City of Wilsonville – South Metro Area Regional Transit

TRANSIT INTEGRATION PROJECT

Executive Summary

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EXECUTIVE SUMMARY

INTRODUCTION

South Metro Area Regional Transit (SMART) is a transit service operated by the City of Wilsonville. SMART provides fixed-route and Dial-a-Ride (DAR) service within the City of Wilsonville and between Wilsonville and other parts of the region. SMART initiated the Transit Integration Project to analyze two specific services:

- **Route 2X**, which operates along the I-5 corridor between Wilsonville and Portland. It circulates within Wilsonville, serving employers east of I-5, and stops outside of Wilsonville at the Tualatin Park & Ride and at the Barbur Transit Center in Southwest Portland
- **Portland Area Medical Program,** which provides door-to-door service to medical appointments in the Portland area for Wilsonville residents age 60 and older, and residents with a disability

The need for the project was driven by rapid growth of Wilsonville's population, changing demographics as the population grows older, and the movement of people and jobs throughout the city and the region. The purpose of the project was to (1) assess how well these services are performing and responding to these changing needs, and (2) to determine whether/how to adapt and/or integrate them. The desired outcome of the project was to optimize the efficiency of these services and maximize the overall customer benefits SMART can provide with its available resources.

The graphic below illustrates the project phases and timeline.

Figure ES-1   Transit Integration Project Phases and Timeline
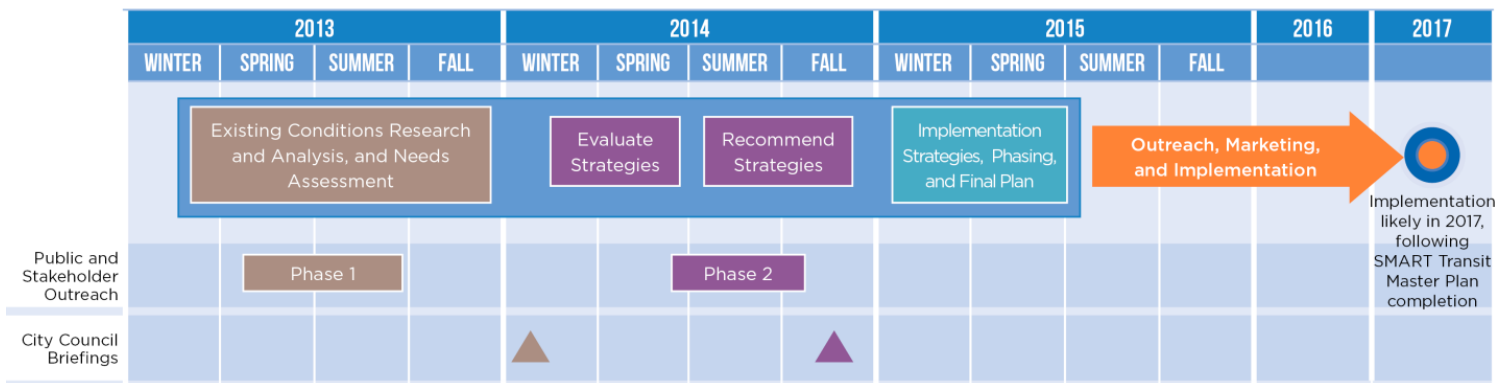
Goals and Objectives

SMART developed goals and objectives for the Transit Integration Project to assess how to best adapt or integrate the Route 2X and Medical Dial-A-Ride services to meet current and future needs of the Wilsonville residents and employers.

The goals of the project were to:

- Explore options to directly connect Wilsonville to Downtown Portland
- Develop strategies to integrate fixed-route and Dial-a-Ride service along the I-5 corridor
- Assure financial sustainability on corridor services

Project objectives included:

- Assess transit market(s) in the I-5 corridor north of Wilsonville
- Identify options for meeting demand for special needs transportation in the corridor
- Identify options to control demand for the Medical Dial-a-Ride service and shift riders to fixed-route service where appropriate
- Develop a financially stable, preferred set of services and programs

Public Involvement

A robust public involvement process was an integral part of the project. The project team engaged with the public and stakeholders through a variety of media, including SMART's website, informational flyers, interviews, surveys, and presentations. Outreach activities were organized into two phases: Phase 1 during the needs assessment, and Phase 2 during the development of recommended strategies for improving the services.

Phase 1 included:

- **Rider and community surveys** in Spring 2013, including an on-board survey of SMART Route 2X passengers, an online survey of TriMet Line 96 riders, and an on-line survey to gather input from the public
- **Extensive engagement with stakeholders** representing social service providers, employers and user groups
- **A virtual (online) Open House and other public outreach events** to present findings of the Needs Assessment to the public and gather feedback

> Phase 2 outreach included similar activities to obtain community feedback on the recommended strategies. Chapters 4 and 7 and Appendices A through F of the project Final Report provide details on Phase 1 and 2 outreach efforts and results.

Existing Services

SMART operates a variety of services serving Wilsonville and the region; these services are summarized below. The following information reflects SMART services as of July 2013. SMART Central is the primary transit center within Wilsonville, co-located with the Wilsonville WES station (Westside Express Service between Beaverton and Wilsonville). To allow transfers between SMART routes and WES, SMART routes are coordinated with WES arrivals and departures.

- **Local Fixed-Route** service in Wilsonville: 4, 5, 6, and V
- **Intercity Fixed-Route** service in the region: 1X (Salem), 2X (Portland), 3 (Canby), 8X (Beaverton – early morning and late night), and 9X (Portland – late night). Outside of Wilsonville, Route 2X serves Tualatin Park & Ride (P&R) and Barbur Transit Center (TC), located in Southwest Portland. Passengers can catch TriMet service to other locations in the region from these transfer locations. Key connections include TriMet Line 96 (connects Tualatin P&R to downtown Portland during peak hours only) and TriMet Line 12 (connects Barbur TC to downtown Portland all-day).
- **General Public Dial-a-Ride and ADA service** within Wilsonville: ADA Paratransit services are primarily provided for Wilsonville residents with disabilities that prevent them from riding fixed-route service. All Wilsonville residents, regardless of their age or disability status, may ride the DAR service, but preference is given to those qualifying for complementary paratransit service under the Americans with Disabilities Act (ADA). [1]
- **Medical Dial-A-Ride** provides transportation for medical purposes outside of Wilsonville. This service is open to Wilsonville residents age 60 and older and to those with disabilities. Pre-qualification is not required for this service, and eligible customers simply register when requesting their first trip.

