



WOODBURN
Transit System
Transit Development Plan (TDP)

Transit Development Plan

June 2023

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INTRODUCTION AND EXECUTIVE SUMMARY

INTRODUCTION AND EXECUTIVE SUMMARY

Overview of the Transit Development Plan

In 2010, the City of Woodburn completed a comprehensive transit plan for Woodburn Transit System (WTS) that has served as the guide for transit service delivery over the past 12 years. While this document has been useful in prioritizing capital and operating investments, the plan is outdated and many of priorities have been completed, including:



- The **Woodburn Transit Memorial Transit Facility**, which has four bus bays, is where WTS connects to POINT, Greyhound, and the new Cherriots Route 80X. This facility also includes parking for about 140 vehicles (for carpool/vanpool or transit riders).
- The **Downtown Transit Center** on N 1st Street and Arthur Street provides a small off-street facility for transfers between WTS and Cherriots Route 10X. The facility includes a small shelter and transit information.
- An innovative non-emergency medical transportation service that offers trips between Portland and Salem. This is managed by WTS and provided with volunteer drivers and two employees.
- The **Dial-A-Ride** service was expanded to provide service seven days a week.
- The **new Express route** began operating in 2019 to provide more direct fixed-route service to Woodburn’s major destinations.
- **New bus stops, shelters, and signage** were added at major stops throughout the fixed-route system.
- **Coordination with regional providers** has been improved to offer more direct connections to Cherriots regional routes, Canby Area Transit (CAT) and intercity providers (POINT and Greyhound).
- **Pedestrian and bicycle improvements** have been made throughout the city on highways 99 and 214.

The 2023 Transit Development Plan (TDP) provides an updated plan for operating and capital needs that is integrated with updated community needs, values, and priorities. The Transit Development Plan is an important document for securing State and Federal funding, the primary source of funding for WTS. The 2023 TDP is also an opportunity to re-evaluate transit service in Woodburn following the COVID-19 pandemic that had a significant impact on how people use, value, and prioritize transit services.

Why is Transit, and WTS, Important?

Cities and regions support public transportation services for a variety of reasons, including that transit provides travel choices beyond the private automobile, creating a diversified, accessible, and equitable transportation network. A successful transit system creates opportunities to support a variety of community interests:

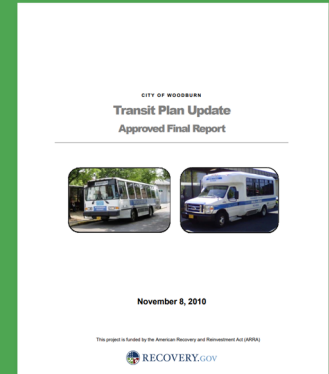
- **Access, Participation, and Independence.** Woodburn’s transit services are especially important for households that do not have access to a vehicle and individuals who have limited abilities. WTS service provides community members the ability to participate in daily activities and to travel throughout Woodburn and beyond with access to places of work, recreation, education, and health care.
- **Safety and the Environment.** Transit service is among the safest ways to travel. Bus riders also help reduce the number of vehicles on the road and reduce air pollution and greenhouse gas emissions.
- **Economic Development.** Transit has a demonstrated ability to attract economic investment along corridors as well as in specific commercial areas. Transit is especially critical for low-income households by providing access to jobs and economic opportunity.
- **Affordability.** Well-functioning transit services can reduce household expenses for individuals and families. On average, Woodburn residents spend about 25% of their incomes on transportation costs (Source: Housing & Transportation Index). The average transportation costs of owning and operating a car, including gas, insurance, and maintenance, are estimated at \$11,500 a year. While WTS is currently fare-free, purchasing two 20-ride bus passes every month for a year would cost a fraction of this: \$450.

PLANNING CONTEXT

The three primary documents were reviewed for the Transit Development Plan:

Transit Plan Update (2010)

This is the guiding document for Woodburn Transit. The TPU is a supplement to the Transportation System Plan (TSP) and has been used to make future service and capital investment decisions over the past 12 years.



Comprehensive Plan

Last amended in 2022, this document provides the legal framework and long-term vision for implementing plans and land use regulations in the City of Woodburn. As such, the TDP considers existing development patterns and the future land use designations as established by the vision laid out in the Comprehensive Plan.

Transportation System Plan (TSP)

This document is the long-range plan that sets the vision for Woodburn’s transportation system, facilities, and services over the next 20 years. The plan establishes investments and priorities for the bicycle, pedestrian, transit, and motor vehicle networks.

State of the System Key Findings

Existing Transit System Key Findings

Early in the project, Woodburn Transit System's existing transit services were evaluated in detail. The following key findings helped shape the recommendations included in the TDP:

- **Some duplication of fixed-route services.** While the Fixed Route provides more coverage throughout Woodburn, it serves many of the same locations as the Express Route. Nearly two thirds of total ridership is heavily concentrated at just seven locations.
- **Ridership on the fixed-route services has largely recovered.** The COVID-19 pandemic impacted nearly all transit systems, and WTS was no exception. However, ridership has largely returned to pre-COVID levels. Part of this can be attributed to a relatively high dependence on transit (based on the community and on-board surveys) but may also be because fares were suspended in March 2020.
- **Connections to regional services are critical.** Only about 20% of people who live in Woodburn also work in the city, which emphasizes the need for providing good connections to the other transit services.
- **Ridership on Dial-A-Ride is higher than pre-COVID.** While ridership declined initially in March/April 2020, it quickly recovered and is now about 25% higher than the pandemic.
- **Utilization of the popular medical transportation program has declined since the COVID-19 pandemic.** The average number of people using this service declined by about 70%, partially due to a lack of available drivers.

Market Analysis Key Findings

An early task in the project also evaluated the underlying demand for transit, including population and employment density, socioeconomic characteristics, and regional travel flows. Several key findings that have guided the recommendations in the TDP include:

- **Population density** is highest west of the central business district, as well as just north of downtown in the Nuevo Amanecer and Stonehedge housing complexes.
- **Employment density** is highly concentrated in downtown, along the entire stretch of Highway 214 from I-5 to Highway 99, at the Woodburn Outlet Mall, and around the industrial and commercial uses near highways 99 and 214. The new Amazon distribution warehouse, along with the existing Do it Best and WinCo distribution warehouses, are also major employers in the city.
- **People more likely to rely on transit** are more concentrated south of Highway 214 around the Walmart, in downtown, and the neighborhoods east and southeast of downtown.
- **There are several barriers to accessing transit as a pedestrian or bicyclist**, including the major roadways (Highway 214 and Highway 99), as well as the railroad tracks and I-5. The existing signalized intersections, as well as new pedestrian crossings, are important to note for current and future transit riders.
- **Woodburn is both an employment center and a "bedroom community"** for people who work in Salem-Keizer and the Portland metro region. About 80% of people who live in Woodburn have jobs elsewhere in the region, and about 80% of people who work in Woodburn live elsewhere.

Community Engagement Key Findings

The project team has conducted several community engagement activities throughout the project. As much as possible, engagement opportunities have offered Spanish- and English-language options for participants. Key findings are summarized below.

Community Survey

- Respondents are more satisfied with different aspects of service than dissatisfied, but comfort at bus stops, frequency, and reliability are all areas where service could be improved.
- Barriers to transit use include inconvenience, long transit travel times, and schedules that don't match needs.
- The most important improvements identified to encourage more people to use transit or use it more often are better service information, more frequent service, and improved transfer connections to other providers/cities.

On-Board Survey

- More than half of participants completed the survey in Spanish, and more than 70% of respondents are most comfortable speaking Spanish.
- Satisfaction with WTS service was generally high. Respondents were most satisfied with safety on the bus and frequency of service, and least satisfied with reliability of schedules and ease of transfers to other services.
- Respondents indicated that their top priority service improvements would be earlier morning service, more frequent service, and later evening service.

Stakeholder Interviews

- Stakeholders felt that marketing information could be improved and expanded to improve awareness of the services among the general public.
- The limited service hours does not effectively serve shift workers at many large employers (Treetop, Do it Best, etc.).
- The lack of bilingual operators and WTS staff makes using transit more difficult for some riders and limits the ability to grow transit ridership.

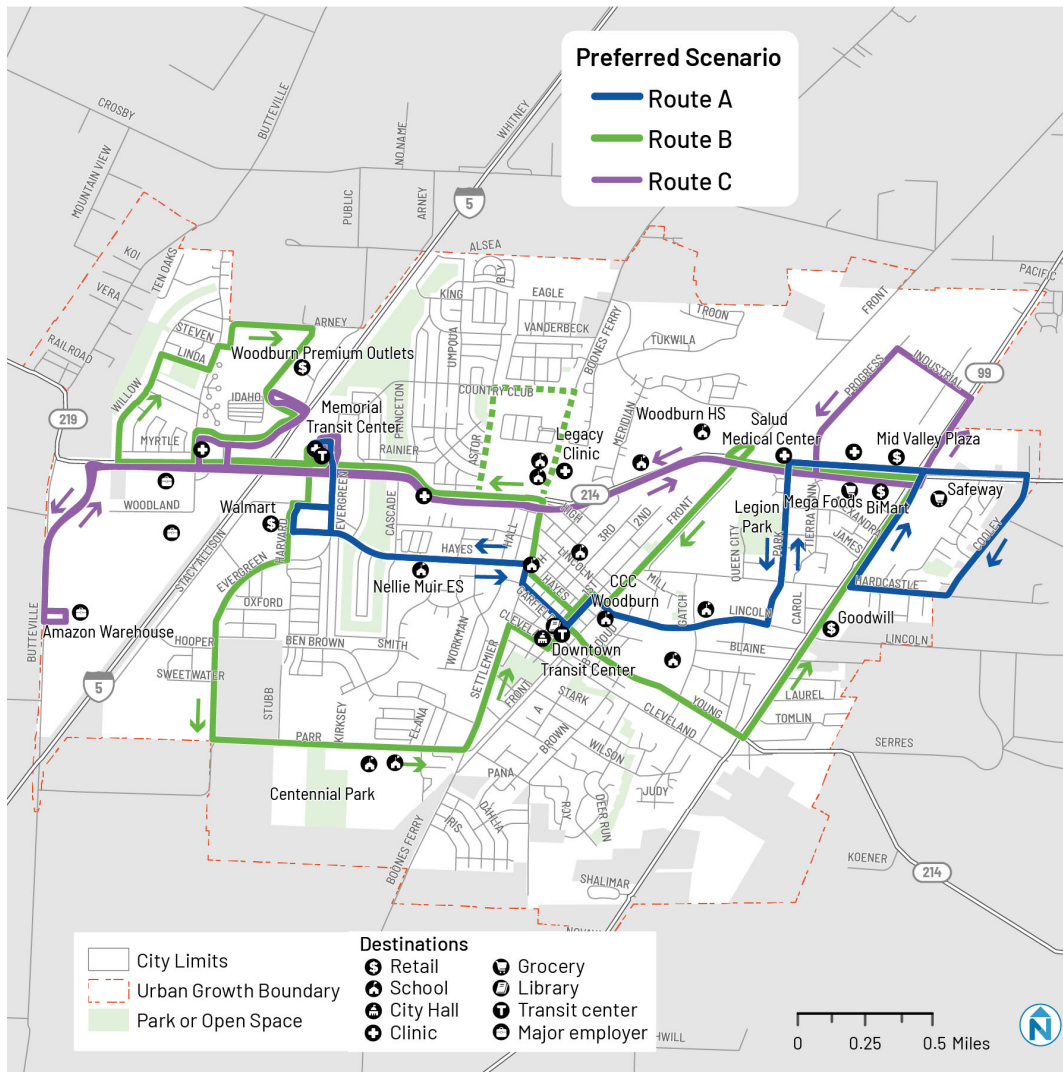
Planning Game Workshop

- Workshop participants identified the corridor along Highway 214 between Highway 99 and the Outlet Mall as the top priority for higher frequency service.
- Key destinations for transit riders include Downtown Woodburn, Walmart, the Outlet Mall, health clinics along Highway 214, Bi-Mart, Goodwill, and major employers in west Woodburn (Do it Best, Winco, and Amazon).
- Participants sketched out lower frequency coverage routes or demand-response service zones in residential neighborhoods and to portions of Highway 99.



Planning Game Workshop, November 2022

Preferred Service Plan



Based on the State of the System evaluation, as well as the community engagement activities conducted throughout the project, four service scenarios were developed to test the application of a variety of service concepts and understand what transit system design might best serve the community. Based on community input related to these service scenarios, a Preferred Service Plan was developed (as shown to the left) and summarized below:

- **Route A – Direct.** This route provides hourly bidirectional service connecting the major destinations in Woodburn. The focus of this route is to provide the most direct routing possible while also serving these major destinations.
- **Route B – Local.** This route provides hourly service to the major destinations in the community as well as to several residential neighborhoods that are not served by Route A.
- **Route C – Highway 214 Express.** This new route provides a direct connection between major destinations on Highway 214 and operates earlier and later than other routes to serve major employers in the community and connect to regional transit services. Eight round trips would be completed on weekdays only.

Over the course of the plan, Routes A and B are also recommended to run more frequently (every 30 minutes) and fixed-route service hours would be expanded to provide access to a wider variety of trips. No changes to the Dial-A-Ride service are proposed as part of this plan other than it would operate during the same extended hours as the fixed-route service.

Capital Improvements

Corresponding to the Preferred Service Plan, a series of capital improvements are recommended over the life of the plan.

Vehicle Replacements

- **Paratransit vehicles.** One modified minivan would be replaced in FY 2022/23 and a second modified minivan will be replaced in FY 2024/25. Two Cutaway Dial-A-Ride vans will be replaced in FY 2023/24.
- **Fixed route vehicles.** Two older buses used for fixed route operations will be retired and replaced by new diesel low-floor vehicles. The first vehicle will be replaced in FY 2022/23 and the second vehicle will be replaced in FY 2024/25.

Expansion Vehicles (Electric Buses)

It is recommended that WTS begin transitioning their bus fleet to electric vehicles. This follows ODOT's initiative to accelerate zero emission vehicles to reduce greenhouse gas emissions. The City is currently applying for a State of Oregon grant that would facilitate the purchase of the first electric transit vehicle, along with necessary EV charging infrastructure. It is anticipated that the first electric vehicle would be put into service in FY 202/25 (at earliest) and that as older fixed route vehicles are retired throughout the plan (in FY 2026/27 and FY 2028/29), those replacement vehicles should also be electric.

Bus Stop Enhancements

All bus stops with more than 2 daily boardings are retained with the Preferred Service Plan, and none of the removed stops is more than ¼ mile from another stop that would still have service. A total of 31 new stops are also added, including four stops with shelters. Stops with shelters would be added at Centennial Park, on Park Avenue (one on each side of the street near Legion Park), and at the Safeway on Molalla Road.

Technology Enhancements

During the plan, WTS should explore providing real-time arrival information to passengers, either through the development of an app or with displays at key stops.



South Metro Area Regional Transit (SMART) in Wilsonville has recently acquired electric vehicles. (Source: Proterra)



Bus stop with shelter on Young Street

STATE OF THE SYSTEM

STATE OF THE SYSTEM OVERVIEW

This chapter provides a detailed evaluation of existing transit services, and an understanding of transit markets, demand, and service needs in Woodburn. To understand the strengths and opportunities associated with the existing system, this chapter provides an overview of:

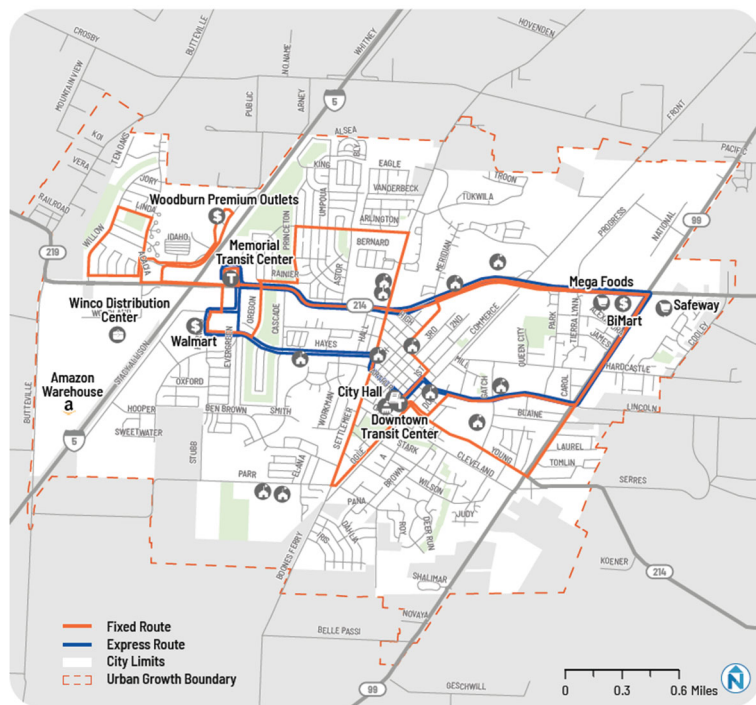
- Existing transit service types and operating characteristics
- Existing ridership and performance trends
- Transit markets defined according to population, employment, and socioeconomic characteristics
- Major employers and activity centers
- Commute and travel patterns
- How well existing services are matched with demand and community needs

The chapter concludes with an overview of community engagement activities that have been conducted as part of the Transit Development Plan, and which will serve as a guide for development of operating and capital improvements later in the report.

WOODBURN COMMUNITY OVERVIEW

Located in the central Willamette Valley, Woodburn is a thriving and dynamic community. With one of the busiest shopping destinations in Oregon (the Woodburn Outlet Mall) and a vibrant downtown, Woodburn is also one of the most diverse communities in the Pacific Northwest, with as many as 60% of the community identifying as Hispanic or Latino. Woodburn is also a distribution hub for several large employers such as WinCo Foods, Do it Best, and Amazon (planned to open in 2023 or 2024). Woodburn also boasts a sizable retirement community as well as a higher proportion of younger residents compared to Marion County and the state.

Figure 1 City of Woodburn Fixed Route Transit Service Map (Fall 2022)



Community Statistics¹

	Woodburn	Marion Co.	Oregon
Population (2021)	26,054	347,119	4,246,155
Employment (2019) ²	9,900	164,310	1,942,878
Population identifying as Hispanic or Latino	57.4%	28.2%	14.0%
Persons under 18 years	28.5%	24.0%	20.3%
Persons over 65	18.1%	16.3%	18.6%
Household Size	2.98	2.77	2.49
Median Household Income	\$52,251	\$61,817	\$65,667
Mean travel time to work (minutes)	25.9	24.4	23.9
Annual Transportation Costs ³	\$15,011	\$14,254	n/a
Households without access to a vehicle	1.4%	1.8%	3.2%
Transit ridership (Workers)	1.2%	1.8%	4.5%

1 - US Census Bureau, QuickFacts; 2 - US Census, Longitudinal Employer-Household Dynamics; 3 - [The Housing and Transportation \(H+T®\) Affordability Index](#)

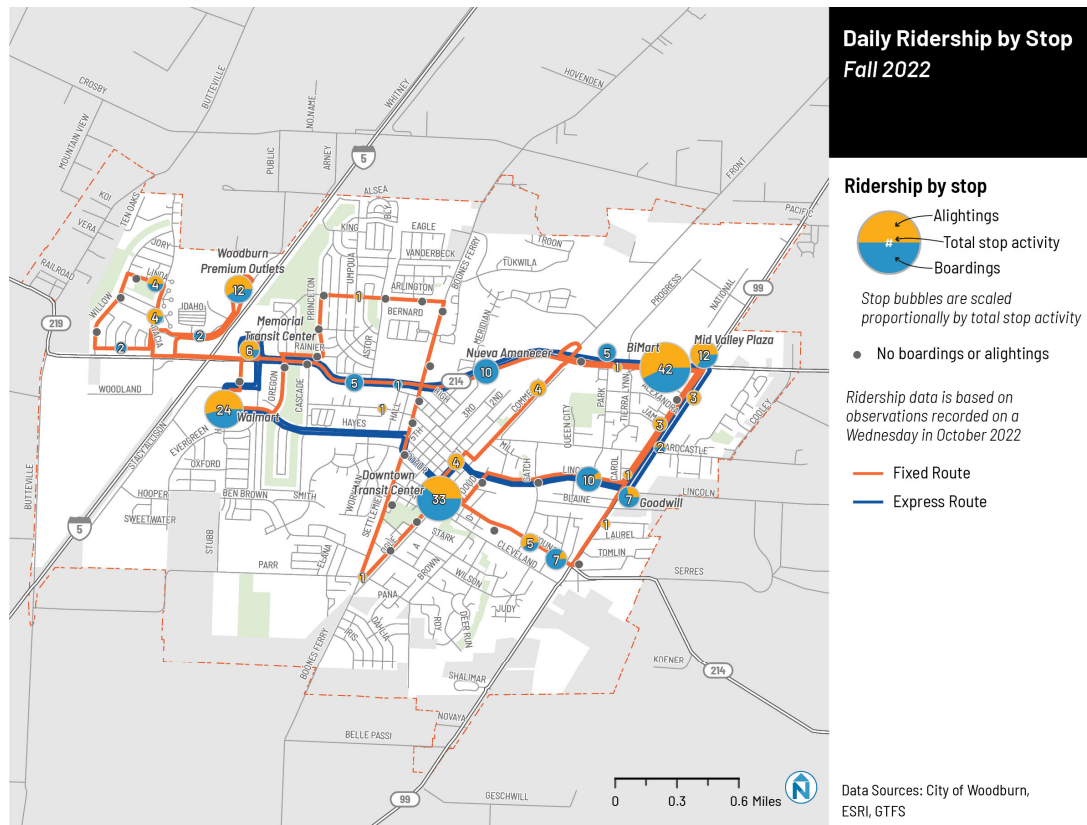
Community Overview Key Findings

- Woodburn has a significantly higher proportion of residents identifying as Hispanic or Latino (57%) and a higher proportion of younger residents (28.5%) compared to Marion County and Oregon.
- Travel time to work is longer for Woodburn workers than for Marion County or Oregon residents as a whole. This reflects the high percentage of Woodburn workers who work outside of the city (about 80%).
- Households with access to a vehicle in Woodburn is high compared to Oregon and Marion County residents. At the same time, transit ridership is lower. The high vehicle ownership and low transit ridership also corresponds to higher annual transportation costs for Woodburn residents.

Fixed Route Ridership

WTS collects ridership data by trip for each route and service but does not generally collect ridership data by stop on the fixed route system. As such, the project team conducted a “ridecheck” for both the Fixed Route and Express Route on a Wednesday in October 2022 to understand ridership patterns at the stop level. Boardings and alightings for all trips on both routes on this day were combined and are shown in Figure 3.

Figure 3 Fixed Route Boardings by Stop



Fixed Route Ridership Highlights

- There were 110 total daily boardings recorded across the two routes.
- Boarding and alighting activity was heavily concentrated at just a few key stops, as shown in Figure 4. These 7 stops accounted for 67% of all stop activity.
- 25 out of approximately 55 stops (45%) served by the two routes had zero boardings or alightings.

Figure 4 Total Daily Boardings and Alightings by Stop

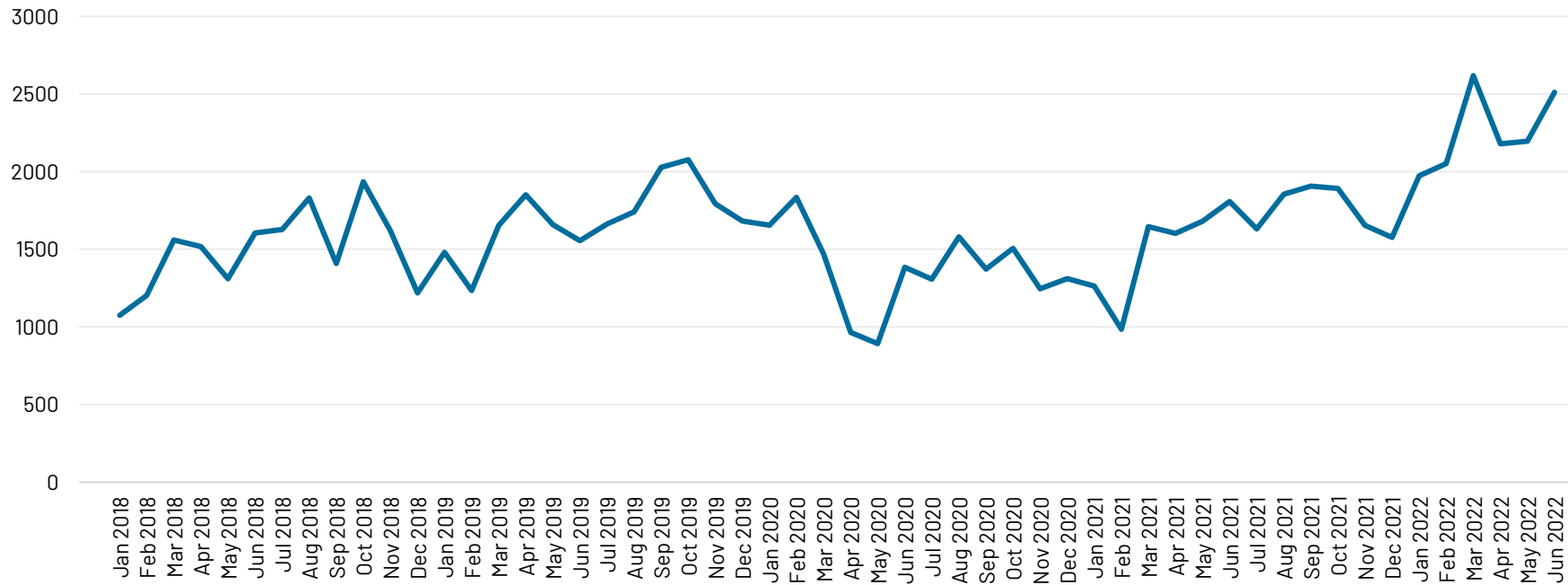
Stop	Total Daily Boardings + Alightings
Bi Mart Woodburn	42
Downtown Transit Center	33
Walmart	24
Premium Outlet Stores	12
Mid Valley Plaza	12
Nuevo Amanecer	10
Lincoln/Park Avenue	10
Subtotal	143
All other stops	70
TOTAL	213

Fixed Route Ridership Trends

Total fixed route system ridership (Fixed Route and Express Route) was approximately 1,500-2,000 riders per month prior to the COVID-19 pandemic. The Express Route began service in September 2019, just a few months prior to disruptions to social and travel patterns caused by the COVID-19 pandemic. Throughout most of the pandemic, service on the Fixed Route was limited to weekends only, with the Express Route running most days. Total fixed route system ridership dropped as low as 890 riders per month in May 2020, a drop of nearly 60% from the pre-COVID peak in October 2019.

Ridership in recent months has surpassed pre-COVID levels, averaging 2,000-2,600 riders per month in the first half of 2022. This defies the trend generally seen across most U.S. transit agencies of ridership hovering well below pre-pandemic levels. A large part of the recovery of ridership may be attributed to a high percentage of transit-dependent riders, as well as free fares (which were suspended in March 2020).

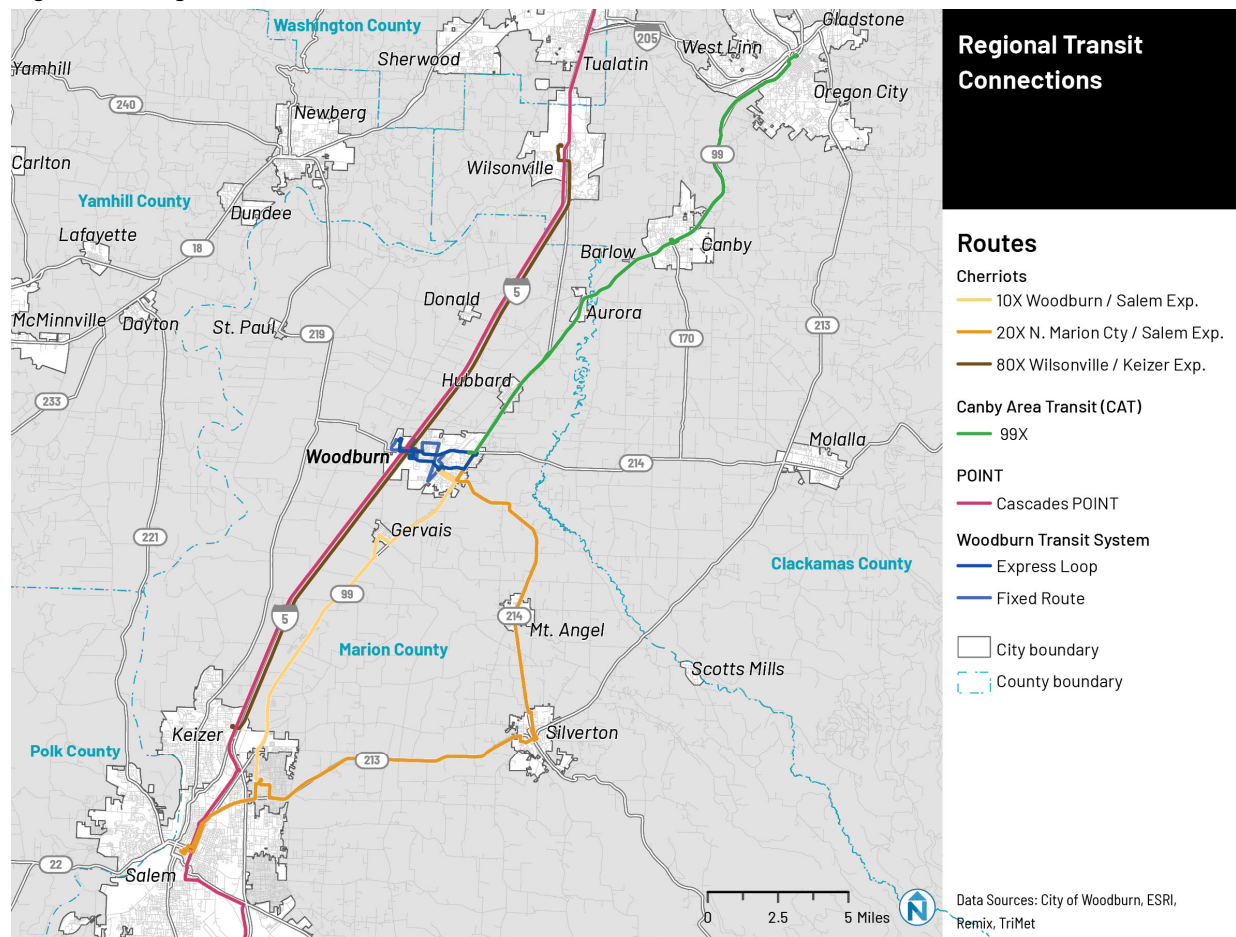
Figure 5 Fixed Route Boardings by Month (January 2018-June 2022)



Regional Service Profile

Several regional services, both public and private, connect Woodburn with destinations near and far. Cherriots (Salem) and Canby Area Transit (CAT) provide the most frequent regional connections to the nearby cities of Hubbard, Aurora, Canby, Oregon City, Wilsonville, Keizer, Silverton, and Salem. The services that connect to WTS are shown in Figure 6 and the details of each service are described in Figure 7.

Figure 6 Regional Services



Public Transit

- Canby Area Transit runs up to hourly service between Oregon City and Woodburn on route 99x, which stops in Woodburn at Bi-Mart (corner of OR-99 and OR-214).
- Cherriots runs up to 8 trips per day on three routes, stopping in Woodburn at the Memorial Transit Center, Downtown Transit Center, and Bi-Mart.
- Cascades POINT serves Woodburn Memorial Transit Center with three southbound and four northbound trips per day.

Private Transportation

- Greyhound buses serve Memorial Transit Center with two northbound trips and one southbound trip per day.
- Groome Transportation runs an hourly shuttle to Portland International Airport.
- Fronteras Del Norte operates one northbound and one southbound trip per day, connecting cities from Yakima, Washington to Tijuana, Mexico.

Figure 7 Regional Service Summary

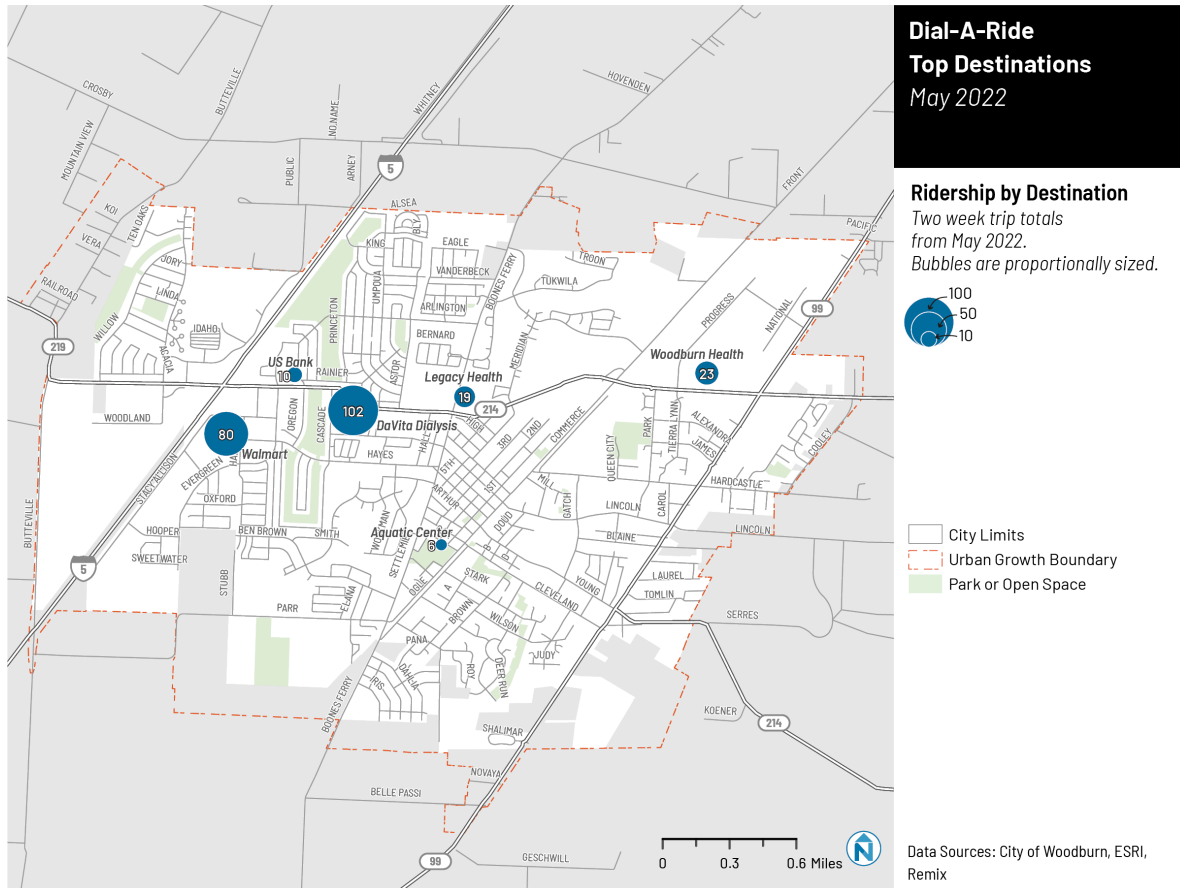
Service	Route	Number of Trips per Day	Days of Service	Fares	Stops in Woodburn
Canby Area Transit (CAT) <i>Woodburn ↔ Oregon City</i>	99X	<u>Weekdays</u> 14 trips NB (6:32am-7:32pm, departs hourly) 14 trips SB (6:22am-7:22pm, arrives hourly) <u>Saturdays</u> 6 trips NB (9:32am, 11:32am, 1:32pm, 2:32pm, 4:32pm, 5:32pm) 6 trips SB (9:22am, 11:22am, 1:22pm, 2:22pm, 4:22pm, 5:22pm)	M-F, Sat	<u>Fares</u> \$1.00 M-F and Free on Saturday.	Woodburn Bi-Mart (end of line)
Cherriots <i>Woodburn ↔ Salem</i>	10x	Woodburn Transit Center <u>Weekdays</u> 8 trips NB (6:41am, 8:17am, 10:31am, 1:16pm, 2:47pm, 5:17pm, 5:45pm, 8:11pm) 8 trips SB (6:33am, 7:06am, 8:50am, 11:35am, 1:07pm, 3:58pm, 5:42pm, 6:38pm) <u>Saturdays</u> 3 trips NB (9:15am, 3:07pm, 5:15pm) 4 trips SB (7:35am, 9:42am, 3:35pm, 5:44pm) Woodburn Bi-Mart (end of line) <u>Weekdays</u> 8 trips NB (6:47am, 8:23am, 10:37am, 1:22pm, 2:54pm, 5:24pm, 5:52pm, 8:17pm) 8 trips SB (6:24am, 6:57am, 8:41am, 11:27am, 12:58pm, 3:48pm, 5:32pm, 6:29pm) <u>Saturdays</u> 3 trips NB (9:21am, 3:14pm, 5:22pm) 4 trips SB (7:26am, 9:33am, 3:26pm, 5:35pm)	M-F, Sat	<u>Fares</u> Full Fare = \$2.25 Reduced = \$1.50 Youth = Free	Downtown Transit Center Woodburn Bi-Mart (end of line)
Cherriots <i>Woodburn ↔ Salem</i>	20x	<u>Weekdays</u> 5 trips SB (departs 6:13am, 8:42am, 12:33pm, 4:03pm, 7:10pm) 5 trips NB (arrives 8:35am, 11:05am, 12:25pm, 3:46pm, 6:44pm) <u>Saturdays</u> 4 trips SB (departs 8:11am, 10:47am, 2:22pm, 5:00pm) 3 trips NB (arrives 10:35am, 2:10pm, 4:52pm)	M-F, Sat	Full Fare = \$2.25 Reduced = \$1.50 Youth = Free	Woodburn Bi-Mart (end of line)
Cherriots <i>Keizer ↔ Wilsonville via Woodburn</i>	80x	4 trips NB (6:52am, 11:30am, 4:28pm, 6:28pm); 4 trips SB (7:46am, 12:21pm, 5:21pm, 7:28pm)	M-F	Full Fare = \$2.25 Reduced = \$1.50 Youth = Free	Memorial Transit Center

Service	Route	Number of Trips per Day	Days of Service	Fares	Stops in Woodburn
POINT <i>Portland ⇌ Eugene via Woodburn</i>	Bus	3 trips SB (12:50pm, 6:00pm, 10:40pm); 4 trips NB (10:20am, 1:50pm, 3:15pm, 8:10pm)	M-Sun	Amtrak Fares Woodburn to Eugene: \$16 Woodburn to Portland: \$7	Memorial Transit Center
Greyhound	Bus	2 trips NB (8:20am, 7:30pm) 1 trips SB (8:30am)	M-Sun	Woodburn to Portland: \$15 Portland to Woodburn: \$26	Memorial Transit Center
GROOME Transportation	Shuttle	24 trips NB (by reservation only, every hour) 24 trips SB (by reservation only, every hour)	M-Sun	PDX Airport ⇌ Woodburn: \$36	Woodburn Best Western
Fronteras Del Norte	Bus	1 trip NB / 1 trip SB per day Routes connect numerous cities from Tijuana, Mexico to Yakima, Washington, including Woodburn, Salem, and Portland.	M-Sun	Depends on distance traveled; one-way fare from Woodburn to Yakima starts at \$63.	Downtown Woodburn near Front St and Grant St

Dial-A-Ride Service Characteristics

The Dial-A-Ride program is WTS’s ADA complementary paratransit service for persons with disabilities as well as service for seniors living in the city limits. The Dial-A-Ride program goes above and beyond what is required by the ADA by providing service throughout the city. Service hours on the Dial-A-Ride mirror those of the fixed route service (Monday through Friday from 8:00 am – 6:00 pm; Saturday from 9:00 am – 5:00 pm; and Sunday from 9:00 am – 3:00 pm). Requests for service must be made one day in advance. Top destinations include DaVita Dialysis Center, Walmart, and several medical clinics.

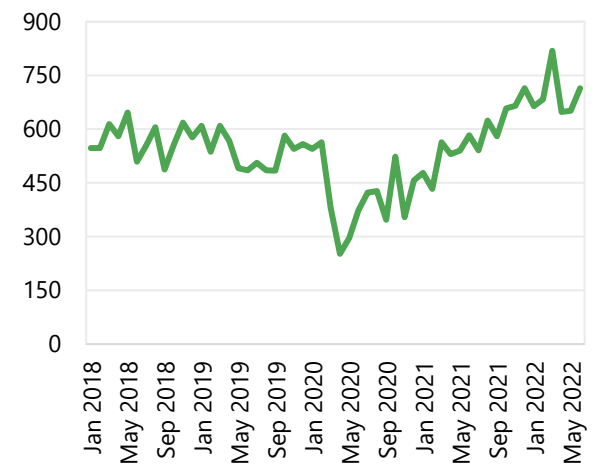
Figure 8 Dial-A-Ride Top Destinations



Dial-A-Ride Ridership Trends

As shown in Figure 9 below, ridership on the Dial-A-Ride has fluctuated over the past few years. Prior to the COVID-19 pandemic, monthly ridership was generally between 500-600 trips per month. Like most transit services, ridership declined sharply (about 50%) in March and April 2020, but quickly rebounded. By late 2021 and early 2022, ridership on the Dial-A-Ride was consistently exceeding pre-pandemic averages. This increase may be due to new eligible riders, but free fares are likely encouraging some people to take more trips.

