Section 5 General Policies and Studies

GENERAL POLICIES AND STUDIES

The general policies and studies presented below influence multiple transportation modes and/or transportation system elements. An overview of the policies and studies in this section follows.

- **Policy #1 (L1) Street Functional Classifications** – Presents the updated street functional classifications for the City of Ashland including a new Shared Streets functional classification.
- **Policy #2 (L2) Multimodal/Safety Based (Alternative) Development Review Process** – Presents the multimodal/safety based (alternative) development review process, which outlines a new process for reviewing and approving development applications. The process provides a means for the City of Ashland to collect funds for multimodal and safety oriented programs and projects, while streamlining the development review process and providing more certainty for applicants regarding potential needed transportation investments.
- **Policy #3 – #9 (L3 through L9) Downtown Enhancement Policies** – Presents policies aimed at enhancing the downtown environment for multiple transportation modes.
- **Policy #10 (L10) Green Street Treatments** – Contains the policy supporting incorporating green street treatments into transportation, sewer, water, and stormwater projects.
- **Policy #27 (L27) Fee In Lieu** – Presents the fee in lieu policy for shared streets and other desired locations. Shared Street is a new street functional classification included in Policy L1.
- **Study #1 (S1) Funding Sources Feasibility Study** –Discusses the need for and scope of a study to identify future feasible funding sources to support improvements to the transportation system.
- **Study #2 (S2) Downtown Parking and Multi-Modal Circulation Study** – The City of Ashland will conduct a downtown parking management and multi-modal circulation study to evaluate the effectiveness of existing downtown parking management and truck loading zones and potential changes in parking management and travel demand management (TDM) strategies to increase overall accessibility to downtown for tourists, customers, and employees. The multi-modal circulation study will review pedestrian circulation, bicycle circulation, and vehicle circulation for vehicles and trucks downtown. The study will evaluate the alternatives generated for providing bicycle lanes and wider sidewalks on Main Street through downtown that were generated during the TSP alternatives analysis phase. The alternatives evaluation will consider impacts to vehicle and truck parking and circulation.

Policies and studies specific to transportation modes are presented within the applicable modal plan.

Policy #1 (L1) Street Functional Classifications

The street functional classifications for the City of Ashland are below. *The functional classifications are consistent with City of Ashland's Comprehensive Plan and Street Standards Guidebook with the exception of the Shared Street classification. The Shared Street classification is a new functional classification that needs to be added to the Comprehensive Plan and Street Standards Guidebook. It is being applied primarily to formerly designated Neighborhood Streets that currently do not have sidewalks or bicycle lanes and where sidewalks and bicycle lanes are either infeasible due to right-of-way or other constraints and where construction of small segments by development would likely remain disconnected from other pedestrian and bicycle facilities into the foreseeable future. It could also be applied to streets in new development areas. The vision for new Shared Street roadways is included in the Shared Streets and Alleyways White Paper dated February2, 2011.*

- **Boulevard** – Provide access to major urban activity centers for pedestrians, bicyclists, transit users and motor vehicle users, and provide connections to regional traffic ways such as Interstate 5.
- **Avenue** – Provide concentrated pedestrian, bicycle, and motor vehicle access from boulevards to neighborhoods and to neighborhood activity centers.
- **Neighborhood Collector** – Distribute traffic from boulevards or avenues to neighborhood streets.
- **Neighborhood Street** – Provide access to residential and neighborhood commercial areas.
- **Shared Street –** Provides access to residential or commercial uses in an area in which right-of-way is constrained by topography or historically significant structures. The constrained right-of-way prevents typical bicycle and pedestrian facilities such as sidewalks and bicycle lanes. Therefore, the entire width of the street is collectively shared by pedestrians, bicycles, and autos. The design of the street should emphasize a slower speed environment and provide clear physical and visual indications the space is shared across modes.

Exhibit 5-1 – Shared Street Example

- **Alley** – A semi-public neighborhood space that provides access to the rear of property; the alley eliminates the need for front yard driveways and provides the opportunity for a more positive front yard streetscape. Alleys also provide an alternative location for utility placement.
- **Multiuse Path** – Off-street facilities used primarily for walking and bicycling; these paths can be relatively short connections between neighborhoods or longer paths adjacent to rivers, creeks, railroad tracks, and open space.

Figure 5-1 presents the updated street functional classifications for the City of Ashland.

Policy #2 (L2) Multimodal/Safety Based (Alternative) Development Review Process

The Multimodal/Safety Based (Alternative) Development Review Process is a means to help support the City's TSP goals by providing funding for multimodal and safety programs and projects. It is inherently multimodal helping to create a green template (Goal 1), improvements are safety and multimodal driven making safety a priority for all modes (Goal 2), it supports economic growth by streamlining the development review process for developers (Goal 3), and facilitates system wide balance by placing all modes, safety, and access at the same level as mobility (Goal 4). See the Alternative to Traditional Development Review and Transportation Funding White Paper (dated March 7, 2011) for more details.

The City of Ashland should amend Chapter 18 of the Municipal Code to establish a Multimodal/Safety Based (Alternative) Development Review Process for reviewing and approving development applications. The development review process is outlined below.

1) Applicants that generate 10 peak hour trips or more are required to prepare a transportation assessment that focuses on:

    A. On-site vehicular, pedestrian, bicycle, truck delivery, and emergency service circulation and safety;

    B. Safety, using principles and information from the *Highway Safety Manual*, of the proposed site access(es) to the transportation system;

    C. Multimodal LOS, per the *2010 Highway Capacity Manual*, along the adjacent collector and/or arterial corridors; and

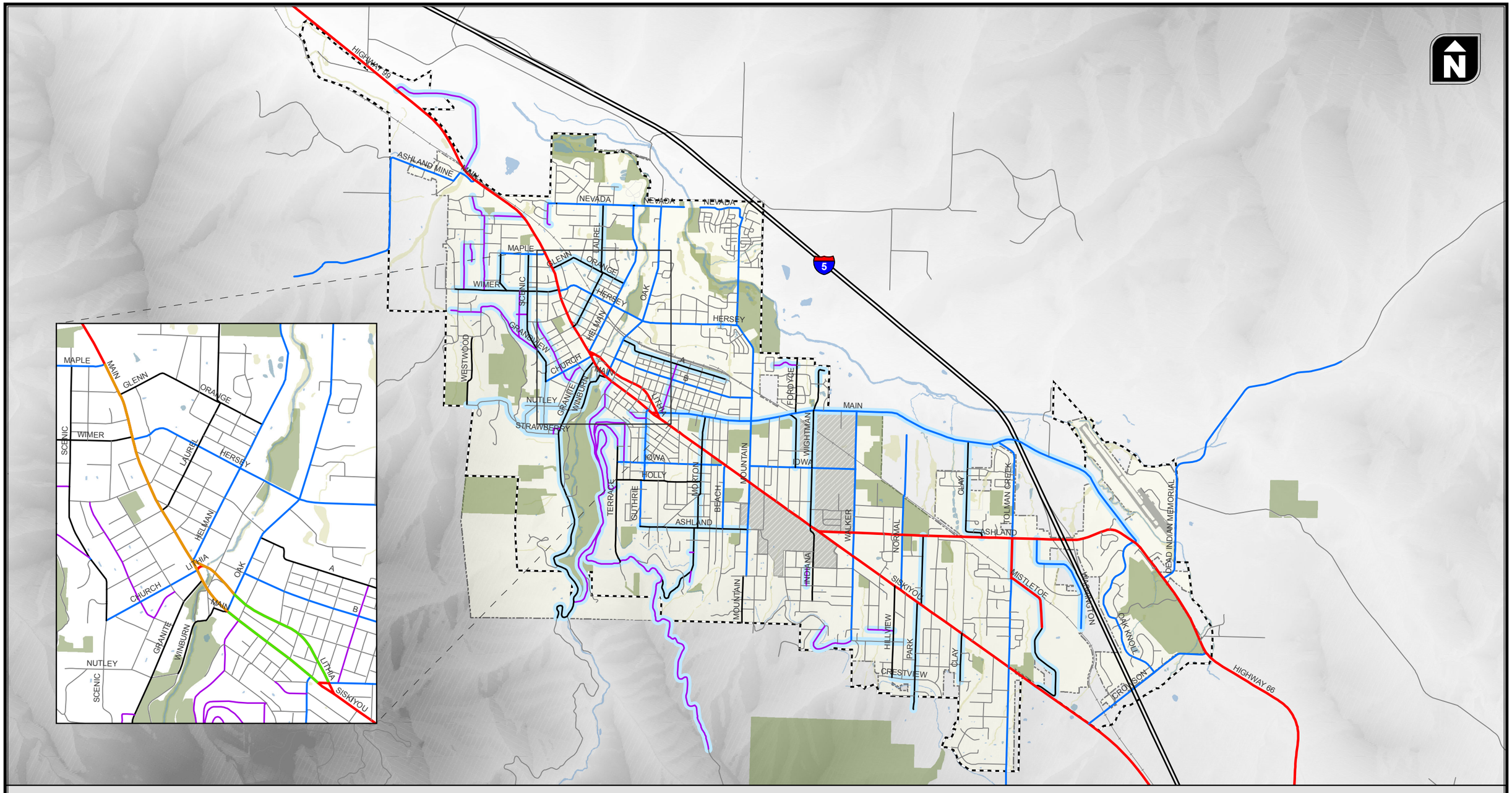
    D. Person trips generated by the development, including those person trips expected to travel through any of the City's previously identified safety focus intersections. As of the City's TSP 2011 TSP update, these intersections are:

        - North Main Street (OR 99)/Hersey Street – Wimer Street
        - Ashland Street (OR 66)/Oak Knoll Drive – East Main Street
        - Siskiyou Boulevard (OR 99)-Lithia Way (OR 99)/East Main Street
        - Main Street (OR 99 Southbound)/Oak Street
        - Siskiyou Boulevard (OR 99)/Tolman Creek Road
        - Ashland Street (OR 66)/Tolman Creek Road

2) The Applicant mitigates safety issues on-site and at their access(es) points to the transportation system.

3) The Applicant contributes financially to the safety and multimodal improvements identified for the City's safety focus intersections identified in Step 1.

4) The City assesses a Multimodal SDC, whereby an applicant is assessed a fee based on the number of person trips the proposed development is estimated to generate. *This allows the system revenues to be used to fund capacity related improvements to the vehicular, pedestrian, bicycle, and transit systems.*



- Interstate
- Boulevard
- Avenue
- Neighborhood Collector
- Shared Roadway
- Neighborhood Street
- City UGB
- City Limits
- Modified Street Classification
- Special Transportation Area Designation
- Urban Business Area Designation

Updated City of Ashland Street Functional Classification Map

Figure

5-1

Policy #3-#9 (L3 through L9) Downtown Enhancement Policies

The following policies are aimed at enhancing the downtown environment for pedestrians, bicyclists, and transit users while also facilitating economic prosperity for downtown.

- **Policy #3 (L3) Incorporate Wider Sidewalks** – As feasible, incorporate wider sidewalks into the downtown core area on Main Street, Lithia Way, and the supporting cross streets (e.g., Oak Street). *The purpose of wider sidewalks is to provide additional capacity for pedestrians and pedestrian activities (Goals 3 and 4).*

- **Policy #5 (L5) Incorporate Preferred Pedestrian Treatments** – As feasible, incorporate preferred pedestrian treatments into downtown area projects, including pedestrian countdown signals, landscape buffers, pedestrian refuge islands, and benches. *These treatments will help enhance the environment for pedestrians (Goals 2 and 4). Exhibits 5-2 and 5-3 illustrate two of these treatments.*

Exhibit 5-2 – Pedestrian Countdown Signal

Exhibit 5-3 – Pedestrian Refuge Island

- **Policy #6 (L6) Encourage Alley Enhancements** – Work with the Chamber of Commerce and downtown business owners, to encourage property owners along downtown alleys to enhance the environment through improved landscaping, orienting businesses towards the alley, and other similar characteristics *(Goals 3 and 4)*.

- **Policy #7 (L7) Incorporate Bicycle Parking** – As feasible, incorporate bicycle parking into downtown projects to encourage and facilitate bicycle travel *(Goal 4)*. Locally affected business owners will be included in the process of determining where bicycle parking is located.

- **Policy #8 (L8) Develop Incentives for Truck Loading/Unloading** – Work with the Chamber of Commerce and downtown business owners to reduce delivery and pick-up of goods during peak

times through strategies such as incentives or time restrictions. *The purpose of this policy is to limit potential truck loading/unloading impacts on other downtown activities (Goals 3 and 4)*.

- **Policy #9 (L9) Update Downtown Parking Management** - Work with the Chamber of Commerce and downtown business owners to update parking management strategies such that the strategies encourage the use of existing parking garages, increase the turn-over of on-street parking, and work towards paid parking to manage parking within and to reduce auto trips to downtown *(Goals 3 and 4)*.

Policy # 10 (L10) Green Street Treatments

The City of Ashland will incorporate green street treatments into transportation, sewer, water, and stormwater capital, maintenance, and operations projects, as feasible. The type and design of the green street treatments will be determined using the information contained in the City of Ashland's Stormwater Master Plan.

Green street treatments are a new opportunity to promote a vision of sustainable urbanism for the City of Ashland and help create a green template (Goal 1). By more closely mimicking the natural hydrology of a particular site, Green Streets help reduce the impact of urban development. Green street stormwater facilities have been shown to improve water quality of runoff through effective treatment, minimize erosion through the reduction of peak flow rates and discharge velocities, and decrease stormwater volumes discharged to local streams by infiltrating all or a portion of local rainfall events.

Policy #27 (L27) – Fee In Lieu Policy

The City of Ashland should develop a fee in lieu policy for sidewalk construction projects that apply to streets designated as Shared Streets (See Project L1) as well as any other streets the Public Works Director requests or approves in order to help complete higher priority sidewalks first. *The fee in lieu applies to development applications that would otherwise be required to construct sidewalks along their site frontage. Rather than having the applicant construct the sidewalks along their site frontage, the fee in lieu policy would have them pay a fee into a sidewalk construction fund equivalent to the cost of constructing sidewalks along their site frontage. The sidewalk construction fund would be used to construct high priority sidewalk projects.*

Study #1 (S1) Funding Sources Feasibility Study

The City of Ashland will conduct a funding sources feasibility study to identify and evaluate the feasibility of additional funding sources to support transportation programs, studies and projects. The study will establish priorities for pursuing additional funding sources based on such factors as the probability of successfully securing the funding source, stability of the funds, and amount of funds. The

cost estimate for the study is $30,000; the priority is medium indicating a timeline of 5 to 15 years (i.e., the study is to be conducted 5 to 15 years into the future).

The purpose of allocating funds to such a study is to enable the City to identify additional long-term funding sources to increase the City's ability to fund transportation system improvements. Currently there is limited consensus on what to pursue. A study focused on the topic will provide the City with clear direction for the future.

Study #2 (S2) Downtown Parking and Multi-Modal Circulation Study

The City of Ashland will conduct a downtown parking management and multi-modal circulation study to evaluate the effectiveness of existing downtown parking management and truck loading zones and potential changes in parking management and travel demand management (TDM) strategies to increase overall accessibility to downtown for tourists, customers, and employees. The multi-modal circulation study will review pedestrian circulation, bicycle circulation, and vehicle circulation for vehicles and trucks downtown. The study will evaluate the alternatives generated for providing bicycle lanes and wider sidewalks on Main Street through downtown that were generated during the TSP alternatives analysis phase. The alternatives evaluation will consider impacts to vehicle and truck parking and circulation. The cost estimate for the study is $100,000; the priority is high indicating a timeline of 0 to 5 years (i.e., the study is to be conducted 0 to 5 years into the future).

The purpose of allocating funds to a parking and multi-modal circulation study is to enable the City to fully investigate the inter-related nature of parking management and pedestrian, bicycle, and vehicle access and circulation downtown. The intent is to improve safety and access to downtown for all modes of travel and identify preferred approaches for parking management and providing enhanced pedestrian and bicycle facilities without adversely impacting downtown business' access for truck deliveries and parking for customers.

SUMMARY OF GENERAL POLICIES AND STUDIES

Table 5-1 summarizes the Preferred Plan general policies and studies.

Table 5-1 Summary of Preferred Plan General Policies and Studies

(ID#) Policy (L) or Study (S) Name	Description	Priority (Timeline)	Cost
(L1) Street Functional Classifications	Update to City of Ashland's street functional classifications including a new functional classification called Shared Streets.	N/A	N/A
(L2) Multimodal/Safety Based (Alternative) Development Review Process	Multimodal and safety based approach for reviewing and approving development applications.	N/A	N/A
(L3) Incorporate Wider Sidewalks	One of seven policies to enhance the downtown. As feasible, incorporate wider sidewalks into downtown projects to provide more space for pedestrians.	N/A	N/A
(L5) Incorporate Preferred Pedestrian Treatments	One of seven policies to enhance the downtown. Incorporate preferred pedestrian treatments into downtown projects, as feasible.	N/A	N/A

(L6) Encourage Alley Enhancements	One of seven policies to enhance the downtown. Encourages property owners along alleys to enhance the environment through improved landscaping, businesses oriented towards the alley and other similar characteristics.	N/A	N/A
(L7) Incorporate Bicycle Parking	One of seven policies to enhance the downtown. As feasible, incorporate bicycle parking into downtown projects.	N/A	N/A
(L8) Develop Incentives for Truck Loading/Unloading	One of seven policies to enhance the downtown. Work with Chamber of Commerce and downtown business owners to reduce delivery and pick-up of goods in peak hours.	N/A	N/A
(L9) Update Downtown Parking Management	One of seven policies to enhance the downtown. Work with Chamber of Commerce and downtown business to update parking management strategies.	N/A	N/A
(L10) Green Street Treatments	Incorporate green street treatments into transportation, sewer, water, and stormwater projects.	N/A	N/A
(L27) Fee In Lieu	Develop a fee in lieu policy for sidewalk construction projects that apply to streets designated as Shared Streets (See Policy L1)	N/A	N/A
(S1) Funding Sources Feasibility Study	Study to identify future feasible funding sources to support improvements to the transportation system.	Medium (5-15 years)	$30,000
(S2) Downtown Parking and Multi-Modal Circulation Study	The City of Ashland will conduct a downtown parking management and multi-modal circulation study to evaluate the effectiveness of existing downtown parking management and truck loading zones and potential changes in parking management and travel demand management (TDM) strategies to increase overall accessibility to downtown for tourists, customers, and employees. The multi-modal circulation study will review pedestrian circulation, bicycle circulation, and vehicle circulation for vehicles and trucks downtown. The study will evaluate the alternatives generated for providing bicycle lanes and wider sidewalks on Main Street through downtown that were generated during the TSP alternatives analysis phase. The alternatives evaluation will consider impacts to vehicle and truck parking and circulation.	High (0-5 years)	$100,000

Notes:

N/A Indicates category is not applicable to the policy or study. For examples, policies do not have costs or priorities associated with them, because they do not require funding to implement.

Section 6 Pedestrian Plan

PEDESTRIAN PLAN

The pedestrian network in Ashland is made up of sidewalks, multi-use paths, and trails as well as marked and unmarked, signalized and unsignalized pedestrian crossings. In general, high activity areas such as downtown and along North Main Street/Siskiyou Boulevard are well-served by sidewalks and designated crosswalks that are either marked or signalized. Newer developments also have good sidewalk coverage, with sidewalks constructed on both sides of nearly all streets. Section 3 provides more information on the existing pedestrian network. Technical memorandums 3.1 and 4.1 in the Technical Appendix also contain more detailed and extensive information on the existing pedestrian network.

The following sections present the City of Ashland's pedestrian related policies, programs, and projects.

POLICIES AND PROGRAMS FOR IMPROVING THE PEDESTRIAN ENVIRONMENT

The policies below focus on providing a more comfortable pedestrian environment consistent with Goals 1, 2, 3 and 4 outlined in Section 2.

- **Policy #13 (L13) Incorporate Preferred Pedestrian Treatments** – As feasible, integrate preferred pedestrian treatments into city-wide projects that arise through CIP investments or development. Preferred pedestrian treatments include pedestrian countdown signals, audible pushbuttons, landscape buffers, pedestrian refuge islands, benches, curb extensions, enhanced crosswalks, signalized crossings, and ADA compliant curb ramps (see A B for Bike and Pedestrian Design Treatment Toolbox). *These treatments will help enhance the environment for pedestrians and facilitate travel as a pedestrian (Goals 2 and 4).*

- **Program #1 (O1) Create TravelSmart Educational Program** – Invest in individualized, targeted marketing materials to be distributed to interested individuals for the purpose of informing and encouraging travel as a pedestrian or by bicycle. The approximate cost of the program (including maps, materials, incentives, outreach staff and mail costs) is $30 per household. Program Funding: The first three years of this program will be funded at $15,000 per year enabling the City to distribute material to approximately 500 households per year. Funding for subsequent years will be determined based on the outcomes of the first three years. (This program is also presented in Section 6 Bicycle Plan.)

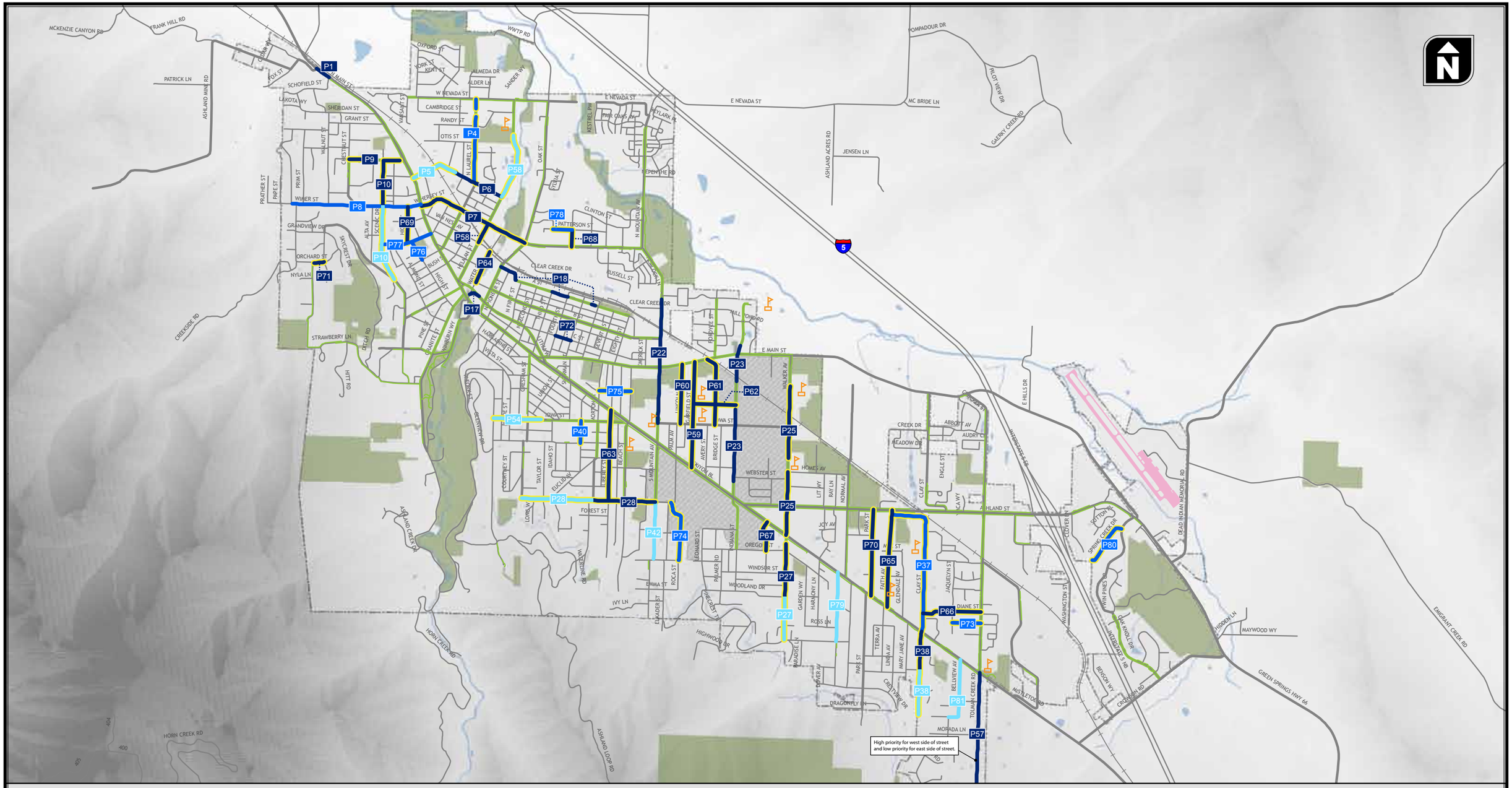
PEDESTRIAN FACILITY TYPES

The City of Ashland uses the following designations and definitions for their pedestrian facilities. These are consistent with the *Oregon Bicycle and Pedestrian Plan* (OBPP) designations and definitions.

- **Sidewalks** – Sidewalks are located along roadways, are separated from the roadway with a curb and/or planting strip, and have a hard, smooth surface, such as concrete. The Oregon Department of Transportation (ODOT) sidewalk width standard is 6 feet, with a minimum width of 5 feet acceptable on local streets. The unobstructed travelway for pedestrians should be clear of utility poles, sign posts, fire hydrants, vegetation and other site furnishings.
- **Shared Use Paths** – Shared use paths are used by a variety of non-motorized users, including pedestrians, cyclists, skaters, and runners. Shared use paths may be paved or unpaved, and are often wider than an average sidewalk (i.e. 10 – 14 feet). In circumstances where peak traffic is expected to be low, pedestrian traffic is not expected to be more than occasional, good passing opportunities can be provided, and maintenance vehicle loads are not expected to damage pavement, the width may be reduced to as little as 8 feet.
- **Roadway Shoulders** – Roadway shoulders often serve as pedestrian routes in many rural Oregon communities. On roadways with low traffic volumes (i.e., less than 3,000 vehicles per day), roadway shoulders are often adequate for pedestrian travel. These roadways should have shoulders wide enough so that both pedestrians and bicyclists can use them, usually 6 feet or greater.

