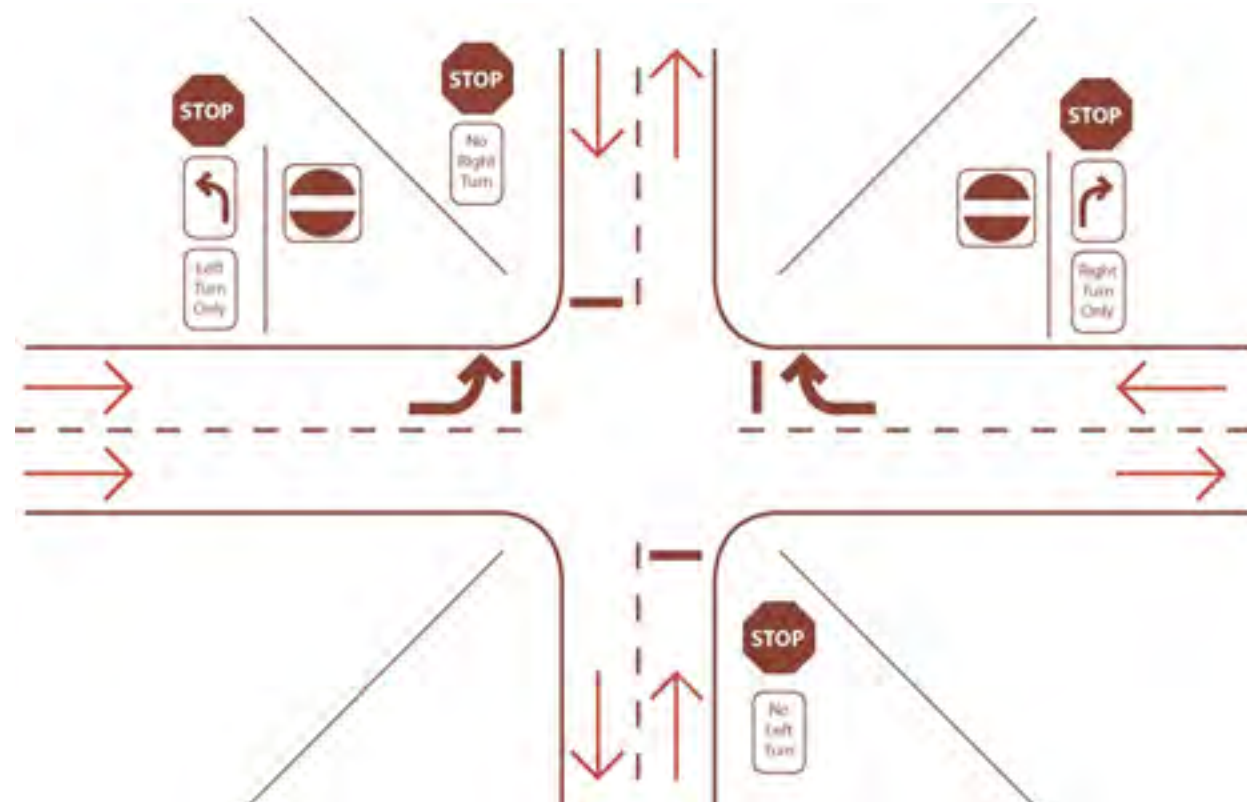
APPENDIX A

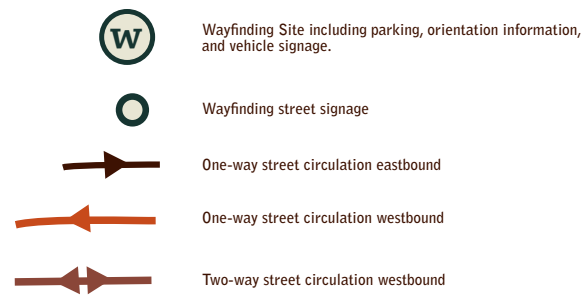