Figure 9 Dial-A-Ride Ridership (January 2018 – June 2022)



Medical Transportation Program Overview

In addition to the Dial-A-Ride service for local trips, WTS also operates a volunteer driver program for non-emergency medical appointments locally and between Portland and Salem. The service is for riders who are eligible to use the Dial-A-Ride service, and there is no charge for the service (though donations are accepted). Approximately 45% of trips are to Portland-area hospitals including OHSU and the VA hospital, 45% are to destinations in Salem, and 10% are trips local to Woodburn (see Figure 10).

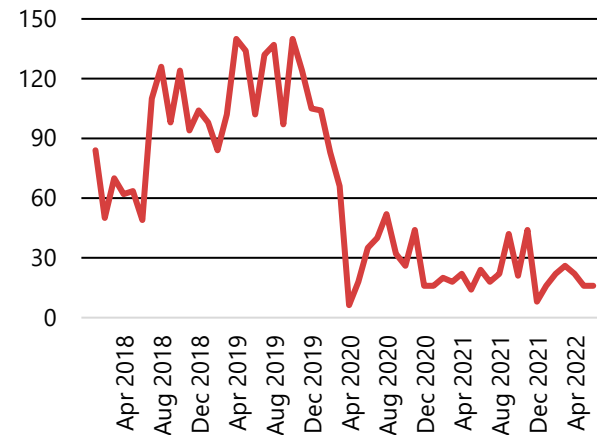
Figure 10 Regional Medical Transportation Trips



Medical Transportation Ridership Trends

As shown in Figure 11 below, ridership on the volunteer medical transportation service rose from about 60-80 trips per month for the first half of 2018 and then rose to between 100-140 trips per month through early 2020. The number of trips declined dramatically due to the pandemic and has yet to recover to previous monthly trips. Between July 2021 and June 2022, the service provided about 30 trips per month.

Figure 11 Medical Transportation Ridership (January 2018 – June 2022)



Fleet and Facility Overview

Vehicle Fleet

Woodburn Transit System’s operations and maintenance (O&M) facility is located at 202 Young Street in Woodburn. This facility is largely used to store and maintain WTS’s fleet for the three services (fixed route, Dial-A-Ride, and the volunteer medical transportation program), but also includes office space for WTS’s administrative staff, supervisors, dispatchers, and customer service support staff.

WTS operates and maintains a fleet of 11 vehicles. The 40’ Gillig low floor bus is generally used on the Fixed Route, while a cutaway vehicle operates on the Express Route. Other vehicles are used for dial-a-ride and volunteer medical trips.

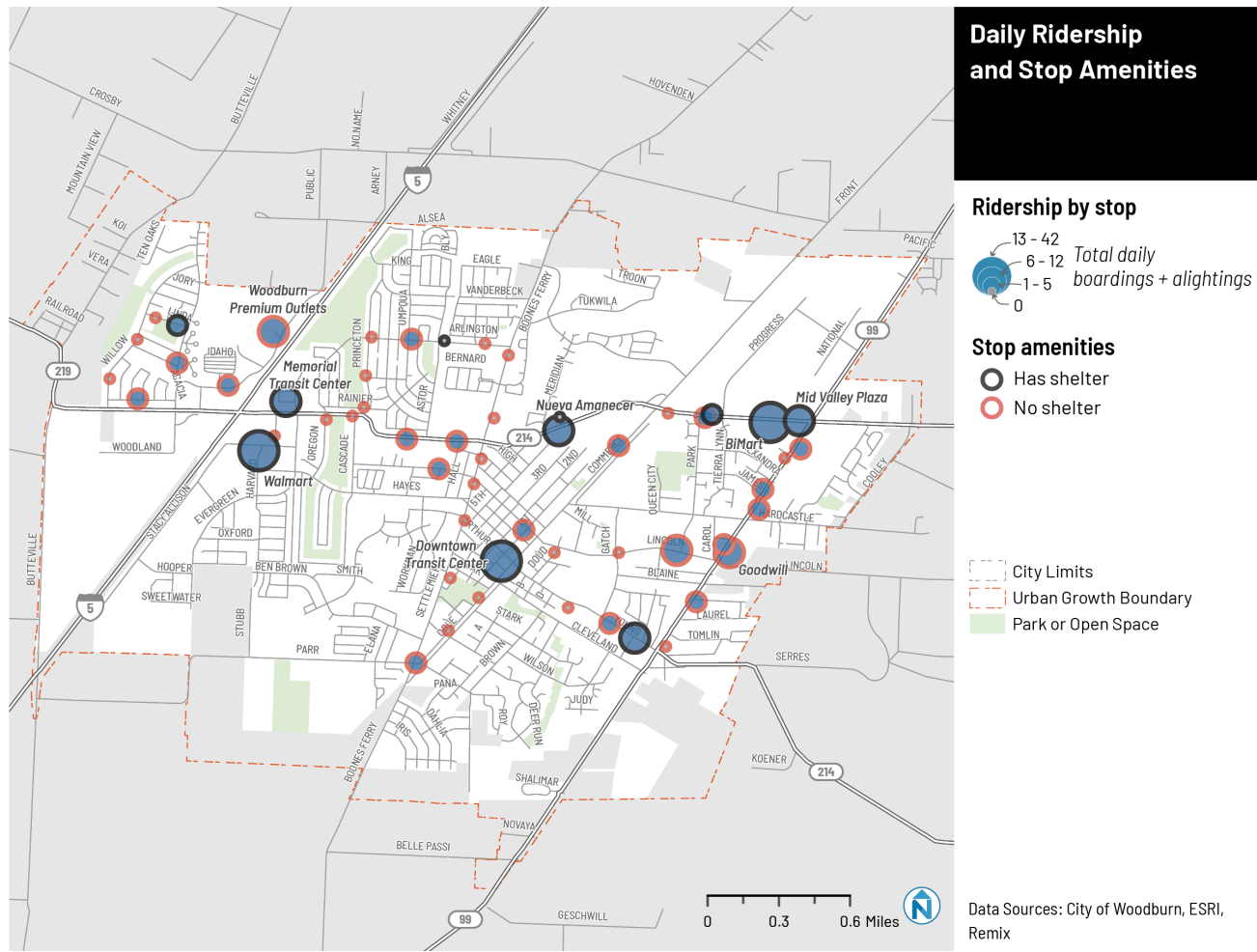
Figure 12 Fleet Table

Vehicle	Year	Condition	Capacity Reg / Wheelchair	Odometer Reading	Asset Type	Fuel Type
Chevy Uplander Van	2006	Fair	5/1 ; 3/2	142,160	4yrs/100,000 miles; small, light-duty	Gas
Ford Cutaway Van	2008	Fair	10/2	99,318	5yrs/150,000 miles; medium, light-duty	Gas
Champion Bus	2009	Fair	35/2	210,057	10yrs/350,000 miles; medium, heavy-duty	Diesel
Dodge Caravan Mini Van	2011	Moderate	1/2 WC	85,420	4yrs/100,000 miles; small, light-duty	Gas
Chevy Cutaway Van	2011	Moderate	10/2	80,334	5yrs/150,000 miles; medium, light-duty	Gas
MV1 Van	2014	Moderate	3/1WC	55,600	4yrs/100,000 miles; small, light-duty	Gas
Gillig Low Floor	2015	Good	40/2WC	105,485	10yrs/350,000 miles; medium, heavy-duty	Diesel/DEF
Ford Cutaway Van	2015	Moderate	8/2WC	72,258	5yrs/150,000 miles; medium, heavy duty	Gas
Dodge Caravan SE Van	2018	Good	4/1WC	33,050	4yrs/100,000 miles; small, light duty	Gas
Arboc Bus	2019	Good	20/2WC	68,669	4yrs/100,000 miles; small, light duty	Gas
Arboc Bus	2022	Excellent	27/2WC	New	10 yrs/350,000 miles; medium, heavy-duty	Diesel/DEF

Stop Amenities

In Fall 2022, the Fixed Route and Express Route together served approximately 55 established stops, including the Downtown Transit Center and Memorial Transit Center. Ten of these 55 stops (less than 20% of stops) have a bus shelter, while most stops simply have a sign post. Some shelters have additional amenities such as benches and garbage cans.

Figure 13 Amenities by Stop



Bus shelters dignify transit use by giving people a place to wait that is shaded and protected from wind and rain. Analyzing how stop amenities align with bus stop usage can help identify areas for new investment in shelters and other amenities, though maintaining bus stops can present significant costs in labor and materials.

- **Shelters are distributed across the city** and are not concentrated in one area or along one route.
- **Most of the highest ridership stops currently have bus shelters** – Bi-Mart, Mid Valley Plaza, Downtown Transit Center, Walmart, and Memorial Transit Center.
- **Many relatively busy stops do not have shelters**, including Goodwill & Highway 99, Lincoln St at Park Ave, and Woodburn Premium Outlets.
- **There is no shelter at Woodburn Premium Outlets**, and the stop location, currently on the west (back) side of the outlet mall, is not clearly marked.
- **There are no shelters at stops along Highway 99.**

Performance Metrics

Figure 14 below provides a summary of operating expenditures and revenues as well as performance data and key performance metrics for Woodburn Transit System between 2017 and 2021. Where available, data is provided separately for fixed route (FR) and demand response (DR).

Figure 14 Performance Metrics Table and/or Charts

	2017	2018	2019	2020	2021
Operating Expenditures					
Fixed Route	\$375,910	\$361,700	\$471,367	\$541,672	\$416,427
Demand Response	\$276,439	\$241,133	\$191,062	\$232,145	\$277,618
Total Op. Expenses	\$652,349	\$602,833	\$662,429	\$773,817	\$694,045
Revenues					
Federal Assistance	\$278,707	\$244,581	\$240,880	\$298,370	\$405,649
State Funds	\$151,875	\$205,000	\$205,649	\$378,106	\$419,969
Local Funds	\$116,000	\$116,000	\$116,000	\$61,687	\$154,874
Fare Revenues (FR)	\$25,833	\$24,121	\$22,841	\$18,933	\$0
Fare Revenues (DR)	\$12,393	\$13,131	\$21,151	\$16,721	\$0
Other Funds	\$67,541	\$0	\$55,908	\$0	\$0
Total Revenues	\$652,349	\$602,833	\$662,429	\$773,817	\$980,492
Performance Data					
<i>Fixed Route</i>					
Annual VRH	2,985	3,048	3,048	4,504	3,742
Annual VRM	44,250	45,283	45,283	74,601	58,286
Annual Unlinked Trips	22,533	22,374	22,374	18,473	20,223
<i>Demand Response</i>					
Annual VRH	5,834	6,697	6,697	5,563	5,741
Annual VRM	77,200	82,043	82,043	62,161	53,773
Annual Unlinked Trips	7,440	8,988	8,988	7,905	8,828
Performance Metrics					
Passengers/VRH (FR)	7.5	7.3	7.3	4.1	5.4
Passengers/VRH (DR)	1.3	1.3	1.3	1.4	1.5
Op. Cost/Passenger (FR)	\$16.68	\$16.17	\$21.07	\$29.32	\$20.59
Op. Cost/Passenger (DR)	\$37.16	\$26.83	\$21.26	\$29.37	\$31.45
Op. Cost/VRH (FR)	\$125.93	\$118.67	\$154.65	\$120.26	\$111.28
Op. Cost/VRH (DR)	\$47.38	\$36.01	\$28.53	\$41.73	\$48.36
Farebox Recovery (ALL)	5.9%	6.2%	6.6%	4.6%	0.0%

VRH=Vehicle Revenue Hours; VRM=Vehicle Revenue Miles

Key Transit Performance Metrics

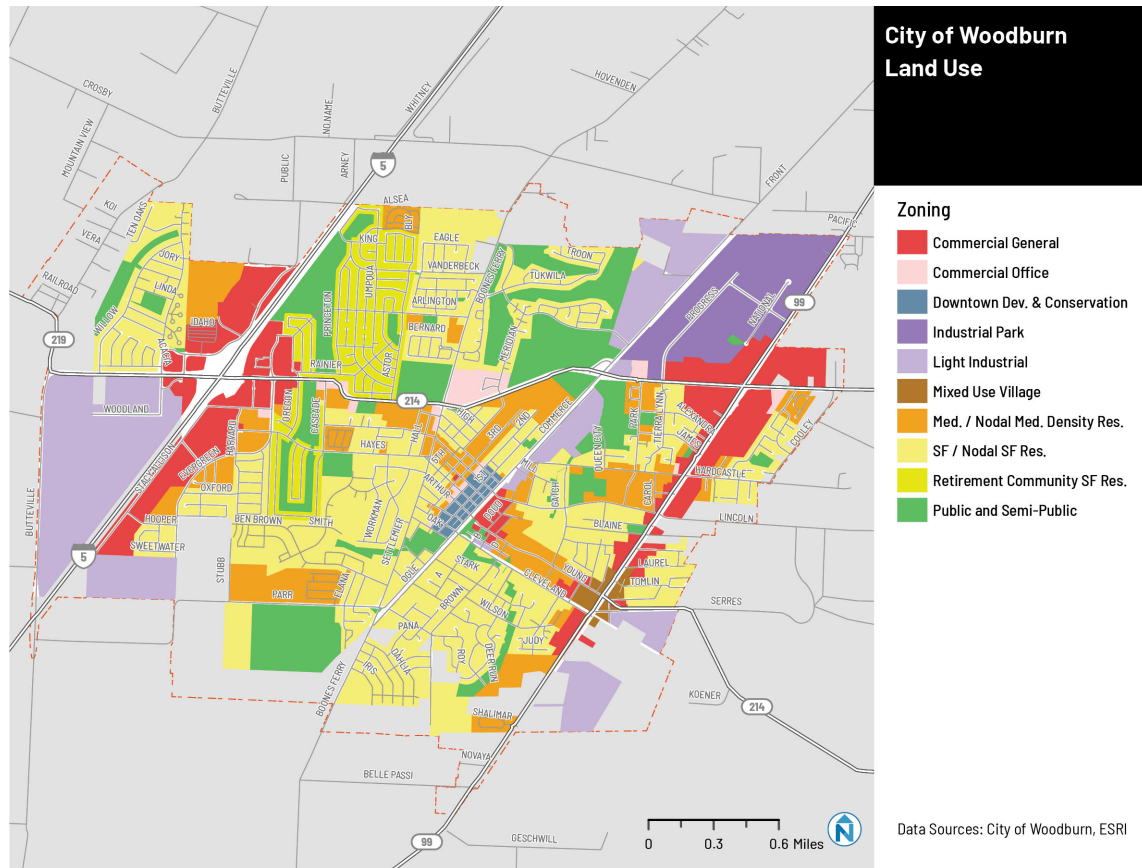
- **Passenger trips per revenue hour** (also known as productivity) is used to measure service effectiveness, or how much the capacity of the service is being used. Between 2017 and 2021, WTS fixed route riders per revenue hour has declined from about 7.5 passengers per hour in 2017 to around 5 passengers per hour in 2021. This decline is largely due to the pandemic. On demand response, productivity increased over the five year period, even during the pandemic. This trend is common among paratransit services where passengers are more dependent on transit for daily needs than fixed route riders.
- **Operating cost per passenger trip** is used to measure service effectiveness, or how well the service is being used by riders. Between 2017 and 2021, WTS’s cost per passenger trip on fixed route services increased by 23% but declined by about 15% on demand response.
- **Operating cost per revenue hour** is used to measure cost efficiency, or how well resources are allocated within WTS. Between 2017 and 2021, this measure decreased by about 16% for fixed route services but increased by 44% on demand response.
- **Farebox Recovery** measures the percentage of the total operating costs that are covered by fare revenues. At the system level (both fixed route and demand response), the farebox recovery declined to 0% in 2021 due to a suspension of fares during the pandemic. The overall farebox recovery was between 5-7% prior to the pandemic.

It is important to note that 2021 is the most recent data available from the National Transit Database and that recent service effectiveness trends will continue to improve as ridership recovers.

MARKET ANALYSIS

To supplement the evaluation of existing WTS services, the need for transit services was evaluated by looking at the underlying market and potential demand for service. This section uses the most current Census data available (from 2020 in most cases), employment figures from ESRI’s Business Analyst, as well as information provided directly from the City of Woodburn. Our approach involves assessing the current demand as well as expected future needs. Findings will be summarized in the final section of this report where opportunities for transit improvements have been identified.

Figure 15 City of Woodburn Local Land Use



Factors Related to Transit Demand




























Transit demand is strongly related to six factors that are the focus of the market analysis:

- **Population and population density** – Transit relies on people in proximity, so higher population density makes it more feasible to provide higher levels of service.
- **Socioeconomic Characteristics** – Different people are more likely to use transit than others, so this analysis looks for people that share characteristics with transit riders, like lower-income and zero vehicle households.
- **Employment and Employment Density** – Travelling to and from work are the most frequent and predictable trips for most people. This analysis focuses on places with a high density of jobs and where transit can play an important role. Trips to schools, especially to colleges like Chemeketa Community College or high schools where students are more independent, are also important markets for transit.
- **Development Patterns** – There is a strong correlation between development patterns and transit ridership. Transit is easier to use and more convenient in areas with denser development and with a mix of land uses and with a good pedestrian environment (such as downtown Woodburn).
- **Major Activity Centers** – Larger employers, colleges, major shopping centers, and downtowns can attract large volumes of people and generate many transit trips.
- **Travel Flows** – Travel flows provide information on where people originate and end their trips, which shows which locations and corridors have the highest travel demand. Inter-community travel flows (such as to the Salem or Portland areas) are also important to assess regional transit priorities.

Transit-Supportive Land Use and Density

Different levels of residential and employment density are supportive of different levels of transit, as illustrated in Figure 16 below.

Figure 16 Transit Supportive Land Use and Transit

LAND USE			TRANSIT	
Land Use Type	Residents per Acre	Jobs per Acre	Appropriate Types of Transit	Frequency of Service
 Downtowns & High Density Corridors	>45	>25	   	 10 mins or better
 Urban Mixed-Use	30-45	15-25	  	 10-15 minutes
 Neighborhood & Suburban Mixed-Use	15-30	10-15		 15-30 minutes
 Mixed Neighborhoods	10-15	5-10	 	 30-60 minutes
 Low Density	2-10	2-5	  	 60 mins or less or On Demand
 Rural	<2	<2	 	 On Demand

Source: Thresholds based on research by Nelson\Nygaard.

Overall, Woodburn falls in the mixed neighborhoods and low-density categories (as highlighted in blue), with a few pockets of higher population and employment density scattered throughout the city. Areas with the highest land use density include:

- Downtown Woodburn
- Around Walmart and neighborhoods to the south
- South of Highway 214 between Front Street and Boones Ferry Road
- The neighborhood southwest of the intersection of Highway 214 and Highway 99

Because all communities have a mix of land use types and residential/jobs density, it is important to note that the graphic to the left is indicative of appropriate types of transit service based on land use densities and is not intended to be prescriptive. The types of transit service and corresponding service frequency are generally appropriate for land uses that are the most common along a transit corridor or route. As such, the transit services in Woodburn are appropriate based on the land use types and density in the community today.

Population Density and Growth

Population density is an important indicator in determining underlying demand for transit. In general, areas with higher population densities tend to be more transit-supportive for people living and working within walking distance to transit stops.

Figure 17 City of Woodburn Population Density (2020)

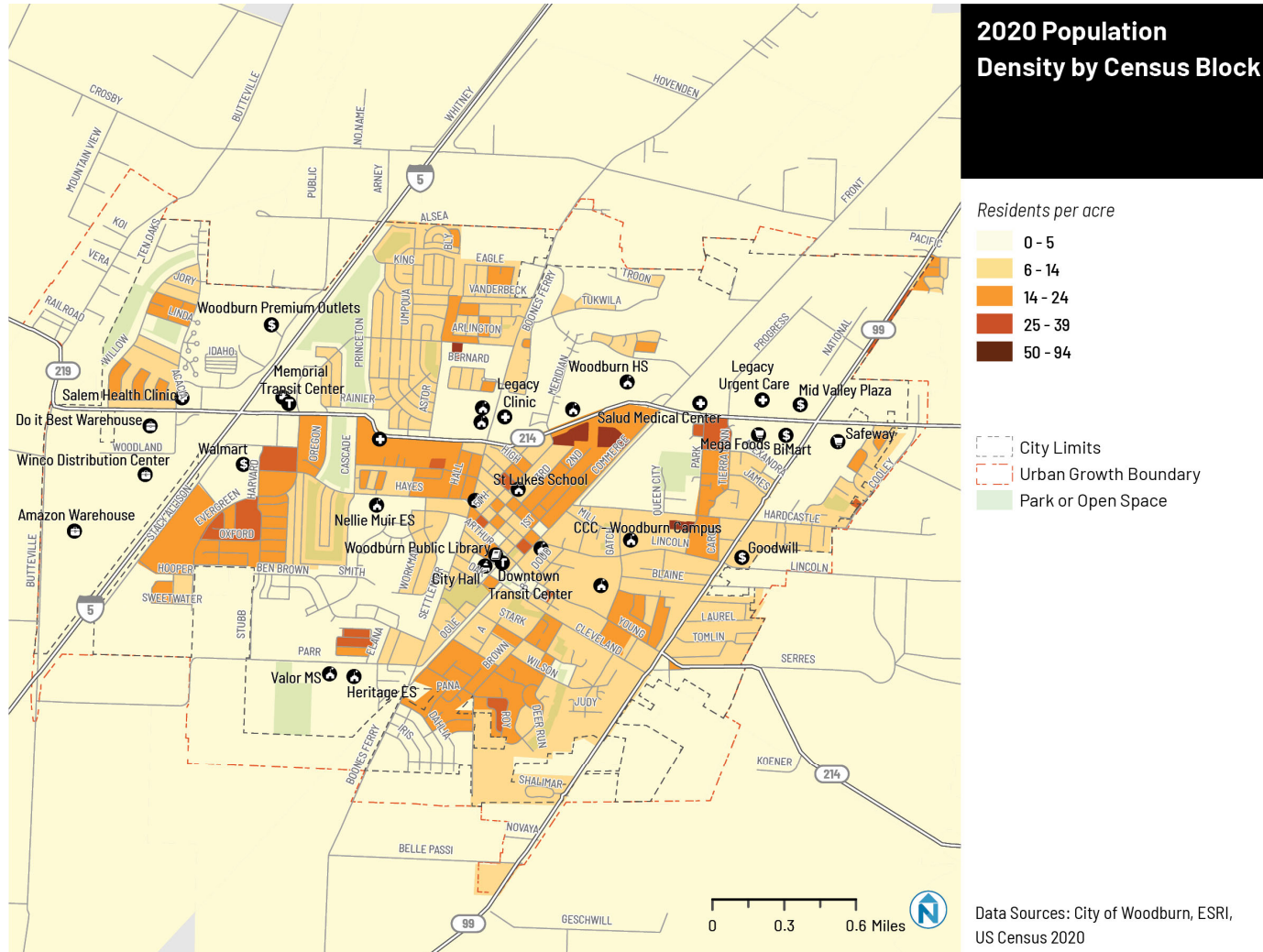


Figure 17 shows the population density by Census block for Woodburn in 2020. The areas in the region with high population density are west of the central business district, with the highest population density (i.e. 50-94 residents per acre) just north of downtown in the Nuevo Amanecer and Stonehedge housing complexes.

Population Growth

Woodburn grew by nearly 2,000 residents between the 2010 and 2020 U.S. Census surveys, an increase of 8% (Figure 18). This is slightly slower than the regional and statewide trends in population growth – Marion County and Clackamas County grew by 10% and 12%, respectively, in the same time period, and the state of Oregon as a whole grew by 11%. According to projections produced by Portland State University’s Population Research Center, the relatively slower growth in Woodburn is projected to continue into the next decade, with 7% growth in Woodburn projected compared to 11% for Marion County and 9% for Clackamas County.

Figure 18 Population Trends (Woodburn and Marion County)

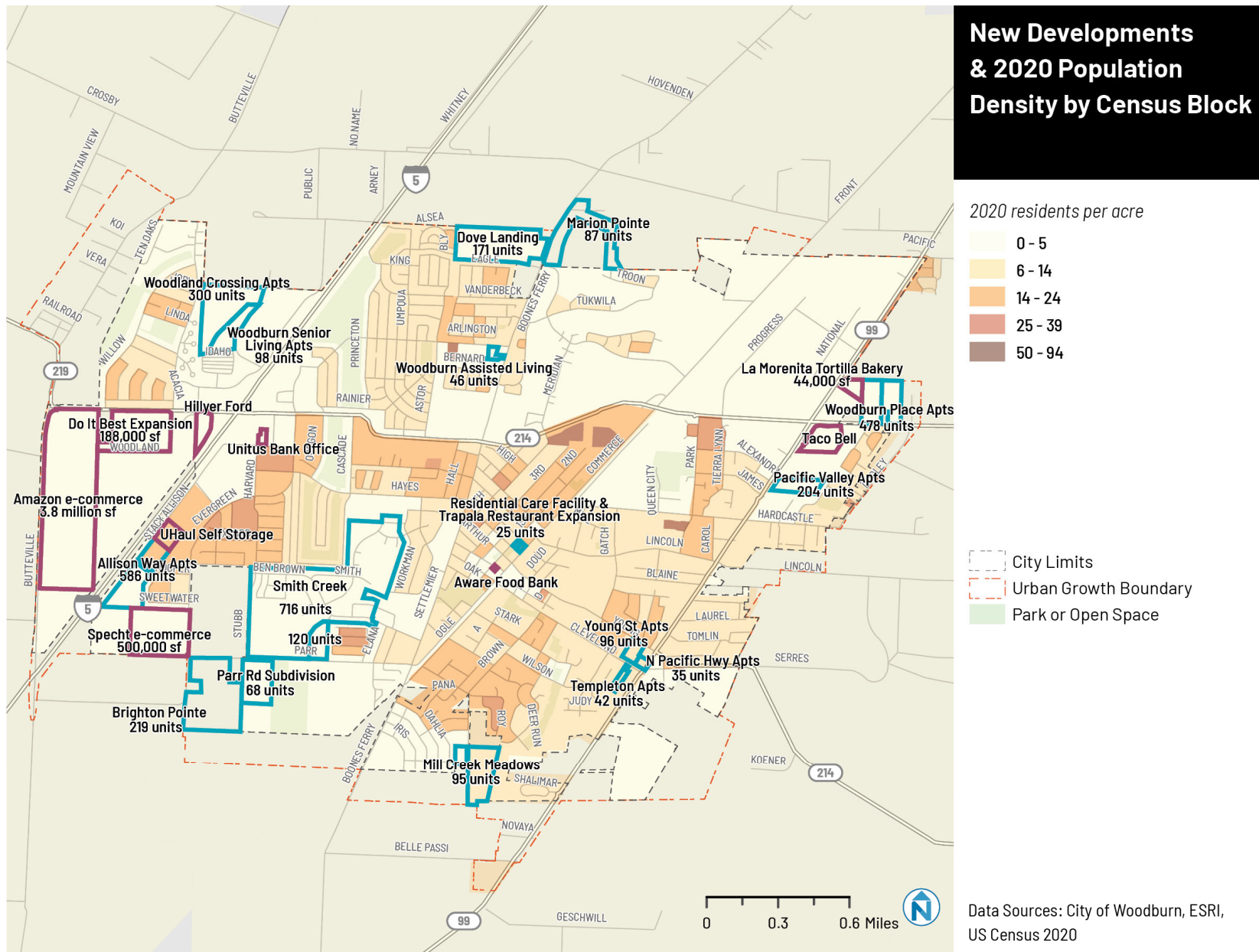
	Population ¹			Projected Population ²	
	2010	2020	2010-2020 % Change	2030	2020-2030 % Change
Woodburn	24,080	26,013	8%	27,809	7%
Marion County	315,335	345,920	10%	385,366	11%
Clackamas County	375,992	421,401	12%	460,401	9%
Oregon	3,831,074	4,237,256	11%	- ³	-

Sources: (1) U.S. Census via Portland State University (PSU) Population Research Center; (2) PSU Population Research Center

(3) – PSU does not produce statewide projections

At the same time, growth and development in Woodburn is undeniable, with major new apartment buildings and housing developments currently in construction or soon to begin construction along Highway 99, in the area south of Walmart, and in the neighborhood between Hayes St, Settlemier Ave, and Parr Rd. Another large apartment complex is in the planning stages adjacent to the Woodburn Outlet Mall. Developments in process or in the near-term construction pipeline will add nearly 3,400 housing units in Woodburn (see Figure 19 below). This increase in residential density will alter the landscape of transit demand in the coming years.

Figure 19 New Developments and Existing Population Density



Employment Density

Employment density provides a strong indication of transit demand – people typically travel to and from their jobs and to other services their jobs provide. In Woodburn, jobs are concentrated in the urban core and along major corridors, including:

- Restaurants and government buildings in downtown
- Warehouses, distribution centers, and retail areas along Highway 5
- Factories and shopping centers west of Highway 99

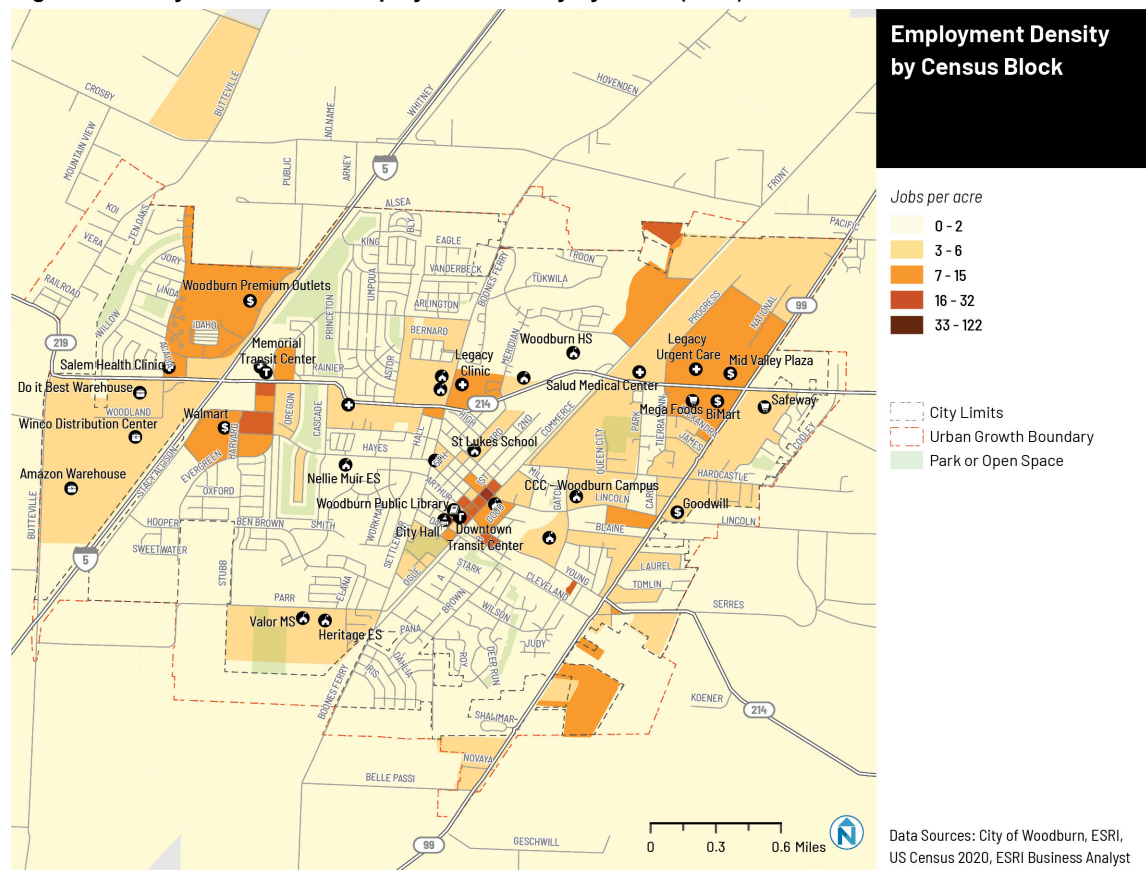
Large employers in Woodburn are listed in Figure 21 and mapped in Figure 22. Winco tops the list with 500 employees. Other large employers include food processing, the state youth correctional facility, retailers, builders and contractors, and the City of Woodburn.

Figure 21 Major Employers in Woodburn

Employers	Number of Employees
Winco Foods Distribution Center	500
Food Services of America	475
Maclaren Youth Correctional	400
Fleetwood Homes	300
Republic Services	300
Kerr Contractors Oregon Inc	200
Walmart Supercenter	200
Woodburn City Hall	150
Gem Equipment Inc	130
Hardware Wholesalers	110

Source: ESRI Business Analyst/Data Axle

Figure 20 City of Woodburn Employment Density by Block (2019)

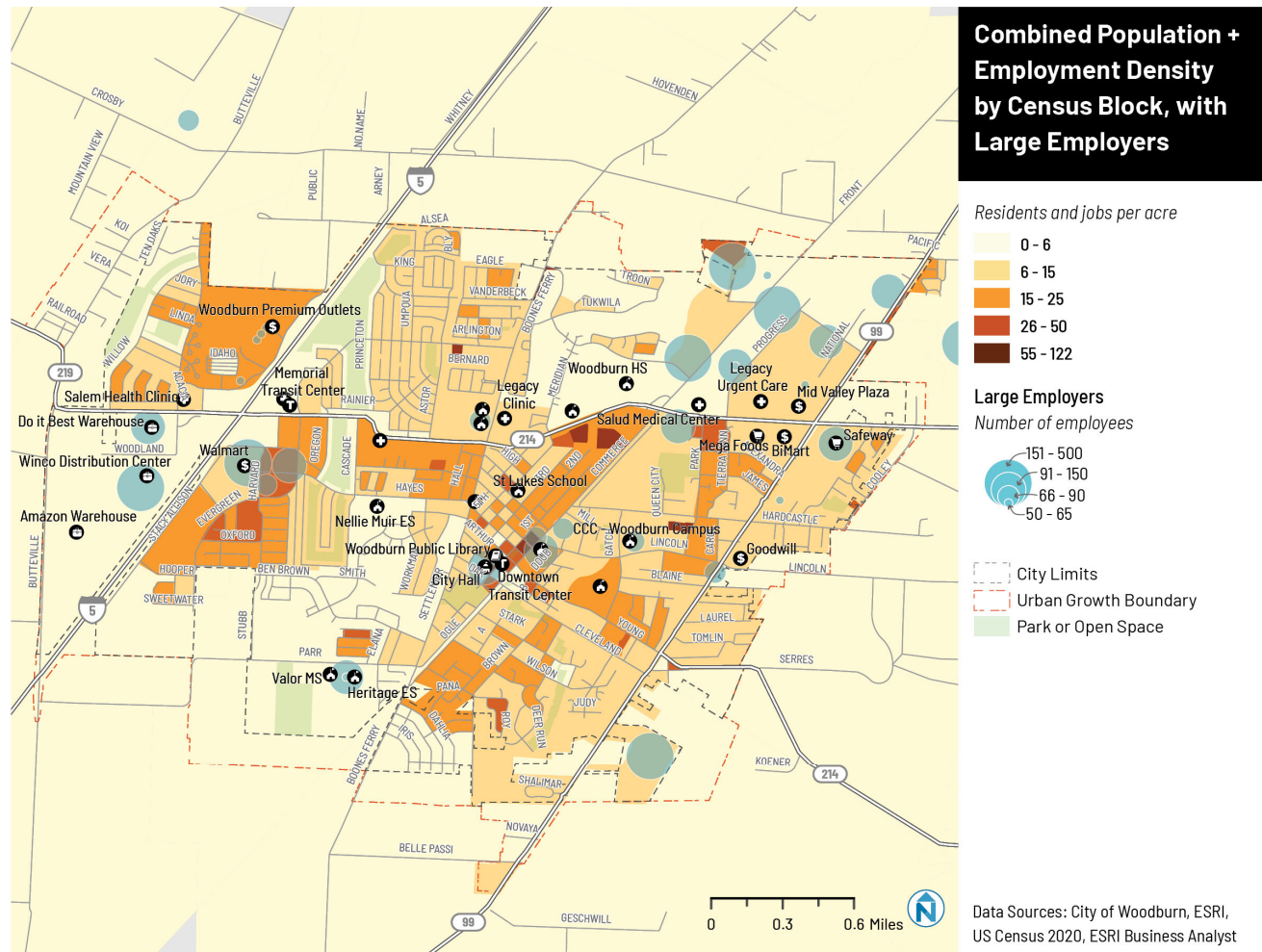


Data Sources: City of Woodburn, ESRI, US Census 2020, ESRI Business Analyst

Combined Population and Employment Density

Population density and employment density both play a role in the demand for public transit. Figure 22 from 2020/2019 combines these factors to show potential transit demand based on where people live and work. There are pockets of density throughout the city, though most density is concentrated in the areas of central and west Woodburn.

Figure 22 City of Woodburn Combined Population and-Employment Density (2020/2019)



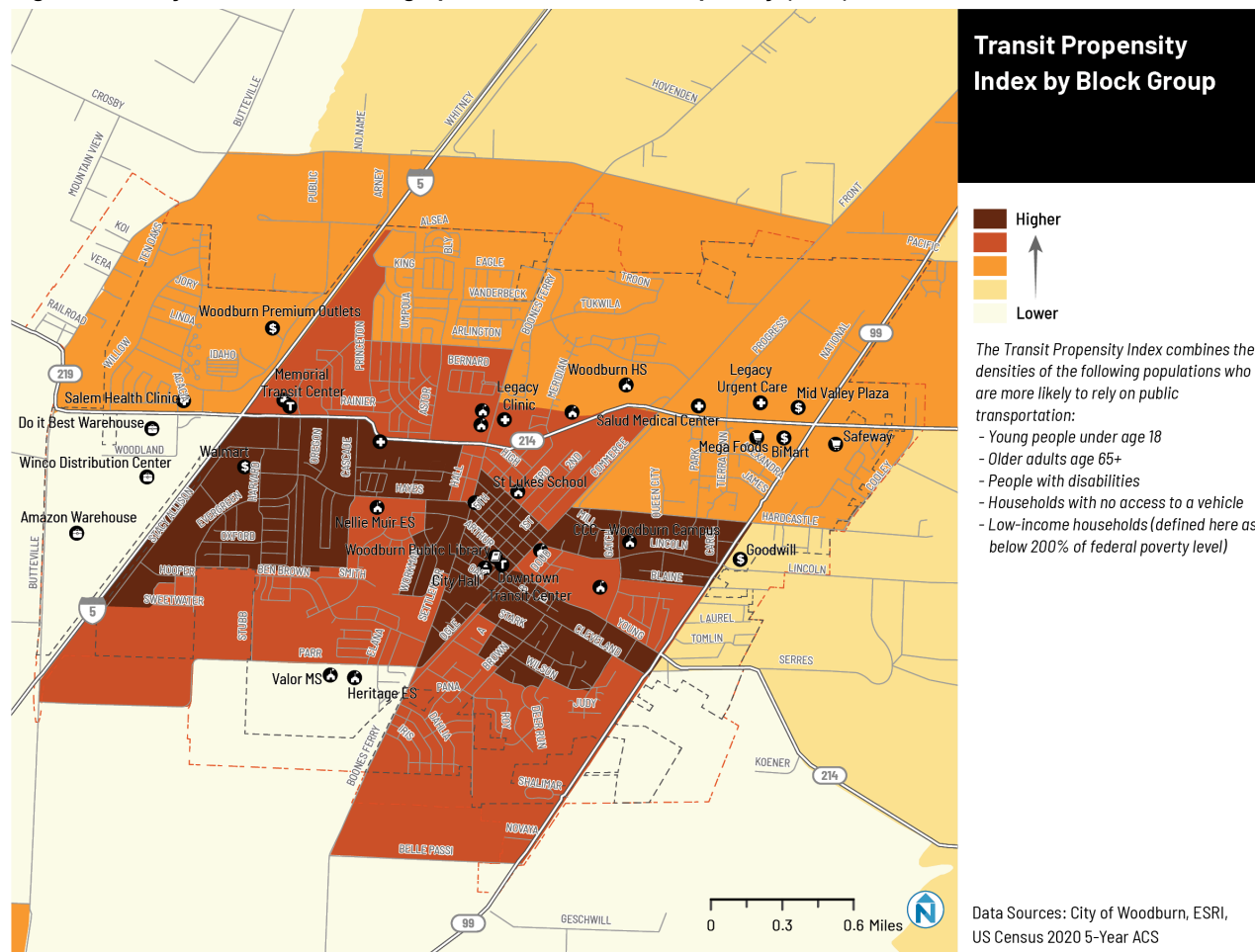
- Large employers are concentrated in industrial areas of northeast and west Woodburn.
- Woodburn Premium Outlets area has one of the highest densities of jobs in the city, but all of the individual employers here are relatively small (none has more than 65 employees).
- Neither of the existing transit routes serves key current and future employment areas in west Woodburn including Do it Best, Winco, the soon-to-open Amazon warehouse (with an estimated demand for 2,000 employees), or the new e-commerce warehouse space in southwest Woodburn (all shown in Figure 19 above).

Demographics-Based Transit Propensity

Socioeconomic characteristics also influence people’s tendency to use transit. Generally, groups that are more disadvantaged in society tend to use transit more often than the overall population. Populations of people who may rely on transit are concentrated across central Woodburn south of Highway 214, in downtown, and in the neighborhoods east and southeast of downtown.

This transit propensity index was created by combining densities of young people, seniors, people with disabilities, households without vehicles, and low-income households.

Figure 23 City of Woodburn Demographics-Based Transit Propensity (2020)



YOUNG PEOPLE UNDER AGE 18

- Young people may rely on transit to get to and from school and other activities on their own, particularly when their parents or legal guardians do not have the time or resources to transport them.

ADULTS 65 OR OLDER

- Transit is used by older adults to live independently and access healthcare and essential services without the hassle and cost of owning, maintaining, and driving a vehicle.