PLANNED PEDESTRIAN NETWORK

The planned pedestrian network for the City of Ashland is shown in Figure 6-1. This network improves the connection between residential neighborhoods and commercial, social and educational locations around the City—areas that require a high level of connectivity to meet resident's daily needs. The planned network reflects projects identified based on the crash analysis summarized in Section 3 and technical memorandums 3.1 and 4.1. The planned network also prioritizes projects that are located on designated Safe Routes to School, streets with higher street functional classifications (indicating higher traffic volumes and speed), and adjacent to land use destinations. Detailed information regarding project extent, priority designation and planning level cost estimates for each pedestrian project is provided in Table 6-1 below. Note the shared use path projects are documented in Section 6 Bicycle Plan. *Appendix A contains the project prospectus sheets for the pedestrian related projects.*



Sidewalk Infill Projects

- High Priority
- Med Priority
- Low Priority
- Safe Routes to School Route
- Existing Sidewalk

- SOU Campus
- Rivers
- Parks
- Wetlands
- Airport
- City Limits
- School

Sidewalk Priority Projects

CITY OF ASHLAND

Figure 6-1

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Table 6-1 Pedestrian Projects

(Project #) Name	Description	Safe Routes to School?[1]	Reasons for the Project	Priority (Timeline)	Cost[2]
(P1) N Main Street/Highway 99	From N Main Street to Schofield Street	-	Fill gap in existing sidewalk network	High (0-5 Years)	$50,000
(P4) Laurel Street	From Nevada Street to Orange Avenue	Yes	Fill gap in existing sidewalk network	Medium (5-15 Years)	$500,000
(P5) Glenn Street/ Orange Avenue	From Main Street to 175' east of Willow Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$200,000
(P6) Orange Avenue	175' west of Drager Street to Helman Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$250,000
(P7) Hersey Street	From Main Street to Oak Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$750,000
(P8) Wimer Street	From Thornton Way to Main Street	Yes	Fill gap in existing sidewalk network	Medium (5-15 Years)	$800,000
(P9) Maple Street	From Chestnut Street to 150' east of Rock Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$100,000
(P10) Scenic Drive	From Maple Street to Wimer Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$250,000
	From Wimer Street to Grandview Drive	Yes	Fill gap in existing sidewalk network	Low (15-25 Years)	$300,000
(P17) Beaver Slide	From Water Street to Lithia Way	-	Fill gap in existing sidewalk network	High (0-5 Years)	$50,000
(P18) A Street	From Oak Street to 100' west of 6th Street	-	Fill gap in existing sidewalk network	High (0-5 Years)	$250,000
(P22) Mountain Avenue	From 100' south of Village Green Way to Iowa Street	-	Fill gap in existing sidewalk network	High (0-5 Years)	$450,000
(P23) Wightman Street	From 200' north of Main Street to 625' south of Main Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$400,000
(P25) Walker Avenue	950' north of Iowa Street to Ashland Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$750,000
(P27) Walker Avenue	From Oregon Street to Woodland Drive	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$200,000
	From Woodland Drive to Peachey Road	Yes	Fill gap in existing sidewalk network	Low (15-25 Years)	$150,000
(P28) Ashland Street	From Mountain Avenue to Morton Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$450,000
	From Morton Street to Guthrie Street	Yes	Fill gap in existing sidewalk network	Low (15-25 Years)	$500,000
(P37) Clay Street	From Faith Avenue to Siskiyou Boulevard	Yes	Fill gap in existing sidewalk network	Medium (5-15 Years)	$1,000,000
(P38) Clay Street	From Siskiyou Boulevard to Mohawk Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$300,000
	From Mohawk Street to southern terminus	Yes	Fill gap in existing sidewalk network	Low (15-25 Years)	$300,000
(P40) Hillview Drive	From Siskiyou Boulevard to Peachey Road	-	Fill gap in existing sidewalk network	Low (15-25 Years)	$250,000
(P42) Mountain Avenue	From Ashland Street to Prospect Street	-	Fill gap in existing sidewalk network	Low (15-25 Years)	$400,000
(P54) Iowa Street	From Terrace Street to Auburn Street	Yes	Fill gap in existing sidewalk network	Low (15-25 Years)	$350,000
(P57) Tolman Creek Road	From Siskiyou Boulevard to City Limits (west side)	-	Fill gap in existing sidewalk network	High (0-5 Years)	$425,000
	From Siskiyou Boulevard to City Limits (east side)	-	Fill gap in existing sidewalk network	Low (15-25 Years)	$425,000

(P58) Helman Street	From Hersey Street to Van Ness Avenue	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$100,000
	From 1500' north of Orange Avenue to Orange Avenue	Yes	Fill gap in existing sidewalk network	Low (15-25 Years)	$200,000
(P59) Garfield Street	From E Main Street to Siskiyou Boulevard	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$750,000
(P60) Lincoln Street	From E Main Street to Iowa Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$450,000
(P61) California Street	From E Main Street to Iowa Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$500,000
(P62) Quincy Street	From Garfield Street to Wightman Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$150,000
(P63) Liberty Street	From Siskiyou Boulevard to Ashland Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$650,000
(P64) Water Street	From Van Ness Avenue to B Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$250,000
(P65) Faith Avenue	From Ashland Street to Siskiyou Boulevard	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$350,000
(P66) Diane Street	From Clay Street to Tolman Creek Road	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$20,000
(P67) Frances Lane	From Siskiyou Boulevard to Oregon Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$10,000
(P68) Carol Street	From Patterson Street to Hersey Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$150,000
(P69) High Street	From Wimer Street to Manzanita Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$250,000
(P70) Park Street	From Ashland Street to Siskiyou Boulevard	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$650,000
(P71) Orchard Street	From Sunnyview Drive to Westwood Street	Yes	Fill gap in existing sidewalk network	High (0-5 Years)	$100,000
(P72) C Street	From Fourth Street to Fifth Street	-	Fill gap in existing sidewalk network	High (0-5 Years)	$100,000
(P73) Barbara Street	From Jaquelyn Street to Tolman Creek Road	Yes	Fill gap in existing sidewalk network	Medium (5-15 Years)	$100,000
(P74) Roca Street	From Ashland Street to Prospect Street	Yes	Fill gap in existing sidewalk network	Medium (5-15 Years)	$250,000
(P75) Blain Street	From Morton Street to Morse Avenue	Yes	Fill gap in existing sidewalk network	Medium (5-15 Years)	$100,000
(P76) High Street	From Manzanita Street to Laurel Street	-	Fill gap in existing sidewalk network	Medium (5-15 Years)	$100,000
(P77) Manzanita Street	From Scenic Drive to N Main Street	-	Fill gap in existing sidewalk network	Medium (5-15 Years)	$500,000
(P78) Patterson Street	From Crispin Street to Carol Street	Yes	Fill gap in existing sidewalk network	Medium (5-15 Years)	$100,000
(P79) Harrison Street	From Iowa Street to Holly Street	Yes	Fill gap in existing sidewalk network	Medium (5-15 Years)	$100,000
(P80) Spring Creek Drive	From Oak Knoll Drive to road end	Yes	Fill gap in existing sidewalk network	Medium (5-15 Years)	$350,000
(P81) Bellview Avenue	From Greenmeadows Way to Siskiyou Boulevard	-	Fill gap in existing sidewalk network	Low (15-25 Years)	$250,000
High Priority (0-5 Years)					$9,355,000
Medium Priority (5-15 Years)					$3,900,000
Low Priority (15-25 Years)					$3,125,000
Total					**$16,380,000**

Notes:

*Some sidewalk projects in the table above may not be feasible due to right-of-way and/or topographic constraints.

[1]A "Yes" indicates the project contributes to a Safe Routes to School Plan by helping to fill a sidewalk or bicycle network gap on a safe route to a local school. The safe routes are those identified in the City's Safe Routes to School Plan maps. A "-" indicates the project does not overlap with a designated safe route to school.

[2]Planning level cost estimates are for construction and engineering; does not include right-of-way costs.

Section 7 Bicycle Plan

BICYCLE PLAN

The existing bikeway network reflects the same structure as the major road network (i.e., neighborhood collectors, avenues, and boulevards). There are limited continuous alternative routes for bicyclists to use instead of the boulevard network, particularly routes that connect riders to the major land use attractions. The land use and road network pattern in Ashland consists of one or two continuous east-west streets (OR 99 and OR 66) that are supported by a north-south collector system. The east-west corridors provide a regional traffic mobility function as well as hosting the majority of the City's attraction-based land uses including its retail, commercial, service, and educational hubs. These locations are also attractive to bicycle riders.

Overall, the bicycle network consists of a variety of facility types and covers approximately 48-percent of the major road network with a little over half (54-percent) being on-street bike lanes. The remainder includes shared roadways (37-percent) and shoulder bikeways (9-percent). In some cases local streets may provide more comfortable alternatives to the major road network and these streets serve as the basis for a potential well-connected bicycle boulevard system. In addition to on-street facilities, there is also an existing 6.8 miles of off-street shared use path. Section 3 provides more information on the existing bicycle network. *Technical Memorandums #3 and #4 in the Technical Appendix also contain more detailed and extensive information on the existing bicycle network.*

Bicyclist Types

Increasingly, it is more recognized that there are various types of cycling populations. For example, many cities have found that its current ridership is represented by a small percentage of people that are "strong and fearless" and will generally ride regardless of the roadway conditions. They have also identified an "enthused and confident" group that is comfortable with the current policy of providing on-street bicycle lanes and similar facilities. This group represents the majority of recent growth in bicycle ridership.

There is also a larger segment of the population that is "interested but concerned" in cycling. These people would like to cycle but currently have some sort of concern about using the existing cycling system – often this is a concern about safety riding amongst traffic.

There is an opportunity to attract more travel by bicycle by providing a multi-level cycling system that caters to different types of cyclists. The existing cyclists, made up of the "strong and fearless" and "enthused and confident" groups, prefer direct, unimpeded, quick routes that tend to be along the major road network (i.e., neighborhood collectors, avenues and boulevards), whereas the "interested but concerned" group is less interested in speed and tend to seek greater comfort and an enhanced sense of safety. Generally, the "interested but concerned" group can be catered for in two ways:

1. By providing more protection along busy traffic streets (e.g., using buffered, protected, or separated bike lanes); or

2. By providing comfortable alternatives to the boulevard network, such as bicycle boulevards along low volume streets or alleyways.

The following sections present the City of Ashland's bicycle related policies, programs, and projects that are designed to increase bicycle ridership for each of the cycling populations.

POLICIES AND PROGRAMS RELATED TO BICYCLING AND BICYCLISTS

The policies and programs below focus on making bicycling more appealing to a wider range of ages and ability consistent with Goals 1, 2, 3 and 4 outlined in Section 2.

- **Policy #11 (L11) Integrate Bicycle Parking** – Work with the Planning Commission and Chamber of Commerce to establish on-street bicycle parking requirements to complement existing off-street bicycle parking requirements in the development review process. Also, establish a tier system for the on- and off-street parking requirements that recognizes some parts of the City of Ashland are likely to attract more bicycle trips than others parts *(Goal 1, 3 and 4)*.

- **Policy # L12 (L12) Establish Incentives for Bicycle Friendly Businesses** – Work with the Planning Commission and Chamber of Commerce to establish incentives for bicycle friendly businesses. The incentives should encourage businesses to facilitate and promote bicycling for employees and customers. The League of American Bicyclists has benchmarks for businesses to use to qualify for Bicycle Friendly status. City staff will work with the Planning Commission and Chamber of Commerce to pair the League of American Bicyclists benchmarks (or similar benchmarks customized to Ashland) with incentives attractive to local Ashland businesses. *Establishing these incentives and benchmarks will encourage travel by bicycle helping creating a green template, assisting the City in moving towards Platinum status as a bicycle community, while also supporting economic prosperity (Goals 1 and 3).*

- **Program #1 (O1) Create TravelSmart Educational Program** – Invest in individualized, targeted marketing materials to be distributed to interested individuals for the purpose of informing and encouraging travel as a pedestrian or by bicycle. The approximate cost of the program (including maps, materials, incentives, outreach staff and mail costs) is $30 per household.

  Program Funding: The first three years of this program will be funded at $15,000 per year enabling the City to distribute material to approximately 500 households per year. Funding for subsequent years will be determined based on the outcomes of the first three years. (This program is also contained in Section 5 Pedestrian Plan.)

- **Program # (O4) Retrofit Bicycle Parking Program** – Establish a retrofit bicycle parking program allowing interested property owners to apply for bicycle racks or bicycle corrals to be installed in front of their establishment. The City will coordinate with local business owners as to where bicycle racks are installed to be sensitive to the potential impacts on pedestrian space and vehicle parking.

  Program Funding: The program will be allocated $10,000 annually for a five year period and the funds will be administered on a first-come first-serve basis and only after minimum bicycle parking requirements have been satisfied. The City will purchase racks, mange the request process, install racks, and keep records of where bicycle racks have been placed. This level of funding is estimated to provide approximately 40 inverted-U style bicycle racks per year (including hardware and staff costs).

BICYCLE FACILITY TYPES

The City of Ashland uses the following bicycle facility designations, which are consistent with the designations and definitions recognized by AASHTO and OBPP. The purpose of having multiple bicycle facility types is to provide a multi-level cycling system that caters to different types of cyclists ranging from novice to experienced riders. In general, bicycles are allowed on roadways in the City of Ashland regardless of the presence or type of bicycle facility on the roadway.

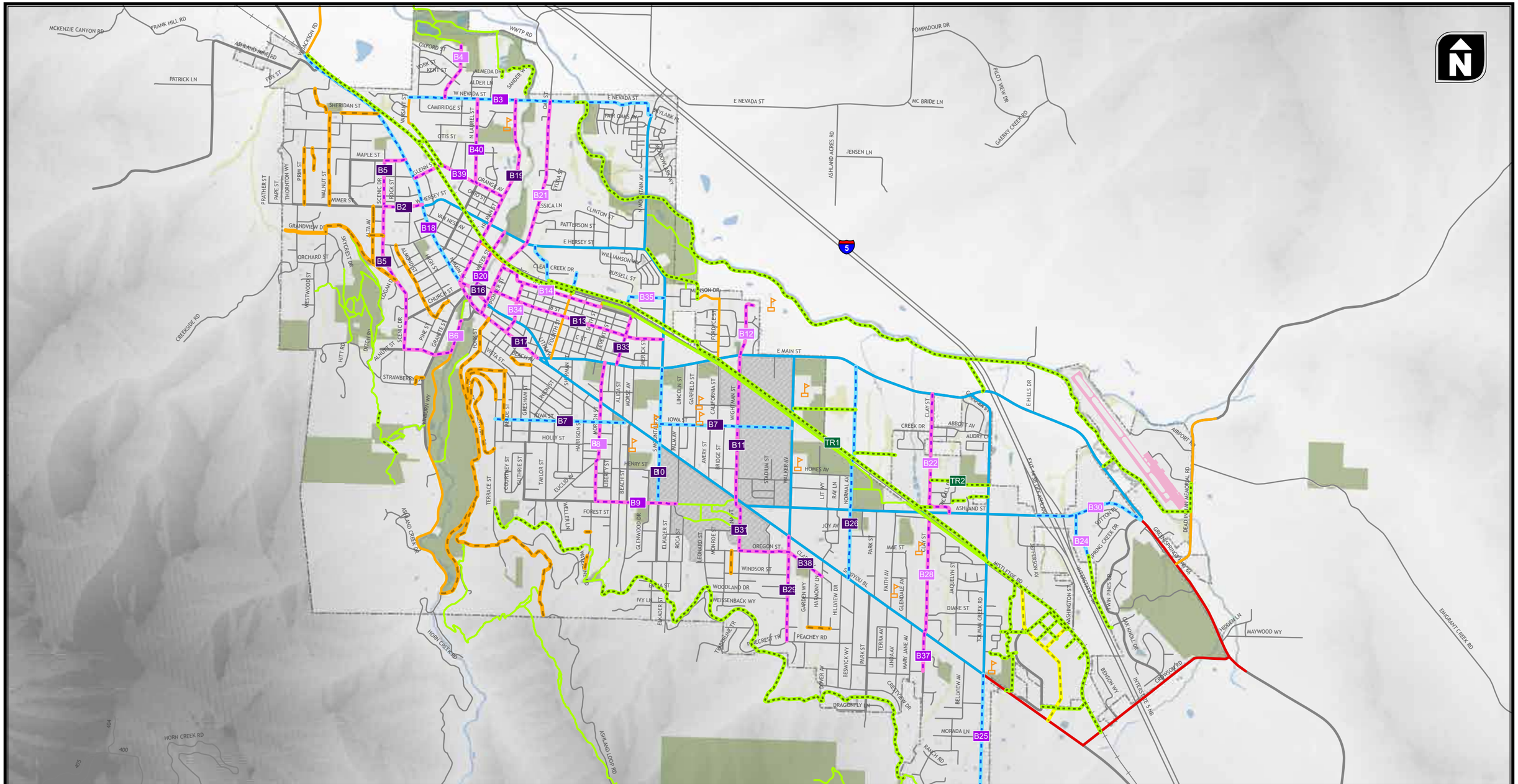
- **Shared Roadway / Signed Shared Roadway** – Shared roadways include roadways on which bicyclists and motorists share the same travel lane. This is the most common type of bikeway. The most suitable roadways for shared bicycle use are those with low speeds (25 mph or less) or low traffic volumes (3,000 vehicles per day or fewer). Signed shared roadways are shared roadways that are designated and signed as bicycle routes and serve to provide continuity to other bicycle facilities (i.e., bicycle lanes) or designate a preferred route through the community. Common practice is to sign the route with standard Manual on Uniform Traffic Control Devices (MUTCD) green bicycle route signs with directional arrows. The OBPP recommends against the use of bike route signs if they do not have directional arrows and/or information accompanying them. Signed shared roadways can also be signed to highlight special touring routes or to provide directional information in bicycling minutes or distance (e.g., "Library, 3 minutes, 1/2 mile").
- **Shoulder Bikeway** – These are paved roadways that have striped shoulders wide enough for bicycle travel. ODOT recommends a 6-foot paved shoulder to adequately provide for bicyclists, and a 4-foot minimum in constrained areas. Roadways with shoulders less than 4-feet are considered shared roadways. Sometimes shoulder bikeways are signed to alert motorists to expect cyclists.
- **Bicycle Lane** - Bike lanes are portions of the roadway designated specifically for bicycle travel via a striped lane and pavement stencils. ODOT standard width for a bicycle lane is 6

feet. The minimum width of a bicycle lane against a curb or adjacent to a parking lane is 5 feet. A bicycle lane may be as narrow as 4 feet, but only in very constrained situations. Bike lanes are most appropriate on arterials and major collectors, where high traffic volumes and speeds warrant greater separation.

- **Shared Use Path** - Shared use paths are used by a variety of non-motorized users, including pedestrians, cyclists, skaters, and runners. They may be paved or unpaved, and are often wider than an average sidewalk (i.e. 10 – 14 feet). In certain circumstances where peak traffic is expected to be low, pedestrian traffic is not expected to be more than occasional, good passing opportunities can be provided, and maintenance vehicle loads are not expected to damage pavement, the width may be reduced to as little as 8 feet.
- **Bicycle Boulevard –** Bicycle boulevards are an adaptation of shared roadways that modify local streets to allow the through movement of bicycles whilst maintaining local access for automobiles. Bicycle boulevards typically include bicycle route signage and pavement markings and often feature traffic calming to slow vehicle speeds and provide a more comfortable environment for cyclists.

PLANNED BICYCLING NETWORK

The planned bicycle network is shown in Figure 7-1. It creates increased route options and connectivity to serve bicyclists with a wide range of skill sets and comfort (i.e., to serve novice to experienced riders). The planned network reflects projects identified based on the crash analysis summarized in Section 3 and technical memorandums 3.1 and 4.1. The planned network also prioritizes projects that are located on designated Safe Routes to School, streets with higher street functional classifications (indicating higher traffic volumes and speed), and adjacent to land use destinations. For detailed bicycle project information, including project extent, designated priority and planning level cost estimates, see Table 7-1. *Appendix B is a Bicycle and Pedestrian Facility Design Toolkit the City can use to in designing the specific attributes of the various planned bicycle facilities. Appendix A contains the project prospectus sheets for the bicycle related projects.*



Planned On-Street Bikeways
- Planned Bike Lane
- Planned Buffered Bike Lane
- Planned Bicycle Boulevard
- Planned Shared Space Application

Off-Street Trails
- Existing Bike Path/Greenway
- Planned Bike Path/Greenway

Existing On-Street Bikeways
- Existing Bike Lane
- Existing Shared Roadway
- Existing Shoulder Lane

Bikeway Priority Projects
- High Priority
- Med Priority
- Low Priority

- School
- SOU Campus
- Rivers
- Parks
- Wetlands
- City Limits
- Airport

Existing and Planned Bikeway Network

CITY OF ASHLAND

Figure 7-1

G:\10-056 Ashland TSP\MXD

Table 7-1 Bicycle Projects

(Project #) Name	Description	Safe Routes to School?[1]	Reasons for the Project	Priority (Timeline)	Cost[2]
(B2) Wimer Street	Bicycle Boulevard - From Scenic Drive to Main Street. Coordinate with Project R31.	-	Upgrade of existing bikeway to encourage greater use	High (0-5 Years)	$20,000
(B3) Nevada Street	Bike Lane - From Vansant Street to Mountain Avenue. Coordinate with Project R17.	-	Gap in existing bicycle network	Medium (5-15 Years)	$230,000
(B4) Glendower Street	Bicycle Boulevard - From the Bear Creek Greenway to Nevada Street	-	Gap in existing bicycle network	Low (15-25 Years)	$20,000
(B5) Maple/Scenic Drive/Nutley Street	Bicycle Boulevard - From N Main Street to Winburn Way	Yes	Gap in existing bicycle network	High (0-5 Years)	$110,000
(B6) Winburn Way	Bicycle Boulevard - From Calle Guanjuato to Nutley Street	-	Upgrade of bikeway, slow travel speeds, encourage commercial activity	Low (15-25 Years)	$10,000
(B7) Iowa Street	Bike Lane - From Terrace Street to road terminus and from Mountain Avenue to Walker Avenue	Yes	Gap in existing bicycle network	High (0-5 Years)	$240,000
(B8) Morton Street	Bicycle Boulevard - From E Main Street to Ashland Street	-	Gap in existing bicycle network	Low (15-25 Years)	$60,000
(B9) Ashland Street	Bicycle Boulevard - From Morton Street to University Way	Yes	Gap in existing bicycle network	Medium (5-15 Years)	$30,000
(B10) Mountain Avenue	Bike Lane - From Ashland Street to E Main Street	Yes	Gap in existing bicycle network	High (0-5 Years)	$120,000
(B11) Wightman Street	Bicycle Boulevard – E Main Street to Siskiyou Boulevard	Yes	Gap in existing bicycle network	High (0-5 Years)	$60,000
(B12) Wightman Street	Bicycle Boulevard - From road end to E Main Street	-	Gap in existing bicycle network	Low (15-25 Years)	$20,000
(B13) B Street	Bicycle Boulevard - From Oak Street to Mountain Avenue	Yes	Gap in existing bicycle network	High (0-5 Years)	$80,000
(B14) A Street	Bicycle Boulevard - From Oak Street to 6th Street	-	Upgrade of bikeway, slow travel speeds, encourage commercial activity	Low (15-25 Years)	$50,000
(B16) Lithia Way	Bicycle Boulevard – From Oak Street to Helman Street	Yes	Gap in existing bicycle network	High (0-5 Years)	$110,000
(B17) Main Street	Bicycle Boulevard - From Helman Street to Siskiyou Boulevard.	Yes	Gap in existing bicycle network	High (0-5 Years)	$50,000
(B18) Main Street	Bike Lane - From Jackson Street to Helman Street Included as part of Projects R35 and R36. See Table 9-2 for more details.	-	Gap in existing bicycle network	Medium (5-15 Years)	$260,000
(B19) Helman Street	Bicycle Boulevard - From Nevada Street to Main Street	Yes	Gap in existing bicycle network	High (0-5 Years)	$80,000
(B20) Water Street	Bicycle Boulevard - From Hersey Street to Main Street	Yes	Gap in existing bicycle network	Medium (5-15 Years)	$30,000
(B21) Oak Street	Bicycle Boulevard - From Nevada Street to Main Street	-	Gap in existing bicycle network	Low (15-25 Years)	$100,000
(B22) Clay Street	Bicycle Boulevard - From Main Street to Ashland Street	-	Gap in existing bicycle network	Low (15-25 Years)	$60,000
(B24) Clover Lane	Bike Lane - From Ashland Street to proposed bike path	-	Gap in existing bicycle network	Low (15-25 Years)	$40,000
(B25) Tolman Creek Road	Bike Lane - From Siskiyou Boulevard to Green Meadows Way	-	Gap in existing bicycle network	Medium (5-15 Years)	$100,000

(B26) Normal Avenue	Bike Lane - From E Main Street to Siskiyou Boulevard	Yes	Gap in existing bicycle network	High (0-5 Years)	$190,000
(B28) Clay Street	Bicycle Boulevard - From the rail line to Siskiyou Boulevard	-	Gap in existing bicycle network	Low (15-25 Years)	$50,000
(B29) Walker Avenue	Bicycle Boulevard - From Siskiyou Boulevard to Peachey Road	-	Gap in existing bicycle network	High (0-5 Years)	$40,000
(B30) Ashland Street	Bike Lane - From I-5 Exit 14 SB to Hwy 66	Yes	Gap in existing bicycle network	Low (15-25 Years)	$100,000
(B31) Indiana Street	Bicycle Boulevard - Siskiyou Boulevard to Oregon Street	-	Gap in existing bicycle network	High (0-5 Years)	$20,000
(B33) 8th Street	Bicycle Boulevard - A Street to Main Street	Yes	Gap in existing bicycle network	High (0-5 Years)	$20,000
(B34) 1st Street	Bicycle Boulevard - A Street to Main Street	-	Gap in existing bicycle network	Low (15-25 Years)	$20,000
(B35) Railroad Property	Bike Lane - From Proposed Bike Path to N Mountain Avenue	-	Gap in existing bicycle network	Low (15-25 Years)	$40,000
(B37) Clay Street	Bicycle Boulevard - From Siskiyou Boulevard to Mohawk	-	Gap in existing bicycle network	Medium (5-15 Years)	$20,000
(B38) Oregon/Clark Street	Bicycle Boulevard - Indiana Street to Harmony Lane	-	Gap in existing bicycle network	High (0-5 Years)	$40,000
(B39) Glenn Street/Orange Avenue	Bicycle Boulevard - From N Main Street to Proposed Trail	-	Gap in existing bicycle network	Medium (5-15 Years)	$40,000
(B40) Laurel Street	Bicycle Boulevard - From Orange Street to Nevada Street	-	Gap in existing bicycle network	Medium (5-15 Years)	$40,000
(TR1) Northside Trail	Multi-use Path – From Orchid Avenue to Tolman Creek Road	-	Expand existing bicycle network	High (0-5 Years)	$2,000,000
(TR2)New Trail	Multi-Use Path – From Clay Street to Tolman Creek Road	-	Expand existing bicycle network	Medium (5-15 Years)	$400,000
High Priority (0-5 Years)					$3,180,000
Medium Priority (5-15 Years)					$1,150,000
Low Priority (15-25 Years)					$570,000
Total					**$4,900,000**

Notes:

1A "Yes" indicates the project contributes to a Safe Routes to School Plan by helping to fill a sidewalk or bicycle network gap on a safe route to a local school. The safe routes are those identified in the City's Safe Routes to School Plan maps. A "-" indicates the project does not overlap with a designated safe route to school.

