Agenda

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting:	Metro Technical Advisory Committee (MTAC) and Transportation Policy Alternatives Committee (TPAC) Workshop
Date:	Wednesday October 19, 2022
Time:	9:00 a.m. to 12:00 p.m.
Place:	Virtual meeting held via Zoom Connect with Zoom Passcode: 692965 Phone: 877-853-5257 toll free

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9:00 a.m.	**Call meeting to order, introductions, and committee updates**	Chair Kloster
9:10 a.m.	**Public communications on agenda items**	
9:13 a.m.	**Consideration of MTAC/TPAC workshop summary, August 17, 2022** Edits/corrections sent to Marie Miller marie.miller@oregonmetro.gov	Chair Kloster
9:15 a.m.	**Regional Transportation Plan (RTP) Needs Assessment Findings** Purpose: Share draft results of the 2023 RTP Needs Assessment with TPAC for discussion and feedback.	Eliot Rose, Metro
10:15 a.m.	**TriMet Forward Together Update** Purpose: Introduce TriMet's Forward Together Service Concept that is designed to respond to recent transportation trends and is out for public comment.	Tom Mills, TriMet
11:00 a.m.	**High Capacity Transit Strategy Update: Network Vision** Purpose: Feedback to inform refinements to the final draft policy framework, shape the network vision for corridors identified for potential HCT investment, and influence the approach for defining readiness tiers.	Ally Holmqvist, Metro
12:00 noon	**Adjournment**	Chair Kloster

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ការគោរពសិទ្ធិពលរដ្ឋរបស់ ។ សំរាប់ព័ត៌មានអំពីកម្មវិធីសិទ្ធិពលរដ្ឋរបស់ Metro ឬដើម្បីទទួលពាក្យបណ្តឹងរើសអើងសូមចូលទស្សនាគេហទំព័រ www.oregonmetro.gov/civilrights។
បើលោកអ្នកត្រូវការអ្នកបកប្រែភាសានៅពេលអង្គប្រជុំសាធារណៈ សូមទូរស័ព្ទមកលេខ 503-797-1700 (ម៉ោង 8 ព្រឹកដល់ម៉ោង 5 ល្ងាច ថ្ងៃធ្វើការ) ប្រាំពីរថ្ងៃថ្ងៃធ្វើការ មុនថ្ងៃប្រជុំដើម្បីអាចឲ្យគេសម្រួលតាមសំណើរបស់លោកអ្នក ។

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2022 Metro Technical Advisory Committee (MTAC) Work Program
As of 9/22/2022

	October 19, 2022 – MTAC/TPAC Workshop **9:00 am – noon** Agenda Items • Regional Transportation Plan (RTP) Needs Assessment Findings (Eliot Rose, Metro, 60 min) • TriMet Forward Together update (Tom Mills, TriMet; 45 min) • High Capacity Transit Strategy Update: Network Vision (Ally Holmqvist, Metro, 60 min)
November 16, 2022 – 10 am – noon Comments from the Chair • Committee member updates around the region (Chair Kloster and all) • Fatal Crashes Update (Lake McTighe) Agenda Items • RTP Call for Projects Approach (Kim Ellis, Metro; 30 min.) • Climate Smart Strategy Update (Kim Ellis, Metro; 60 min.)	**December 21, 2022 – MTAC/TPAC Workshop** **9:00 am – noon** **WORKSHOP MEETING CANCELLED**

Parking Lot/Bike Rack: Future Topics: These are listed in the MTAC 2023 work program

For MTAC agenda and schedule information, e-mail marie.miller@oregonmetro.gov
In case of inclement weather or cancellations, call 503-797-1700 for building closure announcements.

2022 TPAC Work Program

As of 10/12/2022

NOTE: *Items in* ***italics*** *are tentative;* ***bold*** *denotes required items*

October 19, 2022 – MTAC/TPAC Workshop
9:00 am – noon

Agenda Items:

- RTP Needs Assessment Findings (Eliot Rose, Metro; 60 min)
- TriMet Forward Together update (Tom Mills, TriMet; 45 min)
- High Capacity Transit Strategy Update: Network Vision (Ally Holmqvist, Metro; 60 min)

November 4, 2022 9:00 am – noon
Comments from the Chair:

- Creating Safe Space at TPAC (Chair Kloster)
- Responses from Wufoo feedback from committee members (Chair Kloster)
- Committee member updates around the Region (Chair Kloster & all)
- Monthly MTIP Amendments Update (Ken Lobeck)
- Fatal crashes update (Lake McTighe)

Agenda Items:

- **MTIP Formal Amendment 22-****** Recommendation to JPACT (Lobeck, 15 min)
- **Regional Mobility Policy Update: Draft Policy and Action Plan** Recommendation to JPACT (Kim Ellis, Metro/ Glen Bolen, ODOT/ Susie Wright, Kittelson & Associates; 30 min)
- RTP Call for Projects Policy Framework and Draft Revenue Forecast (Kim Ellis/Ted Leybold, 60 min)
- *Rose Quarter Project update (Eliot Rose; 30 min)*
- Committee Wufoo reports on Creating a Safe Space at TPAC (Chair Kloster; 5 min)

November 9, 2022 – TPAC Workshop
9:00 am – noon

Agenda Items:

- Regional Freight Delay & Commodities Movement Study (Tim Collins/Kyle Hauger, Metro; 75 min)
- Cascadia Corridor Ultra High Speed Ground Transportation: Overview and Update (Ally Holmqvist, Metro; Jennifer Sellers, ODOT; Jason Beloso, WSDOT; 45 min)
- *82nd Avenue Project update (Elizabeth Mros- O'Hara, Metro/ City of Portland TBD; 30 min)*

December 2, 2022 9:00 am – noon Comments from the Chair: • Creating Safe Space at TPAC (Chair Kloster) • Committee member updates around the Region (Chair Kloster & all) • Monthly MTIP Amendments Update (Ken Lobeck) • Fatal crashes update (Lake McTighe) **Agenda Items:** • **MTIP Formal Amendment 22-****** Recommendation to JPACT (Lobeck, 15 min) • ***MTIP Formal Amendment 22-**** Rose Quarter Project*** *Recommendation to JPACT (Eliot Rose, 30 min)* • **RTP Call for Projects Policy Framework and Draft Revenue Forecast** Recommendation to JPACT (Kim Ellis, Metro; 45 min.) • Climate Smart Strategy JPACT/Council Workshop Recap (Kim Ellis, Metro; 30 min) • Committee Wufoo reports on Creating a Safe Space at TPAC (Chair Kloster; 5 min)	**December 21, 2022 – MTAC/TPAC Workshop 9:00 am – noon** **WORKSHOP MEETING CANCELLED**

Parking Lot: Future Topics/Periodic Updates: These are listed in the TPAC 2023 work program

Agenda and schedule information E-mail: marie.miller@oregonmetro.gov or call 503-797-1766.
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Meeting minutes

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting: **Metro Technical Advisory Committee (MTAC) and Transportation Policy Alternatives Committee (TPAC) workshop meeting**

Date/time: Wednesday, August 17, 2022 | 9:00 a.m. to noon

Place: Virtual conference meeting held via Zoom

Members, Alternates Attending	Affiliate
Tom Kloster, Chair	Metro
Karen Buehrig	Clackamas County
Steve Williams	Clackamas County
Allison Boyd	Multnomah County
Sarah Paulus	Multnomah County
Chris Deffebach	Washington County
Lynda David	Southwest Washington Reg. Transportation Council
Eric Hesse	City of Portland
Peter Hurley	City of Portland
Jaimie Lorenzini	City of Happy Valley and Cities of Clackamas County
Jay Higgins	City of Gresham and Cities of Multnomah County
Don Odermott	City of Hillsboro and Cities of Washington County
Tara O'Brien	TriMet
Glen Bolen	Oregon Department of Transportation
Karen Williams	Oregon Department of Environmental Quality
Katherine Kelly	City of Vancouver
Carol Chesarek	Multnomah County Citizen
Tom Armstrong	Largest City in the Region: Portland
Colin Cooper	Largest City in Washington County: Hillsboro
Aquilla Hurd-Ravich	Second Largest City in Clackamas County: Oregon City
Jean Senechal Biggs	Second Largest City in Washington County: Beaverton
Laura Terway	Clackamas County: Other Cities, City of Happy Valley
Steve Koper	Washington County: Other Cities, City of Tualatin
Martha Fritzie	Clackamas County
Kevin Cook	Multnomah County
Theresa Cherniak	Washington County
Gary Albrecht	Clark County
Oliver Orjiako	Clark County
Laura Kelly	OR Department of Land Conservation & Development
Kelly Reid	OR Department of Land Conservation & Development
Shelly Parini	Clackamas Water Environment Services
Manuel Contreas, Jr.	Clackamas Water Environment Services
Heather Koch	North Clackamas Park & Recreation District
Nina Carlson	Service Providers: Private Utilities, NW Natural
Tom Bouillion	Service Providers: Port of Portland
Bret Marchant	Greater Portland, Inc.
Brett Morgan	1000 Friends of Oregon
Sara Wright	Oregon Environmental Council
Rachel Loftin	Community Partners for Affordable Housing
Preston Korst	Home Builders Association of Metropolitan Portland
Mike O'Brien	Green Infrastructure, Mayer/Reed, Inc.

Members, Alternates Attending	**Affiliate**
Craig Sheahan	Green Infrastructure, David Evans & Associates
Brendon Haggerty	Mult. County Public Health & Urban Forum

Guests Attending	**Affiliate**
Andrew Bastasch	Oregon Department of Transportation
Avi Taylor	Oregon Department of Transportation
Barbara Fryer	City of Cornelius
Ben Chaney	Oregon Department of Transportation
Bill Kabeiseman	
Brandy Steffen	
Bryan Pohl	City of Forest Grove
Darci Rudzinski	
Elin M-M	
Francesca Jones	Portland Bureau of Transportation
James Powell	Oregon Department of Environmental Quality
Jessica Pelz	Washington County
Julia Wean	Steer
Katherine Bell	Oregon Department of Transportation
Lidwien Rahman	Oregon Department of Transportation
Lucia Ramirez	Oregon Department of Transportation
Marc Farrar	
Miranda Bateschell	City of Wilsonville
Molly McCormick	Kittelson & Associates
Neelam Dorman	Oregon Department of Transportation
Nick Fortey	Federal Highway
Peter Schuyema	Oregon Department of Transportation
Raymond Chong	
Riley Howard	
Samantha Thomas	Home Builders Association of Portland
Steve Kelly	Washington County
Susie Wright	Kittelson & Associates
Vanessa Vissar	Oregon Department of Transportation
Will Farley	City of Lake Oswego

Metro Staff Attending

Tim Collins, Principal Transportation Planner	Kim Ellis, Senior Transportation Planner
John Mermin, Senior Transportation Planner	Grace Cho, Senior Transportation Planner
Grace Stainback, Assoc. Transportation Planner	Andrea Pastor, Senior Regional Planner
Caleb Winter, Senior Transportation Planner	Thaya Patton, Senior Researcher & Modeler
Ally Holmqvist, Senior Transportation Planner	Marne Duke, Senior Transportation Planner
Bill Stein, Sr. Research & Modeler	Cindy Pederson, Research Manager
Clint Chivarini, Senior GIS Specialist	Eryn Kehe, Policy & Urban Dev. Manager
Kadin Mangalik, Intern	Kate Hawkins, Senior Transportation Planner
Lake McTighe, Senior Transportation Planner	Malu Wilkinson, Program Director
Matthew Flodin, Intern	Miranda Seekins, Intern
Roger Alfred, Metro Legal Counsel	Shirley Craddick, Metro Councilor
Ted Leybold, Resource & Dev. Manager	Ted Reid, Principal Regional Planner
Tim O'Brien, Principal Regional Planner	Marie Miller, TPAC & MTAC Recorder

Call meeting to order, introductions and committee updates (Chair Kloster)
Chair Kloster called the workshop meeting to order at 9:00 a.m. Introductions were made. The meeting format held in Zoom with chat area for shared links and comments, screen name editing, mute/unmute, and hands raised for being called on for questions/comments were among the logistics reviewed. Workshops will be held openly for all onscreen for full participation.

Chair Kloster posted in chat the following from the Department of Land Conservation & Development:
Department of Land Conservation and Development staff have scheduled a webinar focused on the parking reforms in the Climate-Friendly and Equitable Communities rules.
Parking Reform webinar will be held:
Tuesday, August 30
9 am - 10:30 am
https://us02web.zoom.us/meeting/register/tZYpc-GprzosE9VKPHTByiJsAf64JNKJPn3S
Additional time for questions about CFEC rules includes DLCD office hours:
Climate Friendly and Equitable Communities Office Hours with DLCD Staff
Monday, September 12
2PM-3:30PM
https://us02web.zoom.us/j/81792335713?pwd=Z09qNXlkUXUyTGNORmFCdFFhQ0lUdz09
Additional guidance has been published and can be found at
https://www.oregon.gov/lcd/CL/Pages/CFEC.aspx

Don Odermott announced the new Cities of Washington County alternate member for TPAC; Mike McCarthy, Transportation Engineer, City of Tualatin.

Eric Hesse noted the additional office hours offered by DLCD regarding the CFEC rules. It was asked if Metro planned on offering time with staff on these issues. Chair Kloster noted Metro is looking to provided time with partners to answer questions and will report more on this soon.

Glen Bolen offered to be contacted by Metro interns for job positions at ODOT Region 1. Several positions are expected to be open soon. Those interested are encouraged to reach out to Mr. Bolen for further information.

Comments from the Chair

- 2023 Regional Transportation Plan (RTP) Schedule of Discussion (Kim Ellis) It was noted the updated list of advisory committee and engagement meetings for the 2023 RTP schedule of discussions in the meeting packet. More changes are coming and will be sent to everyone as the list is updated again.

- 2022 Regional Transportation Plan (RTP) JPACT and Metro Council Workshop Series (Kim Ellis) It was noted the RTP/JPACT/Metro Council workshop series schedule to support the RTP 2023 update was in the meeting packet. For questions on either schedules the committee can contact Ms. Ellis.

Public Communications on Agenda Items – none provided

Consideration of MTAC/TPAC workshop summary of June 15, 2022 – Carol Chesarek suggested edits to wording on page 5 of the summary that Metro Counsel Roger Alfred could review and update. Consent with these edits, the committees approved the summary of June 15, 2022 MTAC/TPAC workshop.

Metro/ODOT Regional Mobility Policy: Draft Recommendations (Kim Ellis, Metro/ Glen Bolen, ODOT/ Susan Wright, Kittelson & Associates)
Ms. Ellis presented slides 1-5, which provided information on a review of the project purpose, a look back on development of the project, and project timeline. Ms. Wright presented slides 6-16, which provided information on the major changes and discussions since mid-June to address feedback, mobility policy elements, draft mobility policies for the Portland region, information on the regional mobility policy related to the RTP and Oregon Highway Plan Policy 1F, draft mobility policy performance measures, performance measure targets, system planning actions, and Metro 2040 Financially Constrained Travel Demand Model maps showing Household-based VMT per Capita and per Employee Data to Support Setting Baselines.

Comments from the committee:

- Karen Buehrig asked for clarification on a sentence in the target column, slide 13, that reads "OAR 660 Division 44 (GHG Reduction Rule) set VMT/Capita reduction targets with which the ***next*** major RTP update and local TSPs will need to comply. Did this mean the 2027 or 2023 RTP? Ms. Ellis noted this was the 2023 RTP update. Things not completed or needing additional discussion with the timeline available would be identified in next steps of Chapter 8.

  Information was shared on the maps shown regarding Travel Model Demand data, size & scope with geographic location from the model data.

- Karen Buehrig asked how the map inputs were used to calculate the data. Was the 2040 data with forecasted employees and population included in the TAZs with future year assumptions for zoning? When we use this information in the future will this be done by local jurisdictions or used by Metro modeling with special tools?
- Bill Stein noted he sees no reason why local jurisdictions cannot do the TMZs per capita given the data Metro can supply, however Metro is prohibited by law from releasing TMZ data to anyone who hasn't signed a confidential agreement. Ms. Ellis answered the first question by noting the data was based on travel analysis of the 2018 transportation plan. All assumptions and travel behavior data was included and will be updated for the Household-based VMT per Capita model in the 2023 RTP. Susie Wright added this is a simple output from model runs to start from. As we get to smaller plan amendment levels our action plan includes development of a spreadsheet tool that can help show increase or decrease in VMT per capita.
- Glen Bolen noted the spreadsheet are included with tools to come. The link to the University of Utah VMT spreadsheet tool was shared: https://static1.squarespace.com/static/57719e085016e1776170a81c/t/57719e8e890b2719732dac81/1379542553096/MXDTripGenApp.pdf
  Here's the spreadsheet for district level travel: https://alex-steinberger-zhkx.squarespace.com/s/ET_MXD_Travel_App_Standalone_v320.xlsm
  Here's a site level model with documentation on the EPA website https://www.epa.gov/smartgrowth/mixed-use-trip-generation-model
  Here's a great manual from California that shows the math for a giant range of development related items and the effects on GHG: https://www.airquality.org/residents/climate-change/ghg-handbook-caleemod
- Jean Senechal Biggs noted the desire for more layers in the map to show 2040 growth plans and finer locations with employment and housing implications to transportations. Chair Kloster

noted the different perspectives on travel from the employment locations to travel in areas around the region for destinations.

- Don Odermott noted the amount of employees entering areas in TAZs from across the region. It was noted the Chips Act would soon be publicly announced from the statewide task force on microchips planned growth, with impacts on land use and transportation in the region. It was advised to have tools discussed that are implemented smartly and economically efficient.
- Mike O'Brien noted the VMP per capita seemed logical, but the per employees map seems more scattered. It was asked if the VMT was measured per day? Or by travel trips to/from home? Or with various destinations included with travel? Peter Hurley noted the model is for average weekdays in a given time range (example: 2 months), all home-based trips, modeling VMT per capita employment purposes. Susie Wright added this modeling does not capture deliveries or other driving patters, but only commuter trips. Travel demand models are evolving to capture outside trips, but Metro currently uses only home-based trips. Mr. Hurley noted the figures in the document didn't seem to reflect the VMT, specifically figure 1 on page 42. Calculating demand need before estimating completion is recommended. Ms. Wright noted parallel models with the project that would both be updated as more information is obtained.
- Chris Deffebach noted that the 2040 growth plan and transportation planning were planned for regional centers to attract regional trips with connections to transit. Employment centers never rose to these goals to connect them to transit. Do we fail with planned amendments to these plans if not reaching the goals of the system completeness in this project? Ms. Wright noted the mobility policy update intends to bring a stronger transit and regional centers connection together. The amendments can help answer plans to projects in mixed use centers. Mitigation actions/plans may be next steps in adjusting against growing VMT or other factors.
- Don Odermott noted the difficulty meeting mobility goals if we don't have transit as a resource. While we strive to provide viable alternatives, we can't control where TriMet allocates the transit. It's difficult to grow regional centers, in the 2040 map, but not anchored by mass transit. It was noted smart strategies needed considering different affects from plans.

Ms. Wright continued the presentation with information on the average travel speed performance measure applying to system planning on throughways, average travel speed targets and hours per day targets. Average travel speed notes were presented. Findings from travel speed data research to support threshold setting was discussed.

Comments from the committee:

- Chris Deffebach asked shouldn't 99W be on the throughway list - at least Tualatin to the south per RTP designation.
- Don Odermott asked why is I-5 from Columbia River to Marquam Bridge not on the list? And I didn't see I-405 on the list, whose congestion spills back onto US26. Why is US26 only considered for west of Sylvan? In reality, the I-405 and US26 congestion EAST of Sylvan cause queue spillbacks for many miles to the west on US26 (to 185th Ave frequently) but the Regional Travel Model is incapable of identifying the queuing impact of these well-established bottlenecks. This then becomes misleading as the Model dramatically overstates the speeds in the queue-impacted segments of the freeway.
- Carol Chesarek noted page 36 of the packet lists throughways in two bunches. One bunch has Hwy 26 from Sylvan to 405, the other bunch has Hwy 26 west of Sylvan. So it looks like both sections are included.

- Jean Senechal Biggs asked is it safe to assume that these patterns would follow the same during the academic year calendar? I'd be interested to hear thoughts on that.
- Steve Williams noted travel times of the day from the graphic shown, with S/N bound traffic and AM/PM readings offering different reliability targets. With this approach how can we account for shifts in time of day on different areas of regional freeway sections? Ms. Wright noted they are looking at both directions 24/hour periods. The travel speed is a metric to plan this system to look at what we want to achieve as our targets. The major bottleneck impacts will not be moved forward in this currently planned RTP. But what we can do is increase the miles on our freeway system for reliable flows for most hours of the day.
- Katherine Bell noted she would echo Stephen Williams' comment related to the speed graphics – I would be careful about using 2021-2022 data to inform policy related to interstate speeds. Traffic patterns on freeways are still in flux. I would suggest using pre-pandemic data. Otherwise, this methodology is great – very helpful and informative.
- Ben Chaney asked, following up on what Katie and Stephan mentioned: would both the policy and specifics of the speed/reliability targets be determined once and apply indefinitely? (like the v/c targets were). Or would the specifics (target speed and duration) be revisited with each RTP update based on field data etc.? It was noted they would be revisited at the end of the plan. Mr. Chaney noted it seems like the expectation that reliability speed targets will stick around for a while (esp. in the OHP) would support caution in using pandemic-influenced speed data in the target setting process.

Ms. Wright continued the presentation with Mobility Policy System Planning Actions, page 41 of the meeting packet. Discussion followed.

Comments from the committee:

- Don Odermott appreciated the presentation noting *Projections of VMT/capita must incorporate the best available science on latent and induced travel of additional roadway capacity.* In the chart showing N. Bound on I-20 the time periods showing lowest speeds would equate to increase of emissions in these higher outputs. A map of 2015 base year from the 2018 RTP was shown, noting this did not reflect the congestion we now have. Ms. Ellis noted this is not a direct output of the travel model, but an analysis of how the travel model is meeting or not our policy. For accurate forecasting and modeling with data, the policy update will be best served with smart designs with tools.
- Eric Hesse Would like the PMT to confirm my understanding of the proposed use of the speed "targets" vs "standards". It appears this is a more operational assessment. A better understanding of the implications with shifts would be helpful. It would be beneficial to have a balance and connection between travel and land use planning. Right now if feels like how the freeway performs, but would be interested in knowing how these interact with land, housing and transportation project plans, and what the implications on the target setting would be.
- Sara Wright agreed on the prioritizations placed for clarity on implications. It was asked if there was a way to measure variability of travel time rather than speed. Travel speed itself is inherently valuable, but the variability of travel time is what is important to people and business for trip measurements. Susie Wright noted the data shows some variability of travel time. The question is how many hours are useable for reliability. Future predictions for reliability is difficult. The number one factor is recurring congestion that can provide data on travel time and address planning for better reliability.

Ms. Wright continued the presentation with information on system completeness targets, completeness elements, defining these elements in the planning system, specifics on TSMO and TDM System Completeness, the system planning process utilizing the mobility policy measures, and the Metro area planning cycle.

Comments from the committee:

- Mike O'Brien noted the graphics shown from the previous section were dated July 2022. It was advised to collect data not during summer when school is out on arterials and streets that might give false information year round. It as noted the last 2 ½ years had affects to planning that are not known if repeating or changing significantly with new data. The last data collected from this recent time may be suspect.
- Karen Buehrig asked for clarification on the planned amendment of the proportional share that identifies needs that will be established based on daily trips described in figure 2. How would the proportional share be used. Is it a dollar amount or for certain projects? Ms. Wright noted the planned amendments are targeted to increasing the VMT per capita and looking at non-financially constrained planned projects. It looks at the gaps in the system and how to identify these for proportional shares against the planned amendment phase. Asked if these projects need to be constructed before the planned amendment is approved, Glen Bolen noted the length of project time for completion with various planning changes and amendments possible, so no requirement of construction before the planned amendment.
- Eric Hesse asked for clarification between speed targets vs standards. When discussing freeway performance thresholds these have implications on highway expansion discussions, or land use limitations over proposed development nearby. Are we proposing a pivot or are we setting a speed target? What are the implications of this? Ms. Ellis noted more follow up on this since the issue is complex. Mr. Bolen noted the difference between identifying a need and choosing a project. These targets can help us figure out where deficiencies are with costs, benefits and more to projects.

Ms. Wright continued the presentation with information on plan amendment evaluation actions, the plan amendment process utilizing the mobility policy measures, and guidance for assessing the plan amendment with impacts to system completeness. The implementation action plan was described with Policy Implementation Actions, Near-term Data and Guidance Actions, and Long-term Data and Analysis Tool Actions.

Comments from the committee:

- Eric Hesse noted the system completeness with step 6, referencing *"In system plans, when identifying transportation needs and prioritizing investments and strategies, projects that create greater equity and reduce disparities between "Equity Focus Areas" and "Non-Equity Focus Areas" shall be prioritized."* More understanding of this with correct prioritization for safety would be appreciated. Asked if TDM guidance is still forthcoming, Ms. Ellis noted the TDM from ODOT is being studied. The link was shared in chat: TGM Guidance on TDM Plans in TSPs: https://www.oregon.gov/lcd/Publications/TDMPlans_for_Development_2013.pdf More updating on the Equitable Climate Friendly Rulemaking will be incorporated in plans as well. Further discussion on Regional Mobility Policy will take place at committees this fall, with planned ask for recommendation from TPAC to JPACT in November.
- Peter Hurley agreed with more details from the tables. Local agencies can't understand what the implications for our systems are with reliability and travel time. It was encouraged the

team spend significantly more time on the system completeness to see results from outcomes on load share and productivity, and the linkage to outcomes.

- Steve Williams noted the modeling could show the greater the change (increase) in trips, the further out the impacts are going to reach. Small changes likely show between short distances. Large trip generations will result in impacts from greater distances in the system. It was questioned if the mobility policy as proposed deals with this distance equation or set radius for distance measurement.
- Don Odermott asked if the document defines what is a complete transit for system completeness. He agreed that with the complete system by the end of the planning period it is critical to understanding the deliveries with scarcity of public funds, and how agencies must maintain the ability to be nimble with how they meet objectives.
- Ben Chaney asked, that due to the pandemic data in the process, regarding speed targets, would these be embedded into the policy indefinitely or an element that would be written for the RTP update. Ms. Ellis noted speed targets have been in place in the RTP many years. It was not anticipated that this will be revisited soon. However, an analysis of current conditions to help identify changes can always be considered. The current policy is an interim policy from 20 years ago, showing ongoing work yet to be done.
- Chris Deffebach noted my question relates to footnote 7 of Table 3 - Is this related to ECO rule update? We haven't had any discussion of ECO rule at TPAC - yet this seems to imply the jurisdictions will have a new role - a good topic for the future - before we commit to it in these new standards. It was asked if we are developing policy that says we want a certain kind of service. Ms. Ellis noted chapter 3 of the RTP in our plan, then we'll see what projects of the plan we can afford. Asked on completeness, does that need to be in the financially constrained plan or not? Ms. Ellis noted they are still working through this issue.

River Terrace 2.0 Urban Growth Boundary (UGB) exchange status update (Ted Reid, Tim O'Brien & Clint Chiavarini, Metro) Ted Reid began the presentation with information on the City of Tigard's proposed well-planned UGB expansion under Metro's new mid-cycle UGB amendment process. Metro has recommended approval of this expansion, but through a UGB exchange instead of the mid-cycle process. It would entail adding the River Terrace 2.0 area to the UGB and removing a comparable amount of buildable land elsewhere in the region. This approach is consistent with Metro's focus on city readiness in its growth management decisions.

Metro staff is following a two-step process for determining areas to consider for the UGB exchange. Clint Chiavarini presented information on the first step GIS analysis to identify preliminary exchange candidates and the second step as consultation with local jurisdictions, service districts, and other stakeholders about the planning and development status of exchange candidates to focus on those areas that have not demonstrated a path towards readiness.

GIS analysis approach:
1. Land must be inside and adjacent to the existing UGB. No islands within the UGB should be created.
2. Acreage can be from a single contiguous area or multiple contiguous areas can be removed to total of approximately 350 buildable acres, however, these should be fairly large (100 acres or more).
3. Acreage should be from unincorporated areas of the UGB, not land currently in an existing city limits.

Tim O'Brien presented information on areas identified for further consultation and discussion. Areas identified as "no longer under consideration" reflect Metro staff's current understanding of planning and development status, sometimes as a result of preliminary consultations with local jurisdictions. The memo in the packet summary of staff's reasoning for these area considerations (identified by number on the map shown).

Areas No Longer Under Consideration
1 – Forest Grove: David Hill and South of Purdin Road
2 – North Hillsboro
4 – South Hillsboro
5 – Sherwood and Tualatin: Tonquin/Southwest Tualatin
6 – Tualatin and Wilsonville: Basalt Creek/Coffee Creek

Areas for Further Discussion
7 – Oregon City: South End
8 – Oregon City: Beavercreek Road
9 – Oregon City: Park Place
10 – Damascus
11 – Gresham: Springwater
3 – Multnomah County: West Hayden Island

Comments from the committee:

- Colin Cooper noted readiness is a function of a lot of things. Case in point, Hillsboro conducted a report on readiness some years ago and it took an average of 6 years between the time Metro makes a decision and approves UGB expansion to when development begins with construction. Elements of readiness is complex.
- Laura Terway complimented the work of Metro staff and coordination with jurisdictions on making these arrangements.
- Tom Bouillion asked why West Hayden Island was listed to come out of the UGB with this expansion consideration. It was asked why the process is being pursued as exchange instead of the mid-cycle amendment. It was questioned that with this area part of the UG Report with buildable land inventory, Hayden Island has 0 capacity buildable land for residential purposes. From a policy context, even if a good idea to trade industrial for residential land, the characteristics between the two and different with different accommodation needs.

  Mr. Reid agreed the City of Tigard originally proposed this expansion as a mid-cycle amendment. This is Metro's first time soliciting proposals from cities with the UGB exchange process responding to immediate opportunities for UGB expansions for residential uses. Metro Council decided to proactively problem solve for constructive space given housing shortages.

  In regard to the 2018 buildable land inventory question, Metro's employment inventory identified buildable land on West Hayden Island. It acknowledge it was added for Marine Industrial uses but now currently in conceptual planning and not progressed to Urban Zoning. The need for more industrial land is a priority in the region and something we need to discuss further.

- Karen Buehrig was interested in the next steps with engaging property owners and next steps with local jurisdictions that may be impacted. Where and how are the local property owners engaged? Mr. Reid noted there is not a lot of guidance about how we are to conduct this process. But Metro has started to begin a narrow the scope first before first steps with outreach, then will get to the start of concrete options to discuss in a meaningful way. Meetings with CPOs and jurisdictions will allow Metro to hear from property owners about their interest in the process. Ms. Buehrig asked that Counties be kept in the loop of the outreach being done with the various CPO's and future hearing processes, too. Mr. Reid agreed.
- Aquilla Hurd-Ravich noted the Oregon City recently adopted housing needs analysis, and some of the areas we predicted for capacity are in some areas that my come out of the UGB. A question for the next round of discussion is what are the consequences of land that comes out of the UGB identified in the housing needs analysis.
- Kevin Cook asked if an area is removed from the UGB, what is the status of that area with respect to Urban and Rural Reserves? Undesignated? Roger Alfred noted we are in the process of analyzing that issue, and it might vary depending on specific locations - initial thought is that it more likely would need to be urban.
- Tom Armstrong noted possible consideration of the OHNA under build analysis and incorporate into regional housing needs analysis to identify additional housing need for mid cycle adjustment.

Mr. Reid concluded the presentation with a list of next meeting dates with MTAC making a recommendation on exchange land options at their Sept. 21 meeting.

Adjournment (Chair Kloster)
There being no further business, workshop meeting was adjourned by Chair Kloster at 12:00 p.m.
Respectfully submitted,
Marie Miller, MTAC and TPAC Recorder

Attachments to the Public Record, MTAC and TPAC workshop meeting, August 17, 2022

Item	Document Type	Document Date	Document Description	Document No.
1	Agenda	8/17/2022	8/17/2022 MTAC and TPAC workshop meeting agenda	081722M-01
2	Work Program	8/10/2022	MTAC work program as of 8/10/2022	081722M-02
3	Work Program	8/10/2022	TPAC work program as of 8/10/2022	081722M-03
4	Handout	08/04/2022	2023 REGIONAL TRANSPORTATION PLAN Project Timeline and 2022 Discussions and Engagement Activities	081722M-04
5	Handout	7/21/2022	2023 REGIONAL TRANSPORTATION PLAN JPACT and Metro Council Workshop Series	081722M-05
6	Draft Minutes	6/15/2022	Draft minutes from June 15, 2022 MTAC TPAC workshop	081722M-06
7	Memo	8/10/2022	TO: TPAC and MTAC and interested parties From: Kim Ellis, Metro Project Manager Lidwien Rahman, ODOT Project Manager Glen Bolen, ODOT Region 1 RE: Regional Mobility Policy Update: Revised Draft Policy, Measures and Action Plan	081722M-07
8	Attachment 1	8/10/2022	Memo RE: Task 8.1: Updated “Discussion Draft” Mobility Policy (8/10/22)	081722M-08
9	Attachment 2	N/A	Maps of 2040 FC VMT Per Capita Portland Metro Area	081722M-09
10	Attachment 3	8/9/2022	Sample Throughway Travel Speed Data	081722M-10
11	Attachment 4	8/3/2022	REGIONAL MOBILITY POLICY UPDATE PROJECT TIMELINE AND 2022 ENGAGEMENT SCHEDULE	081722M-11
12	Memo	8/10/2022	TO: MTAC, TPAC and Interested Parties From: Clint Chiavarini, Tim O’Brien, and Ted Reid: Metro Planning, Development and Research RE: River Terrace 2.0 UGB exchange: preliminary UGB exchange options	081722M-12
13	Presentation	8/17/2022	Regional mobility policy update	081722M-13
14	Presentation	08/17/2022	Tigard UGB Exchange	081722M-14

Date: October 19, 2022

To: Metro Transportation Policy Advisory Committee (TPAC) and Metro Technical Advisory Committee (MTAC)

From: Eliot Rose, Senior Transportation Planner

Subject: Draft 2023 RTP Transportation Needs Assessment

Purpose

This memorandum presents key draft information for the Needs Assessment for the 2023 Regional Transportation Plan for discussion by the Transportation Policy Alternatives Committee (TPAC) and Metro Technical Advisory Committee (MTAC). Metro staff will update the information presented here to address feedback received from TPAC/MTAC and from Metro's other policy and technical committees in October and November 2022. The assessment will be finalized by the end of 2022 and incorporated in Chapter 4 of the 2023 RTP. The maps and analyses will be made available as part of the RTP Call for Projects in January 2023, so that agencies submitting or updating RTP projects can consider these regional transportation needs and provide information about how their project priorities help advance achievement of the RTP goals and address these needs.

Introduction

A major update to the Regional Transportation Plan (RTP) is underway. The plan is a tool that guides investments in all forms of travel – motor vehicle, transit, bicycle and walking – and the movement of goods and freight throughout greater Portland. The RTP is a key tool for implementing the 2040 Growth Plan and Climate Smart Strategy and connecting people to their jobs, families, school and other important destinations in the region. The current RTP establishes four overarching priorities – equity, safety, climate and mobility – as the basis for a framework of goals, supporting objectives and policies that together guide planning and investment priorities to meet current and future needs of our growing and changing region.

The Needs Assessment in Chapter 4 of the Regional Transportation Plan provides a snapshot of current conditions and trends within the Greater Portland region and highlights key regional transportation challenges and needs for the plan to address. In July, Metro staff introduced the Needs Assessment for the 2023 RTP update to TPAC, including a summary of feedback on regional transportation needs received to date, and recommendations for how the Needs Assessment can reflect this feedback. These recommendations included:

- **Organize the needs assessment around the updated RTP goals and policy priorities** for safety, equity, climate, mobility and vibrant and prosperous communities. Stakeholders and policymakers have confirmed these as important priorities.
- **Present consistent information and analyses on different priorities**. Stakeholders understand that RTP priorities are interrelated and have expressed a desire to focus on projects and policies that achieve multiple outcomes. Using consistent information throughout the needs assessment and highlighting cases

where information relates to more than one priority helps to identify cross-cutting needs and solutions.

- **Provide clear and actionable information** that doesn't just describe needs, but also how the RTP can address these needs. Stakeholders requested an update to the RTP goals and priorities in part to focus on the issues that are most urgent for the region to address. The information here is designed not just to describe needs, but also help decision-makers understand how the RTP can best address these needs. Where available, this memo includes information from prior plans and supporting RTP work on which strategies are effective in addressing needs, as well as base-year results for some RTP performance measures so that stakeholders can gauge the region's progress and set targets for future performance.

Draft maps and analyses from the 2023 RTP Needs Assessment

This memorandum presents key information from the draft 2023 RTP Needs Assessment for feedback from Metro technical and policy committees. Metro and its partner agencies are working to update the RTP by the federal deadline of December 6th, 2023 so that the projects in the RTP can be eligible for state and federal funds, while also addressing significant new state and regional policies and evolving transportation needs following the COVID-19 pandemic and other recent disruptions. This memorandum focuses on key maps and analyses that are:

- **Related to the four adopted RTP priorities that are carrying over from the 2018 RTP** (safety, equity, mobility and climate), consistent with input from stakeholders to focus on these priorities.
- **Potentially relevant to the RTP Call for Projects**, which will open in January 2023, so that project leads can describe how RTP projects address regional needs when entering or updating information.
- **Informed by fully-developed policies and guidance**. As described below, some of the key policies and regulations that will guide this RTP update – particularly the draft Regional Mobility Policy and implementation of the new State Climate-Friendly and Equitable Communities rules – are still in progress, and Metro staff are awaiting further guidance on how to assess key needs and performance measures in a manner consistent with these efforts.

It is important to note that, at a workshop in September 2022, JPACT and Council directed Metro to add a fifth RTP priority, Vibrant and Prosperous Communities, focused on coordinating transportation and land use planning to support development in regional centers and implement the 2040 growth concept. Metro staff are still working with TPAC and other stakeholders to define the specific elements of this policy and the regional needs that it is designed to address, so this memo does not discuss economic needs in detail. However, many of the maps and analyses presented here do highlight transportation needs in regional centers. The Economy section at the end of this memo summarizes these analyses to support TPAC members in understanding how aspects of the Economy priority are addressed in other areas of the RTP and identifying other analyses that can highlight regional economic needs.

Below we describe the key information about regional[1] needs that has been updated so far for each of the four 2018 RTP priorities.

Safety: draft needs assessment

The 2018 RTP established a Vision Zero goal for the Portland region to eliminate traffic-related deaths and severe injuries by 2035. Safety analysis for the draft needs assessment is based on the most recently available data. To track trends over time, most of the analysis uses a five-year average of crash data because of the random nature of crashes. Comprehensive, verified crash data is available through 2020, providing two years of new data since Metro last assessed regional transportation safety to assess progress toward the 2018 safety targets. More recent traffic fatality data is available, but it is preliminary, not geo-coded and subject to change. The time-lag in crash data poses challenges to providing up-to-date trends and performance of safety targets.

Key findings from the draft Safety needs assessment include:

- From 2016 through 2020, 2,814 people were killed or experienced a life-changing severe injury from a traffic crash in the greater Portland region, an average of 563 people per year.
- Traffic fatalities in the Portland region have been increasing for users of all modes, except for people bicycling. Severe injury crashes are also increasing, though not as dramatically as fatal crashes.
- Pedestrians experience a disproportionately high number of traffic deaths.
- Fatal and severe crashes are concentrated at a small number of corridors and intersections, which the RTP refers to as High Injury Corridors and High Injury Intersections.
- There is a high level of overlap between the updated 2023 High Injury Corridors and those identified in the 2018 RTP.
- About 40% of traffic fatalities occur on state owned highways.
- Black, American Indian and Alaska Native people experience a disproportionate number of traffic deaths.
- Three quarters of serious pedestrian and bicycle crashes, and 65% of all serious crashes, occur in areas identified as Equity Focus Areas.
- Safety issues are a concern for children walking and bicycling to school.

Since the 2018 RTP was adopted less than four years ago, city, county, regional and state partners been developing and implementing safety action plans. Metro's 2-Year Progress Report on the Regional Transportation Strategy[2] highlighted this work and identified actions for the next two years, including in the update of the 2023 RTP. While it is discouraging to see traffic fatalities and severe injuries increase as agencies and community partners work to address safety, it often takes a while for the impact of Vision

[1] This memorandum uses "Greater Portland region" or "region" to refer to the Metropolitan Planning Area (MPA) boundary, which is the area consisting of sections of Multnomah, Washington and Clackamas Counties that is covered by the RTP. The MPA boundary is shown in many of the maps below. Except where otherwise noted, charts and tables contain data for the MPA boundary.

[2] June 2021. https://www.oregonmetro.gov/sites/default/files/2021/08/03/RTSS-progress-report-20210603.pdf

Zero policies to become apparent. Countries and cities that have adopted the Safe System Approach and committed to achieving zero serious crashes typically begin to see substantial results in about 10 years, reducing traffic fatalities upwards of 40-60%.[3]

Historical crash analysis

The RTP includes ambitious targets to reduce fatal and serious injury crashes by 16 percent by 2020, by 50 percent by 2025, and to zero by 2035. Table 1 summarizes regional progress toward these performance measures.

Table 1: Federal Safety Performance Measures for Traffic Fatalities and Serious Injuries, 2016-2020 (Oregon Department of Transportation crash data analyzed by Metro)

	5-year rolling averages		
Performance Measure	**2011-2015 Baseline**	**2016-2020 Target**	**2016-2020 Actual**
Number of fatalities	62	52	93
Fatalities per 100 million vehicle miles traveled	0.6	0.5	0.9
Number of serious injuries	458	384	512
Serious injuries per 100 million vehicle miles traveled	4.5	3.6	4.8
Number of non-motorized fatalities and serious injuries	113	95	129

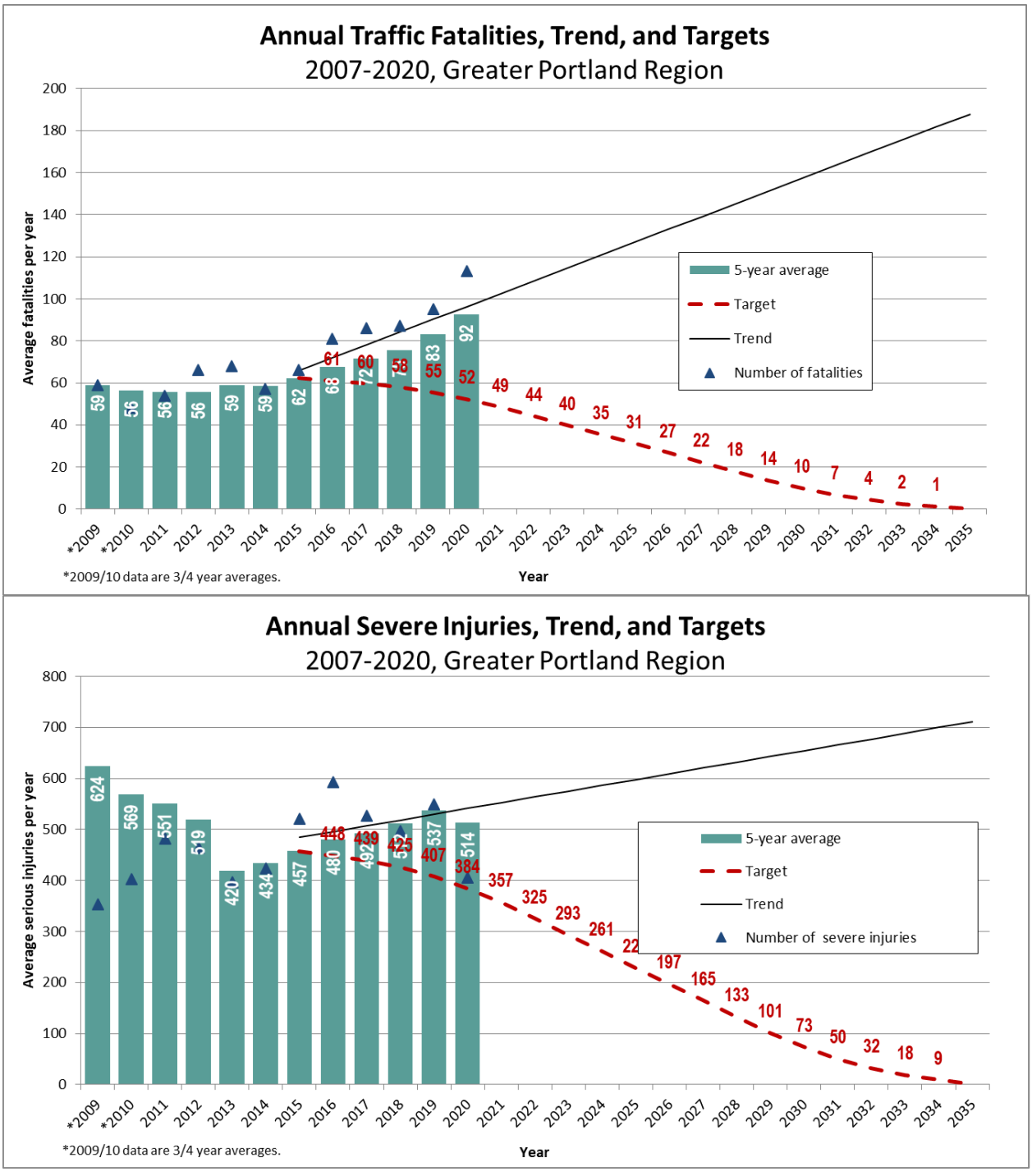
The region is not on track to meet its targets. In fact, across all the measures summarized in Table 1, the region's streets have gotten less safe since Metro established this goal and began collecting baseline data. These findings are consistent with an interim Safety Performance report that Metro published in 2021,[4] which was based on 2019 data.