Figure ES-2   Existing Transit Services in Wilsonville
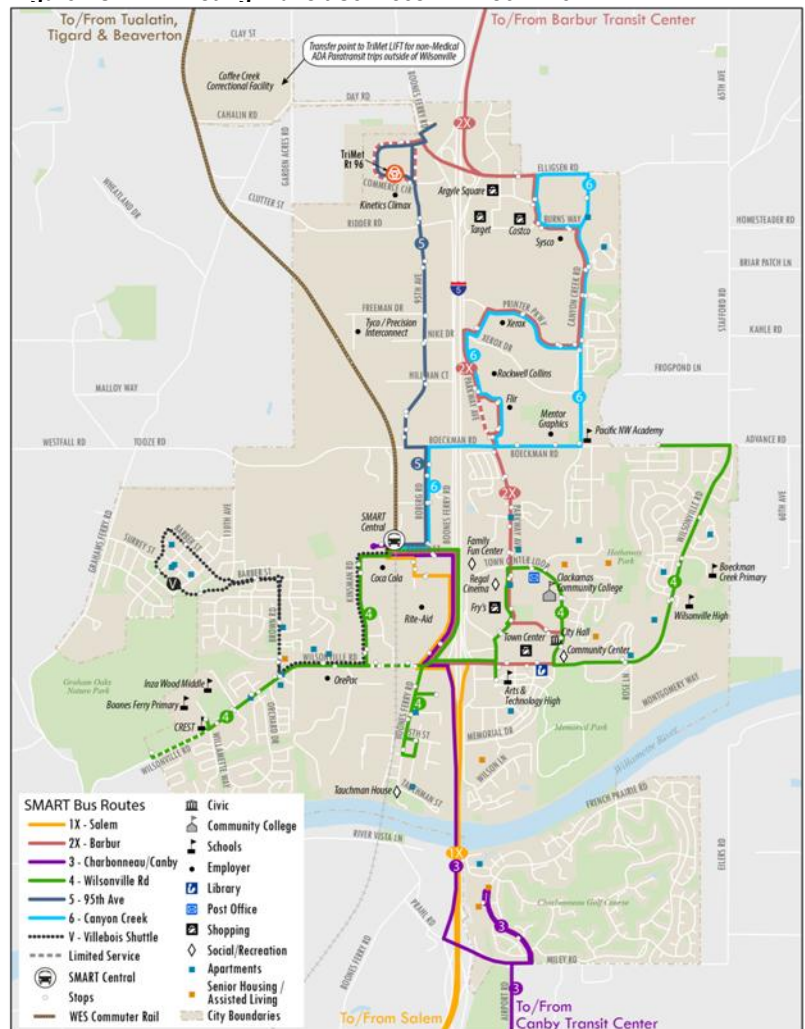
Chapter 3 of the project Final Report provides details on Existing Services.

[1] ADA Paratransit service is required as a complement to scheduled, local fixed-route service, guaranteeing an equivalent level of service for people with a disability.

SMART Ridership and Operating Costs

In Fiscal Year (FY) 2012-2013, the SMART system provided nearly 346,000 trips. [2] Figure ES-3 illustrates the ridership breakdown for SMART services.

▪ Fixed-route service provided 95% of those trips, of which 22% were on Route 2X.

▪ Demand responsive (Dial-A-Ride) service accounted for the other 4% of all trips on SMART in 2012-2013. Of DAR trips, 26% were out-of-town medical program rides (approximately 1% of all trips).

Figure ES-4 provides a breakdown of SMART operating costs. Route 2X is the most expensive individual fixed-route service run by SMART because it operates over a long distance, comprising $935,000 of the overall fixed-route service cost of $2.5 million. The operating cost for Route 2X is also higher per passenger trip than the fixed-route system overall, although it is one-third the cost of a DAR trip.

The out-of-town medical program costs approximately $177,000 to operate. Costs are covered by fares (roughly $12,000) and a state Special Transportation Fund (STF) grant.[3]

Figure ES-3   SMART Ridership, FY 2012-13
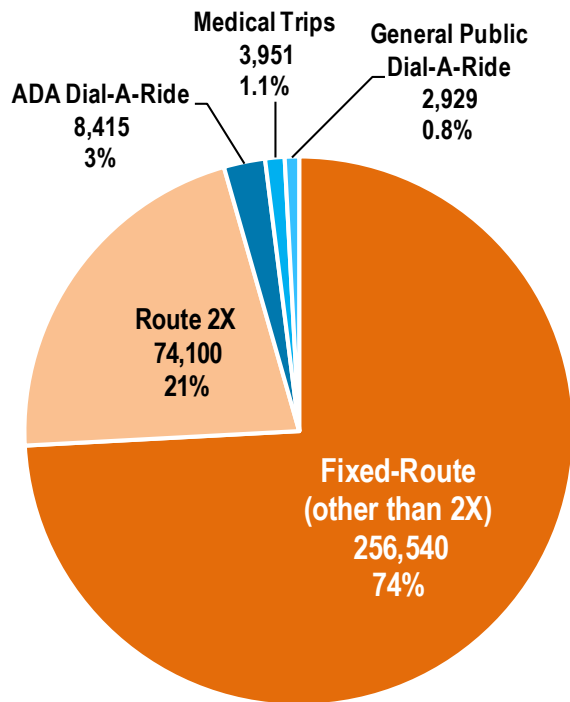
Figure ES-4   SMART Operating Costs, FY 2011-12

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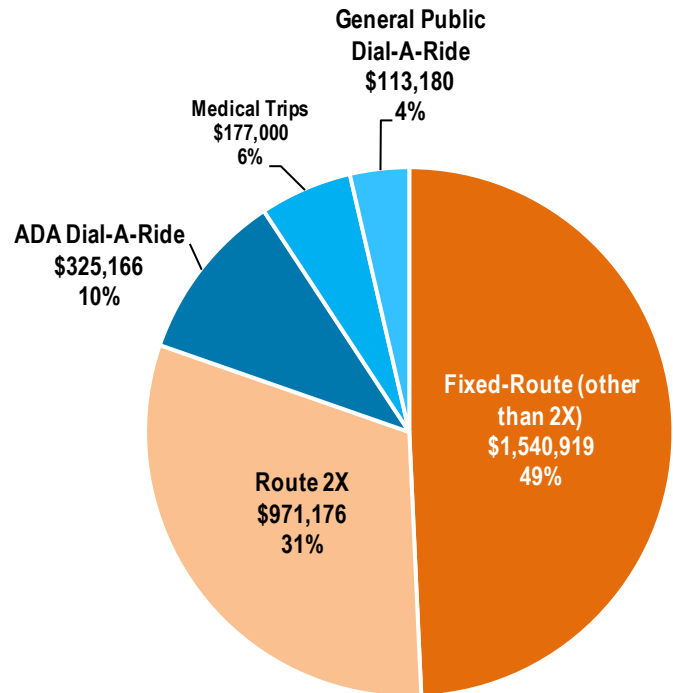
[2] Based on estimated ridership for June 2013, excluding special event, Community Center, and Senior Shuttle trips. Including these trips, annual ridership totals 351,451.

[3] The grant funds two vehicles that provide the out-of-town medical trips. These vehicles provide 4,064 service hours annually. Other Dial-A-Ride vehicles also provide some of the out-of-town trips (estimated at about 5 service hours per week).

MARKET ANALYSIS AND NEEDS ASSESSMENT

The market and needs for both the Route 2X and Medical Dial-A-Ride services were analyzed as part of the study. Key findings are provided below.

SMART Route 2X Wilsonville-Portland Service

- A relatively high share of Wilsonville's population is between 20 and 30 years old, and Wilsonville also has a high share of renter-occupied housing units and a relatively low rate of access to a vehicle. Recent studies and statistics indicate decreased driving and increased use of transit (as well as walking and bicycling) among these demographic groups. SMART fixed-routes serve most major multi-family housing developments in Wilsonville.

- Use of SMART fixed-route transit is relatively low among older adults, likely due to factors such as: a relatively low poverty rate among older adults, transit stops that are beyond a comfortable walking distance for some seniors, and seniors who may not have used transit previously. Given that SMART Dial-A-Ride service is available to the general public, some seniors may be more comfortable using Dial-A-Ride service when they are unable or choose not to drive.

- About 30% of trips on Route 2X are for local trips in Wilsonville, primarily for access to destinations located directly along the route.