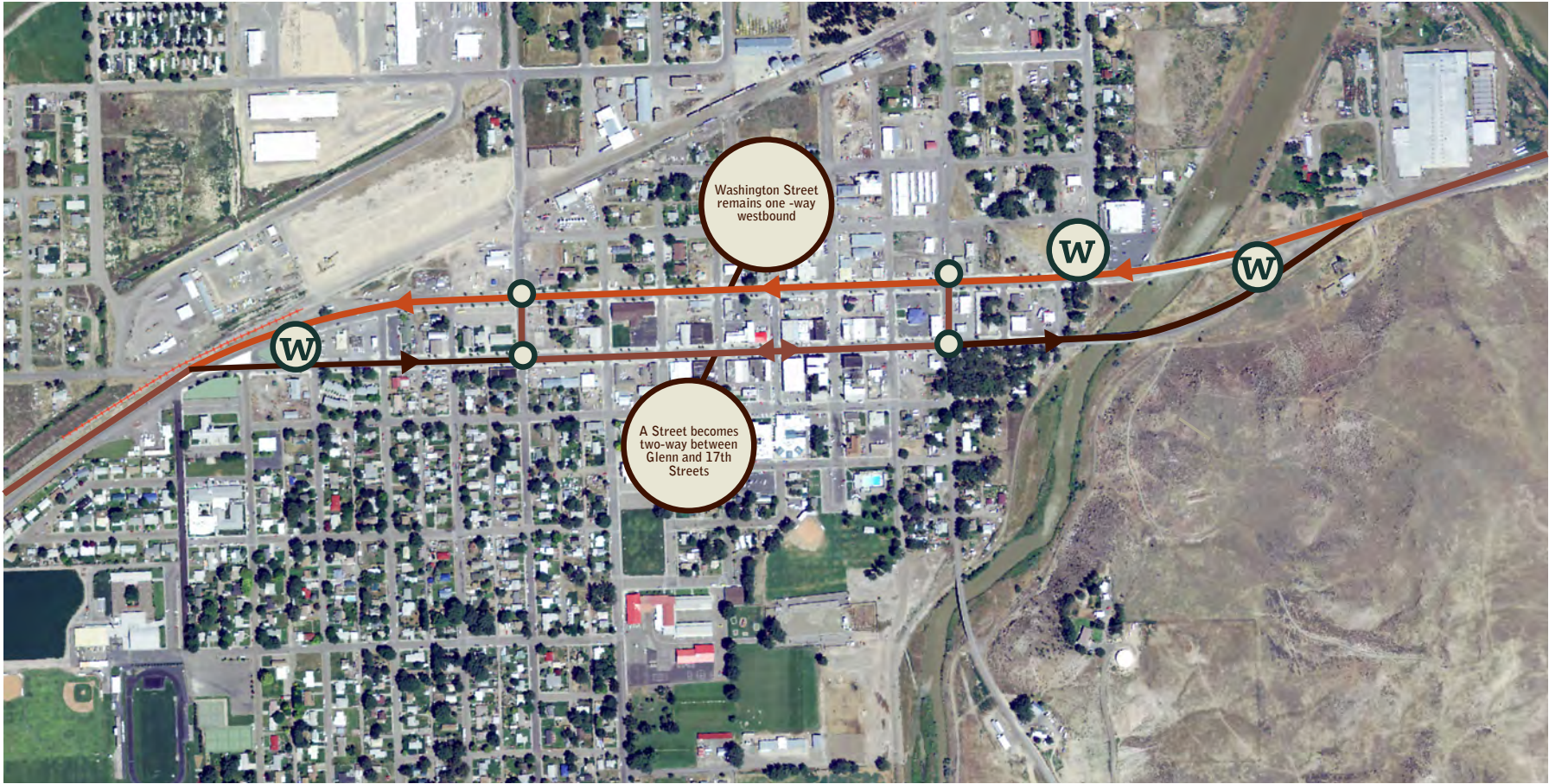
Options considered and abandoned
during the development of this plan.