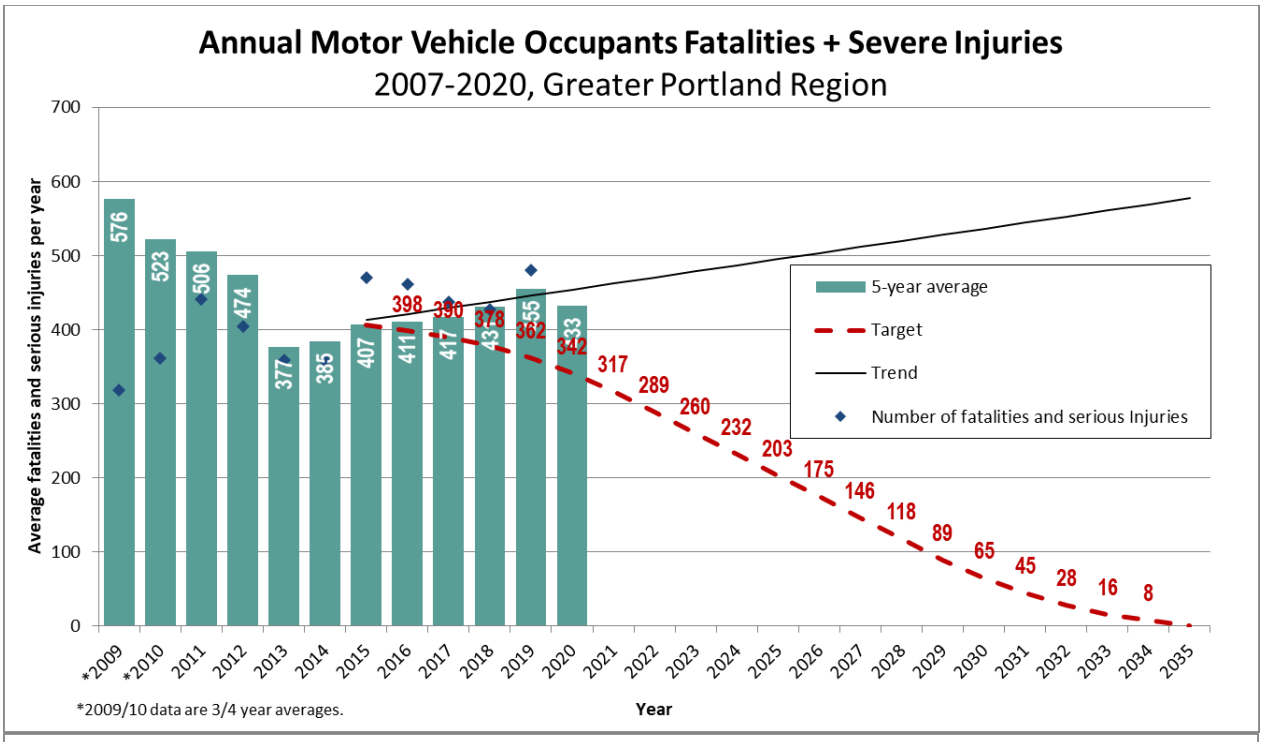
Figure 1 shows more detail on safety trends in the region, providing data by crash type (fatal vs. serious injury) and mode.

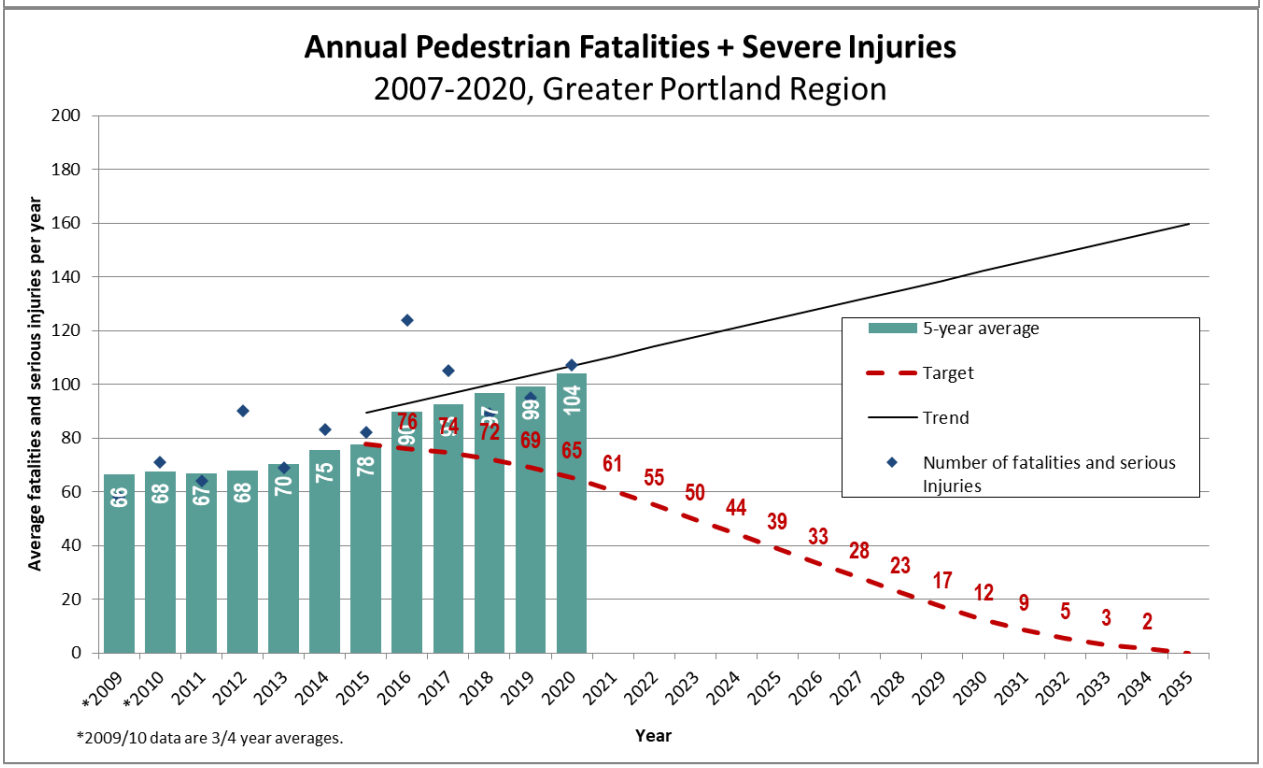
[3] Road Safety Annual Report 2020, International Transport Forum: https://www.itf-oecd.org/sites/default/files/docs/irtad-road-safety-annual-report-2020_0.pdf

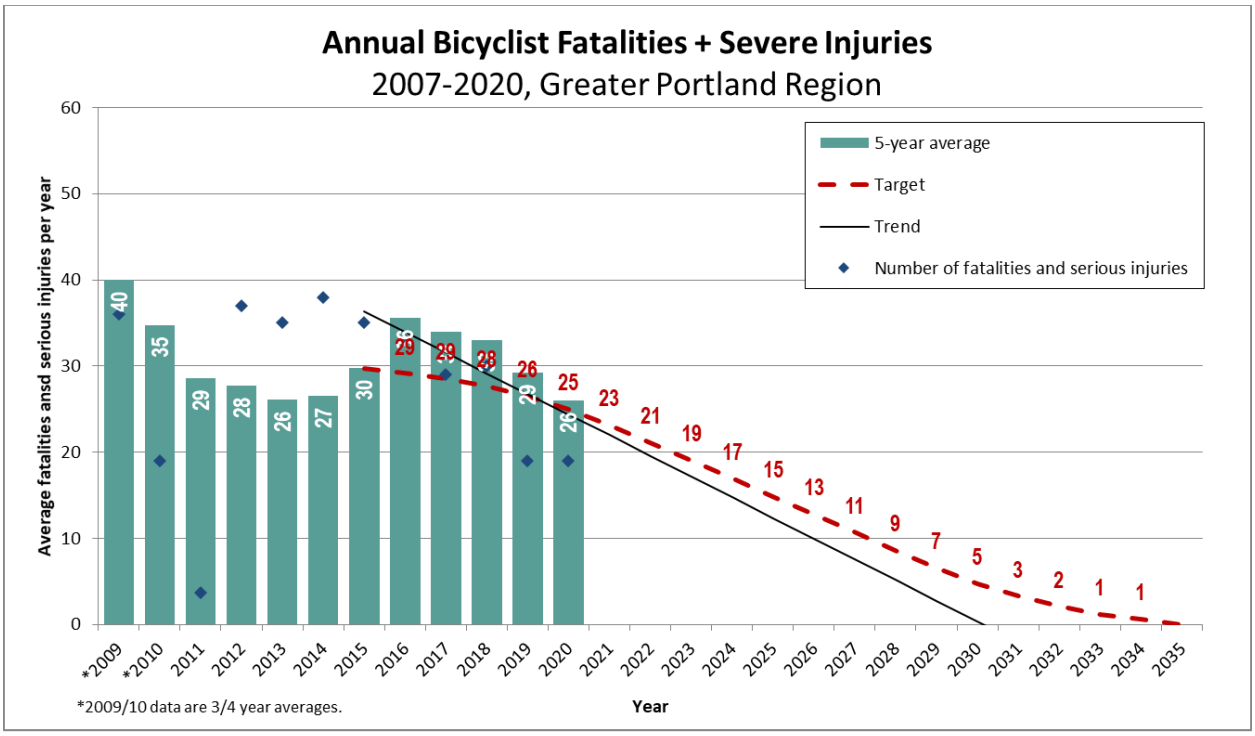
[4] https://www.oregonmetro.gov/sites/default/files/2021/03/04/Metro-safety-annual-performance-report-2015-2019.pdf

Figure 1: Five-year average rates of fatal and severe crashes, 2009-2020, with trendlines and Vision Zero targets (ODOT crash data, analyzed by Metro staff)




Annual Motor Vehicle Occupants Fatalities + Severe Injuries
2007-2020, Greater Portland Region
Average fatalities and serious injuries per year
Year
*2009/10 data are 3/4 year averages.
5-year average
Target
Trend
Number of fatalities and serious Injuries

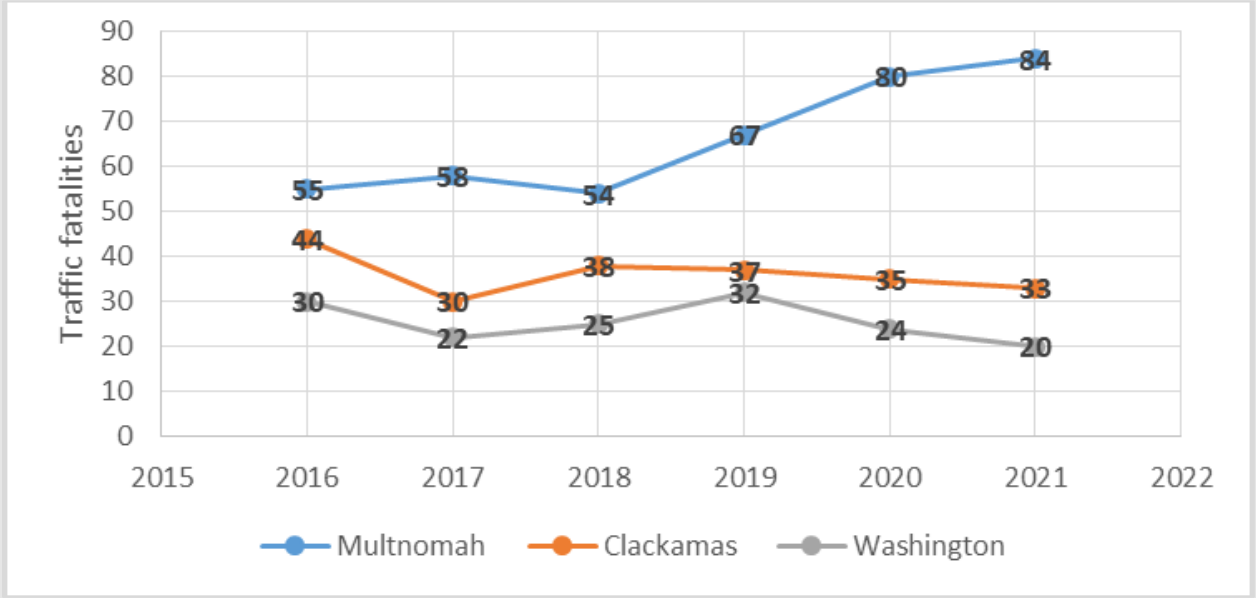

Annual Pedestrian Fatalities + Severe Injuries
2007-2020, Greater Portland Region
Average fatalities and serious injuries per year
Year
*2009/10 data are 3/4 year averages.
5-year average
Target
Trend
Number of fatalities and serious Injuries



Traffic fatalities in the Portland region have been increasing for users of all modes, except for people bicycling. Severe injury crashes are also increasing, though not as dramatically as fatal crashes.

As Figure 2 shows, the increase in regional fatalities is occurring in Multnomah County. Fatal crashes have remained relatively flat in Clackamas and Washington Counties. The fact that there are more crashes in Multnomah County than in Washington and Clackamas is not surprising; half of the passenger miles traveled in the region take place in Multnomah County, and higher travel volumes mean greater exposure to crashes, all other things being equal. However, the recent increase in fatalities in Multnomah County shown below is potentially concerning given that the proportion of travel occurring in Multnomah County does not appear to have increased during that same period. Local analysis is critical to understanding how local conditions, including traffic volumes, percent of people walking and bicycling, and other factors influence traffic safety.

Figure 2: Annual fatalities by county, 2016-2021 (ODOT preliminary fatal crash data)



Speed, alcohol, and/or drugs continue to be the most common contributing factors in severe and fatal crashes in the region. During 2016-2020, speed was involved in 35% of fatal and 16% of severe injury crashes, and alcohol or other drugs were involved in 38% of fatal and 14% of severe injury crashes. However, each crash captured in the data above is complex and involves multiple contributing factors and circumstances, including traffic exposure and built environment variables.

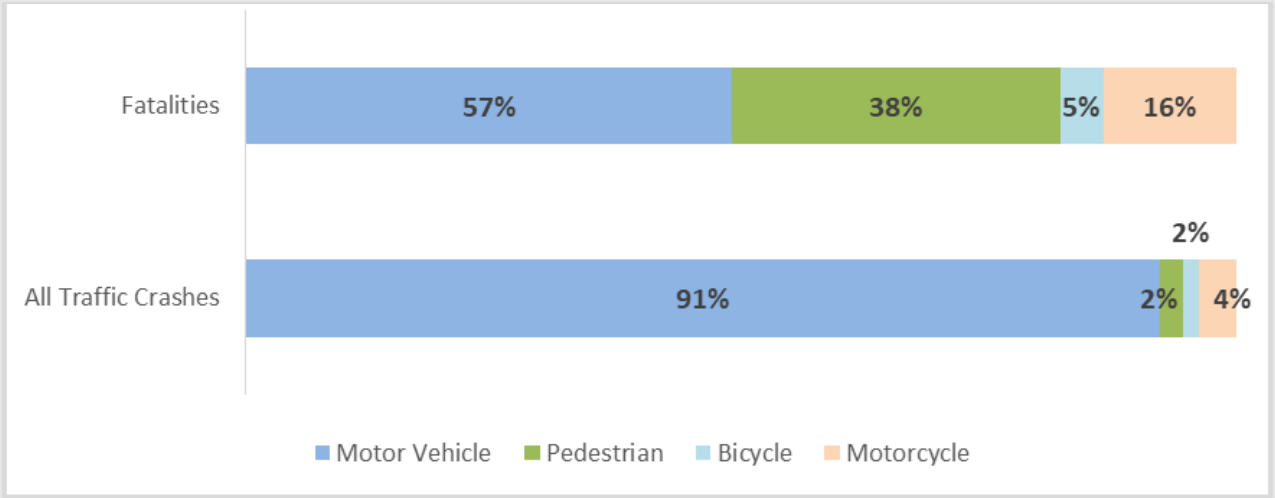
Preliminary analysis reveals many safety issues near the region's public elementary, middle and high schools. Within a mile buffer around the average school, there are 8.1 miles of dangerous streets and 38 of fatal, severe, or bicycle and pedestrian injury crashes. A quarter of the region's schools are surrounded by streets with mostly incomplete sidewalks.[5]

Analysis of crashes by mode

Crashes have different impacts on different users of the transportation system. In general, vehicle crashes are more frequent, because most people in the region drive for most of their trips, but crashes that involve people walking, and riding bicycles and motorcycles are more severe, because their bodies are more exposed. Figure 3 compares fatal crashes by mode to all crashes by mode.

[5] i.e., less than 50% of the sidewalks within one mile are complete. For the purposes of this analysis, a street with a sidewalk on either one or both sides counts as "complete."

Figure 3: All crashes and fatal crashes by mode, 2016-2020 (ODOT data, analyzed by Metro staff)



As this chart illustrates, traffic deaths disproportionately impact people who walk, bicycle and ride a motorcycle. Pedestrians experience the most disproportionate impact. Auto-only crashes comprise 91% of all crashes and 57% of all fatal crashes, whereas pedestrian crashes make up 2% of all crashes and 38% of all fatal crashes. In other words, pedestrians who are involved in a crash are much more likely to die – 26 times more likely – than non-pedestrians. Pedestrian traffic deaths are steadily increasing, are the most common type of fatal crash, and have the highest severity of any crash type. This trend is being seen across the country and is attributed in part to vehicles getting larger over the years. Designing safe streets, particularly on arterials, is critical to pedestrian safety. Seventy-seven percent of serious pedestrian crashes occur on arterials.

Analysis of crashes by Equity Focus Areas and race

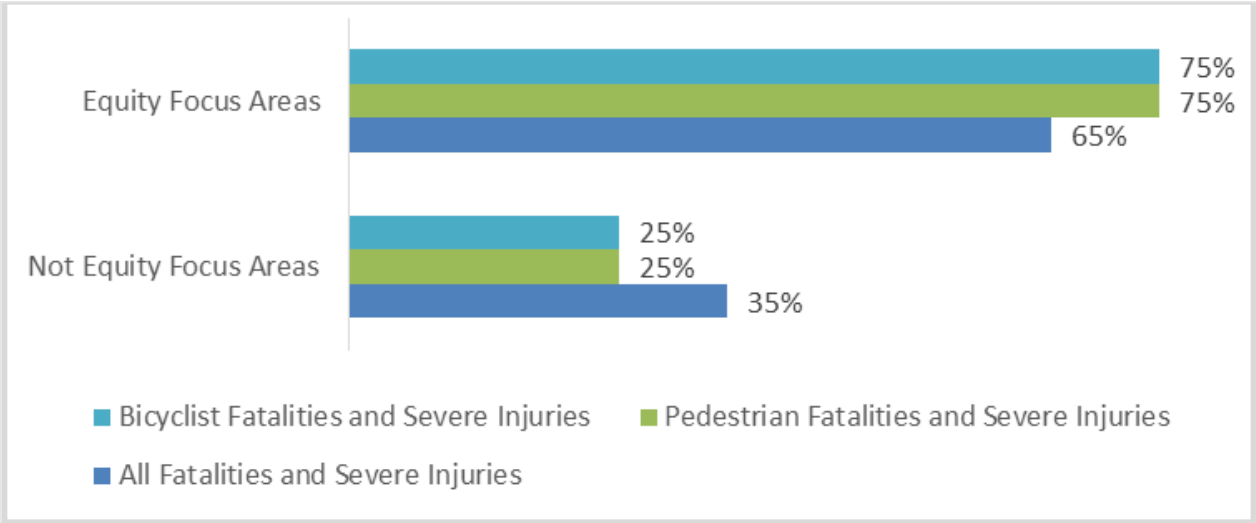
Metro analyzed crash data from the Fatality Analysis Reporting System (FARS), which includes race and ethnicity for traffic fatalities,[6] to assess the impact of fatal crashes on different populations in Multnomah, Washington, and Clackamas counties. Normalizing by population, Black, American Indian and Alaska Native people experience double or nearly double the number of traffic fatalities that other groups experience. This finding is consistent with analysis conducted by ODOT in 2019.[7]

[6] FARS is a nationwide census providing yearly data regarding fatal injuries suffered in motor vehicle traffic crashes. https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars

[7] Josh Roll, Nathan McNeil, Race and income disparities in pedestrian injuries: Factors influencing pedestrian safety inequity, Transportation Research Part D: Transport and Environment, Volume 107, 2022, 103294, ISSN 1361-9209, https://www.sciencedirect.com/science/article/pii/S1361920922001225. This study employs an ecological analysis to explore pedestrian safety disparities in Oregon, incorporating crash data, roadway and land use factors, and sociodemographic data. Lower median income and higher proportions of BIPOC residents are found to be associated with more pedestrian injuries. These variables may be proxies for other traffic exposure and deficient built environment variables, which may reflect a lack of historic investment in the neighborhoods where these populations are concentrated.

As Figure 4 shows, three quarters of serious pedestrian and bicycle crashes and 65% of all serious crashes occur in Equity Focus Areas (see the Equity section below for information on these areas). Addressing safety in these areas is critical to making the entire transportation system safer and more equitable.

Figure 4: Percent of average annual traffic fatalities and severe injuries in Equity Focus Areas, 2016-2021 (ODOT crash data, analyzed by Metro staff)



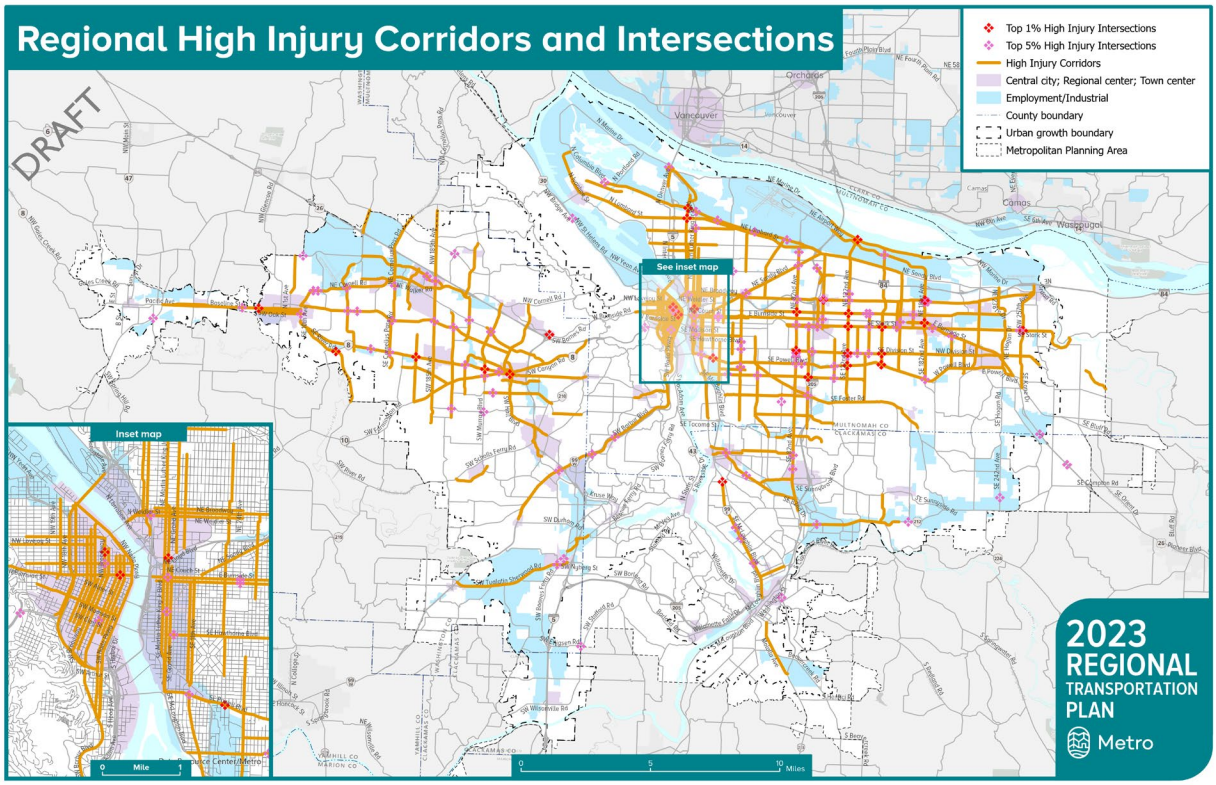
High Injury Corridors

A majority of the serious and fatal crashes in the region, as well as the crashes that involve vulnerable users, [8] consistently occur on a small number of roads. Metro focuses its analysis on High Injury Corridors, which are the corridors where 60 percent of these crashes occur, and High Injury Intersections, which are the five percent of intersections with the highest rates of these crashes.

Figure 5 shows an updated map of High Injury Corridors (orange lines) and Intersections (those that are in the top five percent for severe injury rates are marked in pink; those that are in the top one percent are marked in red). There is a high level of overlap between the updated High Injury Corridors and those identified in the 2018 RTP. This map can be accessed and explored online here: https://gis.oregonmetro.gov/high-injury-corridors.

[8] When defining High Injury Corridors and Intersections, Metro accounts for pedestrian and bicycle injuries, which are particularly likely to be severe because these travelers' bodies are exposed to traffic. Fatal and severe injury crashes are given a weight of ten and other injury crashes for pedestrians and bicyclists are given a weight of three. Pedestrian and bicycle involved crashes are less frequent, but compared to vehicular crashes, they are significantly more likely to result in death or serious injury (this is true for motorcycle crashes as well, hence the need for consideration of separating out these crashes in future analysis). This weighting factor reflects the higher degree of risk involved in bicycle and pedestrian crashes. Metro's methodology provides a high-level, planning level analysis that compares all roads in the region, appropriate for identifying and prioritizing needs at the regional scale. Supplemental local analysis, including identification of safety corridors at the county and city geography, should also be used to identify needs and priorities in the RTP.

Figure 5: 2023 RTP High Injury Corridors and Intersections, 2016-2020 (ODOT crash data analyzed by Metro staff)



The RTP recommends the use of proven safety countermeasures[9] to address High Injury Corridors and Intersections and locally identified safety needs. Local safety action plans describe in detail the projects that are needed to resolve safety issues at these locations and others identified by partner agencies.

Equity: draft needs assessment

The RTP directs Metro and its agency partners to "Prioritize transportation investments that eliminate transportation-related disparities and barriers for historically marginalized communities, with a focus on communities of color and people with low incomes." Through extensive outreach, Metro has heard that these communities need fast, frequent, affordable. and reliable transit connections to key destinations and safer walking and biking infrastructure. This memorandum evaluates equity through that lens and finds:

- The Portland region continues to grow more racially and ethnically diverse.
- The region is aging. The share of people 65 and older is growing while all other age groups are declining. However, people under 44 will continue to be in the majority.
- The COVID-19 impact had particularly severe and long-lasting impacts on people of color and workers with low incomes.
- Regional transportation agencies can advance equity by investing in transit service and safe biking and walking infrastructure in Equity Focus Areas (EFAs), which are

[9] The Safety Division of the FHWA provides information on proven safety countermeasures at https://safety.fhwa.dot.gov/provencountermeasures/

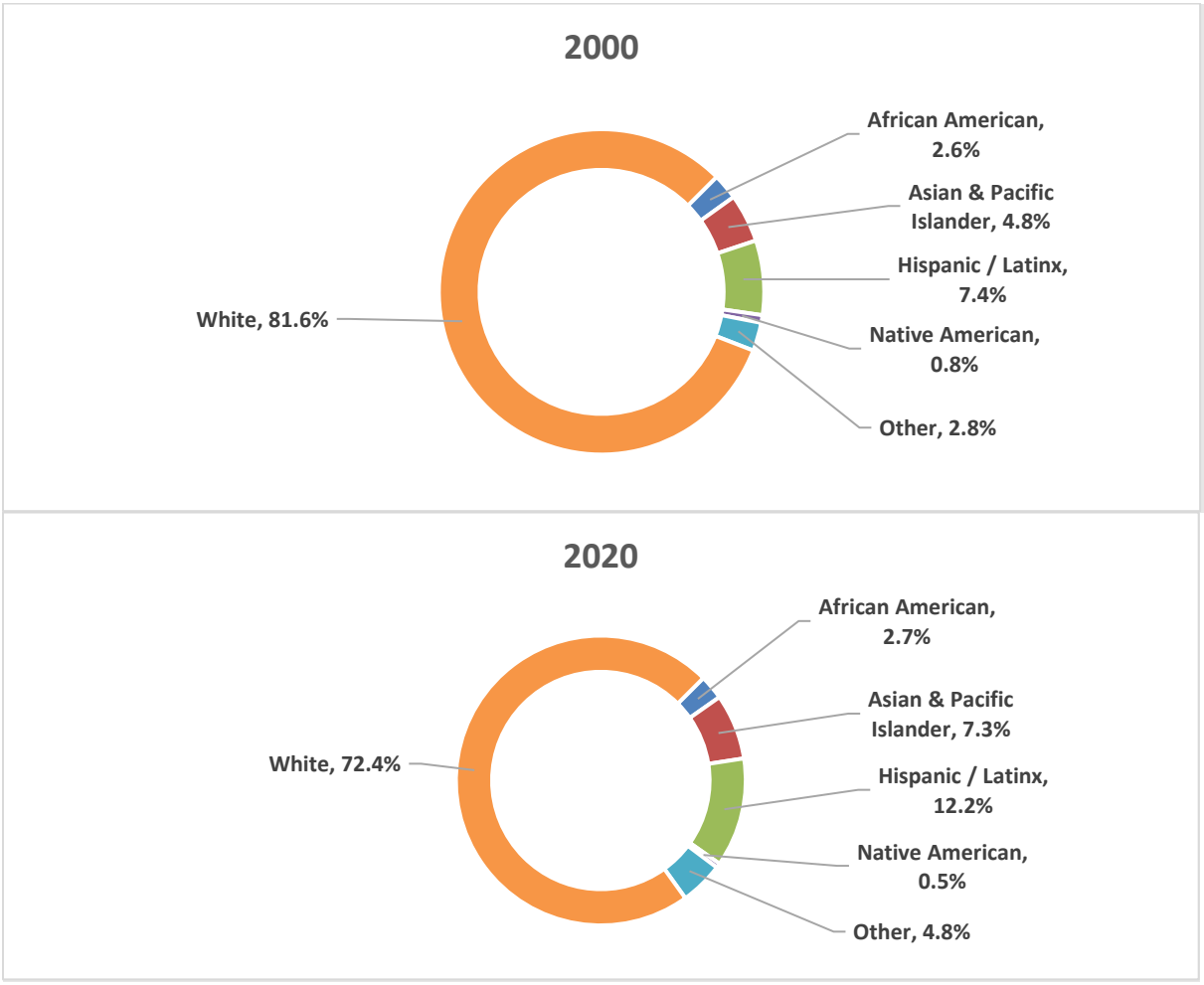
communities with concentrations of people of color, people with low incomes, and people with limited English proficiency.

- The region has made significant progress in improving transit service and bike/ped infrastructure in EFAs, but not enough to address deep-seated inequities. Transit still offers much less access to destinations than driving does, and serious crashes are still concentrated in EFAs.

Recent demographic and economic changes

People of color make up an increasing share of the regional population. The share of residents who identify as people of color has been increasing steadily over the past several decades; from under one percent in 1960 to 28 percent in 2020. Figure 6 shows how the racial and ethnic makeup of the region's population changed between 2000 and 2020.

Figure 6: Population by race and ethnicity in the Portland region and surrounding counties,[10] 2000 and 2020 (U.S. Census)

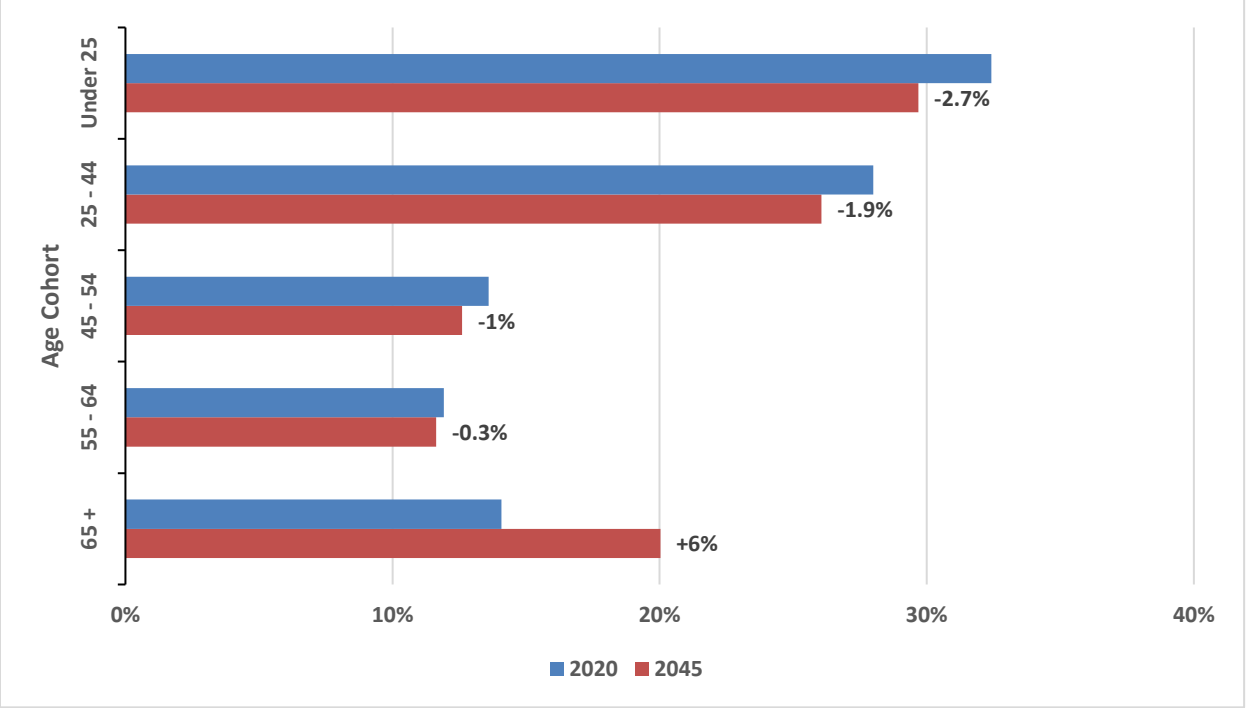


[10] For consistency with regional and state population forecasts, Metro uses a broader 7-county region (Clackamas, Clark, Columbia, Multnomah, Skamania, Washington, and Yamhill counties) in its demographic data.

Over the 20-year time span captured in the figure above, the share of regional residents who identify as people of color grew from 18 percent to percent. This change was driven primarily by growth among two groups: Hispanics / Latinos and Asian and Pacific Islanders, as well as an increasing number of people who identify as "other."[11]

Figure 7 shows Metro's forecasts for how the share of population in different age groups will change between 2020 and 2040.

Figure 7: Current and forecasted population by age cohort in the 7-county Greater Portland region, 2020 and 2045 (Metroscope)



Just like the national population, our region's population is aging, and the share of people over 65 is projected to grow by 5 percent, while shares of all other age groups are declining. However, the two youngest age groups – people under 25 and people 25 to 44 – are projected to remain the two largest age groups in the region. By 2040, close to 50% of the region's population will either be young adults under 25 and older adults over 65. Though these two groups have very different transportation needs, they also have some important similarities – lower rates of commuting by auto, high proportions of people who cannot drive due to age or disability, and lower participation in the labor force, which means that their travel patterns are less likely to be driven by the commute.[12]

[11] The Census Bureau, which collects this data, has been allowing an increasing number of options for people to classify themselves as members of two or more races, as well as to differentiate better among different races and ethnicities that the Census used to treat as a single category. For the purpose of comparing data from 2020 with data from 2000, we use similar race/ethnicity categories as were used in 2000 – combining Asian people and Pacific Islanders in spite of the fact that the Census Bureau now differentiates between the two, and including people who identify as being part of two or more races in the "other" category.
[12] https://www.census.gov/content/dam/Census/library/publications/2020/acs/acs-45.pdf

Underlying inequities in housing and employment

The 2018 RTP undertook a wide-ranging review of data and research on equity, both nationally and in the Portland region, and highlighted several inequities in different marginalized groups' access to housing, jobs, and other essential needs:

- People with low incomes and most people of color (with the exception of Asian people) and people with low incomes are significantly less likely to own a home than white people.
- People of color are being displaced to areas of the region that lack good access to transportation options, jobs, and other important destinations.
- People of color and people with low incomes can access fewer jobs within a typical commute distance than white people.

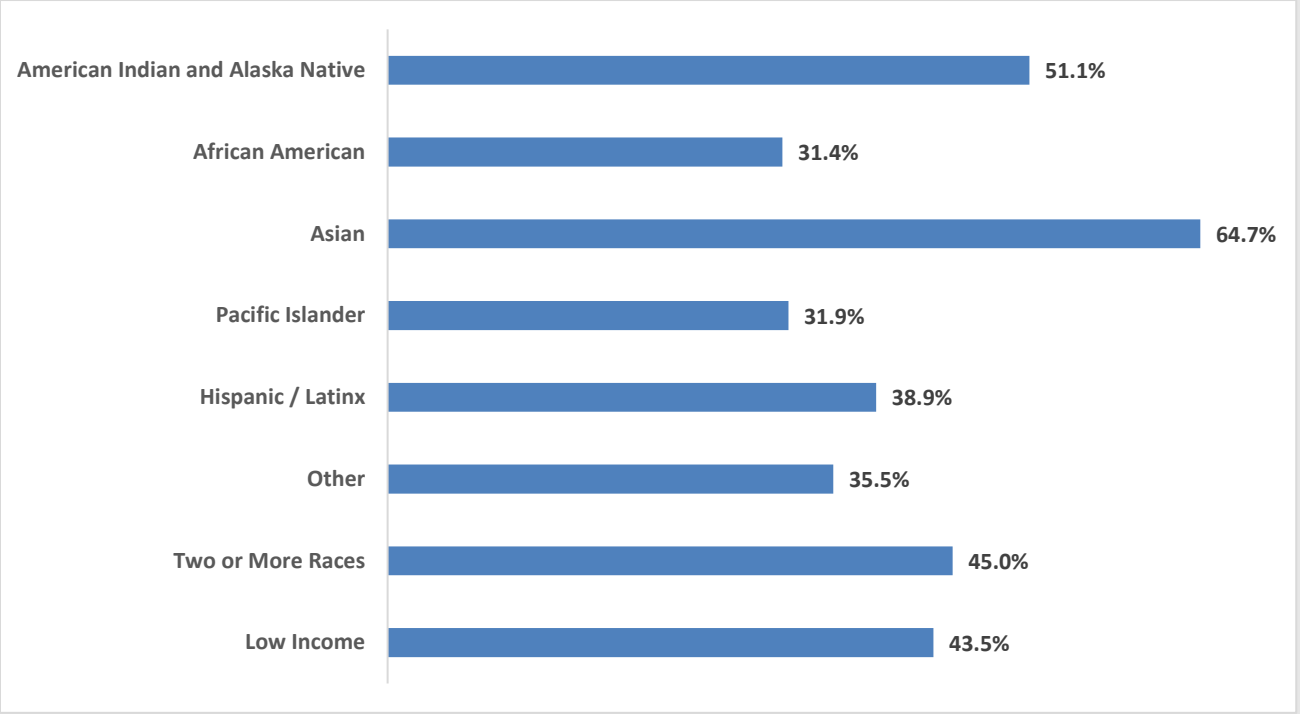
Metro's Emerging Trends Study[13] reviewed the equity impacts of the COVID-19 pandemic and other recent disruptions, and found evidence that recent events had exacerbated these inequities, as well as others having to do with education, personal safety and health, including the following:

- Black and Latino Americans were twice as likely to be hospitalized and thrice as likely to die due to COVID as White Americans.
- Latinos are 11% of the population in Multnomah, Washington, and Clackamas Counties, but accounted for 22% of COVID cases.
- Low-income students experienced 80% greater learning loss due to the pandemic than the average student.
- Only 44% of lower-income Americans say that they can work from home, vs. 76% of upper-income Americans.

Significant inequities in access to jobs and housing persist. For example, Figure 8, which shows homeownership by race and income in the Portland region, demonstrates that homeownership rates are still much lower for most non-White racial and ethnic groups and for households with low incomes than they are for White people.

[13] https://www.oregonmetro.gov/public-projects/2023-regional-transportation-plan/research

Figure 8: Homeownership rates by race and income for Multnomah, Washington and Clackamas Counties, 2020 (American Community Survey)



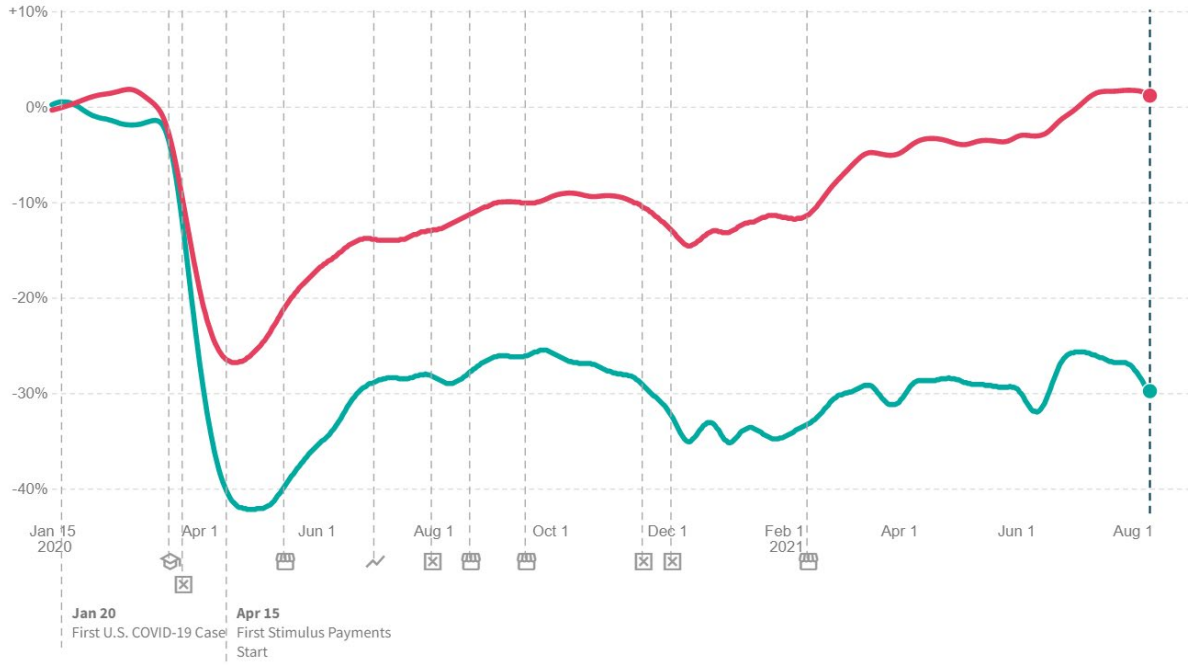
Public agencies are working to address these disparities by creating more affordable housing, supported by a regional affordable housing bond measure, which was passed by voters in 2018. The bond aims to fund the construction of 3,900 designated affordable housing units across the region, with a focus on providing homes for people of color. Though the bond measure represents significant progress in building affordable housing, it only provides a small portion of the roughly 48,000 units in the region that Metro estimates are necessary to meet the region's needs.