PEOPLE WITH DISABILITIES

- People with disabilities are more likely to rely on transit for daily needs due to challenges they may have operating a vehicle.

ZERO-CAR HOUSEHOLDS

- Households without a vehicle available are far more likely to use transit than households that have at least one vehicle available.

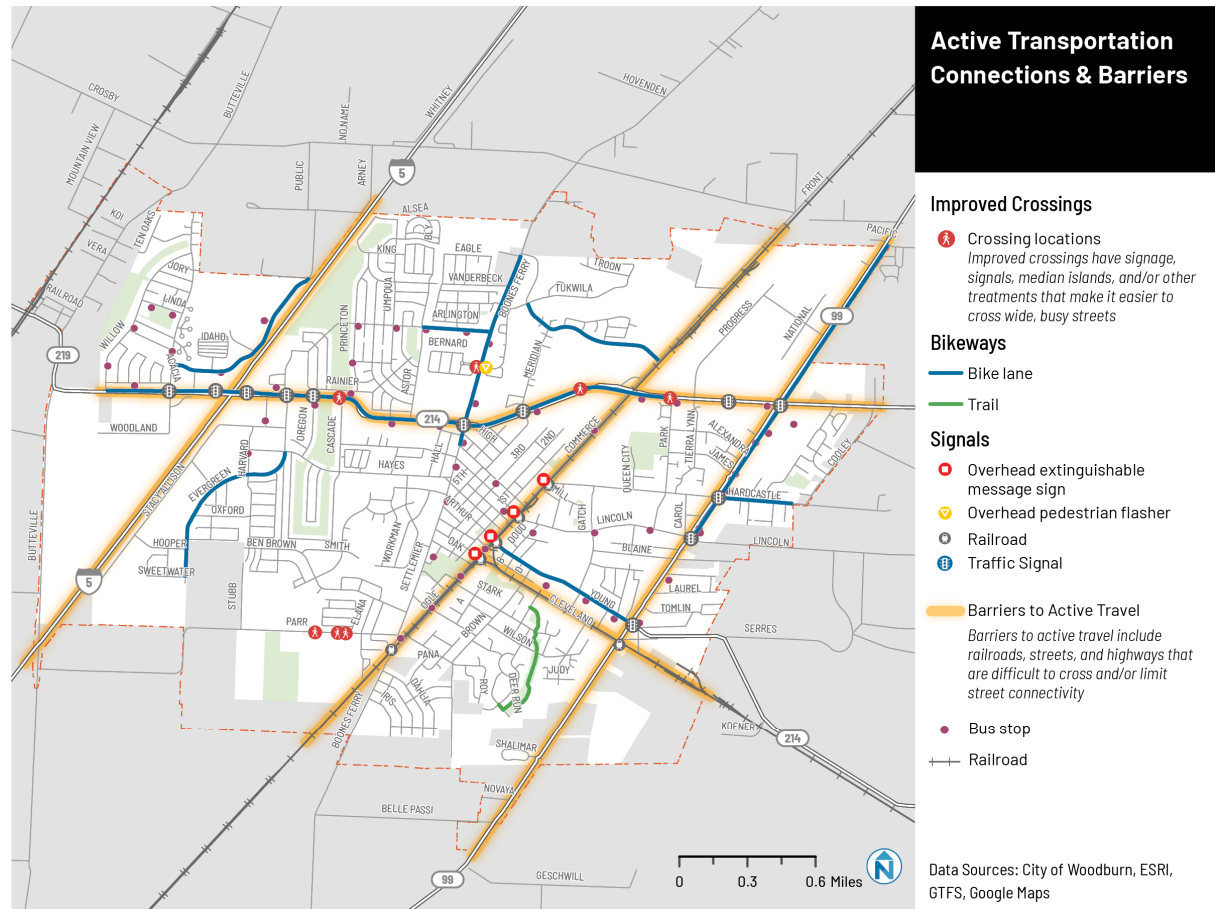
LOW-INCOME HOUSEHOLDS

- Households with incomes near the federal poverty level are much more likely to have difficulty paying for basic needs – especially transportation costs – and are thus much more likely to use transit.

Pedestrian and Bicycle Network

Active transportation networks connect people who walk and bike to their destinations and help bus riders safely access bus stops and destinations. Almost all transit trips begin and/or end with a walking, rolling, or bicycle trip.

Figure 24 Bike and Pedestrian Network and Barriers



Analyzing the active transportation network’s alignment with transit stops and stations can inform multimodal planning that can enable the use of biking, walking, and transit for more types of trips. Woodburn is a relatively small town, and many destinations are within a short distance (1-2 miles) of most residents.

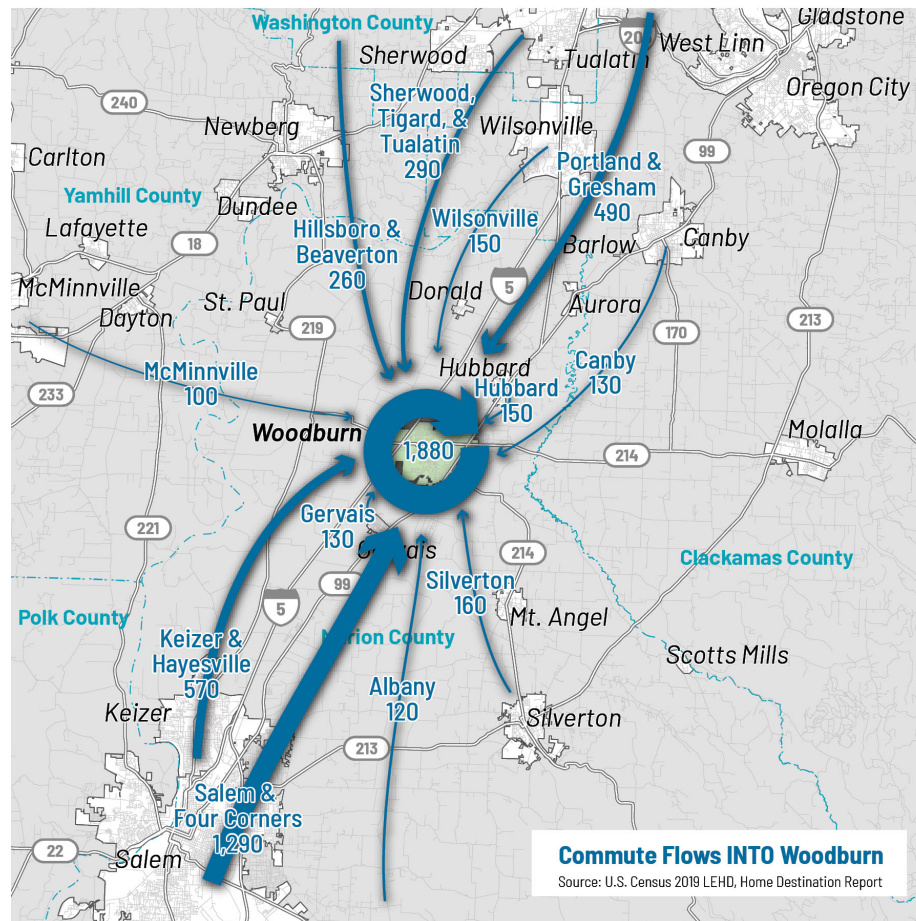
- **The current bicycle network in Woodburn consists of a single trail and disconnected segments of bike lanes** along primary corridors including Highway 99 and Newberg Highway, and other disconnected bike lanes on Evergreen Rd, Boones Ferry Rd, Country Club Rd, Hazelnut Dr, Hardcastle Ave, Young St, and Arney Rd by Woodburn Premium Outlets.
- **The railroad adjacent to Front St, the I-5 freeway, and Highway 99 present significant obstacles to active travel.** These barriers are challenging to cross while walking, rolling, or biking, present accessibility challenges for people using assistive devices, and/or limit street connectivity.
- **There are some newer upgraded crossings that make it safer and easier for people to cross busy streets** such as Boones Ferry Rd, Parr Rd, and Newberg Highway. Installation of new pedestrian crossings on Highway 99 is nearly complete (these locations are not shown).
- The city does not have a comprehensive layer of sidewalk coverage, however **many streets in the city do not have sidewalks** or have sidewalks only on one side of the street.

LOCAL AND REGIONAL TRAVEL FLOWS

Commute Related Travel Flows

Woodburn is both an employment center for people living in the area and somewhat of a “bedroom community” for people who work in Salem-Keizer and the Portland metro region.

Figure 25 Where People Who Work in Woodburn Live (2019)



As of 2019, the most recent year that nationwide employment data are available, Woodburn had approximately 9,900 jobs in the city limits, while roughly 10,800 people of working age live in the city. This results in a net outflow of approximately 900 workers. Nearly 1,900 people both live and work in Woodburn.

The largest share of workers who commute into Woodburn live in Salem/Four Corners, Keizer/Hayesville, and Portland/Gresham (Figure 25). The top ten home locations for people who work in Woodburn are shown in Figure 26.

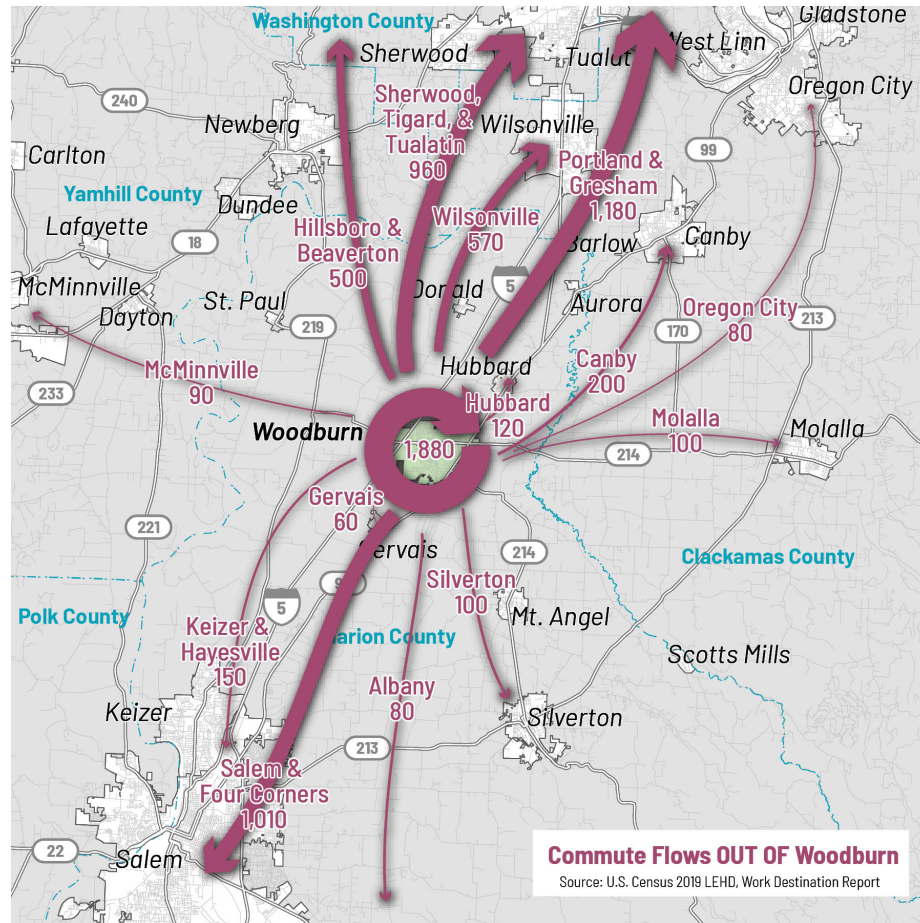
Figure 26 Top 10 Home Communities for People Employed in Woodburn (2019)

Community	Number of Workers
Woodburn	1,880
Salem/Four Corners	1,290
Keizer/Hayesville	570
Portland/Gresham	490
Tigard/Tualatin/Sherwood	290
Hillsboro/Beaverton	260
Silverton	160
Wilsonville	150
Hubbard	150
Gervais	130
Canby	130

For those workers whose home locations are in Woodburn (approximately 10,800 people), the primary destinations for employment are Portland/Gresham, Salem/Four Corners, and Sherwood/Tigard/Tualatin.

As mentioned above, nearly 1,900 people both live and work in Woodburn.

Figure 27 Where People Who Live in Woodburn Work (2019)



The top ten work destination communities for people who live in Woodburn are shown in Figure 28.

Figure 28 Top 10 Work Communities for People Who Live in Woodburn (2019)

Community	Number of Workers
Woodburn	1,880
Portland/Gresham	1,180
Salem/Four Corners	1,010
Tualatin, Sherwood, & Tigard	960
Wilsonville	570
Beaverton/Hillsboro	500
Canby	200
Keizer/Hayesville	150
Hubbard	120
Silverton	100
Molalla	100

Travel Flows (All Trips)

In addition to the worker travel flows presented above that uses Census (LEHD) data, a second travel flow analysis was conducted to understand travel patterns for **all trips** (not just employment related trips). This additional analysis was used to inform service planning decisions, and especially how to better understand regional travel patterns.

Data was gathered from 2019 as well as 2021 to understand travel flows prior to the pandemic as well as once new travel patterns were beginning to emerge after the pandemic.

Because understanding travel patterns is complex and must be tied to geographic locations, an online dashboard was developed to visualize the analysis and distill the key themes.

Using the dashboard, this analysis helped to understand:

- Local travel patterns
- Regional travel patterns
- Regional travel destinations in Woodburn and outside of Woodburn (e.g., in the Salem area).

Further detail from the travel flows analysis is included in Appendix A: Travel Flows Analysis.

Key Findings

The following are key findings from the travel flow analysis.

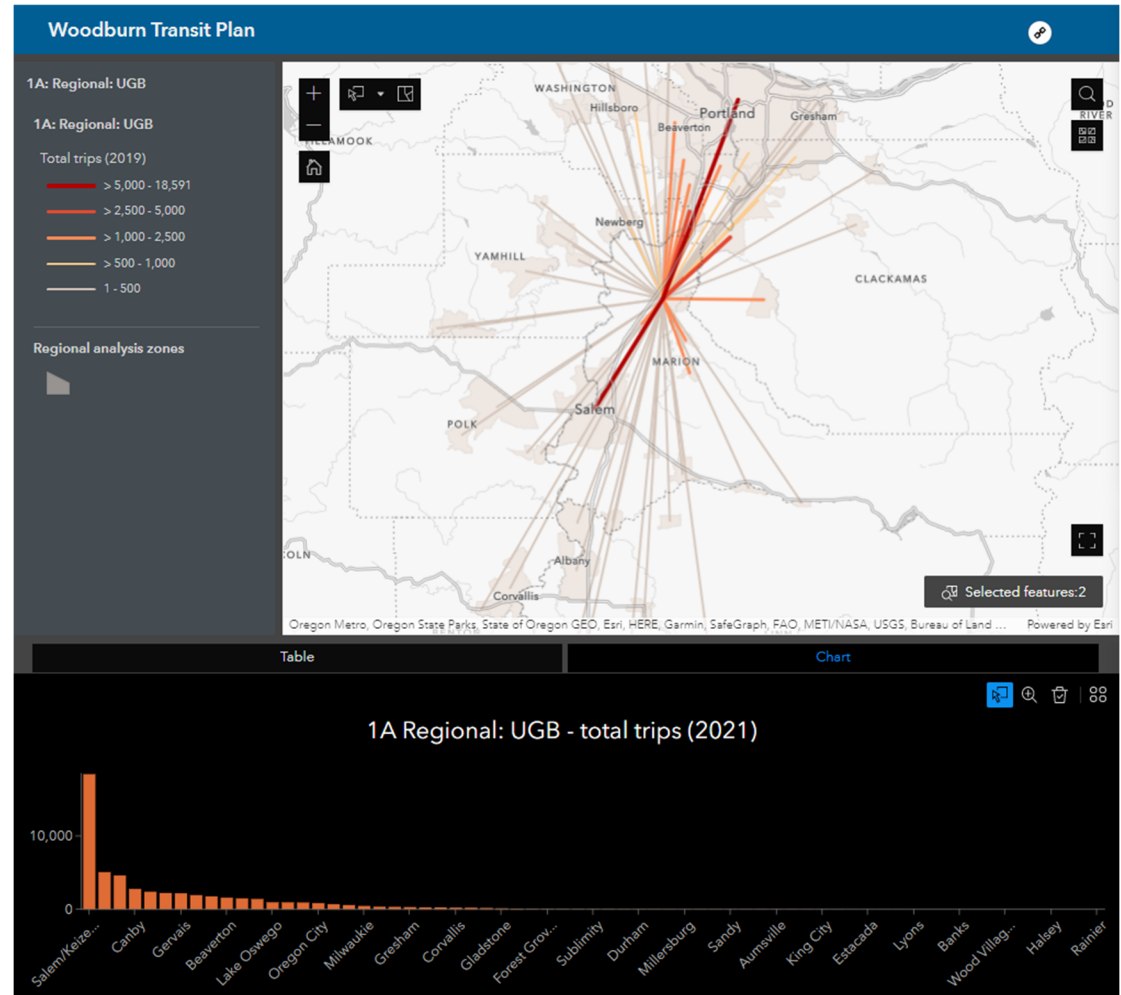
- Approximately **a third of trips within Woodburn are by low-income people** (in households earning up to 200% of the federal poverty level).
- Nearly **half of trips within Woodburn are made by people of color**.
- The most significant local travel patterns within Woodburn are **southwest to northeast**, such as between the Walmart area and the Mid-Valley Plaza/Salud clinic area.
- The largest regional travel patterns to/from Woodburn include **Salem/Keizer, Portland Metro area (including Wilsonville and Washington County)**, followed by the **north OR-99E corridor** (e.g., Canby), cities to the southeast along OR-214 (**Mt Angel and Silverton**), **Gervais**, and **Molalla**.
 - Most are directly served by regional transit connections except for Molalla.
- The locations in Woodburn where the most regional trips end vary but include the Woodburn Outlet Mall area, Walmart area, and Mid-Valley Plaza/Salud area which includes a number of employers.
 - Trips from the OR-99E corridor to/from Woodburn include trips connecting to the western parts of the city.

About the data

The travel flow analysis is based on data from Replica, a travel model that combines a variety of data sources including:

- **Mobile location data** (de-identified) collected from personal mobile devices and vehicles.
- **Demographic data** about where people live and work, and the characteristics of the population, such as age, race, income, and employment status.
- **Land use / real estate data** that help determine where people live, work, and shop, and by what means it is possible to travel to each activity.
- **Ground truth data** is used to calibrate outputs including auto and freight volumes, transit ridership, and bike and pedestrian counts.

The data is not personally identified and was aggregated to broad areas (“zones”) like Census block groups.



An online dashboard was created in ArcGIS to visualize the analysis

COMMUNITY ENGAGEMENT

COMMUNITY ENGAGEMENT OVERVIEW

To guide all outreach activities as part of the Woodburn TDP, the project team developed a Public Involvement Plan (PIP) early in the project. The PIP includes a framework to engage and educate stakeholders, elected officials, and the public so that they were aware of the project and had every opportunity to provide meaningful input throughout the TDP process. The guiding principles for the PIP were to ensure an inclusive, equitable and diverse public outreach process that represents the needs of all members of the community. A summary of the public involvement activities conducted for the TDP are summarized below.

Figure 29 TDP Public Involvement Plan (PIP) Activities

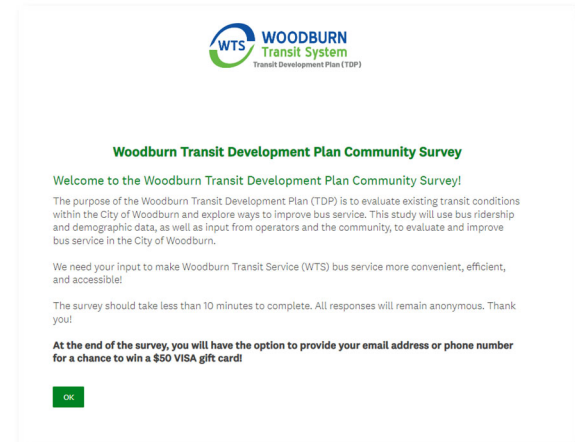
PIP Activity	Summary
Project Development Team (PDT)	The PDT consists of several key staff from WTS and the City of Woodburn. The PDT's role was to provide guidance to the consulting team throughout the TDP process. Regular coordination meetings were held approximately every two weeks.
TDP Steering Committee	This group consists of 11 members from the community that were involved in the overall TDP process and helped the PDT and consulting team review project deliverables and recommendations. The TDP Steering Committee met four times at key decision points in the project. Recordings of three of the meetings (conducted virtually) are available on the project website (see below).
Stakeholder Interviews	A series of one-on-one or small group meetings were conducted between October and November 2022 to discuss transit service needs and priorities in Woodburn. A second focus group focusing on Spanish-speaking passengers was also conducted in March 2023. More information is provided below.
Planning Game Workshop	Held in November 2022, this workshop allowed participants to consider their priorities for transit service in Woodburn by developing their own transit network. About 20 people from the community attended the workshop, including some stakeholders and TDP Steering Committee members. The outcome of the workshop will help the project team develop a preferred future service scenario. More information is provided below.
Project Website and Social Media	The project team developed a webpage on the City's website that was dedicated to the TDP (https://www.woodburn-or.gov/transit/page/transit-development-plan). The webpage includes a brief overview of the TDP, a timeline, a project fact sheet (in English and Spanish), links to the community survey (in English and Spanish), and recordings of previous TDP Steering Committee meetings.
Community Surveys	An online community survey was conducted in the Fall of 2022 to solicit information from transit riders and non-riders. A second online survey was conducted to solicit input on the service scenarios. More information on the initial community survey is provided below. The second online survey is summarized in Chapter 6 (Service Scenarios).
Onboard Surveys	An onboard passenger survey was conducted on the fixed route and Dial-A-Ride services to solicit information directly from transit riders. More information is provided below.
Pop-Up Events	The project team participated in the Hispanic Heritage Month celebration in the Plaza on September 19, 2022.

Community Survey

The Nelson\Nygaard team partnered with WTS staff to develop an online community survey that was available for approximately three months beginning in early September 2022 through December 2022. The online survey was available in both English and Spanish and a link was provided on a project webpage hosted on the City's website (<https://www.woodburn-or.gov/transit/page/transit-development-plan>). The survey was also advertised through the City's social media channels, on a Spanish language radio show, and in several e-blasts sent out by the City (in both English and Spanish). A total of 64 surveys were completed (61 in English and 3 in Spanish).

Key findings from the community survey include:

- About two-thirds of survey respondents have not ridden WTS services in the past 12 months. The large majority of residents (70%) said that they drive alone as their primary mode of transportation.
- Of those who do use transit, about half (48%) have been using the service for more than a year but another 30% are relatively new to the service (using it for less than 6 months).
- About half of the respondents who have ridden WTS services transfer to another regional provider. The most common transfers are to CAT and Cherriots to Salem.
- Respondents are more satisfied with different aspects of service than dissatisfied, but comfort at the bus stops, frequency, and reliability are all areas where service could be improved.
- Among respondents who do not use transit, the primary reasons why they choose to use other modes of transportation include convenience, it takes too long, or schedules don't match their needs. A high proportion of respondents also said they just prefer to take their own vehicle.
- When asked what improvements would encourage respondents to begin using transit, or use it more often, the top three requests were better service information, more frequent service, and improved transfer connections to other providers/cities.



English version of community survey.

Community Survey Highlights

Figure 30 Have you ridden with Woodburn Transit System in the past 12 months?

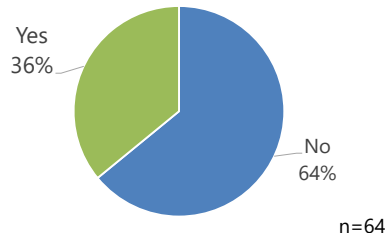


Figure 31 If you have ever transferred between WTS and another transit service, which one?

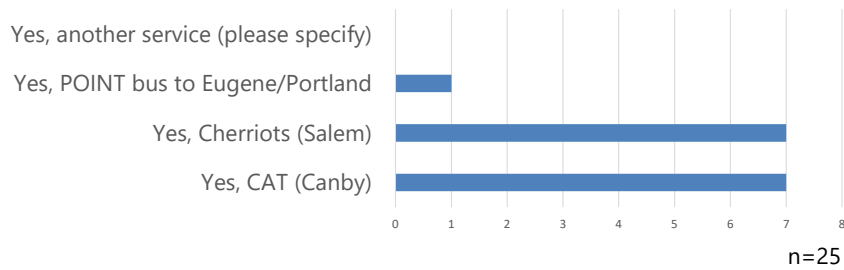


Figure 32 Satisfaction with different aspects of WTS service

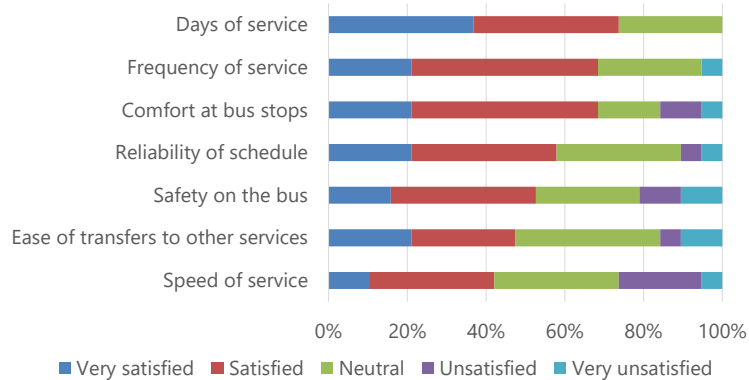


Figure 33 If you do not use WTS, for which reasons do you choose to use other means of transportation?

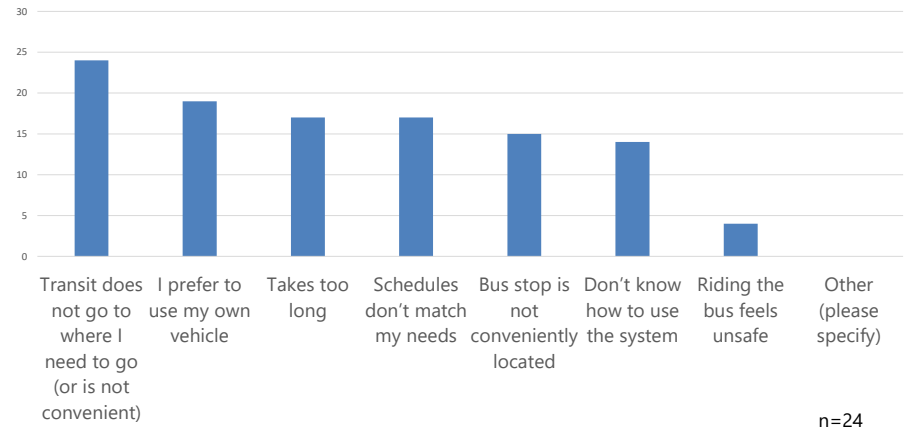
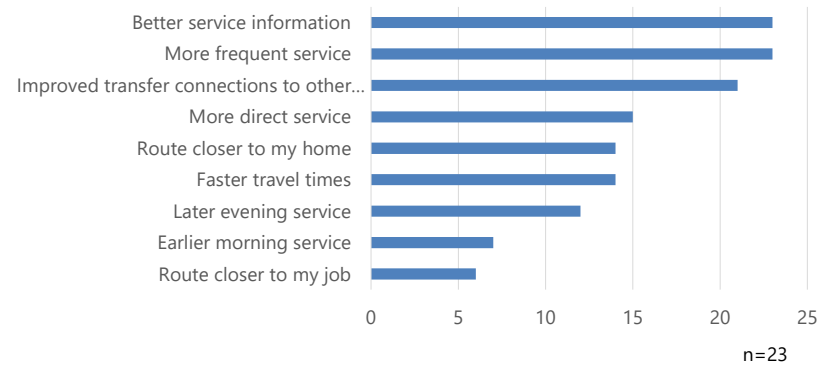


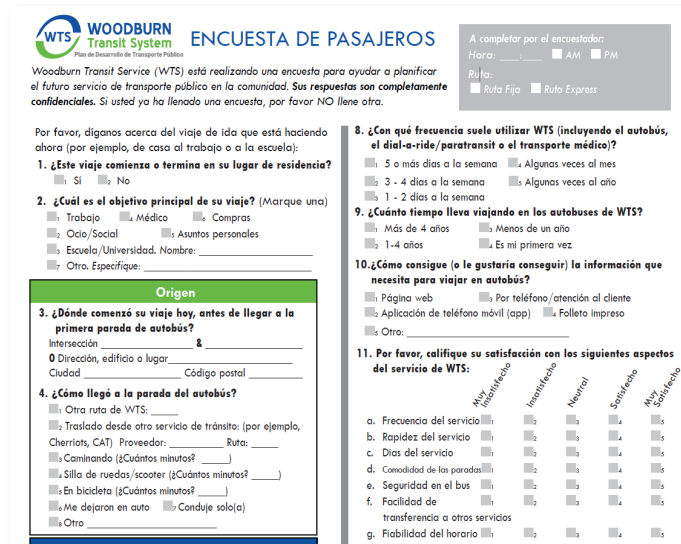
Figure 34 What improvements to service would encourage you to begin using transit or to use it more often?



Onboard Survey

The project team administered an onboard survey to understand more about current travel patterns, who is riding the bus, and what improvements to the system would be most impactful for riders. Project staff rode the Fixed Route and the Express Route for nearly all trips on Wednesday, October 12, 2022, and attempted to gather as many responses as possible. The survey was available as a hard copy in both English and Spanish.

Collecting completed surveys was challenging for several reasons: many of the trips on the bus were very short, not allowing enough time for someone to fully read through all survey questions; and literacy barriers prevented many people from completing the survey themselves, which required project staff to directly read survey questions to participants and record their responses. Consequently, the total number of surveys collected was fairly low – just 29 passengers filled out part or all of the survey, representing 26% of total boardings for the day.



Spanish version of the on-board survey.

Key findings from the onboard survey include:

- More than half of participants completed the survey in Spanish, and more than 70% stated that they are most comfortable speaking Spanish. This is in contrast to the Community Survey, in which only 5% of respondents completed the survey in Spanish.
- Nearly three-quarters of respondents ride WTS three or more days per week, and half of respondents have been riding for more than four years.
- People rode the bus primarily for shopping and work trips.
- If the bus had not been available, 36% of respondents would have taken a taxi, Uber, or Lyft, and 32% would have simply walked. The majority of respondents do not have access to a motor vehicle.
- Satisfaction with WTS service was generally high. Respondents were most satisfied with safety on the bus and frequency of service, and least satisfied with reliability of schedules and ease of transfers to other services.
- Respondents indicated that their top priority service improvements would be earlier morning service, more frequent service, and later evening service. (Service currently runs from 8:00 a.m. to 6:00 p.m., with 30-60 minute frequency.)

Onboard Survey Highlights

Figure 35 Survey Completion Language

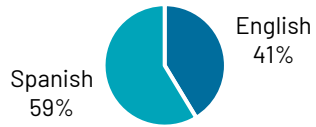


Figure 36 Trip Purpose

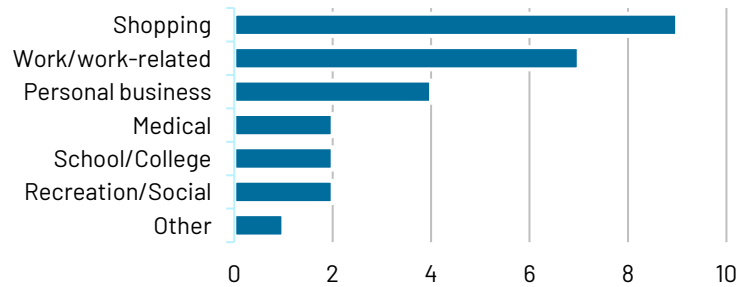


Figure 37 How would you have made this trip if bus service were not available?

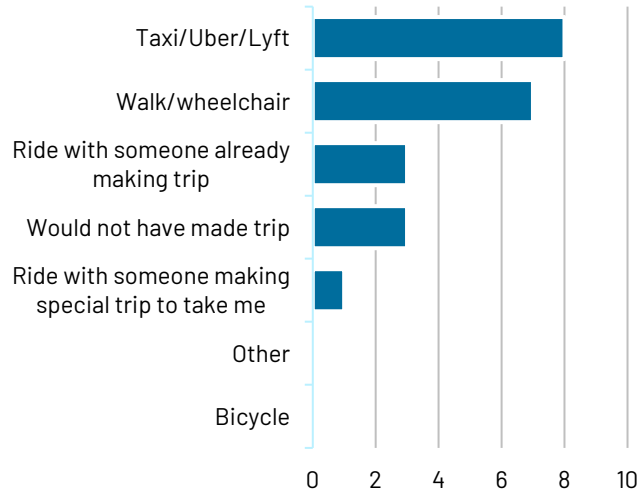


Figure 38 Satisfaction with various aspects of WTS service

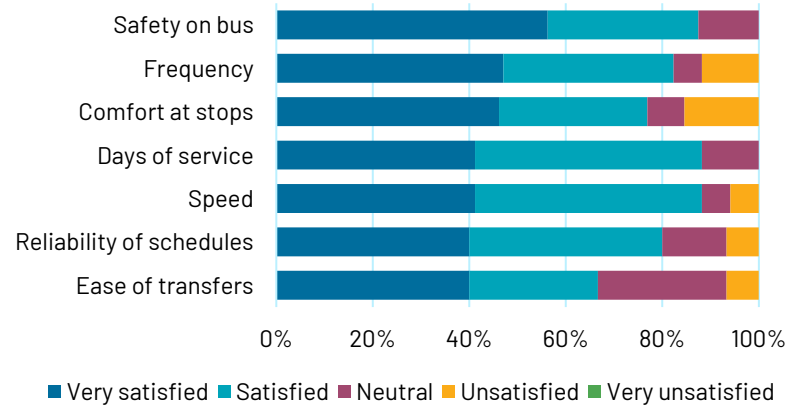
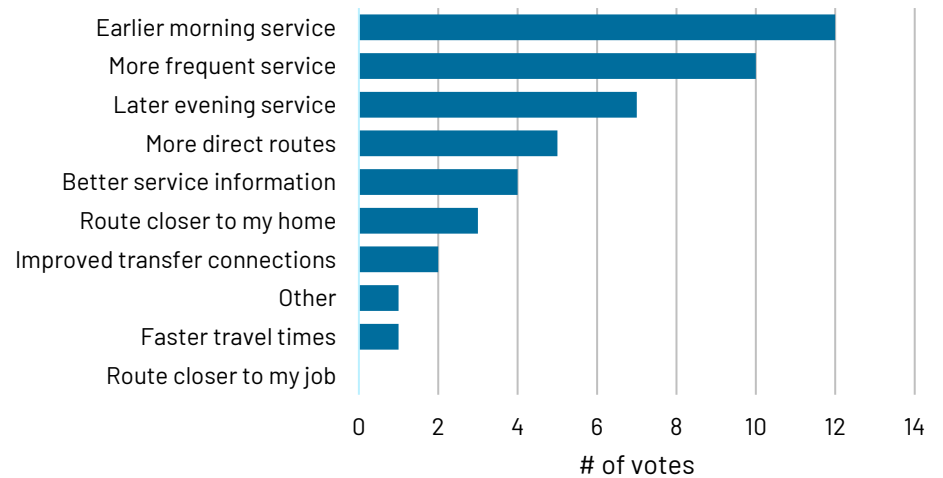


Figure 39 Improvements that would encourage riders to ride more often



Stakeholder Interviews

Between October and December 2022, the project team engaged in several one-on-one and small group interviews with project stakeholder organizations identified in coordination with the Project Development Team and other city staff. Specific organizations contacted for stakeholder interviews include the following (those that ultimately participated are shown in **bold**):

- **Do it Best Corporation**
- **Treetop**
- **Farmworker Housing Development Corporation**
- **Northwest Senior and Disability Services**
- **South Clackamas Transportation District**
- Cherriots
- Oregon Human Development Corporation
- Woodburn School District
- Pineros Y Campesinos Unidos del Noroeste (PCUN) – Farmworkers Union
- Canby Area Transit (CAT)
- Woodburn Foursquare Church
- First Presbyterian Church
- Senior Estates
- Chemeketa Community College
- County Meadows Retirement
- Woodburn Outlet Mall

During each stakeholder interview, participants were given a brief introduction to the TDP update process and project background and were then asked to provide input on how the current system was meeting their needs, what is working well, and where there are opportunities for improvement.

Key findings from the Stakeholder Interviews include:

- Stakeholders had little familiarity with the existing transit system and generally do not ride WTS services themselves. Many of their employees and constituents similarly know little about the system and few ride WTS services.
- Maintaining a zero-fare system would be a major benefit to many employees and constituents.
- WTS should cover more of the city with regular service, especially areas with major employers and areas of new housing development, and key community gathering places such as parks.
- Lack of marketing means there is little awareness of the services among the general public.
- Current limited span of service does not serve shift workers at many large employers (Treetop, Do it Best, etc.).
- Lack of bilingual operators and WTS staff limits the transit rider market.
- Wide, busy roadways, railroad tracks, and lack of bus shelters are barriers to safe, comfortable transit access, which makes it more challenging and less appealing to ride the bus.
- The existing regional transit connections to Woodburn provided by other services (Cherriots, CAT, etc.) are a major advantage. Service changes should capitalize on these existing connections to make regional transit trips even more appealing. A direct transit connection between Molalla and Woodburn may be appealing to some people especially for medical and work trips.
- Quicker, more direct transit connections to major employers within Woodburn would make it more appealing to ride transit for workers who live outside of Woodburn.

Planning Game Workshop

On November 17, 2022, the project team facilitated a “transit planning game workshop” with a group of local and regional stakeholders. While the primary goal of the workshop was to allow participants to “plan out” a conceptual fixed route network in Woodburn, the real value of the workshop was helping participants understand the difficult tradeoffs associated with providing transit service. There were three groups in the workshop, each with between 5-6 participants. A total of 18 stakeholders attended the workshop, not including members of the PDT or project team.

The workshop started out with a presentation by the project team to provide background information on the existing transit services available in Woodburn, regional transit connections, and an overview of the market analysis and conditions that impact the demand for transit service. Then, participants broke into their separate groups, developed a series of goals/objectives for transit services in Woodburn, and planned out their own local fixed route network. At the end of the workshop, a member from each group shared the network they developed with the larger group. Key themes from the workshop include:

- Service is a must on Highway 214 between Highway 99 and the Outlet Mall and neighborhoods west of I-5. All three groups independently provided more frequent bidirectional service in this corridor.
- The primary destinations in Woodburn for transit riders include downtown, Walmart, the Outlet Mall, Salud Clinic, Bi-Mart, Amazon/Do it Best/WinCo, and Goodwill.
- All participants desired lower-frequency coverage service in the residential neighborhoods and to portions of Highway 99.
- All participants desired service to downtown, with direct connections to Bi-Mart, portions of Highway 99, and Walmart.
- Demand response zones were desired in the southeast and north parts of town (focused on lower-density residential neighborhoods).



Planning Game Workshop, November 17, 2022

PEER REVIEW

INTRODUCTION AND KEY FINDINGS

This chapter provides a high-level peer analysis to identify where Woodburn Transit System (WTS) excels, or falls short, relative to the transit service it provides. The primary goal of the peer review is to identify potential opportunities for transit service improvements based on how WTS compares to its peers.

Figure 40 Woodburn Peer Communities



Peer Selection Process

The first step in the peer review was to identify possible communities that could be compared to Woodburn. A total of 13 potential peer communities were identified. Most of the peer communities are in Oregon due to the unique statewide funding opportunities for transit, but several potential out-of-state peers were also identified.

Next, the following four evaluation factors were used to identify communities that are most comparable to Woodburn:

- **Total city population** was used to identify communities that have a similar number of residents, and thus have a similar potential market for transit.
- **Population density** was used to ensure that the urban form and average household size is comparable to Woodburn.
- **2010-2020 population growth** was used to identify communities that are experiencing a similar level of economic activity and growth as Woodburn.
- **Hispanic or Latino population** and **Limited English Proficiency** were used to identify peer communities that exhibit a similar demographic profile as Woodburn.

Based on the 13 potential peer cities/regions, five peers were selected for this evaluation, as shown in Figure 1.

Peer Community Overview

Figure 41 below provides a high-level summary of the fixed-route and demand response transit services provided in Woodburn as well as in each peer community. To provide additional context, a summary of the existing fare structure is also provided.