2Planning level cost estimates are for construction and engineering; does not include right-of-way costs. Cost estimates assume striping and signing changes occur within the existing pavement width (i.e., no additional construction or road expansion is required).

3Due to complexity of project, planning level cost not available.

4Jackson County currently does not have standards for Bicycle Boulevard and may not permit the use of sharrows.

Section 8 Transit Plan

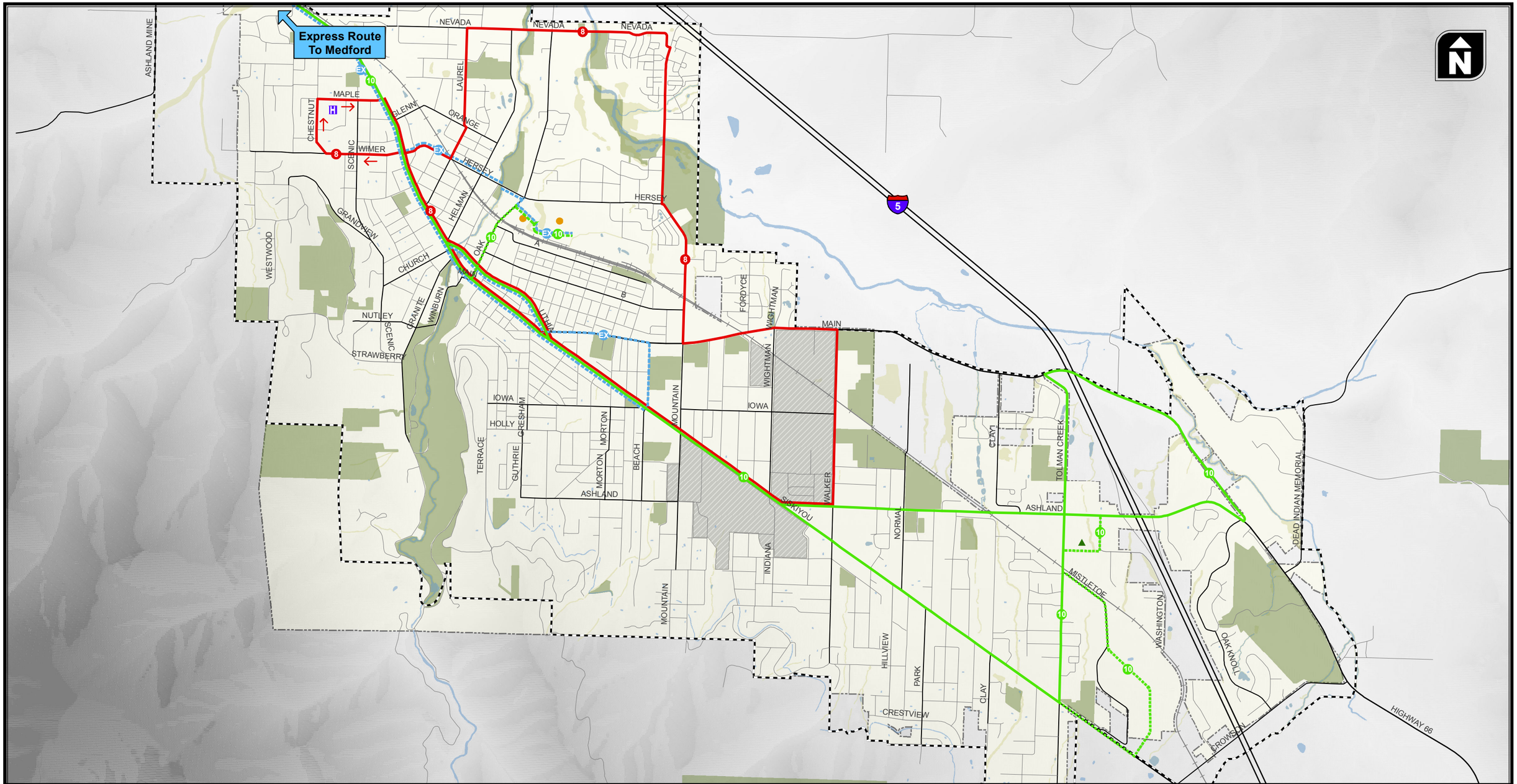
TRANSIT PLAN

The transit plan presents policies and programs focused on improving transit service within and to/from Ashland. Figure 8-1 illustrates the existing and planned transit routes in the City of Ashland based on the City's transit priorities. The planned routes and service improvements are discussed below in the subsection: Program #5 (O5) Transit Service Program.

Policy #14-19 (L14 through L19) Transit Enhancement Policies

The following transit enhancement policies improve access to transit, land uses surrounding transit, and/or physical elements or attributes which the City has the direct ability to influence.

- **Policy #14 (L14) Encourage Greater Concentrations of Housing** – Establish policies and/or incentives to encourage a greater concentration of housing along transit corridors and within urban renewal districts as a means to increase transit ridership and establish transit attractive destinations *(Goal 3 and 4).*
- **Policy #15 (L15) Upgrade Sidewalk Facilities** – As project opportunities arise through Capital Improvement Program (CIP) investments or development, upgrade sidewalk facilities to ADA compliance on streets where transit service is provided and/or planned *(Goals 2 and 4)*.
- **Policy #16 (L16) Provide Street Lighting** – As project opportunities arise through CIP investments or development, install and/or improve street lighting at transit stops and along streets leading to transit stops *(Goals 2 and 4)*.
- **Policy #17 (L17) Provide Bicycle Storage** – As project opportunities arise through CIP investments or development, incorporate bicycle storage at major transit stops, including the downtown core, Southern Oregon University (SOU), and the Ashland Street (OR 66)/Tolman Creek Road intersection *(Goals 3 and 4).*
- **Policy #18 (L18) Increase and Improve Pedestrian Crossing Opportunities –** As project opportunities arise through CIP investments or development, improve pedestrian crossing opportunities across major roadways to facilitate access to transit stops *(Goals 2 and 4).*



- Existing Route 10
- Potential Long-Term Route 10 Modification
- Potential Long-Term Express Route
- Modified Route 8B
- Potential Long-Term Park & Ride
- Potential Crowman Mill Site Park & Ride

Existing and Planned Transit Service

Figure 8-1

- **Policy #19 (L19) Work with RVTD to Monitor and Improve Transit Stop Amenities** – As opportunities arise, upgrade transit stop amenities based on ridership thresholds *(Goals 2 and 4)*. Ridership thresholds and amenities include:

    - Level 1 (stops with 0 to 19 riders/day) -
      Bus stop sign with route information and attached bench
    - Level 2 (stops with 20 to 49 riders/day) –
      Level 1 amenities plus separate bench and ADA landing pad
    - Level 3 (stops with 50 or more riders/day) –
      Level 2 amenities plus covered, lit shelter and
      secure bicycle parking (e.g., bicycle lockers)

Policies related to other critical transit service elements such as hours of service, service frequency, fare, and service coverage are included below under "Programs"; these require coordination with the Rogue Valley Transportation District (RVTD), the regional transit provider.

Program #5 (O5) Transit Service Program

The Transit Service Program provides funds and guidance on how to allocate funds to improve transit service (and increase transit ridership) in Ashland in collaboration with RVTD. *Improving transit service to, from, and within the City of Ashland is an important element to help the City move toward its goals of creating a green template (Goal 1), supporting economic prosperity (Goal 3), and creating system-wide balance (Goal 4).*

Brief History of Transit Service in Ashland

The City of Ashland has a history of subsidizing transit in the form of reducing fares for trips within Ashland and paying for an additional transit route in Ashland. These investments were made with the goal of increasing transit ridership.

In approximately January of 2003, the City of Ashland began subsidizing fares for transit trips within Ashland such that transit use was free to riders. Completely subsidized fare continued until approximately June 2006 at which time the City reduced the amount of the subsidy such that trips within Ashland were $0.50 for riders. From 2009-2011, the City of Ashland has continued to subsidize fares for transit trips within Ashland (although at a rate less than in 2006) and paid for additional service within Ashland (Route 15) to increase the frequency of bus service to approximately 15-minute headways on weekdays. The addition of Route 15 did not have the level of impact on ridership desired by the City and in 2011, RVTD decided to increase service frequency on Route 10 to 20-minute headways. Route 10 provides service within Ashland and to Medford. As a result, the City of Ashland is ended its subsidy to fund Route 15 and is not currently subsidizing fares.

Subsidies to RVTD for reduced fares and 15-minute service in Ashland were approximately $200,000 per year after the Business Energy Tax Credit (BETC) credit. Any future subsidized program should have the outcome of increased ridership.

Transit Service Priorities

Transit service priorities for RVTD and the City are discussed below. The priorities identified by RVTD in their long range plan are relevant to the City, because RVTD is currently the City's public transportation provider. The City's priorities discussed below are the specific transit service enhancements the Transit Service Program will be used to fund.

RVTD's Transit Service Priorities

RVTD's Long-Range Plan for transit service expansions includes three tiers of transit service expansion priorities based on three potential funding scenarios. Tier 1 includes the highest priorities for service expansion and primarily includes extended hours on existing transit service with some minor service expansion. Tier 2, which is based on a higher funding scenario, includes Tier 1 service expansions in addition to a second level service expansion priorities which include additional routes, express routes, and peak service. Tier 3 expansions, although still a priority, are lower in priority than the Tier 1 and Tier 2 expansions and include additional routes and the formation of a transit grid system.

The Tier 1, 2, and 3 projects identified in RVTD's long-range plan that would enhance transit service to, from and in Ashland are described in Table 8-1.

Table 8-1 RVTD's Transit Service Enhancement Tiers

Transit Service Enhancement Tiers	Transit Service Expansions
Tier 1	Expanded service hours on weekdays (4 a.m. to 10 p.m.) and provide Saturday service (8 a.m. to 6 p.m.)
Tier 2	Provide Circulator Service in Ashland on the east side of OR 99, Four Hour Peak Service, and Express Route (15 minute service) from Medford to Ashland Plaza.
Tier 3	Provide additional transit routes in South Ashland.

The City of Ashland's Transit Service Priorities

The City of Ashland's priorities for expanded transit service are compatible with RVTD's priorities although slightly different and are described in more detail below.

1) **Establish a Customized Bus Pass Program** – Establish a customized community bus pass program that will target groups such as high school students, seniors, public employees, and those in financial need. *The program should be crafted to provide passes to groups that are likely to have the most impact on ridership as well as those in financial need of assistance.*

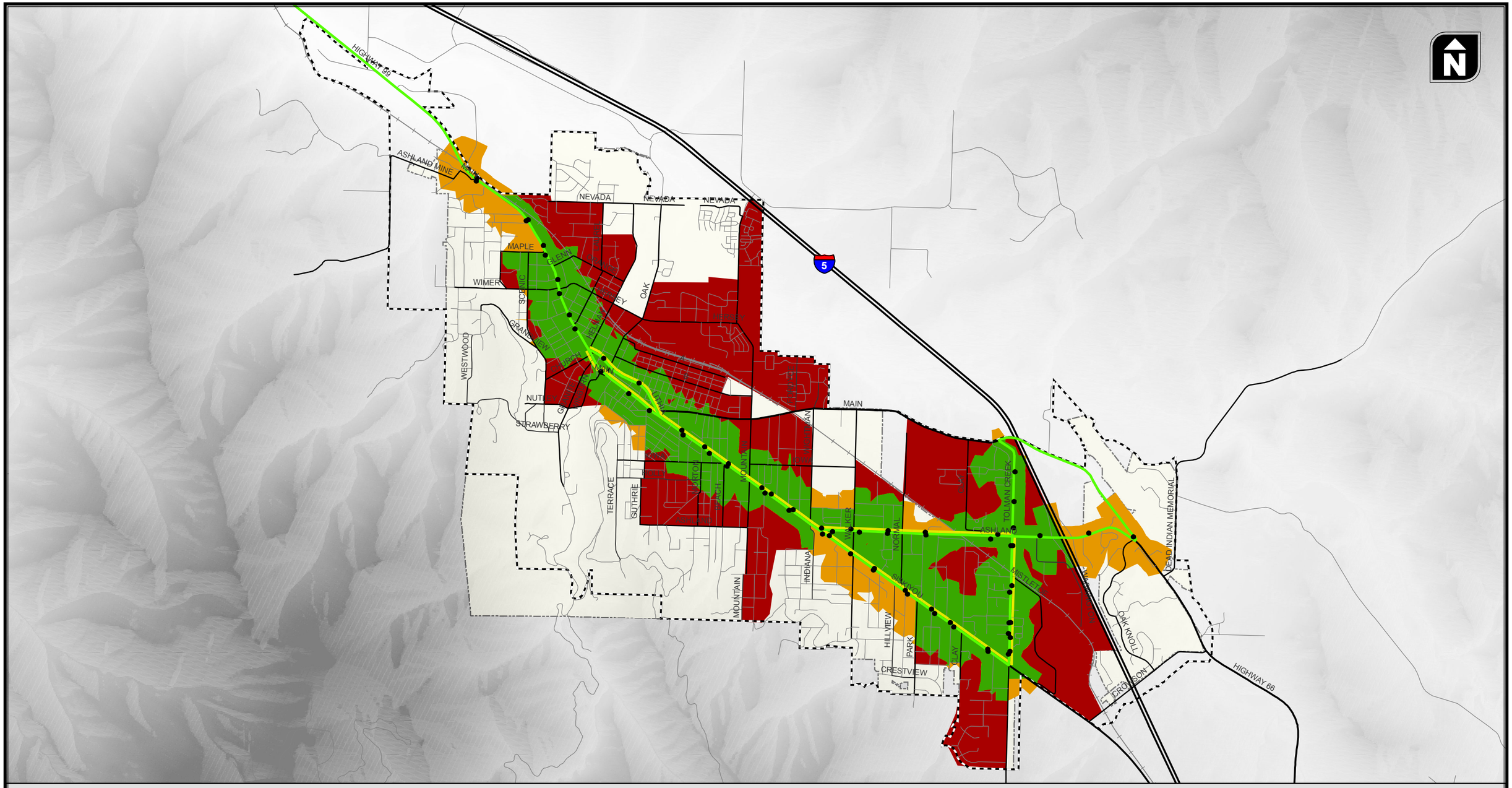
2) **Extend Service Hours** – Extend service hours for Route 10 into the weekday evenings (e.g., 10:00 p.m.) and provide service on Saturday and Sunday. Encourage RVDT to implement extended service hours on other key routes.

   The benefit of extended service hours would be limited to local trips unless additional routes that connect to Route 10 in Medford also had extended service hours. There is the potential for extended service hours on Route 10 only to serve a need between SOU and SOU's Medford campus; however, this need may be best served with a shuttle service operated by SOU.

3) **Provide Express Bus Service to Medford and the Rogue Valley International Airport** – Continue to explore opportunities with RVTD to establish express bus service to and from Medford and the Rogue Valley International Airport during the morning and evening commute hours and timed with flight arrivals and departures.

   Express bus service could be provided via additional service on Route 10 with limited to no stops between downtown Ashland, downtown Medford, and the Rouge Valley International Airport. Figure 8-1 illustrates the potential express bus service route including two long- term park-and-ride locations within the City of Ashland. The two long-term locations are: 1) Railroad District adjacent to Hersey Street and 2) the Croman Mill Site. The Railroad District location preserves the opportunity establish a transit hub near downtown that would be well served by future commuter or passenger rail service. The Croman Mill Site provides the opportunity to operate a two-hub system, if the site and surrounding area develops to such a density to warrant a second hub.

4) **Expand Service Area** – Work with RVTD to expand the transit service area as additional areas within the City become capable of supporting transit services. Areas capable of supporting transit service that are not currently being provided transit service are shown in red in Figure 8-2.



- Bus Stops
- Bus Route 10
- Bus Route 15
- Transit Supportive Areas Served
- Current Service Coverage Area
- Transit Supportive Areas Unserved
- City Limits
- City UGB

Transit Supportive Areas Based on Existing Service

(Based on 2034 Household and Employment Forecasts)

Figure

8-2

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As documented in the Supplemental Transit Information Memorandum (dated May 16, 2011), certain areas of Ashland not currently served by transit are forecasted to be capable of supporting transit by the year 2034 based on their population and/or employment densities. Areas within ¼ mile walk of a transit stop are considered to be served by transit as indicated by the green and yellow areas on Figure 8-2. The areas shown in red are based on the Transportation Analysis Zones (TAZs) in the regional travel demand model and do not necessarily warrant transit service within a ¼ mile. Rather, the areas in red help identify key corridors where future densities will be supportive of transit service (such as Hersey, Mountain, East Main, and Mistletoe). The City should work with RVTD to identify and fund new routes and/or modify existing routes to best serve these corridors when they develop to a point that transit service becomes feasible.

Figure 8-1 illustrates the additional transit route, Route 8, identified to serve the unserved transit supportive area along Mountain Avenue. *Route 8 is shown circulating via Nevada Street after the Nevada Street extension is complete (see project R17). The estimated cost to operate Route 8 is approximately $580,000 per year. This assumes two buses operating on 30-minute headways for 10 hours per weekday.*

The need for an additional route in the south end of Ashland is likely longer-term than the proposed Route 8. The route to serve south Ashland would be dependent upon the development pattern but it could potentially travel within the Croman Mill development (as opposed to only along Tolman Creek Road) and serve the portion of East Main Street that is served less frequently by Route 10.

5) **Central Hub** – Identify a location for a future transit hub to serve as a multi-modal transfer center for bus routes and Express Service operating in and to Ashland. Potential locations could include the long term park-and-ride locations shown on Figure 8-1.

A typical early step for a city where transfers need to occur between routes is to have them occur on-street, perhaps at an enhanced stop (e.g., one with a larger, decorative shelter). Once the system grows to a size where multiple routes are meeting to transfer passengers, then an off-street center begins to make sense. As discussed as part of the Priority 3, two potential long-term transit hubs are: 1) Railroad District adjacent to Hersey Street; and 2) Croman Mill Site. The timing and extent to which these are developed will depend on the development occurring adjacent to the sites. The potential long-term Croman Mill Site could either be served by extending the express route or tied into the Railroad District hub via Route #10.

Another instance where an off-street center makes sense is when it serves intermodal transfers multiple times a day (e.g., intercity bus to local bus, commuter rail to local bus). A commuter express route to Medford could still pass through downtown to capture transfers from other routes while still serving the long-term park-and-ride site. Diverting existing routes should be avoided or minimized, because it increases travel time for the majority of passengers and risks increasing the costs of operating the route. The development of a central hub is estimated to cost approximately $1,300,000.

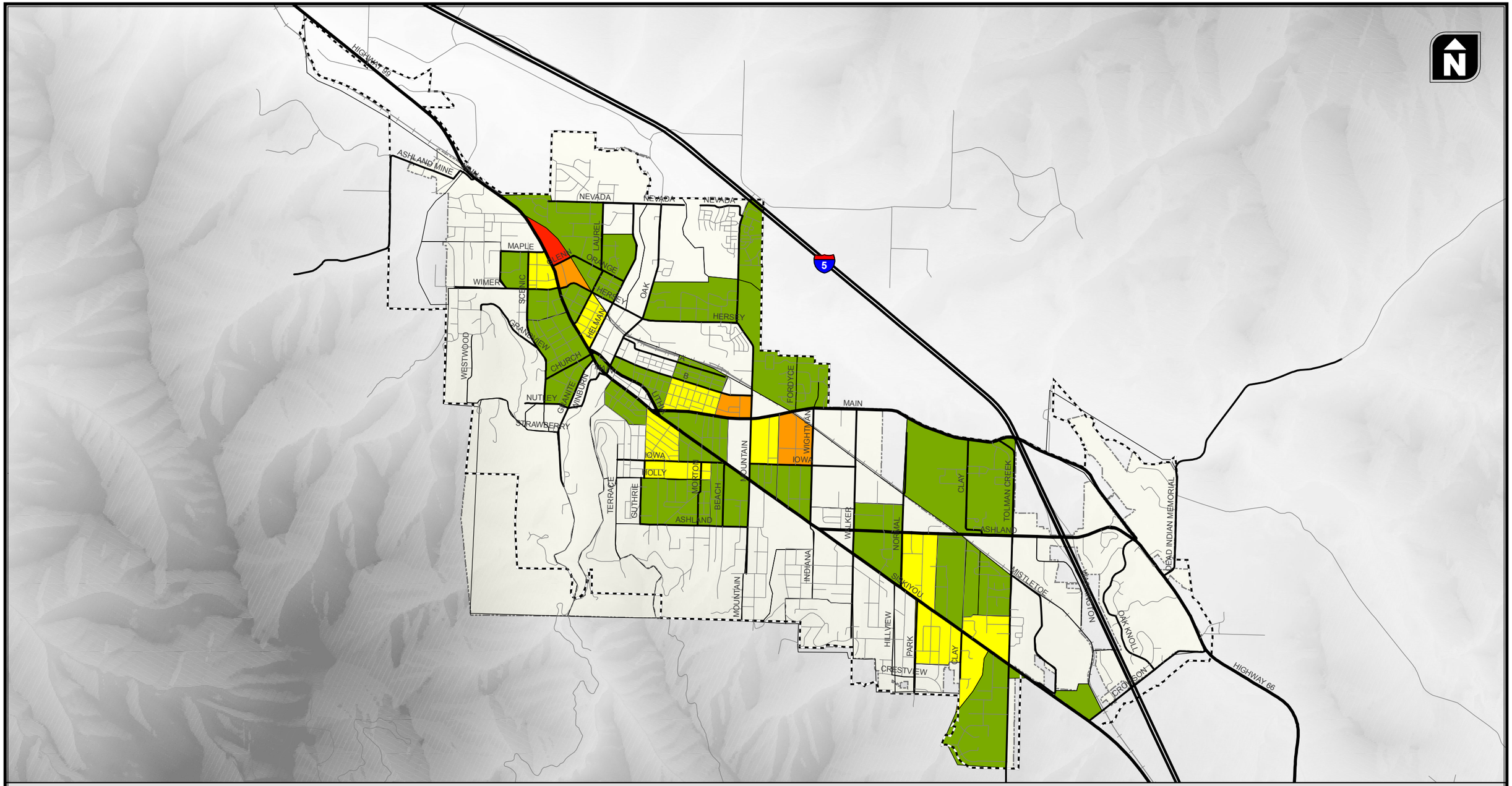
6) **Increase Service Frequency** – Use the thresholds documented in Table 8-2 to coordinate and program with RVTD increased transit service frequency in the future. *The current 20-minute headways on Route 10 are sufficient for Ashland given the existing and forecasted future residential densities*.

Table 8-2 Transit Service Frequency and Residential Housing Densities

Transit Service Frequency	Residential Density Threshold
Local bus service (1 bus per hour)	4-5 dwelling units/net acre[1]
Intermediate bus service (1 bus every 30 minutes)	7-8 dwelling units/net acre[1]
Frequent Bus Service (1 bus every 10 minutes)	12-15 dwelling units/net acre[1]
High Capacity Transit Systems (e.g., Streetcar, Light Rail)	25-50 dwelling units/net acre[1,2]

Notes:
[1]Net acres are developed land not including streets, parks, etc.
[2]This density applies to station areas.

Figure 8-3 illustrates the 2034 forecasted household densities (densities shown in Figure 8-3 are based on gross acres) and the corresponding transit service frequency.



< 3 HH/Acre (Unsupportive)
3 - 6 HH/Acre (1-Hr Service)
6 - 8 HH/Acre (30-Min Service)
8 - 12 HH/Acre (15-Min Service)
12+ HH/Acre (10-Min Service)

City Limits
City UGB

2034 Forecasted Household Densities and Transit Service Frequency

Figure
8-3

7) **Support Private Transit Circulator** – Work with Chamber of Commerce and existing businesses and hotels to provide a privately run circulator service (trolley or other type) to operate on a fixed route or on demand to help shuttle tourists from hotels to destinations throughout Ashland and potentially to the Rogue Valley International Airport. *Some hotels already provide some limited shuttle service and there could be benefit to consolidating these efforts to provide more robust service to all tourists. This service could be operated seasonally.*

8) **Support SOU Transit** – Work with Southern Oregon University (SOU) to provide a privately run circulator that targets SOU students' needs including service to the Medford campus.

Exhibit 8-1 illustrates the cities in which SOU students are living with approximately 45% living outside of Ashland some of whom it may be feasible to serve to via a circulator between SOU's campuses in Ashland and Medford. Exhibit 9 illustrates of the 55% of students living Ashland, the percentage of those students living within a 1/2 mile, mile and 2 miles of campus. This information illustrates a well routed local circulator may be able to efficiently serve most of the students within Ashland.