Homeownership rates can affect how communities respond to the transportation projects that are the focus of the RTP. Some transportation projects – in particular, new light rail lines and bicycle/pedestrian trails – can potentially increase the value of adjacent properties. This benefits homeowners who live nearby, but it can create higher housing costs and displacement risks for people who rent. This means the groups shown as having low homeownership rates in Figure 8 are more likely to see new transportation investments as threatening their ability to remain in their communities.

The inequities created by the COVID-19 pandemic become very visible when comparing employment patterns for low-income and high-income workers. Overall, the U.S. experienced historically high levels of unemployment in summer 2020, immediately following the onset of the COVID-19 pandemic. By Spring 2022, the overall unemployment rate had fallen to levels that could be considered low even by pre-pandemic standards. However, this broad trend masks significant differences in the employment rate between workers with lower incomes and those with higher incomes. Figure 9 shows

unemployment rates over the past three years for both workers who more than the median wage and workers who earn less.

Figure 9: Regional employment rates for workers earning above and below the median wage (indexed to January 2020) January 2020 – August 2021 (Earnin, Intuit, Kronos and Paychex data, analyzed by Cambridge Systematics for the Commodities Movement Study)



As of August 2021, the employment rate for workers in the Portland region who earned above the median wage had increased by 1.2 percent over pre-pandemic (January 2020) levels, whereas the employment rate for workers earning below the median wage fell by 29.8 percent. In other words, the pandemic opened up a 30-point employment gap between workers earning above the median and workers earning below the median wage (approximately $30 per hr, or $60,000 per year).

Equity Focus Areas

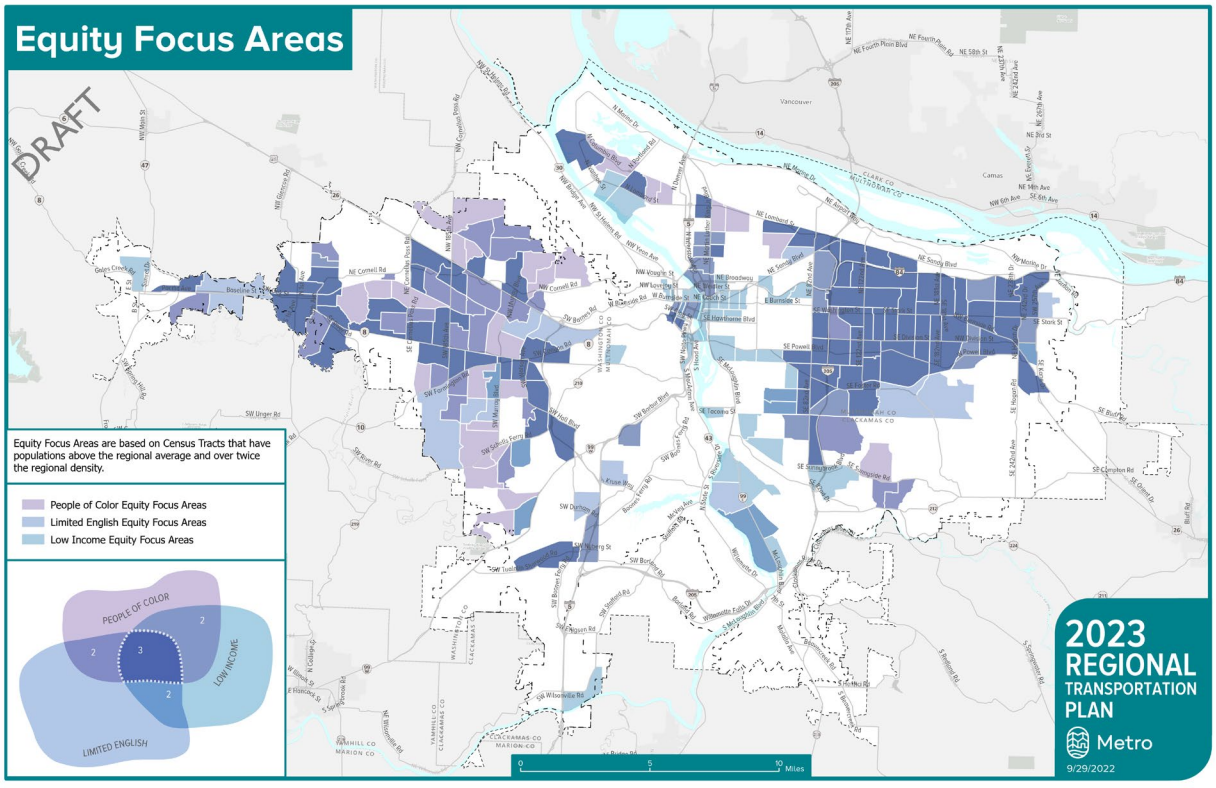
The currently adopted RTP policies direct Metro and its transportation agency partners to "Prioritize transportation investments that eliminate transportation-related disparities and barriers for historically marginalized communities, with a focus on communities of color and people with low incomes." The 2018 RTP update engaged a Transportation Equity Working Group to help Metro staff update the RTP equity analyses.[14] After testing different ways of mapping where marginalized communities in the region live based on a variety of different methods and data, this working group concluded that the RTP equity analyses should focus on the communities with the highest densities of people of color, people with low incomes, and people with limited English proficiency. Equity Focus Areas were designed to guide transportation plans toward focusing on communities with the greatest

[14] See Appendix E of the 2018 RTP: https://www.oregonmetro.gov/sites/default/files/2018/06/29/RTP-Appendix_E_2018_RTP_Transportation_Equity_Evaluation_with_attachments.pdf.

needs, and to benefit as many people in need as possible, while accounting for regional growth and change.

Figure 10 shows the draft update to the Equity Focus Areas for use in the 2023 RTP, including which of the three populations included in the definition of EFAs are concentrated within each EFA, and uses shading to illustrate how these different populations overlap with each other. These EFAs are based on 2016-20 American Community Survey data (for income and English proficiency) and 2020 Census data (for race). Appendix C provides more detail on the data sources and calculations used to create and update EFAs.

Figure 10: 2023 RTP Equity Focus Areas, (Census and American Community Survey data, 2016-2020)



EFAs are located throughout the region, and there are large concentrations of all three EFA populations in East Portland and Multnomah County and along Tualatin Valley Highway in Washington County. These are largely the same areas that were highlighted during the 2018 RTP equity analysis.[15] Directing transportation investments – particularly projects designed to meet the needs of the people they serve – toward the EFAs that are highlighted above helps to meet this goal.

[15] See the Needs Assessment memo that was shared with TPAC as part of the July 13 meeting packet (beginning p. 14) for further discussion of how and why Equity Focus Areas changed as they were updated.

Transportation Needs in Equity Focus Areas

The equity policies adopted in the 2018 RTP direct Metro and partner agencies to both learn more about marginalized people's transportation needs[16] and also to act on what they learn.[17] Since the 2018 RTP update, Metro has conducted extensive outreach to people of color, people with low incomes, and other marginalized people to better understand their transportation needs through the development of the 2020 regional transportation funding measure, the Regional Mobility Policy update, and other processes.[18] Metro has consistently heard that these communities need safer and more accessible travel options – specifically better transit service and safer streets for bicycling and walking, including:

- More fast, frequent and reliable transit service for all types of trips (including at off-peak travel times)
- More affordable transit that connects people to the places and things they need to thrive.
- Better conditions for walking and biking, including adequate street lighting, protected crossings and crossing signals, particularly to improve access to transit.
- Connected and separated walking and biking infrastructure.

Transit needs

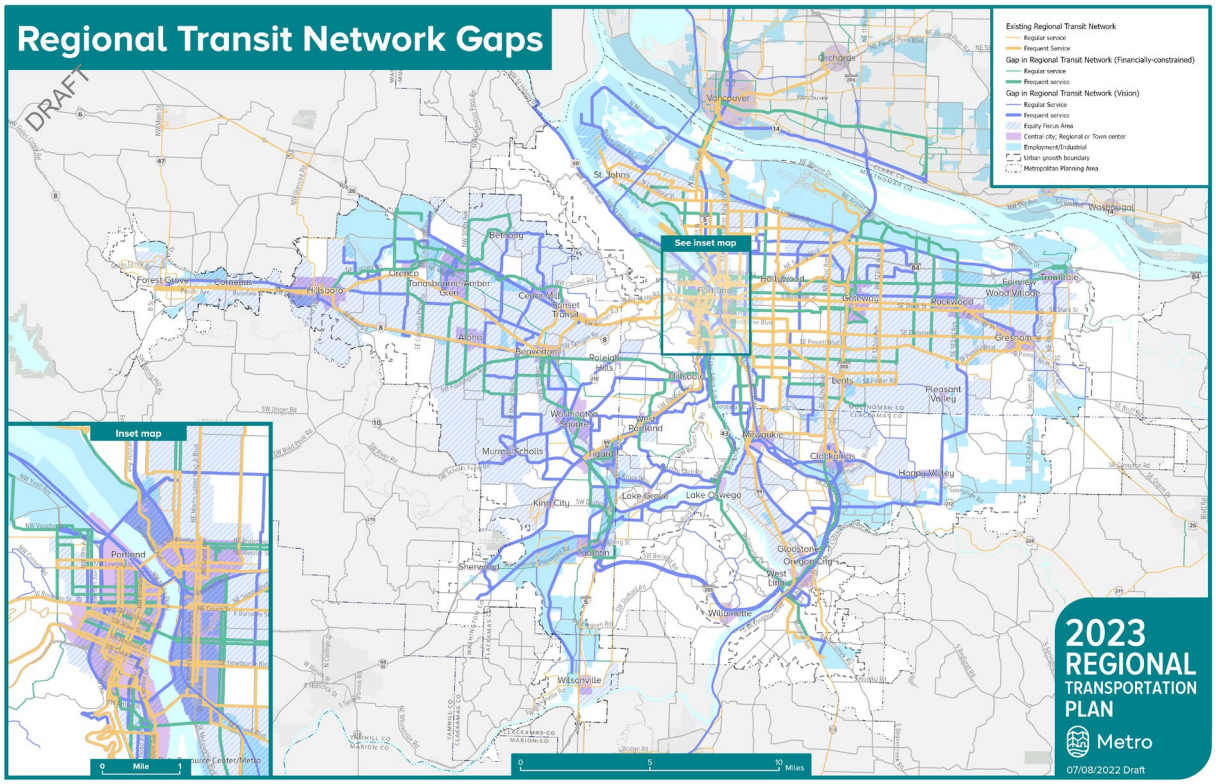
Figure 11, which is discussed in more detail in the following section on Mobility and Climate, shows where gaps in the regional transit network are located. These gaps show places where planned transit has not yet been built. The map differentiates between gaps in frequent (thick lines) and regular (thin lines) transit service, and between gaps in service that are based on the financially constrained network (i.e., gaps that the region currently has identified funding to complete, shown in green) and those that are based on the network vision (i.e., gaps that the region has not yet identified funding to complete, shown in purple). It overlays these gaps with Equity Focus Areas, which are shown in violet cross-hatching.

[16] Policy 5: "Use engagement and other methods to collect and assess data to understand the transportation-related disparities, barriers, needs and priorities of communities of color, people with low income and other historically marginalized communities."

[17] Policy 3: "Prioritize transportation investments that eliminate transportation-related disparities and barriers for historically marginalized communities, with a focus on communities of color and people with low income."

[18] https://www.oregonmetro.gov/sites/default/files/2020/11/10/Historically-marginalized-communities-transportation-priorities-summary.pdf

Figure 11: Regional transit network gaps (2018 RTP networks, partner agency data)

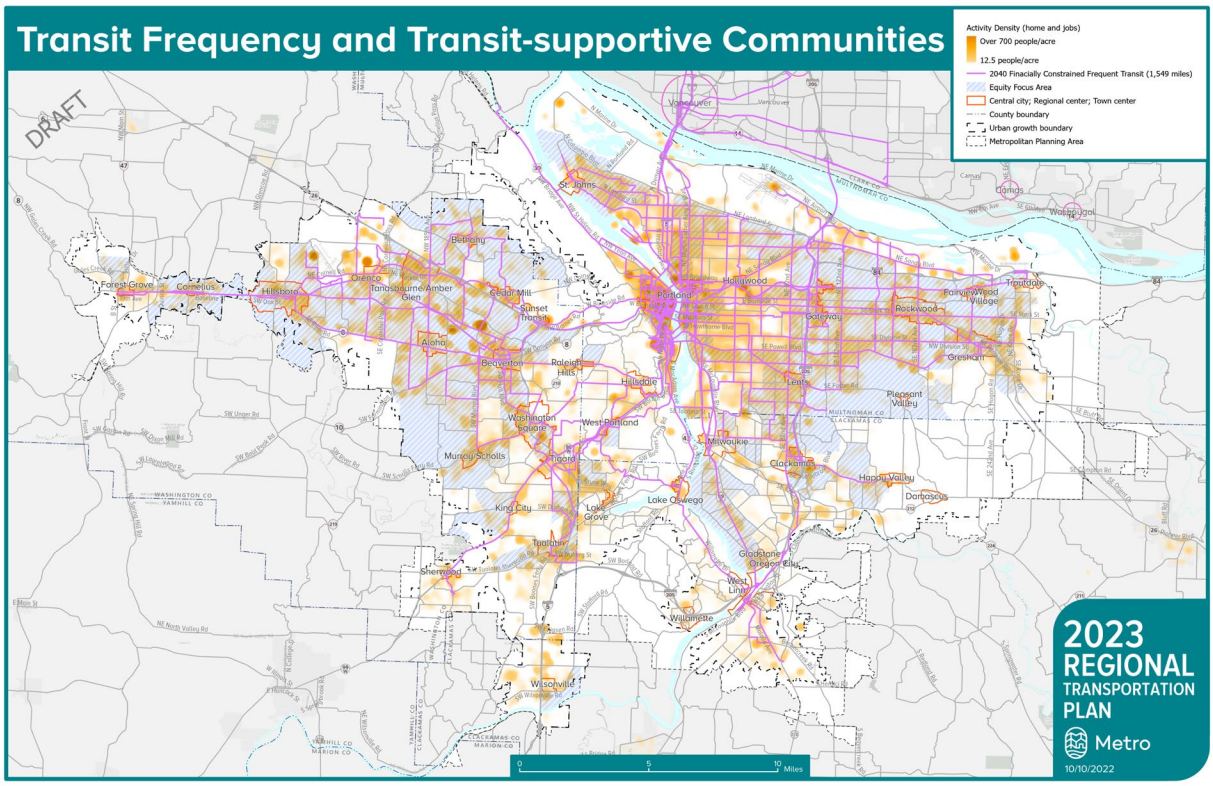


There are many places where transportation agencies have planned to deliver the frequent transit that EFA residents say they need, but where those projects are not being implemented – i.e., where the thick green and purple lines shown in the figure above overlap with the Equity Focus Areas. Completing these transit investments – particularly those shown in green, which can be built with available funds – would address pressing equity needs while also advancing mobility and climate outcomes.

Figure 12 below takes a different view of the transit system. Instead of using planned transit lines as a basis for identifying needs, Figure 12 highlights communities that have the densities necessary to support frequent transit[19] (orange) and compares their location with current frequent transit service (i.e., lines with peak headways of 15 minutes, shown in purple). It shows EFAs in light blue cross-hatching.

[19] The High Capacity Transit and Regional Transit Strategies specify a threshold of 5 households or 15 jobs per acre for communities served by frequent transit. In order to map both jobs and housing at the same scale, Figure 25 combines jobs and housing into a single measure of activity density (jobs plus residents per acre) and uses a threshold of 12.5 jobs and/or residents per acre to identify communities that support frequent transit. The average household in the region includes 2.5 people, so 5 households per acre is equivalent to 12.5 residents per acre.

Figure 12: Map of high-frequency transit (headways of less than 15 minutes) and transit-supportive communities (12.5 or more people and/or jobs per acre), 2020 (Metro travel model and distributed growth forecast)



People living within EFAs have said that they need better transit connections between their communities and their destinations. If these connections were in place, the map above would likely show purple lines connecting most of the orange/red clusters of high density within the light blue EFAs. This is the case in much of the east side of the region – though there are notable gaps on several north/south corridors – but not as much in EFAs on the west side of the region. This is in part because the built environment in East Portland and Multnomah County has many transit-supportive characteristics, such as a well-connected grid of arterials and relatively high-density residential areas. TriMet is currently working to reallocate service more equitably throughout the region. There may be further opportunities in the long term to better configure the transit network to benefit current and prospective transit riders who live in EFAs.

In addition to identifying where there are needs and opportunities to provide more equitable transit service, the RTP also examines whether the transit system provides the convenient and useful connections that EFA residents have asked for. During the 2018 RTP, the transportation equity working group identified access to jobs and community services as key transit equity performance measures, and community feedback received since then continues to emphasize the importance of improving transit connections between EFAs and residents' destinations. Measuring how many destinations a traveler can access within a given travel time via different modes has been established as a best practice for understanding and comparing how useful different modes are for different groups of

people. The RTP examines access to destinations in order to answer two questions about transit equity.

- **Does the transit system provide equitable service to marginalized people?** If so, people living in Equity Focus Areas should be able to reach the same number of other jobs (or more) as people living in other communities. This would mean that the transit system generally as useful (or more useful) for people living in EFAs than it is for other people.
- **Is transit a competitive alternative to driving?** The community feedback above clearly emphasizes the importance of transit to people of color and people with low incomes, and extensive research and data demonstrates that these people are generally more likely to rely on transit. It follows that an equitable transportation system is one in which people who travel by transit are not faced with longer, less convenient trips than people who drive – in other words, that people should be able to reach the same number of jobs (or more) via transit as they should via automobile in the same travel time. This is a more challenging goal to meet than simply providing equitable transit service to EFAs, because as described in the Mobility and Climate section, there has been significantly more progress in building out the motor vehicle network than in building out the transit network. Meeting this goal would also have far-reaching benefits – not just for equity, but for the region's mobility and climate goals, which depend on significantly increasing transit use.

Table 2 compares access to jobs between modes (transit versus auto), community types (EFAs vs. non-EFAs) and time periods (rush hour vs. non-rush-hour) for the RTP base year of 2020. Jobs are commonly used as a proxy for all destinations in regional-scale accessibility analyses. This is both because many common destinations such as grocery stores, medical offices, and schools are also places of employment, and because regional-scale analysis is often better suited to analyze large-scale trends and disparities in accessibility rather than examine access to specific destinations in detail.[20] This analysis uses a 45-minute travel time to measure transit access and 30-minute travel times to measure automobile access, which accounts for the time needed for people to walk between their origins/destination and their car/transit stop and transfer between different transit routes, etc. These travel times were recommended by the 2018 Transportation Equity Working Group to account for the fact that transit trips typically require more time transfer time and walking time to/from the vehicle than automobile trips do.

[20] https://ssti.us/wp-content/uploads/sites/1303/2020/12/Measuring-Accessibility-Final.pdf

Table 2: Percent of jobs accessible by driving and by transit, by community type and time of day, 2020 (Metro travel model and land use data)

	Percent of jobs accessible within…	
	… a 30-minute drive	**…a 45-minute transit trip**
During rush hour		
Average for EFAs	42%	8%
Average for non-EFAs	42%	6%
Average for the region	43%	7%
Outside of rush hour		
Average for EFAs	52%	7%
Average for non-EFAs	50%	5%
Average for the region	50%	6%

The results above show that people living in EFAs enjoy significantly better access to destinations via transit (and to a lesser extent, via driving) than people living in other communities. This is likely because many communities of color and of the region's naturally occurring affordable housing stock are located in regional centers that have long been key points in the transit network, but it also reflects more recent efforts by transit agencies to focus on serving marginalized communities even as these communities relocate within the region. Even though transit service appears to be equitably allocated between EFAs and other communities, Table 2 also shows the extent to which driving offers better access than taking transit does. Across all communities and all times of day, people can reach five to ten times as many destinations by auto as they can by driving. Though the Portland region has an extensive transit system relative to many other Metro areas, significant parts of the region are not served by transit and (as shown in Figure 12 above) do not have the land uses necessary to support frequent transit. Extending and improving transit service can help improve transit access to destinations, and land use changes that create clusters of activity that support high-quality transit can also make a big difference. Regional partners are currently working to update transit networks to better connect people with destinations, and partners will have the opportunity to make important land use changes when Metro works with stakeholders to update the 2040 Growth Concept after the RTP is adopted.

It is important to note that the results shown above do not reflect the service cuts that transit agencies made during the pandemic and that have continued due to challenges hiring drivers, nor do they reflect ongoing efforts to update the transit network to better serve the region.[21] Given that agencies made efforts to maintain service on routes that people of color and people with low incomes rely on, these cuts are not expected to deepen inequities in transit service for EFAs. However, these cuts do likely mean that Table 2 may overestimate the share of jobs that are currently accessible by transit in general. Transit agencies are working to restore service lost during the pandemic.

[21] https://trimet.org/forward/

During the 2018 RTP update, the transportation equity working group recommended focusing on analyzing access to specific types of destinations – jobs, particularly those that are well-suited for people of color and workers with low incomes, and community places such as grocery stores, libraries, schools, medical offices, and community services. Metro tested measures of access to jobs by income and to community places and found the same patterns in access to these destinations as for access to all destinations.

Bicycle and pedestrian needs

Other than the need for better transit service for EFAs, the main need that people of color and people with low incomes have expressed in Metro's outreach is the need for safer and more convenient walking and biking facilities, particularly near transit stations. Bicycle and pedestrian gaps are mapped in the following section on Mobility and Climate, and these maps show which gaps are located in EFAs. Table 3 summarizes how complete the bicycle, pedestrian and transit networks are (including bicycle and pedestrian facilities near transit) in EFAs versus in other areas.

Table 3: Pedestrian, bicycle and trail network completion for EFAs and non-EFAs (2018 RTP networks and current partner agency data)

	Percent of the network that is complete…		
Network	**In EFAs**	**In non-EFAs**	**Total**
Pedestrian network	72%	43%	58%
Pedestrian network near transit[22]	76%	53%	65%
Bicycle network	61%	49%	54%
Bicycle network near transit[22]	65%	56%	60%
Trail network	45%	42%	43%
Trail network near transit[22]	51%	50%	51%

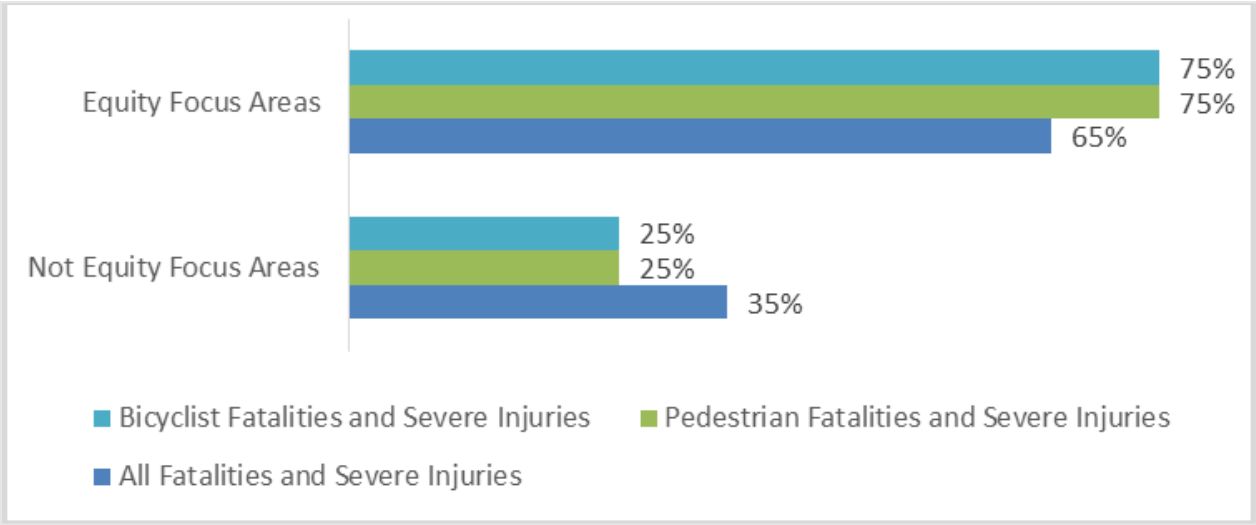
The region has made more progress completing the active transportation network, and also in providing bicycle and pedestrian connections to transit, in EFAs than in other communities. However, significant portions of the network still need to be completed for everyone in the region to benefit from high-quality walking and biking connections. The results above also reflect slow but steady progress in building out the region's active transportation network. The pedestrian and bicycle networks, both region-wide and in EFAs, are 3% more complete than they were when Metro last conducted for 2015, and the trail network is 6% more complete.

The RTP's goal is to eliminate severe and fatal crashes. As discussed in the Safety section above, most of these crashes – particularly those that involve pedestrians – have taken place in communities where people of color and low-income people are concentrated. Normalizing by population, Black, American Indian and Alaska Native people experience double or nearly double the number of traffic fatalities that other groups experience. And

[22] Research has shown that people are willing to travel further to access high-quality, frequent transit than they are normal bus service. The transit access analysis for the 2018 RTP used different travelsheds to examine access to different types of transit: ½ mile for light rail, 1/3 mile for streetcar, and ¼ mile for bus. This analysis uses these same travelsheds to identify bicycle and pedestrian facilities near transit.

as Figure 18 shows, three quarters of serious pedestrian and bicycle crashes and 65% of all serious crashes occur in Equity Focus Areas. Addressing safety in these areas is critical to making the entire transportation system safer and more equitable.

Figure 13: Percent of average annual traffic fatalities and severe injuries in Equity Focus Areas, 2016-2021 (ODOT crash data, analyzed by Metro staff)



Though bicycle and pedestrian infrastructure is generally equitably distributed – in fact, the region has a slightly better track record of completing planned infrastructure in EFAs than in other communities – a higher percent of pedestrian crashes are still occurring in EFAs. One explanation for this is that other factors besides the presence of bicycle and pedestrian infrastructure the presence of trails, sidewalks and bicycle infrastructure described above helps reduce crashes for vulnerable users, but other factors, such as the design and posted speed of travel lanes, also influence the overall safety of streets.

Mobility and Climate: draft needs assessment

The 2023 RTP update includes significant updates to both Mobility and Climate policies. The updated Regional Mobility Policy is a significant and long-awaited milestone for the RTP that will shape how Metro defines and measures mobility throughout the plan. New State climate rules adjust the region's greenhouse gas targets and clarify how the RTP needs to assess its progress and provide additional specificity on how regional and local agencies will account for GHG emissions in transportation projects and local plan updates. Both updates are still underway, and Metro staff will be providing additional information about how they will shape the development of the RTP. But these changes have already provided clear direction that achieving both the Mobility and Climate goals in the RTP relies upon completing the multimodal transportation system and reducing vehicle miles traveled (VMT) per capita. These two issues are the focus of this section, which finds that:

- Over 45 percent of workers in the 3 Metro-area counties work in a different county than where they live.
- Travel declined during the COVID pandemic. Between October 2019 and October 2021, daily throughway trips on a sample of regional mobility corridors decreased

by five percent, daily arterial trips decreased by 14 percent, and daily transit ridership decreased by 41 percent.

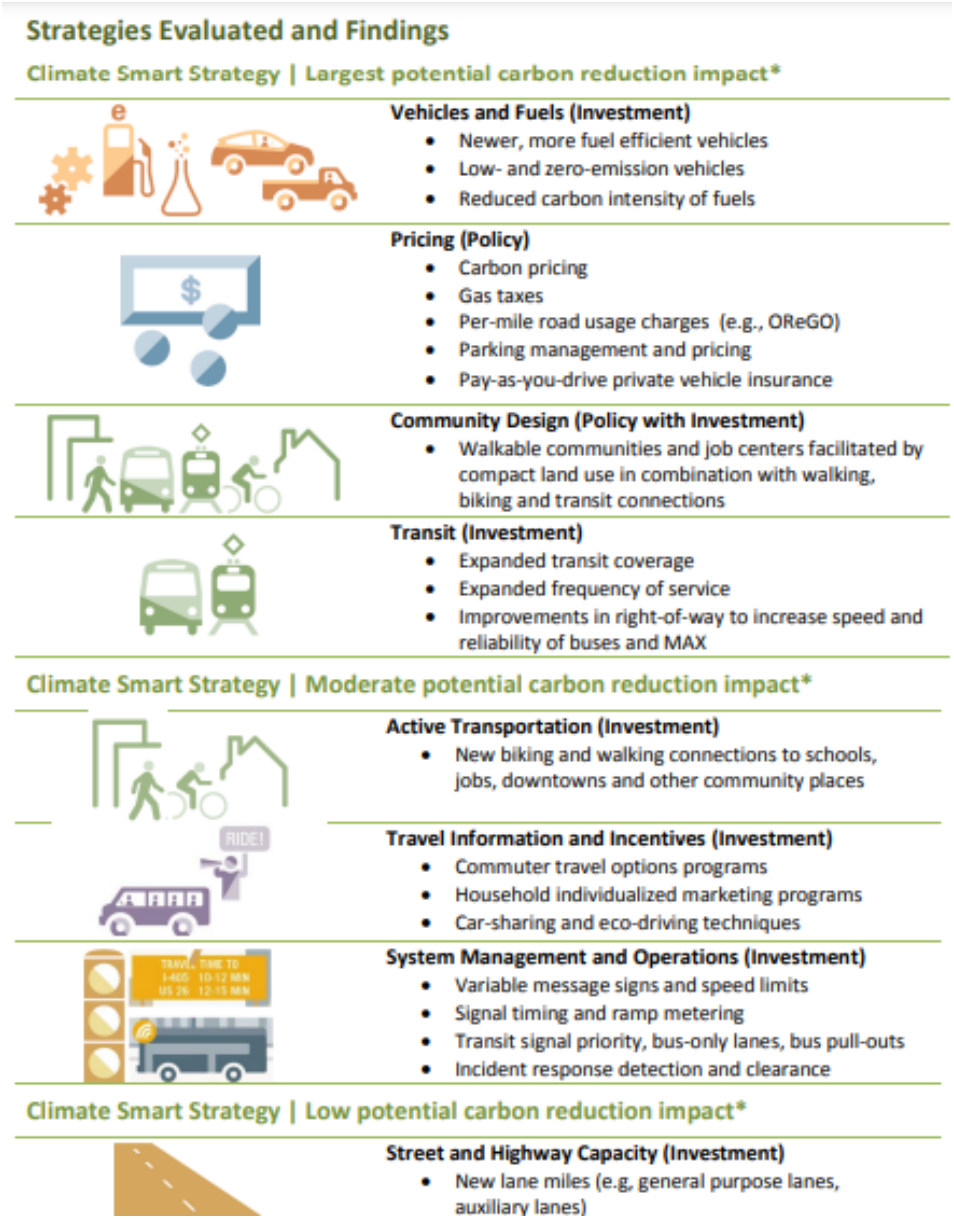
- Overall, the planned motor vehicle network is much more complete than the other modal networks.
- Active transportation networks are mostly complete within regional centers and near transit. However, even in these areas there are plenty of small gaps that hinder people's ability to walk and bike. There are larger bicycle and pedestrian gaps between urban centers and at the edges of the region, many of which are on the trail system.
- Per capita VMT in the Greater Portland region has been significantly lower than the national average since 1997 and has mostly been flat or declining. But in order to meet ambitious GHG and VMT reduction targets the region will likely need to take new approaches.
- During rush hour, the average traveler can reach 43% of jobs in the region by driving, and 7% by transit. Metro and partner agencies are working to increase ridership by better connecting activity centers – potentially including many developing suburban centers – with frequent transit.

Mobility and Climate policy framework

The draft Regional Mobility Policy replaces a 20-year-old interim mobility policy focused on addressing motor vehicle congestion and used motor vehicle volume-to-capacity ratios as its primary performance measure. During the 2018 RTP, Metro and partner agencies determined that there were not enough resources to meet the standards in the interim mobility policies, and that even if the resources were available to do so, there would be unacceptable impacts to other modes and other state, regional, and local goals. The updated Regional Mobility Policy aims to address a greater variety of modes (including transit, active transportation, and driving) and outcomes (including safety, equity, access, efficiency, reliability, and options), such that the mobility policy is better aligned with the overall strategic direction of the RTP – including the Climate Smart Strategy.

In 2010, the State directed Metro to create a strategy to meet regional greenhouse gas (GHG) reduction targets. The Climate Smart Strategy was adopted in 2014 and incorporated in the RTP in 2018. It identifies a wide range of GHG reduction strategies, which are summarized in Figure 14 below, and categorizes them by impact. The 2018 RTP relied on these strategies – in particular, expansion of the regional frequent transit network, to demonstrate that the RTP made sufficient progress toward meeting the region's GHG reduction targets. Metro was unable to directly compare the GHG reduction results from the 2018 RTP with the state targets because the RTP used different analytical tools to evaluate its performance than the State used to set targets.

Figure 14: Summary of greenhouse gas reduction strategies by level of impact (2018 RTP Appendix J, Climate Smart Strategy implementation and monitoring)



Since 2018, the State has updated the Portland region's greenhouse gas (GHG) reduction target such that the RTP is now required to demonstrate a 35 percent reduction in per capita GHG emissions by the year 2050. It clarified that regional GHG reduction targets are intended to be equivalent to household-based VMT per capita reduction targets, which will make it easier to compare the RTP results with State targets. The State also adopted new Friendly and Equitable Communities (CFEC) rules that require cities and counties in Oregon's metropolitan areas to designate higher density, mixed use communities that are served by transit and other sustainable transportation options, and to demonstrate that land use and transportation system plan updates reduce both VMT and GHG emissions. Metro will be working with RTP partner agencies and stakeholders to assess whether the

RTP is likely to achieve the updated targets and to identify any additional actions that are necessary to meet them, and to support partner agencies in implementing CFEC.

Due to both these developments, as well as to the longstanding relationship between mobility and climate in a state where the transportation sector accounts for a plurality of GHG emissions, there are some important similarities between how Climate and Mobility will be addressed in the 2023 RTP update:

- Achieving success on both Mobility and Climate goals depends on making transit and active transportation as efficient and useful as driving is so that people have multiple options for making trips.
- VMT per capita is an important performance measure for both Mobility and Climate and reducing VMT is critical to meeting regional goals.
- Both Mobility and Climate are shaped by ongoing processes – including the Regional Mobility Policy Update, the implementation of CFEC, state and regional updates to the assumptions underlying the Climate Smart Strategy, and the addition of congestion pricing to the RTP – that will continue to evolve currently with the RTP.

In this draft, we have combined the assessment of Mobility and Climate needs. In both cases, Metro and partners' understanding of regional needs will further evolve with the processes mentioned above, and the information that is currently available focuses on common outcomes like multimodal system completeness and VMT reduction. We will separate the Mobility and Climate sections of the Needs Assessment and add more detail to each as the RTP update progresses.

Regional travel patterns are evolving

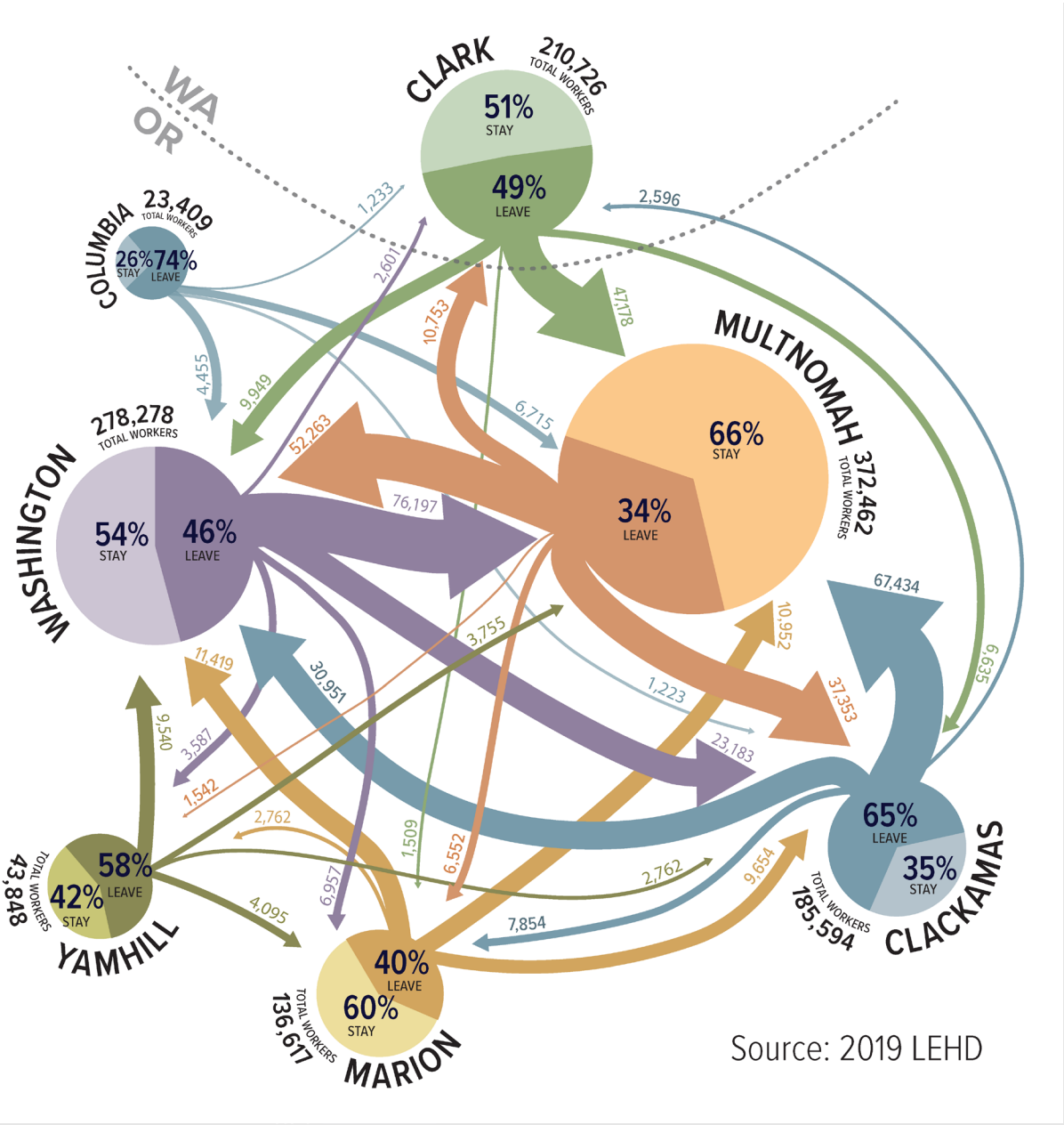
The 2018 RTP described a region that was growing rapidly into a major U.S. metropolitan area, with large numbers of people from other cities migrating to Greater Portland. It described some of the challenges associated with that growth, including growing congestion, rising housing costs, and increased displacement of people of color and people with low incomes to neighborhoods that are harder to serve with transit and other transportation options. The RTP also described some of the unique opportunities that the region can draw on when facing these challenges, including higher-than-average use of transit and other travel options than many other comparable metropolitan areas.

The data that Metro has collected during the 2023 RTP update confirm this story. Between 2015 (the base year for the 2018 RTP update) and 2020 (the base year for the 2023 RTP update, the region grew significantly – by 135,000 people (an 8.4% increase), 57,000 households (8.9%) and 90,000 jobs (10.1%)[23] – since the 2018 RTP, and this growth is projected to continue. As Figure 15 below illustrates, people in the region drive significantly less, on average, than the average American. As Greater Portland continues to grow into a major metropolitan area, with increasing housing prices and a more specialized economy, travel patterns are becoming more complex. Figure 15 below provides a window into this growing complexity; and shows how workers commute within and between counties in and around the region. It includes data for two counties that are outside the

[23] These figures are from Metro's travel model and are for the Metropolitan Planning Area. For more base-year data from Metro's travel model, see Appendix A.

region, Clark and Marion, that have significant amounts of workers commuting to or from the Metro region.

Figure 15: Where workers live and commute in the Greater Portland region and surrounding counties, 2019 (Census LEHD Origin-Destination Employment Statistics)



Over 45 percent of workers in the 3 Metro-area counties work in a different county than where they live. Most workers in Multnomah County work there too, two-thirds of workers who live in Clackamas County residents commute to other counties, and Washington County has an equal share of workers who stay and leave. Multnomah County, which has the most jobs of any county in the region, draws roughly 200,000 commuters from other counties, while Washington County draws about 100,000 and Clackamas County draws about 75,000. The 2018 RTP found similar patterns when it examined 2015 data. These

numbers help to contextualize some of the findings elsewhere in this report that show Multnomah County having more crashes, more congestion, and more transit service than other counties. This is partly because Multnomah County has more people commuting to, from, and through it. It is the only county in the region where the net worker population grows during the day; Washington and Clackamas Counties both have more workers who commute to other counties each day than they do inbound commuters.

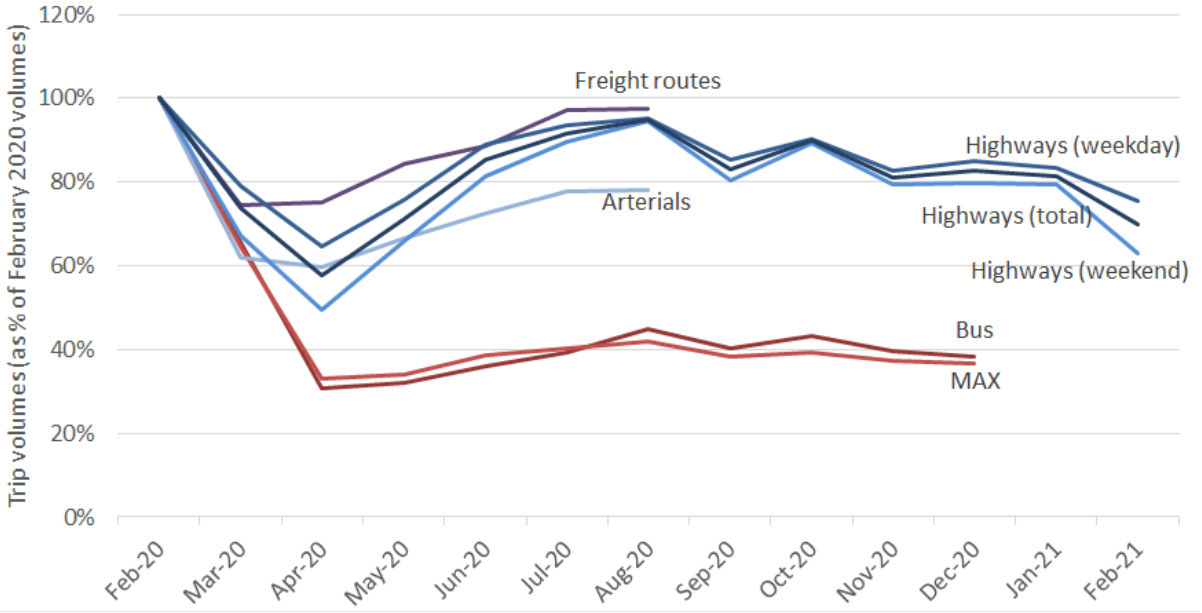
Though there are many reasons why workers might live far from their jobs, patterns like these are typical of major metropolitan areas with large populations, clusters of specialized jobs, and rising housing prices that limit many people from living close to jobs. Most of the longer-distance commute trips highlighted in Figure 15 are made by car; frequent and high-capacity transit routes are needed to provide affordable, congestion-free alternatives to driving for these trips as the region grows. The 2040 Growth Concept helps to identify the many different job and activity centers in the region that need to be included in this web of connections. At the same time, local pedestrian, bike and transit connections are necessary in and around these centers to give people safe, affordable and healthy options for shorter trips to shops, services, and other non-work destinations.