Figure 41 Woodburn Peer Community Service Overview

Peer Community	Transit Service Overview	Fare Structure Overview
Woodburn Transit System (WTS)	WTS provides two fixed route services within the city limits (fixed route and express route) as well as a dial-a-ride service for seniors and people with disabilities. The Dial-A-Ride serves the entire city limits and serves as the complementary paratransit service. Fixed route and paratransit services on WTS are offered seven days a week. WTS also manages a volunteer medical transportation service that provides trips to medical appointments in Salem or the Portland area.	WTS suspended fares on all services during the pandemic. Prior to the suspension of fares, fixed route fares were \$1.25 for a single ride, \$3.00 for a day pass, \$5.00 for a four-ride pass, and \$18.75 for a 20-ride pass. The volunteer medical transportation service is free to passengers, but donations are accepted.
Canby Area Transit (CATS)	CATS provides several fixed route services including a regional route connecting Canby to Oregon City and Woodburn (99x) as well as a local loop that operates just within the city. The regional route operates Monday-Saturday and the local loop operates only on weekdays. CATS also provides a complementary paratransit service to the fixed route service and a general-public dial-a-ride for anyone traveling within the urban growth boundary. A shopper shuttle is also provided for registered users of the paratransit service.	Fares on the local fixed route and shopper shuttle are free, but are \$1.00 per one-way trip on the regional route (99x) as well as the dial-a-ride. A 24-ride punch pass and a monthly pass are also available, each for \$20.00.
Josephine Community Transit (JCT)	JCT operates four local fixed routes and three commuter routes to Medford, Cave Junction, and Wolf Creek. In addition, a local complementary paratransit service (dial-a-ride) within ¾ of a mile of the local fixed route network. All transit services are offered Monday-Friday only.	Fares on the local fixed routes are \$1.00 for a single ride, \$3.00 for a day pass, and \$38.00 for a monthly pass. The commuter routes are \$2.00 for a single ride, \$6.00 for a day pass, and \$50.00 for a monthly pass. There are also several reduced fare options. The dial-a-ride fares are \$2.00 each way.
Lebanon Inter-Neighborhood Express (LINX)	LINX provides a local loop fixed route (Monday through Saturday) as well as a regional connector route to Brownsville on Tuesday and Friday. In addition, LINX provides a dial-a-ride for seniors, people with disabilities, and the general public.	LINX is currently fare free.
Yamhill County Transit (YCT)	YCT offers 11 fixed route services, including local service in McMinnville and Newberg and regional services to Grand Ronde, West Salem, Hillsboro, and Tigard. A dial-a-ride is also provided for riders who are unable to use the local and commuter fixed route services. All services operate Monday-Friday except the routes to Grand Ronde and Tigard that also offer reduced service on Saturday.	YCT suspended fares during the pandemic and continues to be fare-free. Previously, fares on the local and regional services were \$1.25 for a one-way trip, \$2.50 for a day pass, \$18.00 for a 10-day pass book, and \$35.00 for a monthly pass. Dial-a-ride fares were \$1.75 for a single ride and \$40.00 for a monthly pass.
Sandy Area Metro (SAM)	SAM operates local fixed route service as well as regional services to Gresham and Estacada. SAM also provides a dial-a-ride service (called Sandy Transit Area Rides – or STAR) that provides both complementary paratransit service as well as general-public, curb-to-curb service. In addition, a shopper shuttle is provided locally. The route between Sandy and Gresham operates seven days a week, while the route to Estacada operates Monday through Saturday and the shopper shuttle only operates on weekdays.	All fixed route services within the Sandy city limits are fareless. Fares for service outside of the city limits to reach regional destinations are \$1.00 for a single trip. The dial-a-ride service is also \$1.00 for a single trip. Multi-trip and monthly passes are available for \$20.00 and \$30.00, respectively. SAM also offers a combined SAM/Mt. Hood Express day pass for \$5.00.

The five selected peer communities are listed in Figure 42 along with total city population, population density, and four transit performance statistics for the entire system (fixed-route and demand response) from the 2021 National Transit Database (NTD):

- Annual Passenger Trips (Boardings)
- Annual Vehicle Revenue Hours
- Annual Total Operating Costs
- Maximum Vehicles in Operation

Utilizing the performance data listed above, as well as other NTD data organized by mode (demand response and fixed-route) for the past three available years (2019, 2020, and 2021), nearly a dozen performance metrics were calculated and evaluated. Based on this evaluation, the following metrics that are most used in the transit industry have been evaluated further to compare Woodburn with the peer communities.

- Boardings per Revenue Hour
- Boardings per Capita
- Revenue Hours per Capita
- Operating Cost per Revenue Hour
- Operating Expenditures per Capita
- Operating Cost per Boarding
- Farebox Recovery

Figure 42 Peer Community Demographic and Service Overview

Agency	Primary City	Service Area Population	Population Density (per sq. mile)	Total Annual Passenger Trips	Total Annual Vehicle Revenue Hours	Total Annual Operating Cost	Max. Vehicles in Operation
Woodburn Transit System (WTS)	Woodburn	26,013	4,440	29,100	9,500	\$694,000	3
Canby Area Transit (CATS)	Canby	18,171	3,877	60,100	14,600	\$1,843,800	8
Josephine Community Transit	Grants Pass	48,000	600	125,200	28,000	\$2,926,000	15
Lebanon Inter-Neighborhood Express (LINX)	Lebanon	18,447	2,633	19,700	6,500	\$555,500	6
Yamhill County Transit (YCT)	McMinnville	107,722	150	142,000	36,200	\$2,926,800	26
Sandy Area Metro (SAM)	Sandy	12,612	3,533	76,600	17,100	\$1,796,700	7

Sources: US Census (2020) ACS 5-Year Estimates Detailed Tables; 2021 National Transit Database (Fixed Route and Demand Response)

As shown above, population density in Woodburn is the highest of any of the peer communities. While several of the peers operate in larger geographic areas (and thus have a lower population density), this also indicates that Woodburn’s land uses are somewhat more compact compared to the peer communities. More compact land uses, as well as higher average household size¹, indicates a higher latent demand for transit in Woodburn compared to the peer communities.

¹ Woodburn’s average household size is 2.99 compared to 2.76 for Marion County and 2.49 for Oregon as a whole (US Census (2021) ACS 5-Year Estimates).

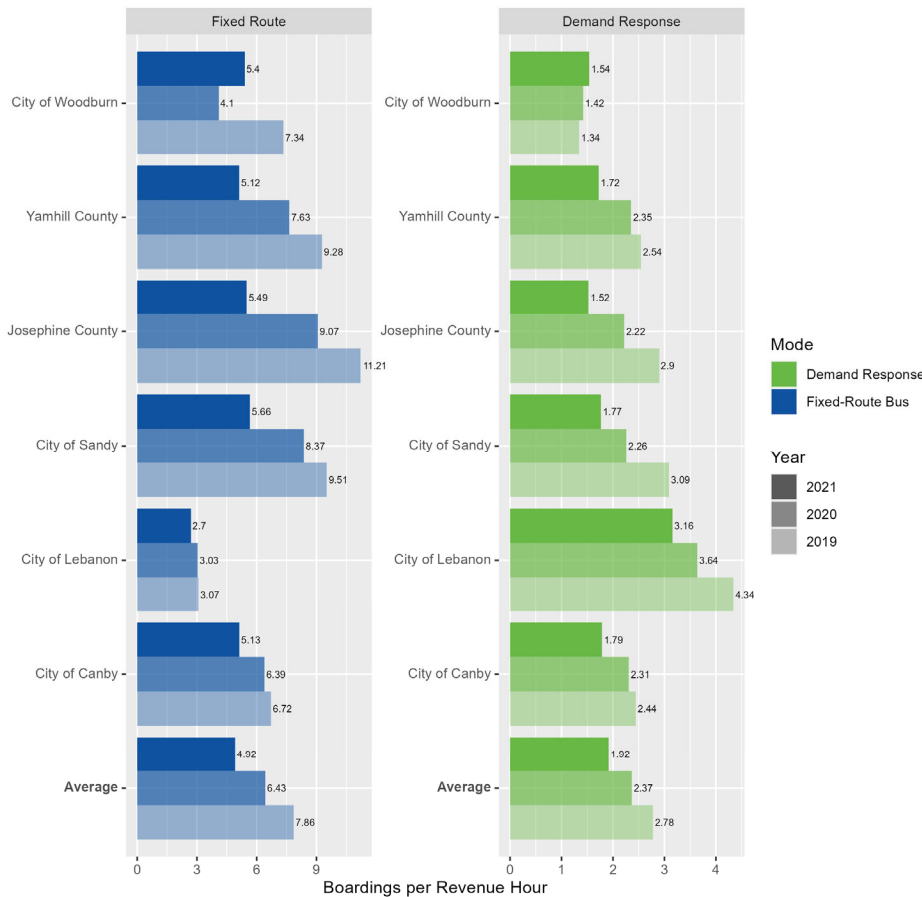
Peer Review Key Findings

- **Woodburn is the only peer for which boardings per revenue hour (productivity) showed any annual increase** during the three-year period. While productivity declined between 2019 and 2020 (as expected due to the pandemic), **fixed-route productivity in Woodburn increased by about 32% between 2020 and 2021** and **increased slightly each of the three years on the demand response side**. The increase in ridership could be attributed to the suspension of fares, although fares were also suspended in other peer communities that did not see similar productivity trends.
- The **average number of annual revenue hours per capita (an indicator of the investment in transit in that community) remained relatively steady** over the past three years for all peers. While boardings declined, many peer communities (including Woodburn) were able to maintain service levels during the pandemic. This is likely due to federal recovery funds that helped maintain service levels.
- **Woodburn offers less service (both in terms of revenue hours and operating dollars) per capita than the peer cities**. As a result, the number of boardings per capita in Woodburn is also on the lower end when compared to the peers. This contrasts with higher population density and higher average household size in Woodburn compared to peer communities, which could indicate latent demand for transit.
- **The efficiency of providing transit service in Woodburn is mixed** between services, but on par with peer communities overall. Operating cost per revenue hour (a measure of efficiency) is higher than peer communities for fixed-route services, but lower for demand response services. Similarly, the operating cost per boarding is on the higher end for fixed route services in Woodburn compared to peer communities, but on the lower end for demand response services.
- **The farebox recovery ratio for all peer communities dropped significantly** over the past three years as ridership declined and fares on some peer systems were suspended during the pandemic (fares are still suspended in Woodburn, Lebanon, and Yamhill County). Woodburn's farebox recovery ratio prior to the pandemic was close to the average of all peers for fixed-route and higher than the average for all peers on demand response.

BOARDINGS PER REVENUE HOUR

This performance metric (also referred to as “productivity”) measures how well the service is being used in relation to the amount of service available. Higher boardings per revenue hour indicates a service that is more effective at attracting passengers to the services that are offered.

Figure 43 Boardings per Vehicle Revenue Hour Peer Comparison



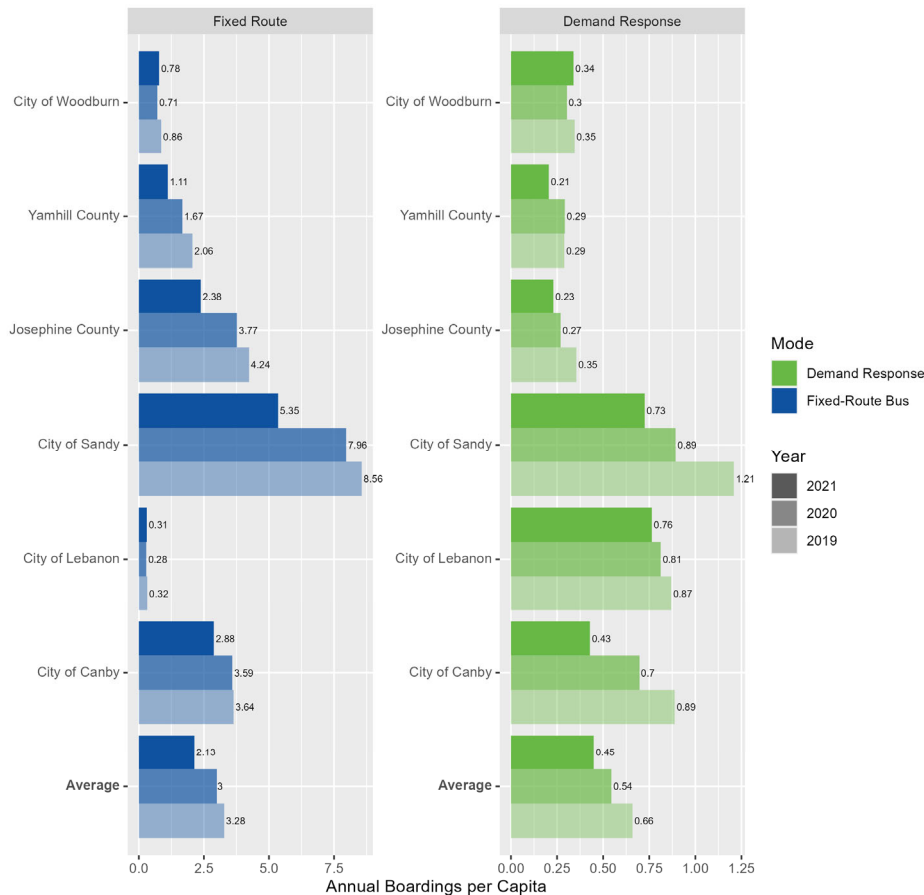
Summary

- Productivity for all peer systems has declined over the past three years – largely due to lower ridership during the pandemic. The average productivity expressed as boardings per revenue hour is just under 5.
- Woodburn has a slightly higher number of boardings per revenue hour than the average of other peers (fixed route), and average productivity for demand response services.
- Woodburn was the only peer where boardings per revenue hour showed any year-over-year increase during the three-year period. While productivity declined between 2019 and 2020 (as expected due to the pandemic), fixed route productivity increased by about 32% between 2020 and 2021 and increased slightly each of the three years on demand response.
- These findings indicate that while service levels have fluctuated over the past three years, Woodburn has been more effective than its peers at attracting passengers back to transit.

BOARDINGS PER CAPITA

The number of boardings per capita measures the utilization of the provider’s transit services compared to service area population. This measure normalizes the utilization of transit services in Woodburn compared to peer agencies and is an indicator of transit’s market share in the region. A higher number of boardings per capita indicates a higher utilization of transit services.

Figure 44 Boardings per Capita Peer Comparison



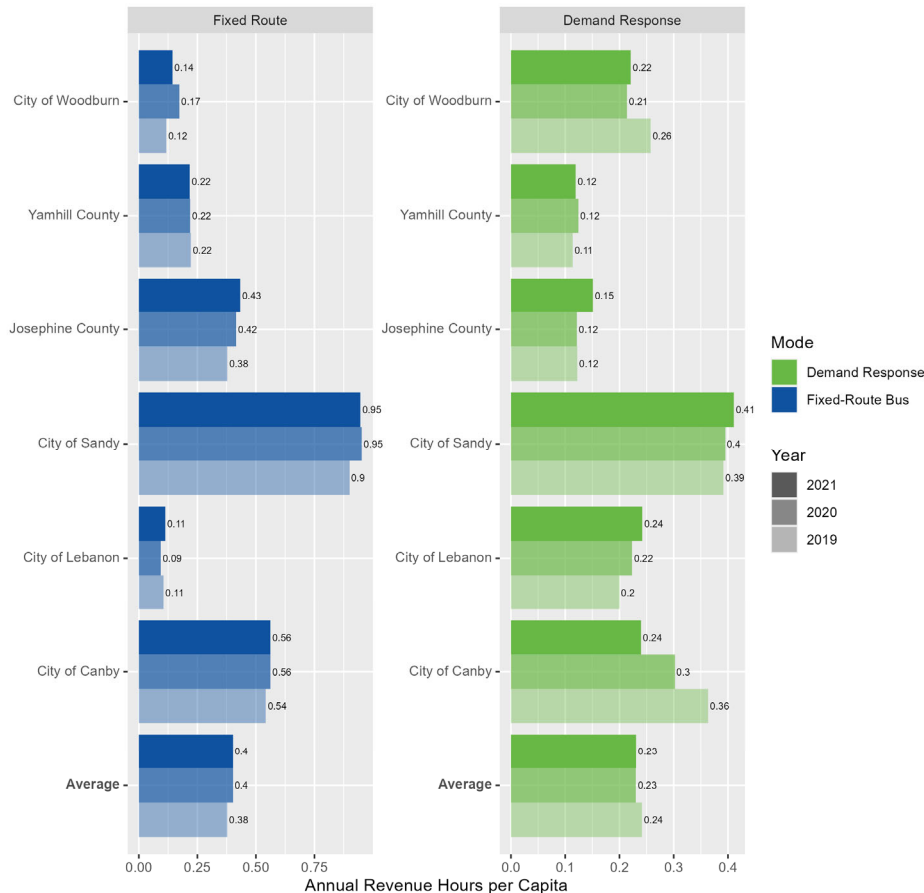
Summary

- As total boardings have declined for all peers over the three-year period, the number of boardings per capita for all peers has also declined. The average number of fixed route annual boardings per resident for all peers in 2021 is 2.13 (and 0.45 for demand response).
- For fixed route services, Woodburn averages about 0.8 boardings per resident, which is on the lower end compared to other peers. Only Lebanon has fewer boardings per capita than Woodburn.
- For demand response services, Woodburn is closer to the average for all peers with about 0.35 boardings per resident.
- This metric indicates that relatively few Woodburn residents utilize transit – especially fixed route transit. On the other hand, the number of boardings per capita increased between 2020 and 2021, a trend none of the peers could claim.

REVENUE HOURS PER CAPITA

Revenue hours per capita is an indicator of the overall investment in transit within each peer community. A higher number in this measure indicates a higher transit investment.

Figure 45 Revenue Hours per Capita Peer Comparison



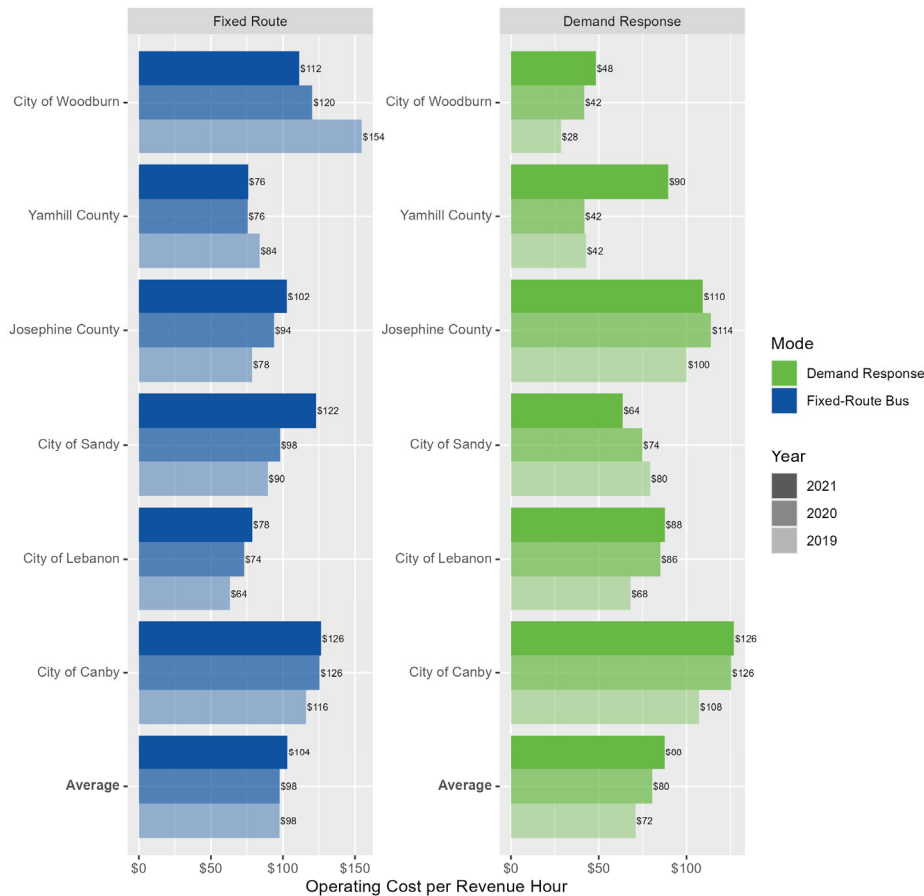
Summary

- Unlike boardings per capita, the average number of annual revenue hours per capita for all peers remained relatively steady over the past three years. While boardings declined, many cities were able to maintain service levels during the pandemic.
- For fixed route services, Woodburn averages between 0.12 and 0.17 annual revenue hours per resident, which is second-lowest when compared to other peers (only Lebanon has fewer revenue hours per capita than Woodburn).
- For demand response services, Woodburn is close to the average for all peers with between 0.21 and 0.26 annual revenue hours per resident.
- As with passengers per capita, this metric indicates that Woodburn residents have less access to fixed route transit service than most peer cities (except Lebanon).
- On the other hand, Woodburn residents have more access to demand response services when compared to more rural peers, but demand response service levels are lower than the small city peers (Sandy, Lebanon, and Canby).

OPERATING COST PER REVENUE HOUR

Operating cost per revenue hour measures how efficiently resources are provided by the transit provider. It reflects a combination of some factors outside of agency control, such as prevailing wage rates, as well as considerations within a provider’s influence, like staffing practices and assignments, and resources not used in revenue service (i.e., deadhead hours). A lower operating cost per revenue hour is generally preferable.

Figure 46 Operating Cost per Revenue Hour Peer Comparison



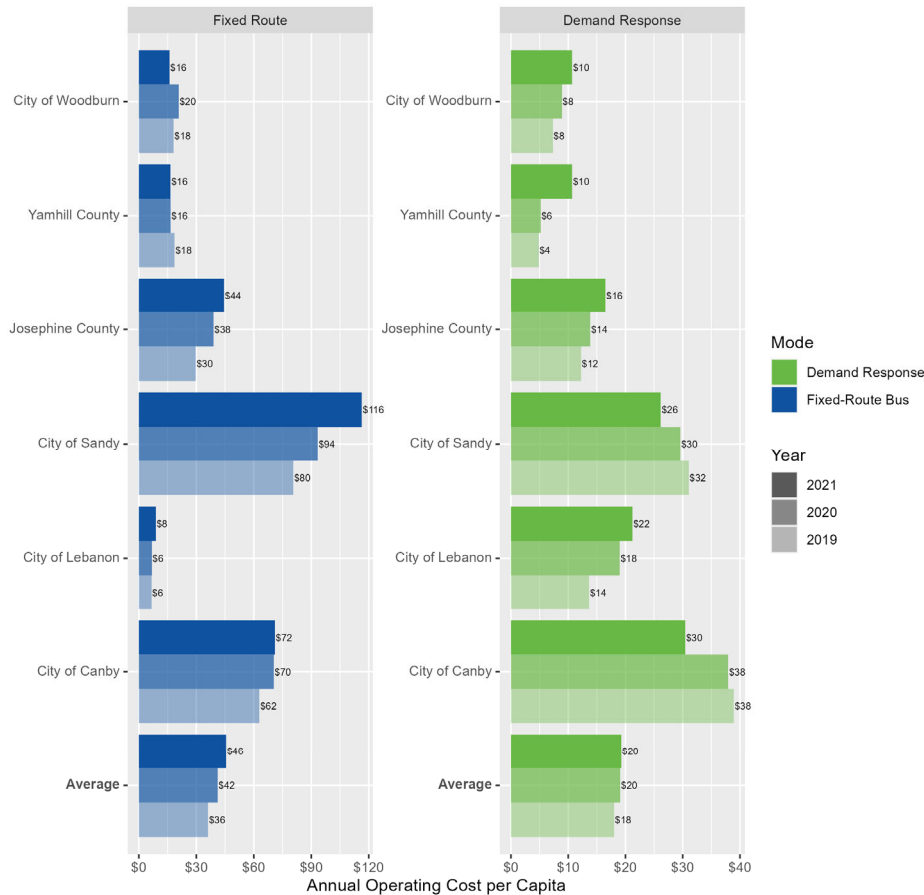
Summary

- The average operating cost per revenue hour for all peers ranged from about \$100 for fixed route services (for all three years) but increased between 2019 and 2021 for demand response services (increasing from \$72 to \$88).
- For fixed route services, Woodburn operating costs are slightly higher than for the peer cities. On the other hand, this metric has been trending down over the past three years, which only one other peer (Yamhill County) can claim.
- For demand response services, Woodburn performs better than nearly all other peers and well below the average. Like many other peers, operating cost per revenue hour on demand response services has been increasing over the past three years.
- Overall, this metric indicates that Woodburn is slightly more efficient than its peers because of the lower average for demand responsive services.

OPERATING COST PER CAPITA

Operating cost per capita is another measure of the investment in transit service, but this time compared to the population rather than per hour of service provided. A higher operating cost per capita indicates a higher investment in transit.

Figure 47 Operating Cost per Capita Peer Comparison



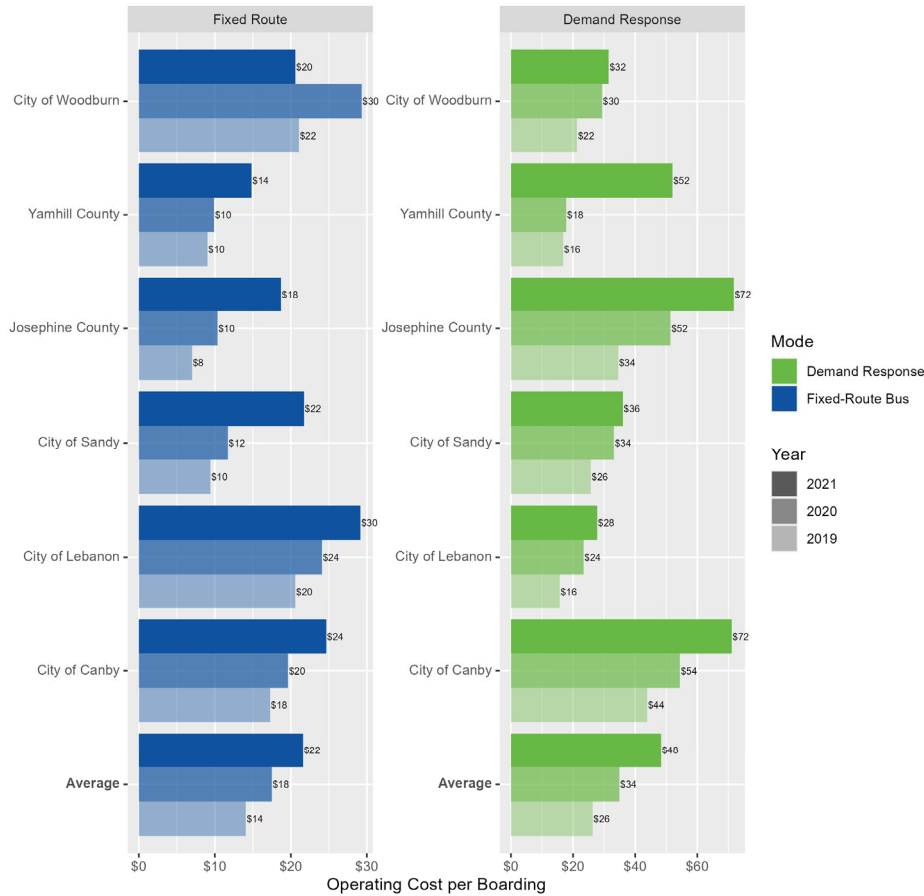
Summary

- For all peers, the average operating cost per capita ranged from \$36 to \$46 over the three-year period.
- The operating cost per capita for demand response services for all peers was about half that of fixed route, ranging from \$18-20 over the three-year period.
- As with revenue hours per capita, Woodburn has a lower operating cost per capita for fixed route services when compared to peer cities.
- For demand response services, Woodburn also has a lower operating cost per capita but closer to the average than for fixed route services. On the other hand, the operating cost per capita on demand response services has been increasing over the past three years, whereas several peers have declined (Sandy and Canby).
- Overall, this metric indicates that Woodburn provides fewer dollars for transit per resident than most of its peer cities. It should be noted that both Sandy and Canby provide significantly higher operating dollars per resident because they have a payroll tax dedicated to transit operations.

OPERATING COST PER BOARDING

Operating cost per passenger is a provider’s total operating cost divided by the total number of passengers carried per year and is a basic measure of cost effectiveness.

Figure 48 Operating Cost per Boarding Peer Comparison



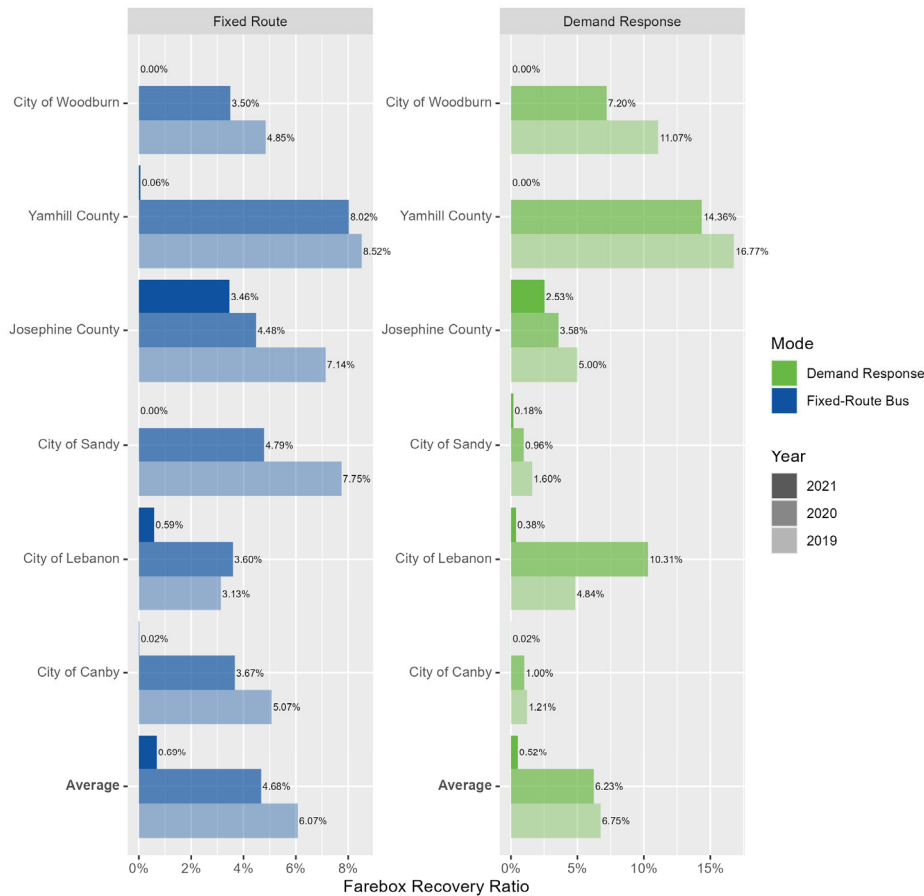
Summary

- The average cost per boarding for both fixed route and demand response services has been increasing over the past three years – which is likely a result of the pandemic during which time operating costs were increasing faster than boardings, which generally declined for most peers (and nationwide).
- For fixed route, Woodburn is close to the average for all peers, but the cost per boarding in 2021 is close to 2019. This is because fixed route ridership in Woodburn in 2021 is close to 2019 levels, while all other peers (except Lebanon) have seen steady declines in ridership during the three-year period.
- Woodburn’s cost per boarding for demand response services is lower than the average for all peers but has seen a slight year-over-year increase. As with fixed route, ridership on demand response in Woodburn has recovered to 2019 levels, but operating costs have increased somewhat.

FAREBOX RECOVERY RATIO

Farebox recovery is measured to understand how much of a provider’s operating costs are supplied by fare revenue and is another way to measure cost effectiveness.

Figure 49 Farebox Recovery Ratio Peer Comparison



Summary

- Over the three-year period, the farebox recovery ratio for all peers declined sharply, both on fixed route and demand response. This decline is largely due to suspension of fares during the pandemic for several peers (including Woodburn), but also a decline in ridership on those systems that continued to collect fares.
- In Woodburn, fares were suspended in March 2020. As a result, the farebox recovery dropped in 2020 on both fixed route and demand response and was zero in 2021.
- Prior to the suspension of fares, WTS had a similar farebox recovery ratio when compared to its peers. Comparing 2019 data (the last full year prior to the pandemic), the farebox recovery ratio on WTS fixed route services was just under 5%, which was on par with both Lebanon and Canby, whereas Sandy, Josephine County, and Yamhill County were all slightly higher (between 7-8%). On demand response services, however, WTS had a farebox recovery ratio higher than the average (11% compared to about 7%) and was only lower than Yamhill County (17%).

SERVICE SCENARIOS

SERVICE TYPES

To better understand the scenarios presented below, it is helpful to understand what makes transit successful in a general sense, and what is the range of transit service types that might be applicable to Woodburn based on the size and density of the community, as well as the funding and staffing resources available.

What makes transit successful?

- Schedules should operate with simple, repeating patterns (e.g., every hour or half hour).
- Routes should be direct and easy to understand. Loops and meandering routes are generally more challenging for riders than routes that run in opposite directions along the same corridor, with minimal turns.
- Routes should connect a variety of destinations, both along the route as well as at the end of the route (i.e., strong destinations).
- Amenities including bus stops/stations and vehicles should be comfortable, inviting, easily accessible, and safe for customers.
- Information about the transit service should be clear and easy to find.
- Access to transit should be comfortable and safe for people walking and bicycling.
- Service should be easy to pay for and affordable.

The infographic consists of 12 panels arranged in a 4x3 grid, each with a title and an illustration:

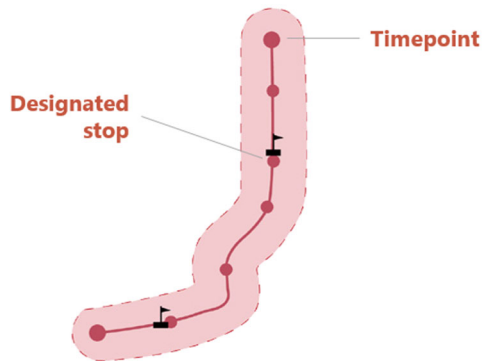
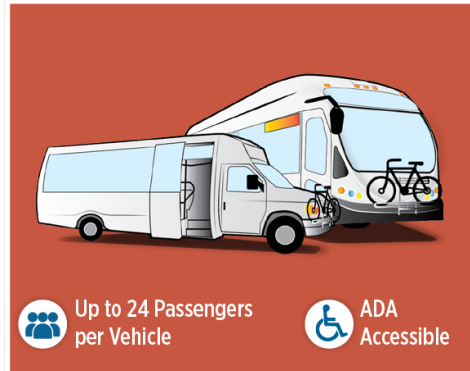
- Is direct:** Shows a straight line between two buildings.
- Serves a variety of destinations:** Shows a bus on a route connecting multiple buildings.
- Makes schedules easy to remember:** Shows a 'BLUE LINE bus every 15 mins' sign.
- Minimizes wait time through frequent service and real-time information:** Shows two smartphones displaying '10 mins' and a map.
- Has clear information available online and at bus stops:** Shows a computer monitor with a route map and a bus stop shelter with a map.
- Provides a high-quality waiting environment:** Shows a bus stop shelter with a person reading and another person on a phone.
- Requires safe and inviting pedestrian connections:** Shows a pedestrian crossing sign.
- Integrates with bicycle facilities:** Shows a bicycle lane with a sign and buildings.
- Runs early in the morning, late at night, and on weekends:** Shows a clock, a calendar, and a weekend calendar.
- Operates in rights-of-way that are congestion-free:** Shows a multi-lane transit lane with a 'TRANSIT' sign and a 'CONGESTION-FREE' sign.

Fixed Route

- Fixed-route transit is the most common type of transit service among peer agencies.
- Operates on a fixed route and schedule.
- Designed to directly serve major activity centers and travel corridors.
- Typically runs at regular frequency or “headways” (usually every 15 to 60 minutes) and makes frequent stops (~1/4 mile).
- Requires complementary ADA paratransit within 3/4-mile of route.

Works best for:

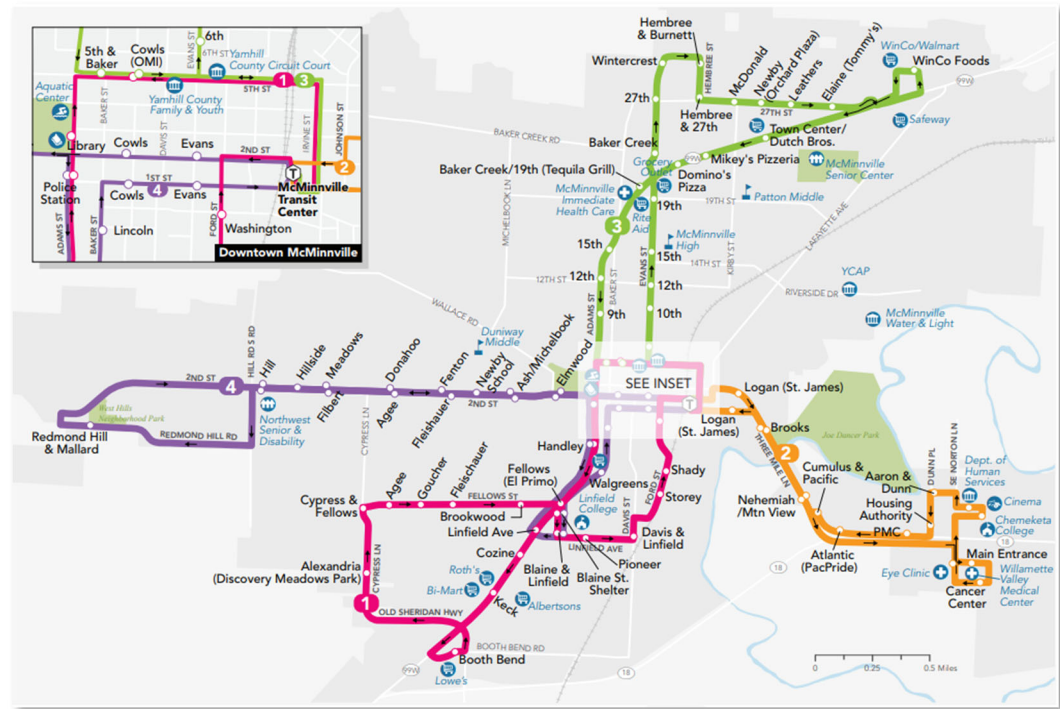
- Moving lots of people cost-effectively;
- Accessing major destinations quickly and reliably.



Peer Example

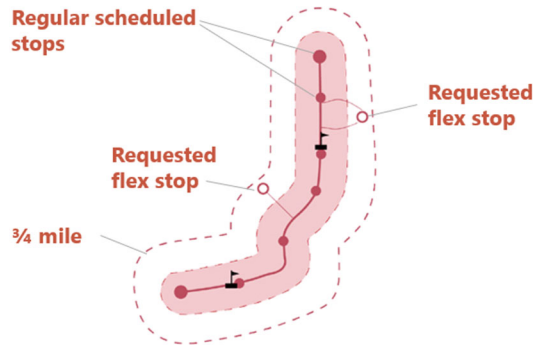
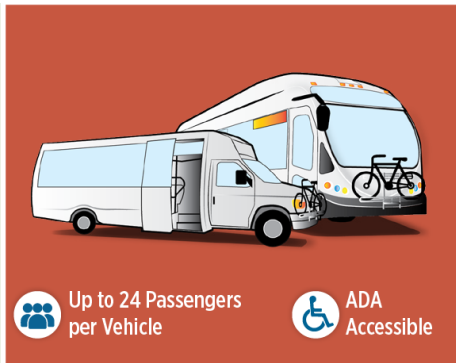
YAMHILL COUNTY TRANSIT – MCMINNVILLE LOCAL ROUTES

Yamhill County Transit (YCT) operates four local routes within McMinnville. All routes converge downtown at the McMinnville Transit Center, where they connect to regional YCT routes serving Grande Ronde, Hillsboro, Salem, and Tigard.



Flexible Fixed Route

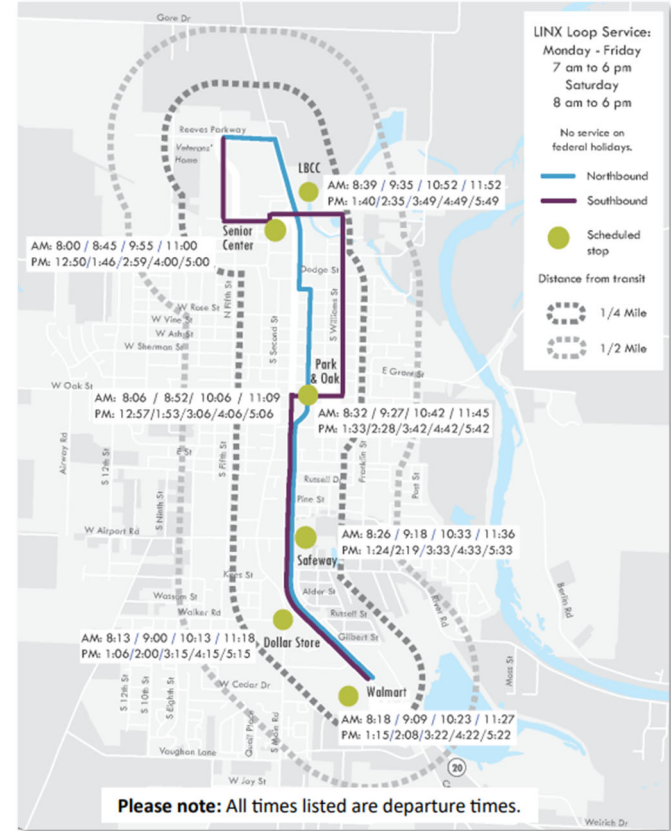
- Similar to fixed route:
 - Directly serves major destinations and travel corridors.
 - Operates on a regular schedule and route, with frequent stops.
- Schedule allows deviations for pickup or drop-off within a specified distance of the set route (e.g., ¼-mile).
 - Pickup deviation scheduled between 2-24 hours in advance.
 - No advanced notice needed for drop-off deviation.
- Combines some benefits of both fixed-route and dial-a-ride service.
 - Can fulfill requirement for complementary ADA paratransit.
- Works best for:
 - Accessing a variety of local destinations.
 - Serving a mix of moderate- to low-density areas.
 - Maintaining flexibility for riders with limited walking capability.



Peer Examples

LINX LOOP (LEBANON, OREGON)

The LINX Loop is a local flex route operating on weekdays and Saturdays. As its schedule permits, deviations are allowed up to ¾-mile from its regular route, expanding the service area to cover a majority of the city.



TILLAMOOK COUNTY

Tillamook County’s Wave transit service allows route deviation requests up to ¾-mile from the established route. Deviation requests must be made at least two hours in advance of the requested pickup. A deviation request to be dropped off can be made as early as late as when the rider boards the vehicle. No extra fare is charged for deviation requests.