- Many of Wilsonville's largest employers are located in large office parks in the northeastern part of the city. SMART service, including Route 2X, circulates along most of the main thoroughfares that access these locations. However, this access is at the expense of faster, more direct access to other destinations in Wilsonville including the city center and major concentrations of employment west of I-5 and along Wilsonville Road. Route 2X provides a direct trip between Barbur TC and Commerce Circle (about 20 minutes, compared to a driving time of about 13 minutes), but there are 20 stops between Commerce Circle (or Argyle Square off-peak) and Wilsonville Civic Center, making driving more time competitive for these other destinations.

- Figure ES-5 illustrates where the more than 8,600 workers who live in Wilsonville work. Figure ES-6 illustrates where the over 17,700 individuals who work within Wilsonville live. Portland is the largest single market for work commute travel to and from Wilsonville (about 12% and 22%, respectively, based on Census LEHD data). In aggregate, other cities along the Hwy 217 and I-5 corridors (Beaverton, Tigard, Tualatin, Hillsboro, and Lake Oswego) represent a comparable-size travel market.

- Route 2X serves travel demand to destinations in the vicinity of Barbur Transit Center in Southwest Portland, but this destination serves a relatively limited market as shown in Figure ES-5 and Figure ES-6. There appears to be strong potential to increase ridership with better access to transit connections and walking access to destinations (e.g., in/near Downtown Portland).

> Chapter 5 of the project Final Report provides details on the market analysis and needs assessment

Figure ES-5   Work Locations of Wilsonville Residents
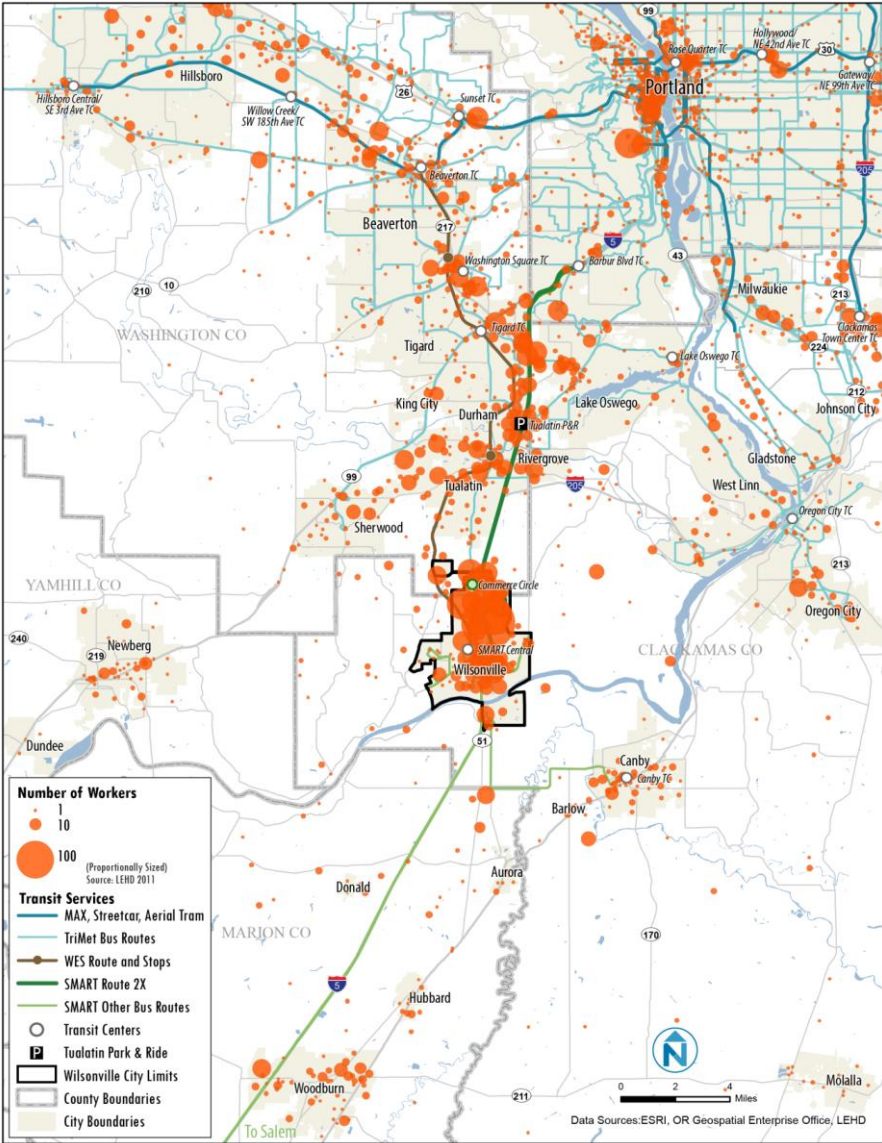
Figure ES-6   Home Locations of Wilsonville Workers
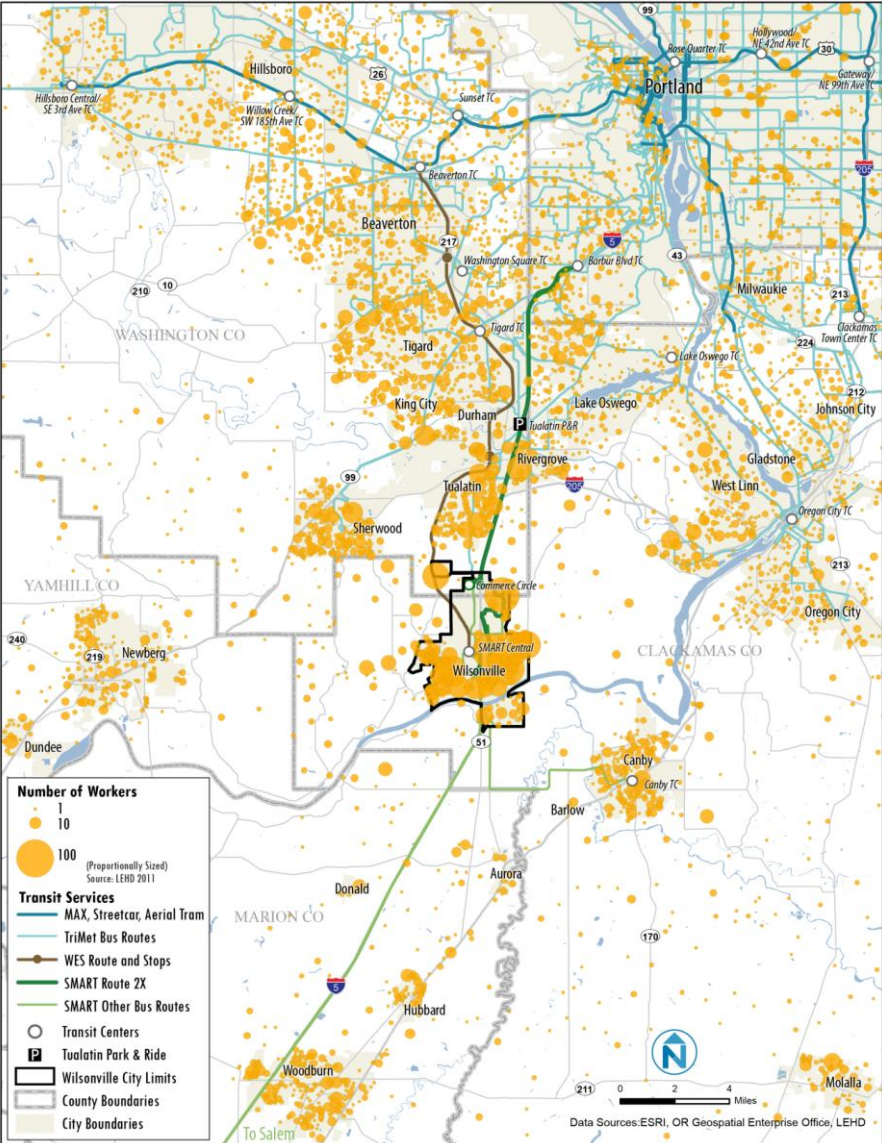
Over 8,600 Wilsonville residents work. The largest share of Wilsonville residents work in Portland (22.1%) while 16.1% work in Wilsonville.