Most of the information presented in this memorandum is from early 2020, which is the base year for the 2023 RTP update and often the most recent year for which data are available. This is also the most recent period of "normal" travel behavior; beginning in March 2020 the COVID-19 pandemic and subsequent measures to protect public health led many workplaces, schools, and other destinations to close temporarily, which meant that people in the region were traveling less. Metro's Emerging Transportation Trends study[24] looked at a variety of data sources to understand how travel patterns continued to evolve during the pandemic.

[24] https://www.oregonmetro.gov/public-projects/2023-regional-transportation-plan/research

Figure 16 below shows how travel demand changed for transit and on different types of streets during the year following the pandemic.

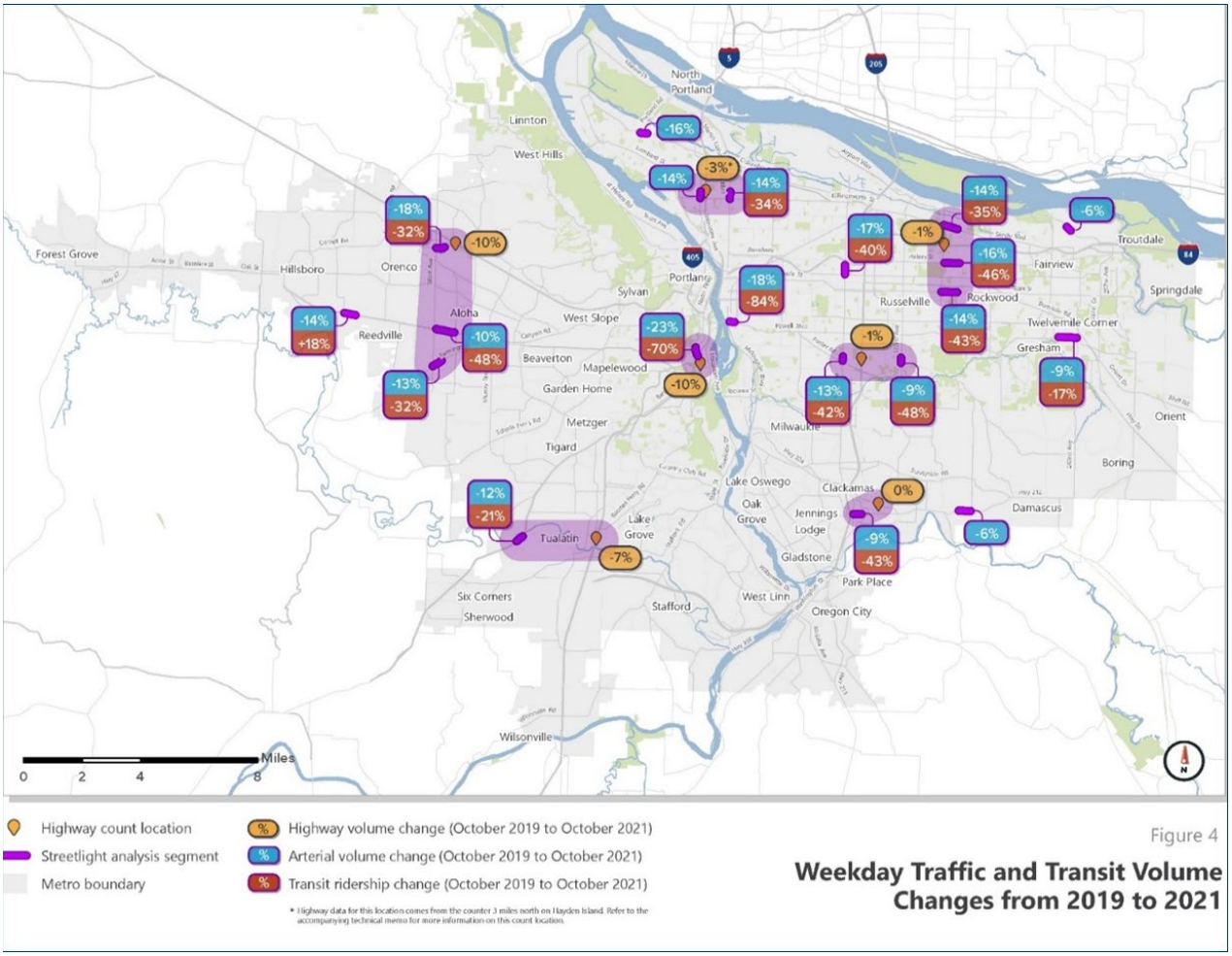
Figure 16: Trip volumes by mode and by facility type, indexed to February 2020 levels, February 2020-2021 (PBOT freight route and arterial count data; ODOT throughway count data; TriMet transit ridership performance reports; data were collected in April 2021 and reflect the availability of source data at that time)



All different types of travel shown fell during the initial months of the pandemic, but some fell more steeply and/or recovered more slowly than others. Trips on freight routes fell the least and recovered most quickly, potentially because goods kept moving during the pandemic and many freight routes also connect workers to jobs that remained in-person during the pandemic. Throughway trips recovered to 80 percent of pre-pandemic levels by May 2020, and then continued to fluctuate, which could reflect normal seasonal changes in travel demand, the impact of extreme weather events, and/or the spread of new COVID variants. Arterial travel appeared to be recovering less slowly.

The Emerging Transportation Trends study further examined changes on a set of throughways, arterials and transit routes that were chosen to allow for an "apples to apples" comparison across throughways, arterials, and transit routes along the same set of regional mobility corridors. Figure 17 below shows the results. Changes in throughway volumes are shown in yellow, changes in arterial volumes are shown in blue, and changes in transit ridership are shown in red.

Figure 17: Weekday vehicle and transit volume changes, October 2019-October 2021 (ODOT throughway count data; Streetlight arterial volume data; TriMet transit ridership by route data)



On average across the study locations, daily throughway trips decreased by five percent, daily arterial trips decreased by 14 percent, and daily transit ridership decreased by 41 percent between October 2019 and October 2021. In almost every location studied, arterial volumes decreased more significantly from pre-pandemic levels than throughway volumes did. This could reflect higher levels of freight trips (which held steady during the pandemic) and trips through the region (which have fallen less than trips within the region) on arterials, or lower levels of diversion from throughways to arterials due to less congestion along throughways. Transit volumes fell significantly in locations closer to the center of the region. This could reflect declining commutes to Downtown Portland, higher teleworking rates for affluent neighborhoods and workers, and/or lower levels of transit dependency among riders in the center of the region.

Since October 2021, the available evidence suggests that travel volumes have continued to increase as society continues to reopen following the pandemic. For example, transit ridership increased between October 2021 and July 2022, even though transit service remained constant. There is reason to believe that these increases will continue as COVID

becomes less of a health threat. However, the Emerging Trends study found evidence to suggest that the pandemic could lead to a long-term increase in teleworking rates and the use of online shopping, which would likely lead to slightly lower levels of VMT per capita and transit use than the region would otherwise experience, all other things being equal.

System completeness

Meeting Mobility and Climate goals depends on completing the multimodal transportation system so that people have multiple options for making trips. The Regional Mobility Policy has recommended three performance measures – vehicle miles traveled (VMT) per capita, system completeness, travel speed on throughways – to use in assessing mobility. Previous RTPs have compares the overall completeness of different modal networks and used "gap maps" to highlight opportunities to complete different travel networks.

Table 4 below summarizes the completeness of different regional modal networks. Since completing bicycle and pedestrian connections to transit, along arterials, and within 2040 centers is an RTP policy priority, the table also reports on bicycle/pedestrian completeness[25] for these two geographies. See Table 3 in the Equity section, above, for a comparison of active transportation system completeness between EFAs and non-EFAs.

Table 4: System completeness by modal network and location within the region (2018 RTP networks and current partner agency data)

Network	Total miles	Number of miles completed	Percent of miles completed
Region-wide			
Transit network[26]	1,460	788	54%
Pedestrian network	1,052	607	58%
Bicycle network	1,169	633	54%
Trail network	561	242	43%
Motor vehicle network	1,176	1,150	98%
Near transit			
Pedestrian network	843	549	65%
Bicycle network	896	541	60%
Along arterials			
Pedestrian network	737	419	57%
Bicycle network	627	415	66%
Within urban centers			
Pedestrian network	180	141	78%
Bicycle network	169	111	66%

[25] As discussed below, Metro distinguishes between on-street bicycle and pedestrian gaps in facilities like bike lanes and sidewalks and off-street bike/ped gaps in facilities like trails. On-street facilities are generally needed to provide good active transportation connections in centers, near transit, and in

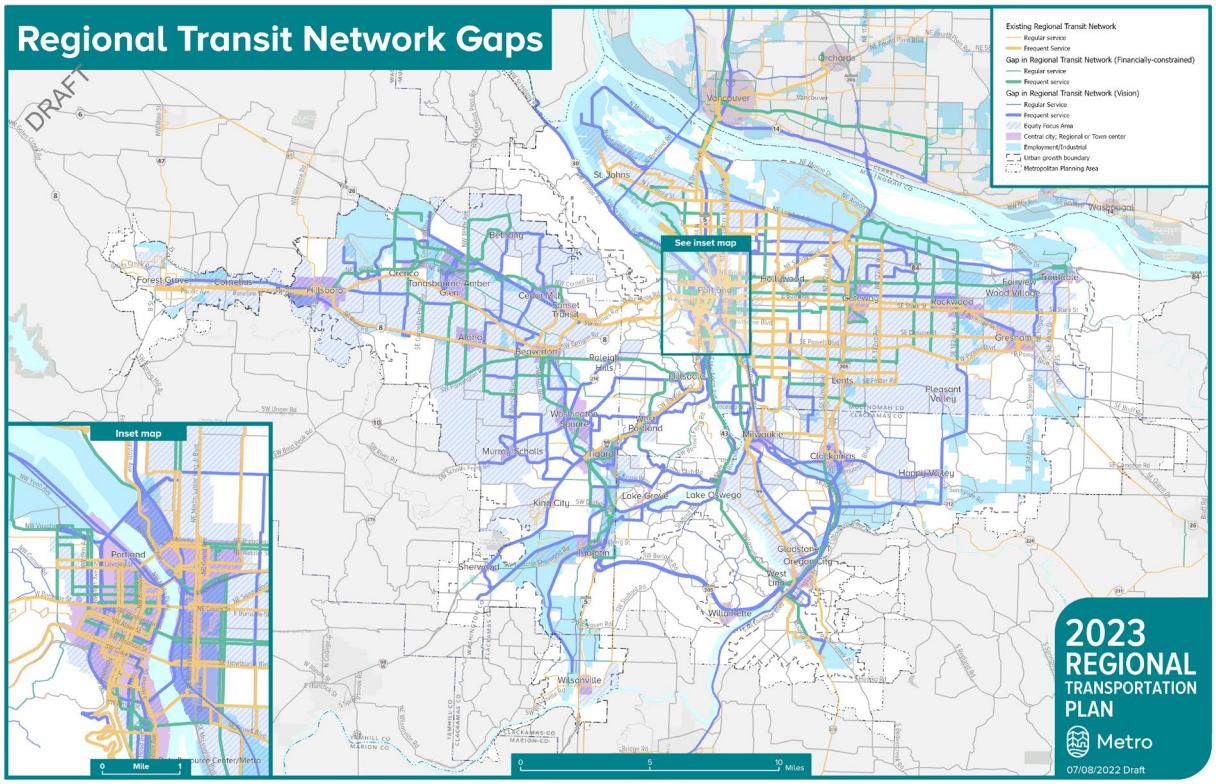
[26] Consistent with how completeness is analyzed for other modal networks, the assessment of transit system completeness is based on the financially constrained RTP, and excludes the strategic investments shown in Figure 19.

Network	Total miles	Number of miles completed	Percent of miles completed
Within station communities (excluding urban centers)			
Pedestrian network	110	75	68%
Bicycle network	126	70	56%
Within mixed-use zoning (excluding urban centers and station communities)			
Pedestrian network	137	107	78%
Bicycle network	115	74	64%

Overall, the planned motor vehicle network is much more complete than the other modal networks. Consistent with the 2040 Growth Concept, the active transportation networks are generally more complete within regional centers and near transit. However, several important gaps remain in these areas. The maps below identify these gaps by comparing the regional visions (i.e., planned systems) for these networks – which are based in extensive coordination with stakeholders and analysis of transportation and land use data – to the facilities that are on the ground today in order to identify gaps in the system.

Figure 18 below shows gaps in the transit network where planned transit has not yet been built. The map differentiates between gaps in frequent (thick lines) and regular (thin lines) transit service, and between gaps in the financially constrained network, which the region has identified funding to complete (green), and gaps in the strategic network, which the region has not yet identified funding to complete (purple). It also shows the location of existing regular and frequent service (orange lines). All of this information is overlaid with Equity Focus Areas (violet cross-hatching) to highlight how the current and planned network serves these communities that particularly need improved transit service (see the Equity section for more details on transit-related Equity needs).

Figure 18: Regional transit network gaps (2018 RTP networks and current partner agency data)



Filling the gaps in the frequent transit system (thick green lines) are particularly important to meeting the region's Climate goals. The 2018 RTP relied on a planned increase in frequent transit service to meet GHG reduction targets, and the thick green lines indicate routes where this transit has yet to be implemented. These gaps are distributed over most of the more populated parts of the region, and there are large concentrations of them in East Portland and the Orenco/Bethany/Aloha area.

Figure 19 and Figure 20 show gaps in the regional pedestrian and bicycle systems. Completed facilities are shown in purple or green; gaps are shown in red. The maps distinguish between gaps in on-street facilities like sidewalks and bike lanes (darker shades) and gaps in off-street facilities like trails (lighter shades). Both the pedestrian and bicycle networks are overlaid with urban centers identified in the 2040 growth concept since RTP policies direct pedestrian and bicycle investments toward centers of activity where short distances between destinations make it easy to travel on foot. As noted above, we encourage readers to look at these maps in detail. Pedestrians and bicyclists are vulnerable users of the transportation system, and even a small gap in the network can make an entire trip feel unsafe and/or inconvenient.

Figure 19: Regional pedestrian network gaps (2018 RTP networks and current partner agency data)

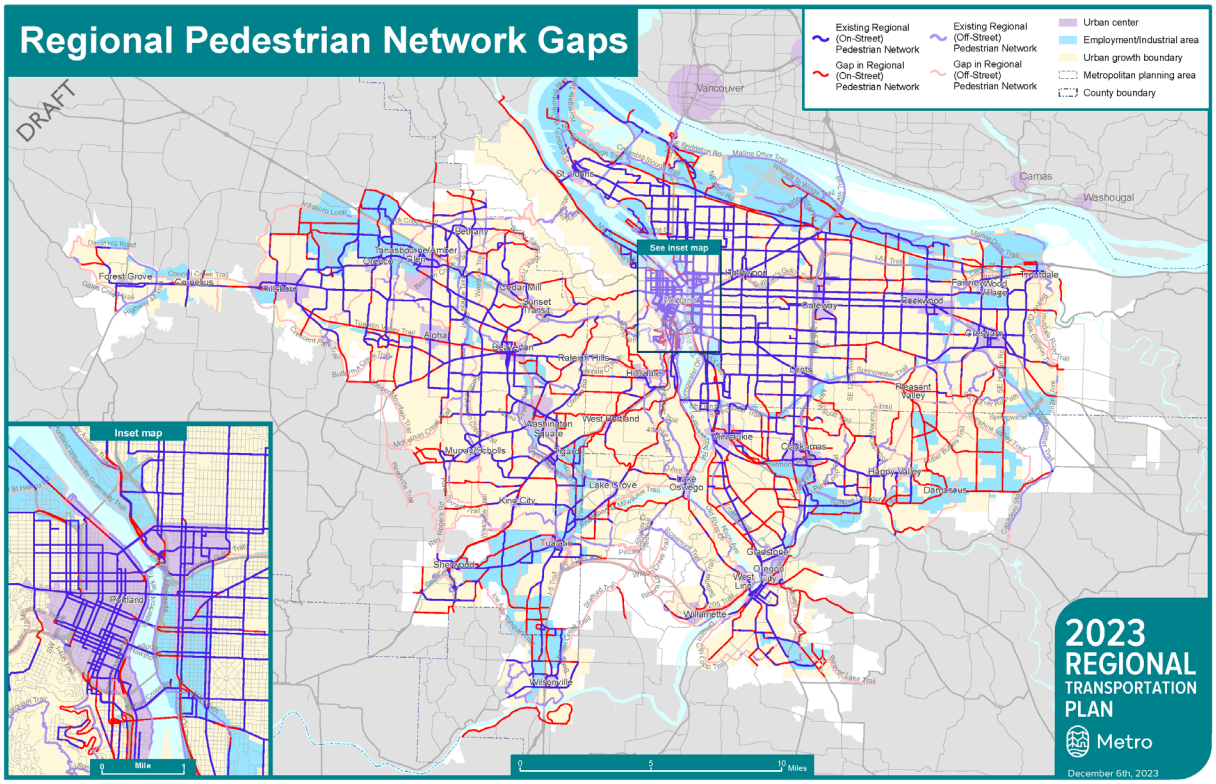
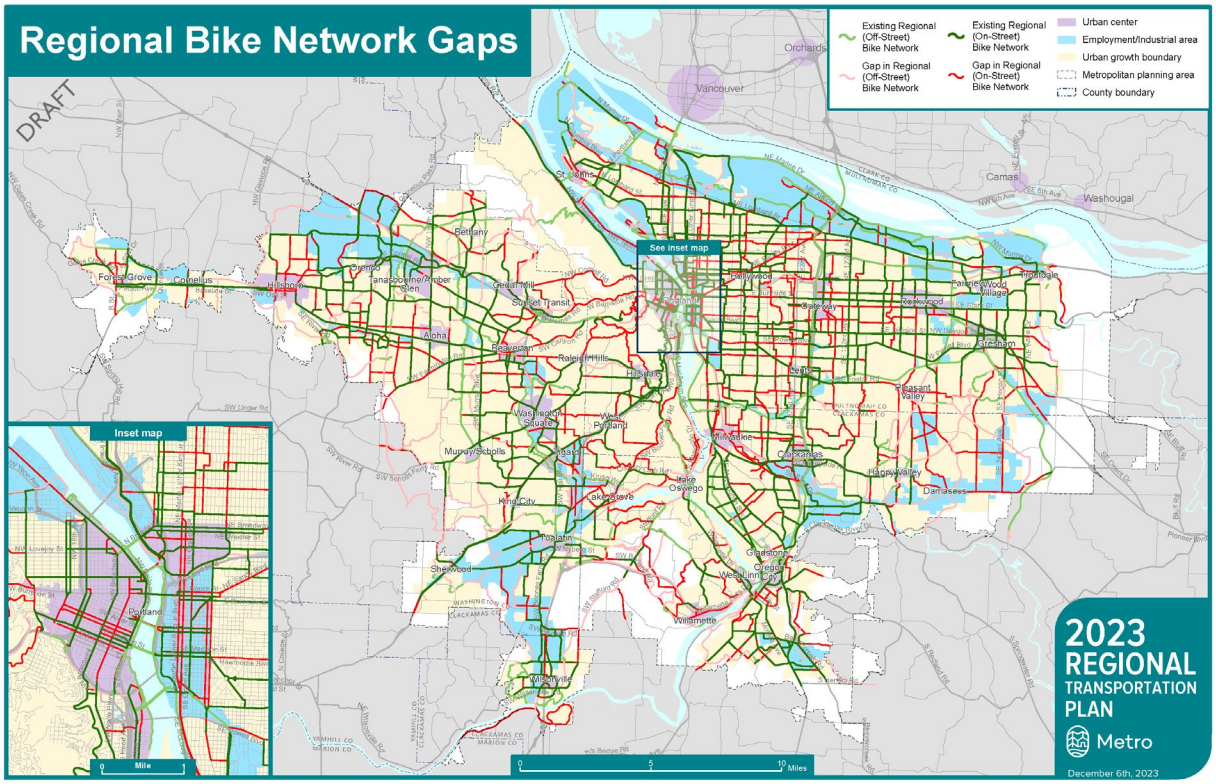


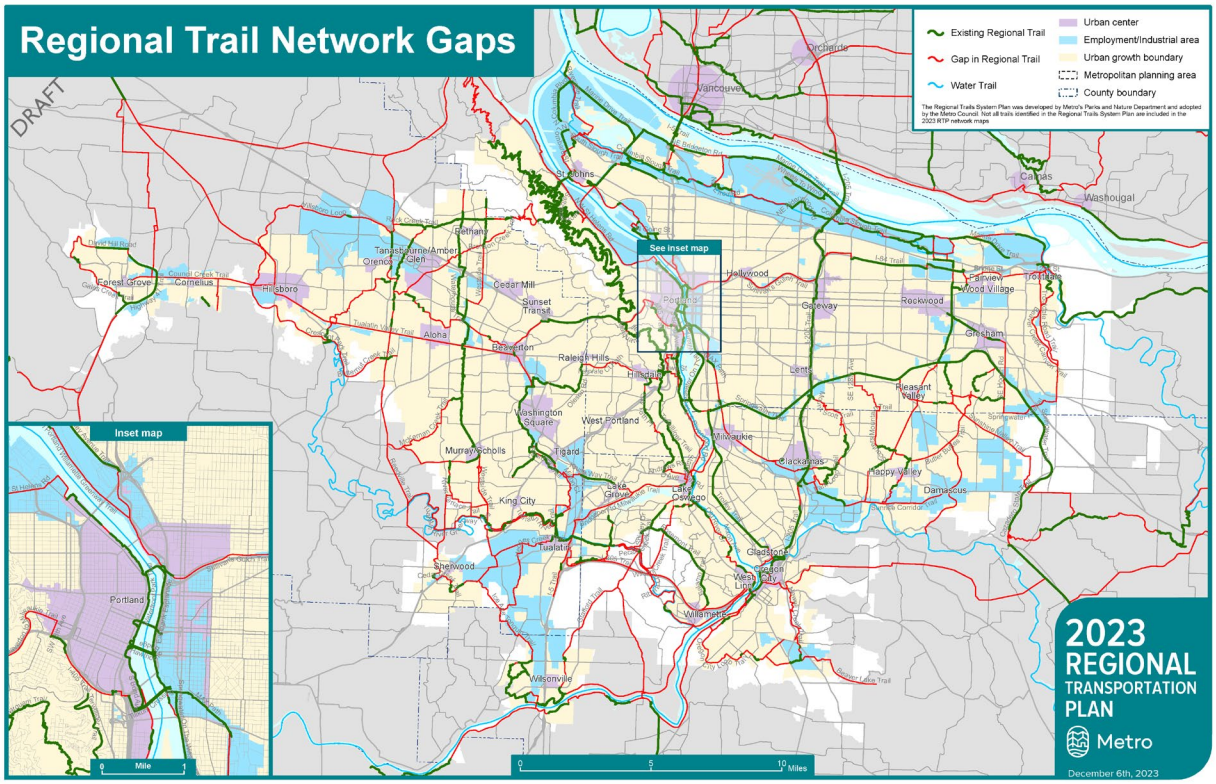
Figure 20: Regional bicycle network gaps (2018 RTP networks and current partner agency data)



Both the bicycle and pedestrian networks are generally more complete in the region's urban centers, which is consistent with RTP policies that direct transportation investments to support implementation of the 2040 growth concept. But even within those centers there are plenty of small gaps that hinder people's ability to walk and bike. Closing these gaps can be a relatively low-cost way to complete critical connections in areas that are already generally well-suited for walking and bicycling. There are larger bicycle and pedestrian gaps between urban centers and at the edges of the region, many of which are on the trail system. Closing these gaps has the potential to transform how people travel in communities where most trips are by car, especially when pedestrian projects are accompanied by complimentary investments in transit and community development.

Figure 21 below shows gaps in the regional trail network in red and completed trail segments in green, as well as the same urban centers that are included as overlays in the bicycle and pedestrian maps above. Trails are long-distance, high-quality bicycle and pedestrian facilities that provide connect regional centers, and they often pass through natural areas and/or include landscaping and natural features.

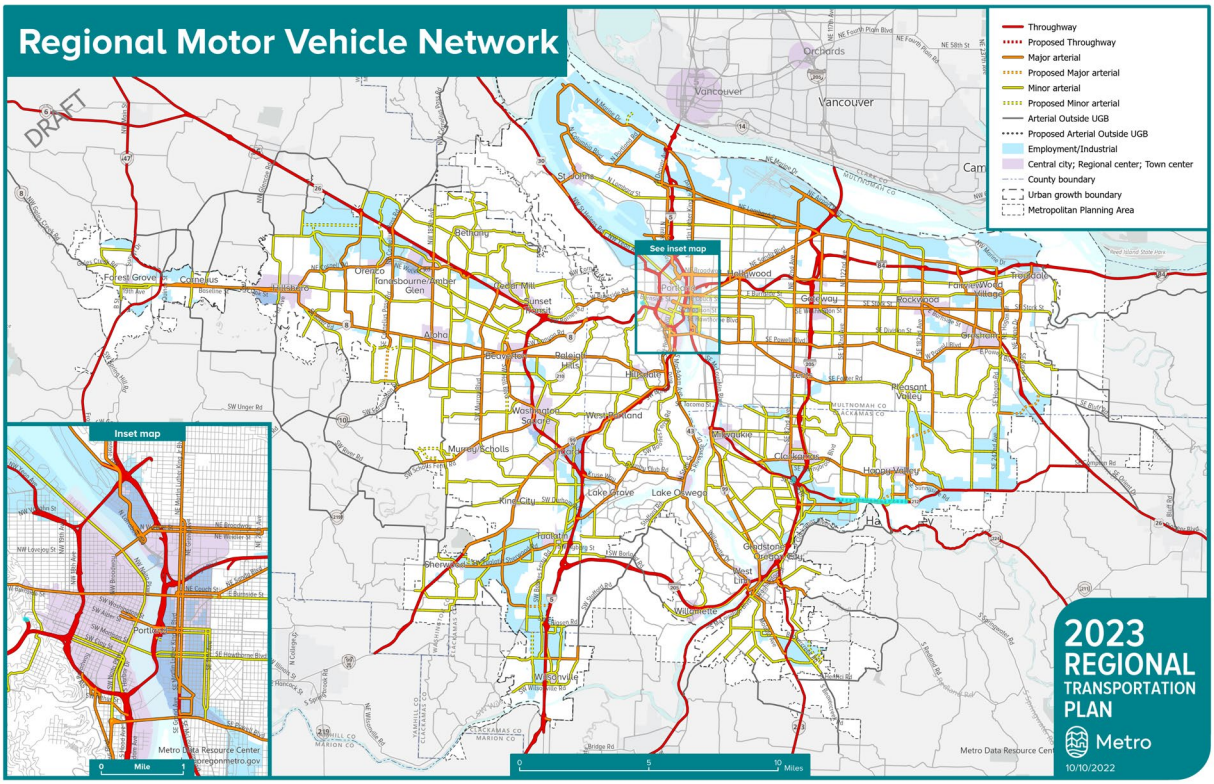
Figure 21: Regional trail network gaps (2018 RTP networks and current partner agency data)



Trails are also part of the bicycle and pedestrian networks shown above, and this map underscores how filling many of the longer-distance gaps shown above depends upon completing the regional trail system.

Figure 22 shows the planned motor vehicle network by facility type, including planned facilities that have not yet been built, which are shown in dashed lines. As the map below shows, the network is largely built out.

Figure 22: 2018 RTP regional motor vehicle network map ((2018 RTP networks and current partner agency data)



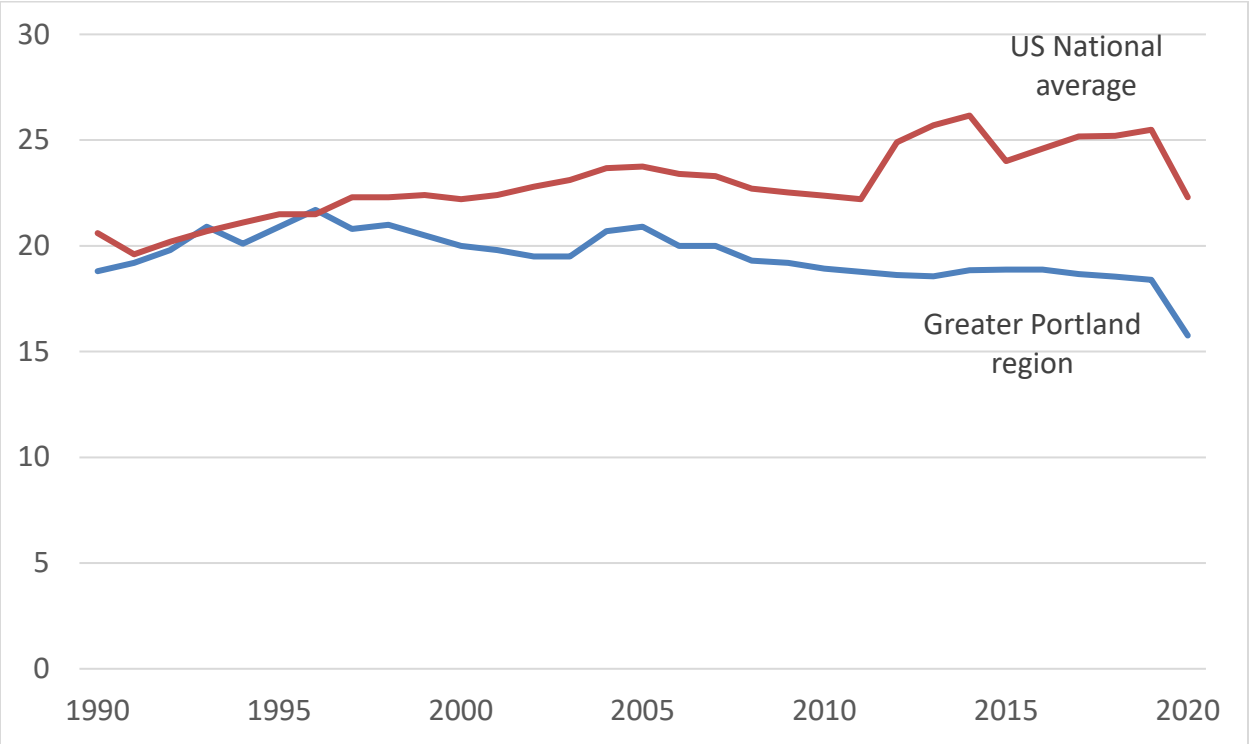
VMT per capita, mode share, and access to destinations

Vehicle miles traveled (VMT) per capita measures much the average person in the Portland region drives each day. Many transportation agencies in the region use VMT per capita to measure progress toward creating vibrant communities and providing multimodal travel options. All other things being equal, VMT per capita (as well as the average amount of GHG emissions people generate by driving) tends to be lower in compact communities with a mix of destinations and good access to transit and other options.[27] As discussed at the beginning of this section, a growing number of processes – including CFEC, the state rules that govern the RTP climate targets, and the Regional Mobility Policy – focus on VMT per capita as a critical performance measure for Mobility and Climate. The 2018 RTP was projected to reduce 2040 VMT per capita by four percent, which fell short of the region's target of ten percent.

Figure 23 below shows trends in observed VMT per capita between 1990 and 2020.

[27] https://nap.nationalacademies.org/catalog/12747/driving-and-the-built-environment-the-effects-of-compact-development

Figure 23: VMT per capita for the Greater Portland region and the U.S.

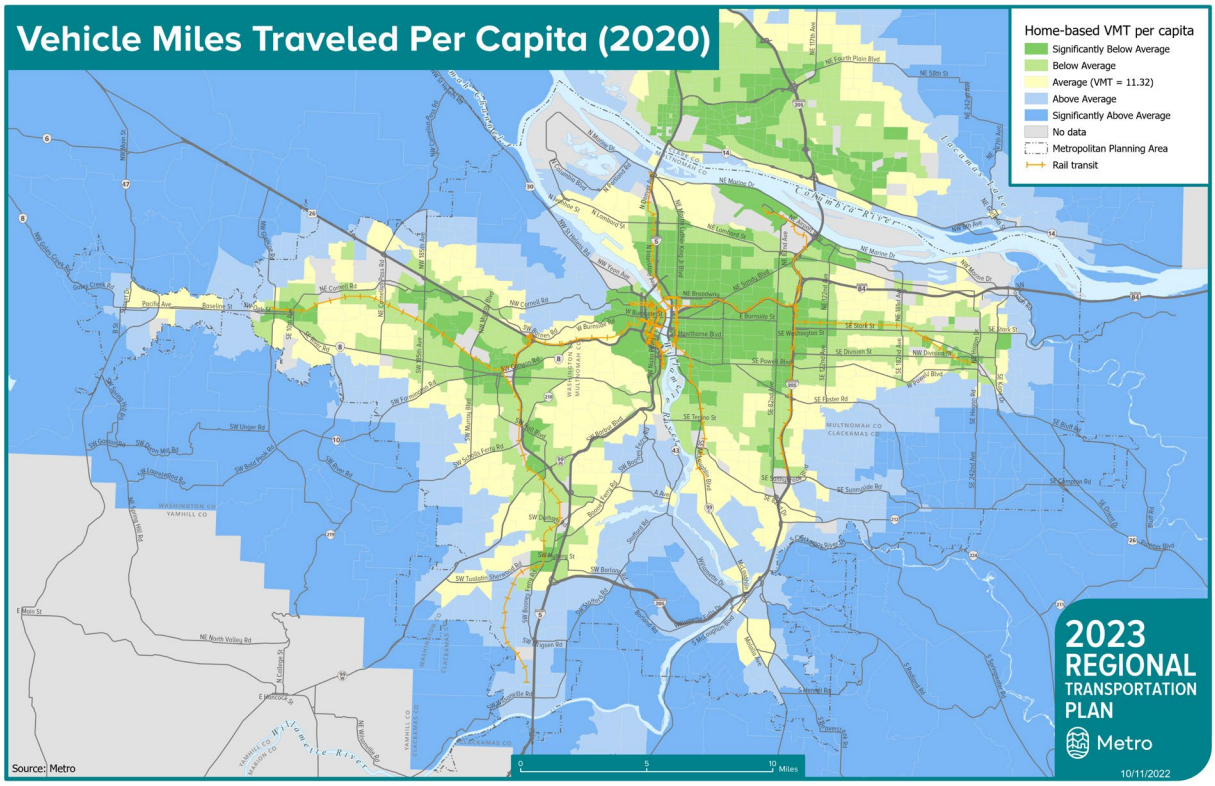


Per capita VMT in the Greater Portland region has been significantly lower than the national average since 1997. There has been a general downward trend, with a few exceptions during economic booms, over the past 25 years. However, between 2010 and early 2020[28] there was little or no decline in VMT per capita. The region's past successes in transportation and land use planning appear to have had a lasting impact on people's travel choices, and even during periods of growth they may have helped to keep VMT per capita from increasing. But in order to meet ambitious GHG and VMT reduction targets – especially in an era when high housing costs make it challenging for many people to live in neighborhoods with good access to travel options – the region will likely need to take new approaches, such as congestion pricing, or double down on high-impact strategies such as expanding frequent transit, creating affordable housing in regional centers, and managing or pricing parking.

Figure 24 shows how estimated household-based VMT per capita from Metro's travel model varies across the region. Though these are estimates, they highlight relative differences in VMT per capita based on nearby land uses and transportation options.

[28] Figure **Error! Main Document Only.** also shows a steep decline in both national and regional VMT per capita in 2020. This reflects the onset of the COVID-19 pandemic, which led many people to limit their travel as stay-at-home orders were carried out and many schools and workplaces closed. Metro's Emerging Transportation Trends study (https://www.oregonmetro.gov/public-projects/2023-regional-transportation-plan/research) estimated that the persistence of teleworking and other pandemic-era behaviors could reduce 2050 VMT per capita by three to eight percent, all other things being equal.

Figure 24: Home-based VMT per capita by Metro transportation analysis zone, 2020 (Metro travel model)



VMT per capita is lower in regional centers, along frequent transit lines, and in many of the region's older neighborhoods. This demonstrates the impact of sound land use planning and diverse travel options on VMT per capita. This map can also serve as a basis for setting regional VMT per capita targets under CFEC by helping stakeholders identify appropriate targets for communities in different areas of the region.

VMT per capita is determined in large part by the share of trips that people take by modes other than driving is a significant part of reducing VMT per capita. Table 5 below shows regional mode shares from Metro's travel model, both for commute and non-commute trips. Commute and non-commute trips have different mode shares. the former are typically longer-distance and people are more likely to drive alone or take transit when commuting. The table also shows observed commute mode shares for the Portland-Vancouver Urban Area from the American Community Survey (ACS). Though not directly comparable, these two data sources provide complimentary perspectives on regional mode shares. ACS data is probably the most widely used data on commute mode shares, and though the ACS only measures commutes, it captures teleworking, which Metro's model does not. ACS mode shares that both include and exclude teleworking are provided to enable comparisons between ACS and model data for those workers who do commute.

Table 5: Mode shares, 2020 (Metro travel model and 2016-2020 American Community Survey)

Mode	Modeled mode share (commute trips)	Modeled mode share (non-commute trips)	ACS mode share (commute trips, including telework)	ACS mode share (commute trips, excluding telework)
Walk	7%	7%	3%	3%
Bike	5%	3%	2%	2%
Transit	6%	2%	6%	7%
Private vehicle	83%	87%	79%	88%
Shared ride	12%	52%	9%	10%
Drive alone	71%	35%	70%	78%
Worked from home			10%	

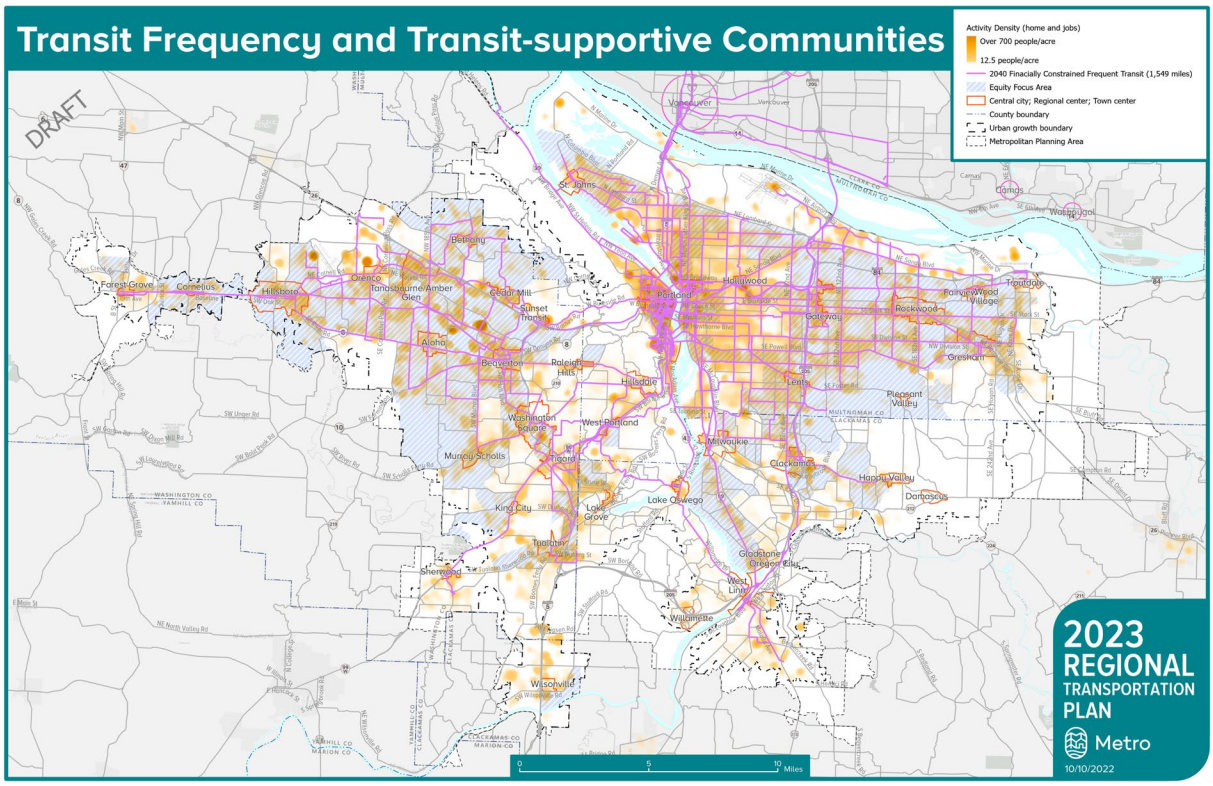
Transit frequency and access to destinations

Completing a high-quality transit network is critical to meeting regional Mobility and Climate goals. Half of all trips are over three miles, and these trips account for the majority of VMT.[29] Transit is the mode that is best-suited to provide a climate-friendly and affordable alternative to driving for these longer-distance trips. And transit is the most useful when it provides fast, convenient, and accessible transit connections between activity centers. Figure 25 below highlights communities that have the densities necessary to support frequent transit[30] (orange) and compares their location with current frequent transit service (i.e., lines with peak headways of 15 minutes, shown in purple). It also shows EFAs in light blue cross-hatching (see the Equity section for additional discussion of this map).

[29] https://www.bikeleague.org/content/national-household-travel-survey-short-trips-analysis

[30] The High Capacity Transit and Regional Transit Strategies specify a threshold of 5 households or 15 jobs per acre for communities served by frequent transit. In order to map both jobs and housing at the same scale, Figure 25 combines jobs and housing into a single measure of activity density (jobs plus residents per acre) and uses a threshold of 12.5 jobs and/or residents per acre to identify communities that support frequent transit. The average household in the region includes 2.5 people, so 5 households per acre is equivalent to 12.5 residents per acre.

Figure 25: Map of high-frequency transit (headways of less than 15 minutes) and transit-supportive communities (12.5 or more people and/or jobs per acre), 2020 (Metro travel model and distributed growth forecast)



The RTP's policy goal to coordinate transit and land use investments suggests that the map should show purple lines connecting most of the orange/red clusters of high density. This is the case in much, but not all, of the region, particularly in the south and west and on north/south corridors in the east side of the region.

Measuring how many destinations people can access via transit and automobile within a given travel time is a common way of comparing the overall utility of transit and driving. A truly multimodal transportation system is one in which people who travel by transit can reach the same number of jobs (or more) via transit within a given travel time as they can via automobile. Table 6 below compares accessibility via transit and automobile during peak hours and other times of the day. This analysis uses a 45-minute travel time to measure transit access and 30-minute travel times to measure automobile access,[31] which accounts for the time needed for people to walk between their origins/destination and their car/transit stop and transfer between different transit routes, etc.

[31] These travel times were recommended by the 2018 Transportation Equity Working Group to account for the fact that transit trips are typically longer than automobile trips.

Table 6: Percent of jobs accessible by driving and by transit, by community type and time of day, 2020 (Metro travel model and land use data)

	Percent of jobs accessible within…	
	… a 30-minute drive	**…a 45-minute transit trip**
During rush hour	43%	7%
Outside of rush hour	50%	6%

Table 6 shows the extent to which driving offers better access than taking transit does. Across all times of day, people can reach five to ten times as many destinations by auto as they can by driving.

Travel speeds and causes of congestion

The third performance measure recommended by the draft Regional Mobility Policy is travel speeds on throughways, which is defined in the draft as miles of the throughway system that operate with four or fewer hours of congestion per day based on a speed of 35 miles per hour. Metro is still working with stakeholders to determine how to best define and analyze this measure and will be reporting base year results in the coming months.

