City of Eagle Point and the Rogue Valley Transportation District (RVTD)

EAGLE POINT INTERCITY PUBLIC TRANSPORTATION SERVICE PLANNING

Final Report

April 5, 2013

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EXECUTIVE SUMMARY

This study is the culmination of a planning process that started in August 2012 and has identified a preferred service alternative for transit service in Eagle Point. This study also includes information about governance and administration options that Eagle Point decision makers must consider if a new transit service in the city is implemented. Finally, potential funding options for transit service in Eagle Point are also identified. It is important to note that the preferred service alternative, governance options, and potential funding options are all contingent on several key decision points related to how Eagle Point wants to administer and govern a future transit service. The primary goal of this study related to this decision point is to provide *information* to the City that will help elected officials make an informed decision.

Existing Conditions Evaluation

Prior to developing service alternatives, it was important to first understand the context from which transit might operate in Eagle Point. As such, an evaluation of demographic information, existing transit services, and previous planning efforts was conducted. The results of this evaluation are provided in Chapter 1.

Community Input

A critical element of this study was to involve the community in the process and get their input on key decision points. A Stakeholder Group consisting of 25 individuals was established to oversee the study and provide input and direction to City staff and the consulting team. The Stakeholder Group consisted of community members, elected and appointed officials, representatives of the school district, regional and state agencies, the senior community, and the business community. Five meetings were held with the Stakeholder Group, including a facilitated workshop that allowed members of the group to provide direct input on how transit service should be provided in Eagle Point.

In addition to the Stakeholder Group, individual stakeholder meetings were conducted with 10 key stakeholders, many of which were also on the Stakeholder Group. The project team also presented key findings to the City Council and Planning Commission at a joint workshop on September 25, 2012. A study update presentation was also given to the RVTD Board on September 26, 2012. A summary of the community input that was conducted for this study is provided at the end of Chapter 1.

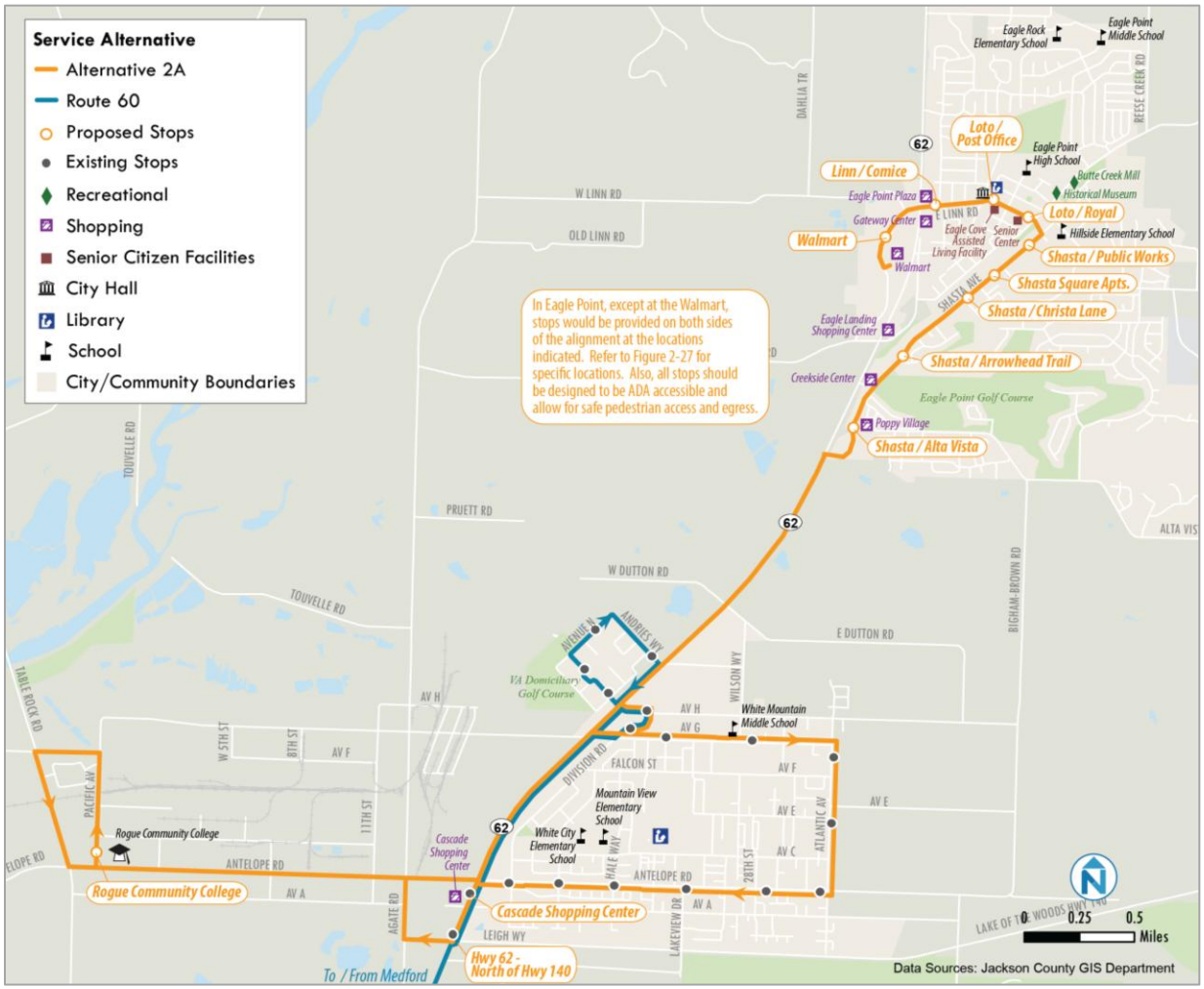
Preferred Service Alternative

Three initial service alternatives were developed based on the existing conditions evaluation, and input from the Stakeholder Group, elected and appointed officials, and other stakeholders. The initial service alternatives were presented to the Stakeholder Group between November 2012 and January 2013 at three separate meetings. The initial service alternatives are summarized in Chapter 2 and detail is provided in Appendix C. Based on input from this group, a preferred

service alternative was selected that provides a direct connection between Eagle Point and the Cascade Shopping Center in White City. This alternative is presented below in Figure ES-1. Because the service alternatives are very much related to how the service is provided and governed, a second preferred alternative was developed that assumes RVTD would be the operator. RVTD staff has stated that they prefer to shorten Route 60 and establish a new route to serve Eagle Point, the RCC Table Rock campus, and east White City. A map of this second alternative is provided in Figure ES-2.

Figure ES-1 Preferred Alternative 1A – Eagle Point to White City

Figure ES-2 Alternative 2A – Eagle Point to White City (via RCC Table Rock Campus)



In addition to identifying route alignments, operating and capital costs, conceptual stop locations, and ridership estimates were developed for the two preferred alternatives. A comparison of the two preferred alternatives is provided in Figure ES-3. More detail on the preferred alternatives is provided in Chapter 2.

Figure ES-3 Summary of Preferred Service Alternatives

Service Characteristic	Alternative 1A	Alternative 2A
Alignment / Directness	**LARGE ONE-WAY LOOP** The route would operate as a large one-way loop via Shasta, Loto, Linn and Hannon Road to Walmart and return via Highway 62 (as well as Old Crater Lake Highway and Royal Road if time permits). In White City, the route would operate via Highway 62 to the Cascade Shopping Center and turn around via Leigh Way, Agate Road and Antelope Road.	**BI-DIRECTIONAL ROUTE** This route would operate via Shasta, Loto, Linn and Hannon with a turnaround at Walmart and then return via the same alignment. In White City, the route would operate via Avenue H, Division and Avenue G (outbound) and via Avenue H, Atlantic and Antelope (inbound). This route would also continue directly to the RCC Table Rock Campus.
Transfer Required?	**YES** A transfer would be made to Route 60 at the Cascade Shopping Center.	**YES** Transfer would be made to Route 60 at the Community Health Center at Avenue H and Division or at the Cascade Shopping Center.
Frequency	**30 MIN (WKDAY AND SATURDAY)** As a stand-alone route, this route would operate every 30 minutes on weekdays and Saturday. It should be noted that Saturday service on Route 60 is hourly, so connections to Route 60 would be made every other trip.	**60 MIN (WKDAY AND SATURDAY)** This route would operate every hour between the RCC Table Rock campus and Eagle Point, Monday through Saturday. Connections to Route 60 on weekdays, which operates every 30 minutes, would be available every other trip.
Service Span	**12-15 HOURS WKDAY; 8-9 HOURS SATURDAY** Service hours are flexible depending on the preferred governance model. Service would follow RVTD's service hours if operated by RVTD.	**15 HOURS WKDAY; 12 HOURS SATURDAY** Would be provided during the same time as the majority of other RVTD routes.
Annual Service Hours	**4,600**	**2,500** (Eagle Point share only. Total is estimated at 4,600.)
Annual Ridership Estimates	**36,000 - 44,000** Assumes ridership on entire route.	**22,000 - 27,000** (Eagle Point share only. Ridership for the entire route, including in White City is estimated at 48,000 - 58,000.)
Productivity (Passengers / Service Hour)	**7.8 to 9.5**	**9.1 to 11.3**
Governance Options	**IN-HOUSE, CONTRACT, RVTD**	**RVTD ONLY**
Annual Operating Costs	**$228K-$336K** 12 hours weekdays, 8 hours on Saturday. **$276K-$409K** 15 hours weekdays, 9 hours on Saturday.	**$206,800** 15 hours weekdays, 9 hours on Saturday. Assumes Eagle Point share of route costs only for comparison purposes.
Capital Costs	**$380K**	**$212K** Assumes Eagle Point share of capital costs only.

Governance and Funding Options

A final element of the study is to help Eagle Point decide how best to implement, fund, and oversee a new transit service. Based on consultation with City staff, RVTD, and the Stakeholder Group, three viable governance and service delivery options were evaluated, including a summary of perceived advantages and disadvantages of each option. The three scenarios are:

- Scenario 1: RVTD would provide the new transit services.
- Scenario 2: Eagle Point would obtain a contractor (which could be RVTD) to operate the new transit services.
- Scenario 3: Eagle Point would directly provide services in-house.

The primary goal of this study is to provide information to the City so that they can make an informed decision on the best process forward. As such, this study does not make a recommendation as to which governance option is the best. More detail on the governance options is provided in Chapter 3.

Tied to the decision on how to administer and operate a potential new transit service is the issue of how it would be funded. While funding and administration of transit service is very much intertwined, potential local, state, and federal funding sources that could be used in Eagle Point were identified. Without knowing the City's preference for how to administer and operate transit service, it was difficult to estimate actual amounts of potential funding that could be generated. Still, the potential sources of funding that may be available to support public transit service in Eagle Point are detailed in Chapter 4.

1 EXISTING CONDITIONS

This report is an initial element in the Eagle Point Intercity Public Transportation Planning project. It describes and assesses demographics, transit system characteristics, land use, and public facilities within the Eagle Point region. This report provides the foundation for the project, which will ultimately identify potential public transportation services for Eagle Point.

COMMUNITY PROFILE

Nestled in the Rogue Valley along Little Butte Creek, Eagle Point is located approximately 15 miles north of Medford - the nearest urban center. While Highway 62 is the primary commercial corridor and connection to other parts of the region, the historic part of the city is located along Main and Loto Streets between Royal Avenue and Buchanan Avenue. The areas on the north side of the city (south of Barton Road) and on the southeast side of town in the golf course area are much newer with a lot of the development occurring in the last 10-20 years.

The city covers a land area of three square miles and is home to 8,469 people (2010 Census). Eagle Point is known as the "Gateway to the Lakes," with Crater Lake located just 70 miles to the northeast, and Upper Klamath National Wildlife Refuge and Lake just 40 miles to the east. From 2000 to 2007, Eagle Point was one of the fastest growing cities in Oregon, doubling its population during this period. Eagle Point is projected to continue to be a primary growth area in Jackson County, with a projected population of 16,964 residents by 2026 and 21,449 residents by 2040.[1] While Eagle Point has its own unique identity, it is also a bedroom community to Medford given its proximity. Eagle Point is anticipated to take on a more regionally significant role in accommodating population and employment in order to relieve growth pressures from surrounding cities.[2]

Figure 1-1 provides a demographic summary of the City of Eagle Point in relation to Jackson County and Oregon as a whole. In addition, the density maps provided in Figure 1-4 through Figure 1-7 illustrate the distribution and concentration of these groups in and around Eagle Point. The demographic data is from the 2010 U.S. Census data or the American Community Survey.[3]

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[1] Jackson County Comprehensive Plan.

[2] Greater Bear Creek Valley Regional Plan, Jackson County, Oregon.

3 Data from the 2010 U.S. Census is mapped at the block level. Data from the American Community Survey (ACS) used in the summary table is a 5-Year average from 2006-2010, with the exception of disability data, which is from the 3-Year average for 2008-2010. Maps for other demographic variables were developing using ACS data from the 2005-2009 5-Year average, at the block group level; at the time of analysis 2006-2010 ACS data was not uniformly available at the block group level for all demographic variables.

Figure 1-1 Demographic Summary

Area	Total population	% Youth (persons aged 10-17) [a]	% Young Adults (18-24)	% Seniors (persons aged 65+) [a]	% Minority [a]	% Low-Income Households [b]	% Persons with a Disability [c]	% Households without a Vehicle [b]
Oregon	3,831,074	13.9%	9.4%	10.2%	21.5%	14.0%	13.4%	7.6%
Jackson County	203,206	10.1%	8.6%	17.6%	11.3%	14.0%	15.7%	5.9%
City of Eagle Point	8,469	12.6%	6.8%	14.2%	7.9%	12.3%	n/a	4.2%

Sources: (a) U.S. Census Bureau, 2010 U.S. Census Summary P12, DP-1 (b) U.S. Census Bureau, American Community Survey, 2006-2010 5-Year Averages: B25044, C17002. (c) U.S. Census Bureau, American Community Survey, 2008-2010 3-Year Averages: S1810. Due to the change in disability questions in 2008, only a 3-year average is available. This information not available at the city level.

Notes: Minority includes non-white persons of one race and persons of two or more races. Low-income households are those earning below the federal poverty level. Disability is for the civilian non-institutionalized population aged 5 years or older. Persons are counted as "disabled" if they answered "yes" to any of the following: "Difficulty seeing (even with glasses)," "Difficulty hearing (even with a hearing aid)," and "Difficulty walking."

Eagle Point is home to two elementary schools, a middle school, and a high school (see Figure 1-3 for a map of major activity centers in the region). A number of shopping plazas and businesses are located on the western edge of the city along Highway 62 and in the Eagle Point Business Park. The Eagle Point Golf Course is a major area attraction located on the southeastern part of the City.

Population Density

Most residents in Eagle Point live to the north and west of Royal Avenue (Figure 1-4 below). The highest concentration of residential density (greater than 16.1 persons per acre) is primarily located in the northeast section of the city along Bradley Way, Andrea Way, and Amy Way. Other pockets of high density residential housing are to the west and southwest of the Eagle Point High School.

Senior & Youth Density

Older adults (65 years and above, shown in Figure 1-5) and youth (10 to 17 years old, shown in Figure 1-6) generally use public transportation more frequently than the general population. Older adults tend to exhibit higher demand for transit as they become less capable or willing to drive themselves, or can no longer afford to own a car, especially if they rely on a fixed income. While seniors have historically been a user group that exhibits a higher demand for transit, this is changing, especially in communities like Eagle Point that attract higher-income senior households. There are several reasons for this. First, many senior housing developments offer shuttle services for shopping, recreation, social reasons and medical appointments. In addition, many of the seniors who live in the higher income complexes tend to be active and can still drive. Finally, seniors 65 and younger were raised at a time when transit was in decline around the country and may be less familiar with using transit and more cautious about using it later in life.

Seniors make up 14.2% of the Eagle Point community. A large population of older adults lives in the Eagle Cove Assisted Living and Retirement Community on Loto Street just south of the High School.

Young people without driver's licenses or those unable to drive need transit service for school and after school activities, part-time jobs, and access to recreation and entertainment particularly during the summer months.[4] Youth make up 12.6% of the Eagle Point community, which is slightly higher than Jackson County, but on par with Oregon as a whole. The highest concentration of youth ages 10-17 live in the northeast corner of the city north of Royal Avenue and south of Crystal Drive. This high concentration of youth is within walking distance to the High School, the Middle School, and the Eagle Rock Elementary School.

Young Adult Density

Young adults (ages 18-24) account for 6.8% of the population (see Figure 1-7). Young adults primarily reside to the east of Mattie Brown Park and south of East Linn Road. This is an important demographic as young adults typically have greater needs related to school and work, but may not have the ability to own or maintain their own vehicle.

Commuting Patterns

Eagle Point is primarily a bedroom community for people who work in Medford and other small cities primarily in southern Oregon. Based on U.S. Census Bureau LEHD (Longitudinal Employer-Household Dynamics) 2010 data, of the 2,670 workers who live in Eagle Point, 7% both live and work in Eagle Point, while 93% of workers commute outside of the city for work. Over 46% of Eagle Point residents commute to Medford for work (see Figure 1-2 below). The map in Figure 1-8 illustrates the work locations of Eagle Point area residents. In addition to traveling to Medford for work, a large number of Eagle Point residents work at the Veterans Administration Domiciliary in White City. More than 30% of Eagle Point residents work in communities other than those listed on the next page. These include Grants Pass, Bend, Eugene/Springfield, Salem, and Portland, among others. It should be noted, however, that many of these very long-distance employment locations (e.g., Portland and Salem) are likely related to the location of company headquarters rather than employees making this commute. While there are a number of workers that have jobs a significant distance from Eagle Point, the actual numbers compared to those locations in the Rogue Valley is relatively low.

Of the 1,067 employees in Eagle Point, approximately 800 (or 75%) commute from outside of Eagle Point, the bulk of which come from Medford (15.6%) (see Figure 1-2 on the next page and map in Figure 1-9).

[4] It should be noted that older adults and youth do not always utilize public transportation in the same ways. For example, older adults tend to use public transportation during the middle of the day for shopping and medical appointments, while youth tend to use public transportation to get to and from school, for after school activities and on weekends. It should also be noted that national trends show that a lower proportion of younger adults are embracing "car culture" – or the need to own their own vehicle – than defined earlier generations.

Figure 1-2 Where Eagle Point Residents Work & Where Eagle Point Workers Live

Job Counts by Cities where Eagle Point residents are employed		
	Count	Share
Medford, OR	1,239	46.4%
Eagle Point, OR	185	6.9%
Grants Pass, OR	86	3.2%
Central Point, OR	84	3.1%
White City, OR	70	2.6%
Ashland, OR	65	2.4%
Portland, OR	41	1.5%
Salem, OR	31	1.2%
Eugene, OR	30	1.1%
Phoenix, OR	30	1.1%
All Other Locations	809	30.3%

Job Counts by Cities where employees in Eagle Point live		
	Count	Share
Eagle Point, OR	185	17.3%
Medford, OR	166	15.6%
Central Point, OR	45	4.2%
White City, OR	41	3.8%
Shady Cove, OR	35	3.3%
Grants Pass, OR	25	2.3%
Talent, OR	25	2.3%
Ashland, OR	22	2.1%
Klamath Falls, OR	14	1.3%
Phoenix, OR	11	1.0%
All Other Locations	498	46.7%

Source: LEHD Workers by Place (2010)