The largest percentage of people who work in Wilsonville come from Portland (11.6%) followed by Wilsonville itself (7.8%).

SMART Medical Dial-A-Ride Service

SMART's Medical Dial-a-Ride service brings Wilsonville residents to destinations throughout the region for medical visits. Figure ES-7 shows that medical trip destinations include a concentration in the Tualatin area— Legacy Meridian Park Medical Center, Advanced Dermatology of Oregon, Tualatin Dialysis, and Providence Bridgeport Health Center. Farther from Wilsonville, OHSU and the VA Hospital in Southwest Portland are also major destinations. Trip origins include senior living communities in Wilsonville.

Accessing most of these locations from Wilsonville using fixed-route transit service currently requires a long trip and multiple transfers. For passengers able to use fixed-route service, improving connections to existing TriMet services could make accessing some of these destinations on fixed-route transit a more convenient option.

Figure ES-7   Medical Trip Rider Origin-Destination Locations
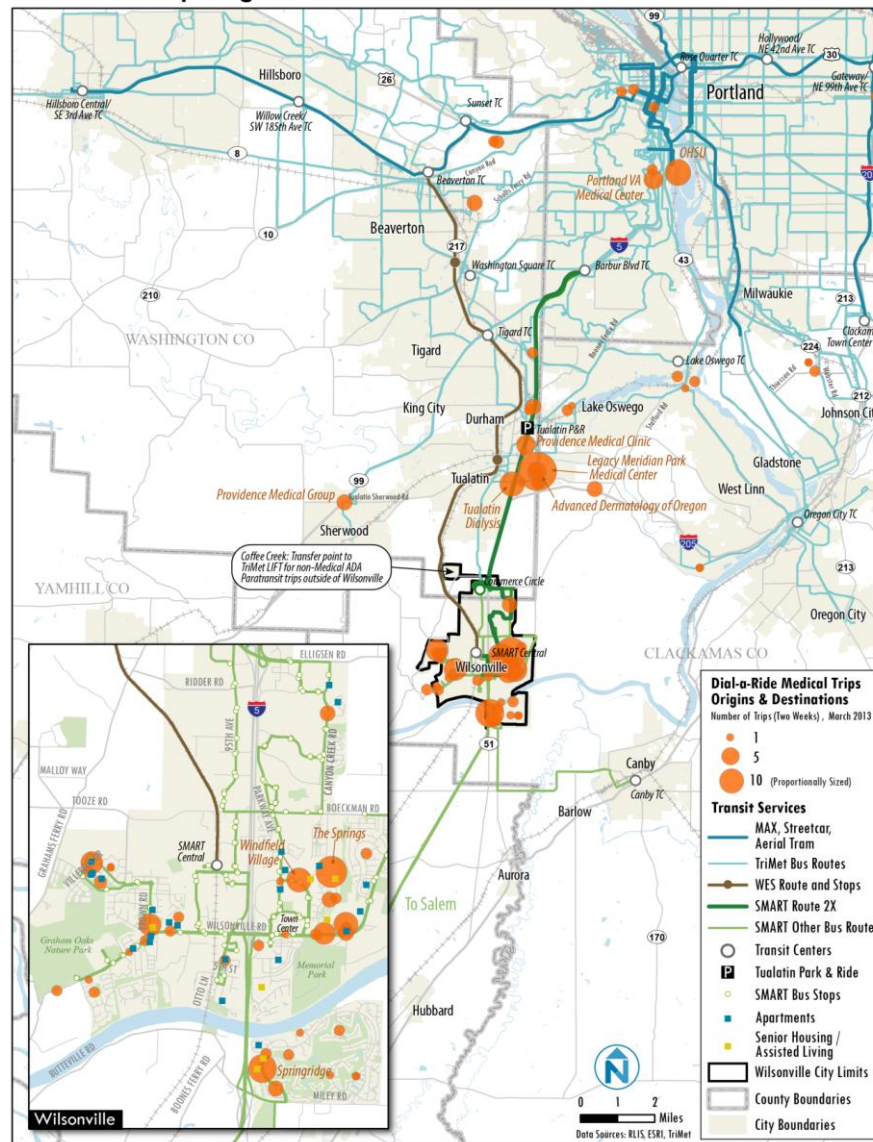
ALTERNATIVES CONSIDERED

The study evaluated potential strategies to address the identified needs within the constraints placed on SMART. Figure ES-8 summarizes the strategies evaluated.

Figure ES-8   Strategies Evaluated

Strategy	What it means?	Key Benefits	Potential Concerns
Out-of-Town Medical Service Strategies			
Serve Primary Destinations with Medical Shuttle	▪ SMART would develop a scheduled shuttle service to the major medical institutions closest to Wilsonville	▪ Increases cost-effectiveness of service ▪ Should serve more riders and meet currently unmet demand ▪ Serves destinations for the majority of out-of-town medical trips	▪ Limits coverage area for medical service ▪ Scheduling challenges ▪ Could be challenging for some riders, e.g., dialysis patients, particularly on the return trip
Shift Out-of-Town Medical Dial-A-Ride Trips to Fixed-Route	▪ SMART would encourage passengers to use fixed-route transit whenever possible, e.g., with "conditional eligibility" and trip screening, travel training and promotion, etc.	▪ Employs programs and services currently in use or readily available to SMART ▪ Preserves dial-a-ride capacity for those riders who need it the most	▪ Adds administrative costs ▪ Requires good fixed-route options connecting to medical destinations ▪ Some riders require specialized services and cannot ride fixed route service
Integrate Out of Town Medical Dial-A-Ride and Fixed-Route Trips	▪ Dial-a-ride service would connect to fixed-route service and require passengers to transfer	▪ Reduces time and cost of dial-a-ride vehicles making long-distance trips ▪ Preserves dial-a-ride capacity for those riders who need it the most	▪ Adds administrative costs ▪ Destinations not along scheduled SMART or TriMet services will also require "last-mile" dial-a-ride connections to destinations
Route 2X Strategies			
Provide Direct Service to Portland	▪ Route 2X would provide direct service to downtown Portland all-day	▪ Provides direct service without a transfer ▪ Most convenient option for passengers	▪ Most costly for SMART ▪ Duplicates TriMet service ▪ Customers need to pay an additional fare to access TriMet in downtown
Provide Integrated (Line 96/Route 2X) Service to Portland	▪ Route 2X would provide a connection to Line 96 in Tualatin, during Line 96 operating hours (but would not operate north of Tualatin) ▪ Route 2X would provide direct service to downtown Portland midday, when Line 96 does not operate	▪ Less expensive for SMART to operate ▪ Complements rather than duplicates TriMet service ▪ The TriMet fare paid in Tualatin would cover transfers in Downtown Portland if required	▪ Passengers need to transfer to Line 96 during peak periods ▪ Difference between peak and midday service may be confusing for passengers
Connect with Regional Transit Network Closer to Wilsonville	▪ SMART would focus on improving connections to TriMet services outside of downtown Portland	▪ Provides benefits to customers who can make a convenient transfer at a regional transit center	▪ Does not improve connections to Downtown Portland ▪ Does not reduce SMART's costs
Upgrade TriMet Line 96 Service to Provide All-Day Downtown Portland Service	▪ SMART would partner with TriMet to upgrade TriMet Line 96 service to all-day	▪ Cost effective for SMART ▪ Avoids service duplication	▪ Creates a number of challenging operational issues for SMART and TriMet

Chapter 6 of the project Final Report describes the potential strategies in more detail.