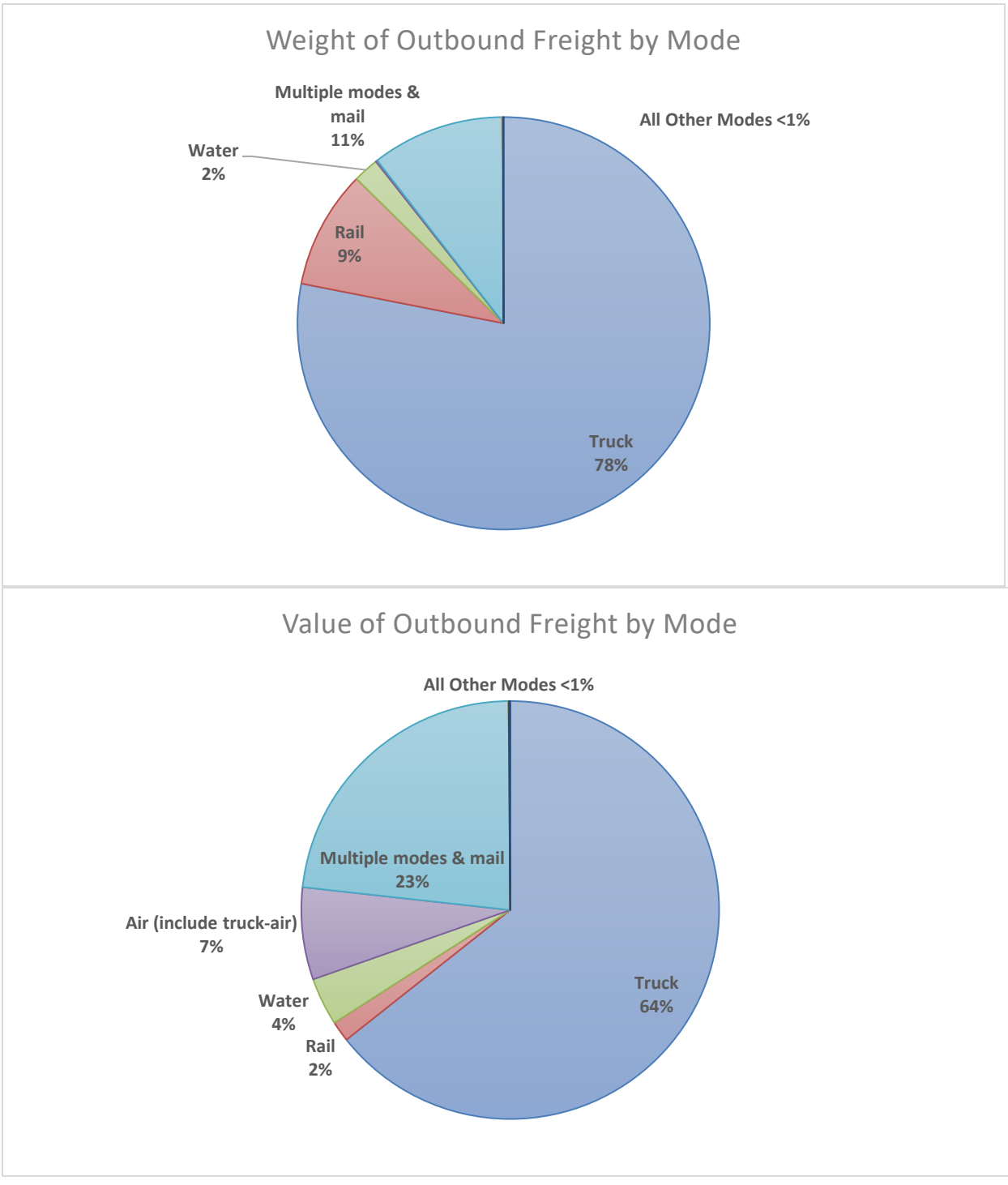
Freight needs

Keeping freight moving is a critical part of regional mobility. Metro is currently leading a Freight Delay and Commodities Movement study that will inform the RTP and its implementation. This memorandum presents some of the background information on how freight moves through the region that has been developed through that study.

Most of the products we buy come from someplace else, and many of the goods we produce in Oregon move on to markets in other states and countries. The global economy is expanding rapidly, and our region's ability to move products to far-flung markets depends on an efficient transportation system. With its location on Interstate 5, the West Coast artery of the Interstate Highway System, the greater Portland region is ideally situated to move freight by truck. But with Portland International Airport, two Class 1 railroads (mainline railroads Union Pacific and Burlington Northern/Santa Fe), the southern terminus of the 400-mile Olympic Pipeline, and a location at the confluence of two major rivers with ocean access and several marine terminals, the region's freight transportation system is a multimodal network.

Figure 26 summarizes both the value and the weight of the goods that move through the region by mode. High-value goods make up an increasing share of the freight that moves through the region, and they sometimes take different routes and modes than other goods in order to arrive at their destinations safely and on time. Distinguishing between value and weight helps to identify how goods of different value are moving through the transportation system.

Figure 26: Value and weight of outbound freight by mode in the Greater Portland Region, 2017 (Freight Analysis Framework data)



The majority of the region's freight, whether by value or weight, is moved by truck. High value freight is less likely to move by truck and rail, and more likely to use multiple modes, mail, water, and air. As Oregon's economy shifts from bulk products like farm exports and timber to lighter products like semiconductors, electronics and specialized machinery,

improving freight connectivity to the airport and other intermodal facilities will help keep goods moving through the region.

Vibrant and Prosperous Communities

At a workshop in September 2022, JPACT and Metro Council directed Metro to add a fifth priority and goal to the RTP, Vibrant and Prosperous Communities. This goal is focused on coordinating transportation and land use planning to support development in regional centers and implement the 2040 Growth Concept. The following figures and tables in this document describe how the transportation system supports and/or relates to 2040 Centers and associated land use strategies.

- Figure 5: 2023 RTP High Injury Corridors and Intersections, 2016-2020 (ODOT crash data analyzed by Metro staff)
- Figure 11: Regional transit network gaps (2018 RTP networks, partner agency data)
- Figure 18: Regional transit network gaps (2018 RTP networks and current partner agency data)
- Figure 19: Regional pedestrian network gaps (2018 RTP networks and current partner agency data)
- Figure 20: Regional bicycle network gaps (2018 RTP networks and current partner agency data)
- Figure 21: Regional trail network gaps (2018 RTP networks and current partner agency data)
- Table 3: Pedestrian, bicycle and trail network completion for EFAs and non-EFAs (2018 RTP networks and current partner agency data)
- Table 4: System completeness by modal network and location within the region (2018 RTP networks and current partner agency data)

Metro staff will continue to reach out to stakeholders to discuss how to define the needs and objectives associated with this goal. The figures above offer some examples that can support these conversations.

Next steps

Metro staff will discuss and receive feedback on this draft Needs Assessment from Metro technical and policy committees and other stakeholders. During the coming months, Metro staff will also share new information from the draft needs assessment, particularly still-developing information on Climate and Mobility highlighted above, with agency and community partners. Metro will also be sharing information about the RTP Call for Projects, which will be open in early 2023, with agency partners during late 2022. Staff will continue to refine and share information from the needs assessment in order to support project leads in describing how projects address regional needs when responding to the call for projects.

Appendix A: Base year transportation, employment, and population data for 2020

The table below shows selected information for the Metropolitan Planning Area from Metro's travel model, both for 2020 (the 2023 RTP base year) and 2015 (the 2018 RTP base year). Metro recalibrates its travel model with every RTP update based on updated data from agency partners and from national datasets. In many cases the 2020 estimates shown below are not directly comparable to the 2015 estimates because the changes shown reflect updated modeling assumptions that are based on limited observed data, and do not represent actual changes on the ground. However, the information shown below reflects how background assumptions about the amount and nature of travel in the region have changed since the RTP was last updated.

	2020 estimate	**2015 estimate**
Population		
Population	1,741,143	1,605,672
Households	693,192	636,467
Employment	985,385	895,094
Regional network road miles		
Total Road Miles	3,714	3,721
Freeway Miles	232	235
Arterial Miles	3,482	3,486
Regional network lane miles		
Total Lane Miles	5,490	5,489
Freeway Lane Miles	624	630
Arterial Lane Miles	4,866	4,859
Trips		
Total Person Trips	6,731,704	6,224,022
Total Work Trips	2,081,639	1,899,529
Total Non-Work Trips	4,650,065	4,324,493
Total Passenger Vehicle Person Trips	5,546,120	5,104,361
Total Passenger Vehicle Trips	4,080,107	3,755,542
Total Transit Trips (originating riders)	257,328	259,329
Total Walk Trips (does not include walk trips to transit)	504,991	461,271
Total Bike Trips	254,326	232,163
Vehicle miles traveled		
Total Passenger Vehicle VMT	22,219,698	20,799,027
Passenger Vehicle VMT/Capita	12.8	13.0
Passenger Vehicle VMT/Employee	22.5	23.2
Average Trip Length (miles)	4.8	4.9
Mode share		
Single Occupant Vehicle (SOV) Percent of Person Trips	45%	45%
Non-SOV Percent of Person Trips (shared ride, walk, bike, transit)	55%	55%

	2020 estimate	2015 estimate
Transit Percent of Person Trips	3.8%	4.2%
Walk Percent of Person Trips	7.5%	7.4%
Bike Percent of Person Trips	3.8%	3.7%

TRIMET

Memo

Date: October 12, 2022

To: Metro Transportation Policy Alternatives Committee

From: Tom Mills, Director of Mobility, Planning and Policy, TriMet

Subject: Forward Together presentation

This presentation on Forward Together will provide an overview of TriMet's proposed service concept, which TriMet is currently seeking public feedback on through October 31st. The TPAC presentation will highlight what TriMet learned about changes in transit ridership during the pandemic, what we heard during the first phase of public outreach for this planning effort, and how that has informed this transit network concept. Full details on changes included as part of TriMet's service network concept are publicly available on TriMet's website at https://trimet.org/forward.

Memo

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Date: Wednesday, October 12, 2022

To: Metro Transportation Policy Advisory Committee (TPAC) and Metro Technical Advisory Committee (MTAC)

From: Ally Holmqvist, Senior Transportation Planner

Subject: High Capacity Transit Strategy Update: Policy Framework and Draft Vision

Purpose

This memorandum provides an update on the work done to date to establish a draft policy framework and begin developing a network vision for the High Capacity Transit Strategy – two milestones for this key policy focus area for the 2023 Regional Transportation Plan (RTP) Update.

Background

This summer, the three County coordinating technical and policy committees, TPAC, MTAC, the Joint Policy Advisory Committee on Transportation (JPACT), the Metro Policy Advisory Committee (MPAC), and Metro Council all provided feedback to shape development of the policy framework and guide the approach to develop the network vision for high capacity transit for the 2023 RTP, as well as input on the engagement strategy for the project. At the July TPAC and MTAC meetings, staff heard it was important to consider:

- emerging trends and how those trends influence how we plan for the future;
- a unique opportunity to plan for the future we want in support of the thriving communities in the 2040 Growth Concept blueprint;
- faster light rail trips from the "spokes" or regional edges to the "hub" or Central City;
- additional transit connections to Clark County, WA beyond I-5;
- Federal Transit Administration definitions for bus rapid transit (50 percent or more exclusive guideway) vs. corridor-based rapid bus; and
- needs and recommendations identified from several previous studies and planning efforts.

Other feedback provided to staff included considering:

- corridors providing critical connections to town centers and hubs of activity;
- supporting future development, particularly in equity areas;
- additional connections on arterials beyond the current "hub and spoke" system;
- additional cross-regional connections to places other than the Central City;
- serving communities impacted by tolling;
- transit centers, major transfer points, and station mobility hubs;
- efficiency and reliability as well as frequency;
- the needs of all communities, including what safety means to different people;
- what it will take to make high injury corridors ready for high capacity transit investment;
- planning for capacity over time, particularly where there are other transit needs today (e.g., coverage, frequency); and
- coordination with other transit planning efforts recently completed or underway in the region (see Attachment 1 for a public fact sheet describing these efforts and how they are different but also coordinated).

Since then, the Project Management Team (including staff from Metro and TriMet) has been working with the Working Group (including regional partners) to incorporate what was heard from

decision-makers, advisory committees, regional stakeholders, and community to create a draft policy framework, refine and begin to implement the approach for re-envisioning the regional high capacity transit network, and implement the engagement strategy.

Establishing the High Capacity Transit Policy Framework

In creating the policy framework, the team conducted a gap analysis of the existing policy framework (2018 RTP), looking at the current role and definition of high capacity transit and identifying the policies foundational to it, as well as other policies both influencing key evaluation and readiness measures used in decision-making about high capacity transit investments and influencing the outcomes of those system investments. The team then compared the existing framework to the current regional transit environment, recent regional work; current related federal, state, and local policies; emerging national and local trends; a peer review of seven regions across the nation (Seattle, San Francisco, Los Angeles, Twin Cities, Austin, Boston, Philadelphia) with networks including both light rail and rapid bus and lessons to be learned from (e.g., COVID project deployment in San Francisco); and community feedback received through the RTP scoping process to identify best practice policy considerations for high capacity transit toward regional priorities: equity, safety, climate, and mobility (see Attachment 5).

Considering the findings, staff and agency partners ultimately recommended (see Attachment 4 for the agendas and minutes from HCT Strategy Update Working Group meetings #2 and #3):

- highlighting the role for transit as the backbone of the broader transportation network;
- there be a single focus for each policy and clear tie to land use and the 2040 Growth Concept (where applicable);
- ensuring the definition for high capacity transit is people-focused, stressing the quality of service and amenities it includes and amount of priority it should have to make rides fast, frequent, safe, reliable and comfortable;
- increasing mobility and ridership by strengthening high capacity transit connections between regional centers and creating connections between those and major town centers, aspiring to maximize speed and reliability with roadway priority along most of the corridor,
- better clarifying the role of better bus in making frequent bus and streetcar more reliable through smaller-scale, “spot” improvements along other key arterials;
- better aligning the transit network policy language with other network policies in the Regional Transportation Plan (RTP);
- better addressing needs and stability for historically marginalized communities and aligning the transit policy language with the overarching equity policies in the RTP;
- emphasizing a state of good repair for infrastructure maintenance and preservation; and
- better specifying an approach for realizing system-level climate outcomes.

Attachment 2 summarizes the resulting draft policy framework refining and re-establishing the role of high capacity transit in the regional transportation system. This draft framework will provide a guide ensuring our work reflects desired outcomes from these types of investments in alignment with regional priorities.

Developing the High Capacity Transit Network Vision

Guided by the policy framework, staff partners developed an approach (see Attachment 6) to reimagine a stronger, expanded system best serving growing and changing regional needs that:

- forwards regional goals and investment priorities within the 2018 RTP HCT Readiness and Assessment criteria (previewed at the summer meetings, see page 7-33 of the 2018 Regional Transit Strategy);

- maintains consistency with the Federal Transit Administration's Capital Investment Grant Program project justification criteria (see Table 2 in Attachment 6 for a crosswalk of how this criteria relates to the corridor high capacity transit readiness evaluation);
- reflects the greater Portland region's history of success with the Federal Project Development process (advancing one corridor every three years);
- considers investments within the RTP horizon (at a reasonable scale, <20 corridors in 2009 High Capacity Transit Plan and 2018 Regional Transit Strategy) and beyond (past even the next Growth Concept horizon of 2070); and
- contemplates optimal network design (e.g., radial, grid, multi-hub) and character (e.g., coverage, spacing, intensity).

The approach builds from the current vision for high capacity transit in the 2018 RTP to identify new and emerging network connections to consider and existing network connections to potentially reconsider. Starting with a wide net of candidate corridors – those envisioned for frequent bus service in the future (a base level for enhancing quality and priority) – staff completed a screening process to remove any candidate corridors for consideration for the map and identify any high capacity transit vision corridors currently on the map that were not connecting regional and town centers (supportive land use markets) in line with the established policy framework. The Project Management Team is now working with the HCT Strategy Update working group to see which of the remaining candidate corridors shift to the top when a couple different lenses are applied together. One lens considers the role high capacity transit plays in the region, comparing current and future major travel patterns and destinations. The other lens considers performance related to the most important characteristics for corridors in supporting successful investments – moving the most people in support of mobility and climate goals (existing and future ridership) and moving people equitably (access for equity focus areas). This approach, shaped by a workshop with the working group and informed by feedback provided at advisory committee meetings and outreach events this month, will result in a refined network vision with an expanded number of corridors that will go through additional system analysis and readiness evaluation.

Fall Vision Engagement

During October, staff will work with decision-makers, advisory committees stakeholders, and community organizations on how to best refine the network vision for the long-term future of high capacity transit. Opportunities for public input include a broader RTP needs survey that closes October 17; in-person tabling at TriMet's Forward Together open houses at PCC Cascade, the Rosewood Initiative, Shute Park Library, and CCC Harmony in partnership with APANO, Centro Cultural and Slavic Family; a discussion at the RTP Community Leader's Forum on October 13. High capacity transit stories amplifying the voices and experiences of community members who have been historically left out of public decision-making processes and are affected by transportation policies and investment decisions will also be featured at the JPACT/Council workshop on October 27 (additionally the Safe and Healthy Urban Arterials workshop in September featured stories including transit experiences on Tualatin Valley Highway). Attachment 3 provides a schedule of these meetings and events.

Questions for Discussion

- Is there anything else you hoped to see in the policy framework for high capacity transit that is not reflected? Anything that you think could be improved upon?

- Does the approach to developing the draft network vision reflect the outcomes we defined in developing the policy framework? Have the right corridors been included? What should we be considering as we further refine the network vision?
- What should we be considering in our approach to assessing readiness? Are there key additions or changes to consider in our evaluation framework?

Next Steps

Assessing Readiness and Developing Corridor Tiers

After taking what we heard and developing a refined network vision, staff will then undertake an evaluation to better understand trips along the corridors, make additional adjustments, and assess key indicators of readiness, including:

- **Land Use Supportiveness and Market Potential:** connections linking the most people to jobs, essential services, and other major destinations (future population density by transportation analysis zone);
- **Equity Benefit:** connections linking the most people in equity areas to jobs, essential services, and other major destinations (access to essential services and jobs for people in equity focus areas);
- **Transit Travel Time (Mobility) Benefit:** how much investments in speed and reliability could improve how long a transit trip takes compared to other travel options (reliability ratio of congested to free flow conditions);
- **Environmental Benefit:** how many new riders could be created in support of our climate goals (reduction in vehicle miles traveled);
- **Productivity and Cost Effectiveness:** what the cost would be per person riding for an investment (boardings per revenue hour and capital cost per rider);
- **Funding Potential:** level of funding potentially available for projects on a corridor; and
- **Local Commitment and Partnerships:** level of documented local and community support, adopted transit-supportive population and employment growth aspirations, supportive land use policies, partnerships with agencies and municipalities (including right-of-way owner), and displacement analysis and community stability partnerships, policies, and tools.

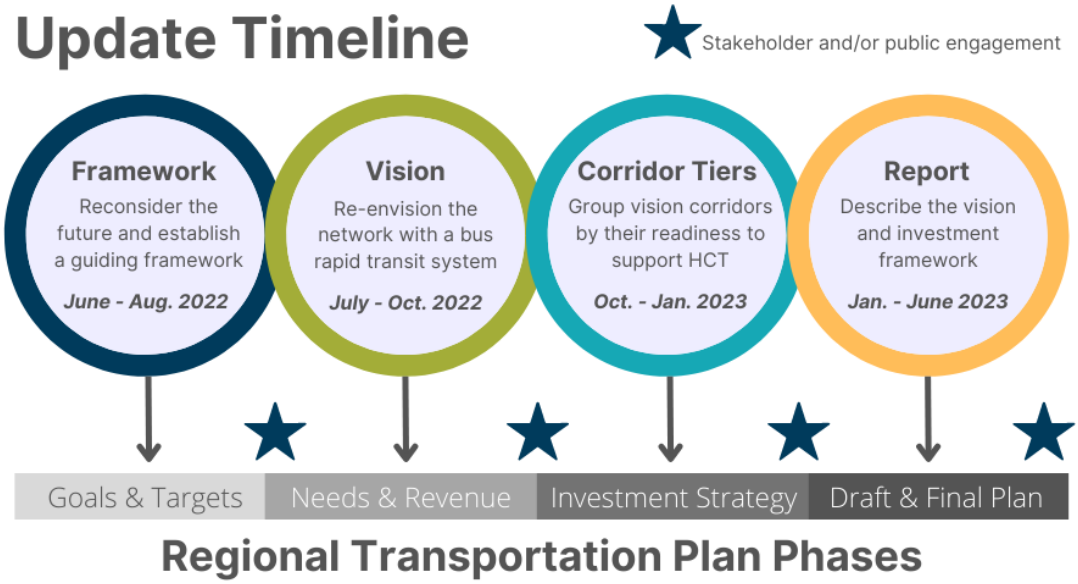
The Project Management Team is currently working through what the tiering structure would look like – consistent with the RTP near-term (2030) and long-term (2045) horizons, as well as what is envisioned for the more distant future (2070+) – and the information it would include (e.g., mode or guideway, project types) for the resulting corridor groupings. Consistent with the 2018 RTP near-term financially constrained investment strategy and history of past regional project implementation, the set of near-term corridors will likely be constrained to two or three active high capacity transit projects with a Locally Preferred Alternative are already underway.

Fall/Winter Corridor Readiness Engagement

Then between November and January, staff will discuss the resulting refined vision and begin conversations around corridor readiness with community members. This will include presentations to TriMet's Committee on Accessible Transportation and Equity Advisory Committee in November, a potential presentation to the Portland Business Alliance in late October or November (as part of a broader RTP event), and a series of small group interviews with community-based organizations. In coordination with the RTP process, the team is also developing a work plan with community-based organizations to hold focus groups and/or other events to collect feedback and community stories related to high capacity transit. Staff will also hold two

focus groups with partners around lessons learned from implementation of The Vine in Vancouver and Division Transit in Multnomah County. Attachment 3 provides a preliminary draft schedule of these meetings and events.

Staff will return to County and Metro advisory committees, including both TPAC and MTAC, for input on the tiered vision corridors (grouped by their readiness to support high capacity transit) in January 2023, before meeting with JPACT, MPAC, and Metro Council later that month and aligned with timing for development of the RTP investment strategy and call for projects.



ATTACHMENTS

1. Regional Transit Planning Fact Sheet
2. High Capacity Transit Policy Framework and Vision Booklet
3. High Capacity Transit Strategy Update: Major Milestones and Meetings Outline (updated)
4. HCT Strategy Update Working Group Meetings #2 & #3: Agendas and Minutes
5. High Capacity Transit Strategy Update: Policy Framework Memo and Appendix
6. High Capacity Transit Strategy Update: Vision Development Approach Memo

cc: Tom Kloster, Metro Regional Planning Manager
Kim Ellis, Metro Principal Planner, Regional Transportation Planning
Andrea Pastor, Metro Senior Development Project Manager, Housing & TOD
Elizabeth Mros-O'Hara, Metro Principal Planner, Investment Areas
Grant O'Connell, TriMet Senior Planner, Mobility Planning & Policy
Jaime Snook, TriMet Director, Major Projects
Jonathan Plowman, TriMet Senior Transit Planner, Major Projects

August 2022

Transit Planning in the Greater Portland Region

Get on Board!

The greater Portland region is planning for better trains, buses, and shuttles. As the region grows, more people will need high quality transit service that gets them where they need to go quickly, conveniently and reliably. Learn more about the work underway and how you can get invovled.

Metro High Capacity Transit Strategy Update
Metro is updating the framework that guides investments in high capacity transit (HCT) across the region. HCT includes transit such as MAX light rail or bus-only lanes. This update will re-assess the region's HCT system by establishing policy recommendations and identifying potential corridors for HCT. Metro will seek public input during 2022 and early 2023 through online surveys, interviews and focus groups with community organizations, and engagement with businesses.
www.oregonmetro.gov/rtp

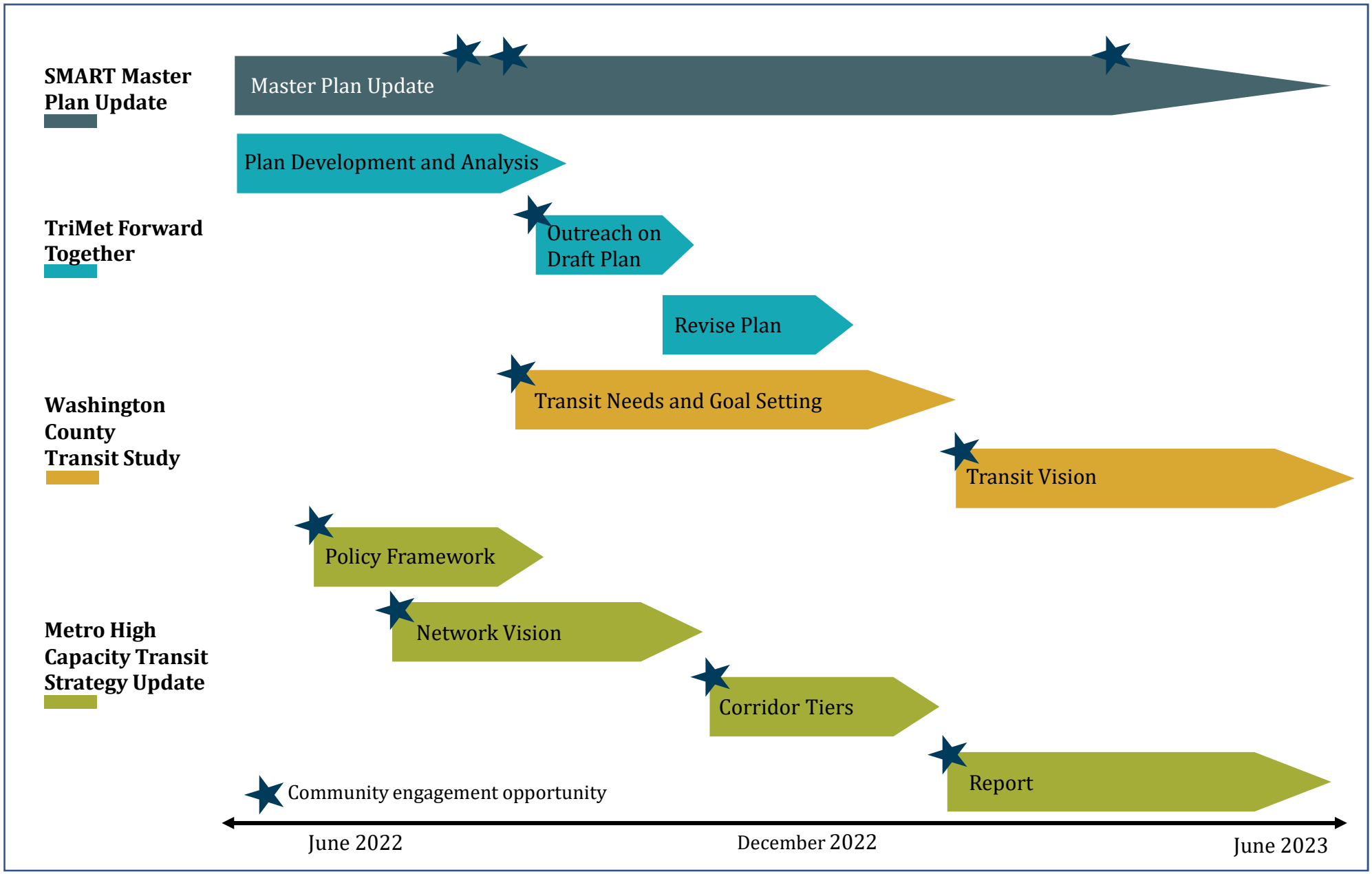
TriMet Forward Together
In order to account for shifts in ridership and travel demand, TriMet is taking a fresh look at their bus network services and schedules. Past engagement focused on which goals – related to ridership, coverage, equity, and access – TriMet should prioritize and how. During fall 2022, TriMet will present the draft plan to the community for input.
www.trimet.org/forward

Working Together
Many agencies are working together to improve transit. There are a lot of different tools in the transit toolbox that are all an important part of meeting the different travel needs of our community. It is important to coordinate all of this work so that we are addressing needs within and beyond communities and across boundary lines. Be on the lookout for opportunities to get involved in the coming months.

Washington County Transit Study
In response to long-term growth and increased community demand, Washington County is working on a study to establish a countywide transit vision. They will engage with communities to identify how transit service and access improvements can better meet people's needs. Engagement will take place throughout the study between fall 2022 and Summer 2023 through online and rider surveys, forums, and workshops.
www.bit.ly/WCTransitStudy

SMART Master Plan Update
South Metro Area Regional Transit (SMART), based out of Wilsonville, is updating their Transit Master Plan. The plan will consider the type of transit system and transit connections needed to get people where they need to go in and around Wilsonville. They will be engaging with the community on new projects and service ideas. www.letstalkwilsonville.com

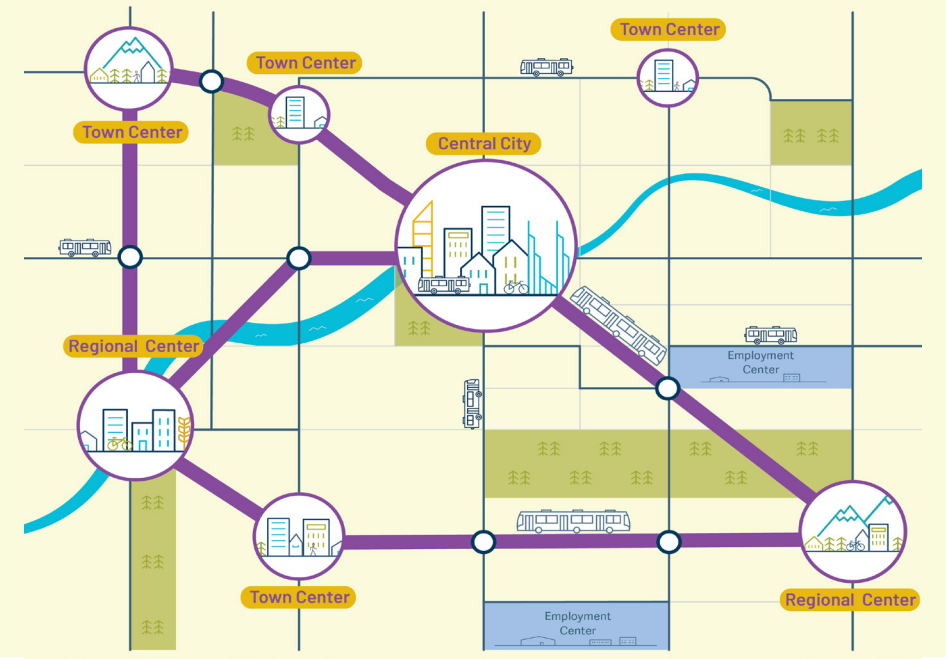
Transit project schedules and community engagement*



Metro

** This timeline illustrates the alignment of the Metro High Capacity Transit Strategy Update with concurrent transit planning processes in the region. Some of these processes started prior to June 2022 (e.g., Forward Together Values and Analysis) and will continue after the Metro HCT Strategy is complete (e.g., Countywide Transit Study Report). Visit the project websites for the complete timelines.*

Metro



High Capacity Transit Vision & Policy Framework

The 2040 Growth Concept provides a blueprint for growing in a compact way that promotes efficient use of land and other resources, encourages safe and stable neighborhoods, sustains a healthy economy, and protects our health and environment. High capacity transit plays a key role in that vision by linking regional centers – supporting development in compact areas with a mix of housing and jobs and connecting people with hubs of commerce and essential destinations.

What is its role in regional transportation?

High capacity transit is the backbone of the regional transportation network – not just the transit system – because it can efficiently move the highest number of people along regional mobility corridors where the most people need to travel quickly, reliably, and comfortably.

A high capacity transit network must be well-connected and "people-focused" – providing high-quality service and convenient connections for essential trips to jobs, services, and commerce and equitably prioritizing those who depend on transit or lack travel options, particularly communities of color and other historically marginalized communities. HCT provides convenient connectivity both between regional centers (connections to each other) and with the Central City, prioritizing speed and reliability for transit along mobility corridors across the region. It expands and encourages connectivity between regional centers and major town centers, activity hubs and destinations (e.g., colleges, hospitals, affordable housing). High capacity transit investments take existing strong transit connections to the next level in accessibility and priority on the roadway and at the signal – while shining a light on the corridor in which it travels to improve safety, access and livability for current and future riders. Investments in high capacity transit are a cornerstone for success in achieving regional equity, safety, climate and mobility goals.

High capacity transit provides safe, fast, reliable, and convenient connections between the places where many people live and many people need to go. We've heard need for:

- *Supporting ridership recovery, equity, and climate with better alternatives to driving*
- *Adding and improving connections to jobs, essential services, and other major destinations*
- *Making connections more quick, convenient, comfortable, and reliable*
- *Reflecting regional community priorities*

oregonmetro.gov

Making Transit Prioirty a Priority

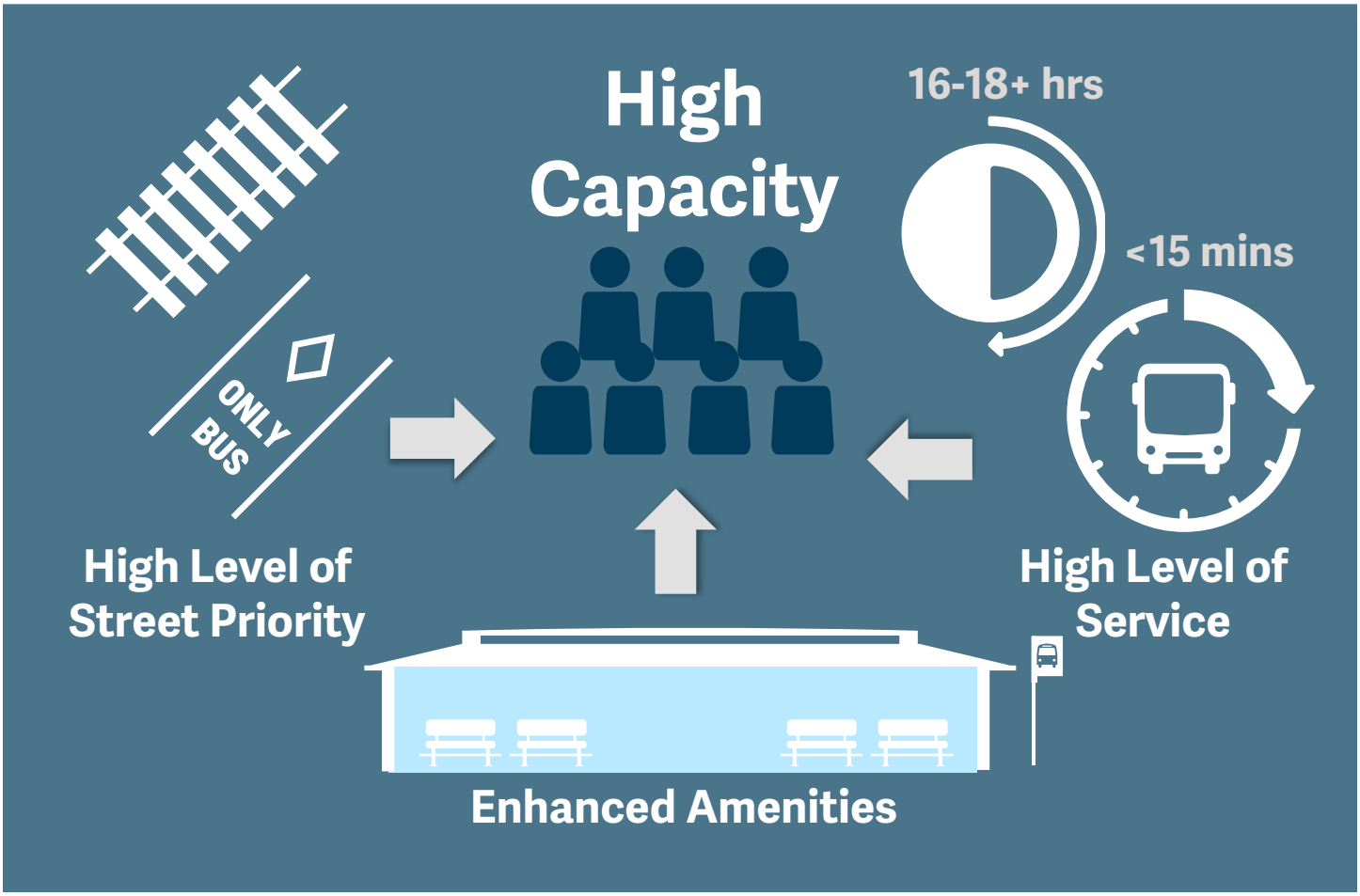
Applied at a smaller-scale, transit priority improvements applied as "spot treatments" to existing frequent bus or streetcar lines improve reliability and reduce time spent traveling by transit for people riding. These "better bus" features include transit priority on the roadway and /or at signals to avoid delay and/or bypass traffic – meaning trips on these routes stay on schedule and/or are faster. The frequent bus network is a regional workhorse responsible for many regional transit trips. Investments in transit priority improve transit speed and reliability and make transit a more competitive option for current and future riders.

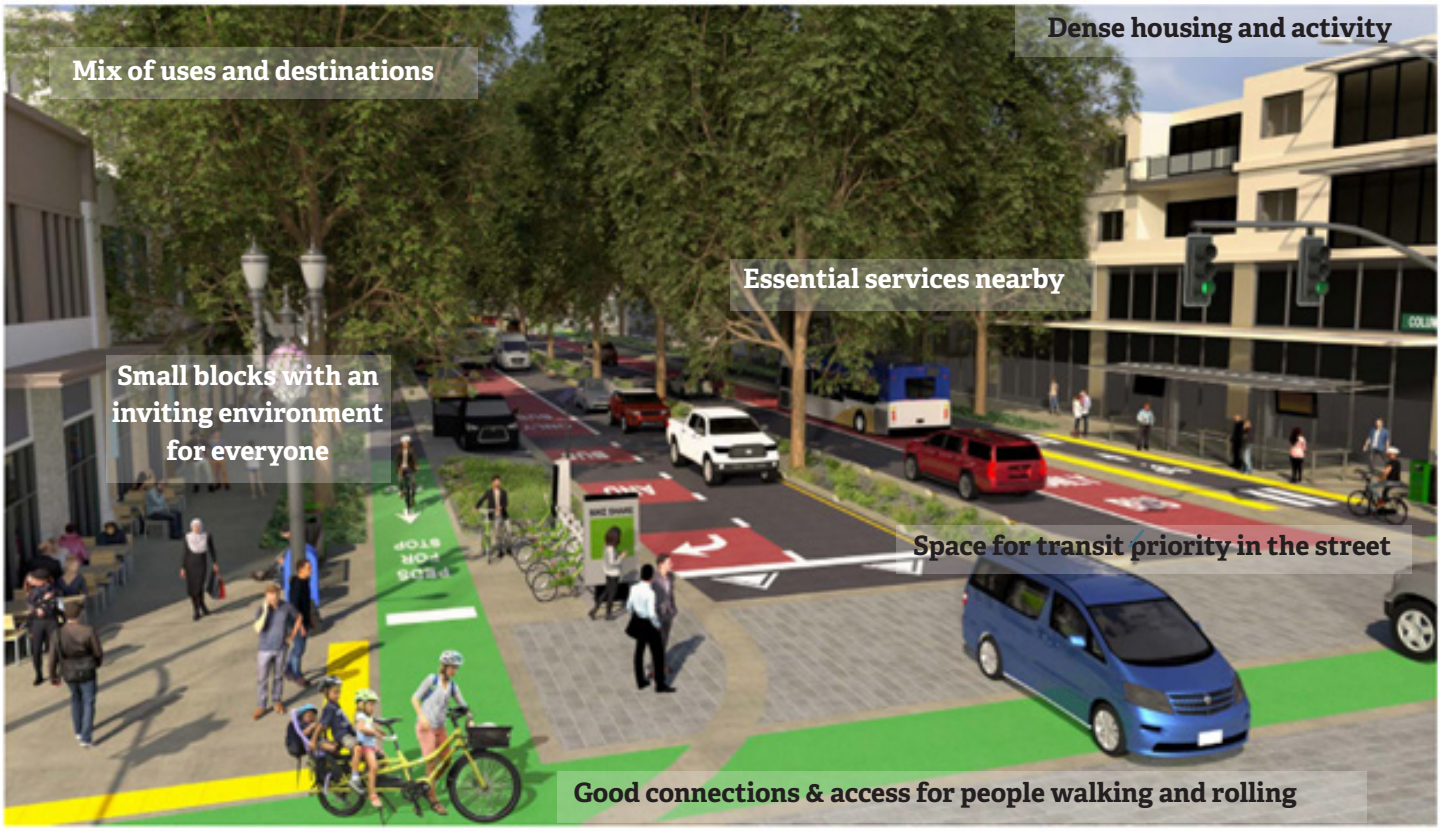
How does high capacity transit achieve this? What makes a transit investment "high capacity"?

High capacity transit has both a level of enhanced amenities and transit priority that work together to move more people, more comfortably than other types of regional or local transit, which are implemented as part of a corridor-level capital project. The type or "mode" varies, including light rail, commuter rail, rapid streetcar, bus rapid transit or corridor-based rapid bus.

Enhanced amenities refer to features that improve efficiency and enhance the user experience. These include vehicles that are larger and allow boarding from all doors, stations with near level boarding, and frequent service (15 minutes or better). It also refers to amenities like covered waiting areas, real-time bus or train arrival information, schedules, ticket machines, enhanced lighting, benches, bicycle parking, and even civic art and commercial services. Together, these features make high capacity transit more convenient and comfortable.

Enhanced priority investments refer to a package of physical features along much or most of a corridor that improve speed and/or reliability or getting people to destinations faster and on-time. These include dedicated transit space or lanes in the street or "exclusive guideway." In this region, MAX light rail vehicles operate on tracks with "exclusive guideway" while rapid buses operate in a mix of dedicated and shared street space. Rapid bus investments provide priority space for buses on the roadway and/or priority at traffic signals to achieve the transit speed and reliability characteristic of high capacity transit. These investments make transit more attractive for current and future riders.





Providing more convenient, faster and reliable transit connections between where people live and where they need to go means that people who rely on transit today will have better travel options and other people who drive today will be more likely to choose to use transit to travel instead.

What are key indicators that a corridor is "ready" for high capacity investment?