Exhibit 8-1 Percent of Students in Nearby Cities

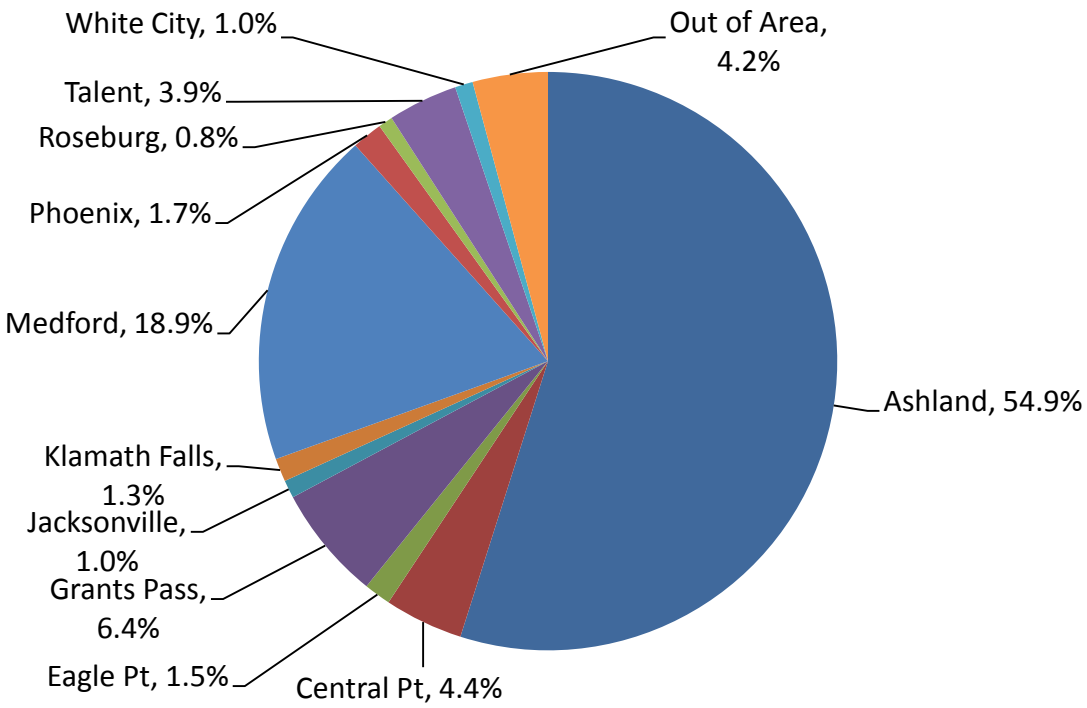
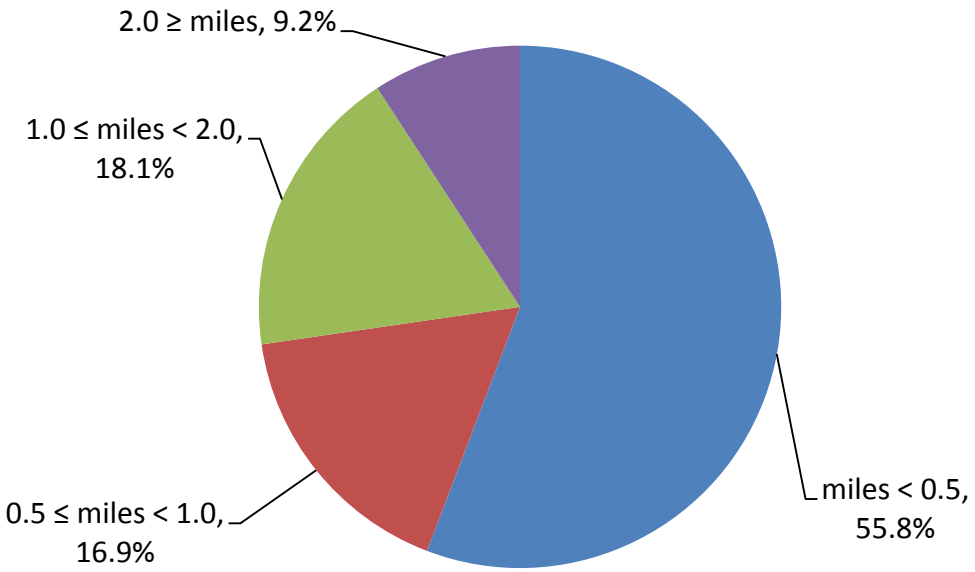


Exhibit 8-2 Percent of Ashland Students Distance from Campus

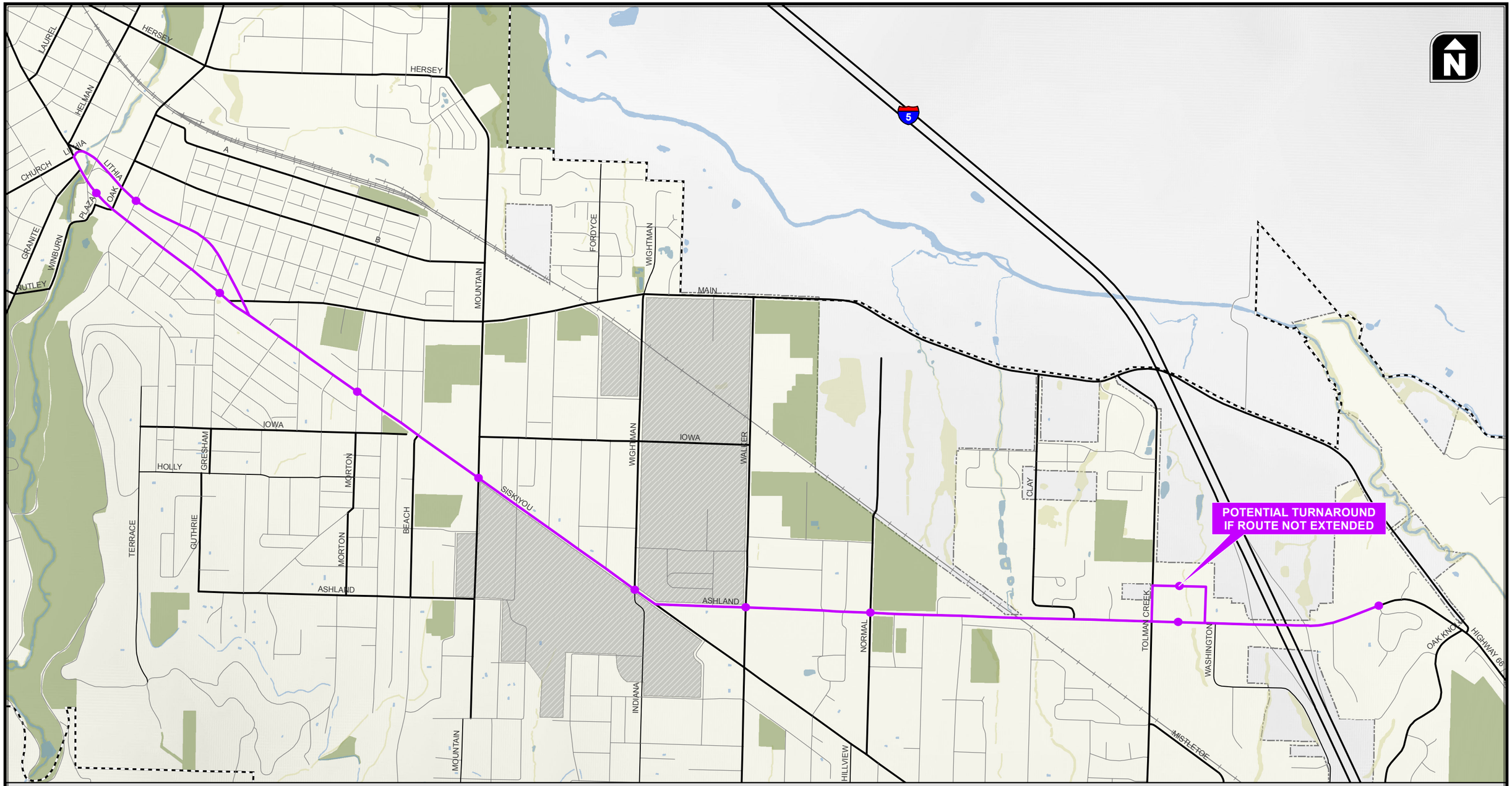


9) **Support Fare Free Transit in Ashland** – Work with RVTD to continue to explore the feasibility of fare free transit within Ashland.

As documented in the Supplemental Transit Information Memorandum (dated May 16, 2011), a 2002 synthesis of fareless transit service policies concluded fareless policies may be appropriate for smaller transit systems in communities where some of the primary disadvantages of fareless service (e.g., overcrowding, security, and problem riders) may not be significant concerns. See the Supplemental Transit Information Memorandum (dated May 16, 2011) for more details.

5) **Establish Rubber Tire Trolley Circulator** – The City should explore opportunities to establish a rubber tire trolley circulator within Ashland as a means to facilitate non-auto travel by visitors, students, and residents making shorter trips. Figure 8-4 illustrates a potential circulator route and stop locations. *The conceptual level cost of establishing a circulator is estimated to be $2,800,000 to $4,500,000. This estimate assumes 15 stops along the circulator route (stops on Siskiyou Boulevard and Ashland Street would be located on the outbound and inbound direction of travel) and five trolley vehicles to provide 15 to 20 minute headways. The stops are estimated to cost $20,000/each to $50,000/each (depending on the amenities provided) and the vehicles are estimated to cost $500,000/each to $750,000/each (depending on quality and type*

The City may choose to implement lower priority transit service improvements before higher priority transit service improvements based on the opportunities that arise in discussions with RVTD (e.g., in the near-term, it may be more feasible to implement Priority 3 than Priority 1).



Rubber Tire Circulation Routes and Stops

Rubber Tire Trolley Route and Stops

Figure

8-4

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Transit Service Program Funds

The Transit Service Program funding approach is outlined below. The City will use the funds to support policies L14 through L19 and priorities 1 through 9 discussed above. This includes establishing transit hubs, supporting circulator service to serve visitors, and supporting service to SOU students.

- Years 0 to 5 - $200,000/year
- Years 5 to 10 – $250,000/year
- Years 10 to 15 – $300,000/year
- Years 15 to 25 - $350,000/year

To the extent the City uses these funds to support service provided by RVTD, the City will work with RVTD to establish a common set of performance measures to help guide decisions on whether changes to transit service have been cost effective investments for the City. The performance measures will help the City decide if incremental increased investment in transit service changes is financially sound. The performance measures may also indicate benefits to RVTD as well as the City, which may provide the basis to establishing a matching funds agreement, where RVTD invests a certain amount of money for every dollar invested by the City.

At some point in the future, the City may choose to alter the funding allocated to the Transit Service Program based on the effectiveness of their investments with RVTD. The City may also choose to use their Transit Service Program funds to hire a private transportation company to provide some or all of their public transit service.

Section 9 Intersection and Roadway Plan

INTERSECTION AND ROADWAY PLAN

The intersection and roadway plan presents policies, studies and projects related to access management, alternative mobility standards, intersection improvements, modifying existing roadway cross-sections or streetscapes, extending existing roadways, and constructing new roadways. Projects within the intersection and roadway plan influence travel by auto and freight and many also facilitate pedestrian and bicycle travel. For example, the intersection and roadway plan includes the North Main Street Temporary Road Diet which reallocates existing right-of-way by removing one auto-lane in each direction and replacing them with bicycle lanes in each direction. The intersection and roadway plan also includes streetscape projects identified to support the Pedestrian Places planning activities. The street map for the City of Ashland is shown in Figure 9-1; it illustrates the existing and planned street network for the City of Ashland.

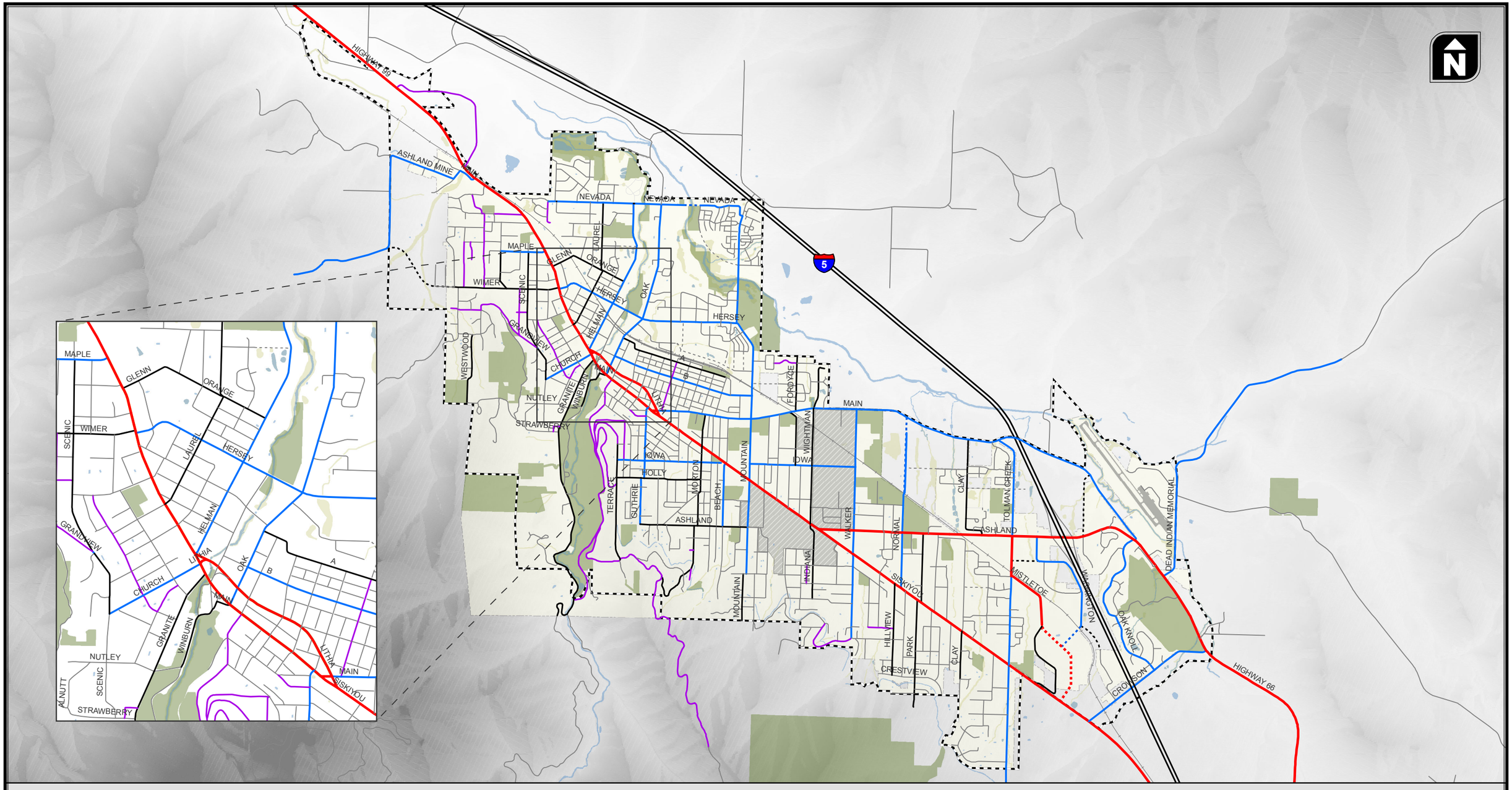
Policy #21-26 (L21 through L26) Intersection and Roadway Plan Policies

The subsections below contain the policies pertaining to intersections and roadways, which consist of access management, alternative mobility standards, transportation system management (TSM), traffic calming, and Eagle Mill Road.

Policy #21 (L21) Access Management

Access management is the systematic implementation and control of the locations, spacing, design, and operations of driveways, median openings, interchanges, roundabouts, and street connections to a roadway, according to the Access Management Manual (AMM) (*1*). It involves roadway design applications, such as median treatments and auxiliary lanes, and the appropriate spacing and design of signalized intersections. Access management standards vary depending on the functional classification and purpose of a given roadway. Roadways on the higher end of the functional classification system (i.e., Boulevards and Avenues) tend to have higher spacing standards to facilitate movement of through traffic, while facilities such as Neighborhood Collectors and Neighborhood Streets allow more closely spaced access points to facilitate access to land uses.

ODOT has legal authority to regulate access points along state highways within the city's urban growth boundary. However, per an agreement with the City of Ashland, the segments of OR 66 and OR 99 that are under ODOT's jurisdiction are subject to minimum spacing standards different than those typically applied to District Highways. These segments are held to a public roadway spacing standard of ¼ mile and a minimum driveway spacing standard of 300 feet. The segments of OR 99 and OR 66 that are under Ashland's jurisdiction (Siskiyou Boulevard between Walker Avenue and East Main Street; and Ashland Street between Siskiyou Boulevard and 300 feet east of Faith Avenue) are subject to Ashland's access spacing standards for Boulevards.



Interstate
Boulevard
Avenue
Neighborhood Collector
Shared Roadway
Neighborhood Street

Boulevard
Planned Avenue
Planned Neighborhood Collector
Planned Neighborhood Street
Special Transportation Area Designation
Urban Business Area Designation

City UGB
City Limits

Existing and Planned Street Network

Figure
9-1

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The City of Ashland and Jackson County also jointly manage several roadways (East Main Street, Tolman Creek Road, and Clay Street) within the City limits to manage the efficient movement of traffic and enhance safety. While the Jackson County access spacing standards documented in Table 5-2 of the Jackson Country Transportation System Plan apply to each of these roadways, the City independently manages access on all other Boulevards, Avenues, Neighborhood Collectors, and Neighborhood Streets within its jurisdiction which are not owned by ODOT or Jackson County.

Table 9-1 identifies the minimum public street intersection and private access spacing standards for the City of Ashland roadway network as they relate to new development and redevelopment. Existing accesses are allowed to remain as long as the land use does not change or safety issues do not arise. As a result, access management is a long-term process in which the desired access spacing to a street slowly evolves over time as redevelopment occurs. County facilities within the city's UGB are planned and constructed in accordance with these street design standards. As discussed above, ODOT and the City of Ashland have an agreement that OR 66 and OR 99 within the City limits are not subject to ODOT's typical minimum spacing standards for District Highways. OR 66 and OR 99 within the City of Ashland are subject to a minimum access spacing standard of a ¼ mile for public streets and 300 feet for driveways. The access spacing standards described above are illustrated in Figure 9-2.

Table 9-1 Table Access Spacing Standards on City Streets

Functional Classification	Access Spacing Standard – Distance from Streets (feet)1	Access Spacing Standard – Distance between Driveways (feet)[1]
Neighborhood Collectors	35 feet	75 feet
Avenues	50 feet	75 feet
Boulevards	100 feet	100 feet
OR 66 and OR 99 in Ashland (ODOT Jurisdiction Segments Only)2	1,320 feet	300 feet

[1]Measurement of the approach road spacing is from the centerline of the subject street or driveway on both sides of the roadway.
[2]This is applicable to the segments of OR 66 and OR 99 that are under ODOT jurisdiction and is consistent with the City's agreement with ODOT. Boulevard spacing standards apply to the segments of OR 66 and OR 99 under City jurisdiction.

Several corridors warrant more attention to access management than programmatic improvement of access spacing over time as part of land use actions. Sound access management principals should be emphasized at these locations to improve access management more rapidly through capital improvement projects and/or as development and redevelopment occur. Access management refinement studies have been identified for the corridors warranting more attention. These corridors and corresponding studies are:

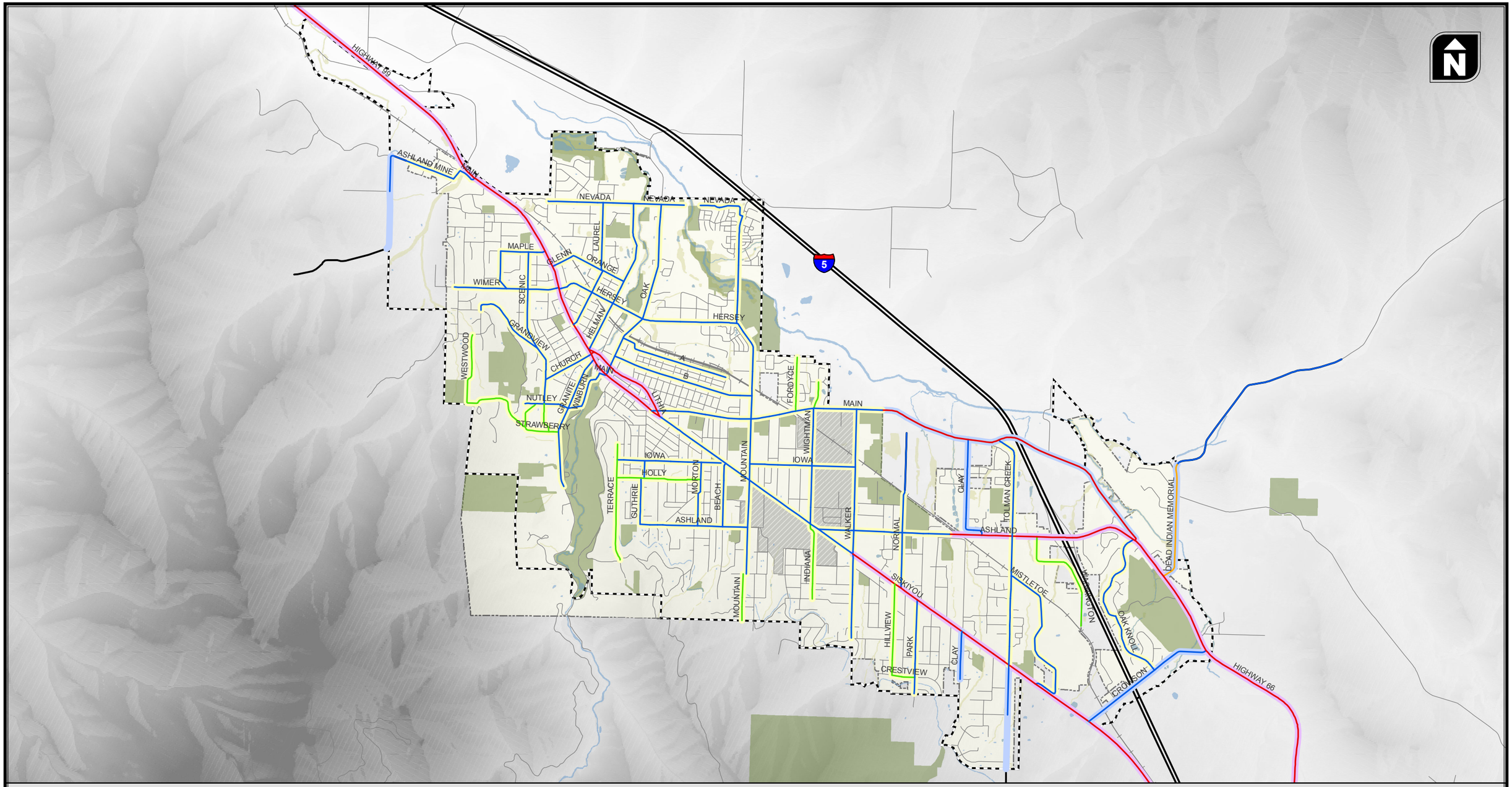
- Study #3 - (S3) North Main Street (OR 99) from Helman Street to Sheridan Street;
- Study #5 - (S5) Siskiyou Boulevard (OR 99) from Ashland Street to Tolman Creek Road;
- Study #6 - (S6) Ashland Street (OR 66) from Siskiyou Boulevard (OR 99) to Tolman Creek Road; and
- Study #7 - (S7) East Main Street from Siskiyou Boulevard (OR 99) to Wightman Street.

The cost estimates and associated priorities for the studies above are summarized below in the subsection Intersection and Roadway Plan Studies. The scope of the studies above include assessing the degree to which the corridors above deviate from the access spacing standards, the likelihood of redevelopment along those corridors, the potential safety and operational benefits from improving the access spacing, and phased engineering and access improvements to improve the spacing in the near- and long-term.

Access management strategies beyond programmatic consolidation through the development process could include treatments such as center raised medians that restrict access to right-in/right-out only, or right-in/right-out/left-in in some cases. Medians with openings for left-turn lanes off of a facility resulting in right-in/right-out/left-in access points provide significant improvement in safety while still providing a high level of property access. Consolidating driveways from multiple parcels to mid-block locations is critical to being able to provide effective right-in/right-out/left-in access in locations where medians are warranted due to safety concerns.

According to Action 3B.3 of the Oregon Highway Plan, non-traversable medians should be considered on state highways when any of the following criteria are met. Similar consideration should be given on Ashland Boulevards and Avenues where:

- Forecasted average daily traffic is anticipated to be 28,000 vehicles per day during the 20-year planning period;
- The annual crash rate is greater than the statewide annual average crash rate for similar roadways;
- Pedestrians are unable to safely cross the highway, as demonstrated by a crash rate that is greater than the statewide annual average crash rate for similar roadways; and/or
- Topography and horizontal or vertical roadway alignment result in inadequate left-turn intersection sight distance and it is impractical to relocate or reconstruct the connecting approach road or impractical to reconstruct the highway to provide adequate sight distance.