Figure 1-3 Existing Transit Service & Major Activity Centers

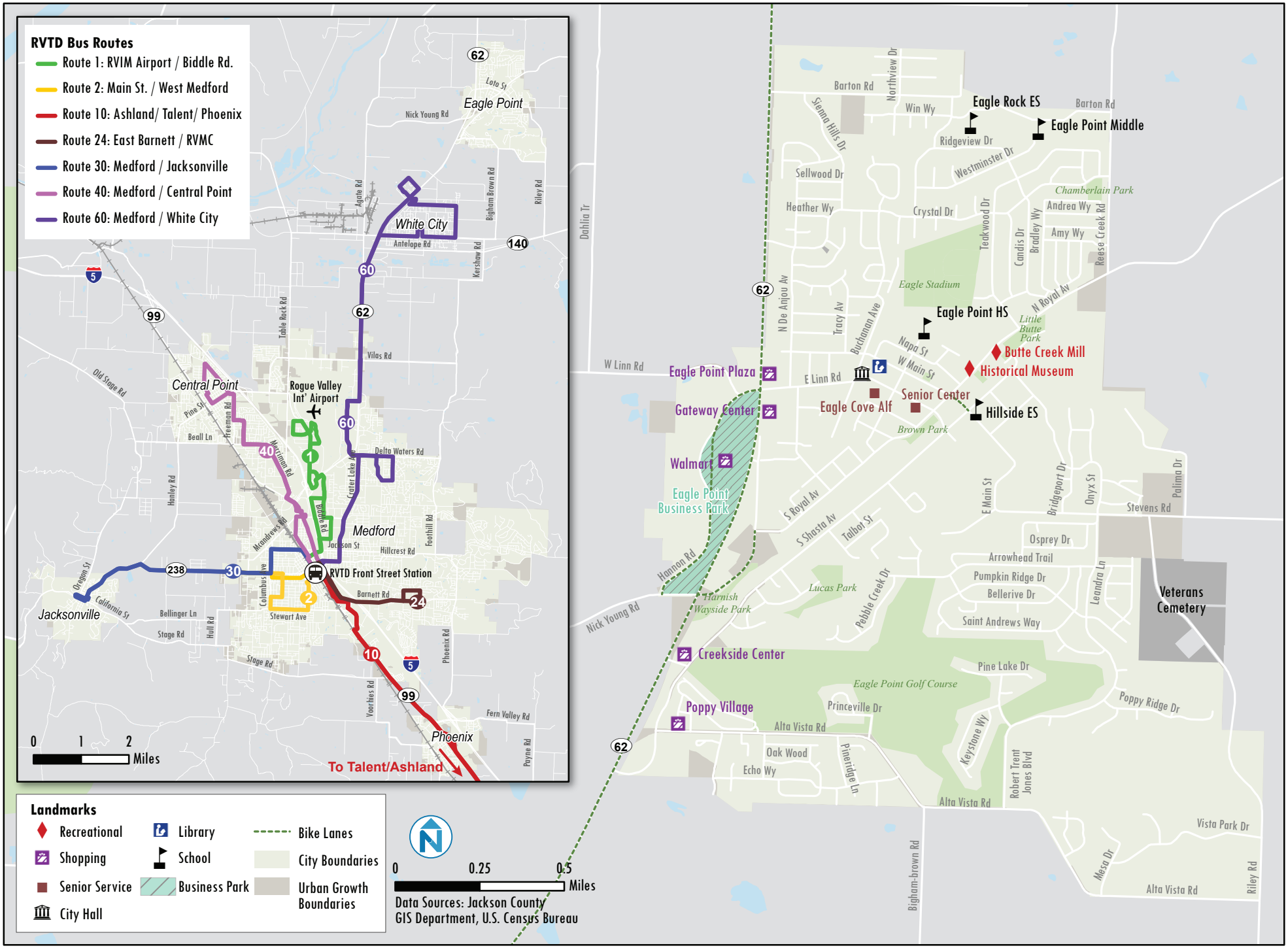


Figure 1-4 Population Density, 2010

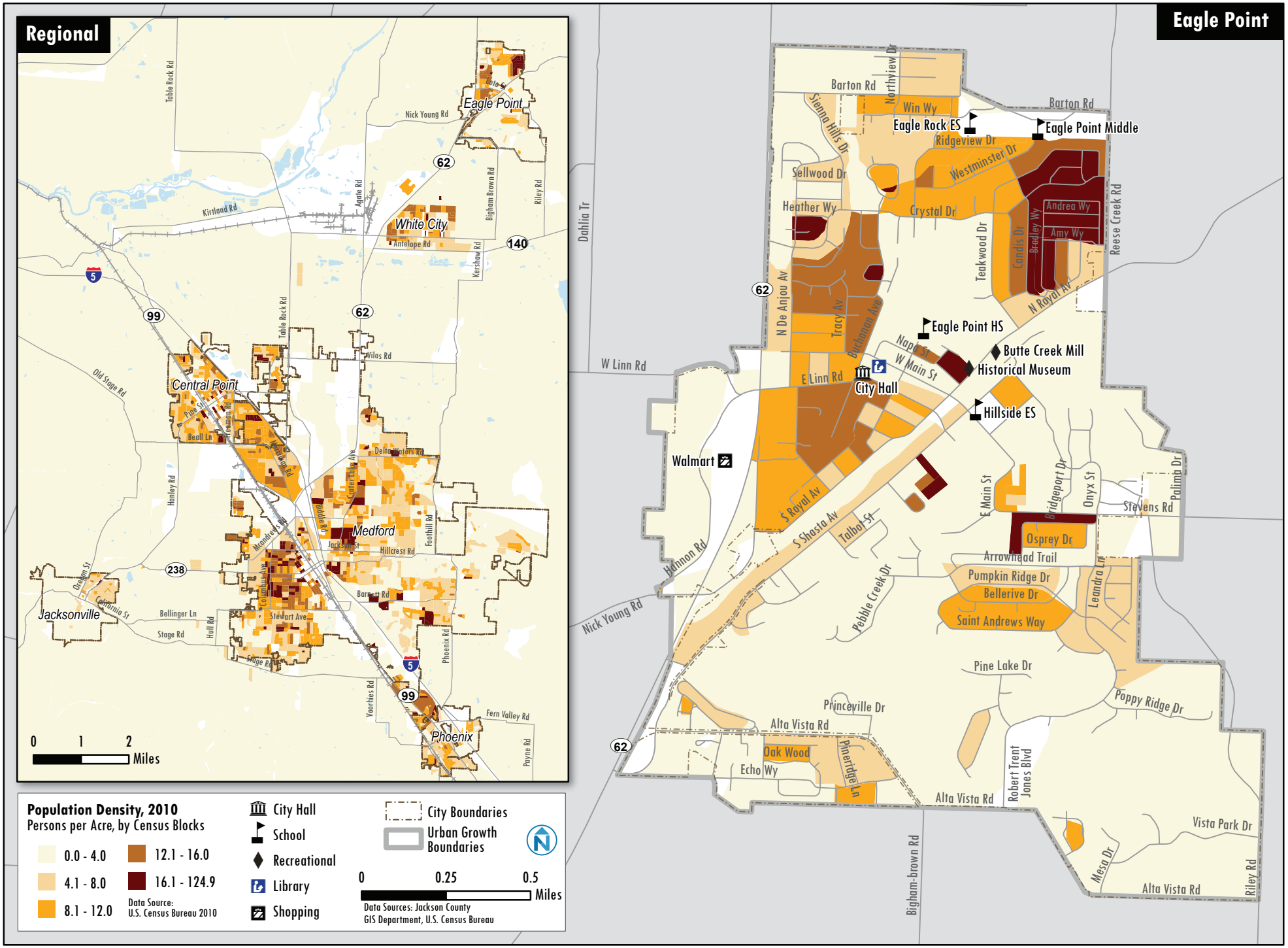


Figure 1-5 Senior (Aged 65 or Older) Population Density, 2010

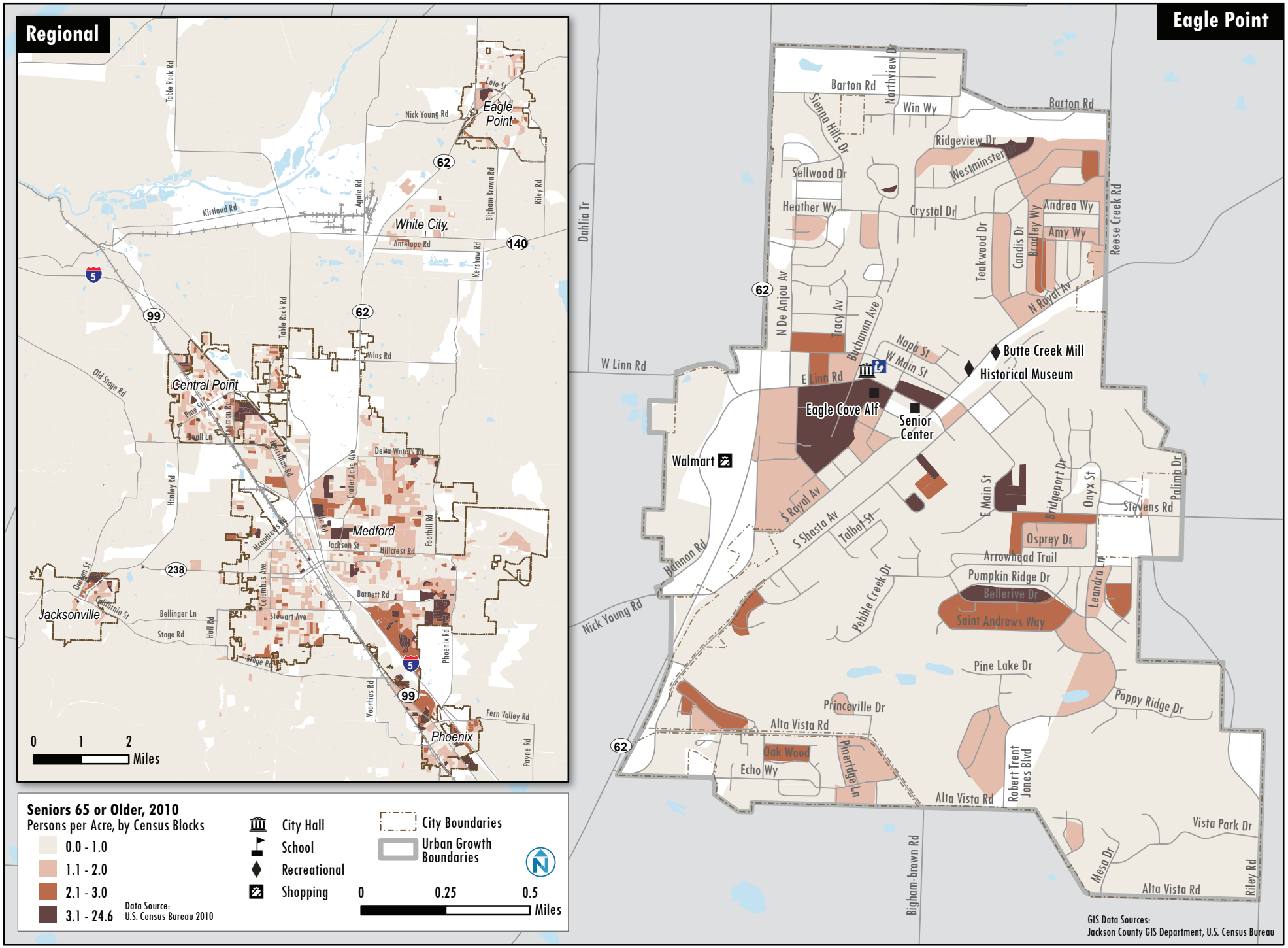


Figure 1-6 Youth (Aged 10-17) Population Density, 2010

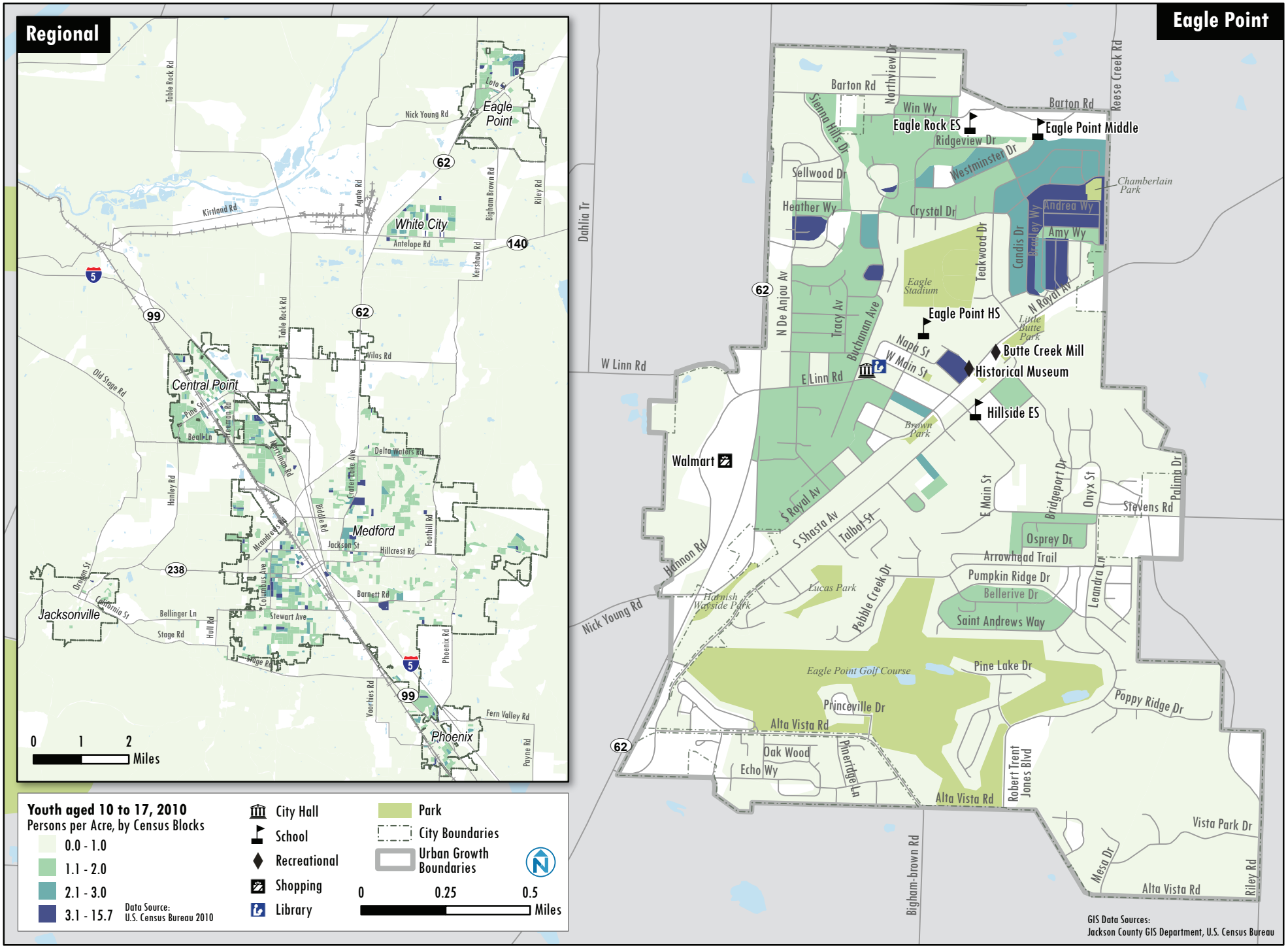


Figure 1-7 Young Adults (Aged 18 to 24), 2010

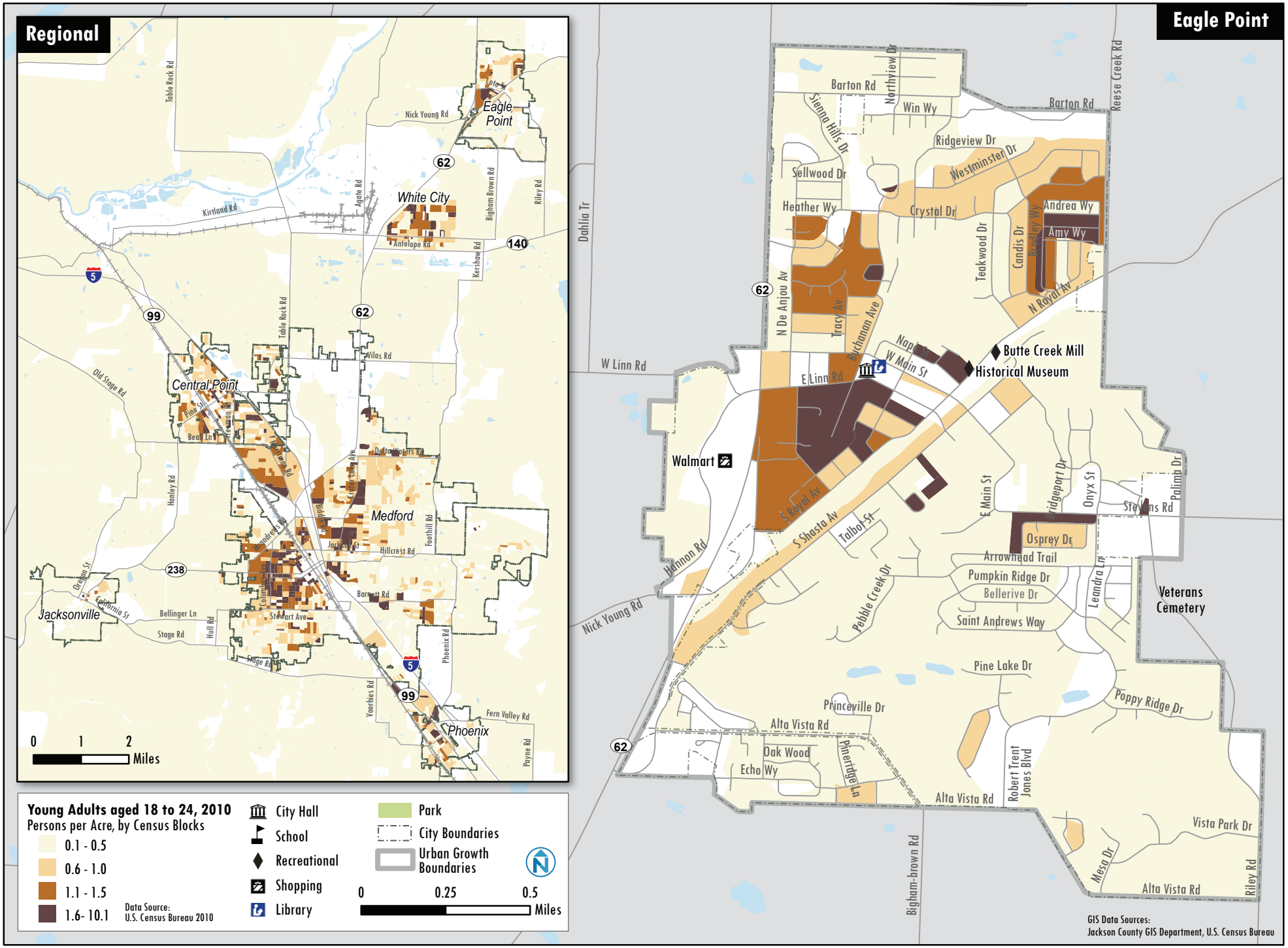


Figure 1-8 Work Locations of Eagle Point Residents, 2010

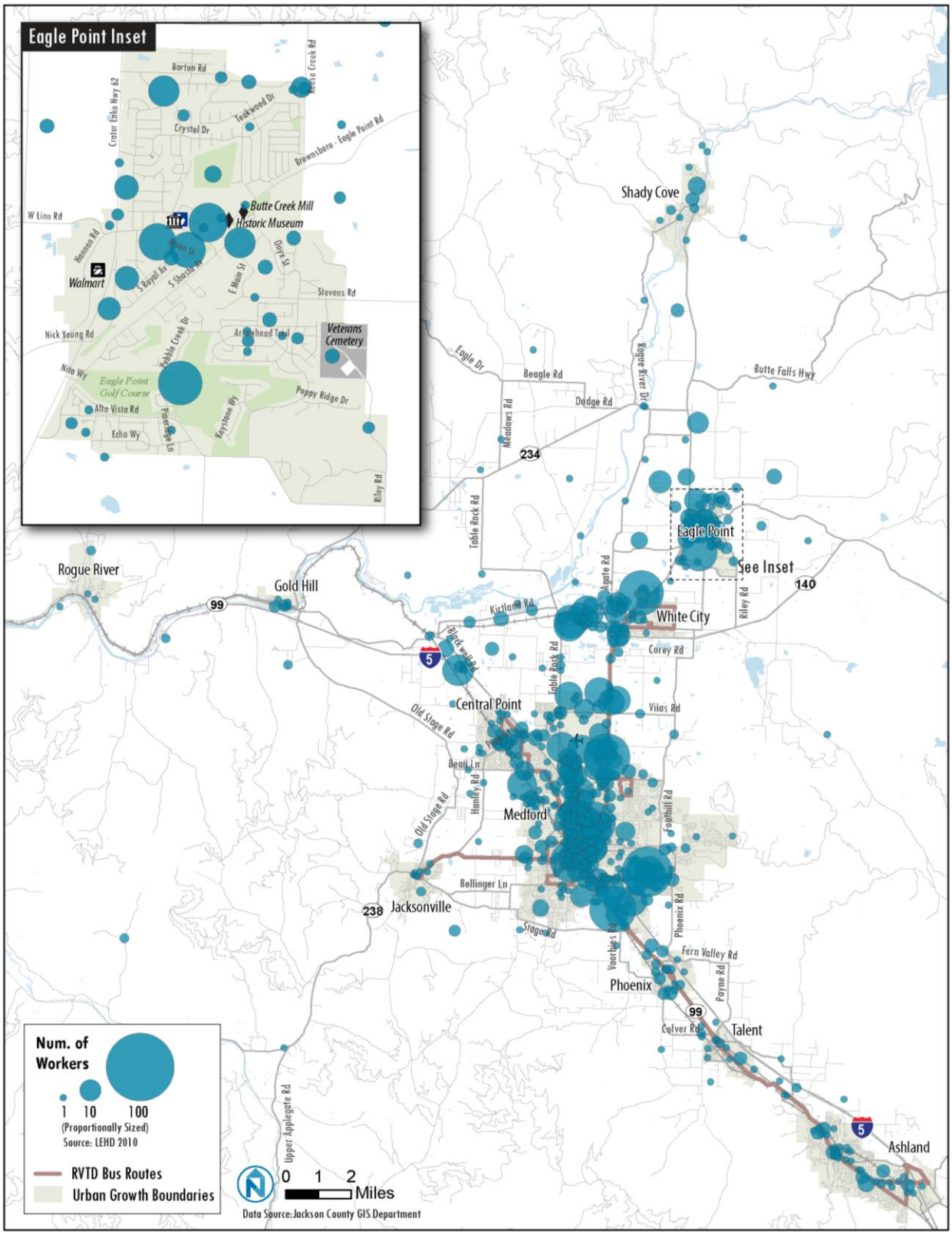
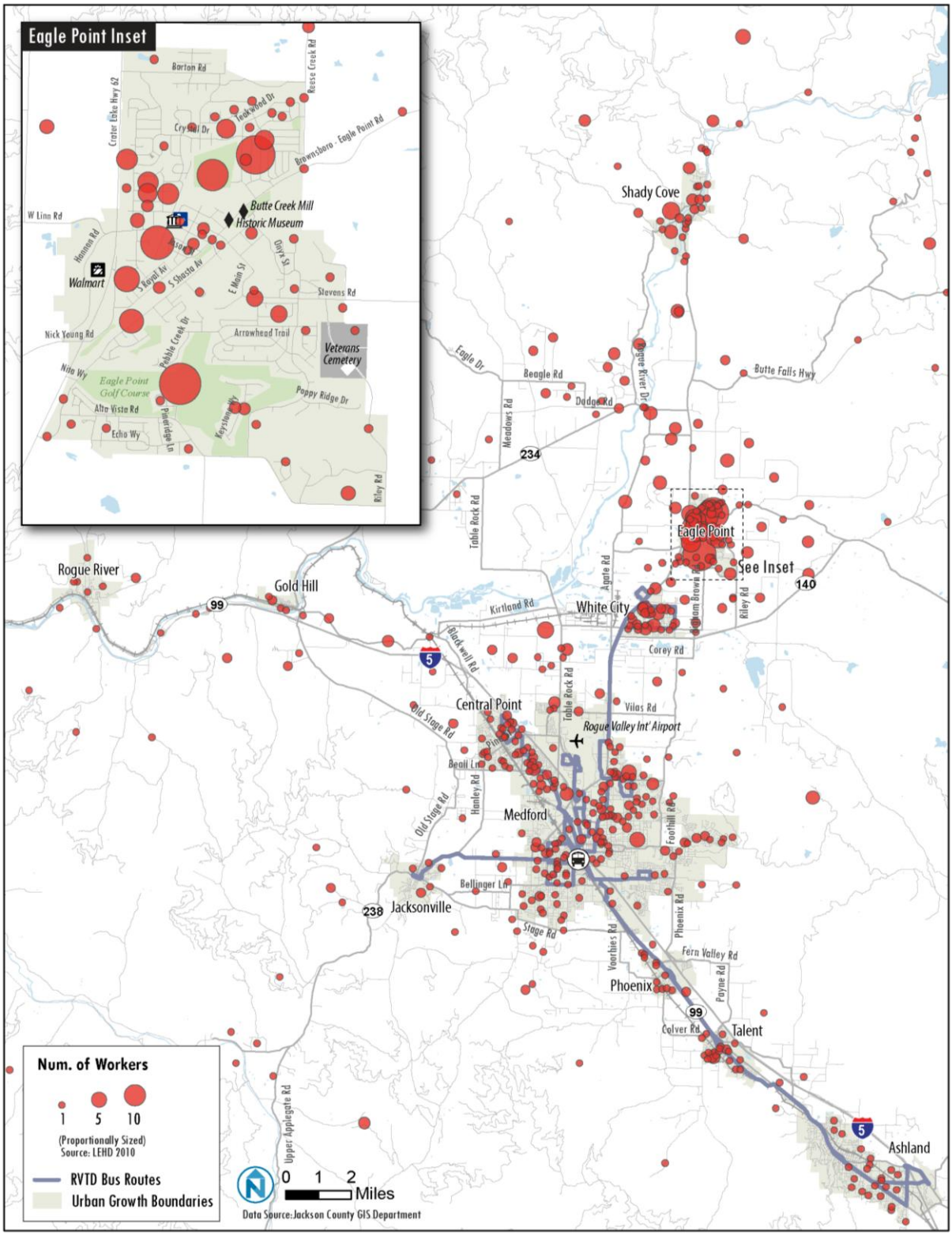


Figure 1-9 Home Location of Eagle Point Workers, 2010



Land Use/Zoning

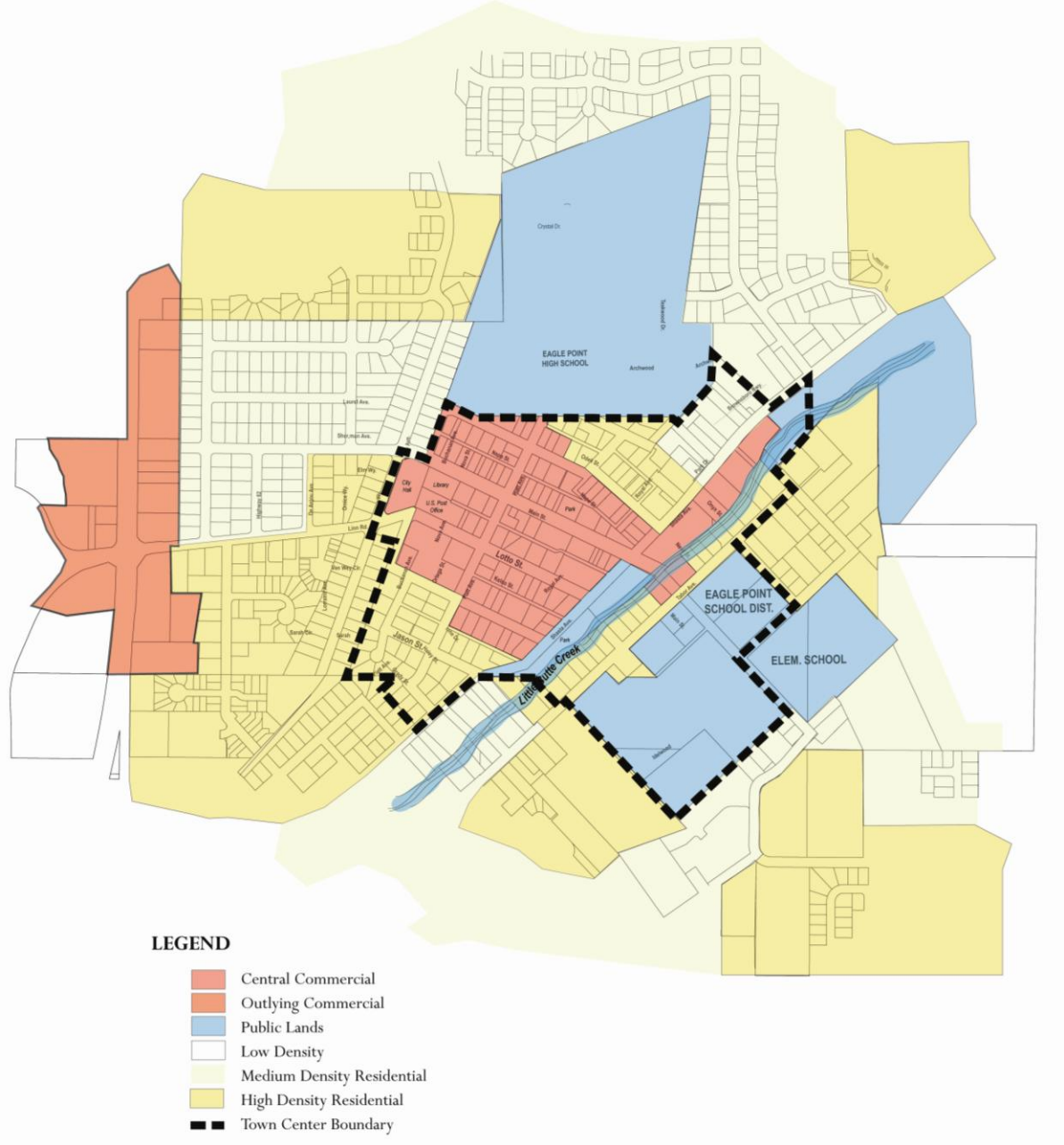
To accommodate the projected growth noted in the Community Profile section above, Eagle Point plans to revitalize its downtown to include high quality, mixed use development designed to attract additional tourism, professional office and retail businesses, and high density residential living opportunities. The City of Eagle Point Town Center Plan adopted in 2007 outlines strategies to improve the downtown and build a more transit-supportive environment. The Transportation Goal of the plan reads as follows: "Downtown is a balanced, multi-modal urban center with easy access to all areas of the City and the Upper Rogue region. Within the downtown, there is provided a full range of transportation opportunities with an emphasis on the quality of travel and preservation of a highly livable, and pedestrian environment."[5]

The City of Eagle Point Town Center Plan helps guide land use and development through four land use designations and five zoning districts. In

Figure 1-10 below, the pink area is dedicated as Central Commercial, the orange area as Outlying Commercial, the blue area as Public Lands, the white area as Low Density, and the yellow area as High Density Residential.

[5] City of Eagle Point Town Center Plan (2007) Chapter 5 "The Policy Framework."

Figure 1-10 Eagle Point Land Use, Town Center Plan, 2007



Source: Eagle Point Town Center Plan, 2013 (http://www.cityofeaglepoint.org/DocumentCenter/View/759)

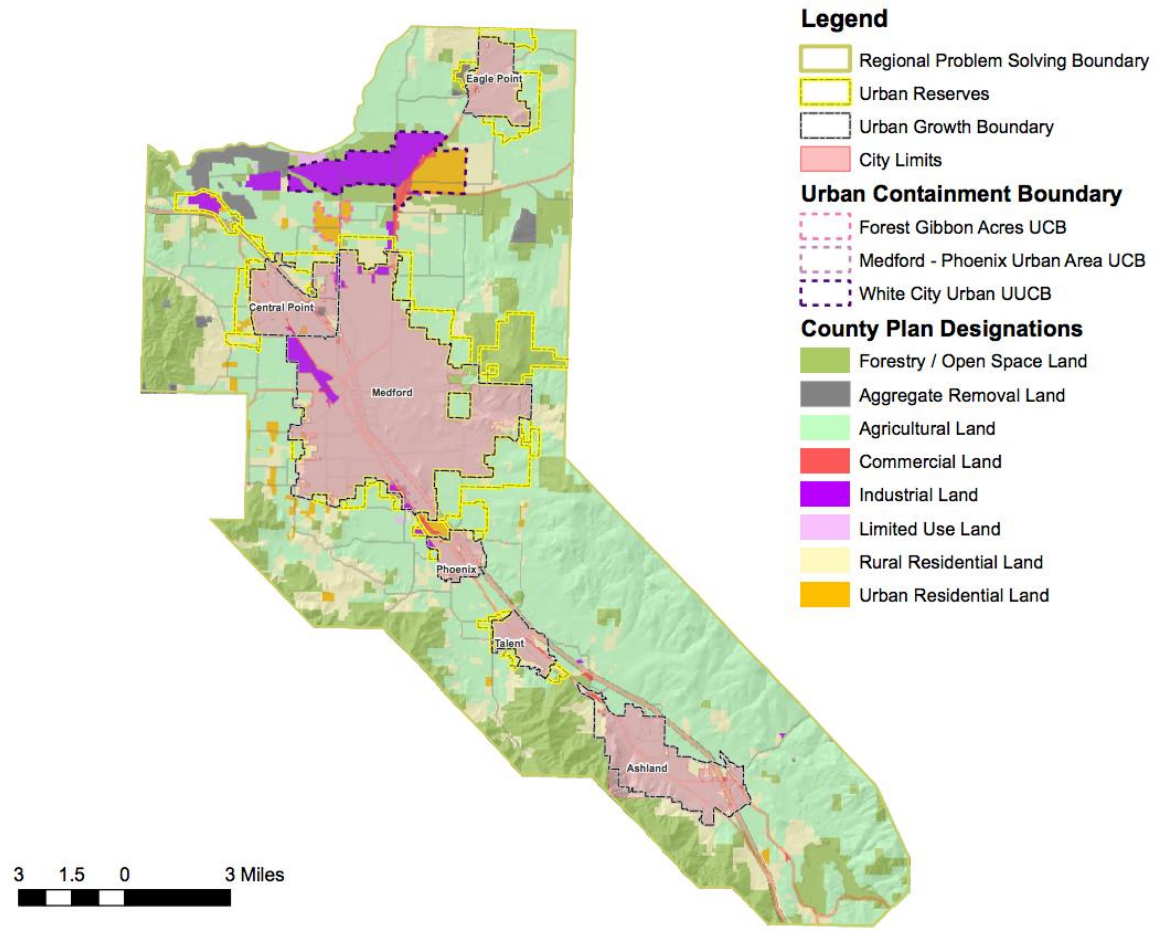
LITERATURE REVIEW

This section provides a brief overview of several important planning documents that have been completed or updated in recent years, as well as current initiatives related to transit and transportation services, land use, and public facilities.

Greater Bear Creek Valley Regional Plan

The Greater Bear Creek Valley Regional Plan was developed to conserve the region's agricultural capability, open space, and individual community identity, and the need to identify lands to meet the future demands for growth. After a decade-long process, the Plan was adopted in 2012. Figure 1-11 below provides a map of the Greater Bear Creek Valley.

Figure 1-11 Map of Greater Bear Creek Valley



Source: Greater Bear Creek Valley Regional Plan

City of Eagle Point Town Center Plan

The City of Eagle Point Town Center Plan, as noted above, was developed in 2007. This Plan provides a shared vision for the future of the city and lays out goals and policies to redevelop and revitalize the Town Center. This Plan is one element within the City of Eagle Point Comprehensive Plan, yet is also a stand-alone document. The Plan endeavors to reinvigorate the Town Center as the center of commerce and culture for the City of Eagle Point and the rest of the Upper Rogue region through a revitalization program aimed toward the public, decision-makers, and private investors.