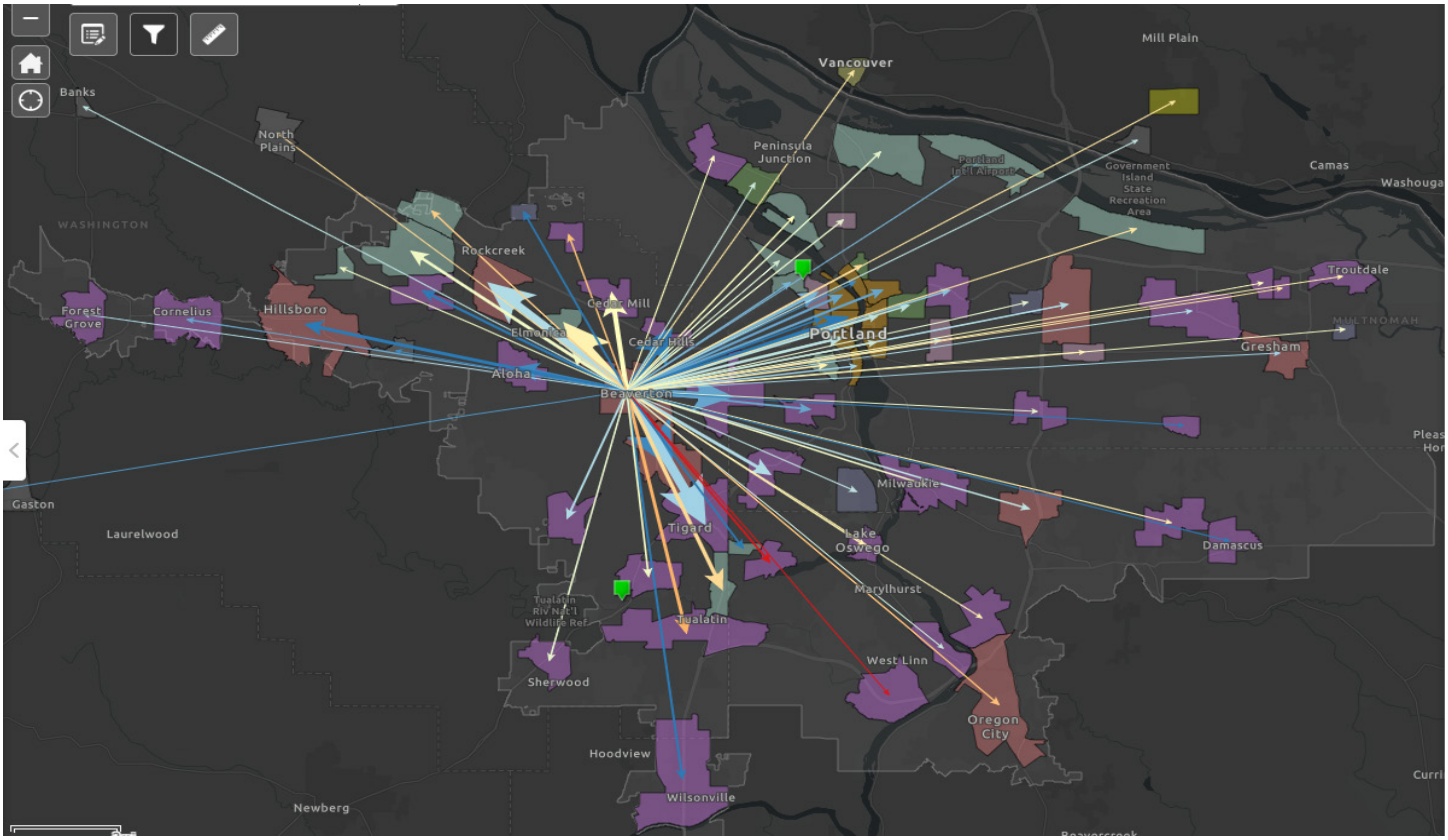
To be cost-effective and use resources consistent with regional mobility, equity and environmental priorities, high capacity transit is a tool for connecting centers of activity where a high number of people live, work, and visit. Indicators support readiness for investment include:

- A very compact urban form (e.g., grid, small blocks) that places destinations, transit oriented development and affordable housing options within short, walkable distance to transit (with limited parking).
- A very dense mix of uses, and a balance of jobs and housing (especially transit-oriented development), that creates a place where activity occurs at least 18 hours a day.
- A mix of many, diverse essential destinations and services near transit, including grocery stores, medical clinics, and educational institutions.
- Well-designed streets and buildings that encourage walking and rolling.
- Streets with space to accommodate larger buses or trains and designed to and/or could be adapted to include elements prioritizing transit.
- Good street design and connectivity with safe, direct and convenient access to walk and roll to, from, and beyond transit stops and stations.
- Plans, strategies, and partnerships supporting transit-supportive places and streets and community stability are in place.

Federal Funding

The Federal Transit Administration's discretionary Capital Investment Grant Program (including New Starts, Small Starts and Core Capacity) criteria has gone through multiple revisions since the region's first High Capacity Transit Plan was developed in 2009. The current program requires reporting on current ridership with an option to include future demand as well. This focus means that transit corridors that have robust existing ridership and can show travel time savings tend to rate better than those focused on the promise of future ridership based on land use changes.

The RTP identifies a set of criteria for measuring a corridor's readiness for high capacity transit to identify which corridors have the potential to best benefit regional transit needs and create a pipeline of projects competitive for the FTA Capital Investment Grant Program.



Core Evaluation Criteria

MOBILITY

Ridership & Travel Time

LAND USE & MARKET SUPPORT

Urban Form, Centers & Land Use

People & Job Density

COST EFFECTIVENESS

Operating & Project Cost/Rider

EQUITY BENEFIT

Access for/to Jobs & Services

ENVIRONMENTAL BENEFIT

Vehicle Miles Traveled

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oregonmetro.gov/rtp

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Metro

How is this related to the network vision?

The role of high capacity transit in our region's transportation system and growth concept provide the foundation for the long-term network vision. We are reimagining a stronger, expanded system with faster and more reliable connections moving the most people between centers of activity in ways best serving growing and changing regional needs. It also considers optimal long-term network design (e.g., radial, grid, multi-hub) and character (e.g., coverage, spacing, intensity) while keeping in mind our region's history of success with the Federal Project Development process (advancing one corridor every three years) within and beyond 2045.

Developing this updated vision began by considering the corridors envisioned for frequent bus or high capacity transit service in the future in the 2018 Regional Transportation Plan (RTP) – a base level for enhancing quality and priority. A screening process then removed any corridors not connecting regional and town centers in line with the policy framework and applied initial mobility and equity measures to determine where the most people and members of historically marginalized communities live and travel to. The next step will be to compare these results to current and future major travel patterns to select higher performing corridors. Considerations to refine the vision and assess readiness include:

- connections linking the most people and historically marginalized communities to jobs, essential services, and other major destinations;
- how long a transit trip takes compared to other travel options;
- how many new riders could be created in support of our climate goals;
- what the cost would be per person riding; and
- level of demonstrated local commitment to and funding.

This fall, we're working with stakeholders, community organizations, and advisory committees on how to best refine the long-term network vision.

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HIGH CAPACITY TRANSIT STRATEGY UPDATE

Key Meeting Dates and Engagement Activities for Project Milestones

September/October 2022

Outcomes: Review policy framework and systems analysis. Feedback on potential HCT investment corridors for refined vision and readiness assessment approach.

Date	Who
September 27	**HCT Working Group #3: Potential Investment Corridors, Network Vision, and Readiness Tiers Approach** • Policy Framework Review • Systems Analysis • Vision • Corridors/Readiness Approach and Preview
October 5	East Multnomah County Transportation Committee TAC
October 6	Washington County Coordinating Committee TAC
October 6	Clackamas County C-4 TAC (policy)
~~October 17~~	~~Washington County Coordinating Committee (policy)~~ bumped due to time
October 17	East Multnomah County Transportation Committee (policy)
October 19	**Transportation Policy Alternatives Committee (TPAC)/Metro Technical Advisory Committee (MTAC)**
October 19	Clackamas County C-4 subcommittee (policy)
October 26	**Metro Policy Advisory Committee (MPAC)**
October 27	**Joint Policy Advisory Committee on Transportation (JPACT)/Metro Council Workshop**

September-October	• Project Website
	  ○ Booklet: Policy Framework & Vision
	  ○ RTP: TV Highway Snapshot (includes tie to HCT)
	• Stakeholder Meetings/Interviews (October): What corridors are most important to you? Does the vision meet your needs? What's missing? What should we be thinking about for readiness?
	  ○ RTP: Community Leader's Forum 10/13
	  ○ Tabling at TriMet Forward Together Open Houses (in partnership with APANO, Centro Cultural, and Slavic Family)
	  ▪ 10/18 at PCC Cascade
	  ▪ 10/19 at Rosewood Initiative
	  ▪ 10/20 at Shute Park Library
	  ▪ 10/26 at CCC Harmony
	  ○ *RTP: PBA Workshop Roundtable Presentation (TBD)*

November/December 2022

Outcome: Review refined vision. Discuss 2023 RTP Needs and Revenue Forecast. Feedback on corridor readiness assessment and tiers.

Date	Who
November 23	**HCT Working Group #4: Vision, Readiness Assessment, Needs and Revenue Forecast** • Vision Review • Corridor Readiness Assessment • Costs/RTP Revenue Forecast • RTP Investment and Future Priorities

November- December	• Project webpage
	  ○ Policy Framework, Vision and Systems Memos
	  ○ Storymap: Vision and Community Investment Priorities
	• Fact Sheet #5: Where should we invest in HCT first?
	• Stakeholder Meetings/Interviews (November): What corridors are most important to you? Does the vision meet your needs? What's missing? What should we be thinking about for readiness?
	  ○ TriMet TEAC: November 8
	  ○ *TriMet CAT: November 23 (tentative)*
	  ○ *Division Transit and The Vine Lessons Learned Focus Groups (TBD)*

January 2023

Outcome: Review corridor investment tiers. Continue revenue discussion. Feedback on HCT report outline.

Date	Who
December 13	**HCT Working Group #5: Corridor Investment Tiers, Future Priorities, and HCT Report** • Corridor Investment Tiers Review • RTP Investment and Future Priorities • HCT Report Outline and Preview
January 4 (tentative)	*East Multnomah County Transportation Committee TAC*
January 5 (tentative)	*Clackamas County Coordinating Committee TAC*
January 5 (tentative)	*Washington County Coordinating Committee TAC*
January 6	**Transportation Policy Alternatives Committee (TPAC)**
January 9 (tentative)	*East Multnomah County Transportation Committee (policy)*
January 9 (tentative)	*Washington County Coordinating Committee (policy)*
January 18 (tentative)	*Clackamas County C-4 subcommittee (policy)*
January 18	**Metro Technical Advisory Committee (MTAC)**
January 19	**Joint Policy Advisory Committee on Transportation (JPACT)**
January 24	**Metro Council (work session)**
January 25	**Metro Policy Advisory Committee (MPAC)**

December-January	• Project webpage updates
	  ○ Readiness Assessment Memo
	  ○ Survey: Readiness and Investment Priorities
	• Stakeholder Meetings/Interviews: Corridor Investment Tiers (December/January)
	  ○ How do you think these tiers look for investment priorities? What changes would you like to see? Why?

April/May 2023

Outcome: Feedback on the draft report. Discuss 2023 RTP investment strategy. Preview public review process.

Date	Who
Mid-April TBD	**HCT Working Group #6: Draft Strategy Report and RTP Investment Strategy** • HCT Report • RTP Investment Strategy • RTP Public Review Preview
May 3 (tentative)	*East Multnomah County Transportation Committee TAC*
May 4 (tentative)	*Clackamas County C-4 TAC*
May 4 (tentative)	*Washington County Coordinating Committee TAC*
May 5	**Transportation Policy Alternatives Committee (TPAC)**
May 15 (tentative)	*East Multnomah County Transportation Committee (policy)*
May 15 (tentative)	*Washington County Coordinating Committee (policy)*
May 17 (tentative)	*Clackamas County C-4 subcommittee (policy)*
May 17	**Metro Technical Advisory Committee (MTAC)**
May 18	**Joint Policy Advisory Committee on Transportation (JPACT)**
May 24	**Metro Policy Advisory Committee (MPAC)**
May 30	**Metro Council (work session)**

April-May	• Project webpage
	  ○ MetroQuest Survey: HCT Strategy
	  ○ Send survey, follow-up documents and public review notice to engaged stakeholders
	  ○ Draft report documents
	• Fact Sheet #6: What is the region's strategy for HCT?
	• RTP: Snapshot Story on Transit (importance of HCT- queue project list)

June/July 2023

Outcome: RTP Priorities and Public Review (including HCT).

Date	Who
TBD	TPAC
TBD	MTAC
TBD	JPACT
TBD	MPAC
TBD	Metro Council
June-July	• RTP Project webpage: Public review draft documents • RTP Public Review Period

November 2023

Outcome: RTP adoption.

Date	Who
TBD	Metro Council Work Session discussion
TBD	TPAC/MTAC workshop discussion
TBD	JPACT discussion
TBD	MPAC discussion
TBD	TPAC recommendation to JPACT
TBD	MTAC recommendation to MPAC
TBD	JPACT recommendation to Metro Council
TBD	MPAC recommendation to Metro Council
TBD	Metro Council considers action on MPAC and JPACT recommendations
October-December	• RTP Public Hearings • RTP Project webpage: Final documents

Agenda

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting:	High Capacity Transit Strategy Update: Working Group #2
Date:	Tuesday, August 16, 2022
Time:	10:30 a.m. to 12:00 p.m.
Place:	Zoom
Purpose:	Discuss the draft engagement strategy, policy framework, and network vision development.
Outcome(s):	Feedback to inform finalization and implementation of the engagement strategy, update the list of policy considerations, shape the policy framework matrix and memo development, and discuss the approach to updating the core criteria for evaluating corridors for the network vision.

10:30 a.m. Welcome back! Agenda review (Tom/Ally)

10:35 a.m. Draft Engagement Strategy Review (Ally/Eddie)
- Are there any engagement opportunities we should leverage in the process (e.g., concurrent efforts)?

10:45 a.m. Policy Gap Analysis and Framework Review, Equity Framework (Ally/Paul/Oren)
- What should the role of high capacity transit be in the regional transportation network?
- What do you think about the proposed changes to the transit policies?
- Is there anything that should be incorporated or modified in the HCT/ETC definitions or the policy framework?
- Is there anything else you hope to learn from peer regions?

11:45 a.m. Corridor Evaluation Core Criteria Framework Updates (Ally/Eddie)
- Are these the right corridors to consider for screening?
- Are there key additions or changes to consider in our evaluation framework? Why are these important?
- What do you think of the proposed additional criteria elements?

11:55 a.m. Other items? (Tom)
Next Steps: Network Vision, Systems Analysis, and Corridor Tiers (Ally)
- Working Group Meeting #3: September 27

Thank you!!

Meeting minutes

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting:	High Capacity Transit Strategy Update Working Group #2
Date/time:	Thursday, August 16, 2022 10:30-12:00 pm
Place:	Zoom – Virtual meeting
Purpose:	Talk about identified policy gaps and provide feedback to inform the policy framework, discuss the core criteria and corridor evaluation framework for characterizing corridors, preview approach to systems analysis, and review next steps.

Attendees
Ally Holmqvist – Metro PM
Andrea Pastor – Metro
Andrew Plambeck – Portland Streetcar
April Bertelson – PBOT
Brett Setterfield – Clackamas County
Dyami Valentine – Washington County
Eddie Montejo – Parametrix
Elizabeth Mros-O'hara - Metro
Eve Nilenders – Multnomah County
Grant O'Connell – TriMet
Jackie Donovan – Metro
Jamie Snook – TriMet
Kelly Betteridge – Parametrix
Kelsey Lewis – SMART
Lynda David – SW RTC
Miranda Seekins – Metro
Naomi Doerner – Nelson/Nygaard
Oren Eshel –Nelson/Nygaard
Paul Lutey – Nelson/Nygaard
Sam Erickson - Parametrix
Tara O'Brien – TriMet
Taylor Eidt – C-TRAN
Tom Kloster – Metro
Valerie Egon – ODOT Region 1

Absent
None

Topics
Draft engagement strategy review
Policy gap analysis and framework review, Equity framework
Corridor Evaluation Core Criteria Framework Updates
Next Steps: Network Vision, System Analysis, and Corridor Tiers

Decisions
None

Actions agreed upon

- Focus on outcomes and characteristics and not on specific mode
- Incorporate feedback into changes to transit policies and policy framework. Send updated draft for review in advance of meeting three.
- Send a draft map of the universe of corridors and draft criteria and measures in advance of meeting #3
- All feedback will be tracked and is encouraged within the working group as well as the TACs, CCCs and Metro meetings
- Sending doodle poll with dates for meeting #4, timing is near the Thanksgiving holiday in November

Next meeting

September 27, 2022 10:00-12:00 pm
Zoom

Purpose: Hear updates from summer engagement activities; discuss the corridor evaluation, corridors identified for potential BRT investment and results of systems analysis; solicit feedback on the refined network vision, preview and discuss approach for readiness tiers and assessing potential project types and review next steps.

Agenda

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting:	High Capacity Transit Strategy Update: Working Group #3
Date:	Tuesday, September 27, 2022
Time:	10:00 a.m. to 12:00 p.m.
Place:	Zoom
Purpose:	Discuss the progression of the policy framework, results of the corridor evaluation and development of the draft network vision; preview initial thoughts around determining corridor readiness; and review next steps.
Outcome(s):	Feedback to inform refinements to the final draft policy framework, shape the network vision for corridors identified for potential HCT investment, and influence the approach for defining readiness tiers.

10:00 a.m. Welcome back! Agenda Review (Tom/Ally)

10:15 a.m. Final Draft Policy Framework (Ally/Oren/Paul)

- What do you think of the proposed role for high capacity transit in the regional transportation network? What do you think of the proposed role for ETC?
- What do you think about the evolution of the transit policies? Do these changes reflect your input?
- Is there anything else you hoped to see in the policy framework that is not reflected?

10:45 a.m. Draft Network Vision Development and Refinement Process (Ally/Ryan)

- Are the right corridors being considered for screening?
- Does the direction of the draft network vision seem to be reflecting the outcomes we defined in developing the policy framework?
- What should we be considering as we further refine the network vision?

11:45 a.m. System Analysis/Corridor Readiness Approach Preview (Ally)

- Is there anything you would like us to address when considering final adjustments based on the system analysis?
- What should we be considering as we develop an approach to assessing readiness? Looking at the factors, what are you hoping to see reflected in these measures?
- Are any factors missing from this list?

11:55 a.m. Other items? (Tom)

Engagement Updates and Next Steps (Ally):

- Refined Vision, Readiness Assessment, Needs and Revenue Forecast
    - Working Group Meeting #4: November 23

Thank you!!

Meeting minutes

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting:	High Capacity Transit Strategy Update Working Group #3
Date/time:	Tuesday, September 27, 2022 10:00-12:00 pm
Place:	Zoom – Virtual meeting
Purpose:	Discuss the progression of the policy framework, results of the corridor evaluation and development of the draft network vision; preview initial thoughts around determining corridor readiness and review next steps

Attendees
Ally Holmqvist – Metro PM
Andrea Pastor – Metro
April Bertelson, PBOT
Brett Setterfield – Clackamas County
Chad Tinsley – Parametrix
Dan Bower – Portland Streetcar
Dyami Valentine – Washington County
Elizabeth Mros Ohara - Metro
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Oren Eshel –Nelson/Nygaard
Paul Lutey – Nelson/Nygaard
Tara O'Brien - TriMet
Taylor Eidt – C-TRAN
Tom Kloster - Metro
Valerie Egon - ODOT Region 1

Topics
Final Draft Policy Framework
Draft Network Vision Development and Refinement Process
System Analysis/Corridor Readiness Approach Preview
Next Steps

Decisions
None

Actions agreed upon

Policy Framework Language

- Make HTC definition more concise "HCT operates to the grestest extent possible, in transit priority facilities and could include…"
- Change "depend on" to rely on transit"
- Policy five should include speed AND reliability

Draft Network Vision Development and Refinement Process

- Need to make sure that the HCT conversation aligns with the roll out of Forward Together draft proposal for public comment/input
- Would like to know timing of draft list of projects that will move forward into screen 2
- Request to have COP town centers added to map and analysis
- Update line 15 to current alignment (route change not accounted for on map of universe)

Next meeting

November 23, 2022 9:00-11:00 am
Zoom

Purpose: Review the revised final draft network vision, discuss the framework for assessing corridor readiness, discuss the RTP revenue forecast, preview proposed investment tier structure (including approach to mode opportunities and project type/costing) and initial draft priorities, and review next steps.

Metro High Capacity Transit Strategy and Regional Transportation Plan Transit Update

HCT Policy Framework – Regional Transit Network Policy Review

September 2022 - **DRAFT**

Parametrix

NELSON NYGAARD

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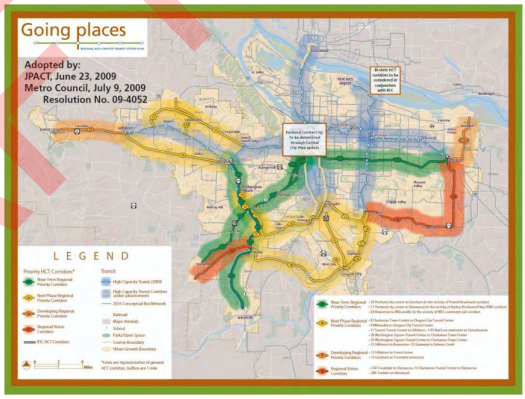
METRO HCT POLICY FRAMEWORK - REGIONAL TRANSIT NETWORK POLICY REVIEW

INTRODUCTION



In 2009, Metro adopted the first 30-year Regional High Capacity Transit (HCT) System Plan that guided investments in light rail, commuter rail, bus rapid transit and rapid streetcar in the Portland metropolitan region. The 2009 HCT Plan identified and ranked 16 corridors into four priority tiers using a multi-phase evaluation process and created the System Expansion Policy (SEP) framework for prioritizing future system expansion. The SEP framework is a process agreed to by Metro and local jurisdictions to advance high capacity transit projects as a regional priority. The framework:

- Identifies which corridors should move into the federal project development process
- Establishes a process for other corridors to advance toward development
- Measures a corridor's readiness for investment using targets such as transit supportive land use policies, ridership development plans, community support and financial feasibility.

In 2018 as part of the Regional Transportation Plan (RTP) update, the Regional Transit Strategy (RTS) was also updated and provided the following definition of HCT:

> *Our high capacity transit (HCT) system operates with the majority or all of the service in exclusive guideway. The high capacity transit system is meant to connect to regional centers and carry more transit riders than the local, regional and frequent service transit lines. HCT could include rapid streetcar, corridor-based bus rapid transit, bus rapid transit, light rail or commuter rail.*

The 2018 RTS also revised the SEP with a streamlined set of HCT Assessment and Readiness Criteria and updated the corridors included on the Regional Transit Network map. Finally, the 2018 RTS introduced the Enhanced Transit Concept (ETC), which improves transit speed and reliability on the

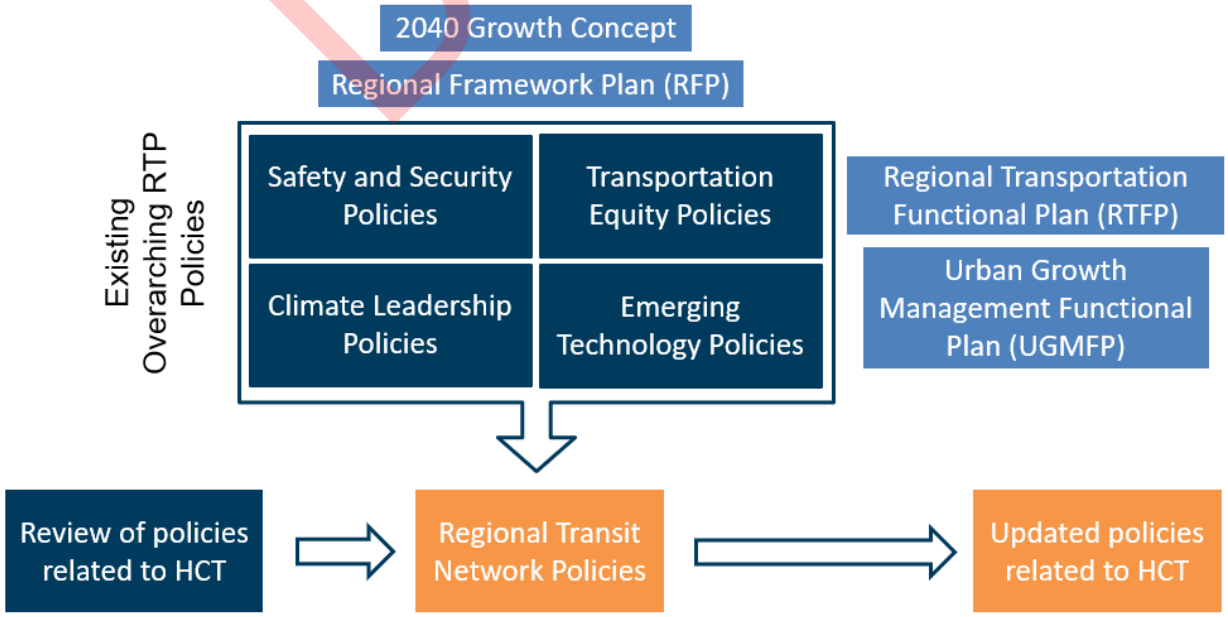
most congested existing and planned frequent service bus or streetcar lines. ETC is now known as "Better Bus".

As part of the 2023 Regional Transportation Plan update, **this HCT Policy Framework memo** provides an important first step in updating the Regional High Capacity Transit Strategy, a component of the Regional Transit Strategy. This memo focuses on a review of local, regional, state and federal policies as they relate to High Capacity Transit and suggests policy updates to reflect the region's current and future priorities and desired outcomes related to Equity, Safety, Climate and Mobility. To provide context and guidance as part of this policy review, this memo also identifies emerging trends impacting HCT and provides key takeaways from peer regions throughout the country. The suggested policy updates at the end of this memo will ultimately inform the evaluation criteria used to prioritize HCT corridors that will be included in the 2023 RTP update.

This memo focuses on reviewing and updating the existing transit-specific policies included in the Regional Transit Network, which will be an element of the 2023 Regional Transportation Plan. The 2023 RTP update continues to support the **2040 Growth Concept**, the region's long-range land use and transportation plan for managing growth, and the **Regional Framework Plan (RFP)** identifies regional policies to implement the 2040 Growth Concept. As part of Metro's code, two functional plans – the **Regional Transportation Functional Plan (RTFP)** and **Urban Growth Management Functional Plan (UGMFP)** – provide additional guidance to local jurisdictions to implement the policies in the RTP.

In addition to the transit-specific policies included as part of the Regional Transit Network, the RTP includes four overarching system policies related to **safety and security**, **transportation equity**, **climate leadership**, and **emerging technologies**. These policies will guide all other policies included in the RTP, including for High Capacity Transit. The relationship of each of the foundational plans that helped frame this policy review is summarized in **Figure 1** below.

Figure 1 Regional Transit Network Policies in Relation to the RTP and Other Metro Plans



The HCT Policy Framework memo is organized into the following sections:

- Existing Regional Transit Network Policies
- Regional, State, and Federal plans and policy review
- Local plans and policies related to HCT
- Current issues and trends, identified through regional, state, or federal plans or initiatives
- Long-range plans and policies in peer regions
- Other key issues and trends impacting transit infrastructure and investments

This memo concludes with suggested updates to the definition of HCT and considerations for updating and expanding the eight existing Regional Transit Network policies as they relate to HCT.

PLAN AND POLICY REVIEW

Existing Regional Transit Network Policies

This section provides a brief assessment of the existing RTP Regional Transit Network policies. **Figure 2** identifies:

- **A proposed "Headline" for each policy** that succinctly communicates the theme addressed.
- **Each policy's relationship to 2023 RTP priority outcomes**, which include Equity, Safety, Climate, and Mobility.[1]
- **Each policy's relationship to HCT**. The relationships are identified in one of three ways:
  - **Foundational to Role** of HCT in the region and the definition of HCT (Policy 4).
  - **Directs Investments** by directly influencing key evaluation/readiness measure(s) used for HCT decision making.
  - **Influences Outcomes** of HCT system investments.

Examples for how the policies were determined to relate to HCT include:

- Policy 1 can direct HCT investments to address disparities such as travel time for equity priority communities, through the criteria used to prioritize potential HCT projects. Policy 1 can also influence the outcomes of HCT projects through assessing displacement risk and putting into place partnerships and policies to prevent displacement.
- Policy 6 is not identified as directing HCT investments – using existing quality of the pedestrian and bicycling environment to prioritize investments may exclude projects that could help advance improvements. However, Policy 6 can influence HCT outcomes through improvements to walking and biking access around HCT stations in advance of or as part of a project.

[1] Metro, 2023 Regional Transportation Plan Update Work Plan, May 2022

Based on this assessment of existing Regional Transit Network policies, those that are most directly relevant to identifying and prioritizing HCT investments – and thus the focus of this memo – include:

- **Policy 1: System Quality and Equity**
- Policy 2: **Maintenance and Resiliency**
- Policy 3: **Coverage and Frequency**
- Policy 4: **High Capacity Transit**

The following two Regional Transit Network policies influence outcomes but are not foundational to the role of HCT nor direct investments:

- Policy 5: **Intercity and Inter-Regional Transit**
- Policy 6: **Access to Transit**

Finally, the last two policies are important to the overall transit network but are neither foundational to the role of HCT, direct investments, nor influence overall outcomes:

- Policy 7: **Mobility Technology**
- Policy 8: **Affordability**

Figure 2 Existing Regional Transit Policies and Relationship to 2023 RTP Outcomes and to HCT

Existing Regional Transit Network Policy (2018 RTP)	*Proposed* Policy Headline(s)	2023 RTP Outcomes	Relationship to HCT
Policy 1: Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options.	Service Quality and Equity	☒ Equity ☐ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes
Policy 2: Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.	Maintenance and Resiliency	☐ Equity ☒ Safety ☒ Climate ☐ Mobility	☐ Foundational to Role ☒ Directs Investments ☐ Influences Outcomes
Policy 3: Make transit more reliable and frequent by expanding regional and local frequent service transit and improving local service transit options.	Coverage and Frequency*	☐ Equity ☐ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes
Policy 4: Make transit more convenient by expanding high capacity transit; improving transit speed and reliability through the regional enhanced transit concept.	High Capacity Transit	☐ Equity ☐ Safety ☒ Climate ☒ Mobility	☒ Foundational to Role ☐ Directs Investments ☐ Influences Outcomes
Policy 5: Evaluate and support expanded commuter rail and intercity transit service to neighboring communities and other destinations outside the region.	Intercity / Inter-Regional Transit	☐ Equity ☐ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☐ Directs Investments ☒ Influences Outcomes
Policy 6: Make transit more accessible by improving pedestrian and bicycle access to and bicycle parking at transit stops and stations and using new mobility services to improve connections to high-frequency transit when walking, bicycling or local bus service is not an option.	Access to Transit	☐ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☐ Directs Investments ☒ Influences Outcomes
Policy 7: Use technology to provide better, more efficient transit service – focusing on meeting the needs of people for whom conventional transit is not an option.	Mobility Technology	☒ Equity ☐ Safety ☐ Climate ☒ Mobility	☐ Foundational to Role ☐ Directs Investments ☐ Influences Outcomes
Policy 8: Ensure that transit is affordable, especially for people who depend on transit.	Affordability	☒ Equity ☐ Safety ☐ Climate ☐ Mobility	☐ Foundational to Role ☐ Directs Investments ☐ Influences Outcomes

Note: * A proposed change in policies would create a new policy around reliability

Regional, State, and Federal Plans and Policies Related to HCT

This section identifies regional and statewide plans relevant to the HCT Policy Framework for the region. Similar to the previous section, each applicable policy in these plans is categorized by the Metro RTP outcomes (Equity, Safety, Climate, and Mobility) and its relationship to high capacity transit (HCT).

Other state or federal plans or initiatives that are relevant to the region's HCT Policy Framework were reviewed but were not included in the plan and policy review table:

- **Regional High Capacity Transit System Plan (2009).** This is the previous HCT plan for the Portland region, which is being updated through this effort, and is assumed to be reflected in more recent documents such as the Regional Transit Strategy (RTS).
- **Climate-Friendly and Equitable Communities (CFEC) Rulemaking (Ongoing)**. Rulemaking by the Department of Land Conservation and Development (DLCD) to strengthen transportation and land use planning for regions including the Portland Metro area; key outcomes including equity, climate, and housing will be addressed in the issues/trends section.
- **USDOT Equity and Justice40 in Transportation Planning**. Federal initiative to address racial equity and climate priorities, including delivering 40% of federal investments to disadvantaged communities; will be addressed in the issues/trends section.

Figure 3 Regional, State, Federal Plan Hierarchy and Policy Summary

Plan	2023 RTP Outcomes	Relationship to HCT	Considerations for Updating Regional Transit Network Policies (Foundational Considerations Bolded)
Portland Metro Transportation System Management and Operations Strategy	☒ Equity ☒ Safety ☒ Climate ☒ Mobility	☒ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Harm reduction ▪ Alleviating transportation system disparities ▪ **Connecting people to goods, services, and places** ▪ **Equitable transit reliability improvements** ▪ Transit system resiliency
Portland Metro and ODOT Regional Mobility Policy Update	☒ Equity ☒ Safety ☒ Climate ☒ Mobility	☒ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Land use and transit decision-making efficiency in movement of people and goods ▪ **Seamless, well-connected, low-carbon, convenient, and affordable mode share** ▪ **Transit system travel predictability and travel time reasonableness** ▪ Safe and comfortable mode share; equitable mobility experiences among Black, Indigenous, and People of Color (BIPOC) communities and people with low incomes, youth, older adults, and people living with disabilities
Portland Metro Regional Freight Strategy	☐ Equity ☒ Safety ☐ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Coordinating for seamless movement and better access, with less conflict with transit ▪ Delay reduction, with increases in reliability and improvements in safety, for reliable transit planning ▪ Integrating issues with planning and communicating movement issues ▪ Eliminating traffic fatalities and serious injuries caused with other modes
Portland Metro Regional Transportation Safety Strategy	☒ Equity ☒ Safety ☐ Climate ☐ Mobility	☐ Foundational to Role ☒ Directs Investments ☐ Influences Outcomes	▪ Achieve Vision Zero goals using transit as a safety mechanism ▪ Safety investments to reduce speeds and speeding at high-risk areas, increase security, and reduce crime, with prioritization of vulnerable communities ▪ Equitable safety investments to benefit people with higher crash risk, such as vulnerable communities ▪ Safety increases across modes through planning, designing, constructing, operating, and maintaining the transit system with focus on speed reduction ▪ Avoidance of repeating and/or exacerbating safety issues ▪ Consideration of safety as an adequacy metric.
Portland Metro Emerging Technology Strategy	☒ Equity ☐ Safety ☐ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Accessibility, availability, and affordability of new technologies to progress equity ▪ Usage of new technologies to improve transit, providing shared modes regionwide, and supporting transit, biking, and walking ▪ Empowering travelers with data for planning, decision-making, and managing transit ▪ Advancing public interest by preparing for, learning from, and adapting to new technological developments

Plan	2023 RTP Outcomes	Relationship to HCT	Considerations for Updating Regional Transit Network Policies (Foundational Considerations Bolded)
Portland Metro Strategic Plan to Advance Racial Equity, Diversity and Inclusion (Racial Equity Framework)	☒ Equity ☒ Safety ☐ Climate ☐ Mobility	☐ Foundational to Role ☐ Directs Investments ☒ Influences Outcomes	▪ Engaging communities of color ▪ Hiring, training, and promoting a racially diverse workforce ▪ Creating safe, welcoming services, programs, and destinations ▪ Allocating resources to advance racial equity
Portland Metro Climate Smart Strategy	☐ Equity ☒ Safety ☒ Climate ☒ Mobility	☒ Foundational to Role ☒ Directs Investments ☐ Influences Outcomes	▪ **Making transit convenient, accessible, and affordable** ▪ Making walking and biking safe and convenient ▪ Making streets safe, reliable, and connected ▪ Using technology to manage transit ▪ Providing information and incentives to increase mode share ▪ Securing funding for transit
Portland Metro Regional Active Transportation Plan	☒ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Making walking and biking the most convenient, safe, and preferrable choices for trips less than three miles ▪ Developing well-connected regional pedestrian and bicycle routes integrated with transit to prioritize safe, convenient, accessible, comfortable pedestrian and bicycle access for all ages and abilities ▪ Ensuring that regional transit and active transportation intersections equitably serve all people ▪ Complete the regional active pedestrian and bicycle networks where transit transfers are common ▪ Use data and analyses to guide transit and active transportation investments

Plan	2023 RTP Outcomes	Relationship to HCT	Considerations for Updating Regional Transit Network Policies (Foundational Considerations Bolded)
ODOT Strategic Action Plan 2021-2023	☒ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Supporting equitable operations and policies and establishing an informed and inclusive culture ▪ Promoting opportunities through transit investments, such as by working with BIPOC communities, women, and other historically and/or are currently marginalized communities ▪ Utilizing the perspectives of people who reside in communities served by Metro and who are likely to be affected by Metro decision-making ▪ Investing in the protection of vulnerable communities from environmental hazards ▪ Preserving, maintaining, and operating a multimodal transportation system and achieving a cleaner environment ▪ Ensuring the safety of transit riders and operators ▪ Providing greater transit access and broader range of mobility options while addressing climate change ▪ Investing in transit as a mechanism to manage and reduce congestion ▪ Enhancing multimodal options ▪ Implementing road usage charging to ensure revenue to maintain and improve the transit system and manage congestion
ODOT Climate Action Plan 2021-2026	☐ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Integrating climate change and emissions reductions considerations in policy and investment frameworks ▪ Providing transit options to manage demand and reduce congestion ▪ Transitioning to an efficient transit fleet, supporting adoption of alternative fuels ▪ Maintaining and operating transit and recovering from climate impacts by using sustainable funding ▪ Increasing efficiency through investments in safety, and operations practices ▪ Utilizing sustainable products and fuels ▪ Reducing energy consumption, and reducing Metro's carbon footprint

Local Plans and Policies Related to HCT

In addition to reviewing regional, state, and federal plans and policies, relevant plans from or related to Metro area cities and/or counties were reviewed at a high level to document any policies that should be considered as part of the HCT Policy Framework. As shown in **Figure 4**, these plans included local transportation system plans (TSPs), comprehensive plans, or transit development/master plans (TDPs/TMPs), or HCT-specific plans, including the Clark County/CTRAN High Capacity Transit System Plan.

Specific plans that have recently been completed (or are currently underway) that relate to HCT and/or ETC include:

- Clackamas County completed its TDP in 2021.
- Washington County is conducting a Transit Study (completion anticipated in 2023), which will integrate the County's recent TDPs and shuttle planning study.
- The City of Portland developed the Rose Lane Vision in 2020 and the Enhanced Transit Corridors Plan in 2018, which are advancing projects to provide bus and streetcar lines with additional transit priority and help achieve the City's climate and transportation justice goals.
- TriMet is conducting the Forward Together Comprehensive Service Analysis, which will recommend a revised bus network concept to reflect shifts in ridership and travel demand that have occurred since the COVID-19 pandemic. TriMet also completed an Express and Limited Stop Bus Study (2021) to identify where these services could improve ridership and access to jobs, including for equity priority populations. These studies will shape the agency's FY2023 Service Plan.
- TriMet is also completing its first FX (Frequent Express) line in the Division Street corridor; Metro, TriMet, and the City of Portland are working on planning for the 82nd Avenue corridor; and TriMet is leading the Tualatin Valley (TV) Highway BRT Study, connecting Beaverton, Hillsboro, and Forest Grove, where TriMet's Line 57 operates today.
- The Southwest Corridor project, connecting downtown Portland with SW Portland, Tigard and Tualatin, has a Locally Preferred Alternative and Record of Decision from the FTA.
- Metro and TriMet are continuing the ETC program, now known as Better Bus, to improve transit speed and reliability across the region. Where the previous implementation of this program focused on the most congested locations on the system with the highest ridership, the next phase will look at other locations across the region to improve bus operations.

Outside of the TriMet service district:

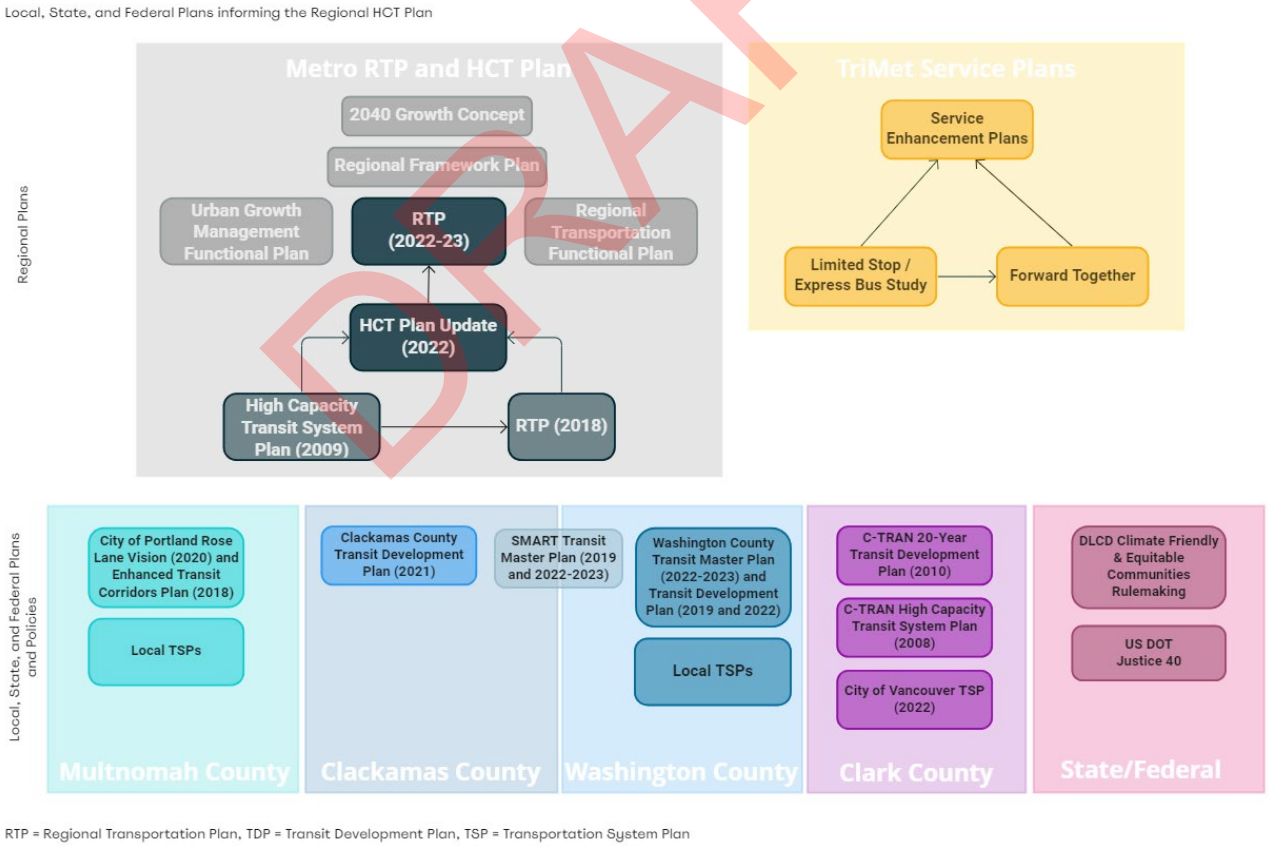
- The Interstate Bridge Replacement's Locally Preferred Alternative recommends a MAX Yellow Line extension from Expo Center across the Interstate Bridge to Evergreen in Vancouver, connecting to C-TRAN's Vine Bus Rapid Transit system.
- The City of Wilsonville (SMART) is updating its TMP (completion anticipated in 2023).

- The Clark County (C-TRAN) High Capacity Transit System Plan was completed in 2008; a TSP update for the City of Vancouver, which includes Enhanced Transit Corridors, is underway (completion anticipated in late 2022).
- C-TRAN has also completed development of several BRT corridors in recent years and others are in the planning stages.

As noted above, the Department of Land Conservation and Development (DLCD) has been conducting Climate-Friendly and Equitable Communities (CFEC) rulemaking, filed on August 22, 2022, to help local governments revise plans to reduce greenhouse gas emissions. Similarly, the US DOT has undertaken the Justice 40 initiative with a goal of delivering 40% of the overall benefits of federal investments in climate and clean energy, including sustainable transportation, to disadvantaged communities.

In addition to informing the HCT policy framework, these plans and studies can also be consulted to validate the universe of potential HCT projects considered in the HCT Plan update as well as inform criteria used in the evaluation.

Figure 4 Regional Plan Hierarchy and Policy Summary



RTP = Regional Transportation Plan, TDP = Transit Development Plan, TSP = Transportation System Plan

Review of Plans and Policies from Peer Regions or other Agencies

This section includes a high-level review of long-range planning documents from peer regions. The purpose of the peer review is to inform the HCT Policy Framework, but key findings from the peer review could also be utilized in other dimensions of the HCT Plan and/or RTP updates, such as the development of corridor evaluation criteria.

Peer Identification

Key criteria for selecting the peer regions or agencies included:

- Preference for plans/policies developed after 2020 that address current issues and trends such as recovery from the COVID-19 pandemic.
- Identify high capacity transit in their goals and policies.
- Include/address multiple HCT modes (e.g., rail and bus).
- Potential HCT lessons learned related to RTP investment priorities (safety, equity, climate and mobility).
- Geographic distribution.

Thirteen regions were identified in **Figure 5** below (See also **Figure A-1 in Appendix A** for more detail). These were narrowed to seven for high-level consideration and the project team then focused on four peers for more detailed review.