Minimum Driveway Spacing

- 75 feet
- 100 feet
- 225 feet
- 300 feet

Ownership

- CITY
- COUNTY
- ODOT

Access Spacing Standards

Figure

9-2

Policy #22 (L22) Alternative Mobility Standards on State Highways

Alternative mobility standards are not needed within the horizon year (2035) of the current TSP update. However, there are two locations within Ashland where alternative mobility standards will be useful to the City to provide additional flexibility as development occurs. It should be noted that the Oregon Transportation Commission (OTC) must approve the alternative mobility standards for them to take effect. The City will pursue alternative mobility standards (resulting in a higher volume-to-capacity ratio operations standard) for:

- **North Main Street (OR 99) from Helman Street to the northern Urban Growth Boundary** – The City will pursue alternative mobility standards for intersections along this roadway segment as a means to protect their potential investment in a road diet. Alternative mobility standards for the Maple Street/North Main Street (OR 99) intersection of a volume-to-capacity ratio of 1.0 and unsignalized intersections along this roadway segment would allow for higher volume-to-capacity ratios making it easier to sustain the road diet cross-section and smaller intersection footprints. *The Laurel Street/ North Main Street (OR 99) and Hersey Street – Wimer Street/ North Main Street (OR 99) intersections are forecasted to meet the current mobility standards assuming a signal is installed at the Hersey Street – Wimer Street/ North Main Street (OR 99) intersection in the future.*

- **Ashland Street (OR 66)/Tolman Creek Road Intersection** – The City will pursue an alternative mobility standard of a volume-to-capacity ratio of 0.90. *This intersection is currently forecasted to meet mobility standards in 2034. However, if development in the surrounding areas were to occur at a rate faster than anticipated, an alternative mobility standard of volume-to-capacity ratio of 0.90 would help mitigate the need to increase the size of the intersection. Keeping the intersection footprint at its current size supports the Pedestrian Places planning activities.*

Establishing alternative mobility standards for intersections along these roadway segments will provide the City more flexibility in the future with regards to how funds are allocated for intersection and roadway improvements (Goal 4) by allowing funds to be focused on higher priority multi-modal improvements rather than auto-focused improvements at locations that are operating below capacity but over the ODOT standard.

Policy # 23 (L23) Transportation System Management (TSM)

As feasible, the City of Ashland will integrate the Transportation System Management (TSM) strategies below (see the subsections below) into transportation corridor studies and projects in cooperation with ODOT (ODOT manages many of traffic signals on the primary corridors in Ashland, which are OR 66 and OR 99).

TSM strategies include a wide variety of measures aimed at improving operations of existing transportation facilities. TSM measures can be focused on improving transportation "supply" through enhancing capacity and efficiency, typically with advanced technologies to improve traffic operations. Or they may be focused on reducing transportation demand, through promoting travel options and ongoing programs intended to reduce demand for drive alone trips, especially during peak travel periods.

Signal Retiming/Optimization

Signal retiming and optimization refers to updating timing plans to better match prevailing traffic conditions and coordinating signals. Timing optimization can be applied to existing systems or may include upgrading signal technology, including signal communication infrastructure or signal controllers or cabinets. Signal retiming can reduce travel times and be especially beneficial to improving travel time reliability.

Signal retiming could also be implemented to improve or facilitate pedestrian movements through intersections by increasing minimum green times to accommodate pedestrian crossing movements during each cycle in high pedestrian or desired pedestrian traffic areas, eliminating the need to push pedestrian crossing buttons. Bicycle movements could be facilitated by installing bicycle detection along existing or proposed bicycle routes. Signal upgrades often come at a higher cost and usually require further coordination between jurisdictions.

Advanced Signal Systems

Advanced signal systems incorporate various strategies in signal operations to improve the efficiency of a transportation network. Strategies may include coordinated signal operations across jurisdictions as well as centralized control of traffic signals. Advanced signal systems can reduce delay, travel time and the number of stops for vehicles, while potentially increasing average vehicle speed. In addition, these systems may help reduce vehicle emissions and have a high impact on improving travel time reliability. OR 66 and OR 99 are the primary corridors in the City of Ashland where advanced signal system strategies may be applicable.

Advanced signal systems may be applied to several innovative control strategies. The costs of these systems vary as a function of the types of controllers, programming needs and detection needs. Implementing any of these systems would require coordination with ODOT. Alternative signal systems include:

- **Adaptive or active signal control** systems improve the efficiency of signal operations by actively changing the allotment of green time for vehicle movements and reducing the average delay for vehicles. Adaptive or active signal control systems require several vehicle detectors at intersections in order to detect traffic flows adequately, in addition to hardware and software upgrades.

- **Traffic responsive control** uses data collected from traffic detectors to change signal timing plans for intersections. The data collected from the detectors is used by the system to automatically select a timing plan best suited to current traffic conditions. This system is able to determine times when peak-hour timing plans begin or end; potentially reducing vehicle delays.
- **Transit signal priority** systems use sensors to detect approaching transit vehicles and alter signal timings to improve transit performance. This improves travel times for transit, reliability of transit travel time, and overall attractiveness of transit.
- **Truck signal priority** systems use sensors to detect approaching heavy vehicles and alter signal timings to improve truck freight travel. While truck signal priority may improve travel times for trucks, its primary purpose is to improve the overall performance of intersection operations by clearing any trucks that would otherwise be stopped at the intersection and subsequently have to spend a longer time getting back up to speed. Implementing truck signal priority requires additional advanced detector loops, usually placed in pairs back from the approach to the intersection.

Policy #24 (L24) Traffic Calming

Traffic calming elements will be integrated as appropriate into transportation improvement projects particularly those taking place on designated Safe Routes to School routes, within a quarter-mile walking distance from a school, and within a quarter-mile walking distance of a transit stop. The following traffic calming elements are the City's preferred traffic calming tools to be considered. The measures below can be modified as needed on a case-by-case installation such that they will not prohibit or degrade the City's ability to conduct winter maintenance activities such as snow removal.

Curb Extensions

Curb extensions create additional space for pedestrians and allow pedestrians and vehicles to better see each other at crosswalks. Curb extensions are typically installed at intersections along roadways with on-street parking and help reduce crossing distances and the amount of exposure pedestrians have to vehicle traffic. Curb extension also narrow the vehicle path, slow down traffic, and prohibit fast turns.

Advantages to curb extensions include:

- Shorter crossing distances for pedestrians;
- Reduces the speed of turning vehicles;

- Increases visibility between pedestrians and motorists;
- Enables permanent on-street parking; and
- Enables landscaping and green street treatments.

Challenges regarding curb extensions include:

- Physical barrier exposed to traffic and therefore requires distinctive visible attributes such as landscaping;
- Reduced turning radii may impact truck circulation in some areas;
- Increased cost and time to install relative to traditional curb returns; and
- Retrofit installments may require changes to roadway drainage system.

Raised Median Islands

Raised median islands provide a protected area in the middle of a crosswalk for pedestrians to stop while crossing the street. The raised median island allows pedestrians to complete a two-stage crossing if needed. The *ODOT Traffic Manual* states that for state highways a raised median, in combination with a marked crosswalk is desired when average daily traffic (ADT) volumes are greater than 10,000.

Advantages of raised medians include:

- Improves visibility of crossing to approaching motorists;
- Helps slow vehicle speeds by providing a sense of a narrower roadway to motorists;
- Provides a protected place for pedestrians to wait for a gap in traffic;
- Requires shorter gap in traffic for pedestrians to cross the street; and
- Effective for creating a gateway or entry type treatment into an area of high pedestrian activity.

Challenges to implementing raised medians include:

- Raised median must be able to provide at least six-feet of space to accommodate wheel chairs and not streets have sufficient right-of-way; and
- Places a physical barrier in the street and therefore requires distinctive visible attributes such as landscaping and signs.

Raised Crosswalk

A raised crosswalk is raised higher than the surface of the street to give motorists and pedestrians a better view of the crossing area. A raised crosswalk is similar to a speed table marked and signed for pedestrian crossing.

Advantages of a raised crosswalk include:

- Provides better view of pedestrians for motorists;
- Slows vehicle travel speeds; and
- Applicable on arterial and collector streets (i.e., Avenues, Neighborhood Collectors and potentially Boulevards in Ashland).

Challenges to implementing raised crosswalks include:

- Can be difficult for large trucks, snow plows, and buses to navigate; and
- Requires adequate signing on the approach to inform motorists of raised roadway.

Rectangular Rapid Flashing Beacon

Rectangular Rapid Flashing Beacons, or RRFBs, are user-actuated amber lights that have an irregular flash pattern similar to emergency flashers on police vehicles. These supplemental warning lights are used at unsignalized intersections or mid-block crosswalks to improve safety for pedestrians using a crosswalk.

Advantages of using rectangular rapid flashing beacons include:

- Typically increases yielding behavior of motorists;
- May be used at unsignalized intersections and mid-block crossing locations;
- May be installed on two-lane or multilane roadways;

  Low cost alternatives to traffic signals and hybrid signals.

Challenges to implementing rectangular rapid flashing beacons include:

- Flashing beacons do not force motorists to yield;
- Pedestrians may not activate flashing lights.

Pedestrian Hybrid Signal

The pedestrian hybrid signal is a pedestrian-actuated hybrid signal that stops traffic on the mainline to provide a protected crossing for pedestrians at an unsignalized location. Warrants for the installation of pedestrian-actuated hybrid signal are based on the number of pedestrian crossings per hour (PPH), vehicles per hour on the roadway, and the length of the crosswalk. Thresholds are available for two types of roadways: locations where prevailing speeds are above 35 mph and locations where prevailing speeds are below 35 mph.

Advantages of implementing pedestrian hybrid signals include:

- Produce a high rate of motorists yielding to pedestrians; and
- Drivers experience less delay at hybrid signals compared to other signalized intersections.

Challenges to implementing pedestrian hybrid signals include:

- Expensive compared to other crossing treatments; and
- Requires pedestrian activation.

Mini-Roundabouts

Mini-roundabouts are round islands positioned in the center of intersections. Drivers must turn around them to continue along a street. This turning maneuver encourages slow speeds without requiring drivers to come to a complete stop at the intersection. The intersection approaches are YIELD – controlled.

Advantages to implementing mini-roundabouts include:

- Effective at slowing vehicle speeds through intersections;
- Eliminate severe conflict points that can lead to sever crashes (e.g., turning crashes, opposite direction crashes, and angle crashes);
- If located at the highest point in the street's cross section, constructing mini-roundabouts can be relatively inexpensive because the high cost of adjusting stormwater drains can be avoided; and
- Relatively simple design and are also simple to construct; thus a basic set of standard drawings and construction specifications could be developed to keep design and construction costs to a minimum.

Challenges to implementing mini-roundabouts include:

- Intersection needs to be designed to accommodate large vehicles and emergency vehicles;
- Design also needs to consider winter maintenance activities such as snow removal and movement of snow plows;
- Crosswalks at the intersection may need to be moved away from the intersection to make sure pedestrian crossing areas and vehicle maneuvering areas do not overlap; and
- On-street parking must be prohibited in the vicinity of the mini-roundabout to create vehicle maneuvering space.

Planting Strips

Planting strips narrow the width of streets by moving curbs away from sidewalks to create space for native street trees and ground cover and/or decorative rock.

Advantages for planting strips include:

- Narrows the roadway and provides a place for adding planting strips
- Creates a buffer between roadways and sidewalks while still retaining enough roadway width for traffic and all existing on-street parking;
- Moves traffic farther from adjacent businesses, schools, homes and front yards;
- Reduces motor vehicle speeds, and provides shade to reduce heat absorption from streets; and
- Stormwater can be readily integrated into the design and construction of planting strips through green street treatments.

Challenges associated with implementing planting strips include:

- Construction costs particularly for retrofits can be relatively high, because it may require modifications to the existing drainage system.
- Maintenance responsibility is typically turned over to the adjacent property owner(s).
- In residential areas, the choice of landscaping and the quality of its maintenance varies in quality from home owner to home owner.
- Opportunities to implement this treatment are constrained by the location, design of existing storm drains, and location of low elevations where stormwater can collect.

Policy #26 (L26) Eagle Mill Road

The City of Ashland supports the use of Eagle Mill Road as an Alternative Bypass Route of the downtown area from the I-5/Valley View Road interchange. The City of Ashland encourages Jackson County to make improvements to Eagle Mill Road on a similar timeframe to the City's Nevada Street Extension project.

Study #3-9 (S3 through S9) Intersection and Roadway Plan Studies

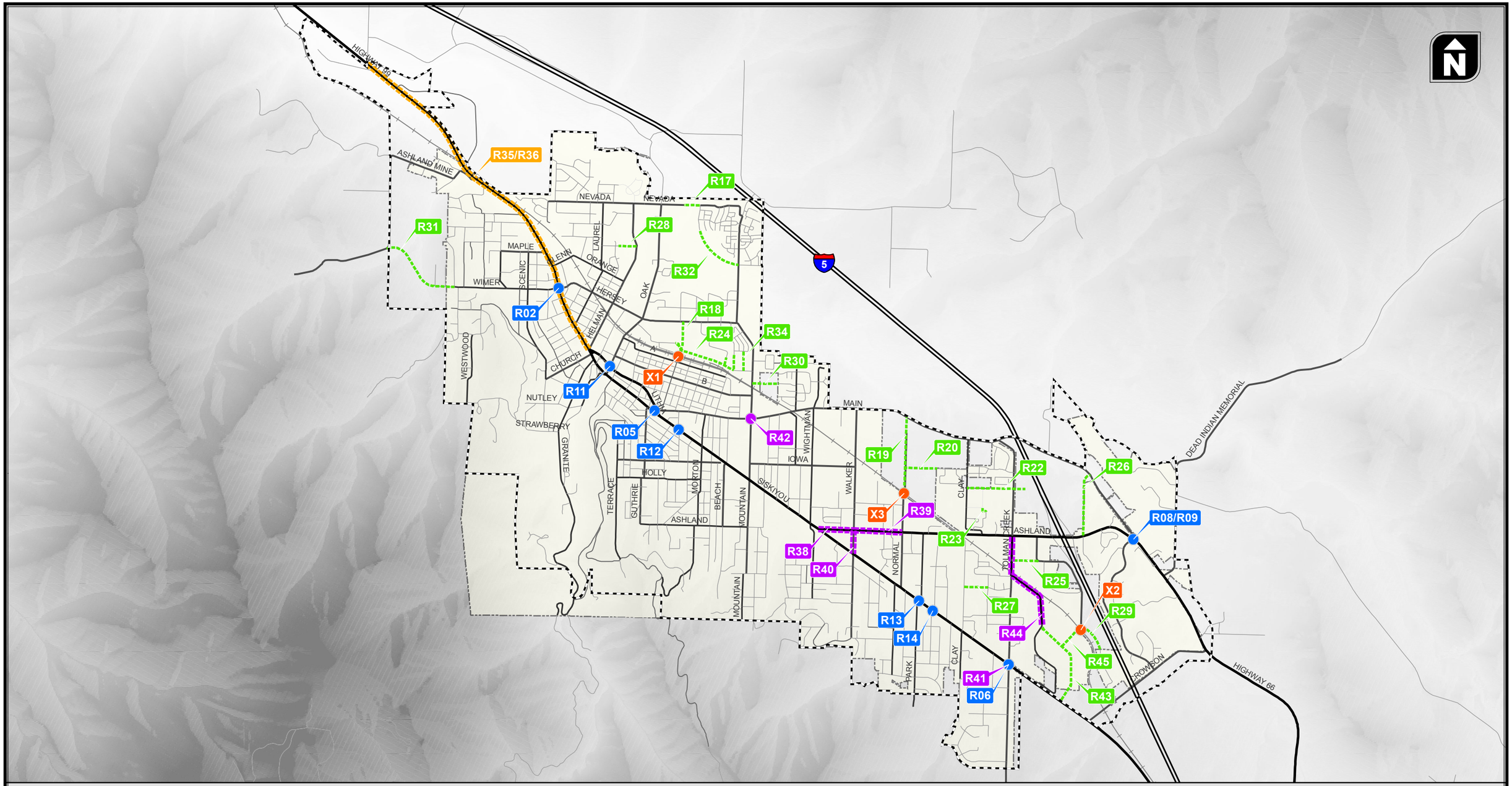
Table 9-2 summarizes the preferred plan intersection and roadway related studies. *Additional explanation regarding why the Study #7 (S7) was identified follows Table 9-2.*

Table 9-2 Refinement Plan Studies

(Study #) Study Name	Description	Priority (Timeline)	Cost
(S3) North Main Street (OR 99) from Helman Street to Sheridan Street	Conduct access management spacing study and provide near- and long-term recommendations for improvement.	Medium (5-15 years)	$75,000
(S5) Siskiyou Boulevard from Ashland Street to Tolman Creek Road	Conduct access management spacing study and provide near- and long-term recommendations for improvement.	Medium (5-15 years)	$75,000
(S6) Ashland Street (OR 66) from Siskiyou Boulevard to Tolman Creek Road	Conduct access management spacing study and provide near- and long-term recommendations for improvement.	Medium (5-15 years)	$75,000
(S7) East Main Street from Siskiyou Boulevard to Wightman Street	Conduct access management spacing study and provide near- and long-term recommendations for improvement.	Low (15-25 Years)	$75,000
(S9) Ashland Street (OR 66) Safety Study	Conduct a transportation safety assessment in five years along Ashland Street (OR 66) between Clay Street and Washington Street to identify crash trends and/or patterns (if they exist) as well as mitigations to reduce crashes.	Medium (5-15 years)	$20,000
(S10) Siskiyou Boulevard Pedestrian Crossing Evaluation and Feasibility Study	Evaluate the feasibility and costs associated with providing enhanced pedestrian crossing treatments at the Wightman-Indiana/Siskiyou Boulevard intersection.	High (0-5 years)	$20,000
		Total	**$340,000**

Intersection Projects, New Roadways, and Roadway Extensions

Table 12 summarizes the preferred plan intersection projects, new roadways, and roadway extension projects. Figure 9-3 illustrates the location of these projects. *Appendix A contains the prospectus sheets for all preferred plan projects; the prospectus sheets provide more detail regarding the project location, description, and images illustrating the vision for the completed project.*



- Planned Streetscape Projects
- Planned Railroad Crossings
- Planned Intersection Projects
- XX Project Number
- Planned Streetscape Projects
- Planned Road Diet
- Planned Roadway Projects

Planned Intersection and Roadway Projects

Figure

9-3

Table 9-3 Draft Preferred Plan Intersection and Roadway Projects

(Project #) Name	Description	Reasons for the Project	Priority (Timeline)	Cost2
(R2) North Main Street (OR 99)/Wimer Street-Hersey Street Intersection Improvements	Install a traffic signal at the intersection once MUTCD traffic volume or MUTCD crash warrants are met	Improve Safety, Improve Operations	Low (15-25 Years)	$300,000
(R5) Siskiyou Boulevard (OR 99)-Lithia Way (OR 99 NB)-Main Street (OR 99 SB)/East Main Street Intersection Improvements	Improve visibility of signal heads. Identify and install treatments to slow vehicles on northbound approach	Improve Safety	High (0-5 Years)	$50,000
(R6) Siskiyou Boulevard (OR 99)/Tolman Creek Road Intersection Improvements	Conduct a speed study. Identify and install speed reduction treatments on northbound approach	Improve Safety	High (0-5 Years)	$61,000
(R8) Ashland Street (OR 66)/Oak Knoll Drive-East Main Street Intersection Improvements	Realign East Main Street approach to eliminate offset and install speed reduction treatments	Improve Safety	High (0-5 Years)	$76,000
(R9) Ashland Street (OR 66)/Oak Knoll Drive-East Main Street Intersection Improvements	Install a roundabout1	Improve Safety, Gateway to Urban Area	Low (15-25 Years)	$3,150,000
(R11) Lithia Way (OR 99 NB)/Oak Street Intersection Improvements	Install a traffic signal	Improve Operations	Low (15-25 Years)	$200,000
(R12) Siskiyou Boulevard (OR 99)/Sherman Street Intersection Improvements	Realign Sherman Street approach to eliminate offset	Improve Street Continuity	Development Driven	$196,000
(R13) Siskiyou Boulevard (OR 99)/Park Street Intersection Improvements	Realign Park Street approach to eliminate offset	Reduce Conflicts, Improve Street Continuity	Development Driven	$296,000
(R14) Siskiyou Boulevard (OR 99)/Terra Avenue-Faith Avenue Intersection Improvements	Realign Faith Avenue approach to eliminate offset	Reduce Conflicts, Improve Street Continuity	Development Driven	$216,000
(R17) East Nevada Street Extension	Extend Nevada Street from Bear Creek to Kestrel Parkway	Balance Mobility and Access	Medium (5-15 Years)	$,2,261,000
(R18) 4th Street Extension	Extend 4th Street from A Street to Hersey Street; Coordinate with Project X1	Balance Mobility and Access	Low (15-25 Years)	$1,191,000
(R19) Normal Avenue Extension	Extend Normal Avenue to East Main Street; Coordinate with Project X3	Balance Mobility and Access	Medium (5-15 Years)	$2,705,000
(R20) Creek Drive Extension	Extend Creek Drive from Meadow Drive to Normal Avenue Coordinate with IAMP Exit 14 Access Management on Ashland Street (OR 66)	Balance Mobility and Access	Development & Access Management Driven	$1,012,000
(R22) New Roadway (B)	Construct a New Roadway from Clay Street to Property Northwest of Exit 14 Southbound Off Ramps if and when Tolman Creek Manufactured Park property is redeveloped. Coordinate with IAMP Exit 14 Access Management on Ashland Street (OR 66) and Surrounding Development	Facilitate Economic Growth Balance Mobility and Access	Development & Access Management Driven	$1,867,000
(R23) New Roadway (C)	Construct a New Roadway from Clay Street to Property Northwest of Exit 14 Southbound Off Ramps. Coordinate with IAMP Exit 14 Access Management on Ashland Street (OR 66) and Surrounding Development	Facilitate Economic Growth Balance Mobility and Access	Development & Access Management Driven	$251,000
(R24) Clear Creek Drive Extension	Construct a New Roadway Connecting the Two Existing Segments of Clear Creek Drive providing a continuous east-west roadway	Facilitate Economic Growth Balance Mobility and Access	Development & Access Management	$2,097,000

	between Oak Street and Mountain Avenue		Driven	
(R25) Washington Street Extension to Tolman Creek Road	Extend Washington Street to Tolman Creek Road. This is a City funded project; not developer driven. Coordinate with IAMP Exit 14 Access Management on Ashland Street (OR 66) and Surrounding Development	Facilitate Economic Growth Balance Mobility and Access	High (0-5 Years)	$1,015,000
(R26) New Roadway (D)	Construct a New Roadway from East Main Street to Ashland Street (OR 66) Coordinate with IAMP Exit 14 Access Management on Ashland Street (OR 66) and Surrounding Development	Facilitate Economic Growth Balance Mobility and Access	Development & Access Management Driven	$2,329,000
(R27) Grizzly Drive Extension	Extend Grizzly Drive from Jacquelyn Street to Clay Street	Balance Mobility and Access	Development Driven	$767,000
(R28) Mountain View Drive Extension	Extend Mountain View Drive from Parkside to Helman Street	Balance Mobility and Access	Development Driven	$587,000
(R29) Washington Street Extension to Benson Way	Extend Washington Street to Benson Way	Facilitate Economic Growth Balance Mobility and Access	Development Driven	$1,153,000
(R30) Fordyce Neighborhood Street Extension	Extend Fordyce Neighborhood Street to Mountain Avenue	Balance Mobility and Access	Development Driven	$842,000
(R31) Wimer Street Extension	Extend Wimer Street to Ashland Mine Road	Balance Mobility and Access	Development Driven	$3,125,000
(R32) Kestrel Parkway Extension	Extend Kestrel Parkway to Mountain Avenue at Nepenthe Road	Balance Mobility and Access	Development Driven	$1,764,000
(R34) Railroad Property Development	Extend Existing Adjacent Streets to Provide Connectivity within, to and from the Property	Facilitate Economic Growth Balance Mobility and Access	Development Driven	$1,372,000
(R35) North Main Street Temporary Road Diet	Implement a temporary road diet on North Main Street. Temporary road diet includes converting North Main Street to a two-lane roadway with a two-way center turn lane and bicycle lanes in both directions	Improve Safety, Balance Mobility and Access	High (0-5 Years)	$160,000
(R36) North Main Street Implement Permanent Road Diet	Convert temporary road diet to permanent installation, which includes, at a minimum, signal modifications to North Main Street/Maple Street and North Main Street/Laurel Street intersections	Improve Safety, Balance Mobility and Access	Medium (5-15 Years)	$200,000
(R38) Ashland Street Streetscape Enhancements (Siskiyou Boulevard to Walker Avenue)	Widen and reconstruct sidewalks with street trees, stormwater planters and bus shelters. Walker Avenue intersection enhancement with concrete crosswalks and paving, and ornamental lights.	Support Pedestrian Places Planning	Medium (5-15 Years)	$1,100,000
(R39) Ashland Street Streetscape Enhancements (Walker Avenue to Normal Avenue)	Widen and reconstruct sidewalks with street trees, stormwater planters and bus shelters.	Support Pedestrian Places Planning	Development Driven	$1,300,000
(R40) Walker Avenue Festival Street (Siskiyou Boulevard to Ashland Street)	Street reconstruction with flush curbs and scored concrete roadway surface. Sidewalk treatments to include decorative bollards to delineated pedestrian space, street trees, LID stormwater facilities and ornamental lighting.	Support Pedestrian Places Planning	High (0-5 Years)	$780,000
(R41) Ashland Street/Tolman Creek Road Streetscape Enhancements	Widen and reconstruct sidewalks with street trees, stormwater planters and bus shelters. Ashland/Tolman Creek intersection enhancement with concrete crosswalks, paving, ornamental lights.	Support Pedestrian Places Planning	Development Driven	$1,500,000
(R42) E Main Street/N Mountain Avenue Streetscape Enhancements	Widen and reconstruct sidewalks with street trees, stormwater planters and bus shelters. E. Main/N. Mountain intersection	Support Pedestrian Places Planning	Development Driven	$1,500,000

	enhancement with concrete crosswalks and paving, and ornamental lights.			
(R43) Croman Mill District Development	Develop a new Boulevard street between Mistletoe Road and Siskiyou Boulevard (OR 99) per the Croman Mill District Plan	Facilitate Economic Growth Balance Mobility and Access	Development Driven	$4,236,000
(R44) Tolman Creek-Mistletoe Road Streetscape Enhancements	Widen and reconstruct sidewalks with street trees, stormwater planters and bus shelters.	Support Pedestrian Places Planning	Development Driven	$3,478,000
(R45) Croman Mill District Development	Develop a new Avenue Street between Washington Street and the new Croman Mill Boulevard street per the Croman Mill District Plan	Facilitate Economic Growth Balance Mobility and Access	Development Driven	$998,000
High Priority (0-5 Years)				$2,142,000
Medium Priority (5-15 Years)				$4,005,000
Low Priority (15-25 Years)				$4,841,000
Development Driven				$30,886,000
Total				**$41,874,000**

Notes:

[1]Initial roundabout operations analysis and high-level feasibility assessment were performed to confirm a roundabout appears physically and operationally feasible. A more detailed preliminary roundabout design and study should be conducted before activities such as right-of-way acquisition and/or developing detailed design plans.