The Plan segments the Town Center into five districts: Old Town, Southwest Village, Napa, Creekside, and Hillside. Each of these districts has a unique mix of land uses and densities and serves a specific purpose. Old Town serves as the central business district, Southwest Village currently has a single-family character, but is zoned for higher density, Napa is also currently single-family but is zoned for higher density residential and mixed use, Creekside serves as a historic recreational and tourist destination, and Hillside presents a significant redevelopment opportunity due to the large former junior high site in public ownership.

A policy framework to achieve the Town Center vision includes seven organizing goals, including becoming a regional hub that provides business, retail, finance, government, arts and entertainment, and educational services; using plans and programs to concentrate growth in the Town Center; applying urban design standards to emphasize the downtown historic character, activate streetscapes and storefronts, develop a comprehensive bicycle and pedestrian network, and ensure transportation connections to surrounding neighborhoods; preserving historic structures and the historic character of downtown; developing housing options downtown within walking distance of services and amenities; and utilizing public, institutional, and private partnerships to invest in downtown. The transportation goal includes balancing the needs of pedestrians and drivers, while also including provision for future transit needs in design standards.

Eagle Point Transportation System Plan

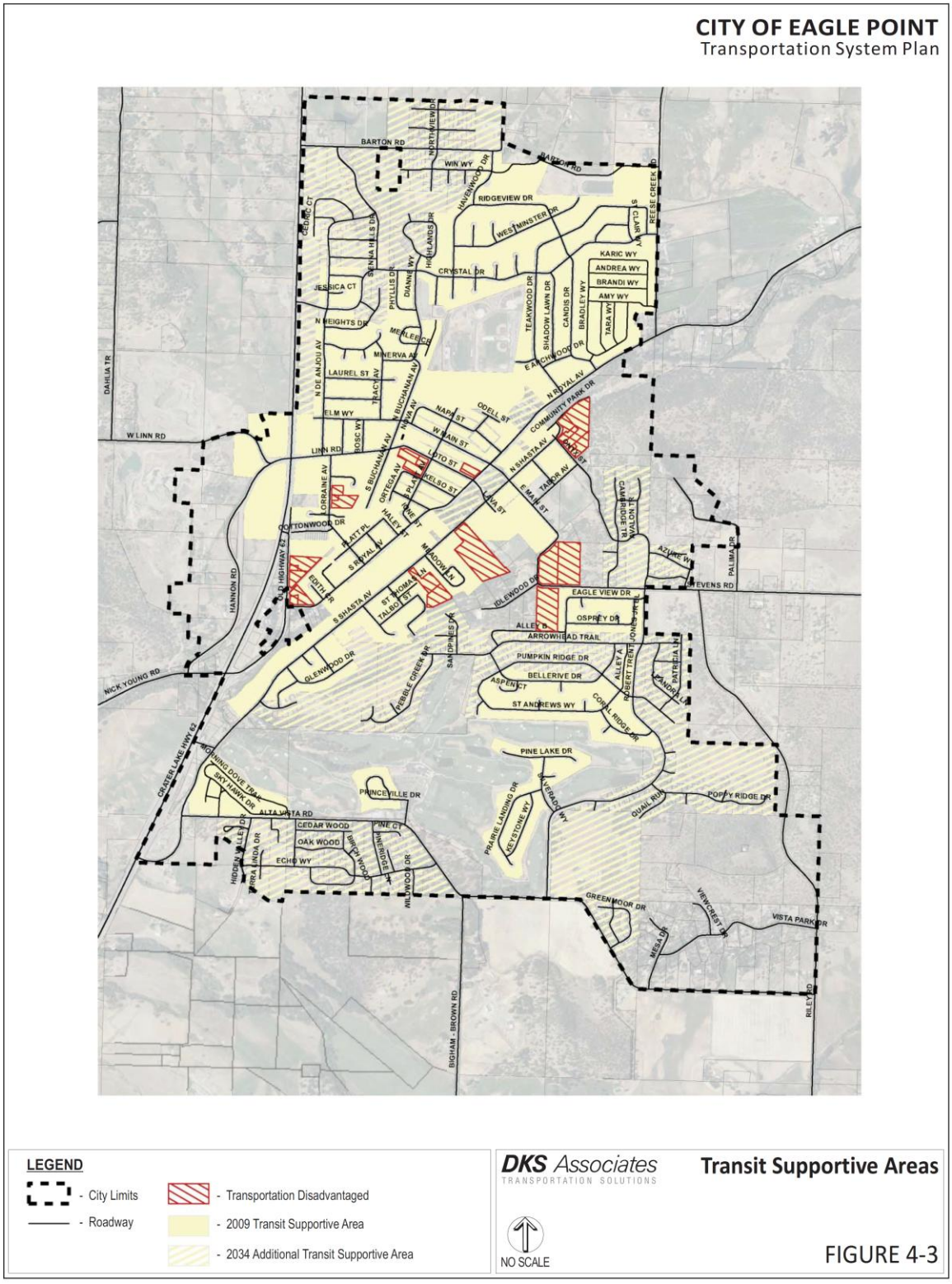
Updated in 2010, the Eagle Point Transportation System Plan (TSP) identified necessary transportation policies, projects, and programs necessary to provide a sufficient multi-modal transportation system for a growing community over 20 years. The City of Eagle Point has more than doubled from a population of 4,325 residents in 1998 to 8,730 in 2008, and is projected to reach 19,500 residents by 2034. Since Eagle Point currently has no fixed-route public transportation services, the TSP update added a new goal: the provision of affordable, accessible transit, especially to transportation-disadvantaged community members.

In order to reach the goal of providing transit service to the Eagle Point community, the following six policies are identified:

- Explore options to provide intercity public transportation (such as annexing to the Rogue Valley Transportation District or establishing a contract with the RVTD)
- Support the development of commercial intercity transit service where feasible
- Cooperate with transit service providers to develop park-and-rides
- Establish transportation demand management programs
- Encourage continued dial-a-ride services for vulnerable populations
- Develop incentives for non-single-occupancy trips when feasible

The TSP update also outlines other deficiencies in the public transportation system that need to be addressed, including commuter service linking residents with local and regional employment centers, and sufficient service to meet the needs of seniors and those with disabilities. Figure 1-12 below provides a map of transit supportive areas identified in the 2010 TSP update.

Figure 1-12 Eagle Point Transit Supportive Areas, 2010



Source: Transportation System Plan (2010)

The TSP update includes an analysis of Eagle Point land use and population densities to determine which areas of the city are most "transit-supportive." The TSP defines transit-supportive areas as those that have at least 4 residents per acre, or 3 employees per acre. The analysis found that half of the city is transit-supportive as of 2009, and 65% of the city will be able to support fixed-route transit service by 2034. The analysis also assessed the distribution of transit-disadvantaged populations within the city, including low-income, senior, and disabled residents, who will most benefit from fixed-route service. These groups were found to be spread throughout Eagle Point, however small clusters exist within the town center area and to the east along Stevens Road.

The TSP update includes a Public Transit Master Plan that prioritized a list of projects necessary to implement a public transit system to meet future transportation needs. The Action Plan consists of the highest priority projects, including exploring feasibility of annexing into or contracting with RVTD for intercity service, developing park-and-ride lots, and conducting a transit feasibility study for a commercial service. Lower priority projects include improving pedestrian connections to transit facilities, directing growth around transit routes identified in the transit feasibility study, launching dial-a-ride services with RVTD, providing a shuttle service to major destinations, developing a transit stop amenities plan, implementing a commuter service to Medford and other communities, and conducting a local fixed-route feasibility study.

Rogue Valley Metropolitan Planning Organization 2009-2034 Regional Transportation Plan

The Rogue Valley Regional Transportation Plan 2009-2034 is a long-range multi-modal transportation plan developed to meet the needs of the Rogue Valley Metropolitan Planning Organization planning. The Plan, which includes the City of Eagle Point, provides a framework of goals, policies, and actions for efficiently managing existing facilities, projects future growth, and identifies a coordinated set of policies and projects to serve future growth within a fiscally constrained strategy that meets federal air quality requirements.

The transit system section of the Plan describes the need for expanded service in the Rogue Valley Transportation District (RVTD), which currently excludes Eagle Point. Factors limiting growth in transit service include low population densities, especially in growth areas on the fringe of the urban area, and limited funding. Several transit-oriented developments are planned or are underway throughout the region, which could reach density levels necessary for viable transit. Local decision-makers have agreed to allocate a large portion of federal transportation dollars to transit. While the Plan does not specify any change in transit services in the region during the planning period, the RVTD Long Range Plan (described below) aims to enhance transit service.

Rogue Valley Transportation District Long Range Plan, 2007-2017

The Rogue Valley Transportation District (RVTD) provides public transit and paratransit services to most of the urbanized area in Jackson County, OR. The RVTD Long Range Plan aims to meet the transit needs of the community within the limitations of revenue projections. The service area has been transitioning from rural to urban and includes high percentages of transit-dependent populations. RVTD's main revenue sources include federal and state grants, a local property tax assessment, passenger fares, and other small sources.

Leading up to the Plan development, increasing operating costs outpaced revenues and caused several routes to be suspended, even routes with growing ridership. This trend is expected to continue without additional revenue sources. The 10-year plan identifies the potential for four

additional funding sources, including a property tax assessment increase and three different options for a local payroll tax. Assuming an increase in revenue, three tiers of service improvement alternatives are presented and analyzed, including the cost of the service in terms of per mile and per hour costs, overhead, and equipment. If additional funding becomes available, one of the first tier service enhancements is to add route service to west White City, which could be directly affected by decisions made in this study.

While none of the service alternatives in the RVTD Long Range Plan include expanding service to Eagle Point, the focus of the plan was on service needs within the district boundary rather than expansion needs outside of the boundary.

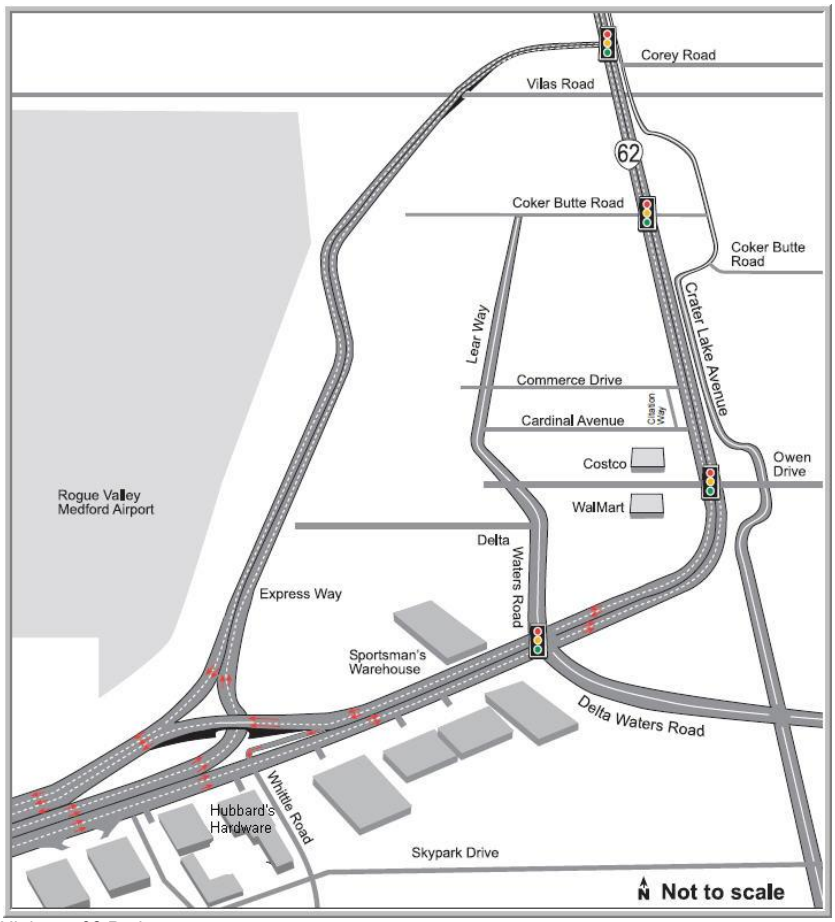
Rogue Valley Transportation District Boundary Assessment

In 2011, the Rogue Valley Transportation District assessed the feasibility of expanding the current service boundary to include adjacent cities, including the City of Eagle Point. The study analyzed population and employment growth in the district and the potential costs and revenues associated with expanding RVTD's service area. The study noted two ways to change the RVTD boundary: annexation or through a change of organization. The study also estimated the potential increase of local revenues through the current and increased property tax increments, as well as the addition of a new payroll tax (which is a tax on annual earnings paid by the employer). The assessment found that the RVTD boundary could feasibly be expanded to provide transit services to Eagle Point, and that a collaborative process with the City of Eagle Point should ensue. The assessment also concluded that the city of Eagle Point would generate approximately $90,000 in property tax under RVTD's current taxing increment of 17 cents per thousand and the cost to provide a fixed route at 2011 service levels (which did not include evening or weekend service) would be approximately $140,000[6].

[6] This study did not define a specific fixed route alignment but rather estimated operating costs using the distance from White City to Eagle Point and 2011 service levels.

Oregon Department of Transportation Highway 62 Corridor Project

The Highway 62 project aims to reduce congestion and improve safety on this corridor by enhancing multi-modal facilities, including facilities for bicyclists, pedestrians, and transit. A Citizen Advisory Committee and Project Development Teams developed a preferred alternative that was selected by the community and will start construction in 2014. The north Medford interchange will be improved with realigned ramps and a 4.5 mile limited access expressway parallel to the old Medco Haul Road.



Highway 62 Project
Source: ODOT

Community Survey, 2008

In 2008, the City of Eagle Point conducted a survey of residents. Two questions included in the survey are relevant to this study. The first question asked "Would you use transit service if it were available to and from Eagle Point?" – to which 38% of respondents responded "Yes." The second question asked "Would you support a modest property assessment to fund the transit service?" - and 40% of respondents said "Yes." Without much additional information about what service would be provided, or how much it might cost to locally fund the service, support was fairly high for transit service to and from Eagle Point.

EXISTING TRANSPORTATION PROVIDERS

Eagle Point does not currently have fixed route transit service. This section outlines service that serves the region surrounding Eagle Point and the existing demand-response service in Eagle Point today.

ROGUE VALLEY TRANSPORTATION DISTRICT

Rogue Valley Transportation District (RVTD) has served the Rogue Valley since 1975. RVTD's seven fixed routes provide Monday through Friday service and limited Saturday service between Medford, White City, Jacksonville, and Ashland. Figure 1-3 presented earlier in the document provides an illustration of existing transit service in the region.

According to the Rogue Valley Regional Transportation Plan, RVTD users tend to be mostly "transit-dependent riders," which generally include low income, seniors, youth, and disabled residents of the region.

Fixed Route Service

RVTD provides the following local and intercity fixed route bus service.

Figure 1-13 Summary of RVTD Fixed Route Service Frequency and Span

RVTD Route	Description	Headway	Service Span
Route 1 RVIM Airport/Biddle Road	Service from Medford Front Street Station to the airport via Biddle Road	M-F: 60 minutes Saturday: 60 minutes	M-F: 6:30 am – 7:10 pm Saturday: 8:30 am – 4:10 pm
Route 2 Main Street/West Medford	Service from Medford Front Street Station to West Medford via Oakdale Ave, Stewart Ave, and Main St.	M-F: 30 minutes Saturday: 60 minutes	M-F: 6:00 am – 8:52 pm Saturday: 8:00 am – 4:22 pm
Route 10 Ashland/Talent/ Phoenix	Services from Medford Front Street Station to Ashland via route 99, Phoenix, Talent, and Ashland	M-F: 20-30 minutes Saturday: 60 minutes	M-F: 5:00 am – 10:13 pm Saturday: 8:00 am – 5:43 pm
Route 24 East Barnett/RVMC	Service from Medford Front Street Station to the Asante Rogue Regional Medical Center (RVMC)	M-F: 60 minutes Saturday: 60 minutes	M-F: 6:00 am – 8:22 pm Saturday: 8:30 am – 3:52 pm
Route 30 Medford/ Jacksonville	Service from Medford Front Street Station to Jacksonville via Jackson Street, Columbus Ave, Main Street, and route 238 Hanley Road	M-F: 45 minutes Saturday: 45 minutes	M-F: 6:15 am – 8:52 am; 11:30 am – 12:52 am; 3:00 pm – 6:37 pm Saturday: 8:15 am – 8:52 am; 11:30 am – 12:52 pm; 3:00 pm – 4:22 pm
Route 40 Medford/Central Point	Service from Medford Front Street Station to Central Point	M-F: 30 minutes Saturday: 60 minutes	M-F: 6:00 am – 9:17 pm Saturday: 8:00 am – 4:47 pm
Route 60 to White City	Service from Medford Front Street Station to White City via Crater Lake Avenue and Highway 62	M-F: 30 minutes Saturday: 60 minutes	M-F: 5:00 am – 9:48 pm Saturday: 8:30 am – 5:48 pm

Route 60 – White City

Because Route 60 is the closest fixed route to Eagle Point (with the closest stop about 3 miles south), it could be considered for extension to Eagle Point and/or be impacted by a new route that connects Eagle Point to the region. As such, additional service characteristics and performance data is provided for this route. RVTD's Route 60 route map and schedule is shown below in Figure 1-17.

As noted in Figure 1-13 above, Route 60 operates every 30 minutes Monday through Friday from about 5:00 am until 10:00 pm. The round-trip travel time for this route is 90 minutes (including layover and recovery), so three in-service vehicles are required throughout the day for this route. Only two in-service vehicles are required on Saturday because the route operates on 60 minute headways. It should be noted that four additional weekday round trips were added in the evening on this route in April 2012, along with new Saturday service (from 8:30 am until 5:48 pm).

Route 60 Ridership and Performance Overview

Figure 1-14, Figure 1-15, and Figure 1-16 provide detailed performance information for Route 60 since 2007. Figure 1-14 shows that ridership by year from 2007-08 to 2011-12 has continued to grow, and is expected to continue in 2012-13 (with the new service improvements). Route 60 has the second highest ridership of any route in the RVTD system and makes up about 23% of the total RVTD fixed route ridership. Figure 1-15 shows passengers per revenue hour, a key indicator of service productivity. This indicator has stayed relatively stable (and has even grown slightly) over the past five years. Productivity on Route 60 is close to the RVTD system average, which is about 29 passengers per revenue hour. Finally, Figure 1-16 shows ridership on Route 60 by day and time period for the week of October 1st, 2012. As expected, ridership is fairly stable Monday through Thursday, with a slight decline on Friday. Saturday ridership on Route 60 is about 30% of average weekday ridership, which makes sense given hourly service and a much shorter service span.

Figure 1-14 Route 60 Annual Ridership by Year

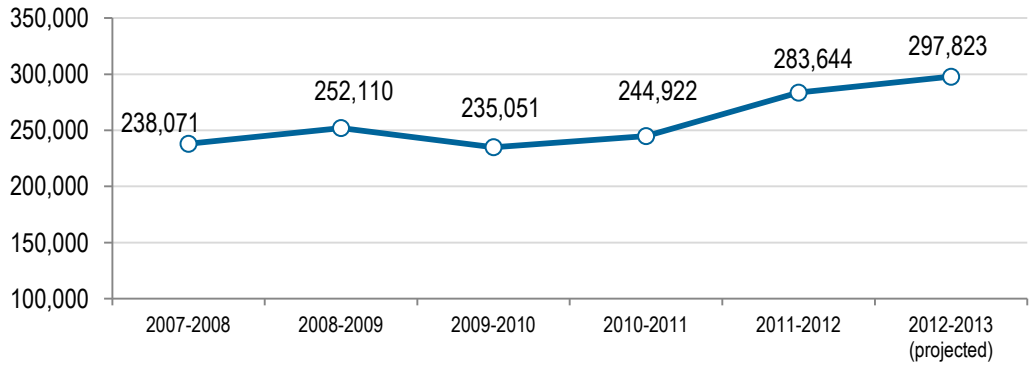


Figure 1-15 Route 60 Passengers per Revenue Hour

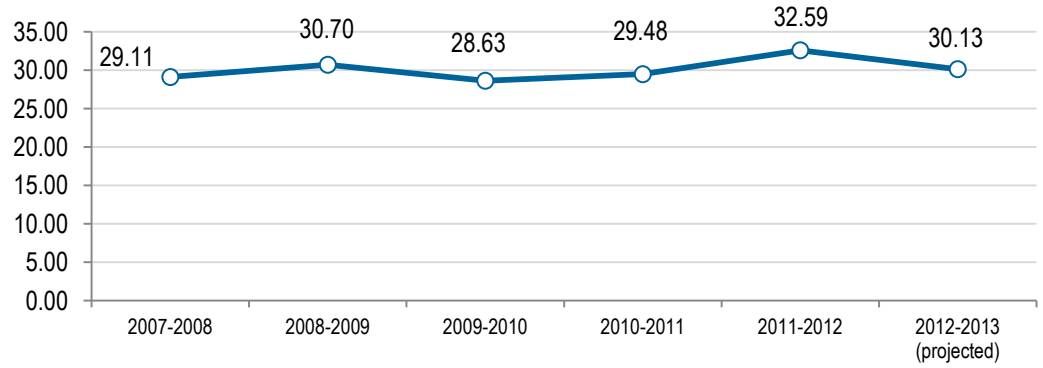


Figure 1-16 Route 60 Ridership by Day and Time Period (Week of October 1, 2012)

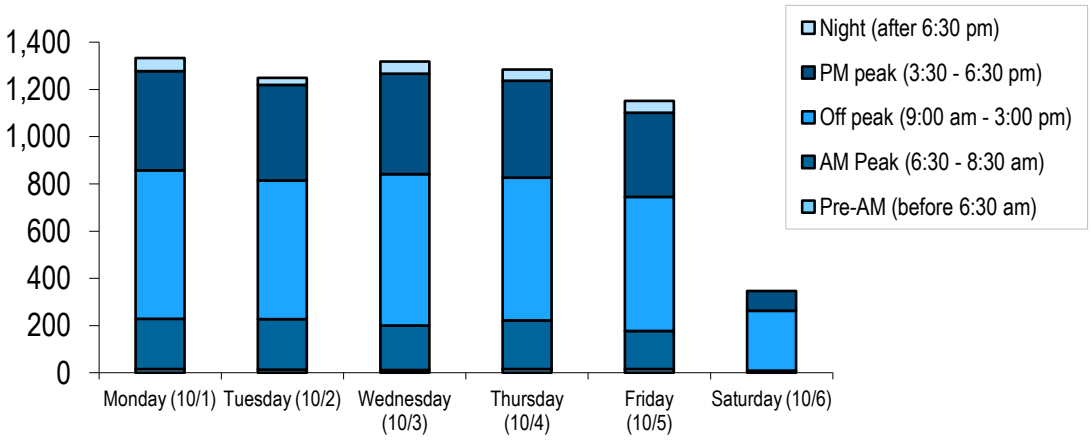
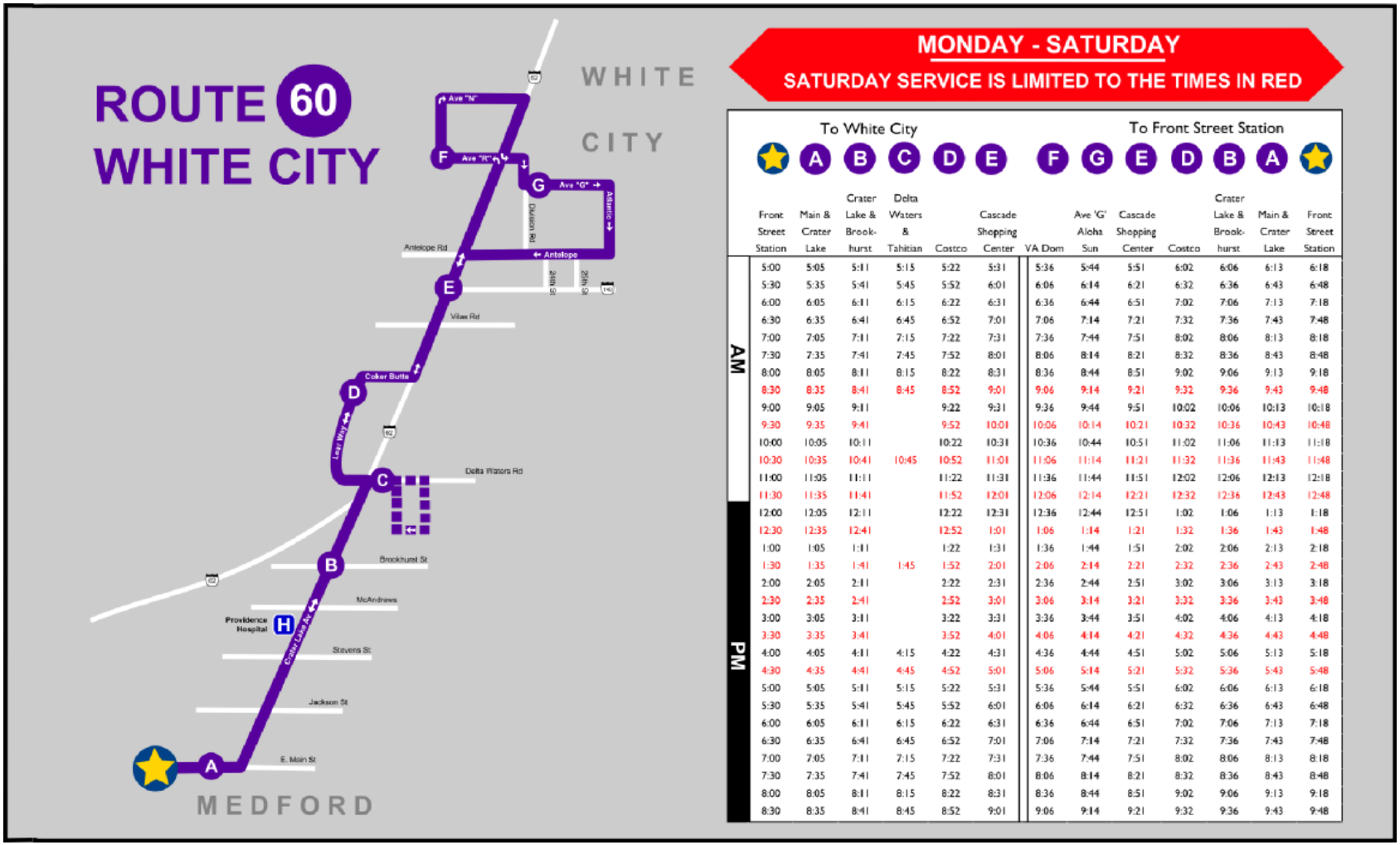


Figure 1-17 Route 60 Map and Schedule



Source: www.rvtd.org

Valley Lift

In addition to seven fixed routes, RVTD provides Valley Lift, a shared ride, curb-to-curb, wheelchair accessible transportation service for people whose disabilities prevent them from using regular RVTD service. Eligibility for this program is based on functional limitations, not on age. Valley Lift does not provide service to Eagle Point – service ends at Northrop's Video at the main entrance to the Veterans Administration Domiciliary in White City.

TransLink

TransLink is a RVTD-sponsored program that provides transportation services to eligible Oregon Health Plan and eligible Medicaid clients traveling to authorized medical services at no cost. TransLink provides service to all of Jackson County, including Eagle Point. Trips must be scheduled a minimum of two days in advance, and service is available 24 hours per day, 365 days per year.

Way to Go Program

The RVTD Way to GO Program is a travel options program that helps residents and visitors in southern Oregon travel by bike, transit, and other alternative modes. Programs include education and outreach directly to employers, schools, and government agencies. RVTD has provided bicycle safety education in the Eagle Point community since 2009 in schools and at special events.