ANALYSIS OF PROPOSED ALTERNATIVES

Evaluation Criteria

The following criteria, as well as community and stakeholder input, were used to evaluate the effectiveness of each strategy.

- **Maintains Existing Connections**. Assesses the strategy's ability to maintain regional connections currently available with existing out-of-town medical service or Route 2X.

- **Increases Connection Options.** Assesses the number of destinations potentially available to Wilsonville residents by transit, reachable via direct service or reasonable connections.

- **Improves Travel Times.** Assesses the strategy's ability to reduce transit travel times relative to the current system. It includes directness of routing, number of transfers required, and frequency of service.

- **Increases Customer Convenience.** Assesses the number of transfers required to travel outside of Wilsonville along with likely wait times for these transfers.

- **Increases Cost-effectiveness of Medical Service or Route 2X.** Assesses the potential for the service to carry more riders per unit cost of service.

- **Customer Cost.** Assesses the monetary cost to complete a regional trip in terms of total fare required (SMART and TriMet where applicable).

- **Cost to SMART.** Assesses the monetary cost to SMART as an incremental cost/savings relative to the current out-of-town medical and Route 2X services.

- **Avoids Duplication with Existing Services.** Assesses the degree to which the strategy duplicates services in common transit markets.

- **Service to Downtown Portland.** Assesses the strategy's ability to connect Wilsonville to Downtown Portland.

- **Service to Major Medical Institutions.** Assesses the strategy's ability to connect Wilsonville to major medical facilities in the region.

- **Operational Feasibility:** Assesses the strategy's impacts on transit operations including layover locations, passenger capacity, and complexity of passenger eligibility and trip screening procedures.

- **Potential to Attract New Customers:** Assesses strategy's ability to attract new passengers not currently using SMART, especially among potential choice riders.

Evaluation Key Findings and Community Input

The study evaluated the potential strategies to address the identified needs for the Route 2X and Out-of-Town Medical services based on the above evaluation criteria. The left side of Figure ES-9 illustrates the evaluation results for the Out-of-Town Medical service options and the right side provides results for the Route 2X options. The following sections summarize community input and key findings from the evaluation.

Chapters 6 and 8 of the project Final Report describe the potential strategies and the evaluation results in more detail. Chapters 4 and 7 of the Transit Integration Study final report describe initial public input on needs and input on the proposed alternatives, respectively, in more detail.

Figure ES-9   Effectiveness of Out-of-Town Medical Service and Route 2X Service Strategies in Meeting Criteria

Rating scale: ● = Highly Effective (full green), ◑ = Effective (half green), ◔ = Less Effective (half gray), ○ = Least Effective (empty)

Criteria/Objectives	Out-of-Town Medical Service Strategies			Route 2X Strategies			
	Serve Primary Destinations with Medical Shuttle	Shift Out-of-Town Medical Dial-A-Ride trips to fixed route	Integrate Out of Town Medical Dial-A-Ride and fixed-route trips	Provide Direct Service to Portland	Provide Integrated (Line 96/Route 2X) Service to Portland	Connect with Regional Transit Network Closer to Wilsonville	Upgrade TriMet Line 96 Service to Provide All-Day Downtown Portland Service
Maintains Existing Connections	◔	N/A	N/A	◑	◑	◔	◔
Increases Connection Options	N/A	N/A	N/A	◑	◑	◑	◑
Improves Travel Times	◔	N/A	◔	●	●	◔	◑
Increases Customer Convenience	◑	◔	◔	◑	◑	◔	◑
Increases cost-effectiveness of Route 2X	●	◑	◑	◑	●	●	●
Customer Cost	◑	N/A	N/A	◑	●		
Cost to SMART	●	◑	◑	○	●	◔	◑
Avoids duplication with existing services	N/A	N/A	N/A	◔	●	◑	●
Service to Downtown Portland	N/A	N/A	N/A	●	●	◔	●
Service to Major Medical Institutions	●	N/A	◔	◑	◑	N/A	N/A
Operational Feasibility	◑	N/A	○	◑	◑	◔	◔
Potential to attract new customers	◑	◔	◔	●	◑	◑	◔

RATING SCALE: ● Highly Effective ←——————→ ○ Least Effective

Evaluation of Out-of-Town Medical Service Options

The left side of Figure ES-9 (above) illustrates the evaluation results for the Out-of-Town Medical service options. Based on a preliminary evaluation, public input was solicited on the option to "serve primary destinations with a medical shuttle."

Summary of Community Input and Key Evaluation Findings

Stakeholder and community input received during the first phase of the project (Needs Assessment) cited service to seniors and persons with disabilities as one of SMART's strengths. Community input also indicated that it is more desirable to provide access to hubs of medical services than to expand geographic coverage. Increased frequency of service and convenient access were identified as desired service improvements, with the greatest demand being for access to medical/dental services in Tualatin, Tigard, and Portland, as well as to County health services in Oregon City.

Consistent with this direction, the proposed medical shuttle service would maintain service to the major medical institutions closest to Wilsonville where the majority of existing out-of-town medical trips are taken. A shuttle would increase the cost-effectiveness of the service, which is expected to allow it to serve more riders and currently unmet demand for the service.

There was strong support for the proposed out-of-town medical shuttle based on stakeholder outreach and a survey conducted during the second round of community outreach. Key findings and conclusions include:

- Strong concerns about entirely replacing Wilsonville's existing out-of-town medical dial-a-ride service with a shuttle bus system will likely be expressed by some seniors and persons with disabilities, as well as by some service providers. In retrospect, it may not have been clear to all respondents that the shuttle would replace existing on-demand services and it is unclear how respondents would have reacted to a distinct choice between the two. While the shuttle bus was generally viewed as a good idea if it preserves services that might otherwise be reduced or lost, there was concern that it will not be accessible to non-ambulatory persons and that it will not serve all current destinations.

- It was generally agreed that the Tualatin area is an appropriate shuttle destination, especially if there is improved Route 2X service to OHSU (see next section), and that Monday-Friday service best corresponds with schedules for doctors' offices and medical clinics.

- Concerns about the proposed shuttle focused on the timing and frequency of service. Coordination of schedules with doctors' offices and medical clinics is expected to be the greatest operational challenge, particularly for dialysis patients. A proactive outreach with senior centers, assisted living centers, doctors' offices, and medical clinics will be required to make a shuttle service functional.

- It is recommended that shuttle stops be located at centralized locations (e.g., coffee shops) where clients can comfortably wait between arrivals. From a centralized location, clients can then transfer to taxis to reach their specific destinations.

- Both Ride Connection and Clackamas County representatives suggested groupings of dial-a-ride trips in lieu of a shuttle. It was also suggested that, if a shuttle is provided, customers should be asked to pay a portion of the trip cost.