[2]Cost estimates are for engineering and construction costs. They do not include right-of-way. They are rounded to the nearest thousand dollars.

The projects in Table 9-3 and Figure 9-3 were identified based on input received from the PMT, TAC, PC, and .The intersection projects were also developed based on the 2034 future conditions analysis results, safety analysis results, and planning-level feasibility assessments (e.g., is a roundabout physically possible, could the street actually be realigned given adjacent historic structures). The new roadway and roadway extension projects were identified from previous and/or related plans such as the 1998 TSP, the unadopted 2007 TSP update, and the Interchange Area Management Plan (IAMP) for Exit 14. The projects identified to support pedestrian places were documented as part of the Pedestrian Places planning activities. The Pedestrian Places planning is discussed further in the following section.

Railroad Crossing Projects

Table 9-4 summarizes the preferred plan railroad crossing projects. They include one existing crossing upgrade and two new railroad crossing locations. Figure 9-3 illustrates the location of these railroad crossings. *Appendix A contains the prospectus sheets for all preferred plan projects; the prospectus sheets provide more detail regarding the project location, description, and images illustrating the vision for the completed project.*

Currently under Federal and ODOT rail policy, the City would need to close an existing at-grade crossing or go through a potentially timely and costly rail order process to obtain an additional new public crossing within Ashland. The City will pursue all possible alternatives to closing existing at-grade crossings including exceptions to the policies based on the low projected train volumes (currently none) and will consider grade separation of future crossings.

Table 9-4 Railroad Crossing Projects

(Project #) Name	Description	Reasons for the Project	Priority (Timeline)	Cost2
(X1) 4th Street At-Grade Railroad Crossing	Pursue a New Multi-Modal Bike/Ped Crossing at 4th Street[1]	Improve North-South Connectivity	Development Driven	$1,000,000
(X2) Washington Street At-Grade Railroad Crossing	Pursue a New At-Grade Railroad Crossing at Washington Street as Part of the Croman Mill Site Development[1]	Facilitate Economic Growth, Balance Mobility and Access	Development Driven	$1,000,000
(X3) Normal Avenue Public Railroad Crossing	Upgrade At-Grade Crossing at Normal Avenue to Public Crossing Standards as part of Normal Avenue Extension (Project R19)	Improve North-South Connectivity, Balance Mobility and Access	Medium (5-15 Years)	$750,000
High Priority (0-5 Years)				-
Medium Priority (5- 15 Years)				$750,000
Low Priority (15- 25 Years)				-
Development Driven or Driven by Need based on Rail Order Outcomes				$2,000,000
Total				$2,750,000

Notes:

[1]Currently under Federal and ODOT rail policy, the City would need to close an existing at-grade crossing or go through a potentially timely and costly rail order process to obtain an additional new public crossing within Ashland. The City will pursue all possible alternatives to closing existing at-grade crossings including exceptions to the policies based on the low projected train volumes (currently none) and will consider grade separation of future crossings.

[2]Planning level cost estimates are for construction and engineering of at-grade crossings and do not include right-of-way costs.

Section 10 Pedestrian Places

PEDESTRIAN PLACES

Pedestrian Places are small walkable nodes that provide a concentration of gathering places, housing, businesses, and pedestrian amenities grouped in a way to encourage more walking, bicycling, and transit use. The land uses and buildings in and around Pedestrian Places are typically a mix of housing and services to provide a variety of places within easy walking distance. Amenities may include plazas, bus shelters, shade and seating, drinking fountains, public art, landscaping, information displays, and bicycle parking. Pedestrian Places can help create vibrant, livable places where people congregate and can function as neighborhood centers.

Incorporating projects into the preferred plan to support the Pedestrian Places planning is a unique opportunity to satisfy complementary objectives:

- Reduce travel trips by car;
- Create momentum for enhanced transit, pedestrian, and bicycle facilities;
- Establish an implementation strategy for coordinating public and private actions that includes updates to zoning and ordinances;
- Identify changes in transportation funding that directly affect private development; and
- Encourage more affordable housing choices.

The following subsections provide an overview of the concept plans for the pedestrian places, discuss key elements for successful pedestrian places and present implementation considerations.

Concept Plans

The selected locations for the conceptual planning studies are at the intersections of North Mountain Avenue/East Main Street, Ashland Street/Tolman Creek Road, and Ashland Street/Walker Avenue. Great Streets, gathering places, new shops/offices, transit improvements, and new and public art opportunities were set out as the building blocks for these places. The study areas included an approximate 5-minute walk area surrounding the intersections. A vision statement was developed and neighborhood development and connectivity opportunities were identified.

A conceptual development plan for an individual parcel was developed for each location. The intent of the plans was threefold. First, they illustrate one possible expression of the building blocks of pedestrian-oriented design that were established at the first community workshop. A number of other design concepts could also be built from those blocks. Second, they explored whether or not transit-supportive densities could be achieved and with assumptions about parking, building height, and size of residential uses. Lastly, the concepts helped shed light on any changes to current zoning and ordinances that might support or hinder any of the opportunity sites identified within the selected areas. The plans should not be taken as specific or imminent development proposals or as architectural design recommendations subject to current planning approval. The concept plans for each of the three pedestrian places include opportunity sites for redevelopment.

A brief concept overview is provided below for each Pedestrian Place.

Mountain/Main

Create a neighborhood center that encourages the growth of an arts community to complement the civic uses, school uses and the historic neighborhood that surround the center. Land use strategies that will support that vision might include adaptive reuse of the existing Art Academy and of an historic home. Reuse could provide small gallery and workshop spaces, and provide community educational opportunities for the arts. Another supportive strategy would be affordable in-fill housing as apartments and live/work spaces. Both of these housing choices appeal to artists, younger educators and other new residents that will contribute this kind of neighborhood community. Exhibits 10-1 through 10-4 illustrate some of the concepts developed for Mountain/Main Pedestrian Place.

Exhibit 10-1 Mountain/Main Pedestrian Place Concepts

Exhibit 10-2 Mountain/Main Pedestrian Circulation

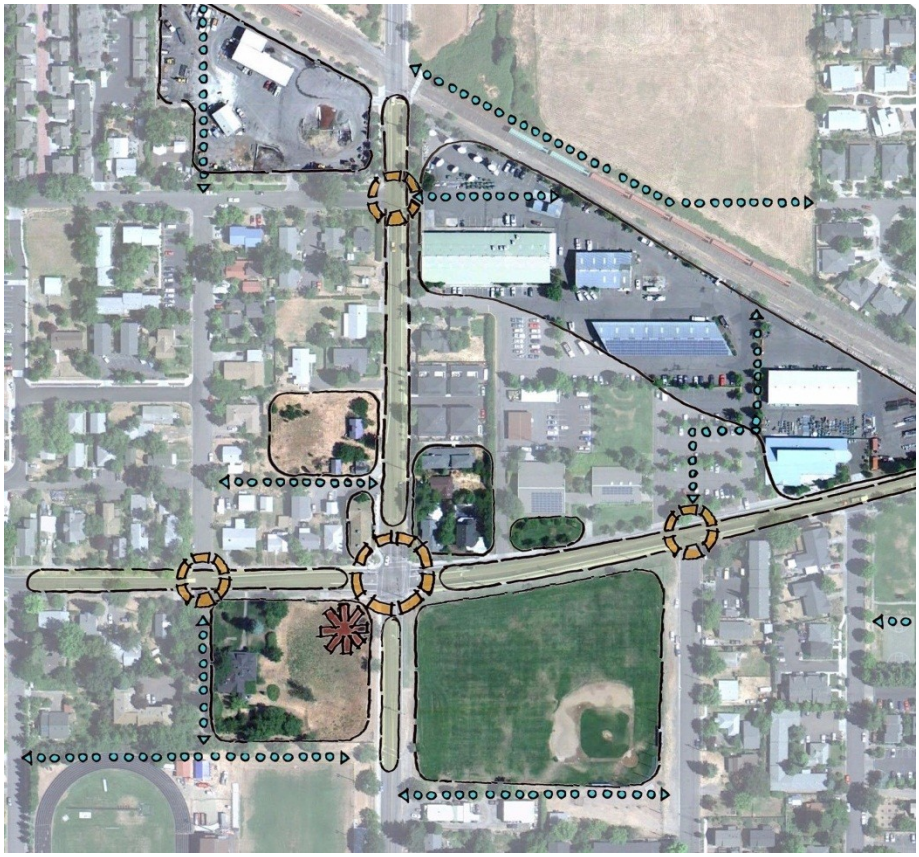
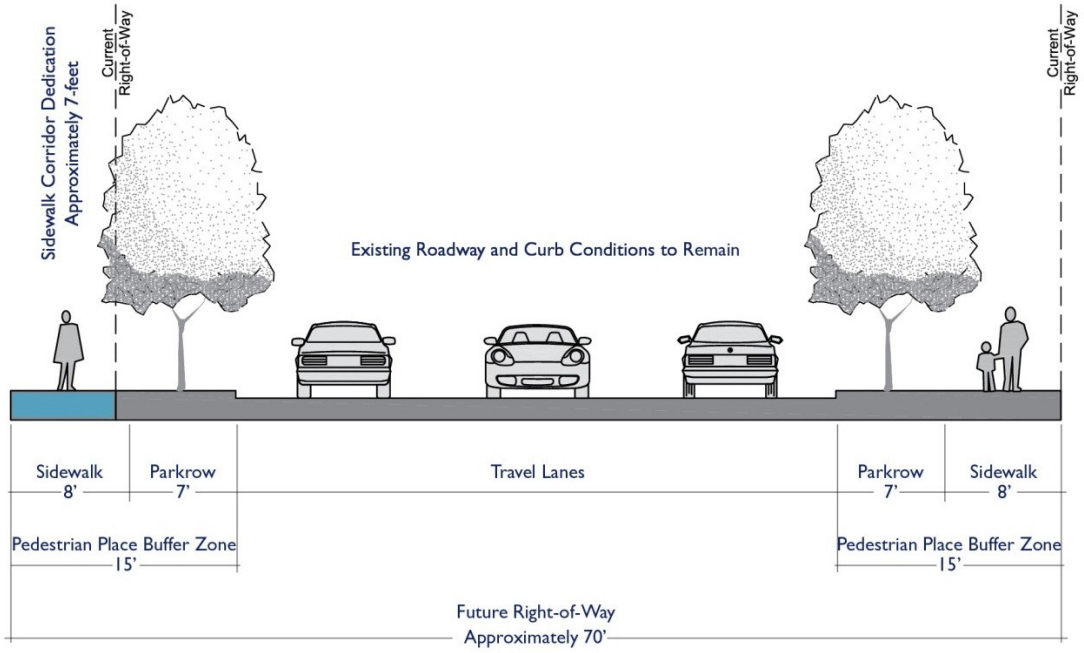
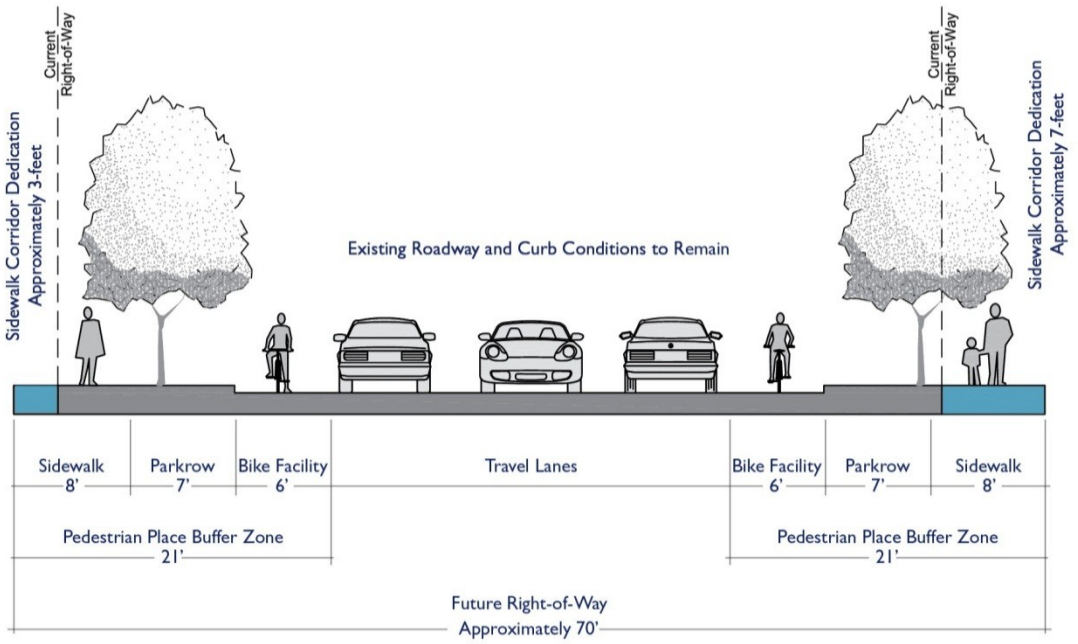


Exhibit 10-3 Mountain Avenue Cross Section



N. Mountain Avenue Future Improvements
Section A – Looking North

Exhibit 10-4 E Main Street Cross Section



E. Main Street Future Improvements
Section B – Looking West

The neighborhood center also needs a more complete and continuous grid of walking routes connecting people to the Pedestrian Place. Those routes are not necessarily new local streets. They could be multiuse pathways for pedestrians and bikes or alleys that are part of new in-fill housing plans.

Walker/Ashland

Create a complete and compact university district 'hub' that complements the SOU Master Plan for additional student housing. From a development perspective, this is a long-term vision requiring time and a favorable set of market and financing conditions, along with some stimulus from implementation of the SOU Master Plan. Elements of the hub could be greatly enhanced streetscape for both Walker Avenue and Ashland Street, and redevelopment that ultimately results a well-designed cluster of retail and entertainment uses with affordable housing choices. Exhibits 10-5 through 10-8 illustrate some of the concepts developed for Ashland/Walker Pedestrian Place.

Exhibit 10-5 Walker/Ashland Pedestrian Place Concepts

Exhibit 10-6 Walker/Ashland Pedestrian Circulation

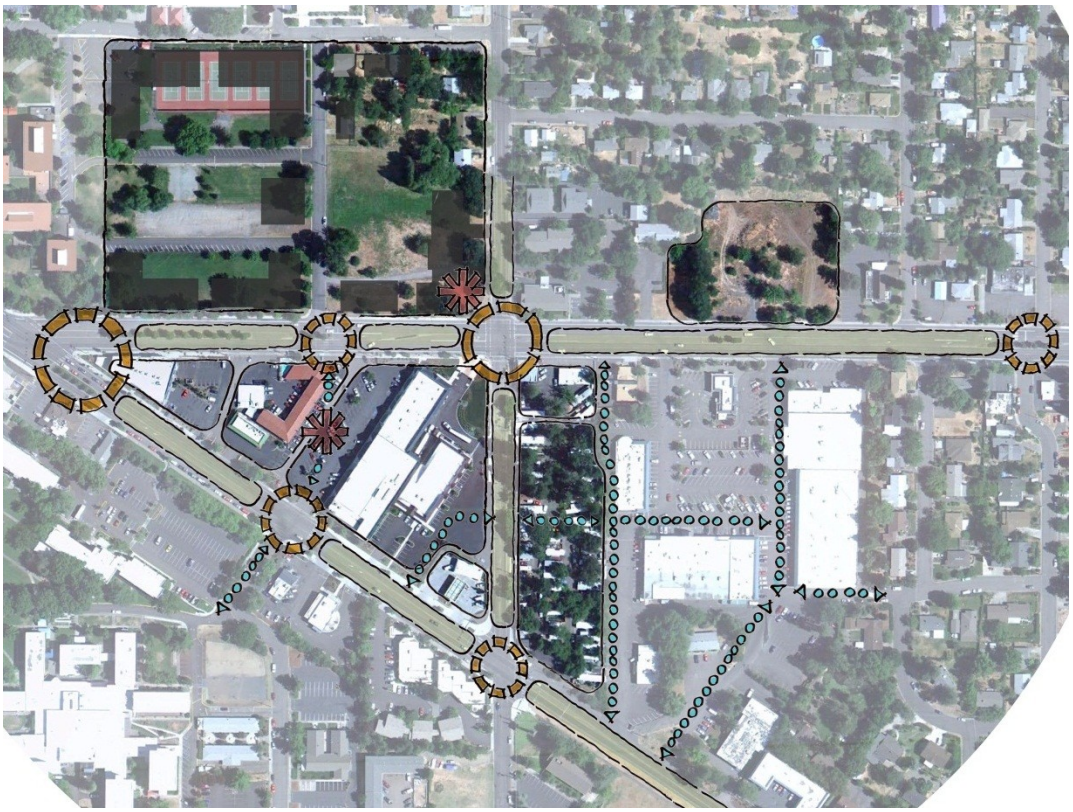
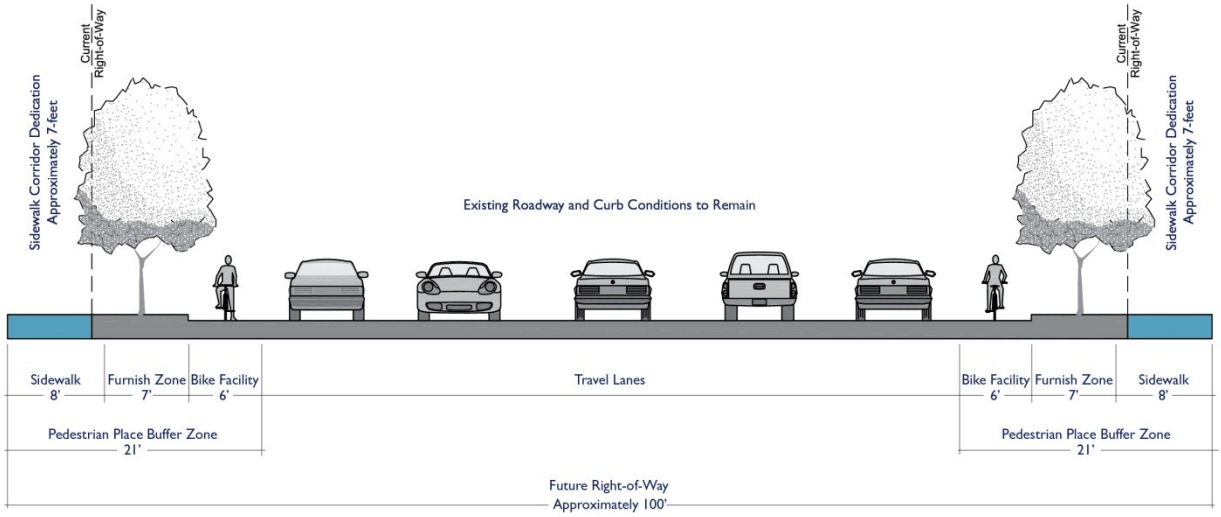


Exhibit 10-7 Walker/Ashland Pedestrian Circulation (cont.)

Exhibit 10-8 Ashland Street Cross Section



Ashland Street Future Improvements
Section B – Looking West

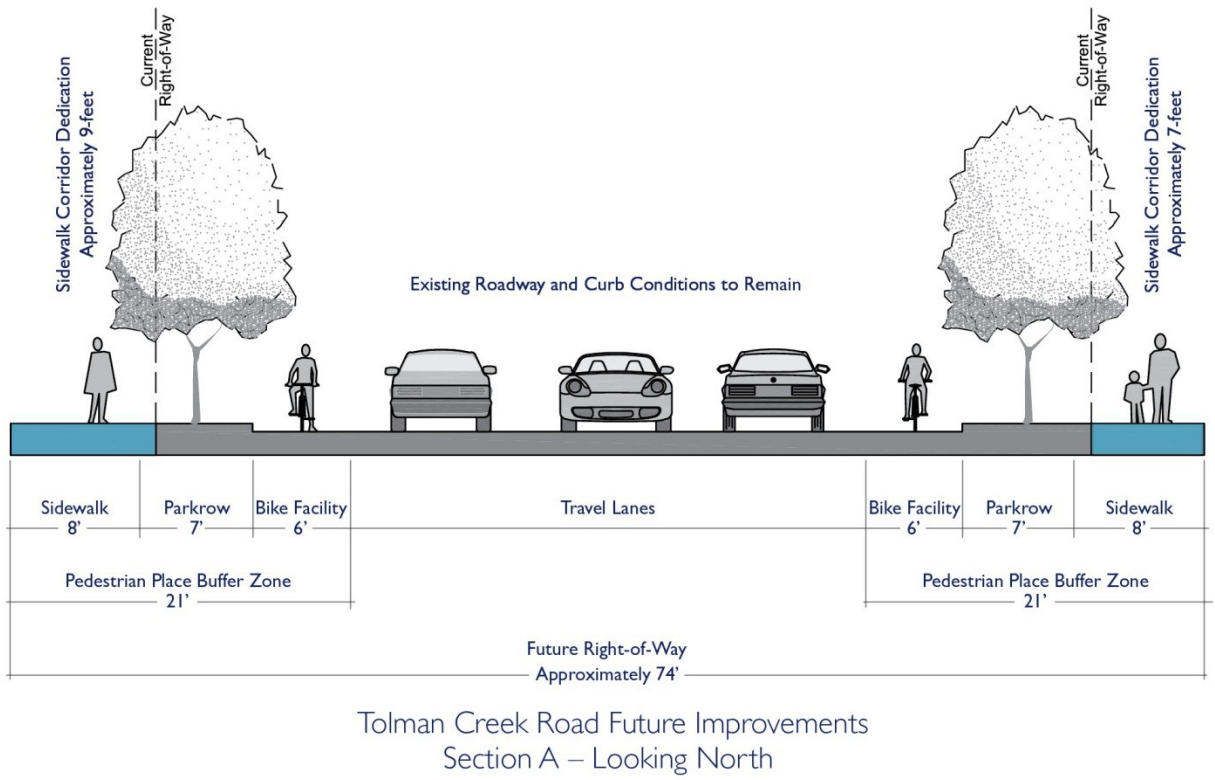
Tolman/Ashland

Creating a Pedestrian Place here will require strategies for overcoming the context of a major arterial street leading directly to the freeway, fast moving traffic and large surface parking lots – each of which is unfriendly to pedestrians. That unfriendliness is reflected in relatively low levels of pedestrian activity today. Improvements to the street edges, in the form of sidewalk corridors with more a complete and attractive palette of streetscape elements will be an important starting point. Exhibits 10-9 through 10-11 illustrate some of the concepts developed for Ashland/Tolman Pedestrian Place.

Exhibit 10-9 Tolman/Ashland Pedestrian Place Concepts

Exhibit 10-10 Tolman/Ashland Pedestrian Circulation

Exhibit 10-11 Tolman Road Cross Section



As redevelopment occurs over time, a good strategy would be to encourage a better balance between the viable commercial uses there today and housing located very near to the intersection. Development of mixed use projects, combining residential choices such as apartments or condominiums, with smaller scale retail or office uses will significantly alter the pedestrian environment. People living there will increase the observed walking activity and provide the presence of other people around you during both daytime and nighttime hours.

Key Characteristics for Success

The following discuss some of the key pedestrian places characteristics that will help contribute to their success as centers of activity facilitating economic growth in a sustainable and multimodal manner.

Transit-Supportive Characteristics

For the individual parcels studied, achieving densities supportive of frequent bus service was an important criterion. The results were encouraging with regard to potentially increasing ridership and creating a more comfortable environment for transit riders to wait for and board the bus.

Increased Ridership

The threshold density for frequent bus service would be met and exceeded with two-story residential and mixed-use buildings. The achievable densities would range from approximately 22 dwelling units/acre to 30 dwelling units/acre. Those densities are consistent with current zoning for the parcels studied.

Enhanced Transit Environment

High-quality bus stop environments would be created through the generous passenger waiting areas, shelters and other passenger amenities, zero set-back for buildings, front doors and display windows, and the potential for small shops that may occasionally meet other needs of transit riders. Increased walking connectivity will also encourage transit use.

Transit-Supportive Corridors

Redevelopment of a single parcel will not achieve the overall ridership potential to change the level of transit service. Housing density supportive of transit would need to be present throughout a 5- to 10-minute walking area of the stop. With closely spaced bus stops, these areas overlap, suggesting that increasing average density throughout the corridor may be the metric to address. However, a full analysis of transit ridership potential needs to also consider demographic and income factors.

Designing the Public Realm

The concept of a Pedestrian Places integrates land use and transportation planning through emphasizing the importance of the 'public realm'. The public realm is more than what lies within the strict confines of the street right-of-way. It is all the exterior places, linkages, and built elements that can be physically and visually accessed from the street and from the building entries fronting the street. These places, linkages, and elements are all subject to design. They will affect how comfortable, safe, and appealing the street is for its intended users.

Implementation

From a transportation perspective, implementation of the Pedestrian Places includes the projects in the public right-of-way listed below. These implement the cross sections and circulation plans identified above.

- (R25) Washington Street Extension to Tolman Creek Road
- (R38) Ashland Street Streetscape Enhancements from Siskiyou Boulevard to Walker Avenue
- (R39) Ashland Street Streetscape Enhancements from Walker Avenue to Normal Avenue
- (R40) Walker Avenue Festival Street from Siskiyou Boulevard to Ashland Street

- (R41) Ashland Street/Tolman Creek Road Streetscape Enhancements
- (R42) E Main Street/N Mountain Avenue Streetscape Enhancements

Projects R25, R38, R39, R40, R41, and R42 are incorporated into the Intersection and Roadway Plan preferred project list shown previously in Table 9-3.

Section 11 Other Modes Plan (Air, Rail, Water, Pipeline)

OTHER MODES PLAN (AIR, RAIL, WATER, PIPELINE)

This section addresses the air, rail, pipeline, and surface water for the City of Ashland. Each subsection below describes each respective network and how it operates within the City. Future projects were not identified for these service areas, because service is provided by private entities. A policy related to rail and railroad crossing projects are identified below.