UPPER ROGUE COMMUNITY CENTER

The Upper Rogue Community Center (URCC) was established in 1979 in Shady Cove, Oregon, just 11 miles north of Eagle Point on Highway 62. The Center began due to a community need for a local organization that could serve an area that is more than 20 miles from many important services. The Center provides a place for various activities such as community meetings, dances, government functions, forums, workshops, and classes that might not otherwise be offered in the area. The URCC also provides transportation services to the Upper Rogue area with van trips running from Prospect to Medford and all points in between.

The URCC transportation service is a door-to-door demand response service for individuals 60 years of age or older or people with disabilities. The URCC coordinates transportation services for people in the cities of Prospect, Butte Falls, Trail, Shady Cove, and Eagle Point traveling into RVTD's service area. URCC provides approximately 6,000 rides per year.

Effective July 1, 2012, the Upper Rogue Community Center coordinates its transportation service offerings through RVTD.[7] Previously, URCC riders called the URCC to request rides. As of July 1, requests are now made directly to the RVTD Valley Lift Program call center. Medicaid clients requiring medical rides will continue using the TransLink call center scheduling line.

[7] Coordination efforts are the result of state and federal requirements to increase efficiency in transportation services.

OTHER PRIVATE TRANSPORTATION SERVICES

The Eagle Cove Assisted Living Facility includes16 retirement apartments and 63 assisted living units. This facility also has a shuttle vehicle that is used to provide specialized trips for shopping, activities, and medical appointments.

STAKEHOLDER INPUT AND NEEDS ASSESSMENT

This section includes an assessment of transportation needs and priorities as identified through a series of public input activities conducted early in the study:

- An initial meeting with the Stakeholder Group, which included two exercises related to needs and priorities
- Individual interviews conducted with 11 individuals who were identified as key stakeholders
- Input from the City Council and Planning Commission at a joint workshop on September 25, 2012, which also included two exercises related to needs and priorities
- Direction received from a planning charrette with the Stakeholder Group that took place on September 26th, 2012
- Results from a follow-up survey that was sent out to all City Council, Planning Commission, and Stakeholder Group members (in early October)

Each of these activities are described in more detail below. An overall assessment of needs and priorities for public transit in Eagle Point follows.

Stakeholder Interviews, August 21 and 22, 2012

A total of 11 stakeholder interviews were conducted either in-person or by telephone, and included, among others, social service agency representatives, local elected officials, and staff from local transportation programs, as indicated in Figure 1-18 below. Those interviewed were asked to elaborate on any perception or experiences with unmet transportation needs or gaps in service specific to their clientele as well as the role their organization plays in providing or arranging for transportation, if applicable. It is important to note that their feedback reflects the views, opinions, and perceptions of those interviewed and that the resulting information was not verified or validated for accuracy of content.

Figure 1-18 Stakeholders Interviewed

Name	Agency/Organization
Jerry Zieman	President, Eagle Point Senior Center
Dan Moore	RVCOG Planning Coordinator
Suzi Collins	Planning Commission Chairperson
Glen Finley	Owner, Eagle Point Medical Center
Tyler Hulsey	Upper Rogue Community Center
Allen Barber	Principal, Eagle Point High School
Ruth Jenks	City Councilmember
Bob Russell	Mayor, City of Eagle Point
Mike Frey	President-Elect, Chamber of Commerce
Julie Brown	General Manager, Rogue Valley Transit District
Amy Twiest	Veterans Association

Stakeholder Group Kick-Off Meeting, August 21, 2012

The role of the Stakeholder Group was to provide input and guidance throughout the planning project. The Stakeholder Group consisted of about 25 individuals ranging from elected and appointed officials; representatives of the medical, senior, educational and business communities; existing transportation providers; and other individuals interested in transportation issues in the community. The Stakeholder Group met regularly throughout the project to provide guidance and review key project milestones.

At its first meeting held in Eagle Point on August 21, 2012, two exercises were conducted to poll members' perceptions of key unmet transportation needs, and to discuss trade-offs inherent in planning for a potential new transit system.

The first exercise consisted of prioritizing a list of 18 conceptual needs. These needs were those typically identified for communities wishing to initiate or expand upon transit services. Each participant was allotted five "votes" to indicate the needs he or she considered most critical to meet. The needs were categorized as follows:

- Unserved or underserved areas
- Lack of availability
- Capital improvements
- Cost of transportation
- Information and marketing

The results of all participants are indicated below in Figure 1-19. Of the 18 conceptual needs, all but two received at least one vote, indicating a level of interest for most of the needs suggested, as well as a comprehensive set of needs to be addressed. While this assessment is not intended to reflect a statistically valid representation of community members' perceptions, it does provide a "snapshot" of community needs as obtained through this initial discussion. A complete list of the conceptual needs, and how the Stakeholder Group ranked each need, is included in Appendix A.

Figure 1-19 Prioritized needs identified by the Stakeholder Group

Ranking	Issue
1	Services to communities in greater Rogue Valley area
2 (tie)	Lifeline service to adjacent communities for transit dependent
2 (tie)	Provide public transit on weekdays
3	Service to Medford for employment purposes
4	Service to Medford for medical purposes

The second exercise focused on allowing participants to indicate their preference for a transit system that is focused on **coverage,** versus one that is focused on **productivity**. Typically, a system focused on coverage provides service in a large geographic area to ensure as many areas of a community are served as possible. A system focused on productivity provides more concentrated service where there is highest demand, typically along certain highly traveled corridors or between key destinations. Likewise, a system oriented towards coverage would provide less service during the week in order to provide some service, even if limited, on weekends, while a system oriented towards productivity concentrates service hours during commute hours. While neither approach to allocating resources was promoted over the other, meeting participants were asked to indicate their preference for one model or another by selecting one variable for eight separate categories. Figure 1-20 illustrates the preference expressed by the Stakeholder Group for a service that is more focused towards the productivity model. Figure 1-21 illustrates the group's strong preference for a system that connects Eagle Point to Medford and other communities, rather than concentrating on providing services within Eagle Point. A complete list of the tradeoffs, and how the Stakeholder Group responded, is provided in Appendix A.

Figure 1-20 Coverage versus Productivity?

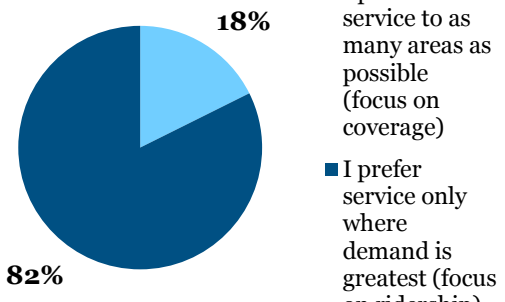
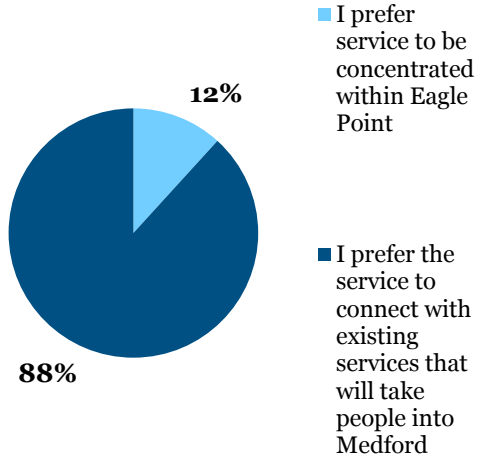


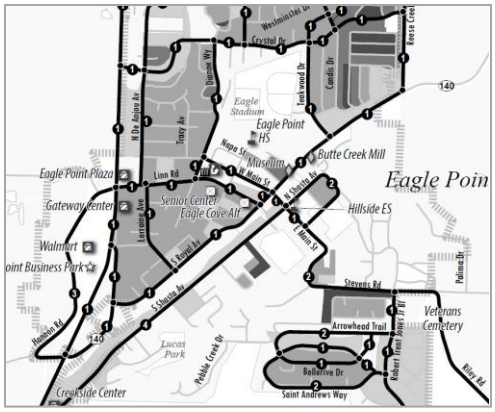
Figure 1-21 Local versus Regional Service?



Stakeholder Group Planning Game Charrette, September 26, 2012

A second meeting was held with the Stakeholder Group on September 26, 2012. This meeting was structured as a workshop called the "Transit Planning Game." The Game is a tool that Nelson\Nygaard uses to help groups of key stakeholders get their ideas for transit on paper and to quickly understand the costs and tradeoffs associated with those ideas. The Game's primary objective was to build consensus on how transit in Eagle Point should strike a balance between the competing transit service design goals of "productivity" and "coverage" (as discussed above).

About 20 people participated in the Planning Game. Participants were assigned to one of four tables with 4 or 5 people per table. Each table was given a map of Eagle Point, markers and other materials necessary for planning out their service. The Planning Game map identified all potential streets where transit might operate, and then estimated transit travel times between intersections. A sample of the map is provided at right and the complete map is provided in Appendix A.



A facilitator was also assigned to each table. Two of the facilitators were from the City of Eagle Point, one facilitator was from RVTD, and one facilitator was from Nelson\Nygaard. A guide was also prepared for the Planning Game to explain the process to participants. This guide is provided in Appendix A.

Planning Game Financial Limitations

Because funding for a potential transit service in Eagle Point is not unlimited, it was important that planning for a new service be developed assuming some financial constraint. To do so, transit planners generally estimate cost for transit service based on how many annual revenue hours or annual revenue miles are required to operate that service. For the Planning Game, revenue hours were used – or "bus hours" – which is simply an hour of service that the bus is in revenue service (i.e., available to pick up and drop off passengers).

Based on the RVTD District Boundary Assessment study (which evaluated potential costs associated with a fixed route in Eagle Point) and discussions with RVTD staff, two financial scenarios were assumed for the Planning Game.

- 3,000 annual bus hours
- 5,000 annual bus hours

Two of the tables were given only 3,000 annual bus hours to plan out their service, while the other two tables were given 5,000 annual bus hours.

The 3,000 annual bus hours figure represents a basic level of service, while the 5,000 annual bus hours figure represents a more robust level of service. To get a sense of how much service this represents, 3,000 annual bus hours roughly represents one bus operating for 12 hours during the weekday, with no service on weekends. Or, 3,000 annual bus hours could also represent one bus operating for about 10 hours during weekdays and 8 hours on Saturday.

It is important to note that these figures were theoretical, and developed for the Planning Game only. An estimate of resources and costs associated with a new service in Eagle Point is included in Chapter 2.

Key Themes of the Planning Game

All members of the Stakeholder Group who attended the Planning Game appeared to be highly engaged and actively participated in playing the Game. The following is a summary of the key themes that arose out of the Planning Game.

- **Local service to the densest parts of the city.** Nearly all participants focused their local service design west of Shasta Avenue, where the greatest need for transit was identified. Several tables attempted to also provide service east of Shasta Avenue (generally via Main Street, Stevens Road, Cascadeview, and Alta Vista Road), but only one table identified a way to serve this area with a short spur to Stevens Road and Cascadeview.
- **Connections to White City more important than direct service to Medford.** None of the tables decided to use their resources to offer direct service to Medford, but all of the tables provided a connection at least to the Cascade Shopping Center in White City. One of the tables (with the more robust budget) also provided direct service to the Rogue Community College campus in West White City.
- **More service during peak periods, less during the midday.** Two tables creatively developed service plans that provided more service frequency during peak periods and less service during the midday in order to stretch their resources further. One of the tables only had 3,000 annual bus hours, while the other table that did this had 5,000 annual bus hours.
- **Desire for Saturday service, even with constrained resources.** All but one of the tables felt like it was important to provide some service on Saturday, even if it meant less service on weekdays.
- **Focus of service to seniors, college students, workers.** Most of the tables focused their service designs on serving seniors, college students, and workers, even though these groups represent very different travel needs.
- **Regular service throughout the day desired.** The groups with 5,000 annual bus hours developed a system to provide regular service throughout the day rather than have gaps in service during the midday in order to provide more service during peak periods.
- **Start with a base service, and expand as more resources available.** One table said that it was important to start with a base service and then expand that service as resources became available. Nearly all of the participants appeared to agree with this comment.
- **Service to Eagle Point just as important as service from Eagle Point.** All of the tables developed service designs that would allow Eagle Point residents to travel outside of the city, but also bring people from other areas in the region to Eagle Point. Several participants made a point of stating this desire to the larger group.
- **Coordinate efforts with RVTD to serve RCC/West White City.** At least one of the tables with fewer resources (3,000 annual bus hours) said that it was important to coordinate planning with RVTD to allow riders coming from Eagle Point to connect with RVTD Route 60. Several participants expressed hope that a new service in Eagle Point

would allow RVTD to also implement a new route that served the White City RCC campus.

- **Park and rides in Eagle Point are important.** All of the tables discussed the need for park and rides, and specific locations were identified. In general, the Walmart was identified as the best location for a local park and ride.

City Council/Planning Commission Meeting, September 25, 2012

A joint workshop was held with the Eagle Point City Council and Planning Commission on September 25, 2012. The focus of the meeting, held at 6:00 pm prior to the City Council's regular meeting at 7:00 pm, was very similar to the first Stakeholder Group. After a short introduction by the City's Principal Planner, Nelson\Nygaard presented an overview of the study thus far, as well as an overview of the Draft Existing Conditions report, which was handed out at the meeting. Following the presentation, the City Council and Planning Commission members were asked to participate in the same Needs and Tradeoffs exercise that the Stakeholder Group did in August. A total of 13 City Council and Planning Commission members participated in the exercises.

Figure 1-22 provides the top five needs identified by the group and Figure 1-23 and Figure 24 provide a summary of the tradeoff exercise. The forms and results used for the exercises are included in Appendix A.

Figure 1-22 Prioritized needs identified by the City Council and Planning Commission

Ranking	Issue
1	Services to Medford for employment purposes
2	Service on weekdays during commute hours
3	Affordable fares for all
4	Service to Medford for medical purposes
5	"Lifeline" transit network for the transit dependent to operate between Eagle Point and outlying communities

There were a number of similarities between the feedback received from the Stakeholder Group on 8/21 and the City Council and Planning Commission members. The primary difference between the two groups was that the City Council and Planning Commission members were more focused on providing service during commute hours and for employment purposes, though both groups felt that service for the "transit dependent" and trips to Medford for medical purposes were also important. In terms of tradeoffs, the City Council and Planning Commission members and the Stakeholder Group had very similar feedback. Like the needs exercise, the City Council and Planning Commission members were more focused on productivity oriented service that focused during peak periods and favored weekday only over weekday and Saturday service.

Figure 1-23 Coverage or Productivity

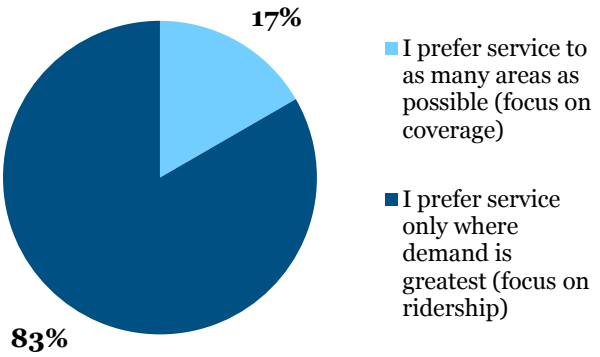
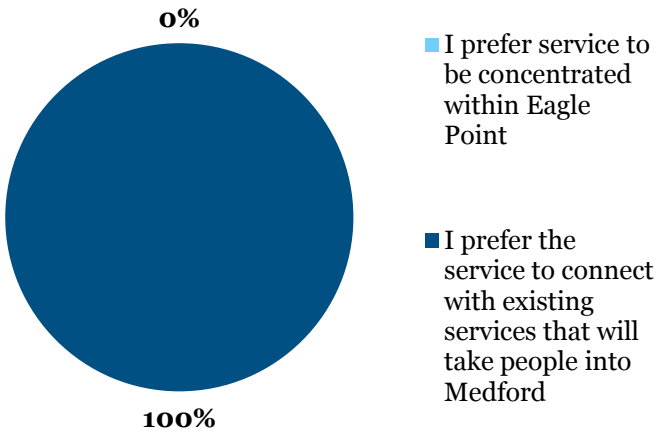


Figure 1-24 Local versus Regional Service?



Survey of City Council, Planning Commission and Stakeholder Group Members

As a follow up to the Stakeholder Group meeting on 8/21, the joint City Council/Planning Commission meeting on 9/25, and the Planning Game held on 9/26, a very simple survey was sent to members of each group. The survey was primarily intended to understand two key questions: 1) do key stakeholders in Eagle Point think there is a current need for transit service in their city, and 2) do they support some level of local funding to operate this service.

The survey was sent via an email to all members of the Stakeholder Group, City Council, and Planning Commission. In total, this accounts for approximately 35 individuals. As of mid-October 2012, 18 individuals completed the survey: 12 members of the Stakeholder Group, 4 City Council Members and 3 Planning Commission members (some respondents could have been both a member of the Stakeholder Group and City Council/Planning Commission members). The survey was completely confidential and all findings are summarized below in aggregate.

Figure 1-25 Is there a need for some sort of public transit service in Eagle Point today?

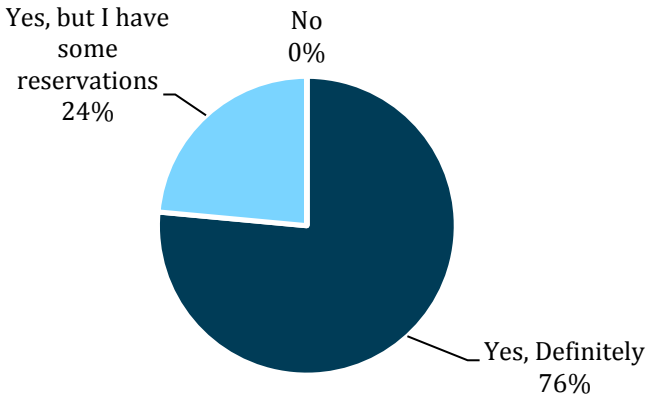


Figure 1-26 What kind of transit service do you think is most appropriate for Eagle Point?

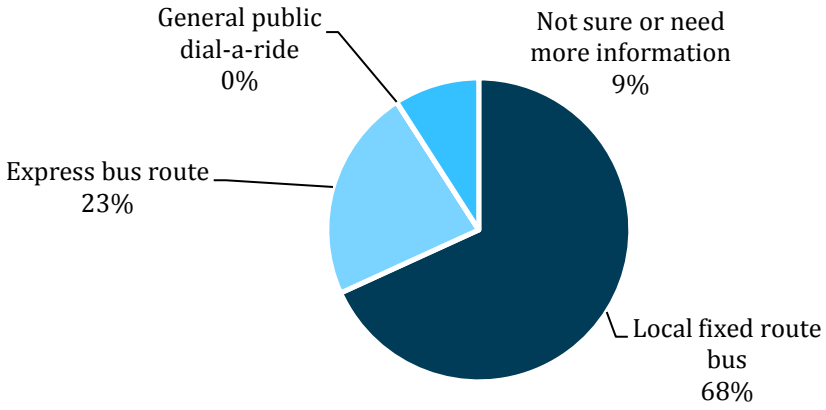
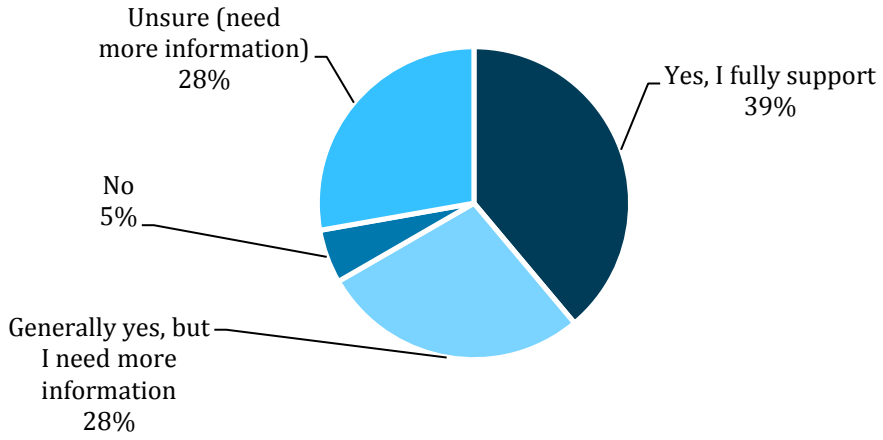


Figure 1-27 Would you support a local funding contribution of some sort to bring transit service to Eagle Point?



Key Findings

Based on this review of existing conditions, as well as feedback from stakeholders and the Stakeholder Group, key findings include:

- **Strong support for transit in Eagle Point in previous studies, but some caution about the level of demand.** Several of the previous planning documents reviewed for this report support transit service in Eagle Point, such as the Town Center Plan and the RVTD District Boundary Assessment, while other planning documents, such as the RVMPO Regional Transportation Plan and the RVTD Long Range Transit Plan, identify the need for an expansion of transit services in the region but are not specific about a new connection to Eagle Point. The Transportation System Plan update was very specific about the need for transit and even added a new goal: "the provision of affordable, accessible transit, especially to transportation-disadvantaged community members."
- **Relatively low population density in Eagle Point overall, but some areas with potentially higher transit demand exist.** The central part of Eagle Point, between Highway 62 and Royal Avenue, exhibits the greatest potential demand for transit service. This area has several pockets of higher population density, youth/young adult density, and senior density, which tend to be greater consumers of transit service. The overall population and youth population densities are highest in the Butte Crest neighborhood (near the intersection of Royal Avenue and Archwood Drive), as well as in several other mobile home parks (Eagle, Oak Hill, and Idelwood). Senior density is concentrated around the Senior Center and the Eagle Point Assisted Living Facility (on Loto Street near City Hall), as well as smaller pockets around the Eagle Point Golf Course.
- **Significant employment outside of Eagle Point.** Based on the Census data of where workers in Eagle Point are employed, about 93% commute outside of the city for their job, while just 7% of residents work locally in Eagle Point. Of these workers, the largest share by far are employed in Medford (46%), followed by Grants Pass, Central Point, and White City, each of which attract about 3% of Eagle Point workers. In terms of numbers, about 1,200 Eagle Point workers commute to Medford, while just 185 work locally in Eagle Point.
- **Strong desire for new transit service to Eagle Point among existing stakeholders.** The desire to introduce new public transportation services in Eagle Point was clearly expressed by stakeholders. Based on survey sent to the Stakeholder Group, City Council and Planning Commission members, 76% said that there is definitely a need for public transit in Eagle Point today. The remaining 24% said they generally think there is demand for service today, but have some reservations. None of the stakeholders said that there was *not* a need for public transit in Eagle Point today.

  Specifically, stakeholders expressed the desire for service to extend to Eagle Point from other parts of the region. Currently, RVTD services operate as far as White City, about three miles from downtown Eagle Point. Key destinations mentioned within Eagle Point include locations mostly west of Shasta Avenue: Walmart and Ray's (grocery store), the Senior Center and Senior Housing Complex, Main and Loto Streets (downtown), and Harnish Wayside Visitor Center. Stakeholders also noted that fares should be affordable for potential passengers, and that service for people without a car, persons with disabilities, or older adults should be prioritized over those individuals who have a transportation choice (i.e., own their own vehicle). Several stakeholders also made it

clear that if transit service is provided, it should be commensurate with what the community can reasonably afford. The primary concern was to ensure that the city did not over-extend itself financially to provide this important service and then be faced with potential reduction or elimination of service in lean budget periods.

- **Connections to Medford and other local communities are the highest priority.** The Stakeholder Group, as well as the City Council and Planning Commission members, all said that connections to and from Medford for a variety of trip purposes is a priority for any future transit service in Eagle Point. Stakeholders were able to elaborate on the definition of this need to express interest in providing transportation alternatives for youth who need to access potential job sites, the Rogue Community College campuses in Medford and White City, or entertainment in Medford and/or White City (the nearest movie theater and swimming pool). Others mentioned that the corridor along Highway 62 between Eagle Point and Medford offers numerous potential entry-level job opportunities. A major veteran's facility is also located in White City (the VA Domiciliary); transportation for those accessing these resources is also needed.

  While Eagle Point does not have many major employers (besides the Walmart and Ray's, most are small businesses with less than 10 employees), there is a perceived business benefit to providing transportation into Eagle Point as well as from Eagle Point. If access to jobs is provided, people will be more likely to spend money in the community where they live, and support local businesses within Eagle Point.
- **Desire for fixed route service over other service models.** Based on the survey sent to the Stakeholder Group, City Council, and Planning Commission members, 68% said that they prefer a local fixed route service, while 23% said they preferred an express bus route. About 10% of stakeholders said they weren't sure or needed more information. None of the stakeholders said that they would prefer a local dial-a-ride.
- **Supporting infrastructure also needed.** A number of stakeholders also indicated the need to provide access to bus stops and to improve pedestrian access in general. Some streets in Eagle Point (including the one in front of the Senior Center) do not currently have sidewalks, or they are incomplete. Therefore, pedestrians are forced to walk either in the street, or in grass which can be muddy in the winter, and difficult or impossible to navigate with a wheelchair or other mobility device. Interest was expressed in making sure the bus stops are accessible for people with disabilities, and provide adequate shelter from the elements. Park and ride facilities were also noted as an important element of providing transit service in Eagle Point.
- **Preference for a transit service model focused on "productivity."** There is stronger support for a productivity model than for a coverage model based on feedback from the Stakeholder Group, City Council, and Planning Commission members. This implies that resources would be directed more towards providing services where demand is greatest; focusing more on frequent service during weekdays even if there is less (or no) weekend service; providing more trips to Medford and other communities versus services within Eagle Point; and, providing fewer bus stops, even if they are further apart.
- **Moderate support for local funding for transit.** Based on survey sent to the Stakeholder Group, City Council, and Planning Commission members, about 40% fully support some sort of local funding support to bring transit to Eagle Point, and another 28% said they generally support local funding support, but need more information. About 30% simply said they need more information (without saying whether they do or don't support local funding), while 5% said they do not support local funding support.

2 SERVICE ALTERNATIVES

INTRODUCTION

This chapter includes a set of service design guidelines, a summary of three initial service alternatives for how transit could be provided in Eagle Point, and presentation of two variations of a preferred service alternative. The service alternatives are based on an evaluation of existing transportation services, demographic trends, other planning studies, and the assessment of needs presented in Chapter 1.

SERVICE DESIGN GUIDELINES

As with any public service (police, fire, schools, etc.), transit service must provide the best service possible with the resources that are available. And like other public services, transit has the difficult job of serving a wide variety of demands, some of which conflict with each other. For example, transit riders generally want fast and direct service, but also want convenient bus stop locations (to minimize travel time to access transit). The result is often more frequent bus stops, but slower service. Thus, service elements that will attract one type of rider to transit can deter other riders. Transit service, therefore, must constantly balance these types of competing demands. Transit service must also balance the trade-offs associated with providing service to those people who have limited mobility options (i.e., can't drive and are more "dependant" on transit) and providing good options to those who can drive (i.e., those who have a "choice" as to whether they use transit).

To assist with balancing these demands, especially when developing a new transit service, it is valuable to establish a set of principles from which to plan and design service. As such, the service design principles presented below are intended as a starting point for designing transit service that is attractive to as many types of riders as possible.