Figure 5 Selected Peers

Region	Agency	Document	Year Published	HCT Modes
Seattle	Puget Sound Regional Council (PSRC), and/or Sound Transit (ST)	Regional Transportation Plan (2022-2050)	2021	Link and RapidRide
	King County Metro	Metro Connects Long-Range Plan		
San Francisco	Metropolitan Transportation Commission (MTC) and/or SFMTA/ConnectSF	Plan Bay Area 2050	2021	BART, LRT (e.g., Muni Metro), BRT and RapidBus (e.g., Muni Rapid)
Los Angeles	LA County MTA (Metro)	Long Range Transportation Plan	2020	BRT and LRT
Minneapolis-St. Paul	Metropolitan Council	Transportation Policy Plan	2020	LRT and BRT
Austin	Capital Area MPO (CAMPO)	2045 Transportation Plan (and Regional Transit Study)	2020	LRT MetroRail) and BRT (MetroRapid)
Boston	Metropolitan Area Planning Council (MAPC), Massachusetts Bay Transportation Authority (MBTA), The Greater Boston BRT Study Group	MetroCommon 2050 | Better Rapid Transit for Greater Boston | Focus40	2015-2021	BRT (Silver Line and additional prioritized corridors) and LRT and Heavy Rail (Commuter Rail, Blue, Green, Orange, and Red Lines)
Philadelphia	Delaware Valley Regional Planning Commission	Connections 2050 | StoryMap | Policy Manual | Process and Analysis Manual | Major Regional Projects	2021	BRT, Streetcar, LRT, Heavy Rail, High-Speed Rail
	City of Philadelphia, Southeastern Pennsylvania Transportation Authority	The Philadelphia Transit Plan		

Summary of Common Themes and Key Takeaways

Common themes and notable examples from the peer review are summarized below, organized by the four RTP priority outcomes. Examples include cases where policy shifts had a clear impact of prioritization criteria and plan outcomes.

- **Equity considerations for vulnerable communities and transit riders**
  - All peer regions have goals or objectives regarding the transit needs of women, people of color, people with low incomes, or people experiencing houselessness.
  - Direct feedback from community groups representing vulnerable populations (such as the Equity Cabinet for King County Metro) was critical in identifying specific policy areas to address in plan updates.
  - Many regions are also addressing affordability, such as through implementation of a means-based fare for low-income transit riders in the Boston region, funded with legislative support for consistent funding for operations.
  - All regions address how equity can be achieved by transit investments for priority communities, such as how communities access transit and destinations via transit.
  - In the City of San Francisco's ConnectSF program, the pandemic refocused investment priorities on serving essential trips citywide, including through quick-build capital improvements to maximize scarce resources. Model-based criteria used to prioritize investments (including access to jobs and services, ridership, cost-effectiveness, and travel time) looked at both equity priority communities and at low-income households earning below 200% of the federal poverty level, in addition to overall performance citywide.
- **State of good repair and safety / HCT system maintenance and reliability**
  - All regions seek to achieve safety goals in terms of how people wait for, access, or experience transit, some with a focus on Vision Zero targets systemwide.
  - 6 of 7 regions emphasize the need for transit infrastructure maintenance, preservation, reliability, or lifecycle expansion.
  - Prioritizing equity outcomes in the greater Philadelphia region included universal design and user experience, such as implementation of full ADA access, all-door boarding, safer and cleaner services, and better amenities at stops and for passengers.
- **System-level climate goals or objectives**
  - All regions specify climate goals or objectives that are part of other climate-related goals, such as stewardship or safety. Five regions prioritize a net-zero emissions transit fleet, such as procuring battery-electric buses and implementation of associated charging infrastructure, with a policy goal to achieve procuring 100% renewable electricity.

  - All regions prioritize VMT reduction goals, with Los Angeles and Philadelphia introducing concepts for VMT fees to generate revenue for transit investments and lower the dependence on the federal gas tax.
  - The urgency of addressing climate change was an impetus and key message around prioritizing transit improvements and related programs and initiatives, to attract additional trips to transit and other sustainable modes. For example, greater Boston has a goal to achieve a net-zero carbon region, which has an objective that all land travel is by carbon-free modes, such as walking, biking, and electrified public transit

- **Quality of service and mobility improvements for bus or rail**
  - All regions are pursuing bus or rail expansions or infrastructure improvements; for example, Seattle, Los Angeles, Boston, and greater Philadelphia have specific HCT and ETC enhancement goals, such as increasing the capacity of the transit fleet for new and existing services, expanding the HCT network to meet and respond to changing needs, or adding bus lanes and other features to speed up service and eliminate delay.
  - All regions emphasize the importance of transit and transportation system integration to expand travel choices and mode share; enhance local and regional transit connectivity; or improve transit frequencies, operations, or safety.

Peer Review Details

Please see **Appendix A** for additional peer review details.

Additional Key Issues and Trends

In addition to exploring how peer regions have structured their long-range transportation plans focused on HCT, it is important to note that several recent issues and trends have emerged over the past five years that are directly impacting local, state, and federal transportation policies. Metro and TriMet have recently summarized some of these issues and trends in separate but related memos: Metro Emerging Trends and TriMet Forward Together Emerging Trends. In addition, very recent policies related to climate change and the economy continue to shape how regions will adapt their transportation policies in the coming years.

The following is a summary of these issues and trends that were considered when conducting the HCT Policy Framework analysis:

- Transit service and ridership declines, including the decrease in peak commute demand
- Inequities and social justice
- Sustained reliance or preference for remote work
- Continued expansion of e-commerce
- Continued advancements in vehicle electrification (EVs and e-bikes)
- Issues with personal safety, especially for BIPOC riders
- Increases in severe and fatal crashes
- Increases in recreational cycling
- Challenges associated with agency recovery and innovation
- Continued gentrification and affordability issues, including people experiencing houselessness
- Inflation and increases in fuel prices
- Staffing shortages across many industries, including transit

HCT DEFINITION AND POLICY GAP ANALYSIS

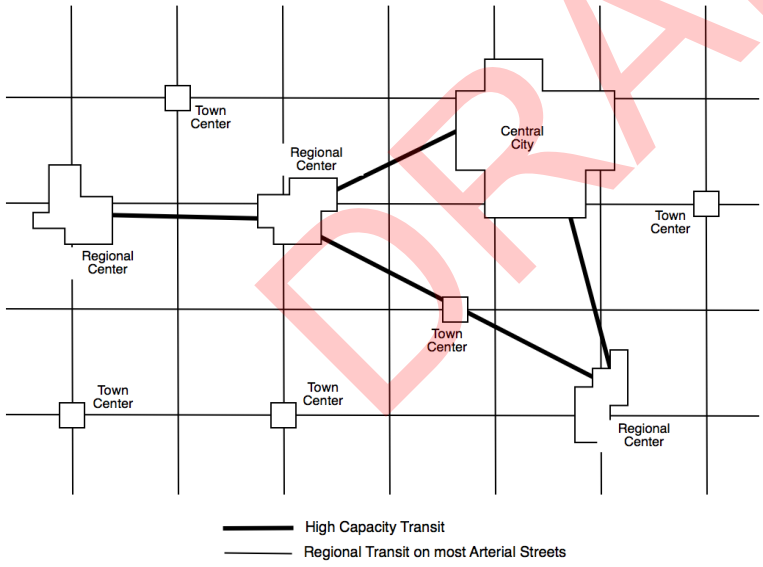
The HCT Policy Framework Analysis concludes with considerations for how High Capacity Transit is defined in our region as well as considerations for updating the eight Regional Transit Network policies. This analysis considers not only the review of local, regional, state, and federal policies, but also key findings from the peer regions, as discussed above.

High Capacity Transit Definition Considerations

The 2040 Growth Concept sets forth a vision for connecting the central city to regional centers like Gresham, Clackamas and Hillsboro with fast and reliable high capacity transit (HCT), helping the region concentrate development and growth in its centers and corridors. High capacity transit carries high volumes of passengers quickly and efficiently, and serves a regional travel market with relatively long trip lengths to provide a viable alternative to the automobile in terms of convenience and travel time.

Figure 6 Regional Transit Network Concept

[Graphic to be revised]

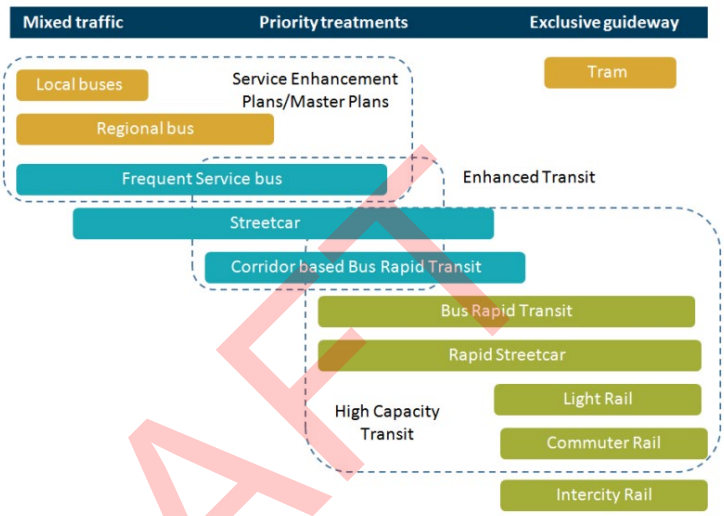


High capacity transit is defined in multiple places in the 2018 Regional Transportation Plan, including in the System Policies chapter (pages 3-77, 3-88), in Glossary of Terms (page G-4), and in the multiple sections of the separate Regional Transit Strategy. While there are minor differences in how HCT is defined, the following introductory paragraph is perhaps the most direct at defining HCT (from page 4-10 of the Regional Transit Strategy):

> **"Our high capacity transit (HCT) system operates with the majority or all of the service in exclusive guideway. The high**

> **capacity transit system is meant to connect to regional centers and carry more transit riders than the local, regional and frequent service transit lines. HCT could include rapid streetcar, corridor-based bus rapid transit, bus rapid transit, light rail or commuter rail."**

As illustrated in the following graphic (from page 4-6 of the Regional Transit Strategy), there is also some overlap between Enhanced Transit and HCT, where some streetcar or corridor-based Bus Rapid Transit applications could be considered either High Capacity Transit or Enhanced Transit. Other modes, including Commuter Rail, Light Rail, Rapid Streetcar and Bus Rapid Transit are exclusively defined as HCT. It is important to note that the term "corridor-based Bus Rapid Transit" is not fully defined in the 2018 RTP.



To clarify how we define High Capacity Transit, the following considerations are offered for this update of the High Capacity Transit Strategy:

- Consider leading with the *purpose* of HCT in the regional transit network, and to integrate equity into the definition by emphasizing that it connects *people* to regional centers
- Consider stating that HCT is *high-quality transit* (i.e., fast, frequent, safe, and reliable) before its physical attributes (operating with the majority or all of the service in exclusive guideway)

The first half of the HCT definition in **blue** could be updated as follows:

> **"Transit is essential and the backbone of the transportation network. The high capacity transit system is meant to connect people to regional centers with high-quality service (fast, frequent, safe and reliable) and carry more transit riders more comfortably than the local, regional and frequent service transit lines. HCT operates with the majority or all of the service in exclusive guideway and could include light rail, commuter rail,**

> **rapid streetcar, bus rapid transit, and corridor-based bus rapid transit"**

The last half of the definition in **green** emphasizes that HCT provides the needed capacity to serve the region's highest demand corridors with a variety of modes and levels of transit priority, ranging from light rail or BRT with "majority exclusive guideway" to corridor-based BRT or streetcar modes that have a mix of exclusive and shared right of way (such as the FX2-Division high capacity bus service).

Enhanced Transit Concept (ETC) / Better Bus

Another important part of defining High Capacity Transit and reviewing the Regional Transit Network policies related to HCT is clarifying the role of the Enhanced Transit Concept (ETC), now known as Better Bus. ETC was introduced in the 2018 Regional Transit Strategy and is defined as follows (from page 4-9 of the RTS):

> ***The purpose of ETC is to improve transit speed and reliability on our most congested existing and planned frequent service bus or streetcar lines.***

The RTP Glossary further clarifies that:

- "Enhanced transit is a set of street design, signal, and other improvements that improve transit capacity, reliability and travel time along major Frequent Service bus lines…" (RTS page G-9)
- "…Enhanced Transit encompasses a range of investments comprised of capital and operational treatments of moderate cost. It can be deployed relatively quickly in comparison to larger transit capital projects, such as building light rail." (RTS page G-9)

While no changes to how ETC is defined are suggested, several policy considerations are provided to strengthen and clarify the role of ETC in the Regional Transit System.

Transit Mode Characteristics and Relationships to Land Use

The graphic below identifies the transit modes that are part of the regional transit system, including their general service quality characteristics, and the land use density that is typically appropriate to warrant a capital investment in building a HCT project.

Figure 6 Characteristics of High-Capacity Transit

[NEW GRAPHIC THAT IDENTIFIES THE CHARACTERISTICS OF TRANSIT MODES (HCT AND OTHER) AND SHOWS WHICH MODES FALL INTO THE HIGH-CAPACITY TRANSIT CATEGORY.]

- **TRANSIT MODES:** *Commuter Rail, Light Rail, Rapid Streetcar, BRT, Corridor-Based BRT (e.g., RapidBus)*, Streetcar, Frequent Bus, Local Bus (and/or other modes to be considered in future Metro Access to Transit Study) (Italicized modes to be highlighted as HCT; Streetcar to be noted as HCT depending on context)

- **CHARACTERISTICS:** Transit Priority (Speed & Reliability), Frequency, Vehicle Capacity, Passenger Capacity, Transit Access, Stop/Station Amenities, Capital Cost (per mile and per passenger), Operating Cost (total and per passenger), Service Span, Density & Demand, Market Demand Role

Person carrying capacity is a function of vehicle capacity and frequency. Fast and reliable services that are facilitated with transit priority treatments are also required for investments in high-frequency service to be effective; otherwise transit vehicles can be stuck in traffic and bunched together. To be cost-effective, HCT should provide priority along the majority of our highest-demand corridors, which connect centers of activity, essential jobs and services, and other major destinations (e.g., colleges, hospitals) and where there is sufficient density and demand to support the capital investment consistent with regional mobility, equity and environmental priorities. ETC can provide priority at high-delay locations along frequent bus or streetcar corridors.

Figure 7 Relationship between Service Frequency, Priority, and Passenger Capacity

[NEW GRAPHIC THAT SHOWS HOW SERVICE QUALITY AND PRIORITY WORK TOGETHER TO MOVE PEOPLE]

Regional Transit Network Policy Considerations

Based on the review of local, regional, state, and federal plans and policies, as well as the peer review and overview of key issues and trends, several areas have emerged as a focus of the Regional Transit Network policy updates:

- **System Quality and Equity.** Equity has long been a priority in making transportation planning decisions in the region and was one of the overarching policies included in the 2018 RTP. The 2023 RTP includes equity as one of the four desired outcomes and all network policies will be updated to further strengthen equity as a regional priority. The importance of dignified, high-quality service should also be emphasized to make transit work for everyone. As such, **Policy 1: Service Quality** is updated and clarified; **Policy 2: Equity** is updated and separated into a new policy.
- **Climate change.** While climate leadership is one of the overarching policies from the 2018 RTP, and one of the desired outcomes for the 2023 RTP update, there are no specific Regional Transit Network policies focused exclusively on sustainability and the environment. A new policy (**Policy 3: Climate Change**) is proposed focusing on how the Regional Transit Network should address climate change.
- **Maintenance and Resiliency.** Reliability is integrated into **Policy 4: Maintenance and Resiliency** to better integrate it as a key outcome of a system that is preserved and maintained in a state of good repair.
- **HCT and ETC.** The current **Policy 4: High Capacity Transit** (renumbered to Policy 5) includes both HCT and ETC in a single policy. To strengthen and clarify the role of both HCT and ETC in the regional transit network, creating **Policy 7: Reliable and Enhanced Transit** addresses the separate role of ETC as a tool for increasing reliability of the transit system.
- **Clear policy headlines.** All of the suggested modifications to the Regional Transit Network policies focus on a primary theme, so simple headlines are offered for each.

Figure 8 below lists each of the 2018 Regional Transit Network policies and provides suggested updates to the policies most related to high capacity transit.

Figure 8 Policy Framework Gap Analysis

Existing #	Revised #	Proposed Headline	Existing Policy Text	Gaps / Considerations Addressed	Updated Policy Text Considerations
1	1	**System Quality**	*Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options.*	▪ Separated existing Policy 1 into two policies ▪ Aligned with overarching Transportation Equity Policy 3 ▪ Integrated quality of service into policy language	Provide a high-quality, safe, and accessible system that makes transit a convenient and comfortable transportation choice for everyone to use.
	2	**Equity**			Ensure that the regional transit network equitably prioritizes service to those who depend on transit or lack travel options; makes service, amenities, and access safe and secure; and proactively supports stability of vulnerable communities, particularly communities of color and other historically marginalized communities.[2]
N/A	3	**Climate Change**	*N/A*	▪ Strengthen policies to focus on transit's role in addressing climate change	Prioritize our transit investments to create a transit system that encourages people to ride rather than drive alone and support transitioning to a clean fleet, enabling us to meet our state, regional, and local climate goals.
2	4	**Maintenance and Resiliency**	*Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.*	▪ Incorporated reliability into State of Good Repair	Preserve and maintain the region's transit infrastructure in a manner that improves safety, reliability, and resiliency while minimizing life-cycle cost and impact on the environment.

[2] Historically marginalized communities are areas with high concentrations (compared to regional average) of people of color, people with low-incomes, people with limited English proficiency, older adults and/or young people.

Existing #	Revised #	Proposed Headline	Existing Policy Text	Gaps / Considerations Addressed	Updated Policy Text Considerations
4	5	**High Capacity Transit**	*Make transit more convenient by expanding high capacity transit; improving transit speed and reliability through the regional enhanced transit concept.*	▪ Align with equity and climate outcomes and HCT definition ▪ Reframe "convenient" around equity ▪ Revise description of capacity	Complete and strengthen a well-connected network of high capacity transit along mobility corridors with the highest travel demand. High capacity transit prioritizes transit speed to connect regional centers with the Central City, link regional centers with each other and link regional centers to major town centers to provide people with high-quality service and convenient connections.
3	6	**Coverage and Frequency**	*Make transit more reliable and frequent by expanding regional and local frequent service transit and improving local service transit options.*	▪ Moved reliability and the Enhanced Transit Concept to a new policy (see Policy 7)	Complete a well-connected network of local and regional transit on most arterial streets – prioritizing frequency along mobility corridors and main streets linking town centers to each other and neighborhoods to centers.
3 and 4	7	**Reliability**	*See Policy #4*	▪ Created a separate policy focused on reliability that clarifies the role of ETC in the regional transit network	Through the Better Bus program, prioritize capital and traffic operational treatments identified in the Enhanced Transit Toolbox in key locations or corridors to improve transit speed and reliability.
5	8	**Intercity / Inter-Regional Transit**	*Evaluate and support expanded commuter rail and intercity transit service to neighboring communities and other destinations outside the region.*	▪ No proposed changes	

Existing #	Revised #	Proposed Headline	Existing Policy Text	Gaps / Considerations Addressed	Updated Policy Text Considerations
6	9	**Access to Transit**	*Make transit more accessible by improving pedestrian and bicycle access to and bicycle parking at transit stops and stations and using new mobility services to improve connections to high-frequency transit when walking, bicycling or local bus service is not an option.*	▪ No proposed changes	
7	10	**Mobility Technology**	*Use technology to provide better, more efficient transit service – focusing on meeting the needs of people for whom conventional transit is not an option.*	▪ No proposed changes	
8	11	**Affordability**	*Ensure that transit is affordable, especially for people who depend on transit.*	▪ No proposed changes	

Notes: Green – proposed update or addition

APPENDIX A. REVIEW OF PEER REGION RELATED TRANSPORTATION PLANS AND POLICIES

The review of HCT policies included plans from other regions. The purpose of the peer review is to inform the HCT policy analysis, but the peers could be utilized in other dimensions of the HCT Plan and/or RTP update.

Peer Identification

Key criteria for selecting the peer regions or agencies include:

- Preference for plans/policies developed after 2020 that address current issues and trends including recovery from the COVID-19 pandemic.
- Identify high-capacity transit in their goals and policies.
- Include/address multiple HCT modes (e.g., rail and bus).
- Potential HCT lessons learned related to RTP investment priorities (safety, equity, climate, and mobility).
- Geographic distribution.

Thirteen regions were identified in the table below (**Figure A-1**). These were narrowed to seven for high-level consideration and the project team focused on four peers for more detailed review.

Figure A-1 Potential Peer Regions and Planning Documents

Region	Agency	Document	Selection Criteria: Addresses Current Issues? (Year Published)	Selection Criteria: Includes Policy or Goal with Relation to HCT?	Selection Criteria: Region has Multiple HCT Modes (Rail and Bus)?	Preliminary Recommendation to Include in Policy Review	Recommendation Notes	Key pages/elements related to HCT or issues/trends of interest
Seattle	Puget Sound Regional Council (PSRC), and/or Sound Transit (ST)	Regional Transportation Plan (2022-2050)	2021	Yes	Yes – Link and RapidRide	Yes	▪ Included PSRC, Sound Transit, City of Seattle in 2018 RTP best practices review (focused on criteria) ▪ Focus on King County; strong equity focus in Metro Connects plan	▪ Chapter 2 Performing for People, Environment, and Mobility: p. 118-170 includes engagement, equity, climate and environment, and mobility goals.
	King County Metro	Metro Connects Long-Range Plan						▪ Metro Connects: See p. 105 of PDF for RapidRide prioritization framework
San Francisco	Metropolitan Transportation Commission (MTC) and/or SFMTA/ConnectSF	Plan Bay Area 2050	2021	Yes	Yes – BART, LRT (e.g., Muni Metro), BRT and RapidBus (e.g., Muni Rapid)	Yes	▪ Included BART in 2018 best practices review (focused on criteria) ▪ Equity approach in ConnectSF evaluation (SF focused)	▪ p. vi-x, 5 Guiding Principles, ▪ Notably Transportation Strategies, specifically T10, on p. ix & 81.
Salt Lake City	Wasatch Front Regional Council (WFRC)	Regional Transportation Plan (2019-2050)	2019	Yes	Yes -- LRT (TRAX) and MAX BRT (1 line)		▪ Included WFRC and Salt Lake City in 2018 best practices review (focused on criteria) ▪ Limited existing BRT lines	▪ p. 37, origin to destination travel mode share as regional goal. ▪ p. 40-44, high-capacity and -frequency transit mentioned multiple times in relation to outcomes of scenarios of goals. ▪ p. 49, high-capacity transit mentioned as performance measure for scenarios of quality transportation choices.
Los Angeles	LA County MTA (Metro)	Long Range Transportation Plan	2020	Yes	Yes – BRT and LRT	Yes	▪ Clear transit investment allocations, with implementation timetables ▪ A couple transit strategies, each with multiple sub-strategies to glean from. ▪ Bond measure (confirm).	▪ p. 4, better transit mentioned as priority. ▪ p. 18, expansions of transit operations and implementation of fixed-guideway transit mentioned, including I-5 North Capacity Enhancements project. ▪ p. 20, expanded programs via LRTP mentioned, including Express Lanes, off-peak transit services. ▪ p. 22, BRT mentioned. ▪ p. 29, BRT mentioned again, w/ BRT investment allocations on p. 30 Figure 8. ▪ p. 32, note Strategy 1.2: Improve the frequency, speed and reliability… ▪ p. 33, note capacity-enhancing transit projects.
Minneapolis-St. Paul	Metropolitan Council	Transportation Policy Plan	2020	Yes	Yes -- LRT and BRT	Yes	▪ Included in 2018 best practices review (focused on criteria)	▪ p. 10, 2020 TPP Principle, Bullet 3 Implement increased transit service ▪ p. 16, frequent transit mentioned as method for congestion relief. ▪ p. 17-19, BRT mentioned under The Regional Transit System and again under Overview and after Benefits of Transit before Strategies to Encourage Alternatives.

Region	Agency	Document	Selection Criteria: Addresses Current Issues? (Year Published)	Selection Criteria: Includes Policy or Goal with Relation to HCT?	Selection Criteria: Region has Multiple HCT Modes (Rail and Bus)?	Preliminary Recommendation to Include in Policy Review	Recommendation Notes	Key pages/elements related to HCT or issues/trends of interest
San Antonio	Alamo Area MPO (AAMPO)	Metropolitan Transportation Plan (Mobility 2045)	2019	Yes	No – Main focus on BRT, rapid bus, shuttles, demand response		▪ HCT service (Primo) launched in 2012 ▪ HCT corridors identified by VISION 2040 for implementation that year	▪ p. 1.5-1.6, Goals
Austin	Capital Area MPO (CAMPO)	2045 Transportation Plan (and Regional Transit Study)	2020	Yes	Yes -- LRT MetroRail) and BRT (MetroRapid)	Yes	▪ Extensive expansion planned, bus and rail ▪ Project Connect funding measure passed by voters	▪ p. 8-9 Vision, Goals, and Objectives
Nashville	Greater Nashville Regional Council (GNRC)	Regional Transportation Plan	2021	Yes	No – Main focus on bus and BRT		▪ Expanded and Modernized Transit Options part of Long-Term Vision ▪ New Technologies to Improve Safety, Traffic Operations, and Traveler Information part of Core Strategies	▪ p. 16-17, Plan Recommendations: Long-Term Vision and Goals and Objectives
Sacramento	SACOG	Next Generation Transit Strategy	2021	Yes	Yes – bus and LRT		▪ Extensive Recommended Transit Strategies, with sensible vision, goals and KPIs, and trends in common with Metro/TriMet	▪ p. 10-11, Vision, Goals, and Key Performance Indicators ▪ p. 20-54, Recommended Strategies
Vancouver, BC	TransLink	Transport 2050	2022	Yes	Yes – SkyTrain and RapidBus		▪ Implementing and prioritizing frequent, fast, reliable transit and TOD/TAD listed as transformative actions ▪ Universal basic mobility transformative action directive of HCT	▪ p. 7, How We'll Act: Creating the Transportation Future We Want – Strategies
Denver	City and County of Denver (CCD)	Denver Moves	2019	Yes	Yes – LRT and BRT [1 line]		▪ City Denverright / DenverMoves process had extensive equity component ▪ Extensive study of BRT by the regional provider (RTD) as well as CCD	▪ p. 1-9, Denver Moves: Transit Goals ▪ p. 3-3, Denver's Big Moves and Strategies
Boston	Metropolitan Area Planning Council (MAPC), The Greater Boston BRT Study Group	MetroCommon 2050 | Better Rapid Transit for Greater Boston | Focus40	2015-2021	Yes	Yes – BRT (12 potential corridors) and LRT (for comparison with BRT)	Yes	▪ Recent regional plan, east coast ▪ Strong data-driven, equity-focused approach to BRT implementation in applicable corridors, with QOS/LOS comparisons across modes and places. ▪ MBTA Better Bus Project and bus network redesign and concurrent rail expansion.	▪ p. 11, BRT's Potential in Boston – Under Methodology and within the last two paragraphs before Travel Time Analysis and Routing, corridor prioritization criteria are defined. ▪ p. 38, Under Conclusion, HCT-related, BRT-specific Recommendations are given
Philadelphia	Delaware Valley Regional Planning Commission	Connections 2050 | StoryMap | Policy Manual | Process and Analysis Manual | Major Regional Projects	2021	Yes	Yes –	Yes	▪ Recent regional plan, east coast ▪ Relevant thinking on current trends and issues ▪ SEPTA bus/rail redesigns underway along with expansion projects	▪ p. 26-33, long range planning goals, their definitions, and their objectives. ▪ Major Regional Projects Table, filterable by transit to include 84 out of 255 entries for proposed projects, viewable also as a map
	City of Philadelphia	The Philadelphia Transit Plan						▪ p. 7, Goals & Strategies; p. 92-98, Bus Corridors; p. 110-132, High Capacity Transit

Peer Review Findings

The following slides summarize the following information for each peer:

- Plan(s) reviewed, geographic focus, purpose
- Related plans (if applicable) – in several cases, a local plan was reviewed in addition to the regional plan
- Policy priorities within each RTP priority area (Climate, Equity, Safety, Mobility)
- Key highlights related to the four outcomes for the Portland Metro RTP update (Equity, Safety, Climate, and Mobility)
- Additional examples highlighted from selected peers

HCT PLAN UPDATE
PEER REVIEW
REFERENCE SLIDES

September 20, 2022

Peer Regions Policy Review

- Seattle
- San Francisco
- Los Angeles
- Twin Cities
- Austin
- Boston
- Philadelphia

RTP Priorities

- Equity
- Safety
- Climate
- Mobility

Peer Review Common Themes Related to RTP Outcomes

- **Equity** considerations for vulnerable communities and transit riders
  - All peer regions have goals or objectives regarding the transit needs of women, people of color, people with low incomes, and/or people experiencing houselessness
  - Direct feedback from community groups representing vulnerable populations (such as the Equity Cabinet for King County Metro) was critical in identifying specific policy areas to address in plan updates.

- State of good repair and **safety** / HCT system maintenance and reliability
  - 6 of 7 regions emphasize the need for transit infrastructure maintenance, preservation, reliability, or lifecycle expansion.

- System-level **climate** goals or objectives
  - All plans specify climate goals or objectives that are a part of other climate-related goals (such as stewardship or safety).
  - For example, 5 of 7 regions prioritize a net-zero emissions transit fleet.

- Quality of service and **mobility** improvements for bus or rail
  - All plans pursue bus or rail expansions or infrastructure improvements, with Seattle, LA, Boston, and greater Philadelphia having specific HTC and ETC enhancement goals.

Initial Peer Review

- Name of plan reviewed; date, horizon year, geographic focus, purpose
- Related plans (if applicable) – in several cases, a local plan was reviewed in addition to the regional plan
- Policy priorities
- Key highlights related to the four outcomes for the Metro RTP update (Equity, Safety, Climate, and Mobility)

Peer Review Additional Topics Being Explored

- Highlight how equity and/or climate-specific policies affected the peer region's priorities from the previous plan
- Identify specific equity and climate-focused policy language related to HCT and/or corridor-level evaluation criteria used to prioritize investments
- Assess alignment with RTP definitions of HCT and ETC

Seattle

Central Puget Sound Region

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Plan: Regional Transportation Plan – 2050

- Designed to implement region's growth plan, VISION 2050

Geographic focus: King, Pierce, Snohomish, and Kitsap counties

Purpose: Regional transportation investment strategy

Related Plan: King County Metro Long-Range Transit Plan (Metro Connects) – 2050

Policy Priorities:

- Greenhouse gas reductions; safety improvements; community growth investments; maintenance and promotion of economic vitality; and transit and travel choice expansion

Building on VISION 2050

GOAL: The region has a sustainable, equitable, affordable, safe, and efficient multimodal transportation system, with specific emphasis on an integrated regional transit network that supports the Regional Growth Strategy and promotes vitality of the economy, environment, and health.

- VISION 2050 (PSRC 2020)

Seattle

Central Puget Sound Region

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Alignment with RTP Priorities (highlights):

Equity:

- Prioritizes HCT access for people of color and with low incomes compared to the regional average.
- Pursues services with less delay and shorter travel time for people of color and with low incomes.

Safety:

- Promises a state of good repair and safe systems approach.
- Considers timely replacement of bridges and ferries.

Climate:

- Incorporates a Four-Part Greenhouse Gas Strategy aligning with VISION 2050.
- Sets GHG reduction targets for 2030 (50% below 1990 levels) and 2050 (83% below 1990 levels).

Mobility:

- Seeks to triple transit boardings by 2050.
- Pushes for more than half of households to live within a half-mile of HCT.

Seattle

Central Puget Sound Region - Highlights

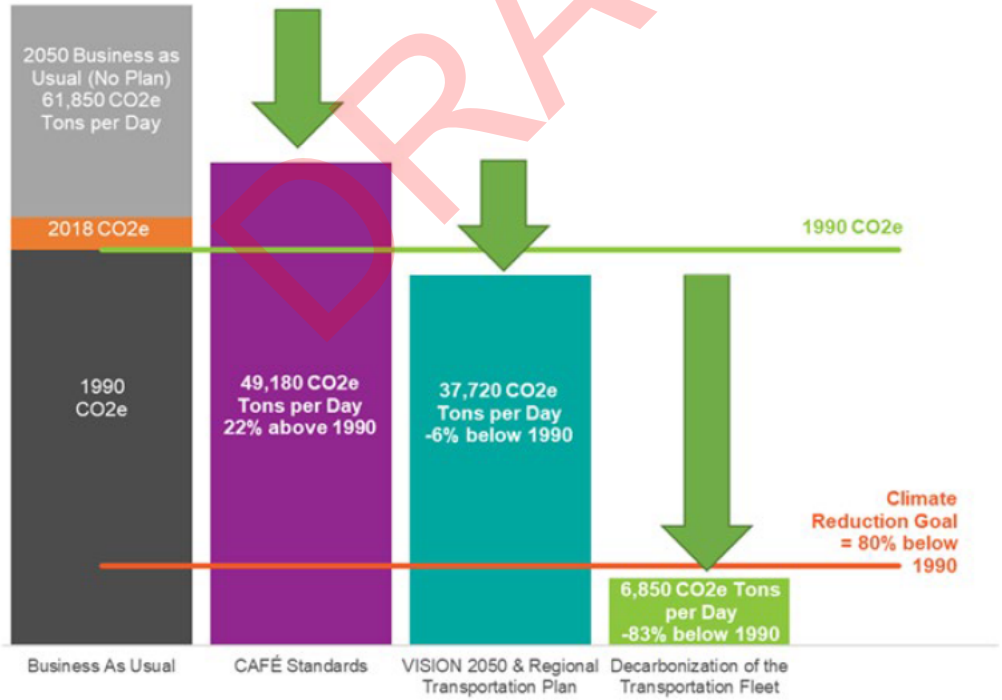
- Seattle – 2050 Regional Transportation Plan
  - Inter-regional high-speed rail to be implemented, connecting the Vancouver, BC; Seattle; and Portland areas.
  - 41 BRT, 9 LRT, 2 commuter rail, and 84 frequent bus HCT services planned for implementation in 2050.

Seattle

Central Puget Sound Region - Highlights

Four-Step GHG Reduction Model

Figure 36 - Steps to Meet Greenhouse Gas Reduction Goals



Seattle

King County

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Plan: King County Metro Long-Range Transit Plan (Metro Connects) – 2050

- Influences 2050 RTP for Puget Sound

Geographic focus: King County (includes City of Seattle)

Purpose: Frequent, reliable, fast, safe, equitable, and sustainable 24-hour bus service running all days throughout an innovative and regionally integrated network

Policy Priorities:

- Service increases, HCT-connecting services increases, QOS improvements, and fleet and operations growth

Seattle

King County

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Alignment with RTP Priorities (highlights):

Equity:

- Provides service in areas with unmet need.
- Implements target approach to fare discounts to balance fare subsidies and revenues.

Safety:

- Builds safe and well-designed transit stops, stations, and centers.
- Prioritizes safety and security on agency vehicles and at shared stops, stations, and centers

Climate:

- Makes transit more competitive to driving alone.
- Procures zero-emissions vehicles and supporting infrastructure.

Mobility:

- Meets current and future transit needs and move toward an all-day service network.
- Adds flexible services to connect to key locations and fixed-route networks, such as Sound Transit.

San Francisco

Bay Area Region

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Plan: Plan Bay Area – 2050

- Outlines $1.4 trillion spending plan across 30 years

Geographic focus: Bay Area region

Purpose: Improve housing, transportation, the economy, and the environment in the Bay Area

Policy Priorities:

- A collection of goals and associated strategies for housing, transportation, the economy, and the environment

San Francisco

Bay Area Region

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Alignment with RTP Priorities (highlights):

Equity:

- Implements a statewide universal basic income program.
- Expands job training, incubator programs, and internet access in underserved communities.

Safety:

- Builds a Complete Streets network to promote mode share.
- Advances regional Vision Zero policy with better street design and reduced speeds.

Climate:

- Shifts commuters to telecommuting, transit, walking and/or biking.
- Grows transportation demand management programs, such as vanpool and bikeshare.

Mobility:

- Enhances transit frequency, capacity, and reliability, and expand the regional rail network.
- Integrates new regional express lanes and an express bus network.

San Francisco

City of San Francisco

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☐ Safety
- ☑ Mobility

Plan: ConnectSF Transit Strategy – 2050

Geographic focus: City of San Francisco

Purpose: Identify local HCT investment priorities (LRT and BRT) and priority regional rail investments from City perspective

Related Plan: Informs SF Transportation Plan Update (in progress)

Policy Priorities:

- Meet six key transit challenges
- Link transit to meeting housing challenges and climate/air quality goals
- Mix of major capital projects and lower cost citywide bus/rail reliability investments to maximize funding

San Francisco

City of San Francisco

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☐ Safety
- ☑ Mobility

Alignment with RTP Priorities (highlights):

Equity:

- Prioritization measures: citywide, 200% low-income, and Equity Priority Community trips
- Focused bus service recovery on essential, non-traditional commute trips
- Citywide bus network improvements through MuniForward quick-build program

Safety:

- Emphasis on State of Good Repair and reliability
- Within transit context, deliver safety improvements alongside transit priority projects
- Support Vision Zero and Slow Streets and Safe Spaces programs

Climate: Shifting trips to transit to meet 2040 goal of zero emission transportation system

Mobility:

- Key local LRT (Central Subway Extension) and regional rail priorities (Geary/19th Rail via Link21 program)
- New Caltrain regional rail station in equity priority neighborhood
- Bus and rail system reliability

Los Angeles
LA County MTA

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Plan: Our Next LA (LRTP) – 2050

- Informs LA Metro's SRTP (forthcoming)

Geographic focus: LA County and MTA/Metro Area

Purpose: Identify HCT investment priorities, strategies and actions (LRT and BRT) and priority regional rail investments and associated timelines

Related Plans: Metro Strategic Plan (Vision 2028) & NextGen Bus Plan – 2028

Policy Priorities:

- Achieve four priority areas
- Expand public/active transportation programs and related partnerships, progress freight partnerships, implement transit-supportive/SOV-trip-reducing policies
- Transit and highway projects (Measure M & R)

Los Angeles

LA County MTA

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Alignment with RTP Priorities (highlights):

Equity:

- Integrates Gender Action Plan and Transit Homelessness Action Plan.
- Supports transit-oriented communities on Metro-owned lands to facilitate access to land uses.

Safety:

- Optimizes station safety/security, including lighting, monitoring, space.
- Integrates safety/security plans/policies, including for emergencies.

Climate:

- Operationalizes system-level transition to zero-emission buses by setting present targets.
- Considers conservation, life-cycle, efficiency in operations policies.

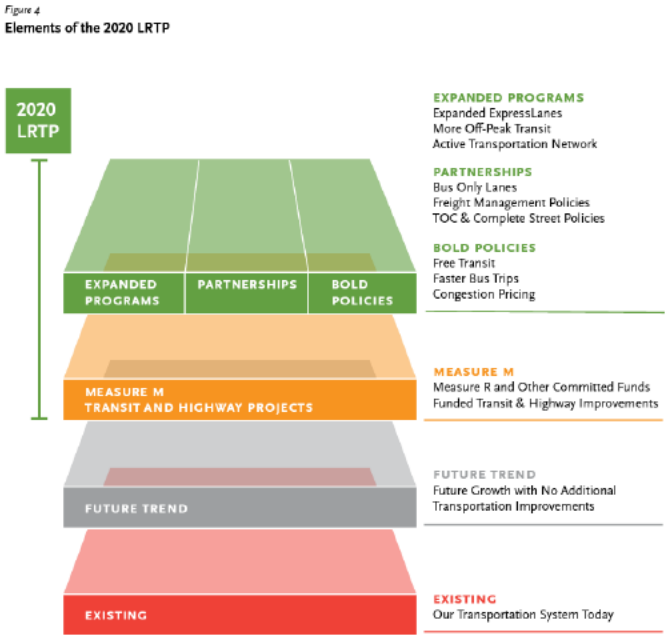
Mobility:

- Prioritizes the expansion of rail countywide.
- Emphasizes improving frequency, speed, reliability of bus and rail.

Los Angeles

LA County MTA - Highlights

- Los Angeles – 2050 Long Range Transportation Plan
  - NextGen Bus Plan to implement all-day service with 15-minute or better headways for 80% of all bus services, with a bus stop within a quarter-mile of current riders.
  - A Transit First approach to speed up buses with capital improvements, such as bus lanes and signal priority.



Minneapolis-St. Paul

Twin Cities Region

Alignment w/ RTP Priorities

- ☑ Equity
- ☐ Climate
- ☑ Safety
- ☑ Mobility

Plan: Transportation Policy Plan - 2040

- Progresses Thrive MSP 2040, 30-year regional plan

Geographic focus: Twin Cities Metro Area

Purpose: Maintain a safe, effective, reliable, equitable, affordable, environmentally-conscious, and prosperous transportation system

2040 TRANSPORTATION POLICY PLAN (2020 UPDATE) PRINCIPLES

- Support the needs of the region's mature highway system, including dedicating significant resources to maintaining and rebuilding the existing system and using preservation projects to rethink major regional corridors
- Manage congestion in an innovative, cost-efficient manner and provide reliable alternatives to travel in congested corridors
- Implement increased transit service and an expanded transitway system; support higher demand for development (housing, shops, jobs) along transit lines and around stations
- Support more opportunities for other travel modes; include bicycle and pedestrian elements in comprehensive transportation and land development plans; provide tools needed to implement them
- Plan for the long-term needs of freight modes such as trucks, barges, and railroads
- Balance the needs of the aviation system with local land use decisions

Related Plan: 2040 Transportation Policy Plan (originally adopted 2015)

Policy Priorities:

- Align with six principles
- System stewardship, safety/security, access, economic growth, health equity, and transportation-land use guidance and balance

Minneapolis-St. Paul

Twin Cities Region

Alignment w/ RTP Priorities	
☑ Equity	☐ Climate
☑ Safety	☑ Mobility

Alignment with RTP Priorities (highlights):

Equity:

- Pursues a transportation system that promotes community cohesion.
- Reduces construction and operations impacts on natural, human, and built environments.

Safety:

- Prioritizes state of good repair of the transportation system.
- Focuses on achieving Vision Zero targets across modes, including freight.
- Considers transportation system's vulnerability to natural and human-caused threats.

Climate:

- Does not explicitly define climate goals but conveys it as a safety/security issue.

Mobility:

- Ensures reliability of travel by freight, highway and transit, and availability of multimodal options.
- Seeks to increase mode share by setting associated measures.

Austin

Central Texas

Alignment w/ RTP Priorities

- ☑ Equity
- ☐ Climate
- ☑ Safety
- ☑ Mobility

Plan: Regional Transportation Plan – 2045

- A collation of transportation plans, studies and infrastructure inventories
- Amended every five years

Geographic focus: Greater Austin area

Purpose: A multimodal approach to alleviate congestion, address transportation needs, coordinate activities, prioritize projects and programs, and identify financial constraints

Related Plan: 2045 Regional Transit Study

Policy Priorities:

- Safety, mobility, stewardship, economy, equity, innovation

Austin
Central Texas

Alignment w/ RTP Priorities

- ☑ Equity
- ☐ Climate
- ☑ Safety
- ☑ Mobility

Alignment with RTP Priorities (highlights):

Equity:

- Pursues mitigation of negative impacts on vulnerable populations
- Considers vulnerable populations' multimodal access opportunities

Safety:

- Focuses on reducing the number and severity of crashes.
- Prioritizes Vision Zero metrics collaboratively with local government and transit agencies.

Climate:

- Seeks to avoid, minimize, and mitigate negative impacts to water, air, and habitat quality
- Does not explicitly define climate goals but makes climate objectives a part of stewardship goal.