AIR

The Ashland Municipal Airport is located 3 miles northeast of downtown at the eastern boundary of the city limits. The airport has two runways, both 3,600 feet long, paved in asphalt and in good condition. The surface area of the airport is approximately 95 acres. The airport is only for general aviation and private use. The land within Ashland city boundary within the Airport Overlay Zone is zoned as E-1, RR-1, R-110 and C-1. This TSP includes pedestrian and bicycle projects to enhance access to the airport with the intent of providing more travel options for employees at the airport and surrounding supporting land uses.

The Ashland Municipal Airport does not offer commercial flights. The nearest commercial flights are out of the Rogue Valley International-Medford Airport. Medford offers both passenger and freight service to cities throughout the Northwest with connections to larger airports and markets. The Rogue Valley International-Medford Airport is 989 acres in size and is located 3 miles north of the Medford central business district near I-5.

RAIL

The heavy rail plan consists of a Freight by Rail Policy and set of railroad crossing projects. The railroad crossing projects are included in Section 5 Intersection and Roadway Plan.

Policy #20 (L20) Freight by Rail Policy

The City of Ashland supports increasing rail freight service to local businesses.

The Freight by Rail Policy seeks to improve freight movement into and through the City (see Freight White Paper and Technical Memorandum #7 Alternatives Analysis for more details). Increasing local freight service to Ashland supports the City's goals for facilitating economic prosperity (Goal 3) and creating system-wide balance (Goal 4).

WATER

The Rogue River is the largest body of water in the area but is not large enough to use as a form of transportation, only recreation. The nearest port is located in Coos Bay and is an international/national shipping facility.

PIPELINE

Within the Rogue Valley there is a natural gas pipeline owned and operated by Avista Corporation. Originally the pipeline extended from Portland to Medford but a subsequent project connected this pipeline to a line that crosses central Oregon. The distribution lines for this pipeline are located along I-5 between Grant's Pass and Ashland and the main pipeline is located within the I-5 corridor.

Recently a new pipeline was installed from Ashland to Klamath Falls to increase the natural gas capacity of the local lines and meet increasing demand.

There are no intermodal terminals located in or near Ashland. Natural gas can only be transported by pipeline.

Section 12 Sustainability Plan

SUSTAINABILITY PLAN

This section presents the Sustainability Plan for the City of Ashland. The key elements of the sustainability plan discussed below are transportation demand management (TDM), reduction of Ashland's carbon footprint, climate change, environmental impact to transportation benefit matrix, private sector sustainability solutions, and other relevant policies, goals, and objectives. These elements contribute to the City's goal of creating a green template for other communities to follow.

TRANSPORTATION DEMAND MANAGEMENT

TDM measures include methods aimed at shifting travel demand from single occupant vehicles to non-auto modes or carpooling, travel at less congested times of the day, or to locations with more available vehicle capacity. Some common examples of TDM strategies include programs such as carpool matching assistance or flexible work shifts; parking management strategies; direct financial incentives such as transit subsidies; or facility or service improvements, such as bicycle lockers or increased bus service.

Some of the most effective TDM strategies are best implemented by employers and are aimed at encouraging non-single occupancy vehicle (SOV) commuting. Strategies include preferential carpool parking, subsidized transit passes, and flexible work schedules. Cities and other public agencies can play a critical role in support of TDM through provision of facilities and services, as well as development policies that encourage TDM.

While many TDM strategies are most effectively implemented by employers, there are strategies cities can implement or support with other agencies. These include access management and connectivity strategies that are more often associated with roadway elements of planning. Other strategies include providing non-auto facilities (sidewalks, bicycle lanes, transit amenities) and managing existing resources (parking). Another critical role that cities play is in the policies related to development activities. Through support, incentive, and mandate, cities can monitor new development such that it supports a balanced transportation system. The City of Ashland's Multimodal/Safety Based (Alternative) Development Review Process (see Policy #2 (L2)) is one example of enabling and supporting a balanced system.

Several broad TDM strategies are summarized in Table 12-1. The table also identifies typical implementation roles.

Table 12-1 TDM Strategies and Typical Implementing Roles

TDM Strategy		City/County	Transportation Management Association1	Developers	Transit Provider	Employers	State
TDM-1	Public parking management	P		S	S	S	
TDM-2	Flexible parking	P		S		S	

	requirements						
TDM-3	Access management	P					P
TDM-4	Connectivity standards	P		S			P
TDM-5	Pedestrian facilities	P		S		S	S
TDM-6	Bicycle facilities	P		S			S
TDM-7	Transit stop amenities	S		S	P		
TDM-8	Parking management	P		S		S	
TDM-9	Limited parking requirements	P		S			
TDM-10	Carpool match services	S	P			S	
TDM-11	Parking cash out		S		S	P	
TDM-12	Subsidized transit passes	S or P			S	P	
TDM-13	Carsharing program support	P	S	S	S	S	

[1]A Transportation Management Association does not currently exist in the City of Ashland
P: Primary role
S: Secondary/Support role
* Primary implementation depends on roadway jurisdiction

As noted above, the City of Ashland's Pedestrian and Bicycle Plans, Transit Plan, and Intersection and Roadway Plan already address a number of the TDM strategies above. These include:

- Pedestrian Facilities – See the Pedestrian Transportation Plan
- Bicycle Facilities – See the Bicycle Transportation Plan
- Subsidized Transit Passes and Transit Stop Amenities – See the Transit Plan
- Access Management – See the Intersection and Roadway Plan and Plan Implementation Section
- Parking Management – See the proposed Policy #9 and Study #2
- Updated Development Review Process – See the Multimodal/Safety Based (Alternative) Development Review Process (Policy #2)

Incentives can also be used to encourage development to incorporate facilities, strategies and programs that promote TDM. For example, a tiered system of SDC credits could be provided to developers that implement two or more TDM strategies such as paid parking, special carpool parking, free transit passes, shower facilities, and/or electric vehicle charging stations.

CARBON FOOTPRINT REDUCTION

Transportation measures to reduce the carbon footprint should ultimately be considered as part of a more comprehensive Climate Action Plan for Ashland. The goal of a local Climate Action Plan is a sizable reduction in greenhouse gases (GHG) to help mitigate the global effects of climate change. Carbon dioxide is responsible for approximately half of the global GHG, and fossil fuel transportation has been this country's fastest growing source of GHG emissions for decades. It is clear that critical areas for change are: shifting travel away from single occupancy vehicles (SOV) and toward alternative forms of

transportation; reducing vehicle miles traveled (VMT) that exceed population growth; and reducing tail pipe emissions associated with traffic congestion.

The TSP update began with a commitment to '"greener" transportation that could build on City policies, practices, and programs already in place, and having a favorable impact on climate change. The draft Preferred and Financially Constrained Plan recommends additional beneficial policies, actions, and programs. As part of a larger context, there are even stronger federal and state requirements, resources, and funding for local actions to slow climate change. It adds up to an opportunity for the City to embrace a comprehensive and integrated planning perspective with an explicit and quantifiable emphasis on 'low carb' planning. That perspective can present a new approach for evaluating transportation plans, projects, and how they might be integrated with other climate change factors such as land use development patterns, energy efficiency in buildings, recycling, solid waste management, and preservation of urban forest and open spaces that sequester carbon.

Setting that comprehensive planning in motion should take the following steps:

Complete a GHG Inventory

This inventory enables you to set a baseline for emissions. It can be limited to transportation, for now, if the City is not ready to undertake a full Climate Action Plan. Assess the relative quantities of emissions from different sources, and create informed policies and strategies based on this information. Use the baseline to monitor progress. Ashland may decide to join with other communities to create a regional inventory and baseline.

Set a Target and a Time Frame

Examples of potential targets are 30% carbon reduction from the baseline year, and limiting increases in VMT to be equal to or less than the annual population growth. Targets help prioritize actions and policies that will be the most effective or the most cost-effective by a certain year. This will allow you to better assess funding investments and opportunities, short-term versus long-term strategies, integration with complementary policies, and the focus for community outreach and education.

Create a Comprehensive Plan

Integrate comprehensive planning, City operations, and community interests in a plan that integrates transportation with community design and development, buildings and energy efficiency, buildings and wastewater, solid waste, renewable energy, government operations, and public health. It should become a community vision for a climate-wise future.

Establish New Evaluation Criteria

Rethink traditional criteria for policies and projects where individual problems and objectives are considered by groups with narrowly defined responsibilities, who are accustomed to evaluating

relatively similar options. In transportation planning, this has tended to underprice SOV travel, undervalue alternative transportation benefits, and will not be well-suited to the comprehensive analysis required to address climate change.

Implement While You Plan

Identify measures that can be implemented while comprehensive climate protection planning takes place. There may be measures with low implementation costs, quick results with regard to quantifiable GHG reductions, or other benefits like better public health, improvements in transit service or economic development. For instance, you can lead by example through short-term actions that reduce trips by city vehicles, and long-term commitments such as converting to more fuel-efficient vehicles or to alternative fuels.

Change Your Planning Perspective for Now

Local climate action plans are being completed in some of the larger cities and MPOs of Oregon. Until a state-wide initiative if fully implemented in all regions, Ashland may wish to take a new look at transportation planning as an outcome of the TSP update. Public agencies often evaluate options and develop projects from the confines of their mandate and current budget. Consider adapting your transportation planning to include the following perspectives:

Sustainability Planning

Consider direct, indirect, and long-term economic, social, and environmental impacts. This will address both the local community and the larger global impacts. Give special consideration to long-term, non-market, and difficult to measure impacts, such as social and economic impacts.

Equity Planning

Transportation equity should be part of a broad community commitment to sustainability. It requires a roughly even distribution of transportation investment costs and benefits; this can be difficult to evaluate. However, as guiding principles for policy, it could be based on a full cost profile for transportation. That profile is not equitable when it shifts much of the cost burden of GHG impacts to external groups (external to the users and infrastructure generating the emissions). It is also inequitable if it provides greater transportation benefits to higher income groups. As an example of investment equity, the City might compare public expenditures by mode based on an assumption that per capita spending to facilitate non-motorized travel should be approximately equal to spending for alternative modes of transportation.

In order to arrive at a new perspective, transportation planning to more fully address climate change might benefit from consideration of the following:

- Understand Full Transportation Costs

- Prioritize Non-Motorized Transportation
- Pursue Strategies to Integrate Transportation and Land Use Planning

Understanding Full Transportation Costs

There are a number of well-developed databases and tools to help assess quantities of GHG emissions for various transportation modes, activities, and decisions. Such an assessment will be critical to eventually completing your local Climate Action Plan. What is less understood are external monetary costs (costs internal to the actual infrastructure and users) that could be assigned to GHG emissions as the full cost of transportation. The complexity of monetizing potential cost categories is beyond the scope the TSP. However, if you think of monetary costs as another way of appreciating and quantifying impacts, then it is important to recognize that a major portion of GHG costs are external (not borne by the primary users and the facilities) and non-market (affecting such things as health, social and economic equity and livability). By not accounting for these costs, conventional transportation planning underprices transportation choices, especially SOV travel and parking. This leads to excessive motor vehicle trips, especially for non-commute trips for work which make up approximately two-thirds of household trips. This works against Ashland's desire to realize the benefits of a more balanced and multimodal transportation system, and against planning aimed at reducing the carbon footprint.

A comprehensive understanding of the full costs of transportation is complex. However, there is growing amount of research and study focused on identifying monetized costs for all transportation modes that are external to the direct user. It includes internal variable costs related to the amount of travel and the mode of travel, external costs imposed on non-users as well as market and non-market costs. Non-market costs include social, economic, and environmental impacts. A number of those costs are directly associated with carbon footprint. In general, there are two types of cost to consider when trying to reduce the carbon footprint. Damage costs address the value of the resources damaged or lost as a result of GHG emissions. Control costs result from measures taken to avoid damaging impacts. These costs are essentially avoidance and mitigation costs, and range from the cost of reducing emissions to the cost compensation for global climate impacts such rising sea levels and intensification of hurricanes. At the local level, these costs could be reflected in appropriate roadway fees or congestion pricing, parking taxes or parking fees, and encouraging insurance companies to offer "pay as you go" insurance.

Prioritize Non-Motorized Transportation

If reducing the carbon footprint is a transportation priority, then increasing bicycle and pedestrian travel is a cost-effective strategy. It is the alternative to autos for frequent and short trips. That makes it essential to reducing VMT. Significant barriers to walking and cycling as travel choices can be identified in roadway design, access to transit, land use patterns, and parking strategies (particularly in downtown or other business districts). Strategies and design changes to lessen those barriers can be assigned a measurable expectation with regard to carbon savings and become criteria for project approval and funding. If full cost accounting is also considered, it will be apparent that carbon costs

from not reducing auto trips are not directly born by motorists. This contributes to the underpricing of automobile travel and the tendency to undervalue non-motorized travel.

Barrier effects also compromise transportation equity since disadvantaged populations will share a disproportionate share of these costs because they depend on non-motorized travel and transit. A shift in planning and policy perspective might include examining this barrier effect as part of a more comprehensive examination of potential cost allocation methodologies to determine the full cost and fair share of roadways and transportation service associated with various users.

Integration of Transportation and Land Use

This represents an opportunity to consider combined policies, ordinances, strategies, and incentives that reduce the carbon footprint and achieve multiple community benefits. The Pedestrian Places work and implementing ordinances was a good beginning in shifting the planning perspective toward 'low carb' planning. Ashland should continue a strong land use planning approach to encouraging pedestrian-oriented and transit-supportive land use. Transit can serve the most potential riders when higher density residential development and employment centers are located in transit corridors and compact, walkable mixed use surrounds stop locations.

Most transit riders begin and end their trips on foot or on a bike. Ashland's current street and development standards provide for good connectivity and access to transit, especially when coupled with the type of mixed use development envisioned in the Pedestrian Places section of the Draft Preferred Plan. For existing development in transit corridors, Ashland should consider conducting an accessibility audit to identify and prioritize improvements to sidewalks, bike routes, curb ramps, street crossings, and lighting that will make getting to transit safer and more appealing.

With transit-supportive land use and pedestrian environment measures in place, TDM measures intended to shift travel choices away from the SOV trip will be more successful. As transit ridership goes up there should be increases in convenience and service, and it will become easier for the City and RVTD to work together to stabilize costs. With regard to carbon footprint, it should be recognized that, transit service in the fossil fuel vehicles (especially diesel) requires high ridership in order to have a smaller carbon footprint than automobile travel.

CLIMATE CHANGE BENEFITS FROM TRANSPORTATION AND LAND USE PLANNING

Carbon footprint reductions are about minimizing the risk of damaging, disruptive, or even catastrophic long-term climate change. Failure to mitigate that change will have global consequences that are likely to locally affect Ashland's natural resources, air and water quality, economy and affordable access to goods and services and public health. Acting now, through transportation choices, will begin to reduce those risks. Strategies can also be linked with other objectives to provide a number of co- benefits. For example, implementation of a better multimodal transportation system may result in financial savings

through reduced automobile expenses, more convenient access to jobs and shopping, better health, and a greater sense of social and economic equity.

Increasing Bicycle and Pedestrian Travel

Increased use of alternative transportation by a wider range of users is the goal of the Pedestrian, Bicycle, and Transit Plans. These trips tend to be far more frequent, and are often shorter in distance. They are the most convertible trips, and often carry relatively low implementation costs. Shifting trips away from automobiles has multiple benefits. It means the transportation system is balanced, optimizing the quantity and quality of transportation services at all locations and times of day and for the needs of all users. Without adequate balance, people are often forced to make SOV trips that are not optimal, which means the carbon footprint rises and climate change benefits are lost.

With policies and programs such Complete Streets, Safe Routes to Schools, and comprehensive Bicycle and Pedestrian Plans in place, and with investment in the appropriate street infrastructure to support them, a modest conversion of auto trips is a reasonable expectation. Even a modest shift brings significant air quality and carbon reduction benefits. For example, consider only Safe Routes to Schools: studies show that if the country returned to the 1969 level of walking and bicycling to school, VMT would be reduced by 3.2 billion miles, which translates to an annual savings of 1.5 million tons of carbon dioxide, the equivalent of taking more than 250,000 cars off the road for a year. The benefits of non-motorized travel become even more apparent if improved public health and transportation equity are added as plan and project criteria, and full cost accounting is better understood by the community.

Adequate transportation choices also provides a “value option” within the broader understanding of sustainability. As a community, Ashland may value and support facilities that accommodate a relatively small part of the total transportation needs, such as bike and transit service which can be seen as improving transportation equity among all citizens. This value is intrinsically linked to transportation equity, which has social and economic value. For example, increasing comfort and safety for lower-income residents when they are walking and cycling may result in financial savings needed for better housing, food, or other services.

Transit and Transit-Supportive Land Uses

This is an opportunity for combined strategies that simultaneously realize climate change benefits from changes in travel behavior and more energy-efficient development. Transit-supportive development can indirectly influence transportation by shifting trips away from automobile travel. The range of benefits from increases in transit use, walking, and bicycling, and the corresponding reductions in automobile trips and consequent benefits of climate change have been noted. With regard to the transit component of this promising synergy, estimates vary in quantifying the actual carbon reduction to expect from transit use. Some studies conclude the results will be dramatic. The American Public Transportation Association (APTA) has concluded that transit use, when combined with more compact development patterns and TDM measures, can result in a national reduction of 37 million metric tons of carbon dioxide emissions annually. Others predict more modest reductions given the complexity of

factors involved in development and travel choices. Factors working against big gains from changes in travel behavior include:

- Household factors - income and demographics influence travel choices more than simple density.
- Most households don't select locations in order to minimize commutes.
- Employment is increasingly decentralized and moving away from centers and downtowns which are well-served by transit.
- Non-work trips are increasing and are not typically transit trips since they often involve multiple destinations.

The compact and higher density development typical of transit-supportive land use policies can also bring about direct reductions in GHG through site and building design. Mixed use and infill development tend toward smaller and more energy-efficient buildings types, fewer construction materials, and small amounts of paved service. All of those characteristics result in some reduction of GHG. However, continuing research suggests that the gains may be more modest than once thought, and are the result of a complex set of interactions between literally dozens of factors such as household characteristics and the qualities of design and construction. To date, no clear and simple evaluation of the overall carbon footprint of transit-supportive development is available.

Addressing the Parking Problems

The relevance of parking to GHG emissions is often overlooked. Some of the biggest problems with parking in urban areas are too much demand, too much supply and underpricing of the full cost. Correcting these problems can have significant benefits with respect to GHG reductions. Off-street parking consumes and paves an enormous amount of land. On-street parking utilizes a significant portion of the street right-of-way. Immediately, this amount of pavement in an urban setting has a "heat island" effect, which indirectly increases GHG emissions through attempts to stay cool with building and automobile air conditioning. And, there is a problem with the numbers. For residential uses, many studies have suggested that there are actually three off-street spaces for each vehicle (one residential and two non-residential), as well as one or more on-street parking spaces. This is an external carbon cost not directly borne by any user of the parking spaces, and benefit to be captured through reducing the amount of urban land devoted to parking cars.

Land consumption is also a direct cost issue that influences development patterns and locations. Development patterns influence the GHG profile of a community through transportation choices and building energy efficiency. For residential infill development, which has a relatively good GHG profile, off-street parking increases the development cost per unit and reduces achievable density. At some point, that cost factor helps push development further away from accessible downtowns and neighborhood centers to where land is less expensive. These locations take on a larger carbon footprint as they become harder to serve with transit, less compact and walkable, and create more vehicle trips

and congestion. Higher ratios of parking result in lower densities, which further suppresses transit ridership.

Extensive use of on-street parking also creates a competition for right-of-way allocation between pedestrian facilities, bicycle facilities and vehicle parking. Setting aside market factors, the real dynamics of that competition are often not well understood. For example, converting on-street parking to bicycle lanes and wider sidewalks will have an undeniable short-term impact on available parking seen as a negative impact by many. In the long-term, there may be a different impact. If this conversion of right-of-way results in a fairly small shift away from vehicle trips and increases bicycle and walking trips, the reduced demand for parking may eventually equal or exceed the initial loss of parking. This represents a long-term opportunity to reduce GHG emissions.

PRIVATE SECTOR SUSTAINABILITY SOLUTIONS

Steps taken by the private sector, particularly employers, can have a positive impact on climate change. The City of Ashland should explore ways in which they can encourage and provide incentives for those steps to be taken. Examples of potential private sector transportation solutions include:

- Encourage certain types of employees to telecommute twice a month.
- Employee education regarding the benefits of efficient transportation and energy use.
- If parking subsidies are provided, offer employees a “cash out” option.
- Offer a purchase discount for retail customers who arrive by alternative transportation.
- Create a downtown business competition for the number of employees and customers using alternative transportation.
- Sponsor and maintain upgraded transit stop amenities near a group of businesses.
- Work with the City to development a parking management program.
- Work with the City to develop and engage in a Climate Wise Program for local businesses to submit their own action plans for reducing GHG.

OTHER RELEVANT POLICIES, GOALS, AND OBJECTIVES

Government operations themselves can initiate community-wide efforts to embrace climate-wise transportation. Some measures are relatively low-cost and could be implemented in the short-term. Other measures will require more investment and a longer time frame to enact. Examples include:

- Increase awareness of fuel consumption by department.
- Consider satellite park maintenance shops to reduce staff travel.
- Establish goals for transitioning city vehicles to alternative fuel or electric vehicles.
- Phased replacement of incandescent street lights and traffic signals with LED lighting.

Section 13 Funding and Implementation

FUNDING AND IMPLEMENTATION

This section provides context regarding the City's historical funding sources, which was the basis for forecasting the funds likely available in the future for transportation projects, studies and programs. Also presented within this section is the financially constrained plan which helps guide the City's implementation of the TSP.

FUNDING – HISTORICAL PERSPECTIVE AND FUTURE FORECAST

Historically, the City's transportation program has been funded through the Street Fund. The Street Fund is a combination of federal, state, and city funds including Local Improvement Districts (LID) and System Development Charges (SDCs). The City portion of LID total project costs may vary. The transportation program includes streets, sidewalks, bike paths, railroad crossings, and transit. The Street Fund also covers maintenance costs associated with landscaping for medians, entry ways, and downtown landscaping. This landscape maintenance is accomplished through an agreement with the Parks Department. The Transportation Commission, specific transportation studies and the current update of the TSP are also funded as elements of the transportation program.

Street Fund Revenue sources include:

- Oregon State gasoline taxes that may be used on roadway pavement and maintenance projects.
- City franchise fees paid by other city enterprise funds such as electric, water, wastewater, and others for use of the transportation system.
- City transportation systems development charges (SDCs which were updated in FY08) to pay for future growth needs of the system. ***It should be noted that development of a multimodal system development charge methodology and program is part of the TSP Update scope of work. Work will begin on the multi-modal SDC following the TAC's, PC's, and TC's initial acceptance of the draft preferred and financially constrained plans.***
- City transportation user/utility fees assessed to all property owners,
- City Local Improvement District charges for specific projects assessed through a benefiting district, and,
- State and federal grants including:
    - TE – Federal Transportation Enhancement projects for sidewalks, bike path, etc.

- STP – State Transportation Program funds for major improvements and system upgrades to the City's system.
- STIP – State Transportation Improvement Plan funds for urban upgrades on state facilities.
- CMAQ – Federal Congestion Mitigation and Air Quality grant funds for projects that help reduce emissions (Diesel Retrofit and Sweeper purchases) and dust (paving projects).
- OECDD SPWF – Oregon Economic Commission Development Division Special Public Works Funds for projects that relate to the creation of new jobs.
- Other safety and specific transportation funding program opportunities.
- Federal Stimulus funds (ARRA).
- TGM – Transportation and Growth Management Grants for studies.

Economic uncertainty has created funding shortfalls and a newly created "Unfunded" category for Capital Improvements Program (CIP) projects. In Fiscal Year (FY) 2009-10, the proposed CIP was over $12 Million. For FY 2010-11 the total has declined to less than $6 Million, with $2.5 Million identified for Transportation/LID projects. Table 13-1 summarizes the Transportation/LID portion of the CIP through FY 2012-17.

Table 13-1 CIP Funding for Construction Years 2008-2017

Transportation Program	Project Totals	Street SDC	Grants	LIDs	Fees & Rates
Transportation	$5,260,216	$605,070	$2,140,100	-	$2,515,406
Street Improvements and Overlays	$2,635,000	-	$651,000	-	$1,984,000
Local Improvement Districts	$827,400	$148,932	-	$320,100	$358,368
Transportation and LID Totals	**$8,722,616**	**$754,002**	**$2,791,100**	**$320,100**	**$4,857,414**
Annual Total	$970,000/year				
0-5 Year Revenues	$4,850,000				
6-15 Year Revenues	$9,700,000				
16-25 Year Revenues	$9,700,000				
25 Year Capital Revenues	$24,250,000				

Based on the information in Table 13-1, and assuming equal funding each year based on current funding levels, it is assumed that approximately $24,250,000 will be available for capital projects over the next 25 years.

It should be noted that the constrained funding forecast of $24,250,000 is based on current funding programs and could be altered from revised projections or changes in or creation of new funding sources by the City Council (e.g., the proposed multi-modal system development charge).

Potential additional funding sources the City may choose to pursue at some point in the future are documented in Section 4 Future Demand, Land Use and Funding.

IMPLEMENTATION

The Financially Constrained Plan and Preferred Plan facilitate the TSP's implementation. The projects, programs, and studies included in the Financially Constrained Plan are higher priority projects on which the City plans to focus their funding resources. The Preferred Plan helps the City leverage opportunities that may arise through development, unexpected grant monies, and/or agency partnerships to implement additional projects, studies and/or programs identified as needed and desired.