- **Service should be simple.** First and foremost, for people to use transit, service should be designed so that it is easy to understand. In this way, potential riders can learn about the options that are available to take them where they want to go and when they want to without experiencing frustration and problems. Most of the guidelines listed below are aimed at making transit service intuitive, logical, and easy to navigate.
- **Routes should operate along a direct path.** The fewer directional changes a route makes, the easier it is to understand. Conversely, circuitous alignments are disorienting, difficult to remember, and take longer to travel. In general, transit routes should not deviate from the most direct alignment unless there is a compelling reason to do so.
- **Route deviations should be minimized.** As described above, service should be relatively direct, and to make service direct, the use of route deviations—the deviation of service off of the most direct route—should be minimized. However, there are many instances when the deviation of service off of the most direct route is appropriate, such as

to provide service to major shopping centers, employment sites, schools, etc. In these cases, the benefits of operating the route off of the main route must be weighed against the inconvenience caused to passengers already on board. In most cases, where route deviations are provided, they should be provided on an all day basis. Exceptions are during times when the sites have no activity—for example route deviations to shopping centers do not need to serve those locations before employees start commuting to work.

- **Routes should serve well-defined markets.** To make service easy to understand and to eliminate potential duplication of service, transit should be developed to serve clearly defined markets. RVTD has a general rule that service should be designed around employees and students first, as these groups tend to be the most time sensitive. If employees and students are well served, often times other user groups are also well served.
- **Services should be consistent and connect with each other.** People can easily remember repeating patterns but have difficulty remembering irregular sequences. For this reason, routes should operate along consistent alignments and at regular intervals (headways). For example, routes that provide two trips an hour should depart from their terminals every 30 minutes. Also, where one route intersects with another route, at stops and/or street intersections, schedules should be coordinated to the greatest extent possible to minimize connection times.
- **Stops should be spaced appropriately.** Transit stops are the access and egress points for transit services and should be conveniently located. However, transit stops are also the major reason that transit service is slower than automobile trips. Since most riders want service that balances convenience and speed, the number and location of stops is a key component of determining that balance. Different types of transit services are tailored toward serving different types of trips and needs. Services that emphasize speed (for example, express routes) should have fewer stops, while service that emphasizes accessibility (for example, local routes) should have more frequent stops. In low-density areas like Eagle Point, the minimum stop spacing is between 800 and 900 feet, or six stops per mile. Exceptions to these guidelines should only be made in cases where walking conditions are particularly problematic or dangerous (like on Highway 62), or where there are significant topographical challenges.
- **Service design should maximize service.** Service design can significantly impact schedule efficiency. Service should be designed to maximize the time that the bus is in revenue service (i.e., picking up passengers) and minimize out-of-service time (i.e., for layover or driver recovery). For reference, it is typical that about 15% of the time be scheduled for recovery and layover.

It should be noted that these service design guidelines are presented as just that – *guidelines*. Local conditions, especially in relatively low-density areas like Eagle Point, often do not justify extensive transit service and make adhering to the guidelines more difficult. In addition, route design very much depends on the local street network. Throughout Eagle Point and White City, there are parts of the street grid that do not allow for direct, simple service design. Similarly, many of the activity centers and land uses require somewhat circuitous route design (such as the Southern Oregon Rehabilitation Center & Clinics (SORCC) or the location of Rogue Community College (RCC) in White City).

INTIAL SERVICE ALTERNATIVES

Based on the needs identified in the Chapter 1, as well as the service design guidelines identified above, three initial service alternatives were developed for Eagle Point.

The initial service alternatives were developed to be somewhat comparable to each other, and all would require about the same amount of financial resources to operate (at least to Eagle Point). Thus, the alternatives differ based on how they serve the community, and how they connect to other parts of the region. The three service alternatives are described briefly below and detailed in Appendix C.

- **Alternative 1: Eagle Point to White City (Direct).** This option focuses on minimal circulation in Eagle Point but provides 30 minute service connecting Eagle Point to Route 60 in White City.
- **Alternative 2: Eagle Point to White City (Coverage).** This alternative focuses on providing better coverage throughout Eagle Point, but in doing so, offers less frequent service throughout the day. Additional service could be provided during peak hours to better serve workers and students.
- **Alternative 3: Extension of Route 60.** This alternative includes two options and focuses on modifications to Route 60 to extend to Eagle Point, which in turn offers Eagle Point residents a single-seat ride to Medford. This alternative includes several options for restructuring Route 60 service in White City and includes an option to serve the Rogue Community College campus in White City.

Summary of Initial Transit Alternatives

Figure 2-1, below, compares the different alternatives in terms of how well they are perceived to serve different transit markets in Eagle Point, as well as the operating and capital costs associated with each alternative. Refer to Appendix C for a detailed description of the three initial transit alternatives.

Figure 2-1 Summary of Initial Transit Alternatives

Alternative → Market ↓	1	2	3A	3B
Service to Employees	GOOD Provides frequent service and good connections to Route 60 with service to Medford. Minimizes local circulation in Eagle Point.	FAIR Provides less frequent service (hourly) and more circuitous routing in Eagle Point. Timed transfers in White City improve travel time.	GOOD Provides service directly to Medford without a transfer, but requires deviation through White City.	BEST Provides frequent and direct connection to Medford without a transfer or deviation through White City.
Service to College Students	GOOD Provides frequent service and good connections to Route 60 with service to Medford. Minimizes local circulation in Eagle Point.	GOOD Provides less frequent service (hourly) and more circuitous routing in Eagle Point, but also provides direct service to RCC in White City.	GOOD Provides service directly to Medford without a transfer, but requires deviation through White City.	BEST Provides frequent and direct connection to Medford without a transfer or deviation through White City. Also provides connection to new White City to Central Point route that serves RCC, White City.
Shopping Trips	FAIR Provides frequent service and good connections to Cascade Shopping Center and connections to Route 60 but minimal local circulation in Eagle Point. Good service to major shopping in Eagle Point.	GOOD Provides less frequent service (hourly) but good local coverage in Eagle Point (including service to the Walmart from other parts of the region).	GOOD Provides service directly to Medford without a transfer and serves all of White City. Good service to major shopping in Eagle Point.	BEST Provides frequent and direct connection to Medford without a transfer or deviation through White City. Also provides connection to new White City to Central Point route that serves RCC, White City. Good service to major shopping in Eagle Point.
Medical Trips	GOOD Provides frequent service and good connections to Route 60 with service to Providence Medical Center. Two connections required to Route 24 (service to Rogue Valley Medical Center).	FAIR Provides less frequent service (hourly) and more circuitous routing in Eagle Point. Two transfers required for service to Rogue Valley Medical Center.	GOOD Provides service directly to Medford without a transfer and serves all of White City. Only one transfer required for service to Rogue Valley Medical Center.	GOOD Provides frequent and direct connection to Medford without a transfer or deviation through White City. Only one transfer required for service to Rogue Valley Medical Center.
Annual Operating Costs	$260K-$520K	$260K-$520K	$288K-$576K	$520K-$1.0M
Capital Costs	$380K	$390K	$370K	$718K

Feedback from Stakeholder Group on Initial Transit Alternatives

Following presentation of the initial service alternatives to the Stakeholder Group on November 6, 2012, each member was asked to review the alternatives and state which one was their preference. Based on feedback from nine members of the Stakeholder Group, it was clear that Alternative 1 best met the needs of the community, which at least in the near term, would provide direct service between Eagle Point and the Cascade Shopping Center in White City (with a connection to Route 60). However, the Stakeholder Group suggested that the preferred alternative operate via Shasta Avenue (instead of Royal) and Hannon Road to better serve Walmart. Figure 2-2 below provides a summary of input received from members of the Stakeholder Group.

Figure 2-2 Feedback on Preferred Transit Alternative from Stakeholder Group

Respondent	Alt 1	Alt 2	Alt 3A	Alt 3B	Comments
1	++				Use Shasta instead of Royal
2	+	+			Use Shasta instead of Royal; Coverage is good
3	++				Start simple; expand as needed if successful
4	++		+		Consider Hannon and Shasta; Service to RCC only if demand driven
5	++				[No specific comments]
6	+	+			Prefer Alt 2, but Alt 1 is good for initial service to Eagle Point
7	+				Not sure about demand to RCC White City campus
8	++	-	+		Consider Hannon/Walmart connection (even without service into town)
9	+	-	+	++	Likes the direct connection to Medford; Shasta instead of Royal; Use Hannon to better serve Walmart

Key to Ratings: ++ = Strong Preference; + = Preference; - = Negative Feedback

Based on a presentation to the Stakeholder Group to present the table above, the alignment through Old Town Eagle Point was also discussed. The Stakeholder Group generally agreed that operating via Loto Street was the preferred alignment for several reasons:

- Better access to the Post Office and Eagle Point Senior Center
- The Main Street bridge is not able to accommodate heavier loads, and thus the newly constructed Loto/Lava bridge is the only option for transit service
- It was not acceptable to eliminate valuable on-street parking spaces on Main Street for a transit stop

PREFERRED ALTERNATIVES

Based on feedback from the Stakeholder Group presented above and the options that were available for consideration, Alternative 1 (Eagle Point to White City Direct) is the preferred service alternative. However, the Stakeholder Group also suggested several modifications to Alternative 1:

- Operate via Shasta Avenue instead of Royal Avenue
- Operate via Hannon Road and Nick Young Road to better serve the Walmart
- Operation via the Loto/Lava Street bridge and Loto Street in central Eagle Point (instead of Main Street)

Based on this direction and a more detailed evaluation of possible routing options, this section presents a revised Alternative 1 (renamed as Alternative 1A) and then identifies possible stop locations, refines the capital and operating costs, and develops ridership estimates.

While it is assumed that a preferred governance and administration model will be decided after the conclusion of this study (see Chapter 3 – Governance and Service Oversight and Chapter 4 - Funding Options), another alternative (Alternative 2A) is also presented, which assumes Eagle Point joins RVTD. If this were to occur, RVTD staff have stated that they prefer to shorten Route 60 and establish a new route to serve Eagle Point, Rogue Community College and White City rather than implement a new route just between White City and Eagle Point. This alternative assumes a similar routing to Alternative 1A in Eagle Point, but is designed in a way that this new service also meets other RVTD service goals – primarily to also serve west White City and the Table Rock campus of Rogue Community College.

ALTERNATIVE 1A

Alternative 1A is very similar to Alternative 1 presented earlier, but includes several modifications. First, a larger one-way loop in Eagle Point would be provided via Shasta, Loto, Linn and Hannon Road (per the Stakeholder Group's suggestion). The second modification in this alternative includes a proposed turn around at the Walmart (either in the loading area on the south side of the building or via the parking lot on the west side) so that a stop can be provided on the east side of Hannon Road, providing more direct access to Walmart. The route alignment in this alternative would then continue south on Highway 62. If time in the schedule permits, it is recommended that the route deviate via Old Crater Lake Highway and Royal Avenue to provide additional coverage in Eagle Point and allow some residents to travel to and from Walmart without going all the way to White City. The route alignment for Alternative 1A is presented in Figure 2-3 below.

Figure 2-3 Preferred Alternative 1A – Eagle Point to White City

Bus Stop Locations

Conceptual bus stop locations are identified for Alternative 1A and listed below in Figure 2-4. Three shelters are assumed at major stop locations and basic stops with signs only are assumed for all other stops. It is important to note that more detailed evaluation of each conceptual stop location will need to be conducted by the City of Eagle Point depending on the preferred alignment chosen, and that not all of the stops may be included if the route is implemented. It is also assumed that all stop locations will meet the Americans with Disabilities Act (ADA) minimum requirements for new bus stops, which will allow for safe passenger access to and from the bus stop. Further guidance for siting ADA accessible bus stops can be found at RVTD's Bus Stop Guidelines[8] or the Transit Cooperative Research Program (TCRP) Report 19, Guidelines for the Location and Design of Bus Stops[9].

Figure 2-4 Alternative 1A Conceptual Stop Locations

Street	Cross Street / Landmark	Existing / New Stop?	Stop Type	Comments
Hwy 62	Cascade Shopping Center	Existing	Sign and Shelter	Transfer location to Route 60
Hwy 62	Hwy 140	Existing	Sign only	Northwest corner
Shasta Ave.	Alta Vista	New	Sign only	Northeast corner. Could accommodate small seat or shelter with pad on back side of the sidewalk.
Shasta Ave.	Arrowhead Trail	New	Sign only	Northeast corner. Site could fit short shelter.
Shasta Ave.	Christa Ln	New	Sign only	Northeast corner. Site could fit short shelter.
Shasta Ave.	Shasta Square Apts.	New	Sign only	Existing shelter but no bench. Could be difficult to utilize the existing bus pull out due to the length.
Shasta Ave.	Public Works	New	Sign only	In front of building. Two possible curb sections with good stop opportunities (including room for a shelter).
Loto St.	Royal	New	Sign and Shelter	Northwest corner. Sidewalk infill project to be completed.
Loto St.	Post Office	New	Sign and Shelter	Existing shelter, but would want to replace with new shelter.
Linn St.	Comice	New	Sign only	Northwest corner. Narrow sidewalk but additional right-of-way could be available for possible sidewalk extension.
Hannon Rd.	Walmart	New	Sign and Shelter	Requires turn-around in Walmart parking lot
Old Crater Lake Hwy	Royal	New	Sign only	*Only if schedule permits; for return trips within Eagle Point*

Alternative 1A Conceptual Schedules

Figure 2-5 below shows a conceptual schedule for Alternative 1A, and Figure 2-6 shows an abbreviated version of the existing Route 60 schedule. As shown, Alternative 1A would have a

[8] http://www.rvtd.org/images/subpages/file/RVTD%20BUS%20STOP%20DESIGN%20GUIDELINES.pdf

[9] http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_19-a.pdf

timed transfer to the inbound Route 60 at Cascade Shopping Center with minimal wait time. For someone making a round trip between Eagle Point and Medford, however, the return trip would also require a transfer and a wait time of about 20 minutes.

Figure 2-5 Conceptual Schedule – Alternative 1A

Eagle Point		White City		Eagle Point	
Loto Street / Post Office	Walmart	Cascade Shopping Ctr. (Arrive)	Cascade Shopping Ctr. (Depart)	Shasta Ave / Alta Vista	Shasta Ave / Public Works
-	-	-	5:53 AM	6:03 AM	6:06 AM
6:08 AM	6:11 AM	6:18 AM	6:23 AM	6:33 AM	6:36 AM
----- Repeating pattern (service every 30 minutes) throughout the day -----					
8:08 PM	8:11 PM	8:18 PM	8:23 PM	8:33 PM	8:36 PM
8:38 PM	8:41 PM	8:48 PM	8:53 PM	9:03 PM	9:06 PM
		↑ Transfer to Route 60			

Figure 2-6 Existing Route 60 Schedule – Medford to White City

Medford	White City			Medford
Front Street Station	Cascade Shopping Ctr.	VA Dom	Cascade Shopping Ctr.	Front Street Station
5:00 AM	5:31 AM	5:36 AM	5:51 AM	6:18 AM
5:30 AM	6:01 AM	6:06 AM	6:21 AM	6:48 AM
----- Repeating pattern (service every 30 minutes) throughout the day -----				
8:00 PM	8:31 PM	8:36 PM	8:51 PM	9:18 PM
8:30 PM	9:01 PM	9:06 PM	9:21 PM	9:48 PM
			↑ Transfer to Alternative 1A route	

Service Characteristics, Operating and Capital Costs

Service characteristics (service frequency, service span) for Alternative 1A are identical to Alternative 1, as are the assumptions about capital costs (vehicle requirements, bus stops, etc.). Since it is not yet clear who would administer and operate the service, a range of operating costs are provided assuming either a contracted service or, alternatively, the cost if RVTD were to operate the route. The operating cost assumptions range from $60 per service hour for contract

operation (which is based on a range of rural and urban transit providers in Oregon excluding Lane Transit District and TriMet) and a more refined cost allocation structure if RVTD were to operate the service. It should be noted that the estimated cost for contract operation does not include other costs associated with administration of the contract that would be incurred by the City (see Chapter 3 for more detail on this topic). RVTD's costs are allocated using both service hours and service miles. Operating costs are calculated using $40 per service hour plus $2.40 per service mile. Figure 2-7 summarizes the service characteristics and costs for Alternative 1A.

Figure 2-7 Estimated Operating and Capital Costs – Alternative 1A

Estimated Operating Costs		Estimated Capital Costs	
Annual Service Hours **Annual Service Miles** (15 service hours on weekdays, 9 service hours on Saturday)	4,600 94,000	New transit vehicle	$350,000
Annual Service Hours **Annual Service Miles** (12 service hours on weekdays, 8 service hours on Saturday)	3,800 77,000	Bus stops (10 @ $1,000)	$10,000
Estimated Cost/Service Hour (Contracted Service)	$60	Startup costs, marketing, etc.	$20,000
Cost/Service Hour **Cost/Service Mile** (RVTD)	$40 $2.40		
Estimated Annual Operating Costs (15 service hours on weekdays, 9 service hours on Saturday)	**$276,000** (contracted) **$409,600** (RVTD)		
Estimated Annual Operating Costs (12 service hours on weekdays, 8 service hours on Saturday)	**$228,000** (contracted) **$336,800** (RVTD)		

ALTERNATIVE 2A

Based on discussions about the preferred service alternative between the City of Eagle Point, consulting team and RVTD staff, another option is presented for consideration that assumes a different route design if RVTD were to administer and operate the route. Because this alternative is similar to Alternative 2 (presented earlier), it is called Alternative 2A.

One of RVTD's top service priorities[10] is to expand service west to the Rogue Community College (RCC) Table Rock campus in west White City. To meet this objective, as well as provide service to Eagle Point, Alternative 2A assumes a new route with greater coverage[11]. In Eagle Point, service

[10] RVTD Long Range Transit Plan, 2007-2017

[11] The new route would serve all of White City along Route 60's current alignment, RCC, and Eagle Point.

would operate along a similar alignment to Alternative 1A, but would operate in both directions (as opposed to a large, one-way loop). Service on this new route would be provided every hour, which is less frequent than what is proposed by Alternative 1A (which operate every 30 minutes). While service is provided less frequently, the primary advantages of this alternative are the bi-directional service in Eagle Point (which would allow for easier trips within Eagle Point) and a lower operating cost obligation for Eagle Point since service operates every 60 minutes and is shared with RVTD.

Bus Stop Locations

Conceptual bus stop locations are identified for Alternative 2A and listed below in Figure 2-8. It should be noted that because this route would also operate to the RCC Table Rock Campus, several stop locations outside of Eagle Point are still to be determined. Within Eagle Point, three shelters are assumed at major stop locations and basic stops with signs only are assumed for all other stops. It is important to note that more detailed evaluation of each conceptual stop location will need to be conducted by the City of Eagle Point once the preferred alignment is chosen. It is assumed that all stop locations will meet the Americans with Disabilities Act (ADA) minimum requirements for new bus stops, which will allow for safe passenger access to and from the bus stop. Further guidance for siting ADA accessible bus stops can be found at RVTD's Bus Stop Guidelines[12] or the Transit Cooperative Research Program (TCRP) Report 19, Guidelines for the Location and Design of Bus Stops[13].

[12] http://www.rvtd.org/images/subpages/file/RVTD%20BUS%20STOP%20DESIGN%20GUIDELINES.pdf

[13] http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_19-a.pdf

Figure 2-8 Alternative 2A Conceptual Stop Locations

Street	Cross Street / Landmark	Existing / New Stop?	Stop Type	Comments
Hwy 62	Cascade Shopping Center	Existing	Sign and Shelter	Transfer location to Route 60
Pacific Ave.	RCC Table Rock	New	*Sign and Shelter (TBD)*	*Specific location TBD by RVTD*
Avenue H	Across from Community Health Center	New	*Sign and Shelter (TBD)*	*Specific location TBD by RVTD. Would require safe pedestrian crossing across Avenue H.*
Shasta Ave.	Alta Vista	New	Sign only	Northeast corner. Could accommodate small seat or shelter with pad on back side of the sidewalk.
Shasta Ave.	Arrowhead Trail	New	Sign only	Northeast corner. Site could fit short shelter.
Shasta Ave.	Christa Lane	New	Sign only	Northeast corner. Site could fit short shelter.
Shasta Ave.	Shasta Square Apts.	New	Sign only	Existing shelter but no bench. Could be difficult to accommodate a bus pull-out and there are overhead clearance issues.
Shasta Ave.	Public Works	New	Sign only	In front of building. Two possible curb sections with good stop opportunities (including room for a shelter).
Loto St.	Royal	New	Sign only	Northwest corner. Sidewalk infill project to be completed.
Loto St.	Post Office	New	Sign only	Existing shelter, but would want to replace with new shelter.
Linn St.	Comice	New	Sign only	Northwest corner. Narrow sidewalk but additional right-of-way could be available for possible sidewalk extension.
Hannon Rd.	Walmart	New	Sign and Shelter	North of middle driveway. Requires turn-around in Walmart parking lot.
Linn St.	Lorraine	New	Sign only	Southwest corner. Would need to do street widening project first.
Loto St.	Eagle Point Medical Center	New	Sign and Seat	In front of building
Loto St.	Eagle Point Senior Center	New	Sign and Seat	In front of building
Shasta Ave.	Across from Public Works	New	Sign only	Lack of sidewalk – not ADA accessible, but some right-of-way opportunities exist.
Shasta Ave.	Across from Shasta Square Apts.	New	Sign only	Lack of sidewalk – not ADA accessible, but some right-of-way opportunities exist.
Shasta Ave.	Across from Christa Lane	New	Sign only	Lack of sidewalk – not ADA accessible, but some right-of-way opportunities exist.
Shasta Ave.	Across from Arrowhead Trail	New	Sign only	Lack of sidewalk – not ADA accessible, but some right-of-way opportunities exist.
Shasta Ave.	Across from Alta Vista	New	Sign only	Lack of sidewalk – not ADA accessible; would require safe pedestrian crossing of Shasta Avenue. Some right-of-way opportunities exist.
Avenue H	Community Health Center	Existing	Sign and Shelter	Transfer to Route 60
All other stops between Avenue H/Community Health Center and Cascade Shopping Center would use existing Route 60 stops.				

Service Characteristics, Operating and Capital Costs

Service characteristics (service frequency, service span) for Alternative 2A would be hourly on weekdays as well as Saturday. Service hours would align with those of Route 60, which operates from approximately 5:00 am until 10:00 pm on weekdays and from 8:30 am until 6:00 pm on Saturdays.

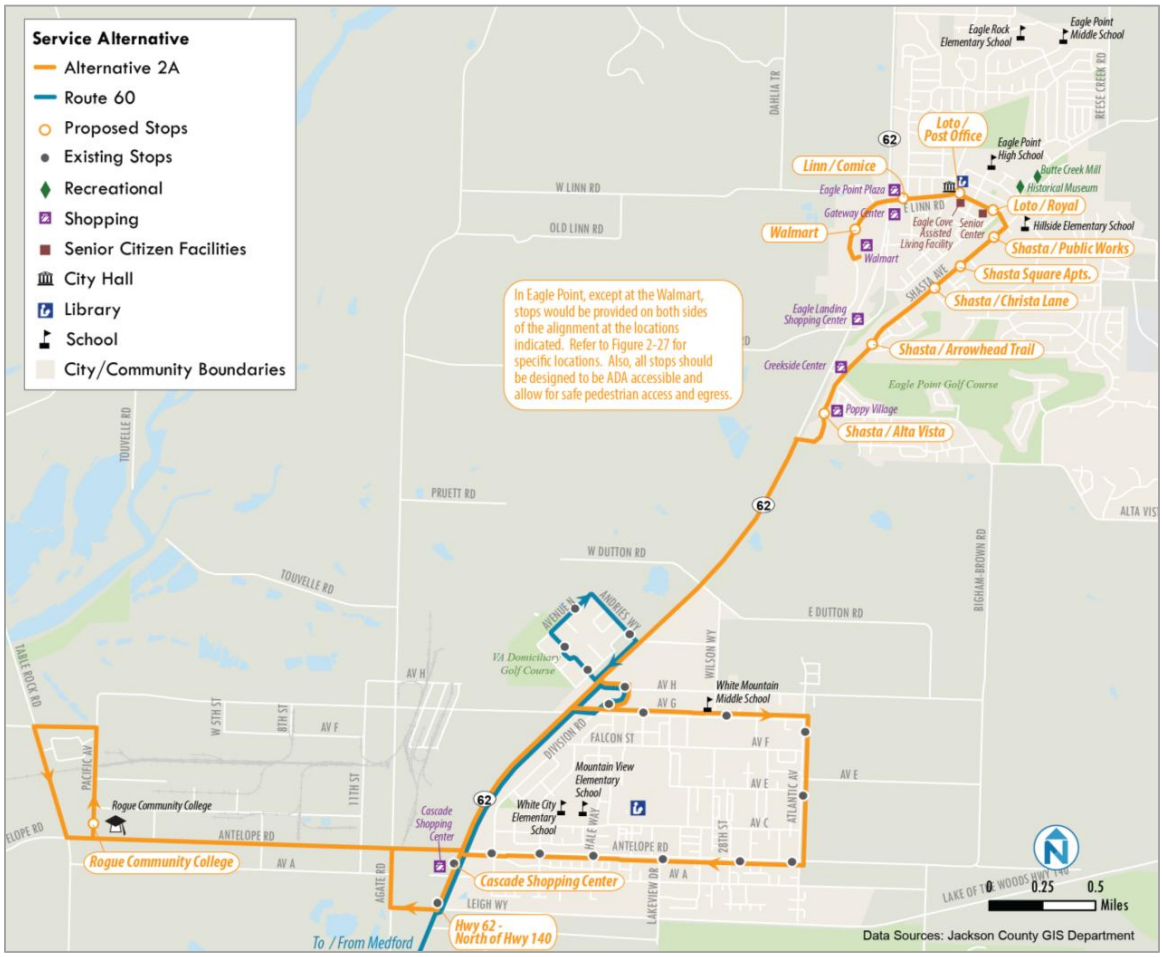
The major difference with this alternative is that it does not exclusively serve Eagle Point. The opportunity to share costs was not the case with Alternative 1A. Based on an estimate of how many service miles are within the City of Eagle Point, the number of annual service hours and service miles are roughly half that of Alternative 1A. Because this alternative assumes RVTD would be the direct operator of the service, the operating costs can be based on RVTD's cost structure ($40 per service hour plus $2.40 per service mile). Based on these assumptions, the estimated annual operating costs attributable to Eagle Point are about $207,000, which is lower than the costs assumed for Alternative 1A.

Capital costs are assumed to be lower than Alternative 1A since the cost of acquiring a new vehicle for this route is assumed to be evenly split between Eagle Point and RVTD. However, because this route would operate bi-directionally, the capital cost associated with stops is estimated to be higher than Alternative 1A. Figure 2-9 summarizes the service characteristics and costs for Alternative 2A.

Figure 2-9 Estimated Operating and Capital Costs – Alternative 2A

Estimated Operating Costs		Estimated Capital Costs	
Annual Service Hours **Annual Service Miles** (15 service hours on weekdays, 9 service hours on Saturday) (Eagle Point Portion Only)	2,500 44,500	New transit vehicle	$175,000
RVTD Cost/Service Hour **RVTD Cost/Service Mile**	$40 $2.40	Bus stops (17 @ $1,000)	$17,000
Estimated Annual Operating Costs (15 service hours on weekdays, 9 service hours on Saturday) (Eagle Point Portion Only)	**$206,800** ($355,000 total costs)	Startup costs, marketing, etc.	$20,000

Figure 2-10 Alternative 2A – Eagle Point to White City (via RCC Table Rock Campus)



Ridership Estimates

Ridership estimates were developed for both preferred service alternatives to better understand the benefits each alternative might provide to Eagle Point (and regional) residents. A summary of the ridership estimation process was as follows:

1) Based on conceptual stop locations in Eagle Point, 2010 population and employment data was calculated within a ¼ mile radius of each stop. Parcel-level data provided by RVTD was used to calculate these figures, which is the most accurate data available.

2) Similarly, population and employment figures were calculated within a ¼ mile radius for all stops on Route 40 in Central Point (which was determined to be a relatively similar community in terms of population density, land use, and income levels to central Eagle Point).