Expanded and ongoing public education is needed to communicate to the public that the provision of out-of-town medical transport is a voluntary (not required) community service provided by SMART; the high and growing cost of that service; and that, to be able to continue to provide such service, SMART needs to implement significant changes in its existing medical dial-a-ride program.

Evaluation of Route 2X Options

The right side of Figure ES-9 (above) illustrates the evaluation results for the Route 2X options.

Based on a preliminary evaluation, public input was solicited on the following two options:

- **1. Direct Service to Portland** would provide direct service without a transfer and would be the most convenient option for passengers, but would be more costly for SMART to provide, and duplicates TriMet service. Customers who need to transfer to a TriMet service in downtown Portland would also need to pay an additional fare.

- **2. Integrated TriMet Line 96 / Route 2X** would require that passengers transfer to Line 96 during peak periods but would be less expensive for SMART to operate and would complement rather than duplicate TriMet service. The fact that Route 2x would provide direct service midday, but require a transfer at other times may confuse some potential passengers. The TriMet fare paid in Tualatin would cover transfers in Downtown Portland if required.

These options would maintain most existing connections while providing a convenient travel option to Portland that should attract new customers. Either option could improve connections to medical institutions in and around Downtown Portland for passengers able to use fixed-route transit services (with a connection to TriMet services or the Aerial Tram to OHSU/VA Hospital).

A third option, to upgrade TriMet Line 96 service to all-day, would be cost effective for SMART and avoid service duplication, but would create a number of challenging operational issues for the two agencies. Improved connections to the regional network closer to Wilsonville would provide benefits to some customers for whom transfers to regional transit services would be more frequent convenient, but would not improve connections to Downtown Portland and would not reduce SMART's costs.

Summary of Community Input and Key Evaluation Findings

Outreach during both phases of the project indicated that frequency of service is the most desired improvement for Route 2X service, and that connectivity to primary transit centers, such as the Barbur Transit Center, is more important to *current* users than direct service to Downtown Portland or the South Waterfront. Access to hubs is preferable to expanding SMART's service area. Conclusions drawn from community input include:

- Direct all-day service to Portland (Option 1) is favored over trying to better integrate TriMet and SMART services (Option 2), although there was also significant concern about eliminating service to the Barbur Transit Center as part of the proposed improvements. A strong case would need to be made that this proposed change in service is necessary.

- Downtown Portland is the preferred destination for an extension of Route 2X, and provides better connections to other destinations including employment, shopping, and entertainment.

- Survey results include:

   – Forty-five percent (45%) of survey respondents indicated they would use an all-day Route 2X (Option 1) regularly, with another 25% using it occasionally.

   – If direct all-day Route 2X service to Portland cannot be provided for cost or logistical reasons, 40% of respondents felt that integrated Route 2X/Line 96 service (Option 2) would work well or fairly well for them as an alternative. An equal number of respondents, however, identified concerns about the effectiveness of this integrated service, including issues about the frequency and slowness of Line 96 service, timing of connections, transfers adding time and cost to trips, and other convenience factors.

–   If the integrated Route 2X/Line 96 service was provided at peak times, only 25% of respondents indicated that they would use it regularly and another 30% would use it occasionally (a total of 55% compared with 70% of respondents who indicated regular or occasional use of all-day direct service.)

–   If direct Route 2X service to Portland is only provided mid-day, only 16% percent of respondents indicated they would use it regularly and another 24% would use it occasionally (a total of 40%).

–   Other options identified for consideration include expanded WES service, express service in the I-205 corridor, accessing Portland via Barbur Boulevard rather than I-5, weekend service, and extended service hours.

Given that respondents were primarily current Route 2X riders, community input did not provide clear insight on the service needs of non-riders (i.e., what would attract them to use the service). In outreach conducted during the Needs Assessment phase of the project, major Wilsonville employers noted very low transit ridership among their employees, with the vast majority of their transit riders using WES. They also cited the challenges for shift workers of accessing convenient transit service and, most significantly, an auto-centric cultural attitude among their employees.

SMART bus routes and TriMet Westside Express (WES) commuter rail service meet at SMART Central at Wilsonville Station.

Source: SMART

RECOMMENDATIONS

This section presents the final Transit Integration Project recommendations for SMART's out-of-town medical and I-5 Corridor (Route 2X) services. These recommendations are based on the evaluation of the potential alternatives and community feedback on the various approaches.

Out-of-Town Medical Service

To address concerns about replacement of all medical dial-a-ride services with a shuttle bus service, the project recommends that the replacement service be phased in over a 1-2 year period and/or investigating the feasibility of replacing the existing dial-a-ride service with a volunteer driver program. Figure ES-10 summarizes recommendations and provides a phasing approach for the out-of-town medical service.

1. **Develop a medical shuttle service to the Tualatin area using one of the two vans** currently operating the out-of-town medical dial-a-ride service. Figure ES-11 illustrates the concept.

2. **Pursue strategies to increase the efficiency and capacity of the second van**, including reducing the out-of-town service area and targeting service in alternate geographic zones on different days. The aim would be to phase out the second van over time.

3. **Explore use of Clackamas County's currently-operating Transportation Reaching People (TRP) program.**[4] Volunteer drivers provide seniors and persons with disabilities with door-to-door transportation, including to medical appointments. Volunteer drivers could serve some medical trips more efficiently and cost-effectively than dial-a-ride or a medical shuttle.

4. **Utilize the Route 2X strategies to improve all-day access to major medical institutions for ambulatory passengers**, e.g., midday stops in South Waterfront (OHSU Wellness Center and Portland Aerial Tram to OHSU/VA Hospital).

Figure ES-10   Out-of-Town Medical Service Recommendations and Phasing

Service Element	Short-Term (FY 2015-2016)	Mid-Term (FY 2017-2019)	Long-Term (FY 2020+)
Primary Strategy			
Out-of-Town Medical Van #1	Develop a pilot shuttle service to consolidate trips to Tualatin area, at least three days per week (e.g., Mon-Wed-Fri). This could then be expanded to five days per week.	Continue to refine shuttle service route/stops and market the service to customers	Consider expanding to Saturdays (linked to available funding and phasing out the second van)
Additional Considerations/Mitigation Strategies			
Out-of-Town Medical Van #2	Provide door-to-door service within a more constrained service area Consider using geographic zones (e.g., specific days of the week) to pool trips and increase efficiency	Phase out the second van (service hours, days of week) based on viability of the volunteer program	
Volunteer Program	Explore use of County TRP program to enable volunteer drivers to serve some medical trips	Further develop volunteer program capacity, i.e., recruit additional drivers	
Fixed-Route Integration	Route 2X improvements to Downtown Portland improve access to major medical sites, with a transfer to TriMet services and/or other shuttle services, e.g., OHSU shuttle		

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[4] http://www.clackamas.us/socialservices/transportation.html

Figure ES-11   Conceptual Medical Shuttle

Route 2X I-5 Corridor Service

Figure ES-12 summarizes recommendations for SMART's I-5 corridor service (Route 2X) and describes a phasing approach.

- **Short-Term**: **Pursue the integrated (Route 2X/Line 96) option to extend service to Downtown Portland**. Figure ES-13 illustrates this concept, which would result in a net operating savings for SMART. There would be no service to Barbur TC, however existing WES service (peak periods), existing SMART connections to TriMet in Tualatin, and improved TriMet connections in Downtown Portland would help mitigate eliminating this stop.