Microtransit

- Microtransit is like Dial-A-Ride service but offers same-day, on-demand trips like ride-hail companies such as Uber and Lyft. Riders typically request service using a smartphone app.
- Microtransit can provide curb-to-curb or point-to-point trips within a specified service area. Rides are usually shared with others travelling in the same general direction.
- Works best for:
 - Serving low-density areas
 - Completing the “first or last mile” of transit trips
 - Riders who prefer not to walk due to uncomfortable weather
 - Providing options for passengers who have limited mobility

KEY ELEMENTS OF MICROTRANSIT



Peer Examples

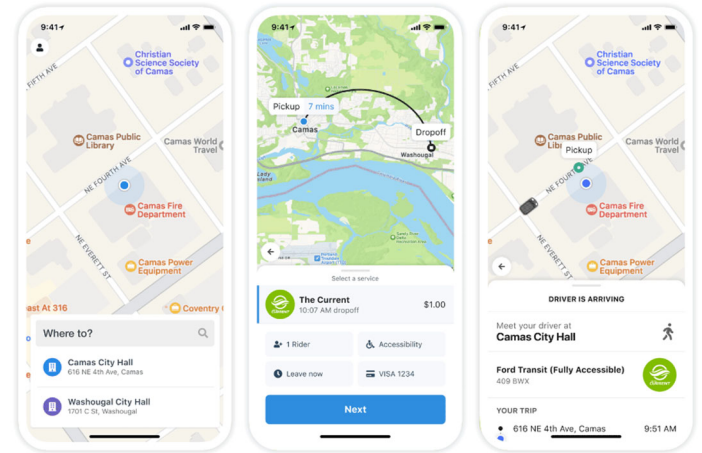
YOLO COUNTY TRANSIT DISTRICT (YOLO COUNTY, CALIFORNIA)

Yolo County Transit District runs a microtransit service called YOUR Ride that connects small towns to and around the agricultural hub of Vacaville. Rides are available within the towns of Winters, Woodland, and Knights Landing, or between these towns and larger cities.



THE CURRENT (CLARK COUNTY, WASHINGTON)

C-TRAN, Clark County’s transit agency, offers a new, on-demand rideshare microtransit, providing point-to-point service in multiple areas at the same cost as a standard bus fare. It is integrated with other C-TRAN and TriMet (Portland-area transit agency) services via mobile apps.



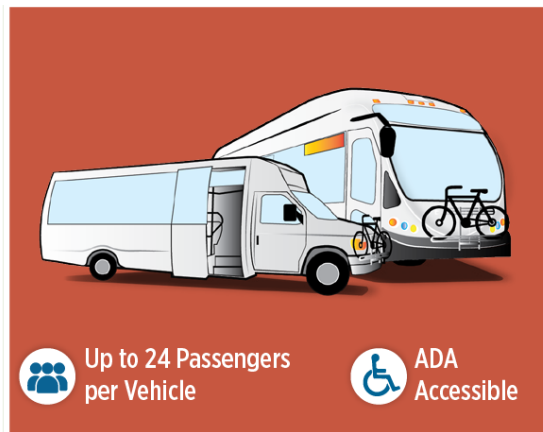
Schedule a ride with the tap of a button

Get picked up where you want

Ride with C-TRAN at a low fixed price

Specialized Shuttles

- Shuttles are designed to serve specific types of trips and connect to specific destinations.
- Can complement/connect to existing transit routes or operate independently.
- Typically operate on limited daily, seasonal, or irregular schedules (to meet shift times).
- Examples include shopper shuttles, employer shuttles, medical shuttles, and recreation shuttles.



Peer Examples

SANDY SHOPPER SHUTTLE (SANDY, OREGON)

Sandy Area Metro (SAM) operates the Trolley Shopper Shuttle for ~4 hours each weekday, connecting residential neighborhoods to locations providing daily needs such as Fred Meyer and Safeway. It runs on a schedule but can serve other pickup locations by request.

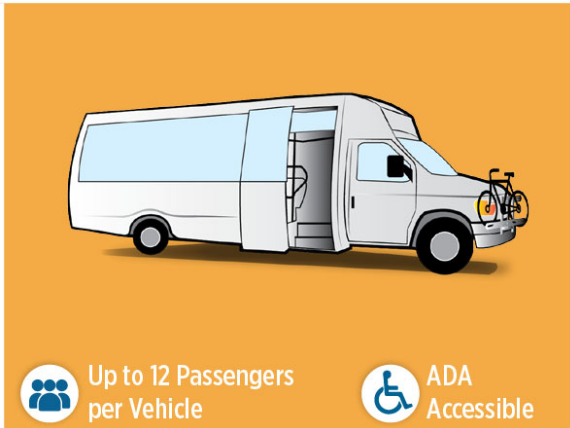
GROVE LINK EMPLOYER SHUTTLE (FOREST GROVE, OREGON)

GroveLink (operated by RideConnection) provides an employment loop for specific employers and employment clusters at specific morning and afternoon shift times, in addition to flex route shuttles that circulate within the city. It connects with TriMet Line 57.



General Public Dial-A-Ride

- Provides demand-response service within a set area, such as a city boundary.
- Trips are typically curb-to-curb.
- Trips are often grouped together.
- Riders may be required to book trips well in advance (e.g., within 24 hours), or some systems can use on-demand scheduling.



Peer Examples

LINX DIAL-A-RIDE (LEBANON, OREGON)

LINX offers curb-to-curb on weekdays and within city limits. Rides requested the same day are accommodated as permitted by the service schedule that day.



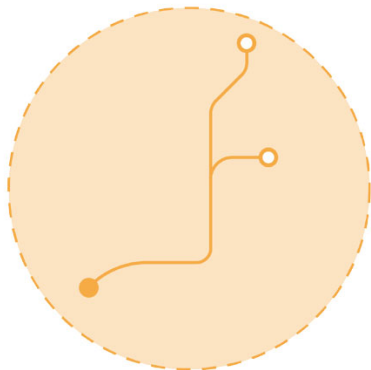
CASCADES EAST TRANSIT (CENTRAL OREGON)

Cascades East Transit (CET) provides curb-to-curb, shared-ride dial-a-ride transit service for the general public in the cities of Prineville, La Pine, Redmond, Madras, and Sisters. All CET dial-a-ride and fixed-route services are fareless.



TILLAMOOK COUNTY (TILLAMOOK COUNTY, OREGON)

Tillamook County Transit District runs shared-ride, door-to-door dial-a-ride service that operates on weekdays. One-way regular fares are \$4 for the first five miles and \$0.50 for each additional mile. Reduced fares are also available.



SERVICE SCENARIOS

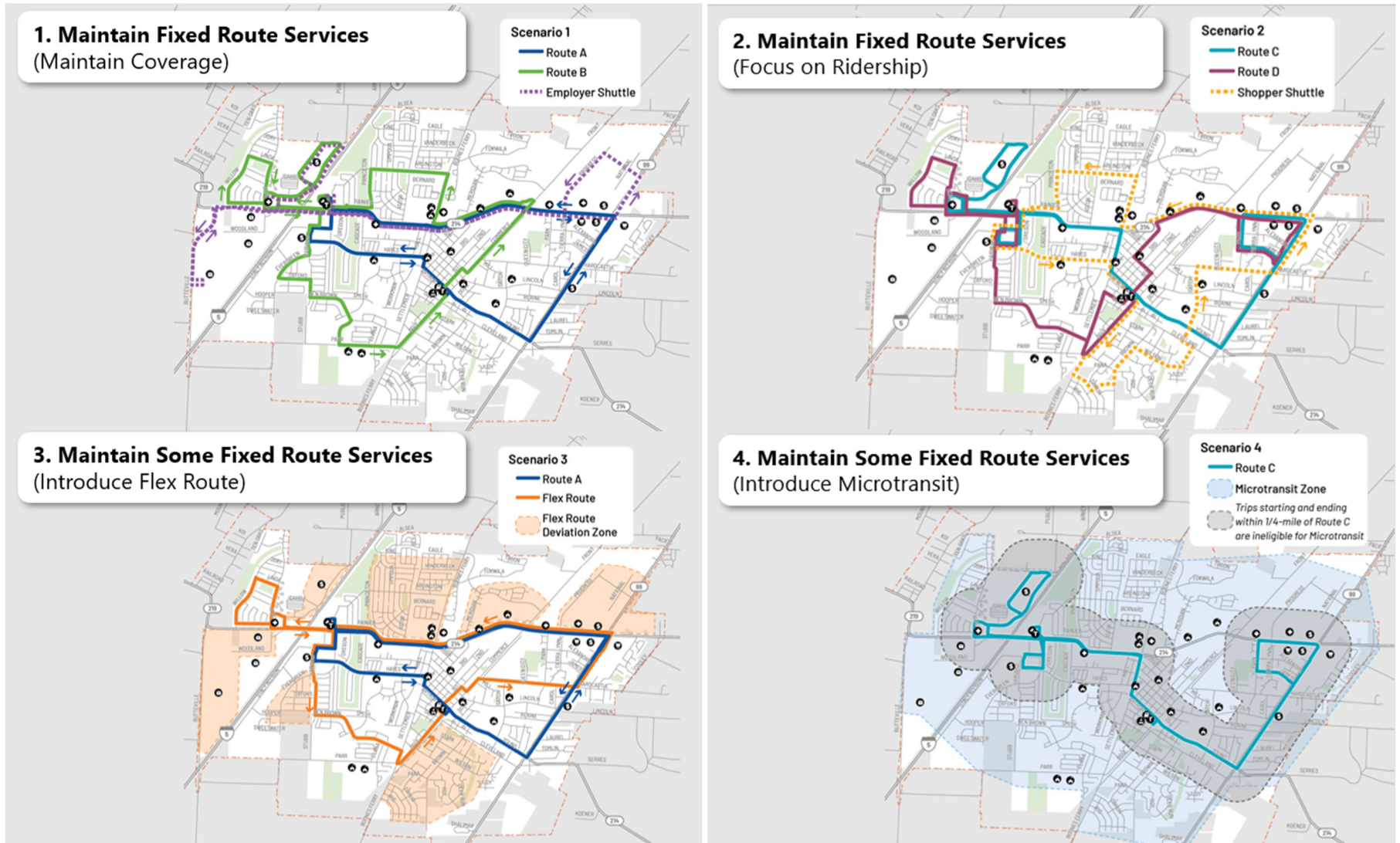
The project team drafted four different potential service scenarios to test the application of a variety of service concepts and understand what transit system design might best serve the community. Draft service concepts were constructed from a variety of sources:

- State of the System transit opportunities
- Peer Review key findings and examples
- Comments and suggestions from community input (Fall 2022 on-board survey and community survey)
- Service ideas generated by the expanded Steering Committee at the November 2022 Planning Game Workshop (shown at right)

The four scenarios (shown in Figure 50 on the next page) included a range of options for serving both key destinations and areas currently served by the two existing fixed routes, and extending service to areas of Woodburn experiencing housing and employment growth. The project team used a geographic evaluation process to understand which scenarios, and which individual elements of each scenario, would serve the greatest share of jobs, residents, and equity focus populations in Woodburn. The scenarios were also presented for feedback to the Steering Committee, to a small Spanish-speaking focus group composed of current WTS riders, and to the general public through a web-based survey. This allowed the project team to gather a range of opinions to supplement the desktop geographic analysis.



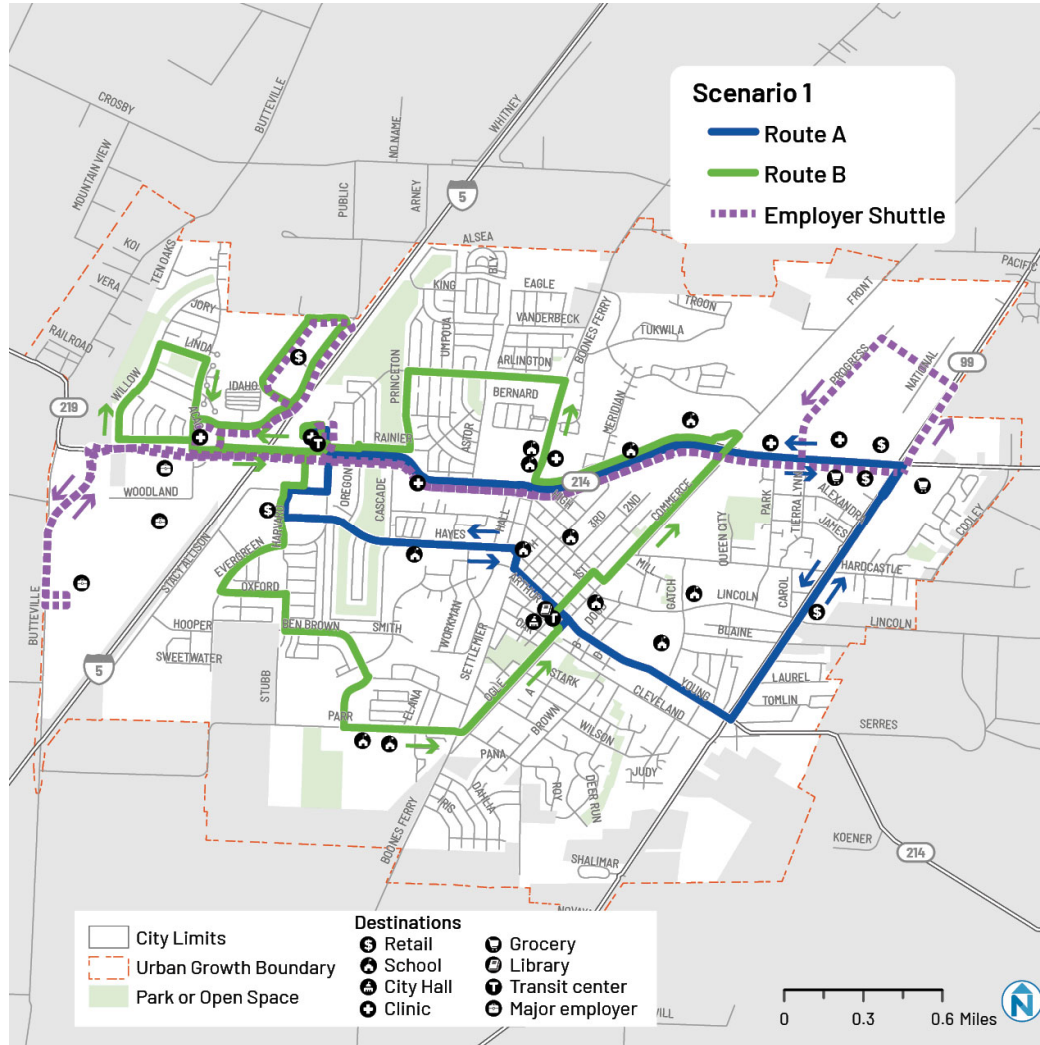
Figure 50 Scenario Overview Comparison



SCENARIO 1: FOCUS ON RIDERSHIP

Scenario 1 maintains transit service like today’s two routes, but with changes to better serve areas of new housing and employment development. This scenario also includes a separate route that focuses on major employers and other major destinations.

Figure 51 Scenario 1



Scenario 1 Highlights

- Keeps the existing Express route that serves Bi-Mart, Walmart, the Outlet Mall, Downtown, and clinics and businesses along Newberg Highway and Highway 99.
- Brings fixed-route service to areas of new development in south Woodburn.
- Creates easy downtown transfers between the two routes.
- Adds an employer shuttle that serves key employment areas in northeast and west Woodburn, running several morning and evening trips on weekdays only.

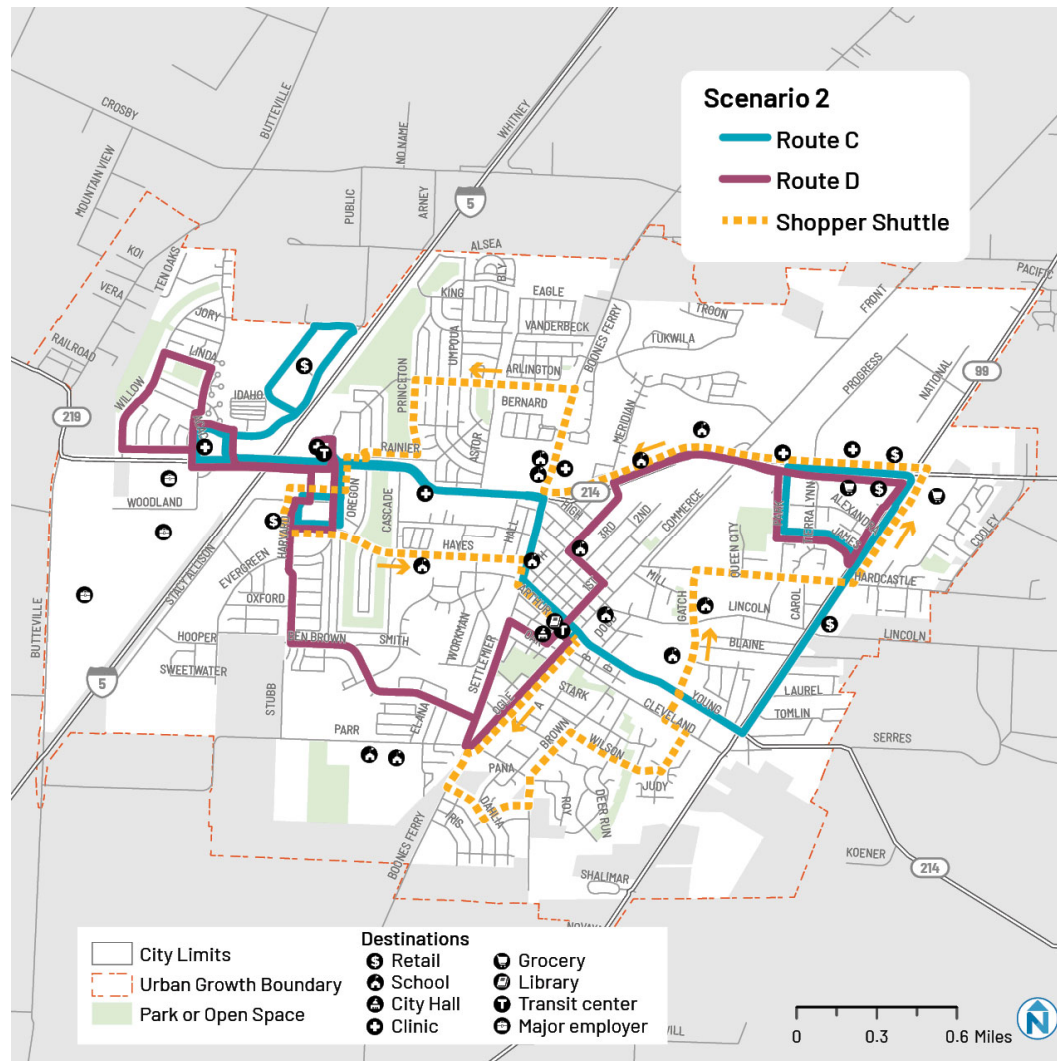
Service Characteristics

- Service every 30 minutes on **Route A** (existing Express route) with trips running in opposite directions on each alternating trip.
- Service every hour on **Route B**, with all trips running in a counterclockwise loop.
- Complementary ADA paratransit.
- All three routes serve the Memorial Transit Center, and routes A and B serve Downtown Transit Center.
- Requires two buses during most of the day, and three buses whenever the **Employer Shuttle** is operating (several morning, midday, and afternoon/evening hours each weekday).

SCENARIO 2: FOCUS ON COVERAGE

Scenario 2 focuses on generating more use of transit by keeping two fixed routes, but with changes to add more bus service to key destinations.

Figure 52 Scenario 2



Scenario 2 Highlights

- Continues fixed-route services to most major destinations where ridership is likely to be highest, including Bi-Mart, Walmart, the Outlet Mall, and Downtown.
- Adds easy transfers between routes in Downtown Woodburn.
- Adds a shopper shuttle that connects residential neighborhoods to retail destinations with regularly scheduled trips a few days per week.

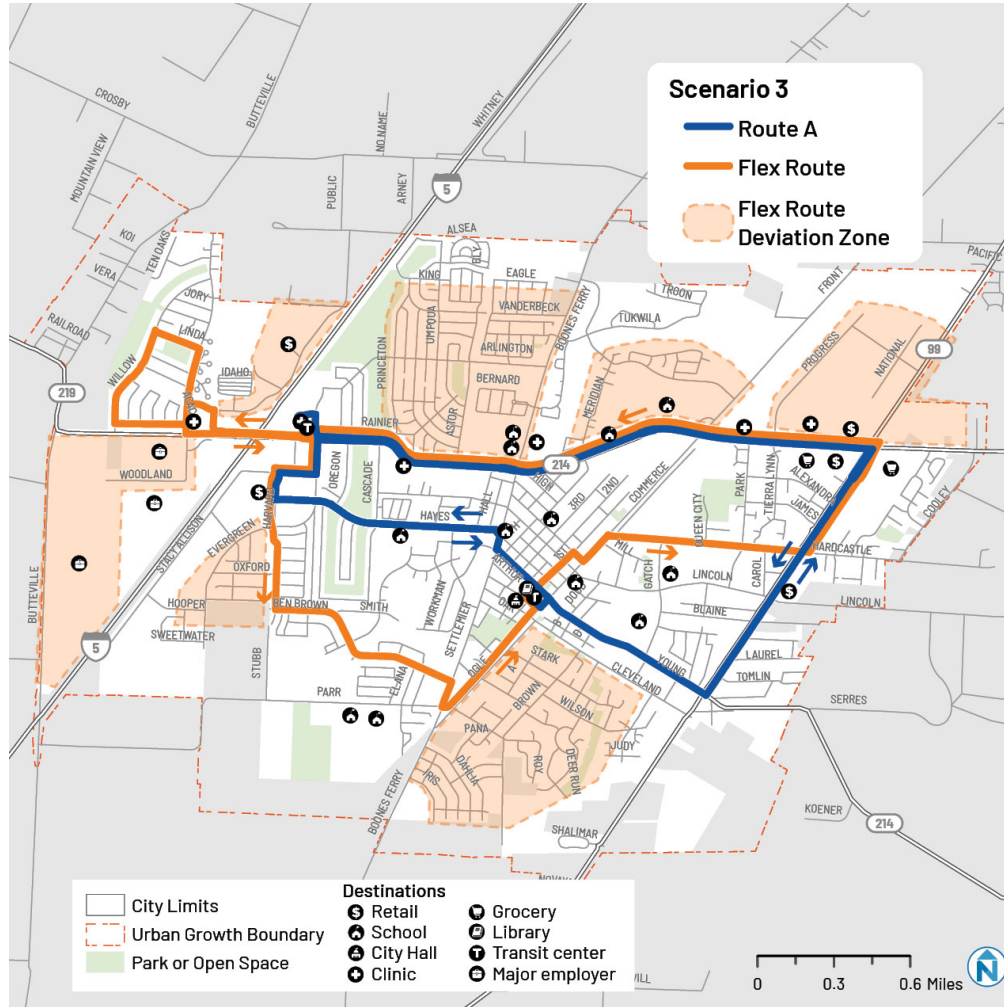
Service Characteristics

- Service every hour on **Route C** with bidirectional service along the route except for loops at Bi-Mart and Outlet Mall.
- Service every hour on **Route D** with bidirectional service along most of the route.
- Complementary ADA paratransit.
- All three routes serve Memorial Transit Center and Downtown Transit Center.
- Requires two buses most of the day, and three buses whenever the **Shopper Shuttle** is operating (several hours per week).

SCENARIO 3: FLEXIBLE FIXED ROUTE

Scenario 3 keeps one fixed route and introduces a flexible route that can travel a certain distance off the scheduled route to pick up or drop off people at their homes and destinations.

Figure 53 Scenario 3



Scenario 3 Highlights

- Continues some fixed-route services to and from most major destinations, including Bi-Mart, Walmart, Downtown, and clinics and businesses along Newberg Highway and Highway 99.
- Adds a flexible fixed route (also called a flex route) that can travel a certain distance off the scheduled route for requested pickups and drop-offs in certain zones (see below for more information about how flexible fixed routes work).

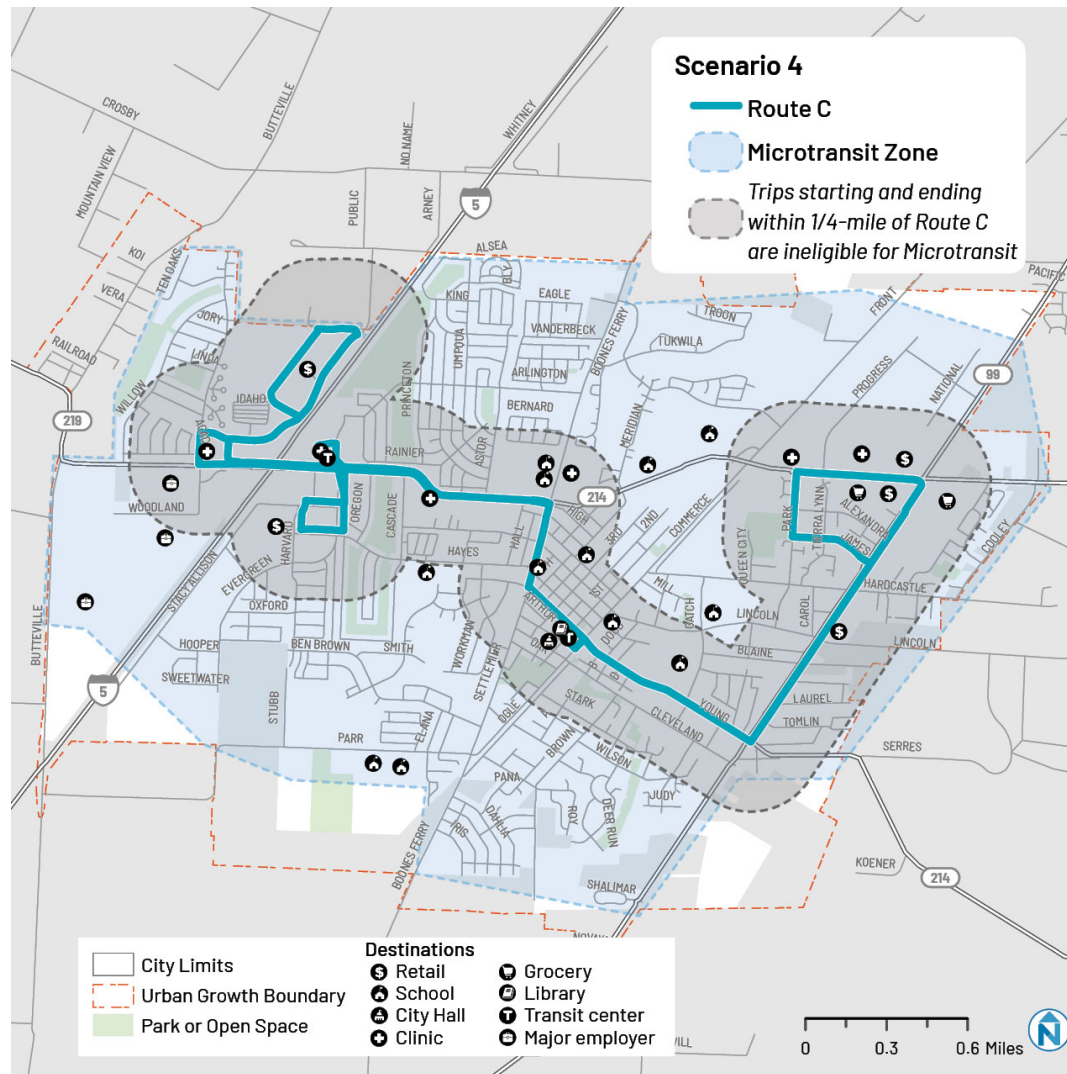
Service Characteristics

- Service every 30 minutes on **Route A** (existing Express route) with trips running in opposite directions on each alternating trip.
- Service every hour on the **Flex Route**, with deviations allowed within defined zones. Cycle time would allow for 2-3 deviations per trip.
- Outlet Mall served within deviation zone, but no scheduled service.
- Complementary ADA paratransit.
- Requires two buses for fixed/flex routes (same as today's service).

SCENARIO 4: MICROTRANSIT

Scenario 4 features one regular fixed route and adds microtransit that offers citywide, same-day, on-demand service.

Figure 54 Scenario 4



Scenario 4 Highlights

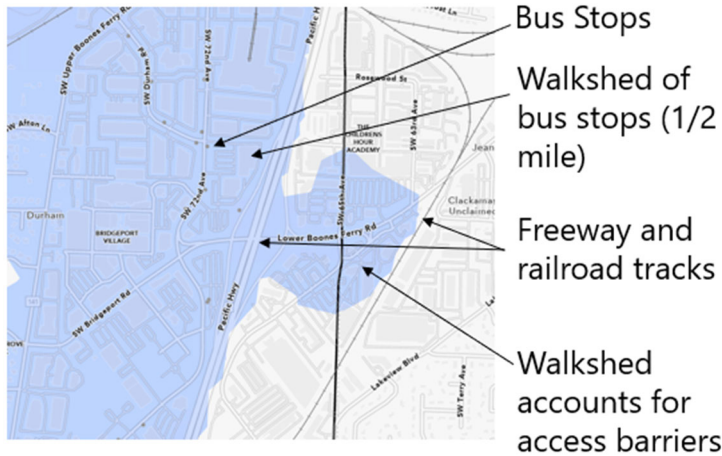
- Serves all major destinations with a single fixed route, including the Outlet Mall, Bi-Mart, Walmart, Downtown, and some clinics and businesses along Newberg Highway and Highway 99.
- Adds on-demand microtransit for any trips citywide that are outside the reach of the fixed route. See below for more information about how microtransit works.

Service Characteristics

- Service every hour on **Route C** with bidirectional service along the route except for loops at Bi-Mart and Outlet Mall.
- Point-to-point, on-demand microtransit service all day long for trips starting and/or ending outside of 1/4-mile distance from Route C.
- Complementary ADA paratransit within fixed-route service area (could consider updating eligibility requirements for dial-a-ride system to encourage some dial-a-ride trips on microtransit).
- Requires two to three buses for fixed and microtransit service: one for Route C, and 1-2 for microtransit, depending on demand.

SCENARIO EVALUATION

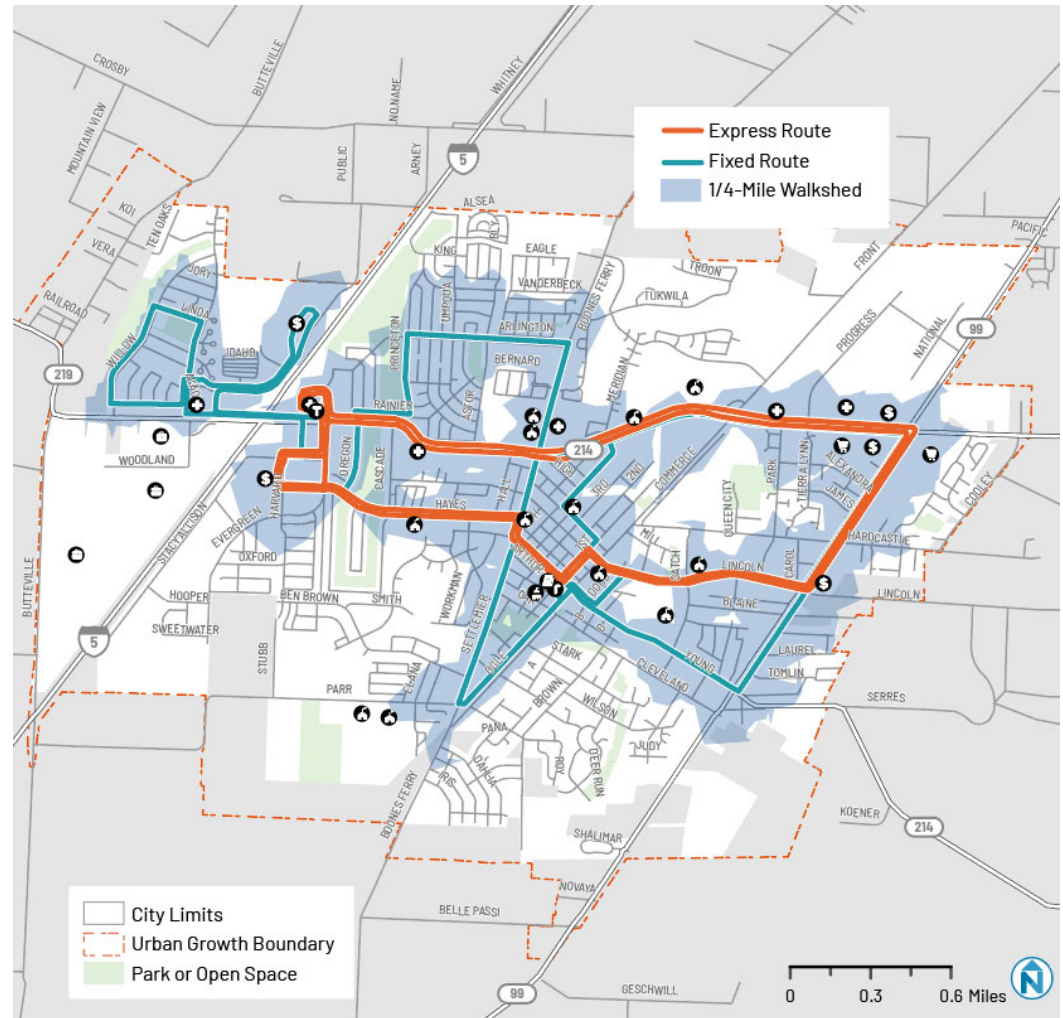
The four scenarios were evaluated using buffers of ¼-mile walkshed around the proposed stop locations along the proposed route lines. A walkshed is the area accessible by walking along the street network within a specified distance of the stops (see example below). A walkshed follows the surface street network and therefore accounts for barriers to walking such as freeways and railroad tracks; this walkshed does not account for the presence or absence of sidewalks.



The ¼-mile distance represents an approximately 5- to 10-minute walk or roll that most people are willing to make to access fixed-route bus service. Areas shown in Figure 55 at right are within ¼-mile of the existing Express and Fixed routes.

The results of the scenario evaluation, along with feedback from the Steering Committee, Spanish language focus group, and community survey, informed the final route alignments shown in the Preferred Service Plan below.

Figure 55 Quarter-Mile Walkshed from Existing Routes



Summary of Evaluation Results

Results of the scenario evaluation are shown in Figure 56 and summarized below.

- The **baseline scenario** (existing Fixed and Express routes) serves nearly 50% of Woodburn’s residents and jobs, but just 34% of older adults.
- **Scenarios 1, 2, and 3 all offer improvements across all metrics** as compared with the baseline.
- In Scenario 3, more than **60% of residents and jobs** would be served by the proposed routes. This scenario shows the highest values across all metrics, which is likely due to the large coverage area represented by the Flex Route’s assumed half-mile deviation area. Operating a flex route would offer the benefit of greater coverage, with the key downside being increased average travel times due to the allowed deviations off the scheduled route.
- Between the two traditional fixed-route scenarios (Scenario 1 and Scenario 2), **Scenario 2 would serve a greater share of all residents and equity-focused populations** (low-income households, older adults, youth, and people of color).
- It should be noted that the values for Scenario 4 only reflect the benefits of the single proposed Route C. In this scenario, microtransit would also provide service throughout the city and would cover a high percentage of the existing jobs and population. The major tradeoff would be in overall travel time as riders would have to wait for a pickup when scheduling their trips, rather than being able to time their trips around regular scheduled bus service.

Figure 56 Scenario Evaluation Results

Scenario	% of Existing Population ¹	% of Existing Jobs ²	% of Low-income Households ³	% of Older Adults (65+) ⁴	% of Youth (15-17) ⁵	% of People of Color ⁶
Baseline (Existing Service)	49%	49%	41%	34%	46%	43%
1 – Maintain Fixed-Route Services (Coverage Oriented)	52%	53%	44%	37%	46%	44%
2 – Maintain Fixed-Route Services (Ridership Oriented)	59%	50%	51%	38%	48%	50%
3 – Maintain Fixed Route, Introduce Flex Route	61%	61%	57%	43%	50%	52%
4 – Fixed Route with Microtransit ⁷	29%	41%	24%	20%	23%	25%

Sources & Notes: (1) 2020 Census, Block level; (2) 2019 US Census Longitudinal Employer-Household Dynamics (LEHD); (3) Households earning less than 200% of the federal poverty level (U.S. Census 2020 5-Year American Community Survey (ACS)); (4, 5) 2020 5-Year ACS; (6) Includes all persons who identified as anything other than “white alone”(2020 5-Year ACS); (7) Results are shown for proposed Scenario Route C only. Microtransit would also provide service throughout the city in Scenario 4.

Evaluation results for the individual routes comprising each scenario, as well as for the existing Express and Fixed routes, are shown in Figure 57 and summarized below.

- Despite their different routing, **routes A, B, and D all perform very similarly across all metrics.** Routes B would serve the Outlet Mall. Route A is similar to the existing Express Route. Route D serves areas of new growth and development in southwest Woodburn.
- **Route C scores lower than the other proposed routes** in all metrics except the percentage of existing jobs, **however this route would provide relatively quick bidirectional service between major destinations** including the Outlet Mall, Walmart, Downtown, and Bi-Mart.
- The existing **Fixed Route and the proposed Shopper Shuttle** both perform well in the evaluation metrics due to covering large areas of the city. **However these routes feature long and indirect routing between key destinations and slower travel times** to destinations overall.
- The **Employer Shuttle** scores lowest in most metrics (especially those focused on residents due to not directly serving many residential areas), but **would provide service to major employment clusters in west and northeast Woodburn, connections to regional transit routes at the Memorial Transit Center and Bi-Mart, and fast service along Highway 214.**

Figure 57 Route-Level Evaluation Results

Route	% of Existing Population	% of Existing Jobs	% of Low-income households	% of Older Adults (65+)	% of Youth (15-17)	% of People of Color
<i>Existing Express Route</i>	30%	34%	20%	34%	27%	31%
<i>Existing Fixed Route</i>	47%	48%	31%	44%	38%	41%
Route A (Scenarios 1 & 3)	30%	34%	21%	31%	27%	30%
Route B (Scenario 1)	32%	31%	28%	34%	29%	27%
Employer Shuttle (Scenario 1)	14%	27%	11%	19%	13%	17%
Shopper Shuttle (Scenario 2)	40%	31%	27%	30%	35%	32%
Route C (Scenarios 2 & 4)	29%	41%	20%	23%	24%	25%
Flex Route (Scenario 3)	29%	34%	21%	34%	26%	28%
Route D (Scenario 2)	32%	35%	22%	36%	28%	29%

All data sources are the same as in Figure 56 above.

COMMUNITY INPUT ON SERVICE SCENARIOS

To assess community input on the service scenarios, and ultimately to develop the Preferred Service Scenario presented in Chapter 6, several meetings with community members were held and a second online survey was developed. Feedback from this community input is summarized below.

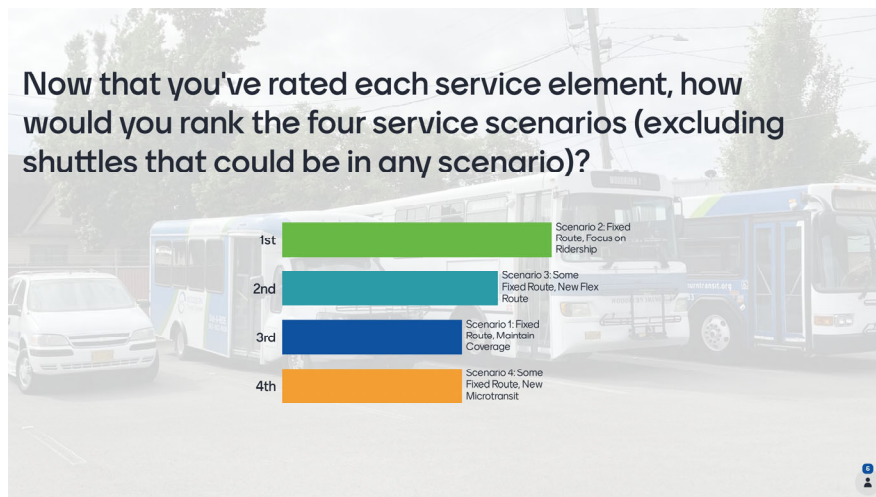
TDP Steering Committee

On February 7, 2023, a third meeting with the TDP Steering Committee was conducted to present the service scenarios and solicit input on the direction of the preferred service scenario. While there was some interest in different types of transit service (microtransit and flexible fixed route), committee members were more interested in maintaining (and expanding) fixed route services. Committee members were also interested in service to major employers, better bus stop amenities, and enhanced bicycle and pedestrian access to transit.

Spanish Focus Group

On March 15, 2023, a focus group with Spanish-speaking riders was conducted to gather additional input on the four service scenarios. The Spanish focus group was conducted so that the opinions of this significant segment of transit riders were incorporated into the plan. Key findings from the focus group include:

- **High satisfaction.** Participants said that they were not only very happy with the existing service, but especially satisfied with WTS’s customer service.
- **Preference for fixed route.** While there was some interest in microtransit, participants were most interested in maintaining or expanding the fixed route service.
- **Improved amenities.** By far the top improvement was focused less on the service and more on the desire for more bus stop shelters, benches, and information.