3) All existing stops in Central Point were categorized into three different types: "residential-focused," "employment-focused" or "mixed residential and employment" stops based on the ratio of population and employment around each stop. The same process was followed for the conceptual stops in Eagle Point. For reference, only the Walmart stop was classified as "employment-focused," the two stops in old-town Eagle Point were "mixed" stops, and all other stops were classified as "residential-focused."

4) Existing ridership data by stop (October 2010) was provided by RVTD for all stops in Central Point. Using ridership data and 2010 population data calculated in Step 2, a ridership per capita figure was calculated for each stop in Central Point.

5) Ridership per capita for all stops in Central Point were calculated and averaged for "residential" and "mixed population and employment" stops.

6) Ridership estimates for "residential" and "mixed residential and employment" stop were then calculated in Eagle Point by using the ridership per capita estimates from Route 40 (by stop type).

7) Ridership potential on employment-focused stops in Eagle Point – which only consisted of the Walmart – was then estimated based on daily ridership at the Walmart on Route 60 (on Lear Way). An estimated 30 daily boardings were assumed for the Walmart stop.

Because Route 40 operates every 30 minutes, the same as Alternative 1A, no adjustments were made to the ridership per capita estimates. For Alternative 2A, which would operate hourly instead of every 30 minutes, ridership per capita estimates were reduced by 30% for the portion of White City that currently has 30 minute service. This assumption accounts for a route that operates less frequently (and thus would attract fewer riders). The impact of reduced service levels on ridership, especially in communities with transit dependent riders (as is the case of White City), is difficult to estimate. However, the generally accepted range is that for every 1% change in service (either service hours or service miles), ridership will respond between 0.3% and 1%[14]. Thus, if service is reduced by 50%, it could be expected that ridership would drop between 15% and 50%.

For Alternative 2A, several other assumptions were made:

[14] Transportation Elasticities, Victoria Transport Policy Institute (http://www.vtpi.org/tdm/tdm11.htm#_Toc161022586)

- All of the existing ridership in White City (east of Highway 62) would use the new route and connect at either the Cascade Shopping Center or Community Health Center. However, because frequency on Alternative 2A is proposed to operate every 60 minutes instead of the existing 30 minute service on Route 60, existing ridership was reduced by 30%. This also assumes that some riders would walk to Route 60, which would operate to the VA Dom and continue more directly via Highway 62 to Medford.
- Ridership at the RCC Table Rock campus was estimated based on the following assumptions:
  - Of the approximately 3,200 students at RCC Table Rock campus, only half of them attend on a typical day.
  - Students are most likely to use the service only 60% of year since fewer classes are offered in the summer.
  - 3% of all trips to the campus are made by transit, which is significantly higher than what could be expected for non-college trips.

Based on this methodology, preliminary ridership estimates were developed for each alternative (and are presented in Figure 2-11). Finally, the ridership estimates were rounded to the nearest 1,000 and then presented as a range from 90% to 110%.

Summary of Preferred Alternatives

Figure 2-11 below provides a summary of the Preferred Alternative (1A) and the preferred service alternative if Eagle Point were to join RVTD (2A).

Figure 2-11 Summary of Preferred Service Alternatives

Service Characteristic	Alternative 1A	Alternative 2A
Alignment / Directness	**LARGE ONE-WAY LOOP** The route would operate as a large one-way loop via Shasta, Loto, Linn and Hannon Road to Walmart and return via Highway 62 (as well as Old Crater Lake Highway and Royal Road if time permits). In White City, the route would operate via Highway 62 to the Cascade Shopping Center and turn around via Leigh Way, Agate Road and Antelope Road.	**BI-DIRECTIONAL ROUTE** This route would operate via Shasta, Loto, Linn and Hannon with a turnaround at Walmart and then return via the same alignment. In White City, the route would operate via Avenue H, Division and Avenue G (outbound) and via Avenue H, Atlantic and Antelope (inbound). This route would also continue directly to the RCC Table Rock Campus.
Transfer Required?	**YES** A transfer would be made to Route 60 at the Cascade Shopping Center.	**YES** Transfer would be made to Route 60 at the Community Health Center at Avenue H and Division or at the Cascade Shopping Center.
Frequency	**30 MIN (WKDAY AND SATURDAY)** As a stand-alone route, this route would operate every 30 minutes on weekdays and Saturday. It should be noted that Saturday service on Route 60 is hourly, so connections to Route 60 would be made every other trip.	**60 MIN (WKDAY AND SATURDAY)** This route would operate every hour between the RCC Table Rock campus and Eagle Point, Monday through Saturday. Connections to Route 60 on weekdays, which operates every 30 minutes, would be available every other trip.
Service Span	**12-15 HOURS WKDAY; 8-9 HOURS SATURDAY** Service hours are flexible depending on the preferred governance model. Service would follow RVTD's service hours if operated by RVTD.	**15 HOURS WKDAY; 12 HOURS SATURDAY** Would be provided during the same time as the majority of other RVTD routes.
Annual Service Hours	**4,600**	**2,500** (Eagle Point share only. Total is estimated at 4,600.)
Annual Ridership Estimates	**36,000 - 44,000** Assumes ridership on entire route.	**22,000 - 27,000** (Eagle Point share only. Ridership for the entire route, including in White City is estimated at 48,000 - 58,000.)
Productivity (Passengers / Service Hour)	**7.8 to 9.5**	**9.1 to 11.3**
Governance Options	**IN-HOUSE, CONTRACT, RVTD**	**RVTD ONLY**
Annual Operating Costs	**$228K-$336K** 12 hours weekdays, 8 hours on Saturday. **$276K-$409K** 15 hours weekdays, 9 hours on Saturday.	**$206,800** 15 hours weekdays, 9 hours on Saturday. Assumes Eagle Point share of route costs only for comparison purposes.
Capital Costs	**$380K**	**$212K** Assumes Eagle Point share of capital costs only.

3 GOVERNANCE AND SERVICE OVERSIGHT

In addition to defining a preferred service alternative, it is important for the City of Eagle Point to decide how best to implement, fund, and oversee the service. A number of options for governing the new service are available and should be considered in consultation with local stakeholders and city officials. This chapter presents and discusses three viable governance and service delivery models for the new Eagle Point public transit service, as well as their respective perceived advantages and disadvantages. The three scenarios are:

1. RVTD would revise its service boundaries to incorporate Eagle Point, and would provide the new transit services.
2. The City of Eagle Point would obtain a contractor through a competitive procurement to provide the new transit services.
3. The City of Eagle Point would directly provide services in-house.

These scenarios are described more below, and recognize the range of functions and responsibilities inherent in operating transit service above and beyond those of providing direct service. Examples of such responsibilities include:

- **Human resources:** hiring and supervising staff, managing benefits, training, etc.
- **Legal counsel:** some legal counsel may be required to ensure the system is in compliance with federal and state rules and regulations
- **Vehicle maintenance and fueling**
- **Facility oversight:** arranging for and maintaining facilities for bus storage, fueling, maintenance equipment, etc.
- **Road supervision:** providing "on-the street" oversight to ensure services are provided on time and safely
- **Grants management:** applying for state and federal grants, and meeting their respective reporting requirements
- **Fare collection:** arranging for a secure method of collecting fares, depositing them into a secure location, and reconciliation; possible distribution of passes and tickets
- **Service planning and coordination:** oversight of service from a planning perspective to recommend service modifications, if needed, and to coordinate with other services
- **Marketing/customer relations:** maintain website, provide printed materials as needed, respond to customer concerns and complaints
- **Policy oversight:** policy board needs to adopt service policies, establish goals and objectives, and regularly review system performance

The scenarios below describe how each would address these functions.

Scenario #1: RVTD provides service

Under this scenario, all direct operational services, capital infrastructures and administrative responsibilities (i.e. legal, finance and accounting, marketing, human resources, etc.) would be assumed by RVTD. If this were to occur, RVTD would prefer to operate a new route to Eagle Point that also serves the Rogue Community College Table Rock campus (which is a top priority based on RVTD's Long Range Transit Plan).

The primary advantage of this option is that RVTD has the institutional experience and capacity to assume the new service, and it would be a relatively seamless transition for customers who are already familiar with and recognize RVTD services. RVTD would also be able to respond to any additional paratransit requirements that may emerge through the Americans with Disabilities Act (ADA) requirements.

The primary challenge to this scenario is that it could take between one and three years to implement and is dependent upon multiple favorable decision points. It is also possible, as a long-term strategy, for RVTD to consider a state legislative remedy to broaden its authority. If this were to occur, the boundaries could potentially be revised as part of the legislation.

A primary consideration for this scenario is to identify and facilitate the legal steps needed to accomplish the annexation of Eagle Point into the RVTD service boundary.

The RVTD Board of Directors does not have the authority to change its boundaries; rather, action would be needed on the part of the Jackson County Board of Commissioners to do so. The RVTD Board, with a vested interest in the decision, would likely consider the issue in an advisory capacity in order to weigh in with respect to the implications such action would have on the District as a whole.

The residents of Eagle Point would need to concur, through a public vote, whether or not to annex the City into the RVTD service area. This means they would agree to the same taxation structure as for other residents within the RVTD boundaries. Currently, this is generated through a property tax amounting to 17 cents per thousand dollars.

From the standpoint of actual transit service being provided, the City of Eagle Point may not have as much direct control over the service structure and standards compared to the other two scenarios, since the new service would be under the auspices of RVTD and its Board of Directors.

Scenario #2: City of Eagle Point contracts for service

Under this scenario, The City of Eagle Point would contract for service to one or more providers through a competitive procurement process. There are several possible outcomes to this scenario. For example, a single contractor could be selected as the contract provider to provide both fixed-route and ADA Paratransit operations. Or, one contractor could be selected to provide the fixed route services and a separate contractor could provide paratransit. Vehicle and/or non-vehicle maintenance functions could be provided by the contractor(s), or the City could explore options for RVTD or another entity to provide either or both of these functions.

The scenario assumes that the transit personnel would be employees of the contractor. However, City staff would be required to assume new responsibilities, such as providing contract oversight and planning. Currently there is no precedent for this arrangement within the City, and it is not immediately known where the new responsibilities would fall. The City would issue a Request for Proposal (or more if there are multiple contracts) to solicit cost estimates from potential

providers; it is presumed the City would not be required to solicit the lowest cost, but could instead opt to select the bidder it considers most responsive to the proposed scope of work.

The primary advantage to this scenario is that it allows for more direct oversight and control of the services in that the City staff can define and contract for whatever type of service it wants. There is also likely to be a higher sense of security over the long term for the City knowing it has control over the contracted service.

One possible option would be for the City of Eagle Point to contract with RVTD to provide transit service. As with any other request for outside services, the City would first develop and issue a Request for Proposals (RFP). The RFP would include a detailed description of the services to be provided, as well as evaluation criteria for selecting the contractor that best meets the City's needs. An important evaluation criterion would be costs, but other criteria would also be included such as experience, ability to provide service, etc. RVTD would then have the opportunity to respond to the RFP, along with other private transportation providers. The City would evaluate the proposals received and select the contractor that best met their criteria.

One primary disadvantage to this scenario is that the City will need to assume additional tasks and responsibilities it does not currently manage, such as contract oversight, service monitoring, etc., and these costs are not yet known. These additional tasks could result in the need for additional personnel. A second possible disadvantage could occur if there are few viable bidders on the service because the one route envisioned for the service enhancement to Eagle Point may not entice strong competition. Finally, operating through a contractor could cause confusion for customers if the new routes identified and service policies are not provided by RVTD.

Scenario #3: City of Eagle Point provides service directly

In a third scenario, the City of Eagle Point would provide service in-house. As with the previous scenario, there is a continuum of possible outcomes in an in-house scenario. It may be cost-prohibitive for the City to bring in-house functions that require significant infrastructure or equipment investments, where facilities cannot easily be separated out from other City of Eagle Point functions, or where the City lacks the necessary scale to cost-effectively provide the services.

Assumptions in this scenario include:

- The City will fulfill all personnel responsibilities, including hiring transit operators and other personnel needed to carry out the new service.
- Maintenance will be provided in house, assuming that it is both feasible and cost-effective to do so in terms of initial capital and operating costs; alternatively this function could be contracted to an outside entity.
- ADA Paratransit will be fulfilled by contract, under the assumption that it is more cost-effective to do so; bringing this function in-house would require acquiring dispatch/scheduling software and expertise.

The perceived advantages and disadvantages of this scenario mirror those of Scenario #2. Namely, the primary advantage is that the service will be under the direct control of the City and oversight and monitoring will be more direct and immediate.

On the other hand, assuming the responsibilities in-house may prove more challenging for the City due to the level of expertise and supportive services that are needed.

Figure 3-2 summarizes perceived advantages and disadvantages of each model, drawing on the general discussion of transit functions and delivery models provided at the beginning of this chapter. It should be noted that some of the perceived disadvantages of the current delivery scenario are not inherent flaws, but may simply be related to the existing implementation.

Figure 3-1 Comparison of Service Delivery Scenarios for City of Eagle Point

	Scenario #1: RVTD Assumes Service	Scenario #2: City Contracts for Service	Scenario #3: City Provides Service In-House
Human Resources	All functions assumed by RVTD; no new responsibilities for City	Would require contract oversight by City; contractor would assume direct HR functions	Would require significant new responsibilities by City
Legal Counsel	Assumed by RVTD; no new responsibilities for City	Contractor would assume responsibilities	Would require additional resources for City
Vehicle Maintenance and Fueling	Assumed by RVTD; no new responsibilities for City	Contract oversight may be required by City	Would require significant new responsibilities by City
Road Supervision	Assumed by RVTD; no new responsibility for City	Contractor would assume responsibility	Would require new responsibility by City
Grants Management	Assumed by RVTD; may involve some new effort for City	Would require new responsibility by City	Would require new responsibility by City
Fare Collection	Assumed by RVTD; no new responsibility for City	Contractor would assume responsibility; may require some oversight/audit functions by City	Would require new responsibilities by City
Service Planning and Coordination	Assumed by RVTD; may require some new effort for City	Would require new effort by City	Would require new responsibilities by City
Marketing/Customer Relations	Assumed by RVTD; may require some new effort for City	Would require new effort by City	Would require new responsibilities by City
Policy Oversight	Assumed by RVTD; may require some new effort for City	Would require new effort by City	Would require new effort by City
Estimated FTE Required	Minimal new effort on part of City staff; assumed that this time could be absorbed by other positions	0.5 to 1.0 FTE for Contract Management, coordination with policy board	3.5 to 4.0 FTE for direct operations; 1.0 to 1.5 for support functions. 4.5 to 5.5 FTE total

Figure 3-2 Perceived Pros and Cons of Service Delivery Scenarios

	Scenario #1: RVTD Assumes Service	Scenario #2: City Contracts for Service	Scenario #3: City Provides Service In-House
Benefits/ Incentives	▪ Leverages existing RVTD expertise, facilities and personnel ▪ Promotes ongoing working relationship and coordination between RVTD and City of Eagle Point ▪ Most convenient option for City ▪ Less responsible for cost fluctuations in providing service	▪ Provides incentives for efficiency, cost-competitiveness ▪ Could leverage resources/expertise of national/regional transit provider ▪ Provides City of Eagle Point with cost and capability options	▪ Direct control over driver training and safety procedures ▪ Service coordination, flexibility may be better than contracted
Costs/ Disincentives	▪ Several decision points needed to facilitate annexing Eagle Point into service area ▪ No cost competition or direct incentives for efficiency ▪ City has less control and oversight	▪ Will require some duplicative oversight structure and startup challenges ▪ May be difficult to solicit competitive bids for small system ▪ Multiple contracts may be required ▪ New responsibilities for City staff ▪ Risk loss of continuity in transition between contractors ▪ Potential for different fare structure, requiring multiple fares for passengers	▪ Largest challenge in terms of organizational startup, but can be done in degrees / phases ▪ City may lack economies of scale to provide some functions in-house ▪ Cost may be higher than other contracted service models ▪ Significant new responsibilities for City staff ▪ Potential for different fare structure, requiring multiple fares for passengers

4 FUNDING OPTIONS

This chapter provides an overview of the primary existing and potential funding sources for transit, including federal, state, and local sources as well as public-private partnerships that could be used to support expanded public transit into Eagle Point.

As discussed previously, one governance option is for the service to be assumed by RVTD. In this case, RVTD would be responsible for identifying funding for the service and ensuring its sustainability, managing grant applications, etc. For the most part, the same sources of funding would be available to Eagle Point, but it would need to apply for and manage a variety of state and federal grants. As those grants are not sufficient to fully cover the operating costs, it would also need to identify and collect local sources of funds to supplement those grants.

Federal Funding Sources

Federal funding is currently available to assist RVTD with its transit funding, and would be available to help support services in Eagle Point regardless of how services are governed. The recently enacted Moving Ahead for Progress in the 21st Century Act (MAP-21) legislation provides a new structure for federal funding programs and is effective from October 1, 2012 through the end of fiscal year (FY) 2014. The following formula-based programs for urbanized areas in federal FY 2013 are relevant to this discussion.

Urbanized Area Formula Program (FTA Section 5307): The MAP-21 Urbanized Area Formula Program can be used for operating or capital purposes. It now also includes formula-based Section 5340 (Growing States/High Density) and Job Access and Reverse Commute (JARC) funding. The estimated Rogue Valley Urbanized Area apportionment for federal FY 2013 is about $2.2 million, which represents an increase of approximately $400,000 per year over prior allocations.

A portion of these funds may be available to support the service whether it is operated by RVTD or directly by the City of Eagle Point. As of October 1 2012, Eagle Point is considered part of the Medford urbanized area, and some of the increase in Section 5307 funding may be attributed to its recent inclusion. For preliminary planning purposes, it is assumed that ten percent, or $40,000, of Section 5307 funding may be available annually to Eagle Point should it decide to operate the service directly.

A local match is required for these funds. Federal funds can support 80% of a capital project, requiring a 20% local match; federal funds can support 50% for transit operations, requiring a 50% match; federal funds can support 80% of providing ADA complementary paratransit (limited to 10% of total apportionment).

Enhanced Mobility for Seniors and Individuals with Disabilities Program (FTA Section 5310): This program provides funding that can be used to support the required complementary ADA paratransit services that will be required as a result of expanding fixed route

services. It can also be used to support other local services for older adults and persons with disabilities. A portion is currently being used by RVTD, and would be an eligible source of funds for Eagle Point if it operates the services directly; however, funds are allotted through a competitive grant process and there is no annual guaranteed funding amount.

Section 5310 funds are targeted through a formula developed with participation of the Public Transportation Advisory Committee (PTAC). The passage of MAP-21 in July 2012 changed the balance of 5310 funding in Oregon by identifying three new small urban systems and creating a separate program for the three large urban systems. RVTD, as the designated Special Transportation Fund (STF) agency for Jackson County, is responsible to facilitate competitive process for use of available funds.

Funds can now be used for operating costs in addition to capital costs, although at least 55% of funds must be used for capital purposes.

A local match is required for use of these funds. In Oregon, a local match of 10.27% is required for capital or for purchased service projects, and a 50% local match is required for direct operations.

State Funding Sources

The Special Transportation Fund (STF): This fund was created in 1985 by the Oregon Legislature. The STF was originally funded with a $.01 per pack cigarette tax. In 1989, this tax was raised to $.02. The STF Program provides a flexible, coordinated, reliable and continuing source of revenue in support of transportation services for seniors and people with disabilities of any age. The Oregon Legislature intended that STF funds be used to provide transportation services needed to access health, education, work, and social/recreational opportunities so that seniors and people with disabilities may live as independently and productively as possible. The funds may be used for any purpose directly related to transportation services, including transit operations, capital equipment, planning, travel training, and other transit-related purposes.

The STF is divided into two accounts: STF Formula Program and STF Discretionary Grant Account; however, for the upcoming biennium, all STF funds will be distributed through the formula program. There is no match requirement for use of STF funds, and STF funds can be used as a source of local match for federal funding. As with the FTA Section 5310 program, decisions about how to distribute and use STF funds is facilitated by each STF agency; in this case RVTD. New estimates for STF funding will be published in early 2013 by ODOT in anticipation of a new grant cycle; ODOT staff anticipates available funds will not be less than what was received previously. For the RVTD region, this amount totaled $323,222 per year over the past biennium.

Local Revenues

It is important to note that federal and state funds will not generate sufficient revenues to support the new service. Local revenues will need to supplement those funds to fully fund it. Should Eagle Point residents vote to be included in RVTD's service area, local residents will vote on whether to tax themselves at a rate consistent with other residents of the service area. The rate currently is 17 cents per thousand dollars of property value. Based on RVTD's District Boundary Assessment Study, it is estimated under the existing rate that Eagle Point would generate $90,000 in local (property tax) revenues, which could be used to support local transit services.

But even if a governance scenario is selected where the City assumes direct oversight, either through contracting the service or providing it in-house, it would need to identify a local source of revenue to supplement state and federal funds, such as a property tax requiring a local vote.

Fares, Public Private Partnerships, and Other Sources

A variety of other sources each comprise relatively small shares of transit funding, but can collectively provide a significant supplement to federal, state, and local sources (though fares cannot be used as a local match for federal funds). Advertising fees may also supply a small amount of revenues and public-private partnerships may also be explored, but are not likely to be feasible in the early stage of implementation. Fares are by far the largest such source and are explored in more detail in this section.

If Eagle Point were to join RVTD, it is assumed that any new transit service in the city would follow RVTD's fare structure, which is summarized below in Figure 4-1. While RVTD recovers about 25% of its operating costs through fares systemwide, this is most likely not a realistic level of support to be expected on a new service serving a community like Eagle Point (which is relatively low density). A more realistic expectation for farebox revenues for Eagle Point is probably in the 7-10% range based on peer farebox revenue data[15].

Figure 4-1 Rogue Valley Transit District Fare Structure, Medford, Oregon

Fare Type	Fare Description	Fare
Full Fare	Regular fare good for one transfer w/in 90 minutes	$2.00
Reduced Fare	62 years and older, 10-17 years of age, Medicare cardholders, and people with disabilities holding an eligible ID Card obtained from RVTD. Passengers 9 years of age and under ride free.	$1.00
Paratransit	Full fare one-way	$4.00
	Valley Lift Category 3 clients ride any RVTD bus free of charge with their Valley Lift ID	Free
Transfer	Valid for one additional boarding within 90 minutes of the time issued	n/a
Passes	Full Fare 1 Month Bus Pass	$56/mo
	Reduced Fare 1 Month Bus Pass	$28/mo
	20-Ride Full Fare Punch Card	$32
	20-Ride Reduced Fare Punch Card	$16
	All-Day Pass	$5.00
	Summer Youth Pass (June, July, August) Ages 10-18	$44

Source: RVTD

If Eagle Point does not join RVTD, opting instead to provide services directly or through contract, it would be necessary to establish a fare structure. To help identify a potential fare structure for a small municipal transit system, several rural transit agencies in Oregon and Washington were

[15] The average fare revenue as a percentage of total operating expenses for Woodburn and Coos County is approximately 7% (based on 2011 data).

selected to provide information required to establish a fare structure for transit in Eagle Point. Most transit agencies provide a range of fares to support frequent, infrequent, youth, elderly, and disabled riders, and a similar structure is recommended for Eagle Point. Figure 4-2 through Figure 4-4 provides fare details for Valley Transit (WA), Coos County (OR), and Woodburn (OR).

Figure 4-2 Valley Transit Fare Structure, Walla Walla, Washington

Fare Type	Fare Description	Fare
Full Fare		$0.50
Reduced Fare	Senior and disabled riders	$0.25
Paratransit	Dial-A-Ride	$0.75
Transfer	Valid for one additional boarding within 60 minutes of the time issued	n/a
Passes	Full Fare 1 Month Bus Pass	$20/mo
	Reduced Fare 1 Month Bus Pass	$10/mo
	20-Ride Full Fare Punch Card	$10
	Dial-A-Ride Monthly Pass	$12/mo
	Job Access Pass	$12/mo

Source: Valley Transit

Figure 4-3 Coos County Area Transit Fare Structure, Coos Bay, Oregon

Fare Type	Fare Description	Fare
Full Fare	Intercity Connector	$2.00
Reduced Fare	Youth to age 17	$1.00
	Children under 6 free	Free
Dial-A-Ride	Seniors	$1.50
	Persons with Disabilities	$1.50
	General Public	$2.00
	Youth to age 17	$1.00
	Children under 6	Free
Transfer	Not available	n/a
Passes	Not available	n/a

Source: Coos County Area Transit

Figure 4-4 Woodburn Transit Fare Structure, Woodburn, Oregon

Fare Type	Fare Description	Fare
Full Fare	Regular Fare	$1.25
Paratransit	Dial-a-Ride Program	$2.50
Transfer	Not available	n/a
Passes	Full Fare 1 Month Bus Pass	n/a
	Reduced Fare 1 Month Bus Pass	n/a
	20-Ride Full Fare Punch Card	$18.75
	4-Ride Pass	$5.00
	All-Day Pass	$3.00

Source: City of Woodburn

Single ride fares range between $0.50 and $2.00 at full price; children under 6 ride free in Coos County, while other reduced fares range between $0.25 and $1.00 per ride. Dial-a-Ride fares range between $0.75 and $4.00 per ride, depending on the type of rider and transit agency (it should be noted that complementary ADA paratransit service cannot be more than twice the regular fixed route fare). One transfer is typically included with the purchase of a ticket for riders traveling within 60-90 minutes. Monthly passes among peers range between $20 and $56 per month at full price and $10 and $28 per month for reduced fare. Likewise, 20 full-ride punch cards also vary between $10 and $32. A summary of fares is provided in Figure 4-5 below.

Figure 4-5 Summary of Peer Fare Structures

Fare Type	Fare
Single Full Fare	$0.50 - $2.00
Single Reduced Fare	Free - $1.00
Single Dial-a-Ride Fare	$0.75 - $4.00
Transfer	Valid for one additional boarding within 60-90 minutes of the time issued
Passes	$20 - $56/month full-fare
	$10 - $28/month reduced-fare
	$10- $32 for 20 full-ride punch card

Fare Collection Processes & Cost

If Eagle Point provides the transit service directly, new staffing responsibilities and costs would be incurred by the City of Eagle Point. In addition to the operational elements of operating a transit system, capital investments and new and increased staff responsibilities would also be added. This section outlines the added responsibilities and costs the City would face if they were to directly operate and collect fares for transit.

The process used to sell, distribute, collect, and validate transit passenger fares would require both one-time capital and ongoing capital and staff investments (illustrated in Figure 4-6). One-time costs include the purchase of a mechanical fare box that would be used to collect fares on the

bus. Ongoing operational costs could include the printing and validation of fare media and revenue handling. To simplify the fare sale process, Eagle Point would not need to print tickets; on-board fare could be cash-only. Monthly passes or multiple punch cards could be printed for a minimal cost and sold at the local grocery store, city hall, or local employers.

Figure 4-6 Estimated Capital and Ongoing Costs Related to Fare Collection

Cost	Unit Cost Low	Unit Cost High	Cost Type
Mechanical Fare Box*	$2,000	$3,000	One time
Fare media (estimate)	$0.02	$0.05	Ongoing
Revenue Handling Cost Estimate (% of annual cash revenue)*	5%	10%	Ongoing
Annual FTE** Employee Costs: estimated 0.25 FTE for media distribution and reconciliation, maintenance, revenue handling, and software maintenance	$7,500	$10,000	Annual

* TCRP Report 94 "Fare Policies, Structures, and Technologies: Update"
**Assumes FTE range of $30,000 - $40,000

Transfers

Another consideration with regard to fares is the issue of transfers. Currently, all passengers that use the RVTD system have a maximum of one transfer to reach their destination. Both alternatives presented in this memorandum would require a transfer in White City (to Route 60) to reach Medford and then another transfer to access other areas in the region from Front Street Station. RVTD's current transfer policy allows for one additional boarding within 90 minutes of the time issued. Thus, if RVTD were the provider, their transfer policy would need to be revisited so as not to penalize passengers traveling to or from Eagle Point who may need to transfer twice. If the City decides to contract for service or provide service in-house, they could set their own fare structure, but passengers would be required to pay two fares to reach most destinations in the valley.