- **Mid-Term: Continue discussions with TriMet around extending Line 96 to SMART Central, with implementation in the mid-term time frame or possibly sooner.** This option has the largest potential cost savings to SMART, depending on TriMet's costs. Local service modifications (Route 2X and/or Route 5) would be required to integrate with the direct Line 96 service to SMART Central. Route 2X would no longer need to serve Tualatin P&R during periods when Route 96 is operating. Depending on whether Line 96 serves local stops in Wilsonville, continued operation of Route 5 may or may not be required.

- **Long-Term: Monitor implementation of TriMet's Southwest Transit Enhancement Plan (likely mid-term or beyond) and Metro's Southwest Corridor Plan** for future opportunities to improve regional transit connections and realize efficiencies.

Figure ES-12   I-5 Corridor (Route 2X) Recommendations and Phasing

Recommendation and Service Element		Time Period	Short-Term (FY 2015-2016)	Mid-Term (FY 2017-2019)	Long-Term (FY 2020+)
Route 2X/TriMet Line 96 Integration – SMART Infill of Line 96 Service Gaps	2X Out-of-Town	Peak Periods	Modify Route 2X to connect to Line 96 service at Tualatin P&R Work with TriMet on Line 96 extension to SMART Central	(a) If feasible, partner with TriMet to extend Line 96 to SMART Central (b) If not feasible, continue the short-term strategy	Connect to future Southwest Corridor service in the Tualatin area
		Midday	Extend Line 2X Service to Downtown Portland, following Line 96 routing	(a) If feasible, partner with TriMet to fill in Line 96 service gap midday (b) If not feasible, continue the short-term strategy. Based on demand, consider adding 1-2 trips on Route 2X to reduce headways at strategic times.	Connect to future Southwest Corridor service in Tualatin area
			Consider additional stops in South Waterfront (aerial tram; MAX Orange Line, Streetcar Loop, buses to SE Portland)		
	2X Local	All	Incorporate planning for possible Line 96 extension to SMART Central into TMP Update	Line 96 extension would require modification of local service (restructuring could be coordinated with TMP Update)	
Improve Connections to Regional Services	TBD	All	Not viable at this time	Monitor implementation of TriMet Southwest Service Enhancement Plan	Monitor implementation of TriMet Southwest Service Enhancement Plan and Metro's Southwest Corridor plan

**Figure ES-13   I-5 Corridor Route 2X / Line 96 Hybrid Concept Map**

SMART Route 2X - Proposed
Wilsonville to Downtown Portland Service

SMART currently operates service between Wilsonville and Barbur Transit Center in SW Portland (Route 2X). Starting in approximately Fall 2015, SMART is planning to terminate Route 2X service at Tualatin Park & Ride and provide a timed transfer to TriMet Line 96 service to Portland.
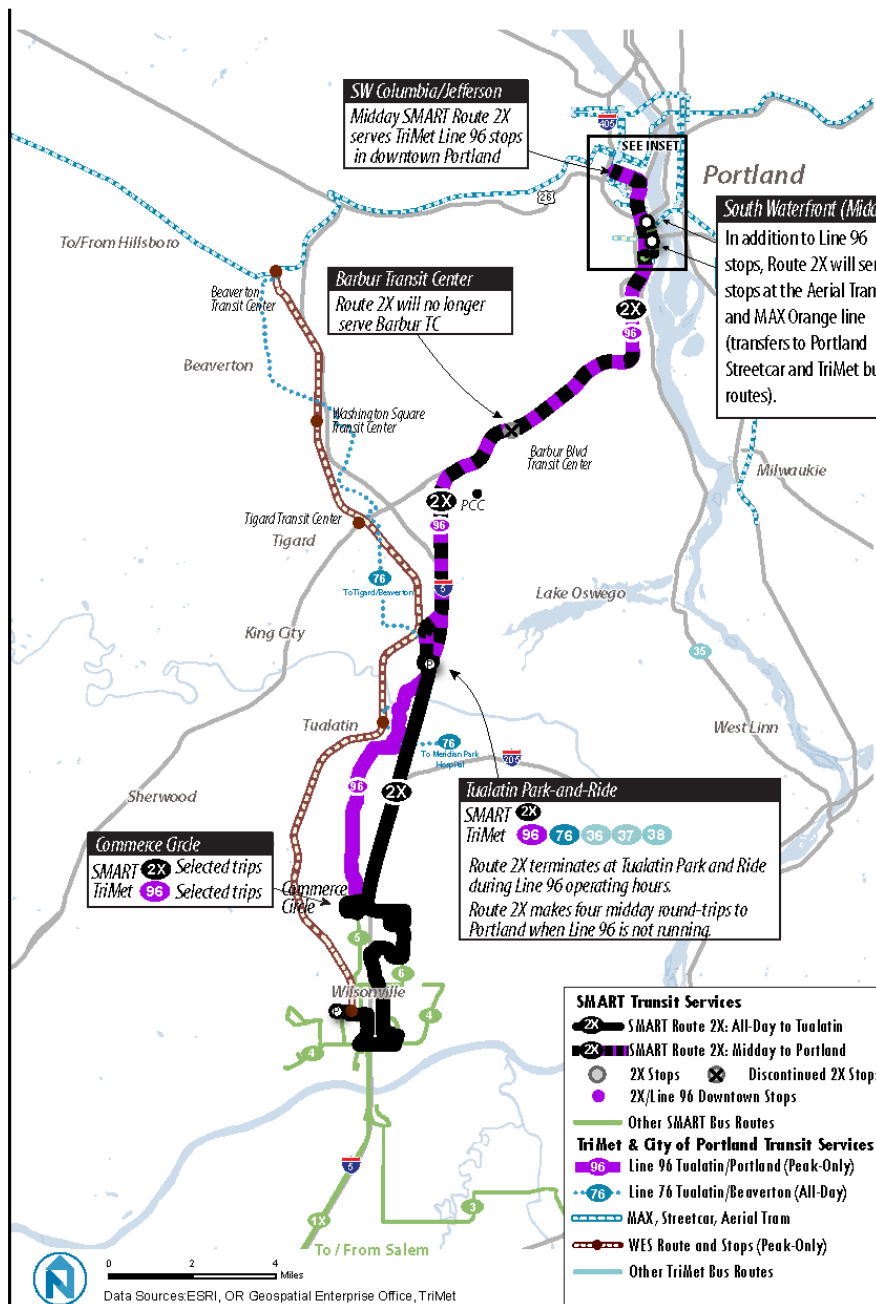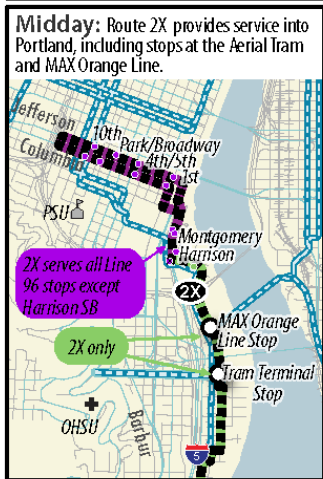
During midday hours, when TriMet Line 96 does not operate, SMART is planning to operate four midday round-trips to downtown Portland, including stops in the South Waterfront.

SMART Route 2X/TriMet Line 96

AM/PM Peak: 5:30-9:30am / 1:30-8:00pm. Line 96 provides service to Downtown Portland. Route 2X provides a connection to TriMet Line 96 at Tualatin Park & Ride (or Commerce Circle). SMART fare of $0.50 to Tualatin and TriMet fare of $2.50 ($3.00 total). TriMet fare includes transfers to other TriMet services.