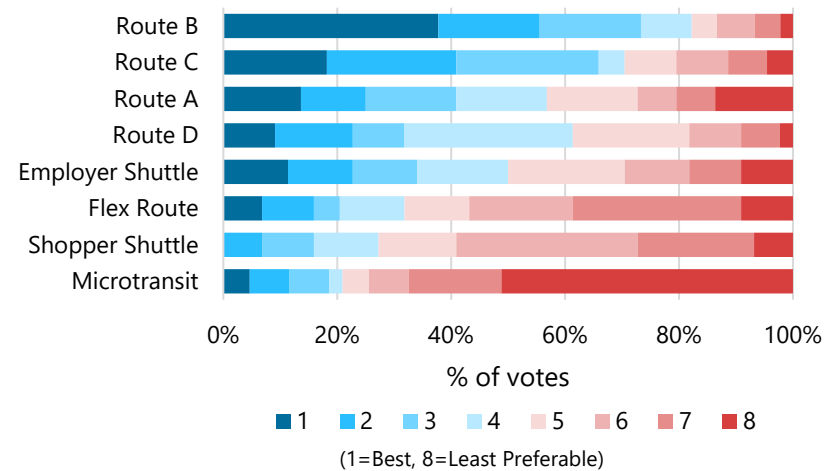


Online Scenario Survey

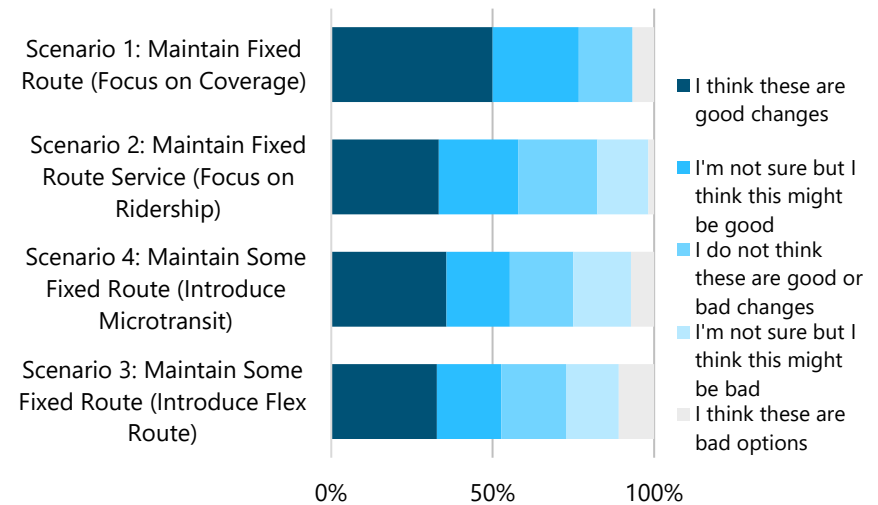
A second community survey was conducted to assess which of the four scenarios people preferred. The survey was available for approximately four weeks in February-March 2023. Over 60 people responded to the survey. Key findings from the survey include:

- Preference for fixed route service.** Overall, survey respondents preferred the scenarios that featured traditional fixed route (as opposed to the flexible fixed route or microtransit). When asked to rank the various fixed routes in the four scenarios, Routes A, B and C were ranked the highest, which are most similar to the existing fixed route services.
- Employer-focused service.** While not as popular as the other fixed route services, the employer shuttle featured in Scenario 1 had strong support when compared to other routes and service types. Several respondents noted that other communities, like Wilsonville, have an employer-focused service and that this would be welcome in Woodburn as well.
- Less interest in microtransit.** While some respondents were interested in microtransit services, this service type was also ranked the lowest when compared to other service types. It was also noted by several respondents that the existing Dial-A-Ride was very well liked and fulfills the need for demand responsive service in Woodburn.

Scenario Elements Ranked



Scenario Comparison



Select Survey Comments

Respondents had the option of providing open-ended comments in several parts of the survey. Select comments are shown below to illustrate the range of input that participants shared.

Scenario 1

- “I like the idea of adding to service new development in south areas.”
- “This route configuration is less confusing and probably more efficient than the existing ones.”
- “It seems to me that EVERY route should serve the Outlet Mall. That just seems like common sense.”
- “This is my favorite plan of the four. Many neighborhoods have been inaccessible by public transit, and the new fixed route resolves much of that. However, due to the fixed route’s sheer length, it needs to be available in both directions.”
- “The employer shuttle would be beneficial for those working in the serviced areas.”

Scenario 2

- “Shopper Shuttle seems like a waste of time. Would rather use that shuttle to go to Hubbard or Gervais.”
- “Adding a shopper shuttle would be nice but I do not feel it addresses the population that would need access to rides for work.”
- “Much cleaner and streamlined fixed routes. Great for going somewhere quick. The shopper shuttle is a great idea and covers a lot of neighborhoods, however, the length of the loop I imagine would deter some folks.”
- “This doesn’t address the employer issues, which I think is just as if not more important. Heritage Park & the NE industrial complex would continue to be inaccessible via public transit.”

Scenario 3

- “I have used a flex route successfully before. It can be hard to stay on time.”
- “Flex routes could cause delays and unpredictability in schedule reliability. It may create difficulties for those who do not have internet access or English language proficiency.”
- “My question is how would this affect the current Dial A Ride. Would Dial A Ride no longer exist? Dial A Ride is an extremely important service for the Woodburn Seniors who do not drive and this with disabilities. I know Dial A Ride to be more independent to do my own errands and appointments.”

- “I know how well Dial a Ride worked for me and how it became a challenge as I tried to transition to regular bus services. This might really be helpful to people, especially when returning home from shopping.”

Scenario 4

- “Maybe a small city like Woodburn can do better with one fixed route. It is a major improvement from the current system that is difficult to understand. Microtransit is nice but again there’s equity issues around access to technology and language barriers.”
- “People can already do this without the city providing it. Unless a community option is significantly cheaper, I don’t see how this is beneficial.”
- “This is my favorite alternative. It means that the fixed route would not go in loops and it’s much more logical and intuitive. I like the idea of microtransit filling the gaps of the fixed route service, but that route gets you to most destinations that people really want to go to on transit (shopping, medical, transfer to other regional providers, etc.).”

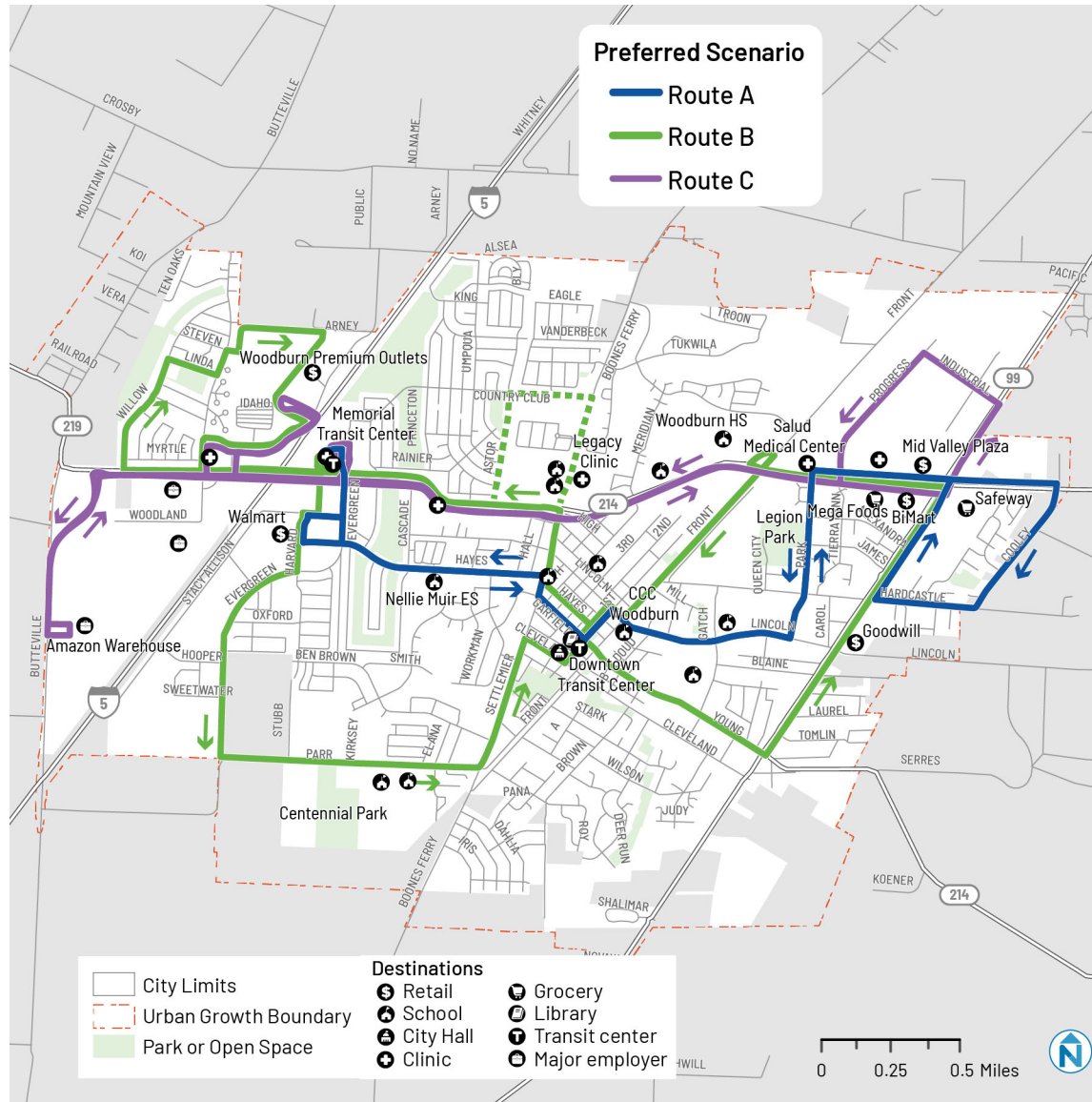
General Comments

- “I am surprised all of the options are for in-town only. It’s weird that our town relies on other towns’ transit to connect us to the outside world.”
- “My spouse and I work M-F 8am-5pm in Salem and would use transit if it met this schedule. Currently leaves Woodburn either too early or too late.”
- “I would be willing to pay more in property taxes if we could make transit free for Woodburn residents. Especially students and seniors.”
- “I don’t use public transport currently but know many people who would rely on it. I wish I had the opportunity to use it more, but there is very little accessibility and nobody knows the schedules.”
- “[Need] covered pickup locations because weather is quite harsh and mobility [is] challenging.”

PREFERRED SERVICE PLAN

PREFERRED SERVICE PLAN

Figure 58 Preferred Fixed Route Service Plan



Overview

Based on input from the TDP Steering Committee, the community survey results, and the focus group conducted in Spanish, a Preferred Service Plan was developed that includes modified versions of the conceptual routes developed in the Service Scenarios presented above.

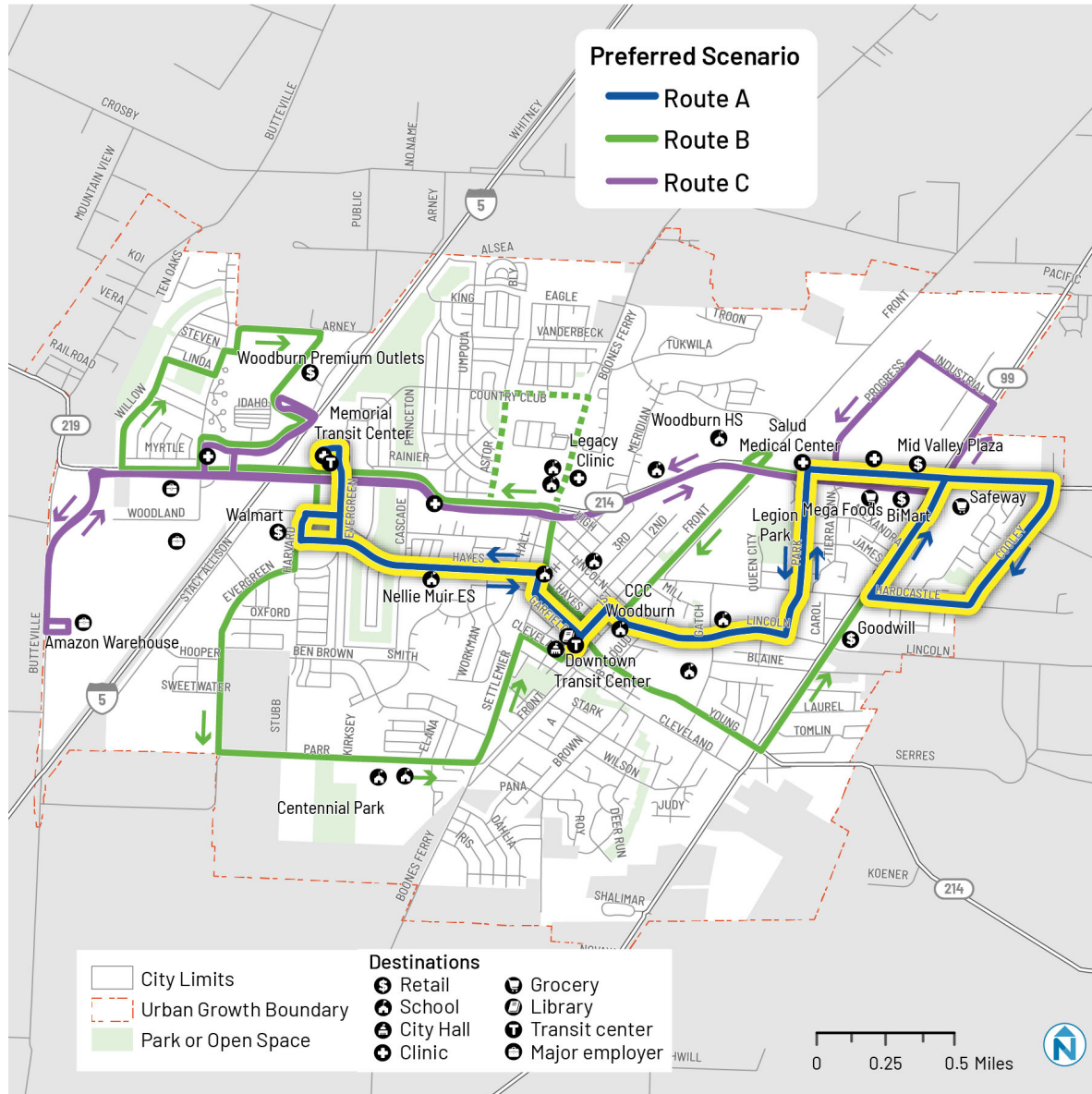
The Preferred Service Plan includes three routes:

- **Route A – Direct.** This route provides bidirectional service connecting the major destinations in Woodburn. The focus of this route is to provide the most direct routing possible while also serving these major destinations.
- **Route B – Local.** This route provides service to the major destinations in the community as well as to several residential neighborhoods that are not served by Route A.
- **Route C – Highway 214 Express.** This new route provides a direct connection between major destinations on Highway 214 and operates earlier and later than other routes to serve major employers in the community and connect to regional transit services.

More detail about the three routes included in the Preferred Service Plan are provided below.

ROUTE A – DIRECT

Figure 59 Route A – Direct



Service Characteristics

Route A is a bidirectional route that directly serves all major destinations except the Outlet Mall and is anchored by Safeway on the east end and Walmart and the Memorial Transit Center on the west end. It also serves the new Woodburn Place apartments, with nearly 500 housing units, on Molalla Road at Cooley Road.

- **Major Activity Centers Served:** Safeway, Bi-Mart, Mega Foods, Mid Valley Plaza, Legion Park, Downtown Woodburn, Walmart, Memorial Transit Center
- **Regional Connections Served**
 - **Bi-Mart:** CAT (99x) and Cherrlots (10X and 20X)
 - **Downtown TC:** Cherrlots (10X)
 - **Memorial TC:** Cherrlots (80X), POINT, Greyhound

SERVICE HOURS

- **Near-term (1-3 years):**
 - Weekday: 8 AM – 6 PM
 - Saturday: 9 AM – 5 PM
 - Sunday: 9 AM – 3 PM
- **Mid- and long-term:**
 - Weekday: 8 AM – 8 PM
 - Saturday: 9 AM – 6 PM
 - Sunday: 9 AM – 6 PM

REQUENCY

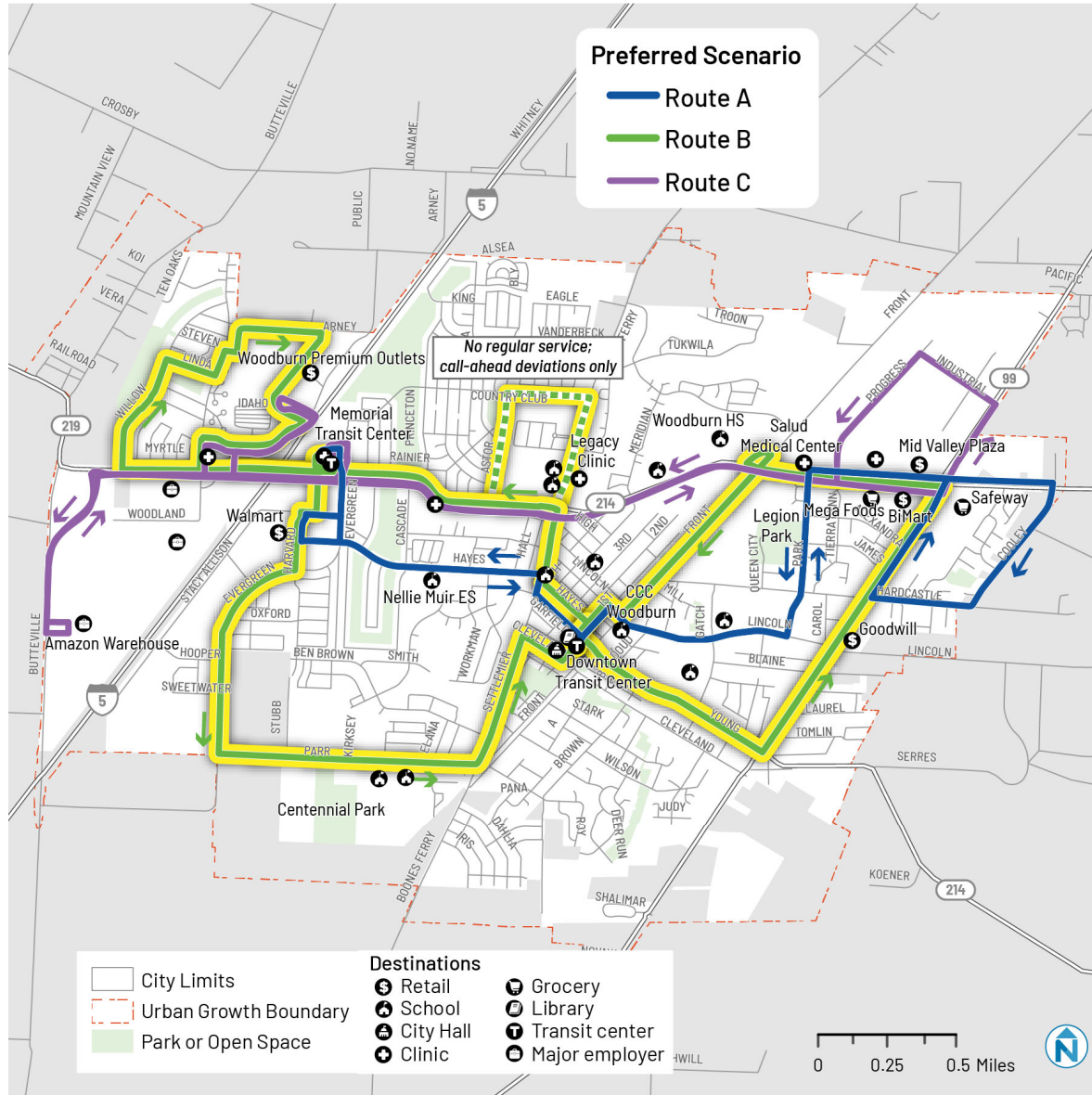
- Near-term: Hourly
- Mid- and long-term: 30 minutes

REQUIRED VEHICLES

- Near-term: 1
- Mid- and long-term: 2

ROUTE B – LOCAL

Figure 60 Route B – Local



Service Characteristics

Route B is a loop route that serves all major destinations, including the Outlet Mall, as well as many residential neighborhoods and areas of new development in southwest and northwest Woodburn, including the 300-unit Woodland Crossing Apartments.

- **Major Activity Centers Served:** Safeway, Bi-Mart, Mega Foods, Mid Valley Plaza, Legion Park, Centennial Park, Downtown Woodburn, Walmart, Memorial Transit Center, Woodburn Premium Outlets
- **Regional Connections Served**
 - **Bi-Mart:** CAT (99x) and Cherriots (10X and 20X)
 - **Downtown TC:** Cherriots (10X)
 - **Memorial TC:** Cherriots (80X), POINT, Greyhound

SERVICE HOURS

- **Near-term (1-3 years):**
 - Weekday: 8 AM – 6 PM
 - Saturday: 9 AM – 5 PM
 - Sunday: 9 AM – 3 PM
- **Mid- and long-term:**
 - Weekday: 8 AM – 8 PM
 - Saturday: 9 AM – 6 PM
 - Sunday: 9 AM – 6 PM

FREQUENCY

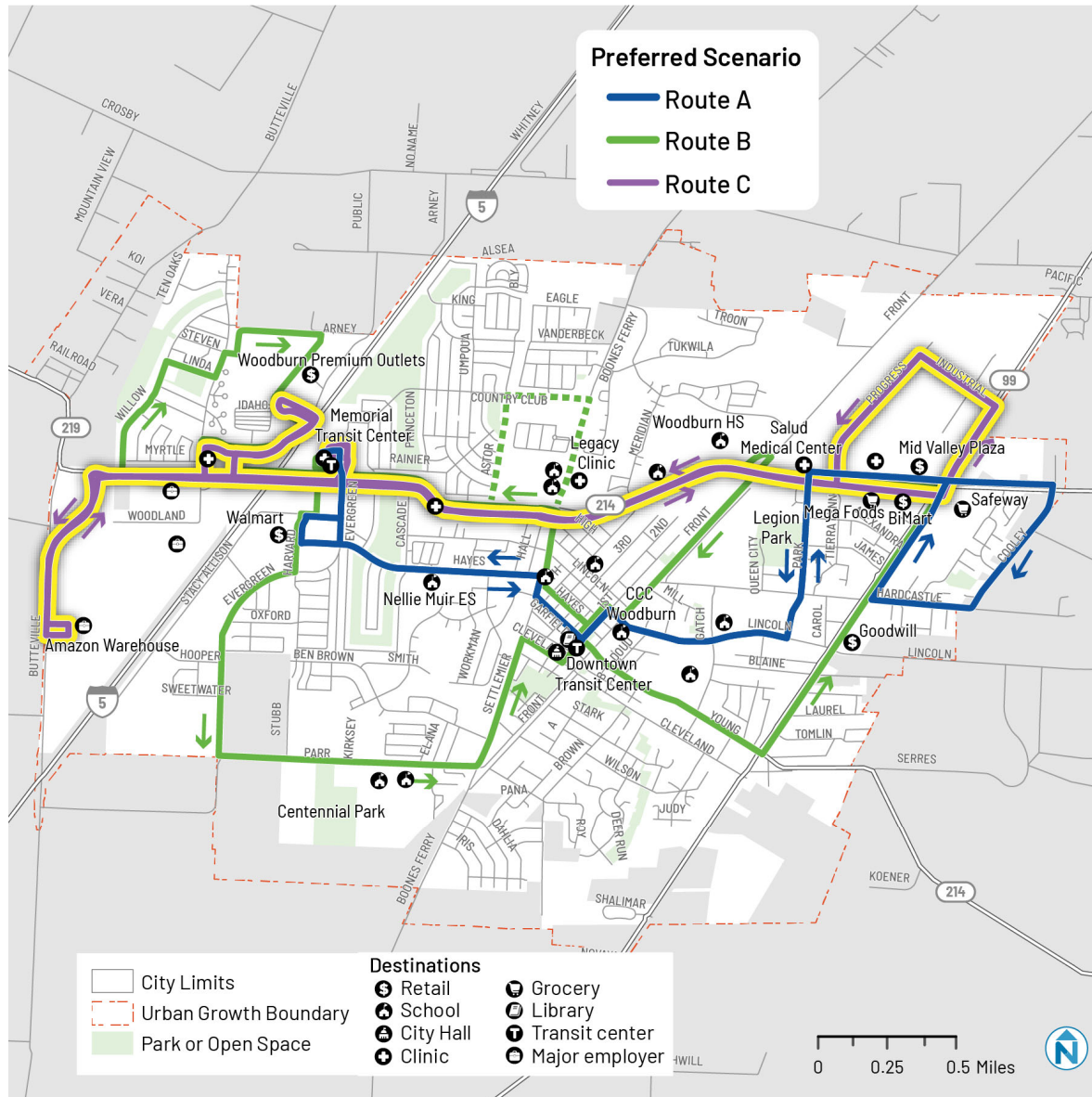
- Near-term: Hourly
- Mid- and long-term: 30 minutes

REQUIRED VEHICLES

- Near-term: 1
- Mid- and long-term: 2

ROUTE C – HWY 214 EXPRESS

Figure 61 Route C – Hwy 214 Express



Service Characteristics

Route C is a bidirectional route that serves the Outlet Mall and key shopping and medical destinations along Highway 214. It is anchored by major employment areas at both the east end (industrial areas along Progress Way and Industrial Ave) and west end (Do it Best, Winco, and Amazon).

Initially this route is recommended to be operated as a pilot for approximately 6-12 months. It should be paired with extensive outreach to employers to match trip times with shift times and timed connections to regional services including Cherriots routes 80X, 20X, and 10X, and CAT Route 99X.

- **Major Activity Centers Served:** Bi-Mart, Mega Foods, Mid Valley Plaza, Memorial Transit Center, Woodburn Premium Outlets, Nuevo Amanecer
- **Regional Connections Served**
 - **Bi-Mart:** CAT (99X) and Cherriots (10X and 20X)
 - **Memorial TC:** Cherriots (80X), POINT, Greyhound

SERVICE HOURS AND FREQUENCY

- 2 trips in early morning
- 4 trips midday
- 2 trips in the evening

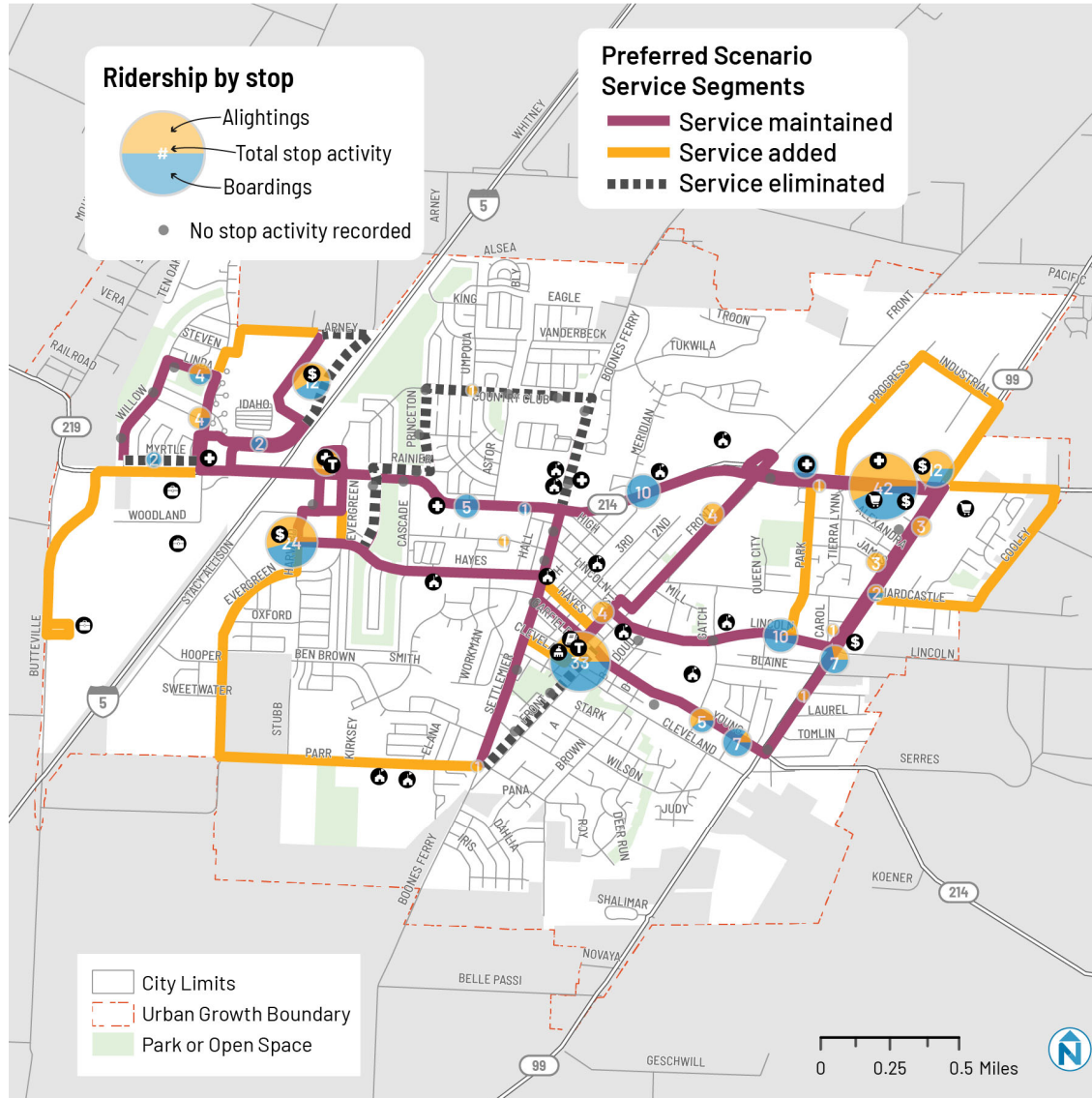
Trip times should be planned according to findings from employer outreach, as mentioned above.

REQUIRED VEHICLES

- Near-term and long-term: 1

SERVICE ALIGNMENT CHANGES

Figure 62 Preferred Scenario Service Segments



Proposed service patterns along street segments are shown at left in Figure 62, along with existing ridership by stop to show how the proposed service aligns with current travel patterns (note that the lines are not distinguished by proposed routes).

Service is added to areas of high potential new ridership:

- To areas of new development along Evergreen Rd, Parr Rd, Highway 211 east of Highway 99, and near the Outlet Mall; and to areas of high employment density in west and northeast Woodburn along Butteville Rd, Progress Way, and Industrial Ave.
- Along Park Ave past Legion Park.

Service is eliminated through areas of low ridership and to improve the directness of routes:

- Along Myrtle St in west Woodburn. Service is shifted to Highway 214 to improve speed and route legibility.
- Through the Country Club area. Portions of Boones Ferry Rd and Country Club Rd could be served on a call-ahead/as-needed basis.
- Along south Front St. Service is maintained to Settlemier Park and the Aquatic Center along Settlemier Ave and added on nearby Cleveland St.
- Routing through the Outlet Mall area is adjusted to avoid occasional congestion along Arney Rd.

BUS STOP CHANGES

Figure 63 Preferred Service Plan Bus Stop Changes

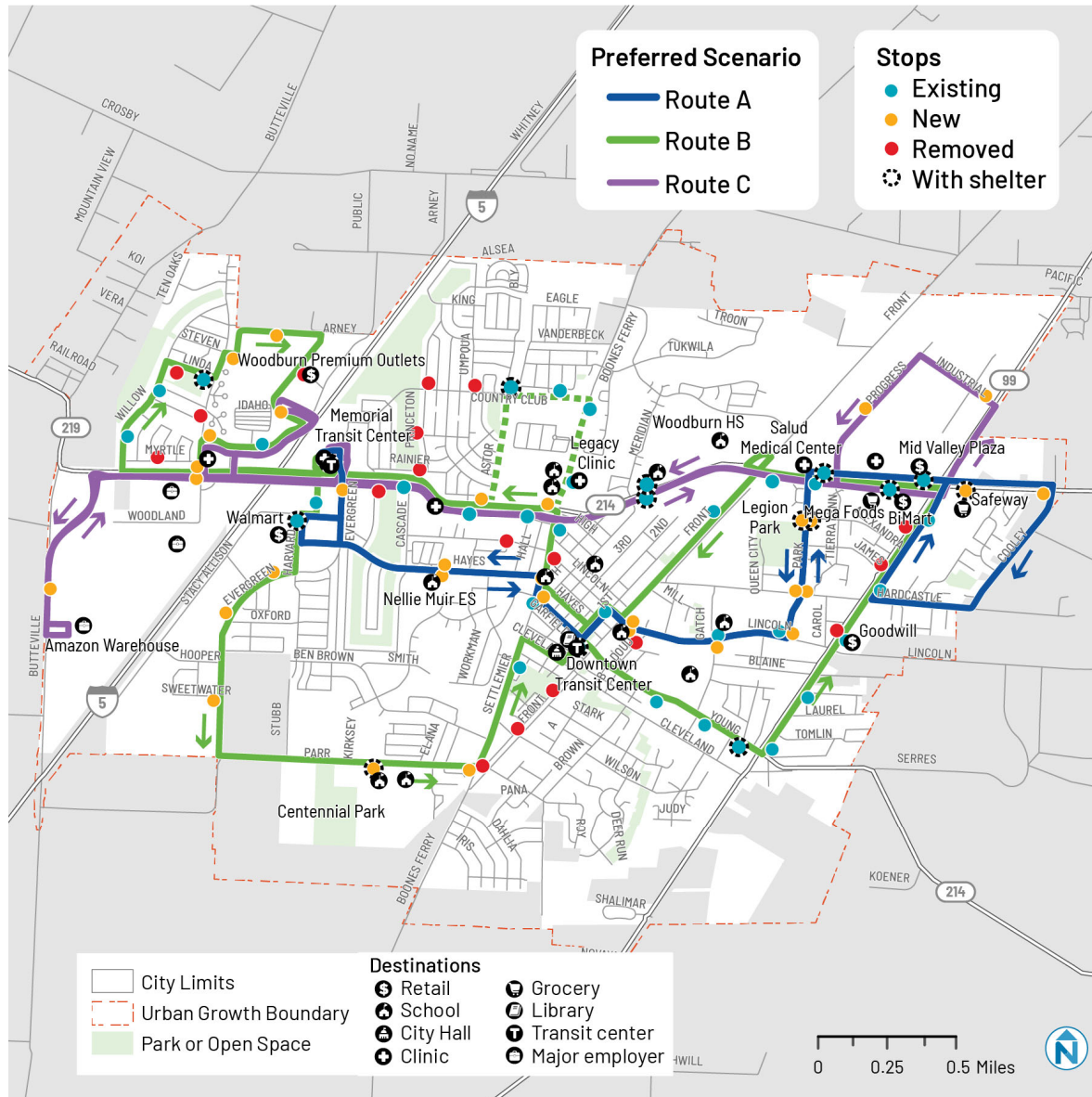


Figure 63 shows all existing, new, and removed bus stops that correspond to the Preferred Service Plan. New stops are required in areas where service is added and stops where service is eliminated would need to be removed. The following is a summary of where stops are added or removed.

- 33 existing stops (teal) are maintained. All of the existing stops with a shelter are maintained.
- 18 stops (red) are removed. None of the stops recommended for removal has a shelter.
- 31 new stops (orange) are added. Most stops would just have a sign pole and concrete pad.

Four new stops would include shelters in key locations:

- Centennial Park / Valor MS (south side of Parr Road)
- Legion Park (both sides of the street)
- Safeway (south side of Molalla Road/Highway 214)

It is important to note that all new stop locations presented on this map are for planning purposes only and are subject to change. Specific locations will be determined by WTS staff.

7 MARKETING REVIEW AND CONSIDERATIONS

Marketing information is the primary way to communicate available transit services to the public. Promotional materials, activities, and special events are secondary to the marketing information and can boost ridership and awareness of the transit system. The means of promoting transit service can also heighten the level of interest and excitement about existing service as well as future service changes. This chapter reviews existing marketing materials and tools provided by WTS and provides considerations for improvements. The goal of this review is to ensure that existing and future riders have the appropriate tools to understand the services available and ultimately to increase transit usage in Woodburn.

WTS FIXED-ROUTE TRANSIT BROCHURE

WTS offers two brochures for the fixed-route services – one for the “Fixed Route” and one for the “Express Loop.” Both brochures are available on the City of Woodburn website as well as on buses, at the WTS maintenance and operations facility at 202 Young Street, and other locations throughout the city (e.g., Library and City Hall).

Both brochures are double-sided. One side provides basic information about the existing route, including hours of operation, the website address, the Oregon Relay number (711), information about the Dial-A-Ride, and the main customer service phone number. Information is prominently provided in English and Spanish, and a QR code is provided with a link to the website.

The other side of the brochure provides a map with route alignments highlighted in blue and orange with directional arrows. Major locations are also included, such as Walmart, the Downtown Transit Center, Bi-Mart, etc.

While the information in the brochures is relatively succinct and clear, there are several inconsistencies with the brochures. First, the Fixed Route brochure is a lower-quality scan, which makes it somewhat difficult to read, whereas the Express Loop brochure is not a scan with clean text and graphics. Secondly, the Express Loop brochure is out of date (with an effective date in 2019) while the Fixed Route brochure is current. The Express Route brochure shows that there is still a fare, while the Fixed Route brochure correctly says there is no fare. Thirdly, the maps are somewhat confusing. The Express Loop map is clear and shows the correct alignment of the route. However, the Fixed Route map doesn’t show the correct alignment, and at first glance appears the same as the Express Loop. The Fixed Route map also doesn’t indicate that there is service on the west

Bus Schedule
Monday through Friday
9:00 a.m. to 6:00 p.m.

FARES
Children five (5) and under ride free
Exact Change Only
Single Ride \$1.25
All Day Pass \$3.00
4 Ride Pass \$5.00
20 Ride Pass \$18.75

Free Medical Transportation
Free transportation to medical appointments in all areas between Portland and Salem is available for elderly Woodburn residents and those with disabilities. Donations are accepted.

Horario del Autobús
Lunes a Viernes
9:00 a.m. a 6:00 p.m.

TARIFAS
Niños de 5 años o menos viajan gratis
Sólo Cambio Exacto
Viaje sencillo \$1.25
Pase de todo el día \$3.00
Pase de 4 viajes \$5.00
Pase de 20 viajes \$18.75

Transporte Médico Gratis
Transportación gratis a todas las citas médicas en todas las áreas entre Portland y Salem para los adultos mayores que viven en Woodburn y personas con discapacidad. Se aceptan donaciones.

Dial-A-Ride
The Dial-A-Ride program provides transportation for people with disabilities and the elderly living within Woodburn who are not able to utilize the fixed route bus.

The fully-accessible van operates Monday - Friday from 9:00 a.m. - 6:00 p.m. with a cost of \$5.00 per round trip.

Dial-A-Ride
El programa Dial-A-Ride ofrece transporte para las personas con discapacidades y los adultos mayores que no pueden utilizar el servicio fijo de transporte.

La camioneta completamente equipada opera de Lunes a Viernes de 9:00 a.m. a 6:00 p.m. con un costo de \$5.00 el viaje redondo.



EXPRESS LOOP

503-982-5233
Oregon Relay 711
woodburntransit.org
Date Effective 7/1/19

Bus Schedule
Monday through Friday
9:00 a.m. to 6:00 p.m.

This material is available in alternative formats upon request.
Este material está disponible en Formatos alternativos, pregunte en la oficina.

Horario del Autobús
Lunes a Viernes
9:00 a.m. to 6:00 p.m.

Downtown Transit Center	Walmart	Wo Memorial Transit Center	BiMart	Downtown Transit Center	Goodwill	Saleway	Plaza	Wo Memorial Transit Center	Walmart	Downtown Transit Center
1-A	2	3	4	5	6	7	8	9	10	11
9:00	9:07	9:10	9:17	9:30	9:35	9:37	9:40	9:45	9:50	10:00
10:00	10:07	10:10	10:17	10:30	10:35	10:37	10:40	10:45	10:50	11:00
11:00	11:07	11:10	11:17	11:30	11:35	11:37	11:40	11:45	11:50	12:00
12:00	12:07	12:10	12:17	12:30	12:35	12:37	12:40	12:45	12:50	1:00
1:00	1:07	1:10	1:17	1:30	1:35	1:37	1:40	1:45	1:50	2:00
2:00	2:07	2:10	2:17	2:30	2:35	2:37	2:40	2:45	2:50	3:00
3:00	3:07	3:10	3:17	3:30	3:35	3:37	3:40	3:45	3:50	4:00
4:00	4:07	4:10	4:17	4:30	4:35	4:37	4:40	4:45	4:50	5:00
5:00	5:07	5:10	5:17	5:30	5:35	5:37	5:40	5:45	5:50	6:00

Requests for reasonable accommodation may be made either orally or in writing. The request can be submitted in any written format. Alternative means of filing a request, such as personal interviews, phone calls, or taped requests, will be made available for persons with disabilities if unable to communicate their request in writing or upon request. Las solicitudes razonables de accesibilidad pueden hacerse oralmente o por escrito. La solicitud se puede presentar en cualquier formato escrito. Otras medidas alternativas para presentar una solicitud, tales como entrevistas personales, llamadas telefónicas o solicitudes grabadas, estarán disponibles para personas con discapacidades, si no pueden comunicarse su solicitud por escrito o cuando se solicita.

side of I-5. And finally, it is not clear from just looking at the brochures what service operates on weekdays and weekends. The Fixed Route brochure is accurate in describing the hours of operation, but the Express Loop brochure indicates that service only operates on weekdays and not on weekend days.