Preferred Plan

The Preferred Plan consists of all of the policies, programs, projects, and studies identified in Sections 5 through 11. Table 13-2 summarizes the program, project, and study costs by mode and desired timeframe based on need and priority. *In general, policies do not require funds to implement; therefore, the preferred plan policies are not reflected in Table 13-2. The policies presented in Sections 5 through 11 are however, included in the Preferred Plan.*

Table 13-2 Transportation Programs, Studies and Project Cost Summary by Timeline

Priority (Timeline)	General	Pedestrian	Bicycle	Transit	Freight	Intersection and Roadway	Total Program Study and Project Costs
High (0-5 Years)	$100,000	$9,355,000	$3,180,000	$1,000,000,		$2,162,000	$15,797,000
Medium (5-15 Years)	$30,000	$3,900,000	$1,150,000	$2,750,000	$750,000	$4,250,000	$12,830,000
Low (15-25 Years)	-	$3,125,000	$570,000	$3,500,000		$4,916,000	$12,111,000
Development Driven	-	-	-	-	$2,000,000	$30,886,000	$32,886,000
Total	$130,000	$16,380,000	$4,900,000	$7,250,000	$2,750,000	$42,214,000	$73,624,000

As shown in Table 13-2, a total of $73,284,000 of programs, studies, and projects have been identified for the City of Ashland over the next 25 years. The following section discusses the Desired Financially Constrained Plan, which includes as many of the higher priority projects identified in Preferred Plan as fiscally possible.

Financially Constrained Plan

Given the anticipated funding available shown in Table 13-1, nearly all of the high and medium priority programs, studies and projects could be completed within the forecast revenues from existing sources.

The list below includes projects the City would like to have funded. They include projects that are under the sole jurisdiction of the City of Ashland as well as projects that would require the City's financial participation in joint projects with ODOT, Jackson County, and RVTD. The City will coordinate with other agencies to leverage funding opportunities and therefore the projects in the "Financially Constrained Project List" should be looked at as an illustration of the City's current funding priorities but one that will change over time.

Table 13-2 presents a list of programs, studies, and projects organized by modal plan that can be considered reasonably likely to have funding over the next 25 years at the current time. *As noted in the Preferred Plan Summary section, all Preferred Plan policies presented above will be carried through to the Draft TSP pending revisions based on comments received from TAC, PC, and TC members.* Only projects with anticipated costs are included in Table 13-2.

As noted above, the list in Table 13-2 will change over time. Potential additional funding sources that the City could consider to increase future transportation revenues are included in the Funding Programs White Paper.

Table 13-3 Financially Constrained Programs, Studies and Projects List

(ID #) Name	Description	Reasons for the Program, Study or Project	Cost
High Priority Programs, Studies, and Projects			
General Studies			
(S2) Downtown Parking Management Plan Study	Study to evaluate the effectiveness of updated downtown parking management strategies and initiatives as well as consider their transferability to other parts of Ashland such as the Railroad District and Croman Mill Site.	Facilitate Economic Growth, Balance Mobility and Access	$100,000
Active Transportation Plan Programs and Projects			
(O1) TravelSmart Education Program	Invest in individualized, targeted marketing materials to be distributed to interested individuals for the purpose of informing and encouraging travel as a pedestrian or by bicycle	Encourage and facilitate travel as a pedestrian and/or bicyclist Part of creating a green transportation template	$45,000
(O4) Retrofit Bicycle Program	Establish funds and process for installing bicycle racks at existing business/establishments	Facilitate bicycle travel Part of creating a green transportation template	$50,000
(P1) N Main Street/Highway 99	From N Main Street to Schofield Street	Fill gap in existing sidewalk network	$50,000
(P5) Glenn Street/ Orange Avenue	From Main Street to 175' east of Willow Street	Fill gap in existing sidewalk network	$200,000
(P6) Orange Avenue	175' west of Drager Street to Helman Street	Fill gap in existing sidewalk network	$250,000
(P7) Hersey Street	From Main Street to Oak Street	Fill gap in existing sidewalk network	$750,000
(P9) Maple Street	From Chestnut Street to 150' east of Rock Street	Fill gap in existing sidewalk network	$100,000
(P10) Scenic Drive	From Maple Street to Wimer	Fill gap in existing sidewalk	$250,000

	Street	network	
(P17) Beaver Slide	From Water Street to Lithia Way	Fill gap in existing sidewalk network	$50,000
(P18) A Street	From Oak Street to 100' west of 6th Street	Fill gap in existing sidewalk network	$250,000
(P22) Mountain Avenue	From 100' south of Village Green Way to Iowa Street	Fill gap in existing sidewalk network	$450,000
(P23) Wightman Street	From 200' north of Main Street to 625' south of Main Street	Fill gap in existing sidewalk network	$400,000
(P25) Walker Avenue	950' north of Iowa Street to Ashland Street	Fill gap in existing sidewalk network	$750,000
(P27) Walker Avenue	From Oregon Street to Woodland Drive	Fill gap in existing sidewalk network	$200,000
(P28) Ashland Street	From Mountain Avenue to Morton Street	Fill gap in existing sidewalk network	$450,000
(P38) Clay Street	From Siskiyou Boulevard to Mohawk Street	Fill gap in existing sidewalk network	$300,000
(P57) Tolman Creek Road	From Siskiyou Boulevard to City Limits (west side)	Fill gap in existing sidewalk network	$425,000
(P58) Helman Street	From Hersey Street to Van Ness Avenue	Fill gap in existing sidewalk network	$100,000
(P59) Garfield Street	From E Main Street to Siskiyou Boulevard	Fill gap in existing sidewalk network	$750,000
(P60) Lincoln Street	From E Main Street to Iowa Street	Fill gap in existing sidewalk network	$450,000
(P61) California Street	From E Main Street to Iowa Street	Fill gap in existing sidewalk network	$500,000
(P62) Quincy Street	From Garfield Street to Wightman Street	Fill gap in existing sidewalk network	$150,000
(P63) Liberty Street	From Siskiyou Boulevard to Ashland Street	Fill gap in existing sidewalk network	$650,000
(P64) Water Street	From Van Ness Avenue to B Street	Fill gap in existing sidewalk network	$250,000
(P65) Faith Avenue	From Ashland Street to Siskiyou Boulevard	Fill gap in existing sidewalk network	$350,000
(P66) Diane Street	From Clay Street to Tolman Creek Road	Fill gap in existing sidewalk network	$20,000
(P67) Frances Lane	From Siskiyou Boulevard to Oregon Street	Fill gap in existing sidewalk network	$10,000
(P68) Carol Street	From Patterson Street to Hersey Street	Fill gap in existing sidewalk network	$150,000
(P69) High Street	From Wimer Street to Manzanita Street	Fill gap in existing sidewalk network	$250,000
(P70) Park Street	From Ashland Street to Siskiyou Boulevard	Fill gap in existing sidewalk network	$650,000
(P71) Orchard Street	From Sunnyview Drive to Westwood Street	Fill gap in existing sidewalk network	$100,000
(P72) C Street	From Fourth Street to Fifth Street	Fill gap in existing sidewalk network	$100,000
(B2) Wimer Street	Bicycle Boulevard - From Scenic Drive to Main Street. Coordinate with Project R31.	Upgrade of existing bikeway to encourage greater use	$20,000
(B5) Maple/Scenic Drive/Nutley Street	Bicycle Boulevard - From N Main Street to Winburn Way	Gap in existing bicycle network	$110,000
(B7) Iowa Street	Bike Lane - From Terrace Street to road terminus and from Mountain Avenue to Walker	Gap in existing bicycle network	$240,000

	Avenue		
(B10) Mountain Avenue	Bike Lane - From Ashland Street to E Main Street	Gap in existing bicycle network	$120,000
(B11) Wightman Street	Bicycle Boulevard – E Main Street to Siskiyou Boulevard	Gap in existing bicycle network	$60,000
(B13) B Street	Bicycle Boulevard - From Oak Street to Mountain Avenue	Gap in existing bicycle network	$80,000
(B16) Lithia Way	Bicycle Boulevard – From Oak Street to Helman Street	Gap in existing bicycle network	$110,000
(B17) Main Street	Bicycle Boulevard - From Helman Street to Siskiyou Boulevard.	Gap in existing bicycle network	$50,000
(B19) Helman Street	Bicycle Boulevard - From Nevada Street to Main Street	Gap in existing bicycle network	$80,000
(B26) Normal Avenue	Bike Lane - From E Main Street to Siskiyou Boulevard	Gap in existing bicycle network	$190,000
(B29) Walker Avenue	Bicycle Boulevard - From Siskiyou Boulevard to Peachey Road	Gap in existing bicycle network	$40,000
(B31) Indiana Street	Bicycle Boulevard - Siskiyou Boulevard to Oregon Street	Gap in existing bicycle network	$20,000
(B33) 8th Street	Bicycle Boulevard - A Street to Main Street	Gap in existing bicycle network	$20,000
(B38) Oregon/Clark Street	Bicycle Boulevard - Indiana Street to Harmony Lane	Gap in existing bicycle network	$40,000
(TR1) Northside Trail	Multi-use Path – From Orchid Avenue to Tolman Creek Road	Expand existing bicycle network	$2,000,000
Transit Plan Program			
(O5) Transit Service Program	Provides funds and guidance on how to allocate funds to improve transit service in Ashland	Improve transit service to increase ridership Part of creating a green template, supporting economic prosperity, and creating system-wide balance	$1,000,000
Intersection and Roadway Plan Studies and Projects			
(S10) Siskiyou Boulevard Pedestrian Crossing Evaluation and Feasibility Study	Evaluate the feasibility and costs associated with providing enhanced pedestrian crossing treatments at the Wightman-Indiana/Siskiyou Boulevard intersection.	Improve Safety	$20,000
(R5) Siskiyou Boulevard (OR 99)-Lithia Way (OR 99 NB)-Main Street (OR 99 SB)/East Main Street Intersection Improvements	Improve visibility of signal heads. Identify and install treatments to slow vehicles on northbound approach	Improve Safety	$50,000
(R6) Siskiyou Boulevard (OR 99)/Tolman Creek Road Intersection Improvements	Conduct a speed study. Identify and install speed reduction treatments on northbound approach	Improve Safety	$61,000
(R8) Ashland Street (OR 66)/Oak Knoll Drive-East Main Street Intersection Improvements	Realign East Main Street approach to eliminate offset and install speed reduction treatments	Improve Safety	$76,000
(R25) Washington Street Extension to Tolman Creek Road	Extend Washington Street to Tolman Creek Road Coordinate with IAMP Exit 14 Access Management on Ashland Street (OR 66) and Surrounding Development	Facilitate Economic Growth Balance Mobility and Access	$1,015,000

(R35) North Main Street Temporary Road Diet	Implement a temporary road diet on North Main Street. Temporary road diet includes converting North Main Street to a two-lane roadway with a two-way center turn lane and bicycle lanes in both directions	Improve Safety, Balance Mobility and Access, Creating Space for Bikes	$160,000
(R40) Walker Avenue Festival Street (Siskiyou Boulevard to Ashland Street)	Street reconstruction with flush curbs and scored concrete roadway surface. Sidewalk treatments to include decorative bollards to delineated pedestrian space, street trees, LID stormwater facilities and ornamental lighting.	Support Pedestrian Places Planning	$780,000
High Priority Sub Total			**$15,892,000**
Medium Priority Programs, Studies, and Projects			
General Studies			
(S1) Funding Sources Feasibility Study	Study to identify and evaluate the feasibility of additional funding sources to support transportation programs, studies, and projects.	Enable the City to Implement more Programs, Studies, and Projects to Achieve Goals	$30,000
Active Transportation Plan Projects			
(P4) Laurel Street	From Nevada Street to Orange Avenue	Fill gap in existing sidewalk network	$500,000
(P8) Wimer Street	From Thornton Way to Main Street	Fill gap in existing sidewalk network	$800,000
(P37) Clay Street	From Faith Avenue to Siskiyou Boulevard	Fill gap in existing sidewalk network	$1,000,000
(P74) Roca Street	From Ashland Street to Prospect Street	Fill gap in existing sidewalk network	$250,000
(P75) Blain Street	From Morton Street to Morse Avenue	Fill gap in existing sidewalk network	$100,000
(P76) High Street	From Manzanita Street to Laurel Street	Fill gap in existing sidewalk network	$100,000
(P77) Manzanita Street	From Scenic Drive to N Main Street	Fill gap in existing sidewalk network	$500,000
(P78) Patterson Street	From Crispin Street to Carol Street	Fill gap in existing sidewalk network	$100,000
(P79) Harrison Street	From Iowa Street to Holly Street	Fill gap in existing sidewalk network	$100,000
(P80) Spring Creek Drive	From Oak Knoll Drive to road end	Fill gap in existing sidewalk network	$350,000
(B3) Nevada Street	Bike Lane - From Vansant Street to Mountain Avenue. Coordinate with Project R17.	Gap in existing bicycle network	$230,000
(B9) Ashland Street	Bicycle Boulevard - From Morton Street to University Way	Gap in existing bicycle network	$30,000
(B18) Main Street	Bike Lane - From Jackson Street to Helman Street Included as part of Projects R35 and R36. See Table 11 for more details.	Gap in existing bicycle network	$260,000
(B20) Water Street	Bicycle Boulevard - From Hersey Street to Main Street	Gap in existing bicycle network	$30,000
(B25) Tolman Creek Road	Bike Lane - From Siskiyou Boulevard to Green Meadows Way	Gap in existing bicycle network	$100,000

(B37) Clay Street	Bicycle Boulevard - From Siskiyou Boulevard to Mohawk	Gap in existing bicycle network	$20,000
Transit Plan Program			
(O5) Transit Service Program	Provides funds and guidance on how to allocate funds to improve transit service in Ashland	Improve transit service to increase ridership Part of creating a green template, supporting economic prosperity, and creating system-wide balance	$2,750,000
Heavy Rail Plan Programs and Projects			
(X3) Normal Avenue Public Railroad Crossing	Upgrade existing at-grade crossing to public crossing standards as part of Normal Avenue Extension (Project R19)	Improve North-South Connectivity, Balance Mobility and Access	$500,000
Intersection and Roadway Plan Studies and Projects			
(S3) North Main Street (OR 99) from Helman Street to Sheridan Street	Conduct access management spacing study and provide near- and long-term recommendations for improvement.	Improve Safety	$75,000
(S5) Siskiyou Boulevard from Ashland Street to Tolman Creek Road	Conduct access management spacing study and provide near- and long-term recommendations for improvement.	Improve Safety	$75,000
(S6) Ashland Street (OR 66) from Siskiyou Boulevard to Tolman Creek Road	Conduct access management spacing study and provide near- and long-term recommendations for improvement.	Improve Safety	$75,000
(S9) Ashland Street (OR 66) Safety Study	Conduct a transportation safety assessment in five years along Ashland Street (OR 66) between Clay Street and Washington Street to identify crash trends and/or patterns as well as mitigations to reduce crashes.	Improve Safety	$20,000
(R17) East Nevada Street Extension	Extend Nevada Street from Bear Creek to Kestrel Parkway	Balance Mobility and Access	$,2,261,000
(R19) Normal Avenue Extension	Extend Normal Avenue to East Main Street; Coordinate with Project X3	Balance Mobility and Access	$2,705,000
(R36) North Main Street Implement Permanent Road Diet	Convert temporary road diet to permanent installation, which includes, at a minimum, signal modifications to North Main Street/Maple Street and North Main Street/Laurel Street intersections	Improve Safety, Balance Mobility and Access	$200,000
(R38) Ashland Street Streetscape Enhancements (Siskiyou Boulevard to Walker Avenue)	Widen and reconstruct sidewalks with street trees, stormwater planters and bus shelters. Walker Avenue intersection enhancement with concrete crosswalks and paving, and ornamental lights.	Support Pedestrian Places Planning	$1,100,000
Medium Priority Sub-Total			**$12,000,000**
High + Medium Priority Total (Cost Constrained Plan)			**$27,892,000**

Section 14
Plan Implementation Recommendations for Ordinance Amendments

PLAN IMPLEMENTATION RECOMMENDATIONS FOR ORDINANCE AMENDMENTS

The following present recommended ordinance amendments to support the transportation elements presented in sections 4 through 10 of the TSP.

SHARED ROADWAY STREET FUNCTIONAL CLASSIFICATION

The Shared Roadway street functional classification should be added to the Comprehensive Plan and the Street Design Guidebook. The proposed Shared Street definition is below.

Shared Street – Provides access to residential or commercial uses in an area in which right-of-way is constrained by topography or historically significant structures. The constrained right-of-way prevents typical bicycle and pedestrian facilities such as sidewalks and bicycle lanes. Therefore, the entire width of the street is collectively shared by pedestrians, bicycles, and autos. The design of the street should emphasize a slower speed environment and provide clear physical and visual indications the space is shared across modes.

The Shared Streets and Alleyways white paper dated February 2, 2011 provides more information regarding Shared Streets.

MULTIMODAL/SAFETY BASED (ALTERNATIVE) DEVELOPMENT REVIEW PROCESS

The Multimodal/Safety Based (Alternative) Development Review Process is a means to help support the City's TSP goals by providing funding for multimodal and safety programs and projects. It is inherently multimodal helping to create a green template (Goal 1), improvements are safety and multimodal driven making safety a priority for all modes (Goal 2), it supports economic growth by streamlining the development review process for developers (Goal 3), and facilitates system wide balance by placing all modes, safety, and access at the same level as mobility (Goal 4). See the Alternative to Traditional Development Review and Transportation Funding White Paper (dated March 7, 2011) for more details.

The City of Ashland should amend Chapter 18 of the Municipal Code to establish a Multimodal/Safety Based (Alternative) Development Review Process for reviewing and approving development applications. The development review process is outlined below.

6) Applicants that generate 10 peak hour trips or more are required to prepare a transportation assessment that focuses on:

    E. On-site vehicular, pedestrian, bicycle, truck delivery, and emergency service circulation and safety;

F. Safety, using principles and information from the *Highway Safety Manual*, of the proposed site access(es) to the transportation system;

G. Multimodal LOS, per the *2010 Highway Capacity Manual*, along the adjacent collector and/or arterial corridors; and

H. Person trips generated by the development, including those person trips expected to travel through any of the City's previously identified safety focus intersections. As of the City's TSP 2011 TSP update, these intersections are:

- North Main Street (OR 99)/Hersey Street – Wimer Street
- Ashland Street (OR 66)/Oak Knoll Drive – East Main Street
- Siskiyou Boulevard (OR 99)-Lithia Way (OR 99)/East Main Street
- Main Street (OR 99 Southbound)/Oak Street
- Siskiyou Boulevard (OR 99)/Tolman Creek Road
- Ashland Street (OR 66)/Tolman Creek Road

7) The Applicant mitigates safety issues on-site and at their access(es) points to the transportation system.

8) The Applicant contributes financially to the safety and multimodal improvements identified for the City's safety focus intersections identified in Step 1.

The City assesses a Multimodal SDC, whereby an applicant is assessed a fee based on the number of person trips the proposed development is estimated to generate. *This allows the system revenues to be used to fund capacity related improvements to the vehicular, pedestrian, bicycle, and transit systems.*

AMENDMENT TO SUPPORT ACCESS MANAGEMENT

The City should Amend Chapter 18 of the Municipal Code to include the following policies for land use actions such as partition sub divisions, site redevelopment, and expansions to maintain and/or improve traffic operations and safety along the boulevard, avenue and collector roadways. Access decisions should be based upon the review of an approved traffic assessment and applicable land use and site design requirements.

- Developments with frontage on two roadways should locate their driveways on the lower functional classified roadway.
- Access driveways should be located to align with opposing driveways.

- If spacing standards cannot be met, effort should be made to consolidate access points with neighboring properties.
- Where standards cannot be met and joint access is not feasible, temporary conditional access can be granted with the provision of crossover easements on compatible parcels (considering topography, access, and land use) to facilitate future access between adjoining parcels.
- Right-of-way dedications may be provided to facilitate the future planned roadway system in the vicinity of proposed developments.
- Half-street improvements (sidewalks, curb and gutter, bike lanes/paths, and/or travel lanes) shall be provided along site frontages that do not have full build-out improvements in place at the time of development unless otherwise directed by the public works director.

Exhibit 14-1 on the following page illustrates the application of cross-over easements and conditional access permits over time to achieve the desired access management objectives. The individual steps are described in Table 14-1, following Exhibit 14-1. As illustrated in the figure and supporting table, using these guidelines, all driveways along city, county, and state roadways will eventually move in the overall direction of the access spacing standards as development and redevelopment occur along a given street.

Exhibit 14-1 Example of Cross-over Easement/Indenture/Consolidation/Conditional Access Process

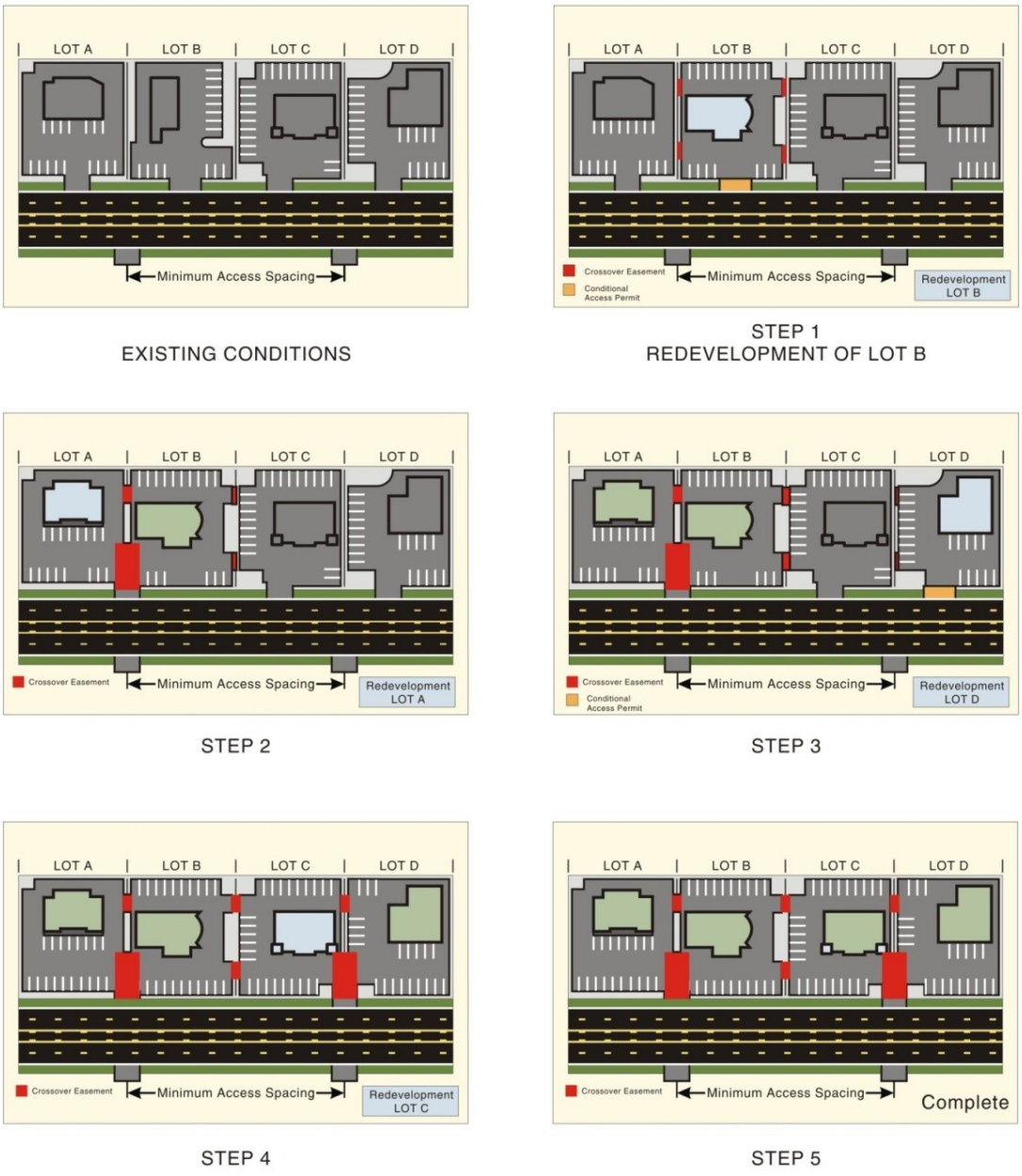


Table 14-1 Example of Crossover Easement/Indenture/Consolidation - Conditional Access Process

Step	Process
1	EXISTING – Currently Lots A, B, C, and D have site-access driveways that neither meet the access spacing criteria of 300 feet nor align with driveways or access points on the opposite side of the roadway. Under these conditions motorists are into situations of potential conflict (conflicting left turns) with opposing traffic. Additionally, the number of side-street (or site-access driveway) intersections decreases the operation and safety of the roadway.
2	REDEVELOPMENT OF LOT B – At the time that Lot B redevelops, the City would review the proposed site plan and make recommendations to ensure that the site could promote future crossover or consolidated access. Next, the City/County/ODOT would issue conditional permits for the development to provide crossover easements with Lots A and C, and City/County/ODOT would grant a conditional access permit to the lot. After evaluating the land use action, the City/County/ODOT would determine that LOT B does not have either alternative access, nor can an access point be aligned with an opposing access point, nor can the available lot frontage provide an access point that meets the access spacing criteria set forth for segment of roadway.

3	REDEVELOPMENT OF LOT A – At the time Lot A redevelops, the City/County/ODOT would undertake the same review process as with the redevelopment of LOT B (see Step 2); however, under this scenario the City/County/ODOT would use the previously obtained cross-over easement at Lot B consolidate the access points of Lots A and B. City/County/ODOT would then relocate the conditional access of Lot B to align with the opposing access point and provide and efficient access to both Lots A and B. The consolidation of site-access driveways for Lots A and B will not only reduce the number of driveways accessing the roadway, but will also eliminate the conflicting left-turn movements the roadway by the alignment with the opposing access point.
4	REDEVELOPMENT OF LOT D – The redevelopment of Lot D will be handled in same manner as the redevelopment of Lot B (see Step 2)
5	REDEVELOPMENT OF LOT C – The redevelopment of Lot C will be reviewed once again to ensure that the site will accommodate crossover and/or consolidated access. Using the crossover agreements with Lots B and D, Lot C would share a consolidated access point with Lot D and will also have alternative frontage access the shared site-access driveway of Lots A and B. By using the crossover agreement and conditional access permit process, the City/County/ODOT be able to eliminate another access point and provide the alignment with the opposing access points.
6	COMPLETE – After Lots A, B, C, and D redevelop over time, the number of access points will be reduced and aligned, and the remaining access points will meet the access spacing standard.