DOWNTOWN CIRCULATION CONCEPT

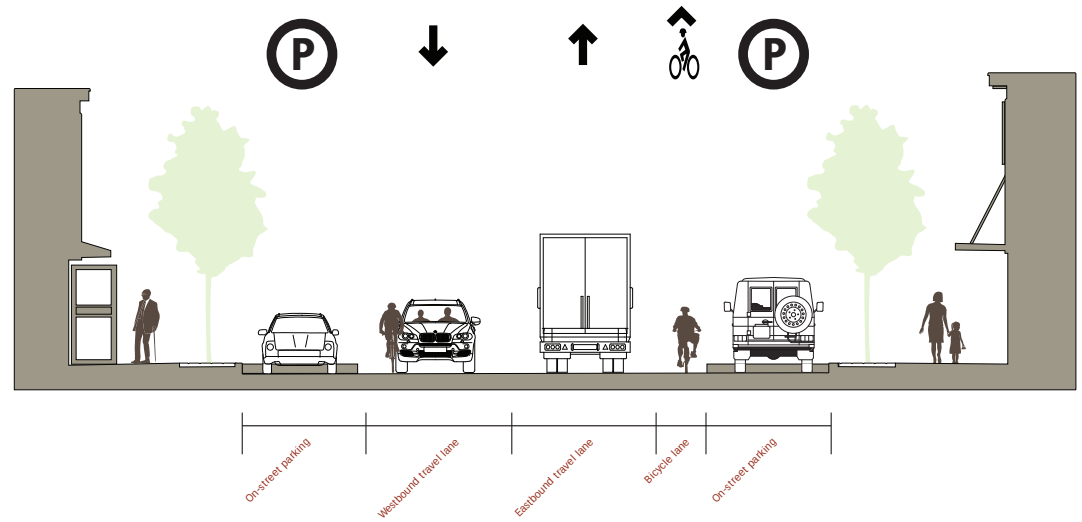
The purpose of converting a segment of A Street between 17th Street and Glenn Street from one-way to two-way vehicular operation would be to increase the flow of traffic past businesses in downtown Vale and to improve the circulation of potential customers. Currently, only pedestrians have the luxury of traveling in both directions along this corridor. The bike lane on Washington Street would remain to provide a couplet, the same as it exists today for bicycle and vehicles. A Street would be reduced from two-lanes eastbound to one-lane eastbound, which would only marginally slow traffic through town—which for bicycles and pedestrians is a positive attribute as unsignalized and free-flow east-west intersections could be easier to cross, such as A Street and Washington Street.

The adjacent figure illustrates how A Street would be converted from one way operation west of 17th Street to two way operation east of 17th Street.

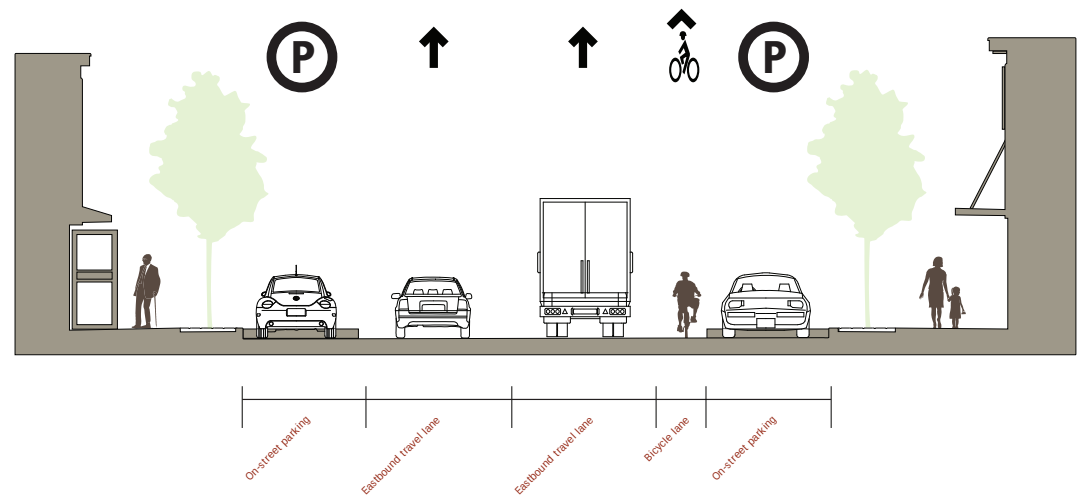




The plan graphic on the facing page and typical sections here illustrate the potential revision for downtown circulation from a one-way couplet system to a one-way Washington Street paired with a two-way section of A Street



Proposed two-way traffic circulation



Existing one-way traffic circulation