AM/PM Peak: Route 2X connects to Line 96 in Tualatin. Line 96 serves Downtown Portland.
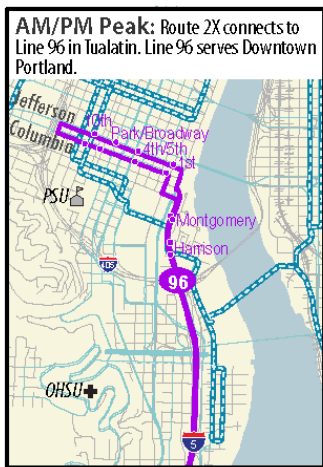
Midday: 9:30am-2:30pm. Route 2X provides service into Portland when Line 96 doesn't operate. Stops include Aerial Tram (OHSU), MAX Orange Line, and Line 96 stops in Portland (along Harbor Drive and SW Jefferson/Columbia Streets). SMART fare of $3.00. Transfers to TriMet services require a TriMet fare at additional cost.

Route 2X does not serve Barbur Transit Center.

Midday: Route 2X provides service into Portland, including stops at the Aerial Tram and MAX Orange Line.

2X serves all Line 96 stops except Harrison SB

2X only

MAX Orange Line Stop

Tram Terminal Stop

SW Columbia/Jefferson
Midday SMART Route 2X serves TriMet Line 96 stops in downtown Portland

Portland

SEE INSET

South Waterfront (Midday)
In addition to Line 96 stops, Route 2X will serve stops at the Aerial Tram and MAX Orange line (transfers to Portland Streetcar and TriMet bus routes).

Barbur Transit Center
Route 2X will no longer serve Barbur TC

To/From Hillsboro

Beaverton Transit Center

Beaverton

Washington Square Transit Center

Barbur Blvd Transit Center

Milwaukie

Tigard Transit Center
Tigard

PCC

To Tigard/Beaverton

Lake Oswego

King City

To Meridian Park Hospital

Tualatin

West Linn

Sherwood

Tualatin Park-and-Ride
SMART 2X
TriMet 96 76 36 37 38
Route 2X terminates at Tualatin Park and Ride during Line 96 operating hours.
Route 2X makes four midday round-trips to Portland when Line 96 is not running.

Commerce Circle
SMART 2X Selected trips
TriMet 96 Selected trips

Wilsonville

To / From Salem

Data Sources: ESRI, OR Geospatial Enterprise Office, TriMet

SMART Transit Services
2X SMART Route 2X: All-Day to Tualatin
2X SMART Route 2X: Midday to Portland
○ 2X Stops   ✕ Discontinued 2X Stops
● 2X/Line 96 Downtown Stops
— Other SMART Bus Routes

TriMet & City of Portland Transit Services
96 Line 96 Tualatin/Portland (Peak-Only)
76 Line 76 Tualatin/Beaverton (All-Day)
MAX, Streetcar, Aerial Tram
WES Route and Stops (Peak-Only)
Other TriMet Bus Routes

IMPLEMENTATION

Figure ES-14 identifies actions that will need to be led by SMART to implement recommended changes to the Medical Shuttle and Route 2X services and realize increased efficiencies and customer benefits. The table includes other agencies with which SMART will need to coordinate.

Figure ES-14   Implementation Actions

#	Description	Lead Implementer(s)*	Immediate 2015	Short-Term 2016-2018	Medium / Long-Term (2018-2025)
Medical Shuttle Service					
MS-1	**Contract Out-of-Town Medical Service Boundary.** Reduce costs and increase capacity by limiting geographic coverage and the longest-haul, lowest-productivity trips to outlying destinations.	SMART – Stephan Lashbrook [1]	X		
MS-2	**Conduct Outreach to Medical Shuttle Destinations.**	SMART – Jen Massa Smith [1]	X	X	
MS-3	**Conduct Outreach to Medical Shuttle Passengers.**	SMART – Jen Massa Smith [1]	X	X	
MS-4	**Coordinate with Clackamas County TRP program.** Explore/consider use of volunteer drivers to serve some medical trips, such as return trips for Dialysis patients.	SMART – Jen Massa Smith [1]	X	X	
MS-5	**Finalize Shuttle Schedule and Implement three day/week service to Tualatin facilities.**	SMART – Steve Allen [1]		X	
MS-6	**Develop Medical Shuttle Scheduling Procedures.** Build final schedule into scheduling system to integrate scheduled stops with on-demand ones.	SMART – Steve Allen [1]	X		
MS-7	**Consider Expanding Shuttle Service to Additional Days and/or Service Areas.**	SMART – Stephan Lashbrook [1]		X	X

Notes: * Implementation Responsibility: [1] Lead, [2] Support. SMART areas of responsibility include Policy/Management (Stephan Lashbrook), Transit Operations (Steve Allen), and Programs (Jen Massa Smith).

#	Description	Lead Implementer(s)*	Immediate 2015	Short-Term 2016-2018	Medium / Long-Term (2018-2025)
Route 2X					
2X-1	**Conduct Outreach Related to Route 2X Downtown Layover Locations.** Layover locations have been discussed and vetted with TriMet, Portland Streetcar, and City of Portland staff. Conduct outreach to adjacent property owners prior to securing final agreement/approvals from affected agencies.	SMART – Jen Massa Smith [1]	X	-	-
2X-2	**Test SMART wheelchair lifts at representative Downtown Portland stops,** particularly those shared with streetcar to verify compatibility with curb height (Moody & Meade).	SMART – Steve Allen [1]	X		
2X-3	**Finalize Route 2X Downtown Stop and Layover Locations.**	SMART – Steve Allen [1], Jen Massa Smith [2] TriMet – Ben Baldwin [2] City of Portland [2] Portland Streetcar [2]	X	-	-
2X-4	**Coordinate Route 2X Signage at Shared Stops with TriMet.** SMART would need to produce stickers, potentially in a couple of formats for different types of signs. It is recommended the stickers include a link to obtain online information on the service.	SMART – Jen Massa Smith [1] TriMet – Ben Baldwin [1]	X	-	-
2X-5	**Finalize Route 2X Schedule and Fare Structure.**	SMART – Steve Allen [1]			
2X-6	**Conduct Outreach to Route 2X Existing/Potential Riders.** Outreach should include promotion of midday trips to TriMet Line 96 riders.	SMART – Jen Massa Smith [1]	X	-	-
2X-7	**Line 96 Extension to SMART Central.** Coordinate with TriMet regarding potential to extend Line 96 to SMART Central. SMART would not need to run Route 2X service outside of Wilsonville to Tualatin P&R.	SMART – Stephan Lashbrook [1] TriMet – Kate Lyman [1]	X	X	-
2X-8	**Line 96 Midday Infill.** Coordinate with TriMet regarding potential to have Line 96 operate during midday hours. SMART would not need to run Route 2X service outside of Wilsonville to Tualatin P&R/Downtown Portland.	SMART – Stephan Lashbrook [1] TriMet – Kate Lyman [1]	-	X	X
2X-9	**Coordinate with TriMet on Future Integration with Fare Smart Card System.**	SMART – Stephan Lashbrook [1] TriMet – TBD [2]	-	X	X

Notes: * Implementation Responsibility: [1] Lead, [2] Support. SMART areas of responsibility include Policy/Management (Stephan Lashbrook), Transit Operations (Steve Allen), and Programs (Jen Massa Smith).