City-Sponsored Fare Programs

Another issue related to fares that the City should consider is the option for a resident fare program. While fare policies are complicated and beyond the scope of this study, some communities in the Rogue Valley offer special fare programs, such as Ashland (which offers a resident pass program) and Medford that partners with RVTD to encourage bus pass programs for downtown merchants to reduce parking demand. Some considerations related to special fare programs include:

- The City would be responsible for any reduction in fare revenues that could be expected, and would be responsible for the full cost of any additional paratransit trips that result from this program.
- Free fares are challenging. While this may seem like a good option, the implications for transit require free paratransit service (because paratransit fares can only be twice the fixed route fare), and the impact on capacity to handle additional trips can be hard to

accommodate. RVTD generally discourages free fare programs, and Trimet (in the Portland area) recently eliminated its free fare zone downtown.

- Distribution of any special fare media would be the responsibility of the City. The administrative costs associated with distribution of special fare media is typically provided by the jurisdiction rather than on the transit provider.

APPENDIX A

Needs Exercise

Tradeoff Exercise

Needs Exercise (Stakeholder Group, 8/21)

Unserved or Underserved Areas	
(Service not available *where* it's needed)	
9	"Lifeline" transit network for the transit dependent to operate between Eagle Point and outlying communities
11	Service to get people to Medford for employment
8	Service to get people to medical services in Medford
13	Service to other places in the greater Rogue Valley region
1	Service within the community of Eagle Point
Lack of Availability	
(Service not available when it's needed)	
5	Service on weekdays during commute hours
11	Service on weekdays throughout the day
3	Service on Saturday
1	Service on Sunday
Capital Improvements	
3	Capital improvement program specific to elderly and persons with disabilities; identify high priority locations for capital improvements
2	Pedestrian enhancements
5	Accessible bus stops
The Cost of Transportation is Difficult for Some	
7	Affordable fares for all
4	A range of fare options depending on nature of trip
Information and Marketing Programs	
0	Improved (new) maps and transit information
1	Training to teach people how to use the service
0	Variety (i.e. social media, internet, printed) of materials
1	Marketing campaign to encourage use of transit

Needs Exercise (City Council/Planning Commission, 9/25)

Unserved or Underserved Areas	
(Service not available *where* it's needed)	
6	"Lifeline" transit network for the transit dependent to operate between Eagle Point and outlying communities
11	Service to get people to Medford for employment
7	Service to get people to medical services in Medford
3	Service to other places in the greater Rogue Valley region
0	Service within the community of Eagle Point
Lack of Availability	
(Service not available when it's needed)	
10	Service on weekdays during commute hours
4	Service on weekdays throughout the day
2	Service on Saturday
0	Service on Sunday
Capital Improvements	
4	Capital improvement program specific to elderly and persons with disabilities; identify high priority locations for capital improvements
0	Pedestrian enhancements
4	Accessible bus stops
The Cost of Transportation is Difficult for Some	
9	Affordable fares for all
1	A range of fare options depending on nature of trip
Information and Marketing Programs	
0	Improved (new) maps and transit information
0	Training to teach people how to use the service
1	Variety (i.e. social media, internet, printed) of materials
3	Marketing campaign to encourage use of transit

Tradeoff Exercise (Stakeholder Group, 8/21)

Coverage or Productivity?	
I prefer service to as many areas as possible (focus on coverage)	3
I prefer service only where demand is greatest (focus on ridership)	14
Daytime versus early morning/evening service?	
I prefer less frequent daytime service in order to start service earlier and/or end service later	11
I would prefer if service started later and/or ended earlier so that daytime service operated more frequently	6
More frequent stops or faster/more direct service?	
I prefer more frequent stops so that the walk time to the bus is shorter	3
I prefer faster, more direct service, even if I have to walk a few extra blocks	14
Weekday or weekend service?	
I prefer less frequent weekday service in order to provide more Saturday or Sunday service	5
I prefer less weekend service in order to provide more weekday service	12
Regular service throughout the day or peak-oriented service?	
I prefer consistent service headways throughout the weekday (e.g., every 30 or 60 minutes)	6
I prefer more service during peak periods with less service during the midday and evening	11
Service for all trip types or focus on employment/school trips?	
I prefer service for all types of trips, even though workers and students may receive less service	7
I prefer service focused on employment and school-related trips	10
Local versus regional service?	
I prefer service to be concentrated within Eagle Point	2
I prefer the service to connect with existing services that will take people into Medford	15

Tradeoff Exercise (City Council/Planning Commission 9/25)

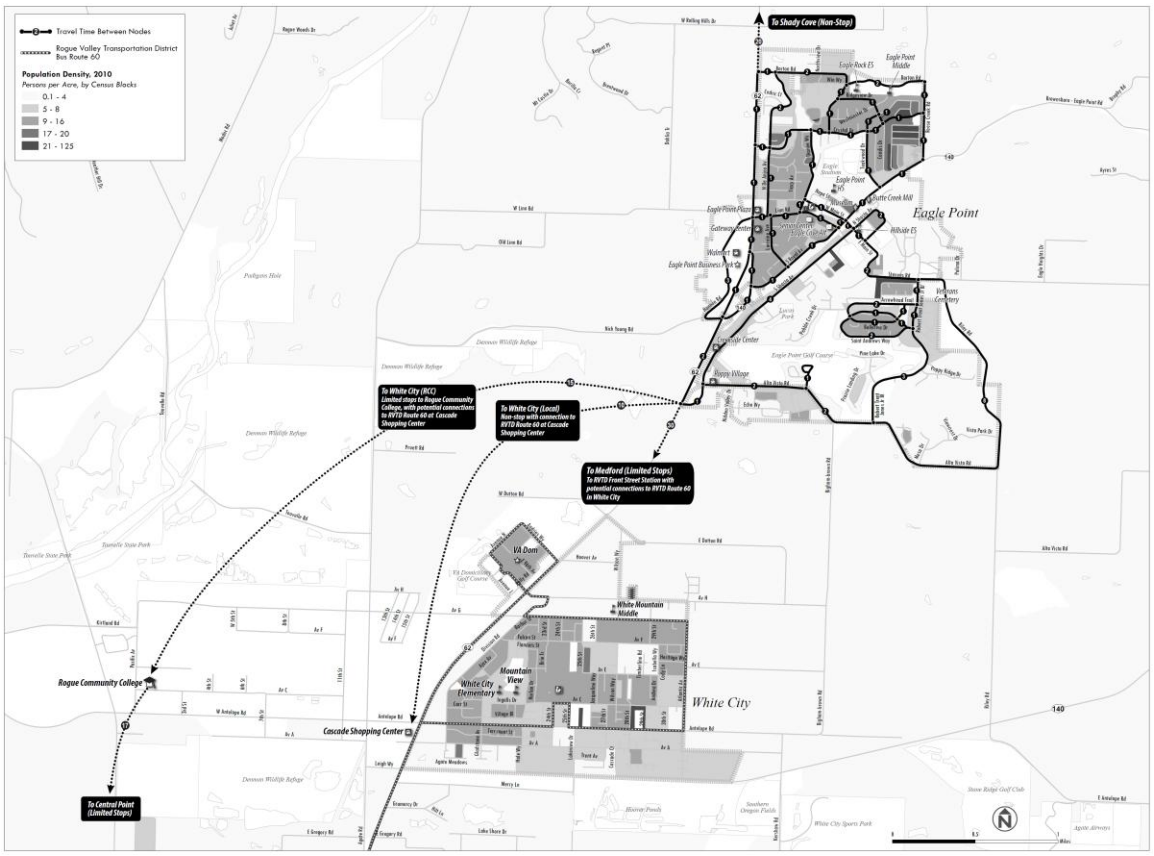
Coverage or Productivity?	
I prefer service to as many areas as possible (focus on coverage)	2
I prefer service only where demand is greatest (focus on ridership)	10
Daytime versus early morning/evening service?	
I prefer less frequent daytime service in order to start service earlier and/or end service later	10
I would prefer if service started later and/or ended earlier so that daytime service operated more frequently	2
More frequent stops or faster/more direct service?	
I prefer more frequent stops so that the walk time to the bus is shorter	4
I prefer faster, more direct service, even if I have to walk a few extra blocks	7
Weekday or weekend service?	
I prefer less frequent weekday service in order to provide more Saturday or Sunday service	1
I prefer less weekend service in order to provide more weekday service	11
Regular service throughout the day or peak-oriented service?	
I prefer consistent service headways throughout the weekday (e.g., every 30 or 60 minutes)	7
I prefer more service during peak periods with less service during the midday and evening	5
Service for all trip types or focus on employment/school trips?	
I prefer service for all types of trips, even though workers and students may receive less service	3
I prefer service focused on employment and school-related trips	9
Local versus regional service?	
I prefer service to be concentrated within Eagle Point	0
I prefer the service to connect with existing services that will take people into Medford	12

APPENDIX B

Planning Game Map

Planning Game Guide

Appendix B: Planning Game Map



Appendix B: Planning Game Guide

OBJECTIVE

The "Transit Planning Game" is a tool that Nelson\Nygaard uses to help groups of key stakeholders get their ideas for transit on paper and to quickly understand the costs and tradeoffs associated with those ideas. The game works best in a group format with 5-7 members per group. The goal of each group is to reach consensus on the general design of a transit system that: a) fits within several level-of-service limitations and b) meets the group's objectives for transit in Eagle Point. The level-of-service limitations are discussed later in this memo.

Note - Though ideas generated during this Planning Game may end up in the final transit plan prepared by the consultant, the Game's primary objective is to build consensus on how transit in Eagle Point should strike a balance between various competing transit service design goals (see "Some Things to Think About" later in this memo).

THE PROCESS

The Planning Game Workshop will be conducted between 2:00pm and 3:30pm on September 26th, 2012. The agenda for the afternoon will generally be:

- Introductions and game overview (20 minutes)
- Each table establishes service objectives (10 minutes)
- Planning Game (30 minutes)
- Each table presents its map and objectives to the larger group (15 minutes)
- Identify transit service priorities/objectives (10 minutes)
- Closing comments and next steps (5 minutes)

Each person will be assigned to a table with 5 or 6 other people. The consultant will begin the session with group introductions and an explanation of the process.

Next, each group will spend 10 minutes (or so) discussing possible transit service objectives. The goal is to come up with 3 to 5 bullet points that will guide the design for your group's particular system.

Each group will be different. For example, your group might decide that the bus system should:

- Focus on school and shopping trips to Medford
- Focus on serving seniors
- Avoid spending money attracting people who currently drive to work

Another group might decide that the system should focus entirely on serving commuters and nobody else.

Remember – There is no right or wrong answer. You must decide what's most important for your group!

Once the objectives have been identified, the groups will have about 30 minutes to play the game. The goal is to design a basic transit network that meets your objectives.

LEVEL-OF-SERVICE LIMITATIONS

As with all stewards of public money, transit planners must design services based on the financial resources available to them. To do so, planners generally use several costing units, which typically include revenue hours of service or revenue miles of service. For this Game we're using revenue hours – or "bus hours" – which is simply an hour of service that the bus is in revenue service (i.e., available to pick up and drop off passengers).

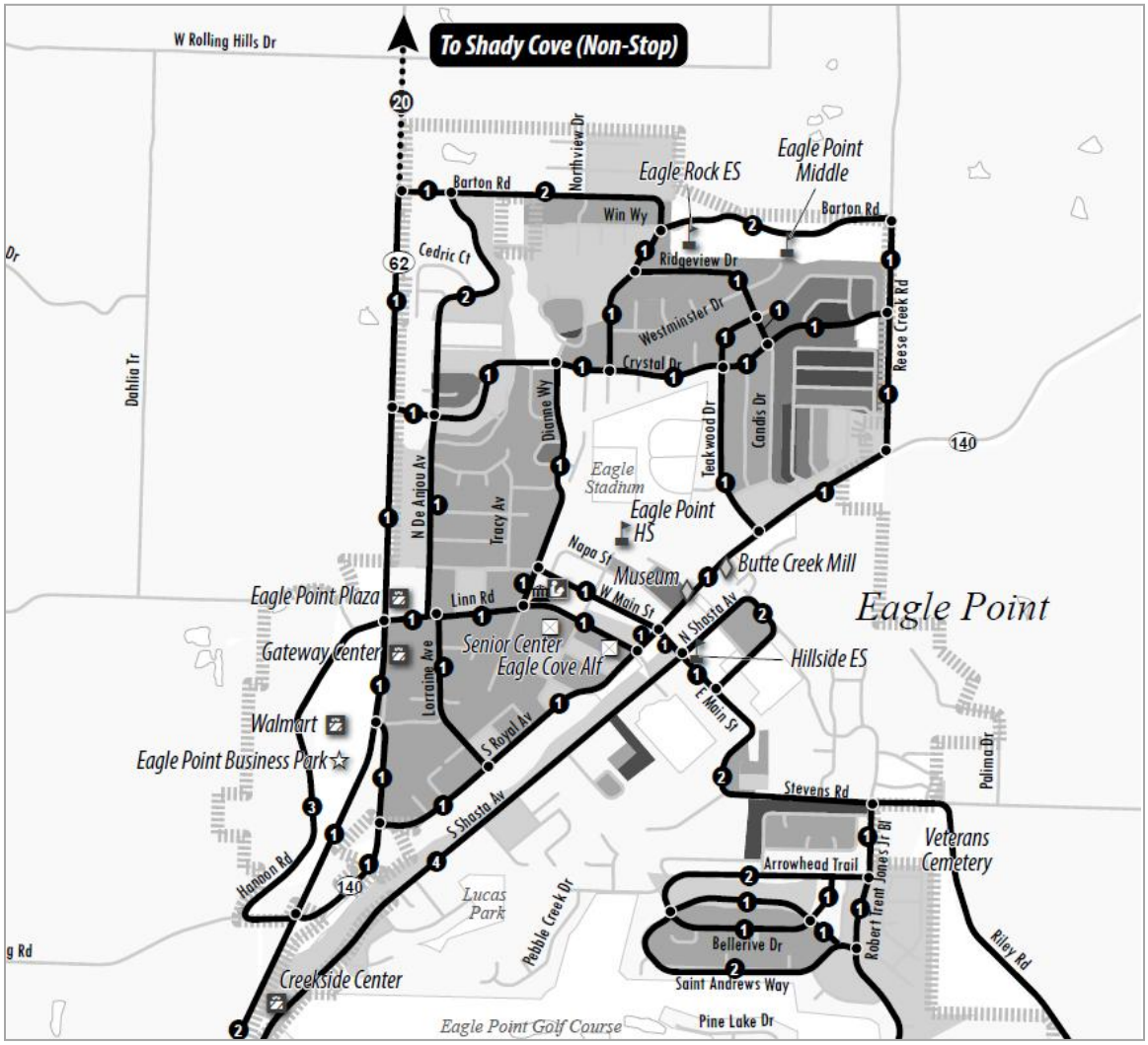
Like real transit planners, you won't have an unlimited budget available for designing your system. To keep the Game as simple as possible, we have created two possible future service scenarios:

- A new service with 3,000 annual bus hours
- A new service with 5,000 annual bus hours

Assuming 20-25 people participate in the Game, we will break out into four separate groups (with between 5-6 people per group). Two groups would develop a service plan that targets around 3,000 annual bus hours, while the other two groups will develop more robust service plans assuming 5,000 annual bus hours.

YOUR TOOLS

You and your teammates will design your transit network by drawing colored lines on a schematic map of the Eagle Point area. A sample of the map is provided below:



The map above shows the following detail:

- All major streets where bus service might be contemplated (shown in dark grey).
- The time, in minutes, that a bus would take to traverse each street segment (including extra factors such as bus stops and traffic lights).
- Major destinations that you might want the bus to serve.
- Population density from the 2010 US Census (darker colors represent more people).

The numbers in the black dots on the map indicate the time it takes to travel each segment of street or highway. Your job is to draw routes connecting these segments however you like. The colored markers you will use indicate the frequency of service – that is, how often a bus comes down the street. The cost will be determined by taking the length of the route (in this case how many minutes it takes to drive it in one direction), multiplying it by 2 (to account for a round trip)

and dividing it by the frequency. It is very important to note that transit must be as efficient as possible. As such, the goal with the planning game is to design routes that make the most efficient use of a bus (and the driver) as possible.

For example, if a one-way route takes 30 minutes and you want to provide service every 30 minutes, we would take 30 minutes, multiply it by 2 and divide it by 30. This equals 2, which means this route requires two buses and is an efficient use of resources. If, however, you design a one-way route that is only 20 minutes, multiply it by two and then divide it by 30 (the desired service frequency), you get 1.33, which is not an efficient use of your resources.

You will then need to decide whether you want service during the weekday only or also provide service on Saturday. You will then need to decide when the service would start and when it would end. To provide some context, RVTD's Route 60 (to White City) operates from 5:00 am until about 10:00 pm, Monday through Friday and from 8:30 am until about 6:00 pm on Saturday. Note: It is assumed for the purposes of this game that Sunday service would not be provided in Eagle Point.

Don't worry - each table will have a facilitator and recorder that can help explain how everything works. The facilitator will help you identify objectives, show you how to draw the routes and generally keep the process moving forward. The facilitator will be doing all of your calculations using a laptop computer (you won't have to do any calculations yourself), and notify you if you are not making the most efficient use of your resources. The facilitator will also let you know if you have exceeded (or are under) the resources established for your group.

Service Frequency and Corresponding Colors

If you want service…	…then use Line Color / Style
Every 30 minutes	Blue Pen
Every 60 minutes	Green Pen
Every 120 minutes	Magenta Pen
Rush hours only: 6:00am to 9:00am 3:00pm to 7:00pm	Use one of the colors noted above but draw the line with dots or dashes.
One-way service	Use one of the colors noted above but draw the line with arrows showing the direction of the route.
Service all day at the lower frequency, plus service during peak hours at the higher frequency	Use one of the colors noted above and draw a solid line for all-day service then a dashed line next to it to represent the peak service.
General Public Dial-a-Ride (available on demand roughly once an hour, connecting to Route 60 in White City)	Use an Orange pen to shade the Dial-a-Ride service area. If you choose Dial-a-Ride, assume this will take one hour to serve all of Eagle Point and connect to Route 60 in White City.
Saturday service	Use one of the colors noted above and draw "plus signs"

SOME THINGS TO THINK ABOUT

Coverage vs. Productivity

You might want to design your transit service by "allocating" your resources based on your idea of what "transit is for." Warning - your group may not all agree on this and thus you'll need to work out a balance between you.

The most difficult balancing act is usually between the goal of **Coverage** (trying to serve everyone in the area) and the goal of **Productivity** (trying to maximize efficiency and ridership).

Transit agencies have to strike a *balance* between competing goals:

Coverage – "Respond to needs". Spread out service to all parts of the area, even those where ridership will be low, in order to meet the needs of all citizens.

Productivity – "Respond to demand" Concentrate service in the markets where it will carry the most people, thereby getting more cars off the road. This usually means providing no service to areas where demand is low.

Park and Ride Lots

You may also want to think about the need for "Park-and-Ride" services (geared mostly towards long distance commuters), and suggest locations for them. These can be dedicated lots or even a church or cinema parking lot. Perhaps you know of some other location where parking could easily be provided. Draw them on the map.

Timed Transfers

Finally, you'll find that by making routes connect with each other, you'll be able to take people further and more frequently than if you try to run direct routes from every possible origin to every possible destination. You should assume that these transfers will be timed, so that the delay is only five minutes or so. However, you still have to decide for yourself whether even a timed transfer is too much of a disincentive.

Paratransit

The Americans with Disabilities Act (ADA) is a civil rights law that requires public transportation to be accessible to persons with disabilities. The ADA recognizes that some people with disabilities will not be able to utilize fixed route services, even ones that have wheelchair lifts.

In the Rogue Valley, RVTD provides Valley Lift, which is a curb-to-curb wheelchair accessible service available to eligible passengers. For this Game you do need to worry about paratransit services, but be aware that this would also be provided at least within a ¾ mile boundary of any fixed route you design.

GO TO IT AND HAVE FUN!

APPENDIX C

Initial Service Alternatives

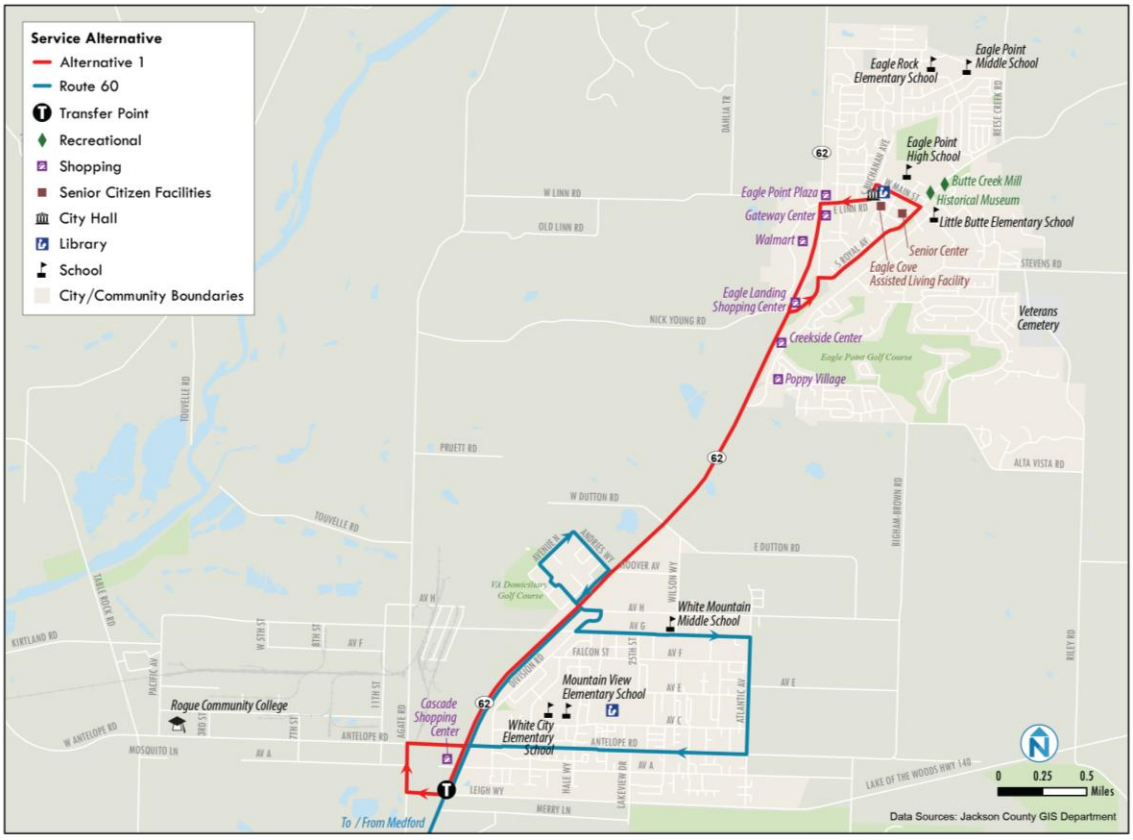
Alternative 1: Eagle Point to White City (Direct)

Alternative 1 consists of a single new route that provides a direct connection between Eagle Point and White City. This new route would serve the following key destinations:

- Main Street/Downtown (Eagle Point)
- City Hall/Ashpole Center (Eagle Point)
- Walmart (Eagle Point)
- VA Domiciliary (White City)
- Cascade Shopping Center (White City)

Key features of this new route are that it is short, direct, and provides connections to Route 60 in White City. The design of the route allows for a single bus to operate between Eagle Point and White City every 30 minutes (30 minute headways). The round trip travel time on this route is about 26 minutes, which leaves four minutes for driver recovery.

Figure C-1 Alternative 1 – Eagle Point to White City (Direct)



The connection to Route 60 will occur at the Cascade Shopping Center. Route 60 serves the Cascade Shopping Center in both directions: in the outbound direction Route 60 stops at 0:01 and 0:31 after the hour. In the inbound direction, Route 60 serves Cascade Shopping Center at 0:21 and 0:51 minutes after the hour. Because the focus of this route is to provide direct service

and regular connections to Route 60 (and thus service to Medford and other parts of the region), the timed connection between this new route and Route 60 will occur at 0:21 and 0:51 past the hour. This connection would allow someone traveling from Eagle Point (Main and Royal Avenue) to Medford Front Street Station in 43 minutes. The wait time between routes would be minimal – between 2 and 3 minutes. Conceptual schedules are shown below for Route 60 and the new direct route between Eagle Point and White City.

Alternative 1 Service Characteristics

As noted above, the new route in this alternative would operate weekdays every 30 minutes from about 6:00 am until 9:00 pm.

On Saturdays, there are several service options:

- **Continue operating the new route every 30 minutes.** This option would not be the best use of resources since demand for transit service is typically less than weekdays. In addition, none of the other fixed route services in the Rogue Valley operate this frequently on Saturday (most operate every hour), and so connections to Route 60 in White City would only be made every other trip.
- **Extend Route 60 to Eagle Point.** This option would extend Route 60 on Saturdays to Eagle Point via the same alignment as weekday service north of the VA Domiciliary. However, service would be provided every hour (the same as existing Route 60 service). This option is preferred because the 78 minute round trip travel time and hourly headways allow some time in the schedule for additional service.[16] In addition, most passengers are less time sensitive on Saturdays and will tolerate longer travel times.

A summary of the operating characteristics for Alternative 1 is provided below.

Figure C-2 Alternative 1 Service Characteristics

Hours of Service	
Monday-Friday Saturday	6:05 AM – 9:01 PM 8:30 AM – 5:38 PM
Headways	
Monday-Friday Saturday	60 min. 30 or 60 min.

Alternative 1 Conceptual Schedules

Figure C-3 below shows a conceptual schedule for the new Eagle Point to White City route, and Figure C-4 shows an abbreviated version of the existing Route 60 schedule. As shown, the new route from Eagle Point to White City would have a timed transfer to the inbound Route 60 at Cascade Shopping Center with minimal wait time. For someone making a round trip between Eagle Point and Medford, however, the return trip would also require a transfer and a wait time of about 15 minutes.

[16] It should be noted that Route 60 on Saturday is paired (interlined) with other routes in Medford, so an extension of service to Eagle Point would require some modification in how routes are paired with each other.

Figure C-3 Conceptual Schedule – New Route between Eagle Point and White City

Eagle Point		White City			Eagle Point
Main Street / Royal Avenue	Walmart	VA Dom	Cascade Shopping Ctr.	VA Dom	Main Street / Royal Avenue
6:05 AM	6:08 AM	6:14 AM	6:18 AM	6:23 AM	6:31 AM
6:35 AM	6:38 AM	6:44 AM	6:48 AM	6:53 AM	7:01 AM
----- Repeating pattern (service every 30 minutes) throughout the day -----					
8:05 PM	8:08 PM	8:14 PM	8:18 PM	8:23 PM	8:31 PM
8:35 PM	8:38 PM	8:44 PM	8:48 PM	8:53 PM	9:01 PM
			↑ Transfer to Route 60		

Figure C-4 Existing Route 60 Schedule – Medford to White City

Medford	White City			Medford
Front Street Station	Cascade Shopping Ctr.	VA Dom	Cascade Shopping Ctr.	Front Street Station
5:00 AM	5:31 AM	5:36 AM	5:51 AM	6:18 AM
5:30 AM	6:01 AM	6:06 AM	6:21 AM	6:48 AM
----- Repeating pattern (service every 30 minutes) throughout the day -----				
8:00 PM	8:31 PM	8:36 PM	8:51 PM	9:18 PM
8:30 PM	9:01 PM	9:06 PM	9:21 PM	9:48 PM
			↑ Transfer to Alternative 1 route	

Alternative 1 Estimated Operating and Capital Costs

Based on the operating assumptions provide above, it is estimated that this new route would require about 4,300 annual service hours. While operating costs are dependent on the preferred administrative and governance model (to be determined after this study), the operating costs associated with this alternative would be approximately $260,000 to $520,000 annually. This assumes an operating cost per revenue hour range between $60 and $120, which is based on a range of rural and urban transit providers in Oregon (excluding Lane Transit District and TriMet). For reference, RVTD's cost per revenue hour is about $112 for fixed route service in 2011. If service hours on this route were reduced to 12 on weekdays and 8 on Saturday, the cost for this route would be between $210,000 and $420,000.