Based on this review, as well as stakeholder input received early in the project, several improvements to the fixed route brochures are provided for consideration:

- **Combine both routes into a single brochure.** The goal here is to simplify the service and provide passengers with options for how they travel.
- **Consider a larger brochure size.** With three routes included in the Preferred Service Plan (see Chapter 6), the size of the brochure might need to be larger to accommodate all information on a single brochure, which is typical for transit brochures. This would provide room for additional information, such as more information about the Dial-A-Ride and medical transportation services, mobile information, etc.
- **Include both routes on the same map** and make them different colors so that it's clear where each route operates. As is done with the existing maps, include directional arrows so that passengers understand which direction the route is operating. A callout map could also be included for the downtown area.
- **Identify weekday versus weekend day hours of service on the schedule.** This could be accomplished with highlighting or bolding of times on the schedule, along with a footnote.
- **Label the timepoints on the map.** Connecting the times listed in the schedule to that location on the map would make it easier for passengers to read the schedule and understand how the route operates. This could be accomplished with a numbering or other symbology that connects the timepoints on the map to the timepoints on the schedule.
- **Include basic information about regional connections.** While it will be difficult to keep information current on connecting schedules, WTS should consider noting on the map and schedules that connections to regional services can be made at specific locations. At a minimum, this should include Cherriots Regional routes (10X, 20X and 80X) as well as Canby's Route 99X. Other regional services could also be noted (along with contact information), including POINT, Greyhound, and Fronteras del Norte.
- **Update schedules at least once annually.** To account for any route changes and to ensure all information is current, consider updating the brochure at least once per year, or when a service change is implemented.

DIAL-A-RIDE AND OUT OF TOWN MEDICAL TRANSPORTATION BROCHURE

WTS provides a basic brochure that provides information about the Dial-A-Ride program, including eligibility, hours of operation, policies related booking trips, and guidelines for using the service. Also included on the brochure is a description of WTS' policy related to accommodations for using the service, what to do in case plans change, and the cost of the program (which is out of date since the service is fareless).

A separate section on the brochure also includes information about the Out of Town Transportation program, which highlights how the program is staffed with volunteer drivers and supported by WTS staff.


Several suggestions for clarifying the information on the brochure include:

- Update fare information throughout the brochure to clarify that Dial-A-Ride is fareless.
- Clarify under the "Appointments/Office Hours" section how far in advance a trip can be booked in advance (e.g., 10 days or 2 weeks).

About the Dial-A-Ride Program
Eligibility
To be eligible for the Dial-A-Ride program, residents must live within the City limits of Woodburn and be at least 55 years of age or a person with a disability (as defined by the ADA) who is unable to use the fixed route transit service. If you qualify, you will be eligible to use Dial-A-Ride for door-to-door transportation to any destination in Woodburn.
Contact the Transportation office at 503-982-7433 to be placed on temporary eligibility status while your physician completes and returns the required form.
Appointments/Office Hours
Appointments are available between 7:00 AM - 7:00 Friday, Saturday 9 - 5 PM, Sunday 9 AM - 3PM. Please schedule your trip as early as possible (the day before). Unfortunately, same day service is not available. For more information call 503-982-7433 (RIDE).
Trip Guidelines
Passengers are permitted to stop at a maximum of two (2) locations. For example a passenger can travel to a doctor's appointment followed by the pharmacy, or to lunch and then the grocery store. Passengers choose location(s) and we will make sure you get there and home again.
Anyone may accompany you on your trip, however they are required to pay the regular fare. If you require a Personal Care Attendant (PCA), they ride for free. A service animal can accompany you on your trip. Companion pets need to be in an approved pet carrier.
Remember
Please be ready 15 minutes before your scheduled pickup time. We have many passengers to transport, so be aware that the actual pick-up time for your return trip home, could be up to 30 minutes later than scheduled.
Dial-A-Ride does not operate on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day or Christmas Day.

Cost
The cost for Dial-A-Ride service is only \$5.00 per roundtrip. Six-trip punch cards are available for only \$25.
Change of Plans
If your plans change, please contact the office as soon as possible, but no later than 8:00 AM the day of the appointment, so that the trip can be canceled and the driver notified.
Accommodations
Requests for reasonable accommodation may be made either orally or in writing. The request can be submitted in any written format. Alternative means of filing a request, such as personal interviews, phone calls, or taped requests, will be made available for persons with disabilities if unable to communicate their request in writing or upon request.

Woodburn Out of Town Medical Transportation
The Program
Woodburn Volunteer Medical Transportation is a unique service for older adults and eligible disabled residents of the Woodburn community that provides transportation to medical appointments outside of Woodburn.
Volunteer Drivers
Volunteer drivers take you to your appointment wait for you, and return you to your home. Medical Volunteer Transportation is staffed with a number of volunteers who donate their time and personal vehicle. There is not charge for the service and drivers are not permitted to accept tips.

Dial-A-Ride

For Local Medical, Shopping and Business Appointments
202 Young street
Woodburn, OR 97071
503-982-7433
OREGON RELAY 711
This material is available in alternative formats upon request.
History
The concept of Volunteer Medical Transportation began in 1972, in the homes of a few concerned Woodburn residents. They began making appointments for medical transportation for elderly and disabled individuals, relying on friends and volunteers to do the driving. In time, the program grew so popular that the demand for service exceeded the number of available drivers.
The program relied solely on donations to keep it in operation, but it thrived. In 1975, the City of Woodburn began sponsoring the program and supported it with scheduling personnel, office space and other materials. Volunteer drivers are now provided by Dial-A-Ride.

WTS WOODBURN Transit System

ROUTE NAMING AND NUMBERING

Most transit systems utilize either letters or numbers (or both) to organize transit systems into identifiable routes or services. Route identification systems can also be named to be associated with corridors, neighborhoods, or major destinations that they serve.

WTS's route naming system currently uses the name of the route – either Fixed Route or Express Loop. While this naming system is simple and easy to remember, with three routes included in the Preferred Service Plan, it is recommended to start using a more organized system to distinguish between the three routes.

A naming convention is recommended that would identify each route by a letter (A, B, C, etc.) followed by a word or name that describes the route. Examples of this naming convention might be something like "Route A – Main Street" or "Route B – Broadway." Because the routes in the Preferred Service Plan will serve more than a single corridor, another approach would be to distinguish the routes by the type of service they offer,

such as “Direct” or “Local.” Assuming new vehicles have electronic headsigns, it is also recommended that each route indicate the destination at the end of the route (such as “To Walmart / Memorial TC”). Suggestions for how this naming convention could look are provided below.



LOOK OF BUSES

All WTS fixed-route and Dial-A-Ride vehicles are generally attractive and clean. The newer vehicles used on the fixed routes are designed with the blue, white, and green color scheme – whereas the older vehicles and the other Dial-A-Ride and service vehicles use a simple blue and white color scheme. All vehicles are labeled as either Woodburn Transit or Woodburn Transit System. The newer vehicles (and Blue/White/Green color scheme) also include the WTS logo. The newer buses have electronic information signs at the front of the vehicle and can rotate the route number and other information. Most new transit vehicles will have a similar capability – especially larger vehicles used for fixed-route service. WTS does not have advertising on their vehicles.

Over the course of the plan as new vehicles are acquired and older vehicles are retired, the following considerations are offered for all WTS vehicles:

- Continue using the blue/white/green coloring scheme on all buses.
- Continue using the WTS logo and be consistent with saying “Woodburn Transit System (WTS)” instead of just “Woodburn Transit.” The logo and/or name should be prominently located on the side and rear of all vehicles.

- Continue including the website (woodburntransit.org) and phone number, at least on the side and rear of all vehicles.
- As a moving billboard for the transit services offered by WTS, consider branding the Dial-A-Ride and fixed-route vehicles differently to distinguish between these two services.
- Use the same font and style for all buses to ensure brand consistency.
- If new low- or zero-emission vehicles are added to the fleet, prominently display and advertise this on the side of the bus.

WEBSITE

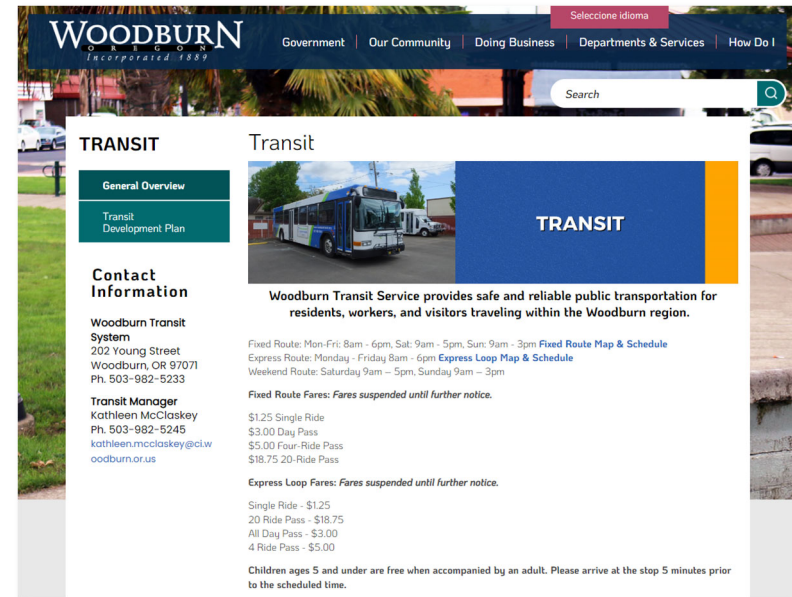
Woodburn Transit System provides a basic webpage that is embedded within the City of Woodburn’s website (www.woodburn-or.gov/transit). The webpage is simple and easy to understand, and users can easily get information about fixed-route, Dial-A-Ride, and regional providers that connect to WTS. The webpage can be translated into multiple languages with Google Translate.

When searching for “transit in Woodburn” from multiple browsers, the Woodburn Transit System webpage is the first to be listed. Other regional transit providers also show up in the search, including SMART (Wilsonville), Cherriots, and Greyhound.

The webpage is organized first by fixed-route services with links to the Fixed Route and Express Loop brochures discussed above. There are also links to regional providers and ride sharing programs, as well as links to get more information about the Dial-A-Ride program, taxi information, and the City’s ADA accessibility and Title VI programs. While fare information is presented on the main webpage, it is noted that fares are suspended until further notice. A separate webpage for the Transit Development Plan is accessible from the WTS webpage. Contact information is also clearly listed on the page.

There are several elements of the webpage that WTS should consider for ensuring consistency of the brand and making it easier for people to access information:

- Brand consistency (everything should be Woodburn Transit System)
- Incorporate the WTS logo – it is currently not used anywhere on the page
- Create separate tabs for fixed-route and Dial-A-Ride/medical transportation services
- Remove any mention of fares, and instead feature a note celebrating that fares are free



- Include photography for new buses
- Update the placeholder on Dial-A-Ride page under “Contact”
- Include WTS highlights in City of Woodburn e-blasts

SOCIAL MEDIA

The City of Woodburn has a robust social media presence, including Facebook, Twitter and YouTube. The City also sends out a weekly E-Blast in both English and Spanish that is organized by different city functions and offers announcements related to local events, job openings, and community meetings. All social media channels were utilized to notify the community about surveys and events associated with the TDP.



As the Preferred Service Plan is implemented, several considerations are offered for notifying the community through the existing social media channels.

- Review peer social media accounts for campaign ideas
- Post ideas: new bus unveiling, schedule alerts, taking bus to Parks & Rec community event, TDP news
- Partner with City of Woodburn social media accounts including Woodburn Parks and Recreation to cross-promote

8 IMPLEMENTATION CONSIDERATIONS

This chapter provides considerations for how to implement the Preferred Service Plan presented in Chapter 6. Figure 64 below summarizes the individual changes and prioritizes specific groups of changes for phased implementation. A description of general implementation considerations is provided below the summary table.

Figure 64 Implementation Schedule

Phase	Action(s)	Details	Estimated Additional Fixed-Route Operating Hours	Estimated Additional Dial-A-Ride Operating Hours	Additional Fixed Route Vehicles Required
Initial Implementation					
Years 1-3	<ul style="list-style-type: none"> Restructure fixed route services Add new direct fixed route 	<ul style="list-style-type: none"> Change “express route” to Route A and change “fixed route” to Route B 	250	-	No change
		<ul style="list-style-type: none"> Implement new Route C connecting major destinations/employment centers. 	2,000	500	
Expansion Phases					
Years 3-7	<ul style="list-style-type: none"> Increase frequency 	<ul style="list-style-type: none"> Expand frequency of Route A from every hour to every 30 minutes (weekday only) 	2,800	-	
		<ul style="list-style-type: none"> Expand frequency of Route B from every hour to every 30 minutes (weekday only) 	2,500	-	
Years 7+	<ul style="list-style-type: none"> Extend service hours 	<ul style="list-style-type: none"> Extend service hours of Route A to 8:00 pm (weekdays), 6:00 pm (Saturday), and 5:00 pm (Sunday) 	1,100	680	No change
		<ul style="list-style-type: none"> Extend service hours of Route B to 8:00 pm (weekdays), 6:00 pm (Saturday), and 5:00 pm (Sunday) 	1,100		
		<ul style="list-style-type: none"> Extend service hours of Route C to 8:00 am – 5:00 pm (weekdays) 	500		

INITIAL IMPLEMENTATION

The implementation schedule provided above is broken into “Initial Implementation” in years 1-3 and “Expansion Phases” for later years. The initial implementation phase would restructure the two existing fixed routes into Route A and Route B and add the new Route C. To maintain service levels throughout the city and ensure connectivity to major destinations, these changes are intended to be implemented as a package at the same time. It is important to emphasize that these initial changes are only proposed once the following developments and street extensions have been completed:

- **Evergreen Road extension.** As part of the continued development in southwest Woodburn, Evergreen Road will be extended to connect to Parr Road. The existing section of Evergreen Road is wider and more suitable for transit operations than the residential streets through the Smith Creek development and is therefore a preferred alignment. The extension of Evergreen Road also provides better access to Centennial Park and Valor Middle School on Parr Road. As such, Route B should not be implemented until this new connection is complete.
- **Amazon Distribution Center/WinCo Foods/Do it Best.** When complete, the new Route C would provide service to existing and new jobs west of I-5 along Woodland Avenue and Butteville Road. As the new Amazon Distribution Center is completed, the exact alignment of this new route will need to be decided, including how the bus would turn around.
- **Woodburn Villas.** This new multifamily housing development near the Woodburn Premium Outlets will also include a new street connection between Arney Road and Woodland Avenue. Once this is complete, it is assumed that Route B would be modified in west Woodburn to access this new residential development as well as the Outlets. As such, this new street connection should be complete before the modified Route B is implemented.

EXPANSION PHASES

The Expansion Phases of the plan represent several service improvements that could be implemented as priorities and operating conditions evolve. It is recommended that the frequency improvements be implemented before extending service hours, as described below.

- **Frequency Improvements.** In the mid-term (years 3-7 of the plan), Routes A and B should be improved to operate every 30 minutes (as opposed to every hour) on weekdays only. As the more direct route that serves the major destinations and is expected to generate more ridership, service frequency on Route A should be prioritized over Route B, which provides local service and is anticipated to generate less ridership. As a general rule of thumb, transit riders want service to be as frequent as possible, thus improving their travel options. More frequent service is especially important for shorter trips, which are common in Woodburn. However, frequency requires additional resources and should be implemented only as demand warrants. As such, WTS should monitor demand over the first several years of the plan to assess whether frequency improvements are justified (see Monitoring section below for guidelines on when to consider frequency improvements).

- **Service Hours Improvements.** While service later in the evening typically generates fewer transit riders than during the middle of the day, later evening service also makes using transit more attractive for more types of trips (especially regular work trips). But like frequency improvements, it also requires additional resources and should be based on demand. Therefore, providing service later in the evening (both on weekdays as well as on weekend days) is recommended later in the plan (beyond year 7) and should be based on ridership growth and rider demand for later evening service.

PARATRANSIT/ADA

The ADA (Americans with Disabilities Act) requires that paratransit be provided during the same service hours as fixed-route services. As noted in Chapter 6, the Preferred Service Plan recommends several service changes that would require the Dial-A-Ride to extend the hours of operation to match the expanded fixed route service hours:

- **Route C.** This new route is anticipated to operate at least one hour earlier and one hour later on weekdays. As such, it is estimated that annually this would require an increase of 500 vehicle revenue hours (VRH) for Dial-A-Ride annually.
- **Routes A and B extended service hours.** Similarly, as hours are extended for the other fixed routes later in the plan, Dial-A-Ride hours would also increase (both on weekdays as well as weekend days). It is estimated that this would require approximately 680 additional vehicle revenue hours (VRH) for Dial-A-Ride annually.

REGIONAL TRANSIT COORDINATION

As noted throughout the development of the plan, it is critical for the future transit service changes to connect to the regional transit providers. The following summarizes the considerations at the three locations where regional transit connections can be made:

- **Memorial Transit Center.** All three WTS routes in the Preferred Service Plan would provide service to the Memorial Transit Center. Several regional services connect here, including the POINT bus connecting Eugene and Portland, Cherriots route 80X, and Greyhound. All of these regional services arrive and depart at various times throughout the day, as listed below:
 - POINT: Northbound (10:20 AM, 1:50 PM, 3:15 PM, 8:10 PM), Southbound (12:50 PM, 6:00 PM, 10:40 PM)
 - Cherriots Route 80X: Northbound (6:52 AM, 11:30 AM, 4:28 PM, 6:28 PM), Southbound (7:46 AM, 12:21 PM, 5:21 PM, 7:28 PM)
 - Greyhound: Northbound (9:10 PM), Southbound (12:20 PM)
- **Downtown Transit Center.** Only Routes A and B in the Preferred Service Plan would serve the Downtown Transit Center. Connections to two regional routes or services are available at the Downtown Transit Center:
 - Cherriots Route 10X: Northbound (6:41 AM, 8:17 AM, 10:31 AM, 1:16 PM, 2:47 PM, 5:17 PM, 5:45 PM, 8:11 PM), Southbound (6:33 AM, 7:06 AM, 8:50 AM, 11:35 AM, 1:07 PM, 3:58 PM, 5:42 PM, 6:38 PM)

- Fronteras del Norte (near Downtown Transit Center). Northbound (2:30 PM) and Southbound (9:30 AM).
- **Bi-Mart/Mega Foods.** All three Preferred Service Plan routes will serve the Bi-Mart/Mega Foods stop. Three regional routes will connect to these routes at this location, and two of them layover here for a short period of time.
 - Cherriots Route 20X: Northbound (8:35 AM, 11:05 AM, 12:25 PM, 3:46 PM, 6:44 PM), Southbound (6:13 AM, 8:42 AM, 12:33 PM, 4:03 PM, 7:10 PM).
 - Canby Transit Route 99X. This route operates hourly on weekdays and Saturday and is scheduled to have a 10-minute layover in the Bi-Mart parking lot. The first weekday trip arrives at 6:22 AM and the last weekday trip departs at 7:32 PM. The first Saturday trip arrives at 9:22 AM and the last departs at 5:32 PM.

Because the three WTS routes operate on a regular schedule (every hour initially and every 30 minutes longer term), it will be difficult to offer timed connections to all Cherriots, POINT, Greyhound and Fronteras del Norte trips. However, the Route C schedule should be prioritized to connect to as many of the Route 80X trips (at the Memorial Transit Center) and Cherriots Route 10X trips (at Bi-Mart) as possible. And because the Canby Route 99X operates a regular schedule (every hour), timed connections to this route at Bi-Mart should also be prioritized on at least Route C, but also on either Route A or Route B.

SERVICE MONITORING

An important consideration associated with providing transit services is when to make changes based on how that service is performing. For this plan, it is recommended that the following three performance metrics be tracked and that changes be considered when falling below, or exceeding, the recommended benchmarks.

- **Productivity.** This refers to the number of riders each type of service can typically carry per vehicle service hour.
- **On-Time Performance.** This measures how reliably the transit service is arriving or departing each scheduled stop (or within a certain pickup window). For fixed route services, 5 minutes is considered “late.” Reliability is important not only for travel on individual routes, but to ensure timed connections to other local and regional services.
- **Capacity.** This is a measure of rider comfort as well as customer satisfaction, schedule reliability and operational safety. This measure tracks what percent of trips are either at full capacity (or has standees) for part or all of the trip.

Figure 65 below provides a summary of service monitoring metrics for Dial-A-Ride and fixed routes, along with recommended actions if exceeding.

Figure 65 Service Performance Metrics and Benchmarks

Metric	Service Type	Benchmark	Recommended Action(s)
Productivity (Passengers per Vehicle Revenue Hour)	Dial-A-Ride	2-4	Goal of 2.0. Consider extending fixed-route service to high ridership areas when over 4 passengers per hour threshold.
	Fixed Route	4-10	Consider fixed route frequency improvements when productivity approaches or exceeds 10 passengers per VRH. Maintain service frequency if consistently at or below minimum benchmark.
On-Time Performance	Dial-A-Ride	80-95% of trips within a 30-minute scheduled window	Consider encouraging eligible passengers to use fixed-route service when this benchmark is no longer possible to meet within a 30-minute scheduled trip window.
	Fixed Route	85%	Fixed-route services operate on a schedule, and thus it is important to maintain at least 85% of all trips arriving no later than 5 minutes late. This measure assumes no trips should leave a stop early (before the scheduled time).
Capacity	Dial-A-Ride	All ADA trip requests; most general public trip requests	ADA prohibits capacity constraints and requires paratransit services to meet all expected demands for ADA-eligible trip requests. Services for the general public do not have this requirement, but consider transitioning these trips to fixed-route service if general public trip requests are being denied due to capacity constraints. No standees are allowed on Dial-A-Ride.
	Fixed Route	100% of maximum seated capacity during peak periods	Consider increased service frequency (or supplementing vehicles at specific, isolated high-load trip times) if passenger loads are consistently over benchmark.

9 FINANCIAL PLAN

This chapter presents a financial plan for the short-, mid-, and long-term periods of the plan. This includes both the estimated operating and capital cost increases associated with the plan.

OPERATING PLAN

Existing Operating Funding Sources

Figure 66 below provides a summary of existing operating expenditures and revenues for Woodburn Transit System between FY 2019/20 and FY 2022/23. Revenues for WTS are from a variety of sources, including federal, state, and local assistance. The separate federal funding sources are listed below, whereas the State Funds row represents STF formula funds and Statewide Transit Improvement Funds (STIF) combined. It should be noted that fares were suspended in March 2020 (and remain suspended), so the fare revenues shown below in FY 2019/20 are only for a portion of that fiscal year. It should also be noted that FY 2022/23 figures are estimated based on July 2022 through March 2023 figures only.

Figure 66 Existing Operating Expenditures and Revenues (FY 2019/20 – FY 2022/23)

	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23 (through March only)	FY 2022/23 (estimated annual)
Operating Expenditures					
Labor	\$544,297	\$507,581	\$548,491	\$477,508	\$636,678
Supplies & Services	\$229,521	\$186,465	\$210,485	\$299,645	\$399,527
Capital Outlay	\$152,455	\$27,327	\$0	\$77,967	\$103,956
Total Expenditures	\$926,273	\$721,373	\$758,976	\$855,120	\$1,140,161
Revenues					
Federal Assistance	\$242,455	\$216,365	\$36,234	\$438,865	\$585,153
5310 Discretionary Ops (MM)	\$45,125	\$41,353	\$8,294	\$76,332	\$101,776
5311 Formula Operation	\$139,996	\$139,996	\$20,834	\$332,430	\$443,240
5310 Veh Prev Maint (PM)	\$57,334	\$35,016	\$7,106	\$30,103	\$40,137
Federal Assistance (CARES)	\$55,915	\$216,611	\$99,909	\$0	\$0
State Funds	\$530,562	\$419,970	\$505,714	\$371,371	\$495,161
Local Funds	\$116,000	\$150,000	\$150,000	\$112,500	\$150,000
Fare Revenue	\$26,798	\$0	\$0	\$0	\$0
Misc. Revenue	\$9,464	\$24,875	\$7,492	\$14,026	\$18,702
Total Revenue	\$981,193	\$1,027,820	\$799,349	\$936,762	\$1,249,016

Source: City of Woodburn. Miscellaneous Revenue includes donations made to the Out-of-Town Medical Transportation Program.

Future Operating Funding Estimates

Figure 67 provides an estimate of service levels expressed as Vehicle Revenue Hours (VRH) for the various service changes presented in Chapters 6 and 8. Operating costs are estimated by multiplying the VRH estimates for fixed route and Dial-A-Ride by the estimated operating cost per VRH for both fixed route and Dial-A-Ride. The estimated cost per VRH is different for fixed route and Dial-A-Ride, and FY 2022/23 costs are used as they reflect the most current operating conditions. The estimated operating costs per VRH are then inflated between 3-5% over the course of the plan to account for cost variability and inflation. It should be noted that all figures are estimates only and intended as a guideline for future planning and budgeting purposes.

Figure 67 Financial Plan – Operating Costs (2023/24 to 2029/30)

Service Change	Current	Near-Term			Mid-Term			Long-Term	Notes
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30 +	
Existing Fixed Route VRH	6,400	6,400	6,400	6,400	6,400	6,400	6,400	6,400	
Restructure existing FR		255	255	255	255	255	255	255	
New Route C (pilot project)		2,040	2,040	2,040	2,040	2,040	2,040	2,040	
Increase frequency of Route A					2,805	2,805	2,805	2,805	
Increase frequency of Route B							2,550	2,550	
Extend service hours on Route A								1,130	1
Extend service hours on Route B								1,130	1
Extend service hours on Route C								510	1
Total Fixed Route VRH	6,400	8,695	8,695	8,695	11,500	11,500	14,050	16,820	
Existing Dial-A-Ride VRH	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	2
Dial-A-Ride service span increase		510	510	510	510	510	510	1,190	3
Total Dial-A-Ride VRH	6,000	6,510	6,510	6,510	6,510	6,510	6,510	7,190	
Fixed Route Op. Cost per VRH	\$122.03	\$128.14	\$133.26	\$137.26	\$141.38	\$145.62	\$149.99	\$154.49	4
Increase %		5%	4%	3%	3%	3%	3%	3%	
Dial-A-Ride Op. Cost per VRH	\$81.87	\$85.96	\$89.40	\$92.08	\$94.85	\$97.69	\$100.62	\$103.64	4
Increase %		5%	4%	3%	3%	3%	3%	3%	
Est. Operating Cost	\$1,272,000	\$1,674,000	\$1,741,000	\$1,793,000	\$2,243,000	\$2,311,000	\$2,762,000	\$3,344,000	

Notes:

- 1: Extends hours to 8:00 pm on weekdays, 6:00 pm on Saturday and 5:00 pm on Sunday
- 2: Estimated based on 2022 VRH and rounded up to account for additional Dial-A-Ride trips
- 3: Two (2) additional paratransit VRH per weekday estimated in 2023/24 and 2 additional VRH per weekday in 2029/30
- 4: Estimate based on actual operating expenses divided by vehicle revenue hours (July 2022 - March 2023). Operating expenses split between fixed route (60%) and Dial-A-Ride (40%)

CAPITAL PLAN

Estimated capital costs over the life of the planning horizon are summarized below in Figure 68, which summarizes the estimated costs associated with planned vehicle replacements as well as capital improvements associated with the service improvements. Capital improvements include vehicle expansion, new bus stops, and technology improvements. Details for each of these capital improvement categories are provided below.

Figure 68 Financial Plan – Capital Costs (FY 2022/23 – FY 2029/30)

Capital Improvement	Current	Near-Term			Mid-Term			Long-Term	Notes
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	
Paratransit vehicle replacement	\$80,000	\$360,000	\$82,000						1, 2
Fixed route vehicle replacement	\$340,000		\$480,000						1, 2
Fixed route vehicle expansion (Route C)		\$1,108,000							3
Electric vehicle chargers/infrastructure		\$321,000							4
Fixed route vehicle expansion (Routes A and B)					\$1,246,000		\$1,348,000		3
New basic bus stops		\$77,500							5
New enhanced bus stops		\$60,000		\$30,000		\$30,000		\$30,000	6
Annual Total	\$420,000	\$1,926,500	\$562,000	\$30,000	\$1,246,000	\$30,000	\$1,348,000	\$30,000	

Notes:

- 1: Estimated vehicle replacement costs based on figures from City of Woodburn. 2022/23 vehicle replacements already procured.
- 2: Includes one modified minivan and two Cutaway vans.
- 3: Estimated cost based on quote received by City of Woodburn. Future year estimates include a 20% contingency and an annual 4% cost increase.
- 4: Assumes new Level 3 chargers that can charge 3 vehicles (\$130,000) and infrastructure upgrades (\$191,000). Costs are based on vendor quotes and estimated infrastructure upgrade costs from PGE.
- 5: Assumes \$2,500 per basic bus stop. This includes the bus stop pole, signage, and new level concrete pad.
- 6: Assumes \$15,000 per enhanced bus stop. This includes design and construction of a new bus stop pad, new bus stop pole and signage, and new shelter with bench.

Vehicle Replacements

Several existing vehicles will be retired and replaced during the planning horizon of the plan, as summarized below.

- **Paratransit vehicle replacements.** One modified minivan would be replaced in FY 2022/23 (estimated at \$80,000) and a second modified minivan will be replaced in FY 2024/25 (estimated at \$82,000). Two Cutaway vans will be replaced in FY 2023/24 (estimated at \$180,000 each).
- **Fixed route vehicle replacements.** Two older buses used for fixed route operations will be retired and replaced by ARBOC Equess low-floor vehicles. The first vehicle will be replaced this year (FY 2022/23) at \$340,000 and the second vehicle will be replaced in FY 2024/25 (at a higher estimated cost of \$480,000 due to inflation and supply chain challenges).

Vehicle Expansion

As noted above in the Preferred Service Scenario, the service improvements would require three expansion vehicles at different times in the plan. It is recommended that over the course of the plan WTS should begin to transition their fixed route bus fleet to electric vehicles. This follows ODOT's initiative to accelerate zero emission vehicles to reduce greenhouse gas emissions.

- **Route C – Highway 214 Express.** This new fixed route would require an additional vehicle to be added to the fleet. In anticipation of electrifying the WTS fixed route bus fleet, the City is in the process of applying for a State grant that would fund the purchase of an electric vehicle and associated charging infrastructure. It is assumed that a 35-foot vehicle would be large enough to accommodate expected passenger loads. It is also anticipated that the daily miles traveled for this route would be well below the daily range the vehicle can travel without recharging (estimated at approximately 250 miles). As such, it is assumed that a Level 2 (L2) EV charger would be adequate for this single vehicle and that charging could happen overnight. It is assumed this vehicle would be purchased in FY 2023/24 to correspond with the implementation of this new route.
- **Routes A and B Frequency Improvements.** The frequency improvements on both Routes A and B would require an additional vehicle, though at different times in the plan. The Route A frequency improvement is recommended to be prioritized over the frequency improvement on Route B. It is assumed that Route A would require an additional vehicle in FY 2026/27 and Route B would require an additional vehicle in FY 2028/29. As with Route C, the expansion vehicles are assumed to be 35' electric buses. Rather than Level 2 EV chargers, it is assumed that with a larger EV fleet, each new electric vehicle would require a Level 3 DC Fast Charging charger that can be significantly more costly than a L2 charger.

Bus Stops

As noted in Chapter 6, the Preferred Service Plan would require bus stop changes. The following costs are assumed for bus stops:

- **Basic Stops.** A total of 31 new stops are required as part of the plan. It is assumed that on average, each new stop would cost approximately \$2,500, which accounts for a bus stop pole and signage only. This does not account for the design and construction of an ADA compliant sidewalk improvement.
- **Enhanced Stops.** A total of four new enhanced stops are proposed as part of the plan. It is assumed that on average, an enhanced stop would cost approximately \$15,000, which accounts for design and construction costs associated with the sidewalk, ADA improvements, bus stop sign, signage, a new shelter and basic amenities (such as a bench and solar lighting). This can be seen as an average, with some locations costing more others costing less. It should be noted that any new bus stop that regularly has over 10 boardings per day should be considered for an enhanced stop.

All costs associated with bus stop changes are included in FY 2023/24 (or FY 2024/25) and should be completed at the same time as the initial implementation of Routes A, B and C. The plan also assumes that 2 additional enhanced stops would be added every other year of the plan (6 additional enhanced bus stops).

Technology Enhancements

During the plan, WTS should explore providing real-time arrival information to fixed route passengers. Providing real-time information would require a new Automatic Vehicle Location (AVL) system installed on all fixed route buses, creating the General Transit Feed Specification (GTFS) to include realtime information (GTFS-RT), and displaying that information through the development of a custom app or at digital signs at key stops or at the transit centers.

FUTURE CAPITAL CONSIDERATIONS

East Side Transit Hub

There are currently two official transit centers in Woodburn. In addition to WTS local trips, each transit center receives numerous regional trips each day.

The **Memorial Transit Center** on Highway 214 at Evergreen Road is served by:

- Trips every 30 minutes on WTS Express Loop and every hour on WTS Fixed Route during operating hours
- **17 regional trips** per weekday:
 - Cherriot's route 80X (4 northbound and 4 southbound trips per weekday)
 - POINT Portland-Eugene route (3 southbound and 4 northbound trips per day)
 - Greyhound (1 northbound trip and 1 southbound trip per day)

The **Downtown Transit Center** on 1st and Arthur is served by:

- Trips every 30 minutes on WTS Express and Fixed routes during operating hours
- **16 regional trips** per weekday:
 - Cherriot's route 10X (8 southbound and 8 northbound trips per weekday)



The eastbound **Bi-Mart stop on Highway 214** west of Highway 99 (location shown in Figure 69) receives both regional trips and two local trips per hour on WTS Express and Fixed routes. Current WTS routes serve this location curbside on Highway 214, while regional services pull into the Bi-Mart parking lot and passengers board and alight at ground level. Based on Fall 2022 WTS ridership data it is the busiest stop in the WTS system, with 42 daily boardings and alightings (compared with 33 boardings and alightings at the second-busiest stop, the Downtown Transit Center). The Bi-Mart stop is not an official transit center, but it hosts more regional bus trips than either the Memorial or Downtown transit centers:

- **27 regional bus trips per day:**
 - 14 on CAT route 99X
 - 13 on Cherriots route 10X
 - 5 on Cherriots route 20X



The Bi-Mart stop has a shelter with a bench but has no direct ADA-accessible access route from the parking lot where CAT and Cherriots buses load and unload passengers.

Image source: Google Streetview 2017

This de facto transit center has several operational and logistical limitations that make it risky and inconvenient to rely on as a long-term transit hub:

- It relies on private property owners of the Bi-Mart, Mega Foods, and other businesses to continue allowing CAT and Cherriots to use their parking lots as passenger transfer locations and informal operator layover points for critical regional transit trips.
- There is limited space in the existing shelter area for passengers to wait for connecting trips, and few passenger amenities. Given the relatively high ridership at this location, the shelter could justifiably be twice the size, with additional seating, lighting, and passenger information like a real-time arrival screen.
- There are no formal bus bays to host CAT and Cherriots regional service buses and facilitate easy, accessible transfers for riders between services.
- There is no clear, accessible path for people using wheelchairs, walkers, push carts, strollers, and other devices to easily move between the WTS shelter and the parking lot where CAT and Cherriots buses pick up and drop off. People must negotiate a curb with no ADA ramp and unpaved areas in the sidewalk furnishing zone adjacent to the shelter (see image at left).

Considerations

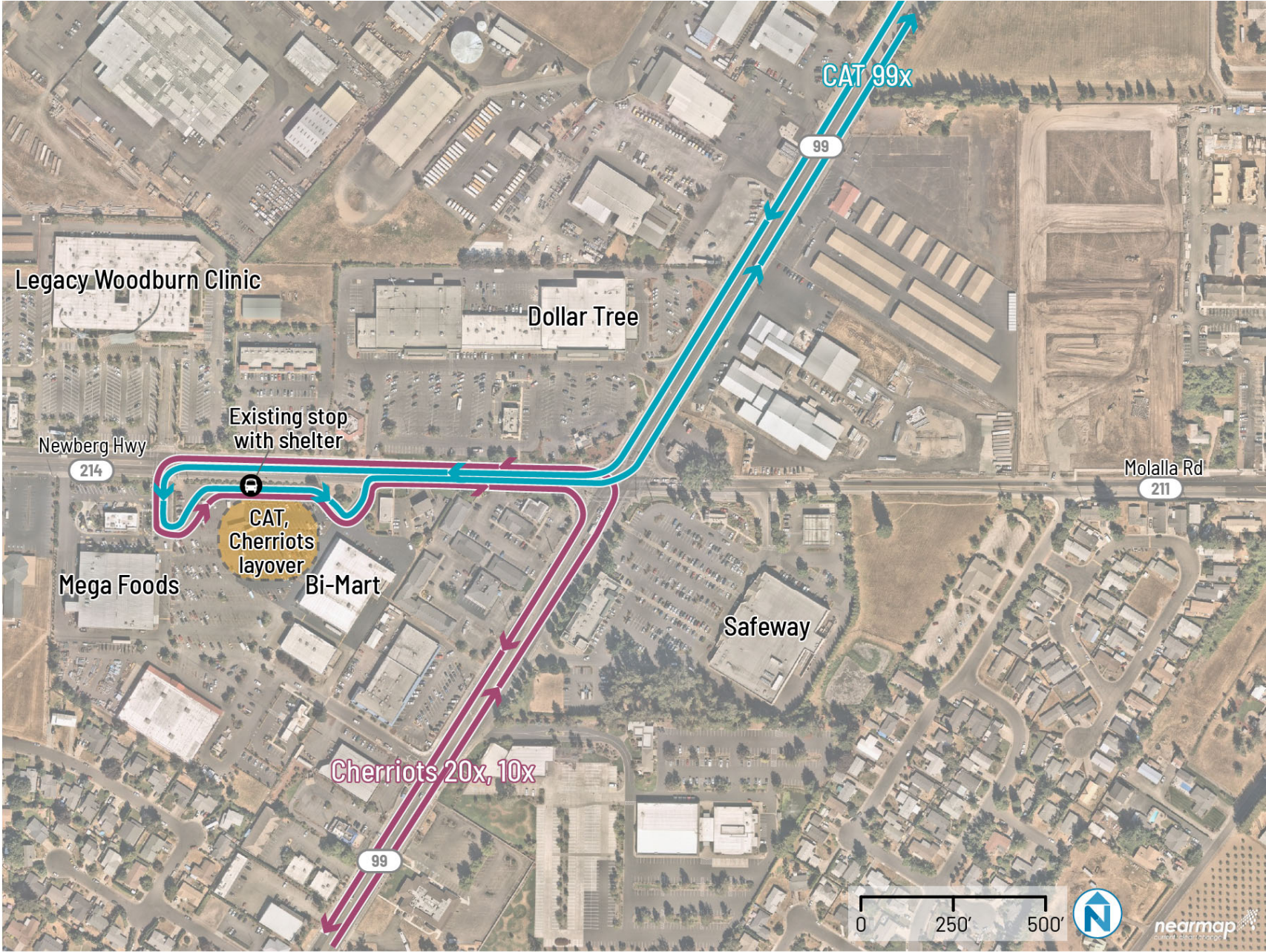
Given these limitations, WTS and the City of Woodburn should search for a location to create a formal east side transit hub, or at a minimum, an enhanced stop that facilitates easier transfers with regional providers (see Figure 69 below).

Sites should be explored near the Highway 99/Highway 214 intersection for several reasons:

- To maintain similar travel times to/from Woodburn for the regional providers.
- This is an important shopping and employment destination that should have good transit access.

The review could consider publicly owned parcels (if any exist), as well as opportunities for an easement or purchase agreement in such places as existing parking lots or underutilized/undeveloped land.

Figure 69 Area to Explore East Side Transit Hub



April 2023

Woodburn Transit Development Plan

Appendix A: Travel Flows Analysis



Contents

- 1 Overview
- 2 Local Travel Flows
- 3 Regional Travel Flows – City Level
- 4 Regional Travel Flows – within Woodburn
- 5 Key Takeaways



Overview

- As a supplement to the State of the System report, an analysis of travel flows was conducted to understand travel patterns for trips to, from, and within Woodburn. This analysis will be used to inform service planning and regional coordination recommendations for the TDP.
- Data from the Census (LEHD) is for work trips; this data is for all trips.
- Used to understand:
 - Local travel patterns
 - Regional travel patterns
 - Regional travel destinations in Woodburn and outside of Woodburn (e.g., in the Salem area)



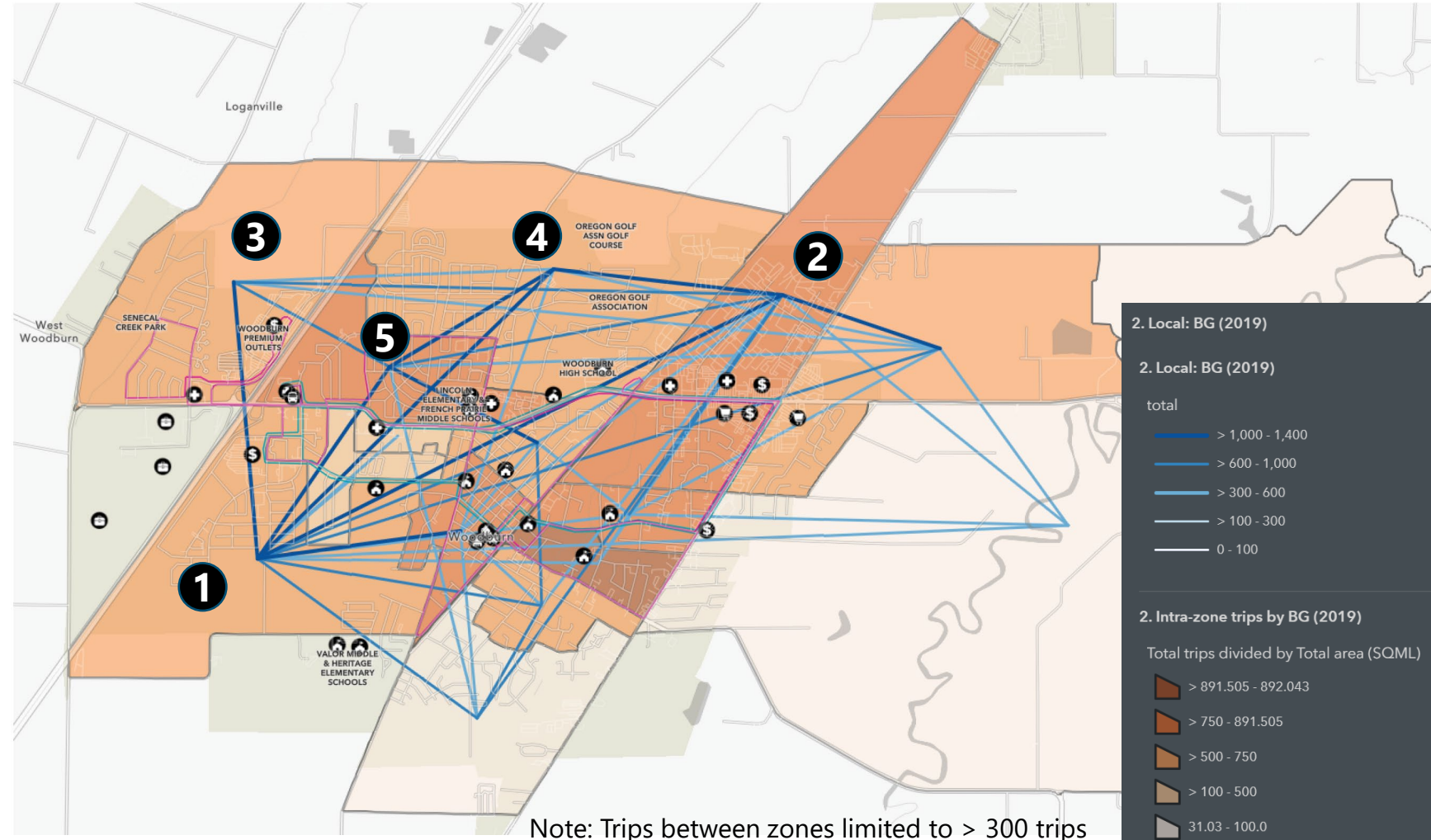
About the data

- Analysis is based on data from Replica, a travel model which uses data sources including:
 - **Mobile location data** (de-identified) collected from personal mobile devices and vehicles
 - **Demographic data** about where people live and work, and the characteristics of the population, such as age, race, income, and employment status
 - **Land use / real estate data** that help determine where people live, work, and shop, and by what means it is possible to travel to each activity
 - **Ground truth data** used to calibrate outputs including auto and freight volumes, transit ridership, and bike and pedestrian counts
- Data is not personally identified and is aggregated to broad areas (“zones”) like Census block groups
- Analysis is for all trips (not limited to transit) including walking



Local Travel Flows - 2019

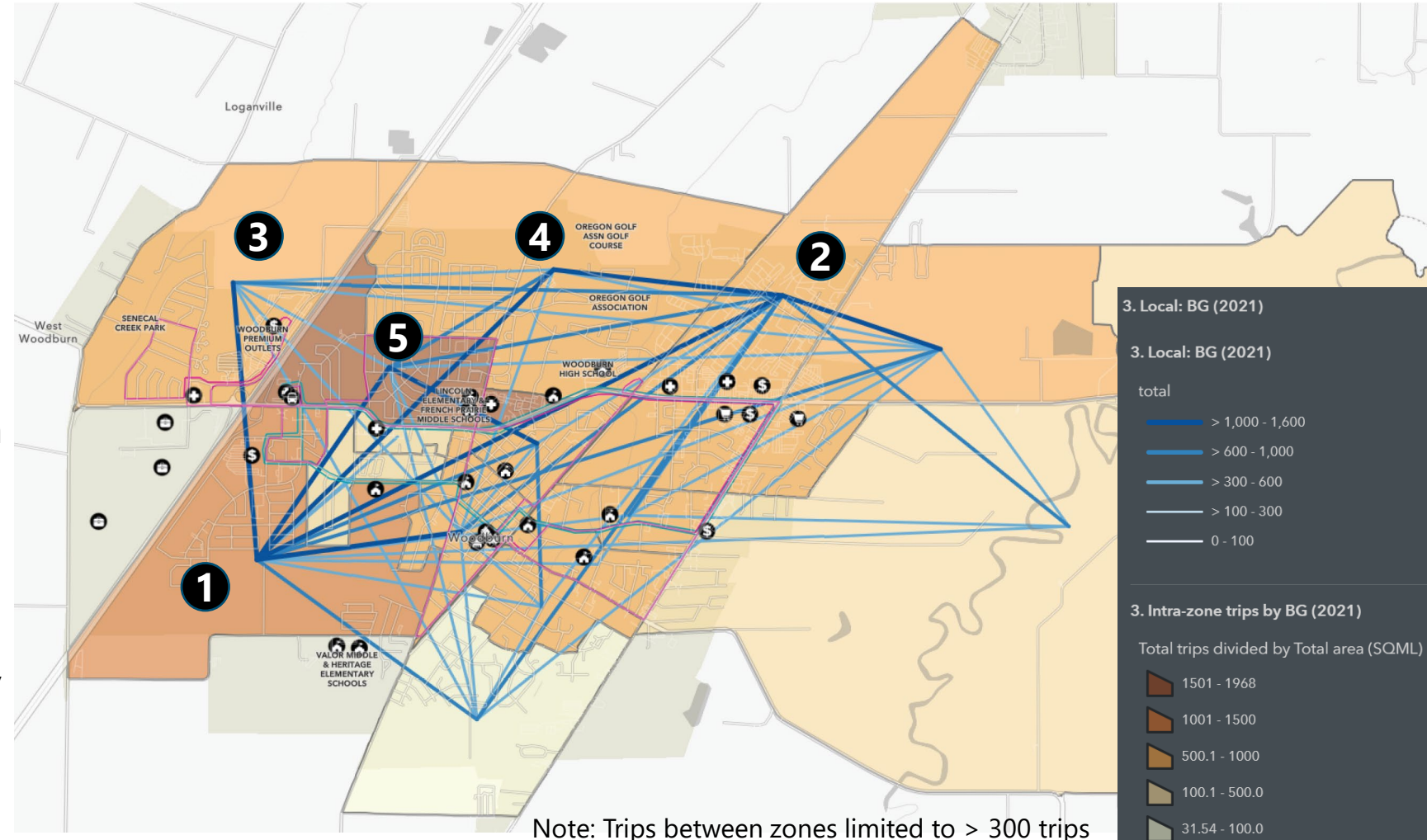
- 1 Southwest zone with **Walmart** east of I-5 includes 6 of top 10 travel patterns
- 2 Northeast zone that includes **Mid-Valley Plaza and Salud** includes 4 of top 10
- 3 **Northwest** Woodburn with Outlet Mall east of I-5 to both the Walmart and Mid-Valley Plaza zones, within Top 10
- 4 **North** zone with High School
- 5 **Central** zone with elementary and middle schools; generally shorter patterns



Note: Trips between zones limited to > 300 trips

Local Travel Flows - 2021

- 1 Southwest zone with **Walmart** east of I-5 includes 6 of top 10 travel patterns
- 2 Northeast zone that includes **Mid-Valley Plaza and Salud** includes 4 of top 10
- 3 **Northwest** Woodburn with Outlet Mall east of I-5 to both the Walmart and Mid-Valley Plaza zones, within Top 10
- 4 **North** zone with High School
- 5 **Central** zone with elementary and middle schools; generally shorter patterns



Local Travel Flows – 2019 and 2021

- Approximately a **third** of trips within Woodburn are by **low-income** people (in households earning up to 200% of the federal poverty level)
- Nearly **half** of trips within Woodburn are made by **people of color**

	2019 and 2021 (comparable)		
Trips within	Total trips	% Low Income	% BIPOC
Woodburn	50,000	33%	50%

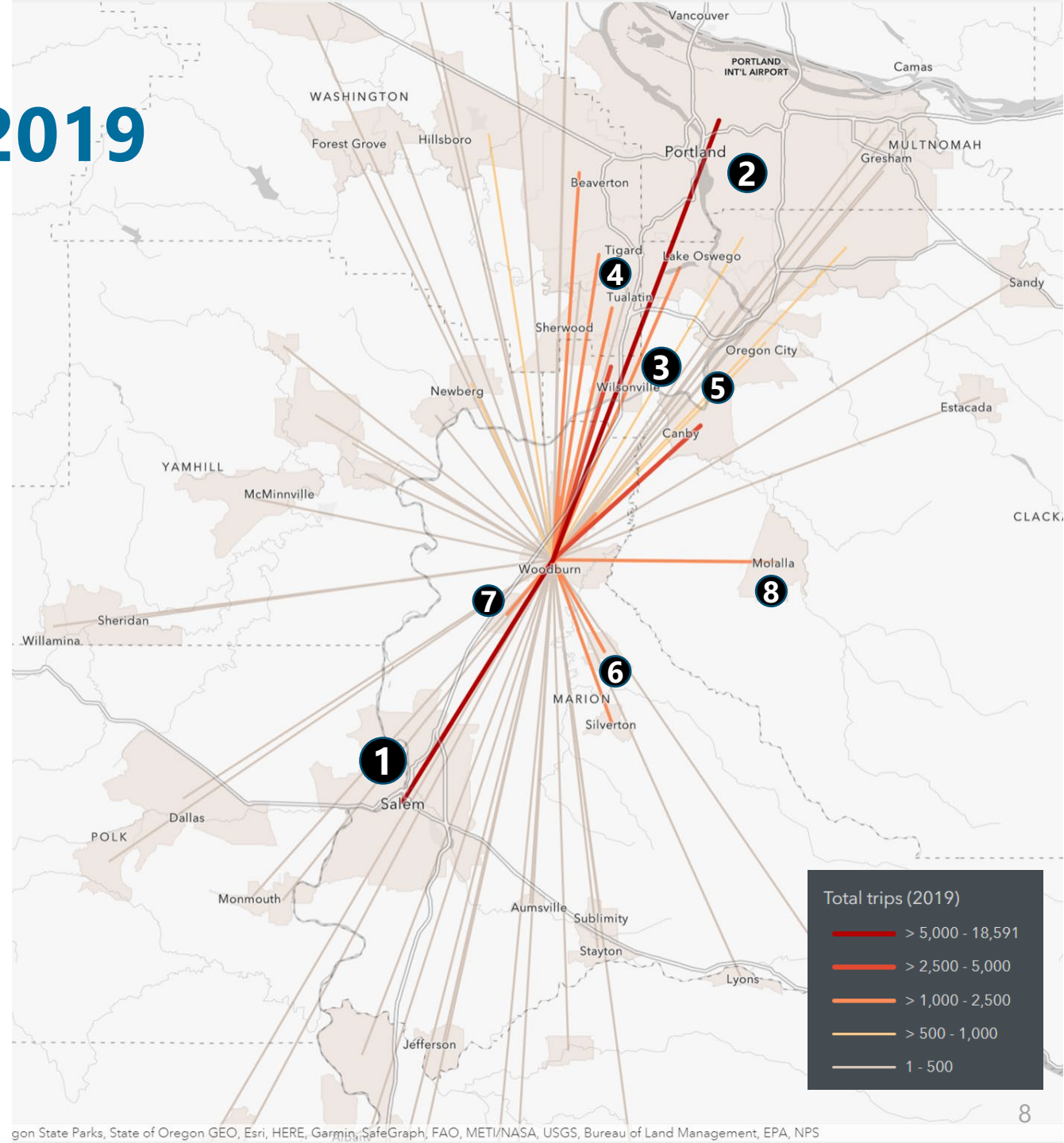
Regional Travel Flows - 2019

- 1 **Salem/Keizer** area is the largest single pattern – about 35% of trips, higher share of low-income trips than Portland area
- **Portland Metro Area** is comparable to Salem/Keizer; includes:
 - 2 **Portland** (~5k)
 - 3 **Wilsonville** (~4k)
 - 4 **Washington County**: Tualatin, Tigard, Beaverton

Other major patterns:

- 5 **North OR-99E**: Canby, Hubbard, Oregon City
- 6 **Southeast OR-214**: Mt Angel, Silverton
- 7 **Gervais**
- 8 **Molalla**

2021 flows are similar



Regional Travel Flows - 2019

❶ **Salem/Keizer** area is the largest single pattern (~35%) – *Cherriots 10X/20X/80X*

▪ **Portland Metro Area** is comparable to Salem/Keizer; includes:

❷ **Portland**

❸ **Wilsonville** – *Cherriots 80X*

❹ **Washington County**: Tualatin, Tigard, Beaverton

Other major patterns:

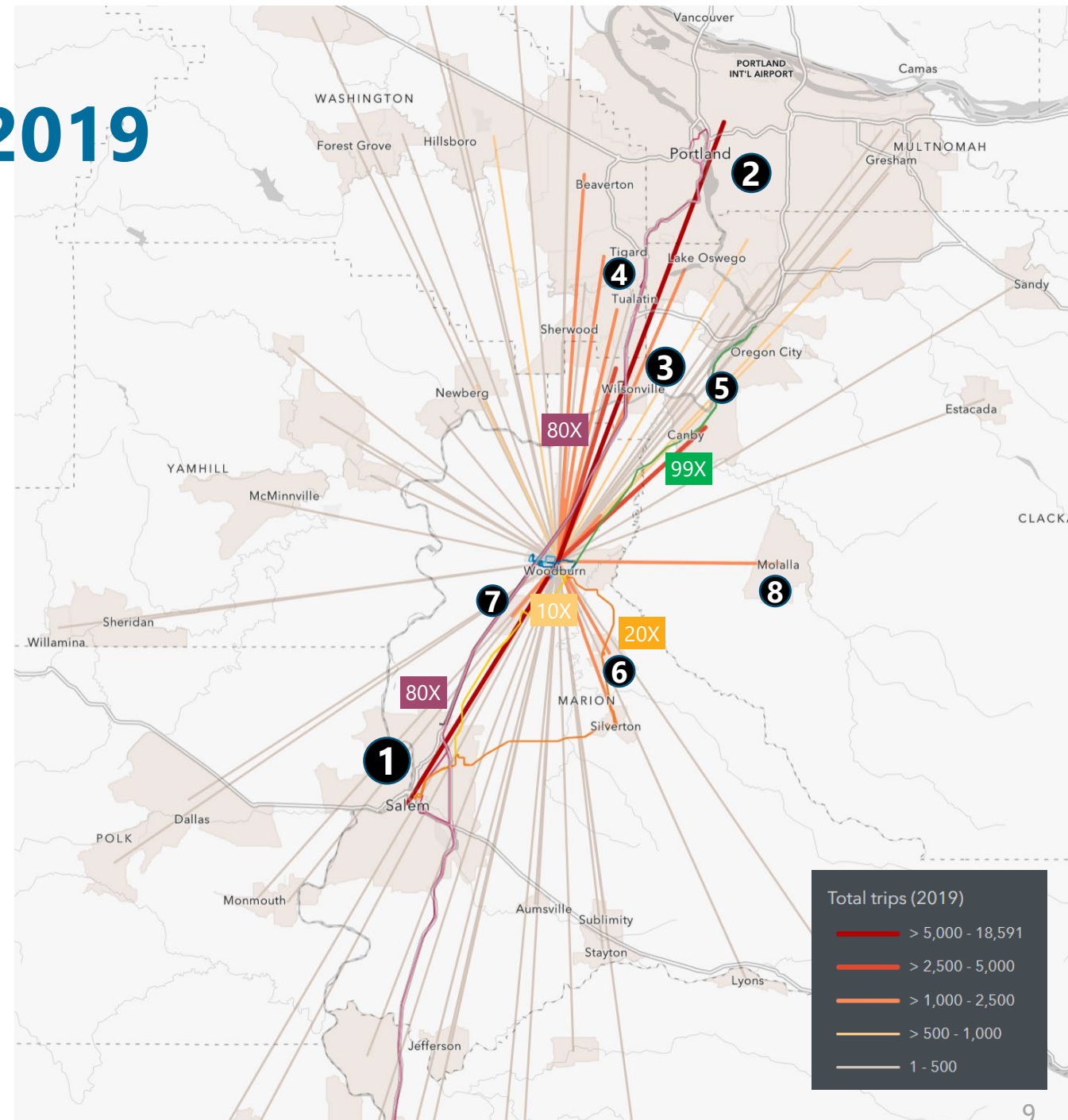
❺ **North OR-99E**: Canby, Hubbard, Oregon City

❻ **Southeast OR-214**: Mt Angel, Silverton (20X)

❼ **Gervais** (10X)

❽ **Molalla**

2021 flows are similar



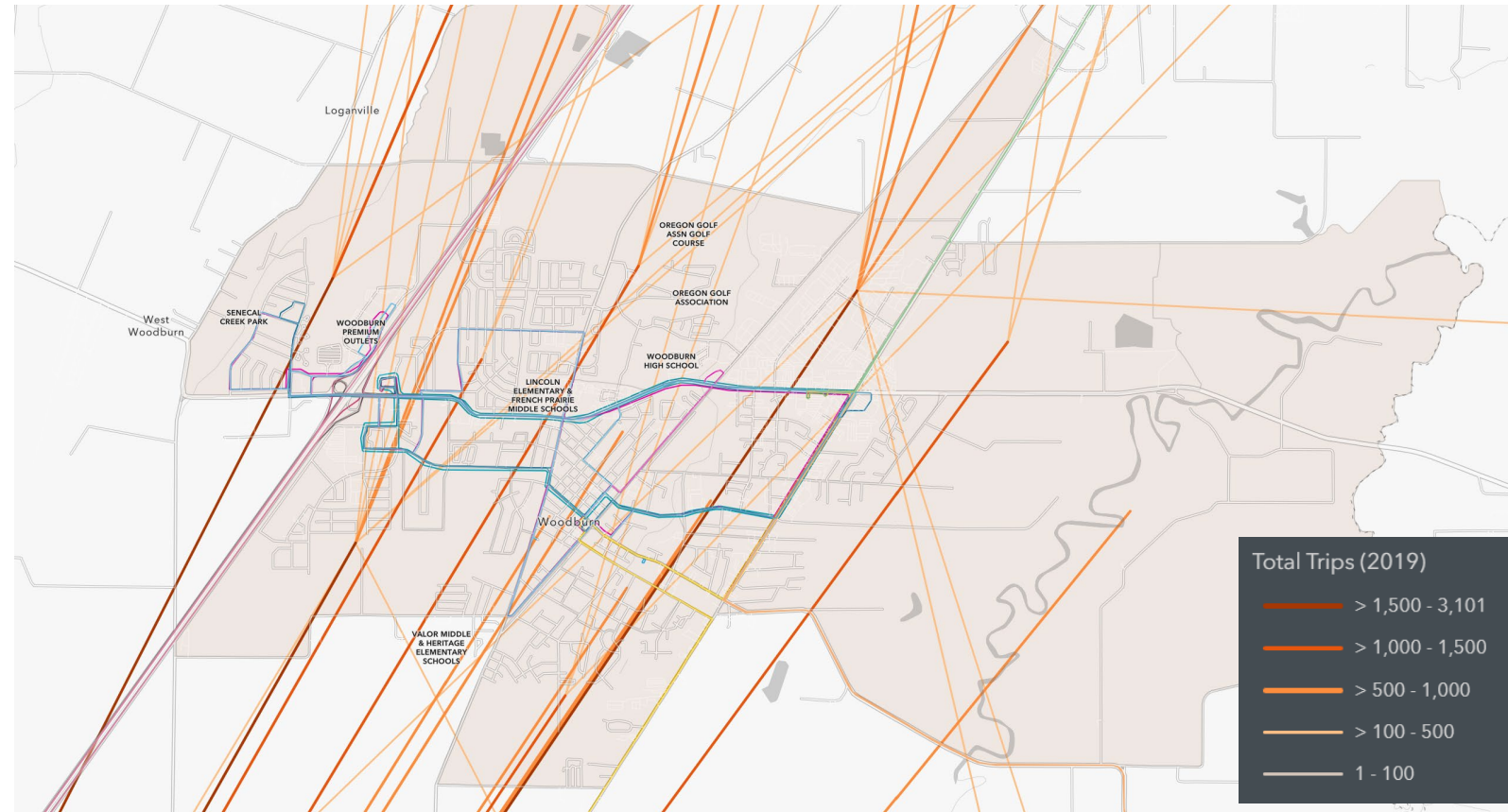
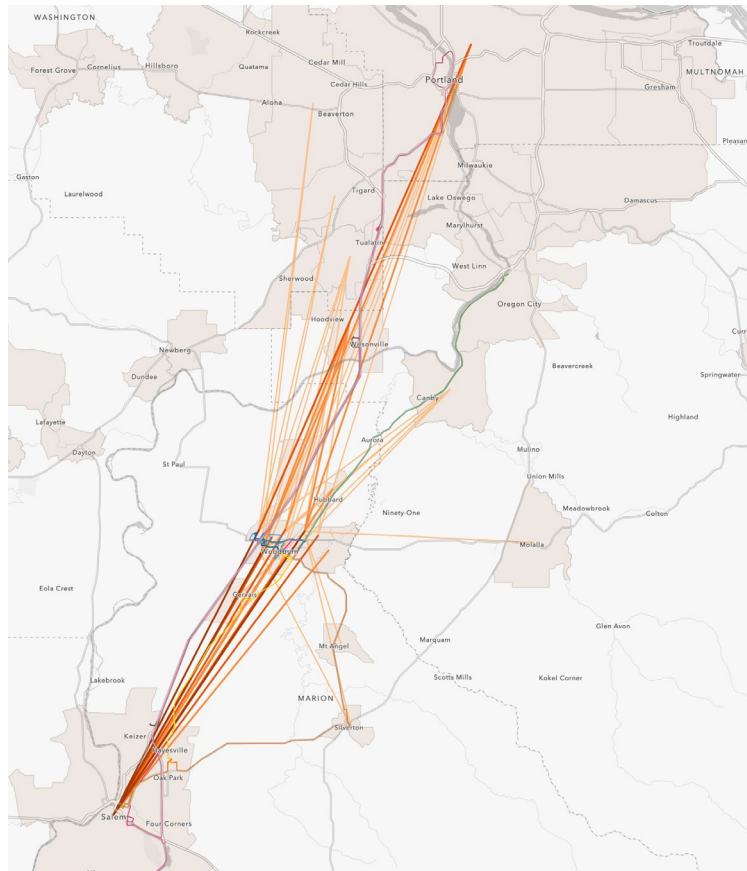
Categorized Trips between Cities

- Of trips starting or ending outside of Woodburn, about the same number go to the Portland Metro area and the Salem/Keizer area –
 - Each approx. 20k trips and 35% of total trips to/from Woodburn
 - The percentages of trips within each category by low-income people and people of color are higher for trips to/from the Salem/Keizer area than the Portland Metro area
- The north OR-99E market is the next largest market
 - Oregon City is included here rather than Portland Metro
- Approximately a quarter to a third of trips are by people in low-income households

Categorized Origin/Destination	Total trips	% Total trips	% Low Income	% BIPOC
Salem/Keizer	21,500	35%	30%	41%
Portland Metro Area	20,900	34%	25%	31%
North OR-99E (Hubbard, Canby, Oregon City)	7,000	11%	25%	33%
South OR-99E (Gervais)	2,400	4%	28%	70%
East OR-214 (Mt Angel/Silverton)	4,000	6%	31%	31%
Yamhill County	1,800	3%	23%	25%
Mollala	1,800	3%	26%	30%
South Willamette Valley (Albany, Lebanon, Corvallis, etc.)	1,300	2%	32%	20%

Regional Travel Flows - Woodburn Block Groups

- These maps illustrate where trips between cities in the Portland/Salem regions start and end in Woodburn, at the Census block group level. The highest number of trips go to zones including Woodburn Outlet Mall area, Walmart area, and Mid-Valley Center/Salud area.

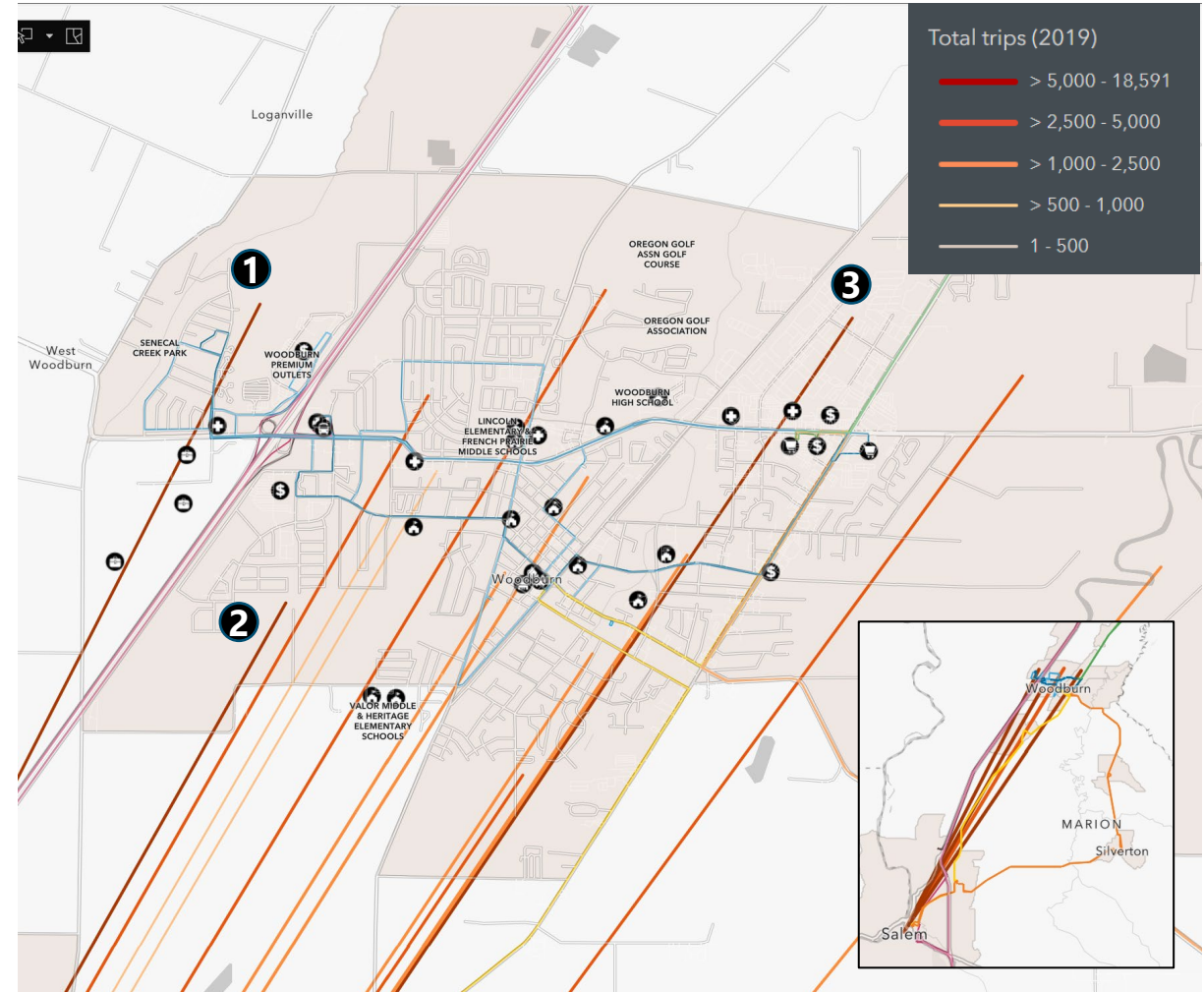


For legibility, maps limited to 250 or more trips between cities in the region and block groups in Woodburn

Where Regional Trips Start/End within Woodburn

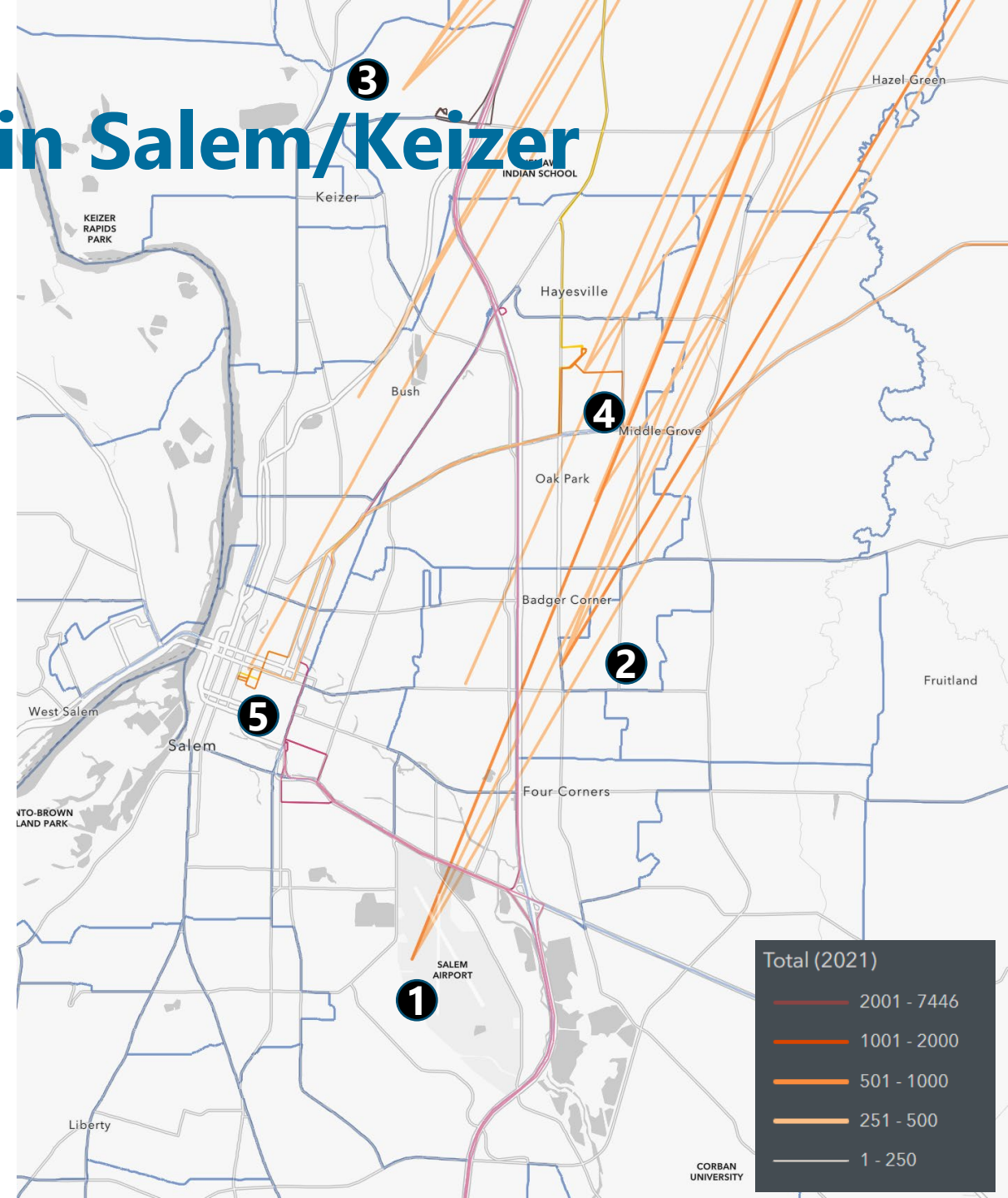
- Top 3 trip pairs to/from **Salem/Keizer** area with > 2,500 daily trips include:

- 1** Northwest Woodburn with Outlet Mall
- 2** Southwest zone with **Walmart** east of I-5
- 3** Northeast zone that includes **Mid-Valley Plaza**



Where Trips Start/End within Salem/Keizer

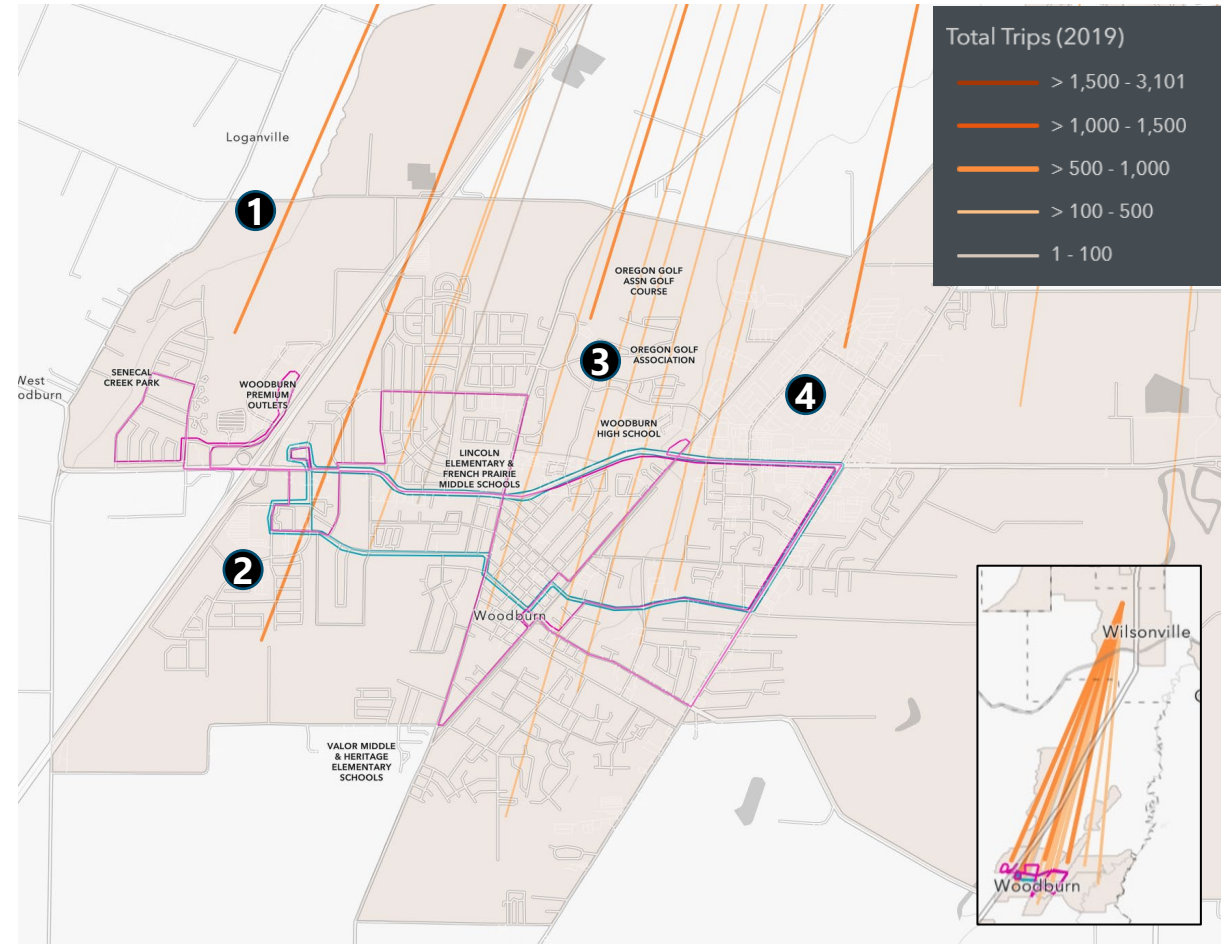
- Trips **between Woodburn and the Salem/Keizer** area with > 250 daily trips (at the Census tract level) include:
 - ❶ **SE Salem**, including Salem Airport
 - ❷ East Salem, including **Willamette Town Center**
 - ❸ **Keizer Station** area
 - Served by 80X
 - ❹ **CCC** area including Oak Park neighborhood to the south, served by 10X and 20X
 - ❺ Downtown Salem, served by 10X and 20X, and 80X with a transfer



Where Regional Trips Start/End within Woodburn

- Top 4 trip pairs to/from **Wilsonville** with > 500 daily trips include:

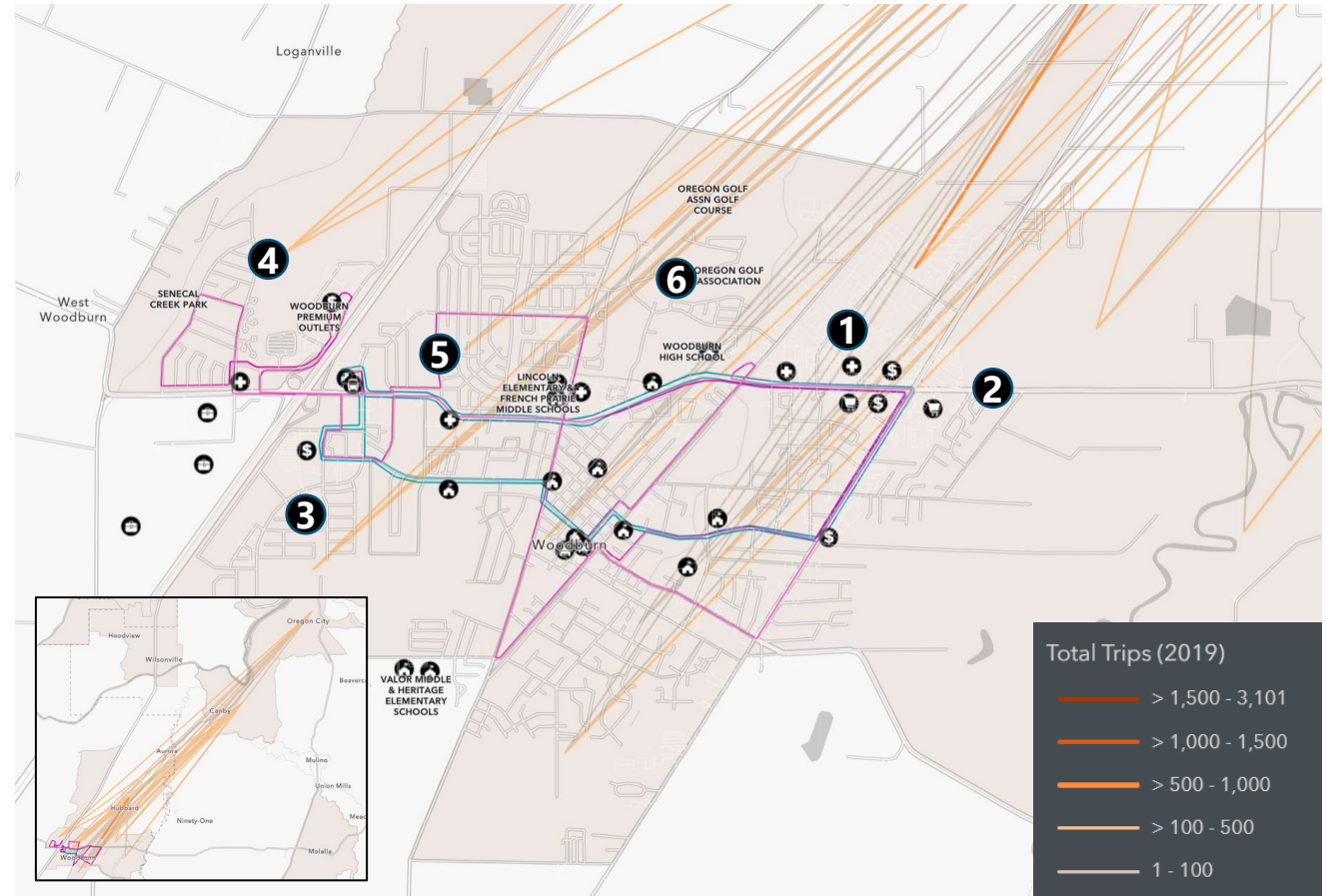
- 1** Southwest zone with **Walmart** east of I-5
- 2** **North** zone with Country Estates area and High School
- 3** **Northwest** Woodburn with Outlet Mall
- 4** Northeast zone that includes **Mid-Valley Plaza and Salud**



Where Regional Trips Start/End within Woodburn

- Top trip pairs to/from the **north OR-99E corridor (Canby, Hubbard, Oregon City)** with > 300 daily trips include:

- 1** Northeast zone that includes **Mid-Valley Plaza and Salud**
- 2** Zone east of OR-99E, both north and south of OR-217, that includes **Safeway**
- 3** Southwest zone with **Walmart** east of I-5
- 4** **Northwest** Woodburn with Outlet Mall
- 5** **Zone east of I-5, north of OR-214**, that includes Best-Med Urgent Care, Elementary, Middle, and Alternative High Schools
- 6** **North** zone with Country Estates area and High School



Key Takeaways

- The most significant local travel patterns within Woodburn include:
 - Approximately a **third** of trips within Woodburn are by **low-income people** (in households earning up to 200% of the federal poverty level)
 - Nearly **half** of trips within Woodburn are made by **people of color**
 - Southwest to northeast, such as between the Walmart area and the Mid-Valley Plaza/Salud area
- The largest regional travel patterns to/from Woodburn include **Salem/Keizer, Portland Metro** area (including Wilsonville and Washington County), followed by the **north OR-99E corridor** (e.g., Canby), cities to the southeast along OR-214 (Mt Angel and Silverton), Gervais, and Molalla
 - Most are directly served by regional transit connections except for Molalla
- The locations in Woodburn where the most regional trips end vary but include the **Woodburn Outlet Mall area, Walmart area, and Mid-Valley Plaza/Salud area which includes a number of employers**
 - Trips from the OR-99E corridor to/from Woodburn include trips connecting to the western parts of the city