One vehicle would also be required to operate this route, as well as other capital items, such as bus stop signs, benches and/or shelters (where appropriate), marketing information, etc. Assuming a 35' CNG (compressed natural gas) transit coach (similar to RVTD's fleet), the capital

cost associated with a new vehicle would be about $350,000. Assuming approximately 10 stops and an average cost per stop of $1,000 per stop, this would be an additional capital cost of $10,000. Another $20,000 is assumed for "soft" costs associated with marketing the new service, printing brochures, updating websites, etc.

Figure C-5 below summarizes the capital and operating costs associated with Alternative 1.

Figure C-5 Estimated Operating and Capital Costs – Alternative 1

Estimated Operating Costs		Estimated Capital Costs	
Annual Revenue Hours (15 service hours on weekdays, 10 service hours on Saturday)	4,300	New transit vehicle	$350,000
Annual Revenue Hours (12 service hours on weekdays, 8 service hours on Saturday)	3,500	Bus stops (10 @ $1,000)	$10,000
Estimated Cost/Revenue Hour	$60 - $120	Startup costs, marketing, etc.	$20,000
Estimated Annual Operating Costs (17 service hours on weekdays, 12 service hours on Saturday)	$260,000 - $520,000		
Estimated Annual Operating Costs (12 service hours on weekdays, 8 service hours on Saturday)	$210,000 - $420,000		

Alternative 2: Eagle Point to White City (Coverage)

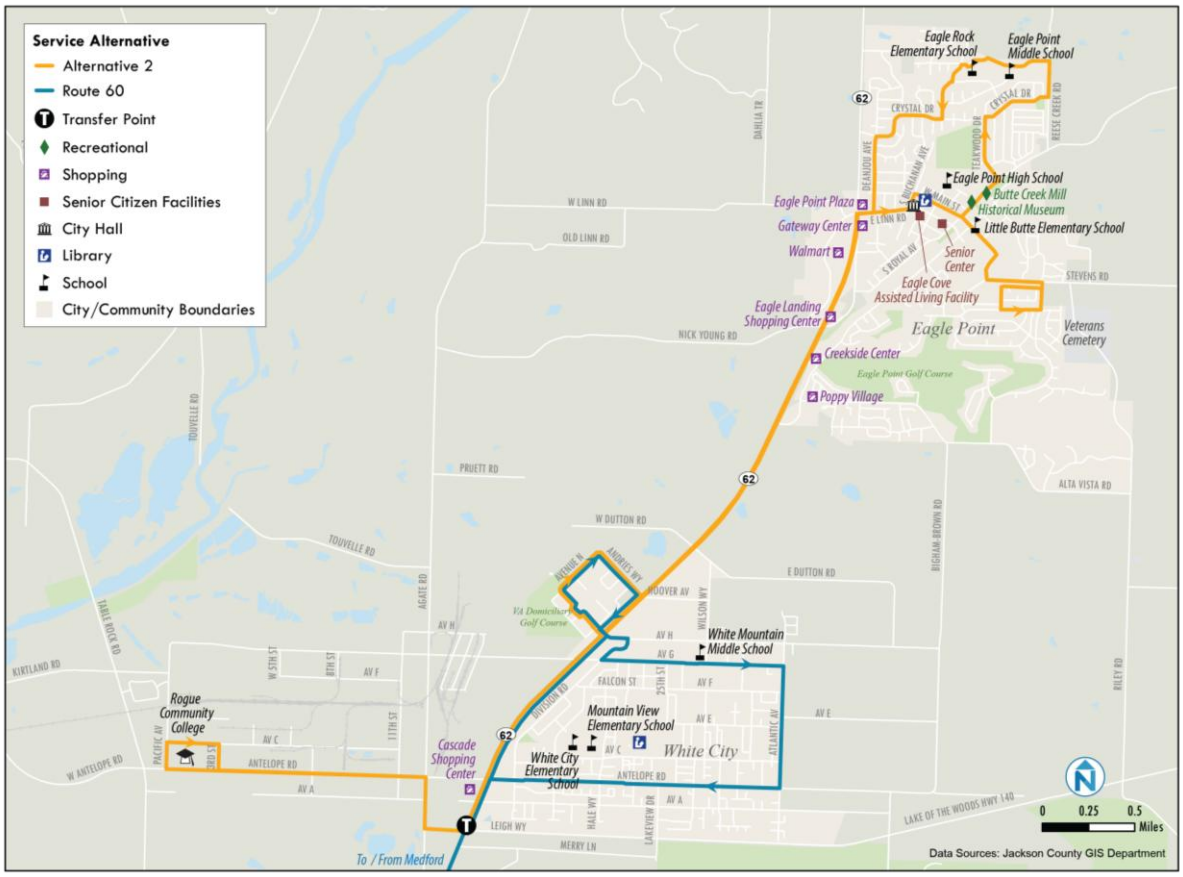
Like Alternative 1, Alternative 2 consists of a new route that provides a connection between Eagle Point and White City. Unlike the route presented in Alternative 1, this new route provides more coverage in Eagle Point, as well as provides a new connection in White City to Rogue Community College. The new route in this alternative serves the following key destinations and is show in Figure C-6 below:

- Main Street/Downtown (Eagle Point)
- Eagle Point Middle School and Eagle Rock Elementary School (Eagle Point)
- Eagle Point High School (Eagle Point)
- City Hall/Ashpole Center (Eagle Point)
- Idlewood and Oak Hill Mobile Home Park (Eagle Point)
- Walmart (Eagle Point)
- VA Domiciliary (White City)
- Cascade Shopping Center (White City)
- Rogue Community College (White City)

The primary advantage of this route is that it provides good coverage throughout most of Eagle Point while also providing a connection to Route 60 in White City. This route would utilize a single bus to operate between Eagle Point and White City every hour (60 minute headways). The round trip travel time on this route is about 51 minutes, which leaves 9 minutes for driver recovery. Another feature of this alternative is that with another bus, service could be provided every 30 minutes during peak periods (which would come at an additional cost).

As with Alternative 1, connection to Route 60 would occur at the Cascade Shopping Center. However, this alternative would connect to Route 60 at Cascade Shopping Center as it travels from Medford in the outbound direction (at 0:31 minutes past the hour). This connection would allow someone traveling from Medford to connect to this route to get to RCC, White City and also to Eagle Point. The connection time between routes in this direction would be minimal – between 2 and 3 minutes. Conceptual schedules are shown below for Route 60 and the new coverage-oriented route between Eagle Point and White City.

Figure C-6 Alternative 2 – Eagle Point to White City (Coverage)



Alternative 2 Service Characteristics

As noted above, the new route in this alternative would operate on weekdays every 60 minutes from about 6:00 am until 9:00 pm. Saturday service would also be provided every hour from approximately 8:30 am until 5:30 pm.

A summary of the operating characteristics for Alternative 2 is provided below.

Figure C-7 Alternative 2 Service Characteristics

Hours of Service	
Monday-Friday Saturday	6:00 AM – 8:54 PM 8:30 AM – 5:24 PM
Headways	
Monday-Friday Saturday	60 60

Alternative 2 Conceptual Schedules

Figure C-8 below shows a conceptual schedule for the new coverage-oriented Eagle Point to White City route. Figure C-9 shows an abbreviated version of the existing Route 60 schedule. As

shown, the new coverage route from Eagle Point to White City would have a timed transfer to the outbound Route 60 at Cascade Shopping Center. This would allow for connections from Medford to RCC, White City as well as to Eagle Point. It should be noted that transfers to Route 60 would only be provided every hour, or every other trip made by Route 60.

Figure C-8 Conceptual Schedule – New Route between Eagle Point and White City

Eagle Point				White City					Eagle Point
Main St / Royal Ave	Eagle Point HS	Eagle Point MS	Walmart	VA Dom	Cascade Shopping Ctr.	RCC White City	Cascade Shopping Ctr.	VA Dom	Main St / Royal Ave
6:00 AM	6:02 AM	6:07 AM	6:16 AM	6:22 AM	6:29 AM	6:35 AM	6:41 AM	6:46 AM	6:54 AM
7:00 AM	7:02 AM	7:07 AM	7:16 AM	7:22 AM	7:29 AM	7:35 AM	7:41 AM	7:46 AM	7:54 AM
----- Repeating pattern (service every 60 minutes) throughout the day -----									
8:00 PM	8:02 PM	8:07 PM	8:16 PM	8:22 PM	8:29 PM	8:35 PM	8:41 PM	8:46 PM	8:54 PM
					↑ Transfer to Rte 60				

Figure C-9 Existing Route 60 Schedule – Medford to White City

Medford	White City			Medford
Front Street Station	Cascade Shopping Ctr.	VA Dom	Cascade Shopping Ctr.	Front Street Station
6:00 AM	6:31 AM	6:36 AM	6:51 AM	7:18 AM
6:30 AM	7:01 AM	7:06 AM	7:21 AM	7:48 AM
----- Repeating pattern (service every 30 minutes) throughout the day -----				
8:00 PM	8:31 PM	8:36 PM	8:51 PM	9:18 PM
8:30 PM	9:01 P M	9:06 PM	9:21 PM	9:48 PM
	↑ Transfer to Alternative 2 route			

Alternative 2 Estimated Operating and Capital Costs

Based on the operating assumptions provide above, this new route would require about 4,300 annual service hours (the same as Alternative 1). As such, the operating costs associated with this alternative are approximately $260,000 to $520,000 annually. If service hours on this route were reduced to 12 on weekdays and 8 on Saturday, the cost for this route would be between $210,000 and $420,000.

As with Alternative 1, one vehicle would also be required to operate this route, as well as other capital items. Assuming a 35' CNG transit coach (similar to RVTD's fleet), the capital cost associated with a new vehicle would be about $350,000. Because this alternative provides more service coverage, however, 20 stops are assumed for the new route (the exact number of stops

would be refined if this is selected as the preferred alternative). Another $20,000 is assumed for soft costs associated with marketing the new service, printing brochures, updating websites, etc.

Figure C-10 below summarizes the capital and operating costs associated with Alternative 2.

Figure C-10 Estimated Operating and Capital Costs – Alternative 2

Estimated Operating Costs		Estimated Capital Costs	
Annual Revenue Hours (15 service hours on weekdays, 9 service hours on Saturday)	4,300	New transit vehicle	$350,000
Annual Revenue Hours (12 service hours on weekdays, 8 service hours on Saturday)	3,500	Bus stops (20 @ $1,000)	$20,000
Estimated Cost/Revenue Hour	$60 - $120	Startup costs, marketing, etc.	$20,000
Estimated Annual Operating Costs (17 service hours on weekdays, 9 service hours on Saturday)	$260,000 - $520,000		
Estimated Annual Operating Costs (12 service hours on weekdays, 8 service hours on Saturday)	$210,000 - $420,000		

Alternative 3: Extension of Route 60

This alternative includes two options for extending Route 60 to Eagle Point. The primary advantage associated with extending Route 60 to Eagle Point is the ability for Eagle Point residents to travel to Front Street Station without a transfer. The primary disadvantage of this alternative is the difficulty of serving two distinct markets (White City and Eagle Point).

The first alternative – **Alternative 3A** – travels the same alignment in White City, but also includes an extension to Eagle Point.

Currently, the round trip travel time (including driver recovery time) on Route 60 is 90 minutes. Because this route operates every 30 minutes (on weekdays), three buses are needed to operate this route. Saturday headways on Route 60 are hourly, which require two buses.

As shown in Figure C-11, Alternative 3A extends service to Eagle Point essentially along the same alignment as the stand-alone route presented in Alternative 1. Thus, the round trip travel time is extended to 120 minutes, which would require 4 buses to maintain existing weekday headways (30 minutes). On Saturday, two buses on the line are required since service operates every hour. It should be noted that this alternative results in cleaner scheduling of Route 60 service on Saturday. Currently, Route 60 scheduling requires three buses and requires interlining with another route because of too much layover time at the end of the route.[17]

From Front Street Station in Medford, Route 60 in Alternative 3A would operate as it currently does to the VA Domiciliary. From Avenue H and Highway 62, rather than continue east on Avenue H, the modified Route 60 would continue north on Highway 62 to Eagle Point. In Eagle Point, the route would make a short loop via Old Crater Lake Highway, Royal Avenue, Main Street, Linn Road and back to Highway 62 before continuing south to White City. At Avenue H, the modified Route 60 would then continue along the existing alignment back to Medford. It is estimated that the extension to Eagle Point would take about 20 minutes.

Alternative 3B would also extend Route 60 to Eagle Point, but rather than serve White City as it currently does, it would be streamlined to operate only in the Highway 62 corridor in White City. As shown in Figure C-12, this alternative would then connect to Eagle Point via the same alignment discussed above in Alternatives 1 and 3A.

Streamlining Route 60 would then require service for the abandoned segments in White City. It is proposed in this alternative that most of White City be served with a new route. This new route would serve the same loop as Route 60 (Antelope, Atlantic, Avenue G, Division and Avenue H), but also provide service to the Rogue Community College campus in West White City and then connect to Central Point via Table Rock Road, Vilas/Hamrick Road, and then Pine Street. A connection to Route 40 in Central Point would then be made, either at 2nd Street and Pine or 10th Street and Pine. The advantages of extending service to 2nd Street and Pine in Central Point are that passengers could travel directly to downtown Central Point and connect to Route 40, which then provides service to Central Point (and eventually to Front Street Station in Medford).

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[17] Interlining refers to the practice of combining two routes end-to-end. If two routes share the same frequency and have one end in common, they may be combined for either passenger convenience or because this permits a more cost-effective operation. Interlined routes usually retain their separate numbers to avoid confusion. [Definition from AC Transit, http://www.actransit.org/customer/transit-glossary/]

Figure C-11 Alternative 3A – Extension of Route 60 to Eagle Point

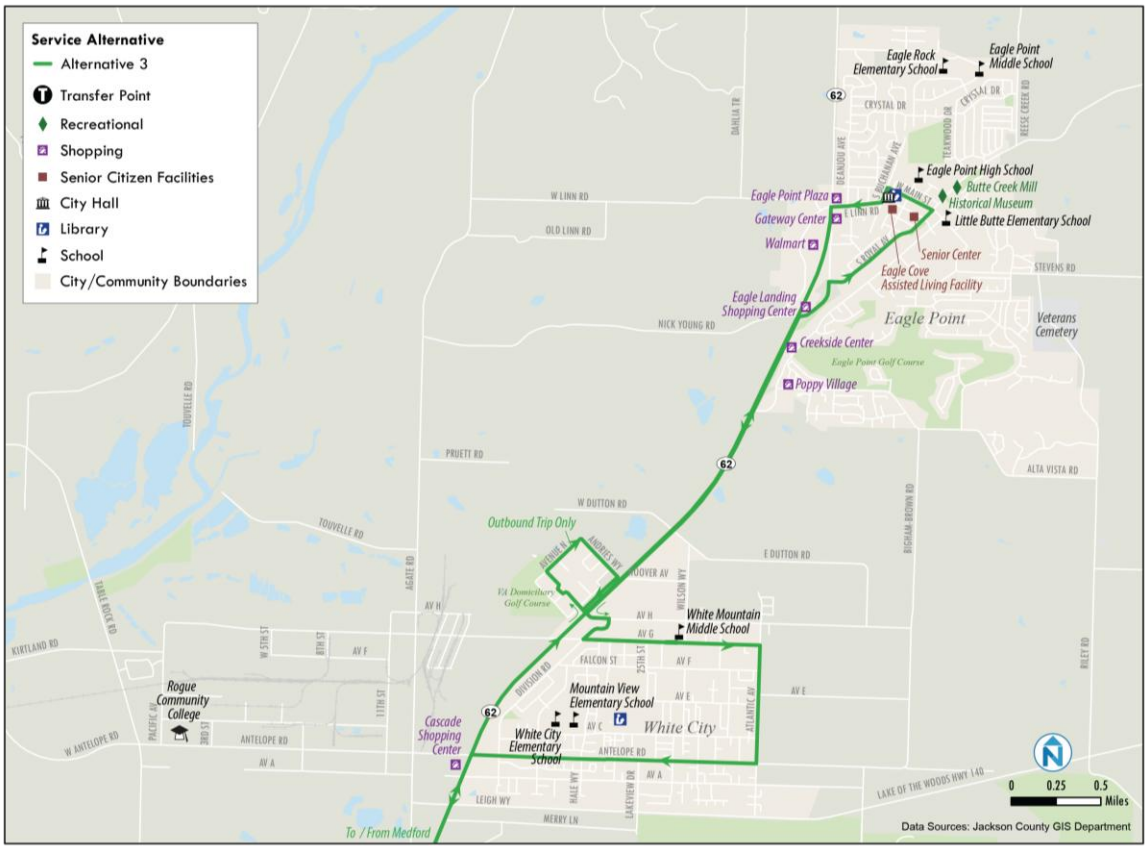
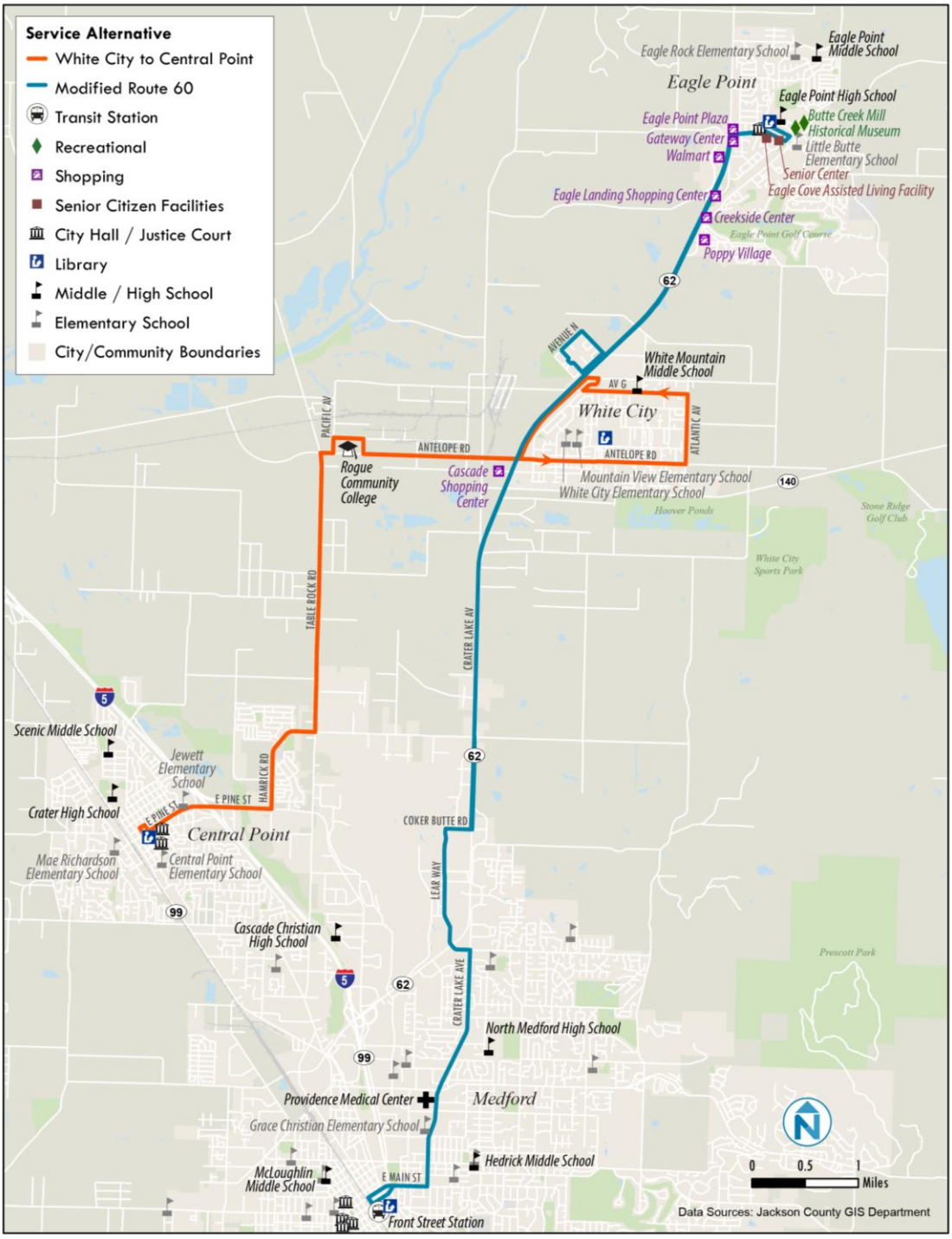


Figure C-12 Alternative 3B – Extension of Route 60 to Eagle Point (Streamlined) and New White City to Central Point Route



Alternative 3 Service Characteristics

Because both Alternatives 3A and 3B include an extension of Route 60, the service hours on Route 60 are proposed to remain the same as current service hours. The new route between White City and Central Point (Alternative 3B), would operate hours that are similar to Route 40, which begins service one hour later on weekdays.

A summary of the operating characteristics for Alternatives 3A and 3B is provided below.

Figure C-13 Alternative 3A Service Characteristics (Route 60 Extended)

Hours of Service	
Monday-Friday Saturday	5:00 AM – 10:10 PM 8:30 AM – 5:48 PM
Headways	
Monday-Friday Saturday	30 60

Figure C-14 Alternative 3B Service Characteristics

Hours of Service	
Route 60	
Monday-Friday Saturday	5:00 AM – 9:49 PM 8:30 AM – 5:48 PM
New White City to Central Point Route	
Monday-Friday Saturday	6:18 AM – 9:42 PM 8:30 AM – 5:30 PM
Headways	
Monday-Friday Saturday	30 60

Alternative 3 Conceptual Schedules

Figure C-15 below shows a conceptual schedule for the modified Route 60 that extends to Eagle Point. Figure C-16 shows the modified Route 60 schedule for Alternative 3B and shows a conceptual schedule for a new route between White City and Central Point. Potential connections between the modified Route 60 and the new route between White City and Central Point are also shown in Figure C-17.

Figure C-15 Conceptual Schedule – Modified Route 60 (Alternative 3A)

Medford	White City		Eagle Point		White City	Medford
Front Street Station	Cascade Shopping Ctr.	VA Dom	Main Street / Royal Avenue	Walmart	Cascade Shopping Center	Front Street Station
5:00 AM	5:31 AM	5:36 AM	5:46 AM	5:49 AM	6:10 AM	6:40 AM
5:30 AM	6:01 AM	6:06 AM	6:16 AM	6:19 AM	6:40 AM	7:10 AM
----- Repeating pattern (service every 30 minutes) throughout the day -----						
8:30 PM	9:01 PM	9:06 PM	9:16 PM	9:19 PM	9:40 PM	10:10 PM

Figure C-16 Conceptual Schedule – Modified Route 60 (Alternative 3B)

Medford	White City		Eagle Point		White City	Medford
Front Street Station	Cascade Shopping Ctr.	VA Dom	Main Street / Royal Avenue	Walmart	Cascade Shopping Center	Front Street Station
5:00 AM	5:31 AM	5:34 AM	5:42 AM	5:45 AM	5:52 AM	6:19 AM
5:30 AM	6:01 AM	6:04 AM	6:12 AM	6:15 AM	6:22 AM	6:49 AM
----- Repeating pattern (service every 30 minutes) throughout the day -----						
8:30 PM	9:01 PM	9:04 PM	9:12 PM	9:15 PM	9:22 PM	9:49 PM
	↑ Transfer to outbound WC/CP route (starting at 6:31 AM)				↑ Transfer to inbound WC/CP route (starting at 6:52 AM)	

Figure C-17 New White City to Central Point Route

Central Point	White City					Central Point
2nd / Manzanita	RCC, White City	Cascade Shopping Ctr	VA Dom	Cascade Shopping Ctr.	RCC, White City	2nd / Manzanita
6:18 AM	6:30 AM	6:35 AM	6:40 AM	6:52 AM	7:00 AM	7:12 AM
6:48 AM	7:00 AM	7:05 AM	7:10 AM	7:22 AM	7:30 AM	7:42 AM
----- Repeating pattern (service every 30 minutes) throughout the day -----						
8:48 PM	9:00 PM	9:05 PM	9:10 PM	9:22 PM	9:30 PM	9:42 PM
↑ Transfer to/from Route 40		↑ Transfer from outbound Route 60		↑ Transfer from inbound Route 60		↑ Transfer to/from Route 40

Alternative 3A Estimated Operating and Capital Costs

Based on the operating assumptions discussed above, the extension of Route 60 would require about 4,800 annual service hours (which mimics current service hours). As such, the operating costs associated with this alternative are approximately $288,000 to $576,000 annually.

As with Alternatives 1 and 2, one vehicle would also be required to extend Route 60 to Eagle Point. Other capital expenses would also be incurred. Assuming a 35' CNG transit coach is purchased (similar to RVTD's fleet), the capital cost associated with a new vehicle would be about $350,000. As with Alternative 1, about 10 new stops are assumed for the extension of Route 60 to Eagle Point (this estimate would be refined with exact stop locations when a preferred alternative is selected). Because this is an extension of an existing route, an additional $10,000 is assumed for "soft" costs associated with marketing the new service, printing brochures, updating the RVTD website, etc.

Figure C-18 below summarizes the capital and operating costs associated with Alternative 3A.

Figure C-18 Estimated Operating and Capital Costs – Alternative 3A

Estimated Operating Costs		Estimated Capital Costs	
Annual Revenue Hours (17 service hours on weekdays, 9 service hours on Saturday)	4,800	New transit vehicle	$350,000
Estimated Cost/Revenue Hour	$60 - $120	Bus stops (10 @ $1,000)	$10,000
Estimated Annual Operating Costs (17 service hours on weekdays, 9 service hours on Saturday)	$288,000 - $576,000	Startup costs, marketing, etc.	$10,000

Alternative 3B Estimated Operating and Capital Costs

Based on the operating assumptions discussed above, the extension of Route 60 in Alternative 3B would require the same amount of resources as the existing Route 60 (about 14,000 annual revenue hours). However, the new route from White City to Central Point would require about 8,600 annual revenue hours, or approximately $520,000 to $1,000,000 annually based on an estimate between $60 and $120 per revenue hour.

Two new vehicles would also be required for this new route, as well as other capital items. Assuming a 35' CNG transit coach (similar to RVTD's fleet), the capital cost associated with two new vehicles would be about $700,000. Because most of this route is currently served by other routes, 8 new stops are assumed for this new route (this estimate would be refined with exact stop locations when a preferred alternative is selected). Because this would be a new RVTD route, an additional $10,000 is assumed for soft costs associated with marketing the new service, printing brochures, updating the RVTD website, etc.

It should be noted that the costs associated with this alternative would not all be attributed to Eagle Point.

Figure C-19 below summarizes the capital and operating costs associated with Alternative 3B.

Figure C-19 Estimated Operating and Capital Costs – Alternative 3B

Estimated Operating Costs		Estimated Capital Costs	
Annual Revenue Hours (16 service hours on weekdays, 9 service hours on Saturday)	8,600	Two new transit vehicles	$700,000
Estimated Cost/Revenue Hour	$60 - $120	Bus stops (8 @ $1,000)	$8,000
Estimated Annual Operating Costs (18 service hours on weekdays, 9 service hours on Saturday)	$520,000 - $1,000,000	Startup costs, marketing, etc.	$10,000