Mobility:

- Made up of connectivity, reliability, choice, implementation, and regional coordination objectives.
- Enhances reliability by improving incident management, ITS, and TDM

Boston

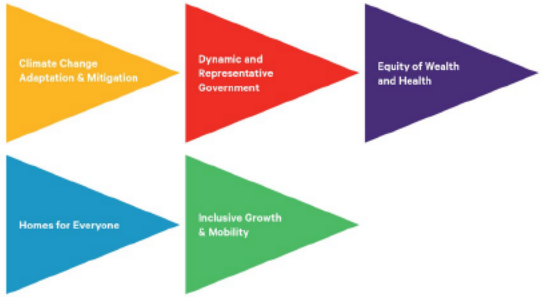
Boston Metro Area

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Plan: MetroCommon – 2050

- Land-use and policy plan, with interactive website in progress



Geographic focus: Greater Boston area

Purpose: Long-range regional plan to address cost of housing, racial inequity, and climate change

Related Plan: Focus40 (MBTA long range investment plan)

Policy Priorities:

- Achieve five action areas
- Values of the plan are equity, stewardship, resiliency, and prosperity

Boston

Boston Metro Area

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Alignment with RTP Priorities (highlights):

Equity:

- Focuses on neighborhoods historically underserved by high quality transit.
- Seeks to make public and active transportation affordable among people least able to pay.

Safety:

- Proposes to achieve zero transportation-related fatalities per year across all modes.
- Ensures that people can travel without risk of violence, discrimination, or crime.

Climate:

- Emphasizes that transportation systems are designed to function during, or rebound after, climate events.
- Pursues net-zero carbon emissions across all regional transportation options.

Mobility:

- Prioritizes transit infrastructure maintenance, funding, and capacity as a top-line objective.
- Concentrates growth around transit and services on demand.

Boston

Boston Metro Area - Highlights

Example

Goal A: Getting Around the Region

Traveling around Metro Boston is safe, affordable, convenient, and enjoyable.

In 2050, the ways we get around are reliable, adequately-funded, and well maintained. Travel is safe, efficient, pleasant, and affordable to all households regardless of income. New transportation technologies and services operate on our roads, underground, and on the water. These new travel options help alleviate congestion and pollution, rather than adding to it. Public transit and shared trips are often more convenient and affordable than solo trips. Auto congestion still exists, but it is predictable and avoidable.

People with mobility limitations and those without a car can get around easily, and can afford to do so. Low-income residents and residents of color enjoy high quality transit to more parts of the region, improving access to opportunity. People of all ages walk or bike more frequently for short trips because conditions make that option safe and enjoyable. The transportation system has a minimal impact on the local and global environment, with reduced pollution and runoff, drastically reduced GHG, and less land set aside for roadways and parking.

1. Transit infrastructure is well-maintained and funded, and its capacity is greatly expanded through the improvement of existing service and the strategic addition of new service so that daily travel is convenient, pleasant, and reliable. The transit system provides more opportunity for circumferential travel throughout the region and reverse commutes between the inner core and suburbs.
2. The transportation system is designed and operated to ensure access to opportunity for everyone, with a particular emphasis on neighborhoods historically underserved by high quality transit.
3. Local land use policies and new development support increased mobility by encouraging concentrated growth around transit and the services people need.
4. Bicycle, pedestrian, and other personal mobility infrastructure is safe, extensive, high quality, and linked to other modes, so that people frequently use active transportation as a preferred mode of travel.
5. Transportation options in the region are net zero for carbon emissions, contributing to improved air quality and reducing negative climate impacts.
6. Public and active transportation options are affordable for those least able to pay.
7. All modes of transportation, including innovative technologies, are safely integrated resulting in few transportation-related injuries and zero fatalities annually.
8. State and local governments work together with businesses and property owners and advocates to create seamless travel throughout the region, including "first mile, last mile" connections.

https://www.mapc.org/wp-content/uploads/2021/12/12.-MC2050-Goals.pdf

Boston

Boston Metro Area - Highlights

Example

Goal C: A Climate-Resilient Region

Metro Boston is prepared for — and resilient to – the impacts of climate change.

In 2050, the Metro Boston region is prepared for the extremes of a changing climate. We are prepared for more high-heat and extreme-cold days, increased rainfall, extended periods of drought, stronger storms, and a rising sea. Homes, schools, workplaces, facilities storing or producing hazardous materials, and infrastructure are located away from serious threats or are designed to withstand them. When major climate events interrupt critical services, the response is managed to minimize disruption and speed recovery. People have the resources, networks, and supports to withstand climate emergencies and to recover when disaster strikes. Older adults, children, residents with lower incomes, Environmental Justice communities, and other vulnerable populations can live safely and fully enjoy outdoor activities. Neighborhoods are designed and improved to protect the health of residents, with ample shade, drainage, and green space. Wetlands, water bodies, forests, and plant and animal communities are restored and protected, and are able to adapt to climate change impacts.

1. Residents and workers, especially those most vulnerable to climate impacts, live and work in neighborhoods designed to minimize climate-related health effects such as asthma, heat-related illness, and other diseases.
2. All neighborhoods and municipalities have updated emergency response and communication plans in anticipation of climate-related emergencies. Communities have adequate supplies, trained professionals, and volunteers ready to respond in a coordinated and effective manner.
3. Critical systems, including energy supply and distribution, communications, water, and transportation are designed to continue functioning during, or quickly rebound after, severe storm events.
4. New homes, institutions, businesses, and hazardous facilities are built away from ecologically sensitive areas or areas vulnerable to climate impacts, or they are built in such a way as to withstand those impacts. Existing homes, institutions, businesses, and hazardous facilities in the most vulnerable locations are relocated or modified to absorb impacts.
5. Green infrastructure beautifies neighborhoods. It is included in all developments, providing multiple co-benefits, such as stormwater filtration, shade, cleaner air, carbon storage, and cooling.
6. Vulnerable populations affected by climate-related events like storms, floods, or droughts are able to avoid major financial, educational, and social disruptions, and are supported in their decisions to move out of harm's way or to make their properties more resilient.

https://www.mapc.org/wp-content/uploads/2021/12/12.-MC2050-Goals.pdf

Boston

Boston Metro Area - Highlights

Example

Goal D: A Net Zero Carbon Region

The Metro Boston region is highly energy efficient and has reduced its greenhouse gas (GHG) emissions to net zero.

In 2050, Metro Boston is deeply energy efficient and climate-smart. We power our communities, buildings, and vehicles with renewable energy. The region benefits from having made deep cuts in GHG before 2030, and reaching net zero emission by 2050, as part of the state and global effort to avoid the worst impacts of the climate crisis. Making zero-emissions choices for food, clothing, and other goods is easy, affordable, and convenient for everyone. The public health, resiliency, and other benefits of a net-zero carbon future are distributed equitably, lifting up all communities, particularly those who had historically borne greater burdens. The new energy economy is affordable, even for those with limited incomes or other economic burdens.

1. Energy demand is significantly reduced and energy efficiency is maximized across the region.
2. Affordable carbon-free energy powers our modernized and smarter electricity grid, and heating and cooling are fully decarbonized.
3. Renewable energy, including centralized, district-scale, and distributed generation and storage composes the region's primary sources of energy.
4. All new construction and major renovation projects meet net zero emissions standards for heating, cooling, and electricity needs by 2030. Existing buildings meet this standard by 2050.
5. All land travel in the region is by carbon-free modes including walking, biking, electrified public transit, and electrified passenger vehicles. Air, heavy-duty freight, and marine transportation have significantly reduced carbon emissions, and are providing carbon offsets.
6. The "Green Economy" supports local workforce development, entrepreneurs, and living wage jobs that foster more widespread economic opportunity.
7. The benefits and impacts of new energy infrastructure are distributed equitably across the region, with all groups benefiting and no location or population bearing a disproportionate burden.

https://www.mapc.org/wp-content/uploads/2021/12/12.-MC2050-Goals.pdf

Boston

Boston Metro Area - Highlights

Example

Goal F: A Healthy Environment

Greater Boston's air, water, land, and other natural resources are clean and protected – for us and for the rest of the ecosystem.

In 2050, our air is pure, indoors and out. Our cities and towns are healthy, with beautiful parks and natural areas accessible to all. And our cities and neighborhoods are quieter, with less polluting and more efficient transportation technologies. Contaminated sites are cleaned up and turned to new uses. There is less waste overall, but unavoidable waste produces energy, fertilizes soil, or is reprocessed. We have enough fresh water from our wells, streams, and reservoirs to meet the needs of people and wildlife. Our farms and fisheries produce plentiful and healthy yields, and are sustainable. Habitats, forests, wetlands, and other natural resources are protected and enhanced.

1. Water is clean and sustainably managed. Waterways exceed Clean Water Act standards and meet the appropriate needs of residents, industry, forests, farms, and wildlife.
2. A robust network of protected open space, waterways, farms, parks, and greenways provide wildlife habitat, ecological benefits, recreational opportunities, and scenic beauty.
3. Farms, fisheries, community gardens, and natural landscapes are prevalent, and able to adapt and thrive in the face of the changing climate. They offer residents access to fresh, affordable, healthy, and local food.
4. Populations who experienced historic environmental injustices enjoy air, energy, and water as clean as any other residents enjoy.
5. The region produces very little solid waste. What it does create is reused, composted, recycled, or turned into energy within the region.
6. Few contaminated sites exist. Former contaminated sites have been redeveloped to create jobs or homes, or restored to support green infrastructure and habitat, and to mitigate climate impacts.
7. The use and exposure to toxic chemicals have been greatly reduced in manufacturing, products, and throughout the environment.

https://www.mapc.org/wp-content/uploads/2021/12/12.-MC2050-Goals.pdf

Boston

Boston Metro Area - Highlights

Example

FOCUS40 PROGRAMS

Service	We're Doing (Commitments through 2023)	We're Planning (Next Priorities through 2040)	We're Imagining (Big Ideas)
Bus 2040	• Better Bus Project: Current Route Network Improvements • Bus Network Redesign Process • Partnerships for Bus Priority • Accessible Bus Stops • Modern Bus Stops and Amenities • Bus Fleet Replacement and Expansion (Procurement and Maintenance Facility Reconfiguration) • Zero-Emission Bus In-Service Testing ***Total Programmed Commitment through 2023: $650 million***	• Phased Conversion to Zero-Emissions Fleet and Facilities (Maintenance Facilities and Fleet Procurement) • Implementation of Bus Network Redesign (New or Enhanced Services and Expanded Fleet) • Priority Bus Rapid Transit Corridors	• Autonomous Bus Shuttles
Silver Line 2040	• Silver Line Fleet Replacement (Procurement and Maintenance Facility Reconfiguration) • Silver Line Washington Street Improvements • Transit Priority Infrastructure in the Seaport ***Total Programmed Commitment through 2023: $150 million***	• Expanded Silver Line Fleet • Bus Rapid Transit through Everett • Infrastructure Upgrades in Silver Line Tunnel	• Silver Line Tunnel Extension Under D Street in the Seaport
Blue Line 2040	• Resiliency: Planning and Early Actions • Reliability Centered Vehicle Maintenance Program ***Total Programmed Commitment through 2023: $47 million***	• Blue Line Capacity and Reliability Improvements • Resiliency: Further Implementation • Red–Blue Connector	• Blue Line Connection to Red Line and Beyond • Blue Line Extension to Lynn
Green Line 2040	• Green Line Transformation: State of Good Repair (SGR) Projects • Green Line Transformation: Fleet Planning • Green Line Extension to Somerville and Medford • Surface Green Line Stop Consolidation • Surface Green Line Transit Signal Priority • Green Line Train Protection • Accessibility Upgrades at Hynes and Symphony Stations • Green Line Extension to Mystic Valley Parkway Final Environmental Impact Report ***Total Programmed Commitment through 2023: $1.9 billion***	• Green Line Transformation Phase 2: New Fleet, Upgraded Infrastructure and Maintenance Facilities • Green Line Transformation Phase 3: Expanded Capacity on D and E Branches (2-Car Trains) • Surface Green Line Optimization	• Green Line Transformation Phase 4: Expanded Capacity on B and C Branches (2-Car Trains) • Green Line Extension to Hyde Square • Downtown Superstation • Green Line Extension to Mystic Valley Parkway, Somerville/Medford
Orange Line 2040	• Orange Line Systemwide Improvement Program: Fleet Replacement and Maintenance Facility Upgrades • Orange Line Systemwide Improvement Program: Capacity and Reliability Improvements (4.5-Minute Headways) ***Total Programmed Commitment through 2023: $613 million***	• Additional Capacity Improvements (3-Minute Headways)	• Sullivan Square Superstation (Commuter Rail/ Orange Line/Silver Line) • Orange Line Extensions (Everett, Roslindale) • Downtown Superstation
Red Line 2040	• Red Line Systemwide Improvement Program: Fleet Replacement and Maintenance Facility Upgrades • Red Line Systemwide Improvement Program: Capacity and Reliability Improvements (3-Minute Headways) • Red Line South Improvements: Wollaston Station, Transit-Oriented Development, Parking Garages • Mattapan High-Speed Line: Reimagining and Short-Term Improvements ***Total Programmed Commitment through 2023: $998 million***	• Strategic Improvements to Support Future Capacity Increases • Mattapan High-Speed Line: Implementation of Reimagining • Red–Blue Connector	• Blue Line Connection to Red Line and Beyond • Downtown Superstation
Commuter Rail 2040	• *Rail Vision* (Study and Decision on Service Alternatives) • South Coast Rail Phase 1 • North Station Drawbridge • Bi-Level Coach Procurement • Locomotive Upgrade and Replacement • Ruggles Station Upgrades • Positive Train Control ***Total Programmed Commitment through 2023: $1.9 billion***	• Tower 1 Upgrade • Exploration of Commuter Rail Electrification Pilot Programs • Station Investments (Infill Stations, Connections to Rapid Transit) • Regional Multi-Modal West Station and Midday Train Layover • Double and Triple Tracking to Add Capacity	• Full Electrification of Commuter Rail
Water Transportation 2040	• Hingham Infrastructure Improvements • New Ferry Service Pilot Programs • Fleet Expansion to Four Ferries ***Total Programmed Commitment through 2023: $30 million***	• Expanded and Better Integrated Multi-Provider Water Transportation Network	• Full Implementation of an Expanded, Comprehensive, Multi-Provider Ferry Network

Boston

Boston Metro Area - Highlights

Example

FOCUS40 PROGRAMS

Systemwide	We're Doing (Commitments through 2023)	We're Planning (Next Priorities through 2040)	We're Imagining (Big Ideas)
Accessibility and Paratransit	• *Plan for Accessible Transit Infrastructure* (PATI) Completion • PATI Early Action Bus Improvements • PATI Early Action Rapid Transit and Commuter Rail Improvements ***Total Programmed Commitment through 2023: $384 million***	• PATI Improvements at Surface Green Line Stops • PATI Accessibility Improvements for Commuter Rail • Vertical Transportation Program	• Leveraging Emerging Technologies
Resiliency	• Systemwide *Climate Change Vulnerability Assessments* • Blue Line Resiliency and Adaptation • Green Line Portal Protection at Fenway • Charlestown Seawall • Adaptation Strategies for Priority Infrastructure, in Collaboration with Municipalities ***Total Programmed Commitment through 2023: $58 million***	• Resilient Power Supply • Incremental Implementation of the Systemwide *Climate Change Vulnerability Assessments*	• Full Systemwide Climate Resilience
Customer Experience	• Automated Fare Collection (AFC 2.0) • Stop and Station Improvements (Wayfinding, Communications, and Lighting) Phase 1 • Digital MBTA (Travel Planning and Performance Enhancements) Phase 1 • Partnerships for Improved First-Mile/Last-Mile Connections ***Total Programmed Commitment through 2023: $250 million***	• Digital MBTA (Travel Planning and Performance Improvements) Phase 2 • Stop and Station Improvements (Wayfinding, Communications, and Lighting) Phase 2 • Platform Barriers and Doors Pilot Program • Multi-Modal System Access and Parking Improvements	• Comprehensive and Cutting Edge Digital MBTA
Place-Based Service Additions	• Studies: Transit Action Plans for Priority Places (Seaport, Allston, Lynn) • Service Pilot Programs • Green Line Extension to Somerville/Medford • South Coast Rail Phase 1 ***Total Programmed Commitment through 2023: $1.2 billion***	• Place-Based Service Expansions Based on Pilot Programs and Transit Action Plans • Implementation of Bus Network Redesign • Commuter Rail Station Investments • Regional Multi-Modal West Station • Bus Rapid Transit through Everett • South Coast Rail Full Build • Red-Blue Connector	• Full Implementation of Place-Based Transit Expansion Programs • Green Line Extension to Mystic Valley Parkway • Green Line Extension to Hyde Square • Orange Line Extension to Roslindale • Orange Line Spur to Everett • Blue Line Extension to Lynn • Blue Line Connection to Red Line and Beyond

Boston

Boston Metro Area - Highlights

Boston's Transit Action Plans and Place-Based Service Additions

MassDOT and MBTA launched Transit Action Plans to identify and expedite the implementation of transit improvements in targeted communities, such as the city of Lynn and the Seaport and Allston neighborhoods, that can benefit from extra transit capacity. The plans seek to inform short-term improvements and service pilot programs, providing guidance on longer-term projects and investments in such communities recognized as Priority Places.

The objective of Place-Based Service Expansions is to prioritize new services and expansion projects on providing high frequency, reliable service to better achieve the needs of people who live and work in and travel to Priority Places that can support high quality transit.

Place-Based Service Expansions were determined by the Transit Action Plans and related programs, where transit improvements will be slowly introduced. Low-cost interventions will be initially implemented to realize the expected benefits, and higher-cost actions will follow thereafter if the demand for transit service is apparent. In real time, this will begin with bus improvements, with incrementally complex supportive roadway infrastructure to match successful services, making a future network of bus rapid transit service attainable.

Source: Allston Brighton Health Collaborative

Philadelphia

Philadelphia Metro Area

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Plan: Connections – 2050

- Includes a Municipal Implementation Toolbox to guide implementation of goals

Geographic focus: Greater Philadelphia area

Purpose: Seeks to achieve a more equitable, resilient, and sustainable region for Greater Philadelphia

Related Plan: The Philadelphia Transit Plan – 2045

Policy Priorities:

- Achieve four focus areas (see graphic at right)
- Reduce barriers and protect civil rights
- Reduce GHGs
- Strengthen communities' infrastructures or move them away from harm

Philadelphia

Philadelphia Metro Area

Alignment w/ RTP Priorities

- ☑ Equity
- ☑ Climate
- ☑ Safety
- ☑ Mobility

Alignment with RTP Priorities (highlights):

Equity:

- Fosters racially and socioeconomically integrated neighborhoods.
- Advance environmental justice for everyone in the region.
- Implement fare-capping structure like Portland region's (Philadelphia Transit Plan).

Safety:

- Sets Vision Zero goal of zero fatalities and serious injuries by 2050.
- Strengthens transportation network security and cybersecurity.

Climate:

- Protects one million acres of open space by 2040.
- Attains net-zero GHG emissions by 2050 and prepares communities for climate change impacts.

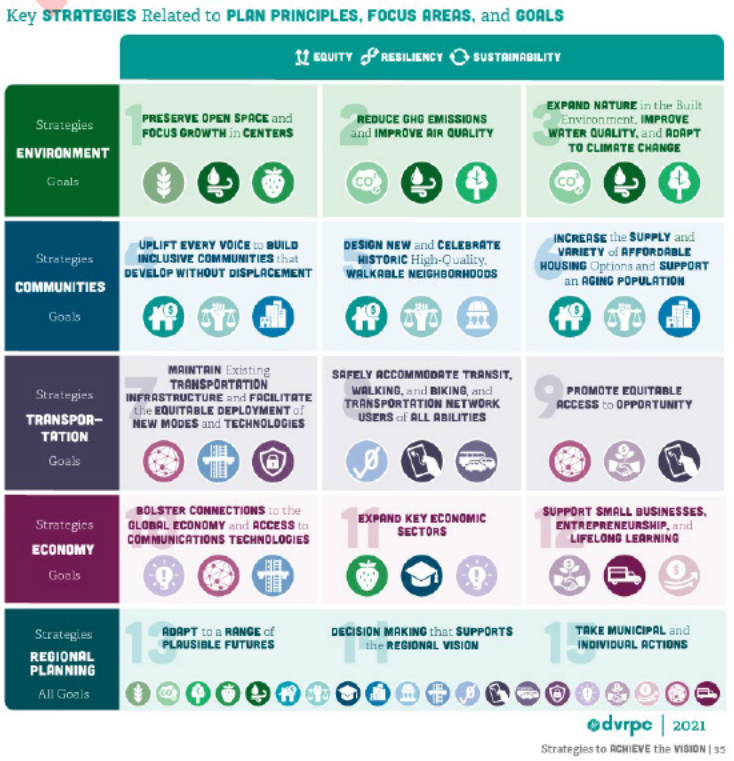
Mobility:

- Prioritizes state of good repair explicitly, including comprehensive ADA accessibility.
- Directly links transit mobility and reliability with reducing congestion and VMT.

Philadelphia

Philadelphia Metro Area - Highlights

- Philadelphia – 2050 Long Range Plan
  - US 1 BRT; South Jersey BRT; bus priority corridors; fixed-guideway shuttle service; zero-emission fleet infrastructure procurement
  - High-speed rail, heavy rail, light rail, and street -car service expansions and improvements



Peer Relevance to Region

Peer Region	Alignment w/ RTP Desired Outcomes			
	Equity	Safety	Climate	Mobility
Seattle	✓	✓	✓	✓
San Francisco	✓	✓	✓	✓
Los Angeles	✓	✓	✓	✓
Twin Cities	✓	✓	✓	✓
Austin	✓	✓	✓	✓
Boston	✓	✓	✓	✓
Philadelphia	✓	✓	✓	✓

Additional Focused Review

(In Progress)

- How do peer HCT and ETC definitions align with our region?
- For a selection of peers (e.g., San Francisco, Seattle, Boston), did equity and/or climate policy shifts change direction from previous plan, and if so, in what way?

San Francisco

City and County of San Francisco and/or Bay Area Region

HCT Definition/Modes: Regional Rail (BART, Caltrain, Capitol Corridor), Light Rail (Muni Metro), BRT (Van Ness BRT, AC Transit Tempo)

ETC Definition/Modes: Rapid Bus (Muni Rapid) limited stop service; Muni Forward program includes smaller-scale bus and light rail speed & reliability projects citywide

Equity Policy Shift: Pandemic refocused priorities on serving essential trips citywide

Climate Policy Shift: Prioritization of transit to help address climate change; expansion of programs and initiatives to reduce emissions

Shift in priorities: Mix of major capital projects and lower cost citywide bus/rail reliability investments to maximize limited funding resources

Seattle

Central Puget Sound Region / King County

HCT Definition/Modes: Commuter Rail (Sounder), Light Rail (Link), BRT (Stride), Arterial BRT (RapidRide)

ETC Definition/Modes: Ranges from RapidRide arterial BRT (no specific exclusive right-of-way requirement) to coordinating capital improvements on the frequent service network

Equity Policy Shift: Change in future stop locations from 80% in Seattle to 60% to allow City to buy-up service for routes serving areas to the south, where residents had been displaced

Climate Policy Shift: GHG reductions modeled by land use, mode choice, pricing, or decarbonization technology, with respective future targets and capital/infrastructure goals

Shift in priorities: Bus service expansions, inter- and intra-regional rail infrastructure, regional high-capacity transit

Boston

Boston Metro Area

HCT Definition/Modes: Commuter Rail (Purple Line Commuter Rail), Light and Heavy Rail (Blue, Green, Orange, and Red Lines), BRT (Silver Line) - additional corridors prioritized in Bus 2040 vision

ETC Definition/Modes: Bus network improvements, priority treatments, stop accessibility, and service enhancements and expansions, along designated corridors

Equity Policy Shift: Means-based fare for low-income transit riders, with legislative support for operating funds

Climate Policy Shift: Induced demand and VMT analyses integrated into MEPA

Shift in priorities: Higher cost investments in capital for rail, and lower cost investments in capital, accessibility, and reliability for bus

Philadelphia

Philadelphia Metro Area

HCT Definition/Modes: Commuter Trolley, BRT, People Mover, Frequent Regional Rail, Heavy Rail (Subways/Elevated Lines)

ETC Definition/Modes: Quantitative metrics include riders per mile, low-income riders per mile, service hours per mile, average speed, and coefficient of variance of average speed, among qualitative metrics

Equity Policy Shift: Universal design and user experience, such as implementation of full ADA access

Climate Policy Shift: Procurement of battery-electric buses and implementation of associated charging infrastructure

Shift in priorities: Specific focus on implementing high capacity transit and realizing its transit system benefits

oregonmetro.gov

Additional Peer Investigation

This section provides tables with additional informational on the peer regions, which has also been incorporated into the presentation slides included above.

Examples of HCT or ETC-Related Policies

The table below provides examples of HCT or ETC-Related Policies or Mode Definitions in the Portland Region.

Figure A-2 Examples of Local Jurisdictions with HCT or ETC-Related Policies or Definitions

Jurisdictions	HCT or ETC Related Policies	HCT Definition and/or Modes	ETC Definition
City of Portland	ETC: See City of Portland Enhanced Transit Corridors Plan	N/A	▪ Increased capacity, reliability and transit travel speed ▪ Moderate capital and operational investments ▪ Context sensitive ▪ Deployed relatively quickly ▪ Can include buses and streetcar
City of Hillsboro	POLICY T 2.6 High-Capacity Transit. Coordinate with local and regional partners to expand high-capacity transit service where consistent with the City's needs and interests, to enhance mobility options, increase overall transit use, and better connect local and regional employment, commercial, and residential areas.	Not defined specifically	▪ Not defined specifically

Jurisdictions	HCT or ETC Related Policies	HCT Definition and/or Modes	ETC Definition
CTRAN		HCT Modes: ▪ BRT-Lite (bus rapid transit in mixed traffic) ▪ BRT-Hybrid: BRT full concepts, but could maintain the ability to save significant bus travel time ▪ BRT-Full (bus rapid transit in exclusive guideway) ▪ Streetcar ▪ Light Rail ▪ Commuter Rail	None, but City of Vancouver TSP will include Enhanced Transit Corridors.

The table below provides examples of HCT or ETC-Related Policies or Mode Definitions for Peer Regions.

Figure A-3 Peer Region Policy Examples and HCT and ETC Definitions

Peer Region	HCT or ETC Related Policies	HCT Definition and/or Modes	ETC Definition
Seattle Region (Puget Sound Regional Council, Sound Transit, and King County Metro)		BRT: ▪ Bus service that operates as part of the region's high-capacity transit system, with frequent service most of the day; articulated buses; stops at half-mile intervals; operation in improved roadways, bus lanes, or segregated right of way; shelters with real-time arrival signs; and offboard fare payment. ▪ Includes RapidRide Arterial BRT and Stride BRT (two highway corridor lines opening starting in 2026)	No specific definition, but frequent service definition includes: ▪ Coordinate service, capital, and customer information investments. Develop an investment framework to align capital improvements with service growth and needs as frequent transit expands. Frequent routes and stops will be easy for customers to identify, and information will be consistent and accessible at the stop, online, and other avenues. ▪ Work with city partners to invest in capital improvements and ensure transit-supportive policies. Prioritize transit over other modes, construct features that improve speed, reliability, and access to transit, and address

Peer Region	HCT or ETC Related Policies	HCT Definition and/or Modes	ETC Definition
			existing needs and gaps. The level of investments will vary depending on the need and right-of-way conditions. Metro will work with cities to adopt transit-supportive land use policies, such as appropriate zoning, reduced parking requirements, and affordable housing incentives, along corridors with frequent service.
San Francisco Bay Area		▪ Regional Rail (BART, Caltrain, Capitol Corridor), Light Rail (Muni Metro), BRT (Van Ness BRT, AC Transit Tempo)	▪ Rapid Bus (Muni Rapid) limited stop service; Muni Forward program includes smaller-scale bus and light rail speed & reliability projects citywide
Boston	MetroCommon 2050 Strategy 2: Reimagine roadway corridors that connect into downtown Boston to encourage higher-occupancy modes to discourage single-occupancy vehicle travel. Action 2.1: The Legislature should require MassDOT to implement a congestion pricing pilot and use the revenue to expand complementary transit services. Action 2.2: MassDOT should incentivize cities and towns to dedicate more roadway space exclusively for buses and cyclists through competitive grant programs funded in the state's Capital Investment Plan. Action 2.3: Update Massachusetts Environmental Policy Act (MEPA) regulations to include an analysis of induced demand and vehicle miles traveled (VMT) generated by new roadway capacity expansion projects.	HCT Modes, with specific lines from MBTA Focus40 Plan ▪ BRT: Silver Line, with additional bus to BRT conversions – faster, more convenient, more comfortable service through higher-capacity vehicles, higher frequencies, exclusive bus lanes, transit signal priority, amenity-rich stations with level all-door boarding and station spacing up to a half-mile apart. ▪ LRT/Heavy Rail: Blue, Green, Orange, and Red Lines ▪ Commuter Rail: Purple Line Commuter Rail	Bus Corridors: ▪ Bus priority treatments in high-demand, high-delay corridors ▪ New buses for new routes and higher capacity for existing services ▪ Expansion of the proportion of the available per-day fleet. Place-Based Transit and Service Expansion Plans and Programs (overlapping with HCT modes)
Philadelphia	Connections 2050 GOAL: Maintain a safe, multimodal transportation system that serves	HCT Modes, specifically called out in Philly 2045 Transit Plan High Capacity Transit section	Bus corridors ranked based on: 1. Quantitative Metrics

Peer Region	HCT or ETC Related Policies	HCT Definition and/or Modes	ETC Definition
	everyone. Notable sub-goal: Increase MOBILITY AND RELIABILITY, while reducing congestion and VMT. Philly Transit Plan Policy 3: Frequent and connected service The City of Philadelphia has identified expanded access to frequent service, particularly frequent weekend bus service, as critical to achieve the vision and goals of this plan.	▪ Trolley: faster, safer, more reliable service with larger vehicles, better ADA accessibility, updated signals, transit priority treatments ▪ BRT (Lite, Hybrid, and Full) ▪ People Mover: To and from airport ▪ Frequent regional rail: planned for two-car trains every 15 minutes, carrying 856 passengers per hour, with at-level boarding for high-level ADA accessibility ▪ Subways/elevated lines/heavy rail	▪ Riders per Mile ▪ Low Income Riders per Mile ▪ Service Hours per Mile ▪ Average Speed ▪ Coefficient of Variance of Average Speed 2. Qualitative Metrics ▪ Ability to leverage other investments ▪ Geographic equity ▪ Connections to high capacity transit stations (Market-Frankford Line and Broad Street Line stations), and propensity for corridor to remain or become more important through Comprehensive Bus Network Redesigns ▪ Ability for near-term collaboration with another agency's capital project
Minneapolis	Transportation Policy Plan GOAL: Access to destinations. A reliable, affordable, and efficient multimodal transportation system supports the prosperity of people and businesses by connecting them to destinations throughout the region and beyond.	HCT Modes ▪ Commuter rail: wider stop spacing with fewer stops, longer travel distances, and faster travel time, in comparison to LRT ▪ LRT: fast, reliable, and frequent fixed-guideway service ▪ BRT (Lite, Hybrid, and Full), including Arterial BRT: faster trip, more frequent and convenient service, signal priority, and specialized train-like vehicles, in comparison to other bus services ▪ Commuter bus: Usually similar to commuter rail but with lower capital costs and carrying capacity	ETC elements include: ▪ Context-sensitive design ▪ Targeted investments ▪ Technological advancement areas ▪ VMT reduction areas ▪ Congested areas ▪ Areas with mix of land uses Examples include: Riverview Corridor, Rush Line Corridor, West Broadway Transit Corridor, Snelling Ave, and Penn Ave

Peer Region	HCT or ETC Related Policies	HCT Definition and/or Modes	ETC Definition
		▪ Express bus: Limited-stop service between downtown and suburban park-and-rides	

Examples of Equity and/or Climate-Related Policies, Criteria, or Outcomes

Policy Highlights from Peer Regions

Most of the peer agencies have policies/strategies to reduce emissions from transit vehicles. Several of the peer regions have specific policies to integrate climate change into their policies in other dimensions, either explicitly or implicitly. Three with the strongest climate-related policies are listed below along with selections from policy language:

King County Metro integrates climate and equity throughout their long-range plan, Metro Connects.

- Metro will strive to support and strengthen the communities it serves with transit. It recognizes the importance of integrating land use and transit service to advance equity and address climate change. Evidence shows that it is the combination of increased transit service, increased land use density, and equitable pricing of vehicle usage together that drives down car travel, no one strategy alone will get there.[21]
- Advance equity and address climate change by providing additional service in areas with unmet need[11] and making transit a more competitive option to driving alone.
  - [11] Per the adopted Mobility Framework, unmet need is defined as areas with high-density, a high proportion of priority populations, and limited midday and evening service.

Plan Bay Area also integrates climate and equity, focusing strategies on mode shift from employers through trip reduction and TDM, while noting synergies with other strategies including transit that are required to enable these changes.

- Bold strategies that go beyond prior regional planning efforts to reduce climate emissions by higher margins and advance equity at the same time can demonstrate that climate and equity goals can go hand-in-hand.
- The plan seeks to mitigate emissions and reduce future climate impacts at the employer level by expanding commute trip reduction programs at major employers. On an individual level, the plan encourages Bay Area residents to drive less through transportation demand management initiatives. When people do choose to drive, Plan Bay Area 2050's strategy to expand clean vehicle initiatives could help them purchase and power their cars with the most environmentally friendly options.

- The following environmental strategies work in concert with other strategies described in the housing, transportation and economy chapters of Plan Bay Area 2050 to reduce climate emissions. When implemented together as one package of policies and investments, the 35 plan strategies reduce GHG emissions by focusing housing and commercial construction in walkable, transit-accessible places; investing in transit and active transportation; and shifting the location of jobs to encourage shorter commutes.

Boston has strong policy language related to transit. It recognizes transit's role more implicitly compared to the Seattle example in particular, but the language emphasizes the role of land use policies and development.

- The Metro Boston region is highly energy efficient and has reduced its greenhouse gas (GHG) emissions to net zero. All land travel in the region is by carbon-free modes including walking, biking, electrified public transit, and electrified passenger vehicles.

Local land use policies and new development support increased mobility by encouraging concentrated growth around transit and the services people need.

Examples of Policy Shifts and Outcomes and Evaluation Criteria or Performance Measures

The table below provides examples of peer region equity and climate policy shifts and outcomes.

Figure A-4 Examples of Peer Region Equity and Climate Policy Shifts and Outcomes

Peer	Equity Policy Shift?	Climate Policy Shift?
Seattle Region (Puget Sound Regional Council, Sound Transit, and King County Metro)	▪ Change in policy to look beyond ridership to who is served (previously 80% of stops on a route needed to be in Seattle in order for the City to buy-up service, but didn't cover majority of ridership – changed to 60% threshold to allow Seattle to invest.)	▪ Procurement of zero-emission vehicles and infrastructure. ▪ Prioritization of mode share away from SOV travel. ▪ GHG reduction targets for 2030 and 2050, respectively. ▪ GHG reductions model disaggregated by land use, transportation choice, pricing, and technology and decarbonization categories
San Francisco Region	▪ Equity Priority Communities, where people are disproportionately underserved, are the focus of how and where the benefits of transit investments are realized.	▪ Prioritization of transit to mitigate climate change effects by increasing mode share and decreasing emissions. ▪ Expansion of commute SOV trip reduction program, clean vehicle initiatives, and transportation demand management initiatives.

Boston Region	▪ Means-based fare for low-income households, aligning with peer regions such as MTC (San Francisco), MTA (New York), and Metro (D.C.), reducing up to 100% of transit trip costs for people making up to 200% of the federal poverty level.	▪ Reductions in SOV travel and VMT by increasing TODs, walkable centers, and related areas. ▪ Reductions in emissions by decarbonizing the building and transportation sectors.

The table below provides examples of peer region equity and climate-related evaluation criteria or performance measures.

Figure A-5 Equity or Climate Focused Evaluation Criteria or Performance Measure Definitions

Peer	Equity	Safety	Climate	Mobility (including Access)
Seattle (Region)	▪ People of color and people with low incomes will experience less delay and shorter travel times than the regional average ▪ Areas with higher concentrations of people of color and people with low incomes in 2050 will have higher rates of access to HCT (82% and 79% respectively) compared to the regional average		▪ Greenhouse gases will be reduced by 50% below 1990 levels by 2030 and by over 83% from 1990 levels by 2050	▪ Households on average will experience a 15% reduction in delay from current conditions ▪ Average household VMT are reduced by 23% ▪ 59% of households will be within a half-mile of HCT ▪ Percentage of existing population near high-frequency transit service
San Francisco (City)	For people with low-incomes and people in Equity Priority Communities: ▪ Number of people who live within a ¼-mile of very frequent and frequent service bus routes, and within ½-mile of rail investments. ▪ Number of total jobs reachable by transit in 45 minutes of less (30 minutes also evaluated, and 75 minutes for regional transit trips).	▪ Share of project corridor overlapping with high-injury network (informational only)	▪ Change in share of residents who are live within ½-mile of high-capacity transit with a project compared to the baseline (screening measure) ▪ VMT and GhG reduced, and change in transit mode share	▪ Daily transit trips using a project ▪ Reduction in crowding ▪ Change in travel time ▪ Change in access to jobs and activity centers

Peer	Equity	Safety	Climate	Mobility (including Access)
	Utilized City travel demand model to analyze metrics for all trips, trips by low-income persons (200% of poverty), and equity priority populations ▪ Change in access to jobs within 45 minutes ▪ Change in access to activity centers and services within 45 minutes ▪ Change in ridership ▪ Cost-effectiveness (change in low-income or equity priority population ridership divided by capital cost) ▪ Change in travel time			
Minneapolis	▪ Miles traveled by biking and walking ▪ VMT per person	▪ Condition of transit infrastructure (state of good repair)	▪ Air emissions from on-road vehicles	▪ Percentage of existing population near high-frequency transit service ▪ Access to jobs ▪ Percentage of projected population and job growth near high-frequency transit service ▪ Non-SOV mode share percentages ▪ Peak hour excessive delay[1]

[1] Peak delay: Travel time at 20 MPH or 60% of the posted speed limit travel time, whichever is greater, measured in 15-minute intervals during peak hours. https://rosap.ntl.bts.gov/view/dot/53718

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DRAFT TECHNICAL MEMORANDUM

DATE:	August 23, 2022; Revised August 31, 2022; Revised September 7, 2022; Revised October 10, 2022
TO:	Ally Holmqvist, Metro
FROM:	Eddie Montejo, Parametrix Ryan Farncomb, Parametrix Kelly Betteridge, Parametrix Sam Erickson, Parametrix Oren Eshel, Nelson/Nygaard
SUBJECT:	Revised Corridor Evaluation Criteria
CC:	Project file
PROJECT NAME:	Metro High Capacity Transit (HCT) Strategy Update

1 INTRODUCTION

The High Capacity Transit (HCT) System Strategy Update (HCT Update) project is reviewing and updating the region's HCT network vision. The original HCT Plan was developed in 2009 and has been updated several times since then, with the most recent review of HCT corridors occurring in 2018 as part of the Regional Transit Strategy. This memorandum documents the existing regional HCT corridor vision and proposes potential additional corridors for inclusion. The project team proposes evaluation criteria for screening candidate HCT corridors for inclusion in the regional HCT system vision as well as results of the initial screening.

1.1 Defining High Capacity Transit

For purposes of this project, "high capacity transit (HCT)" refers to the following modes and/or services:

- Bus Rapid Transit (BRT)
- Rapid Streetcar
- Light Rail Transit (LRT)
- Commuter Rail/Heavy Rail

Additionally, the HCT Update encompasses other high capacity or enhanced system elements including:

- Enhanced Transit Corridor (ETC) and "better bus" enhancements that enhance bus speed and reliability
- Frequent Service fixed route bus investments
- LRT operating improvements
- Other existing HCT corridor "state of good repair" investments

2 HCT CORRIDOR NETWORK UPDATE

The region's HCT system vision was established in 2009 in the original HCT System Plan. HCT corridor investments were identified and prioritized based on their readiness to proceed. This framework was updated as part of the 2018 Regional Transit Strategy. The HCT corridor investments identified in 2009 and updated in 2018 form the initial baseline of corridors that are considered as part of the 2023 HCT Strategy Update. The Strategy Update effort will retain corridors previously advanced, but will

- Update the "readiness" evaluation of each (see separate memorandum on readiness evaluation),
- Remove corridors from the Vision that have been constructed or are currently advancing, and
- Consider new corridors for inclusion in the Vision.

The project team then developed a comprehensive "universe" of potential HCT corridors that included the 2009 and 2018 corridors, as well as corridors identified as part of the T2020 regional ballot initiative. Finally, the universe of potential corridors also includes those proposed for future frequent bus service in the 2018 Regional Transit Strategy Vision. Frequent Service corridors operate at service levels of "15 minutes of better" much of the day and experience high transit travel demand. Frequent Service corridors represent natural corridors for considering HCT investments. Figure 1 shows TriMet's current Frequent Service network.

Figure 1. TriMet Frequent Service Network

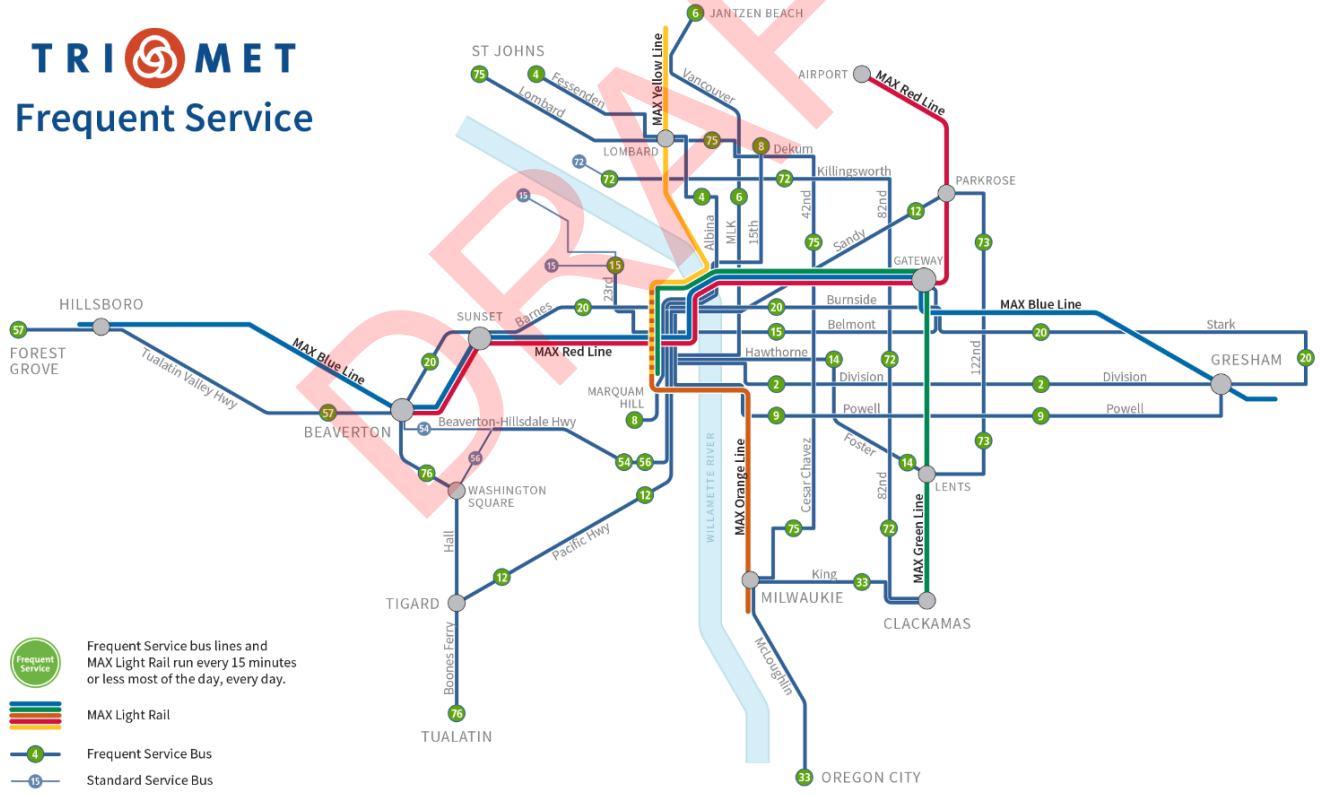
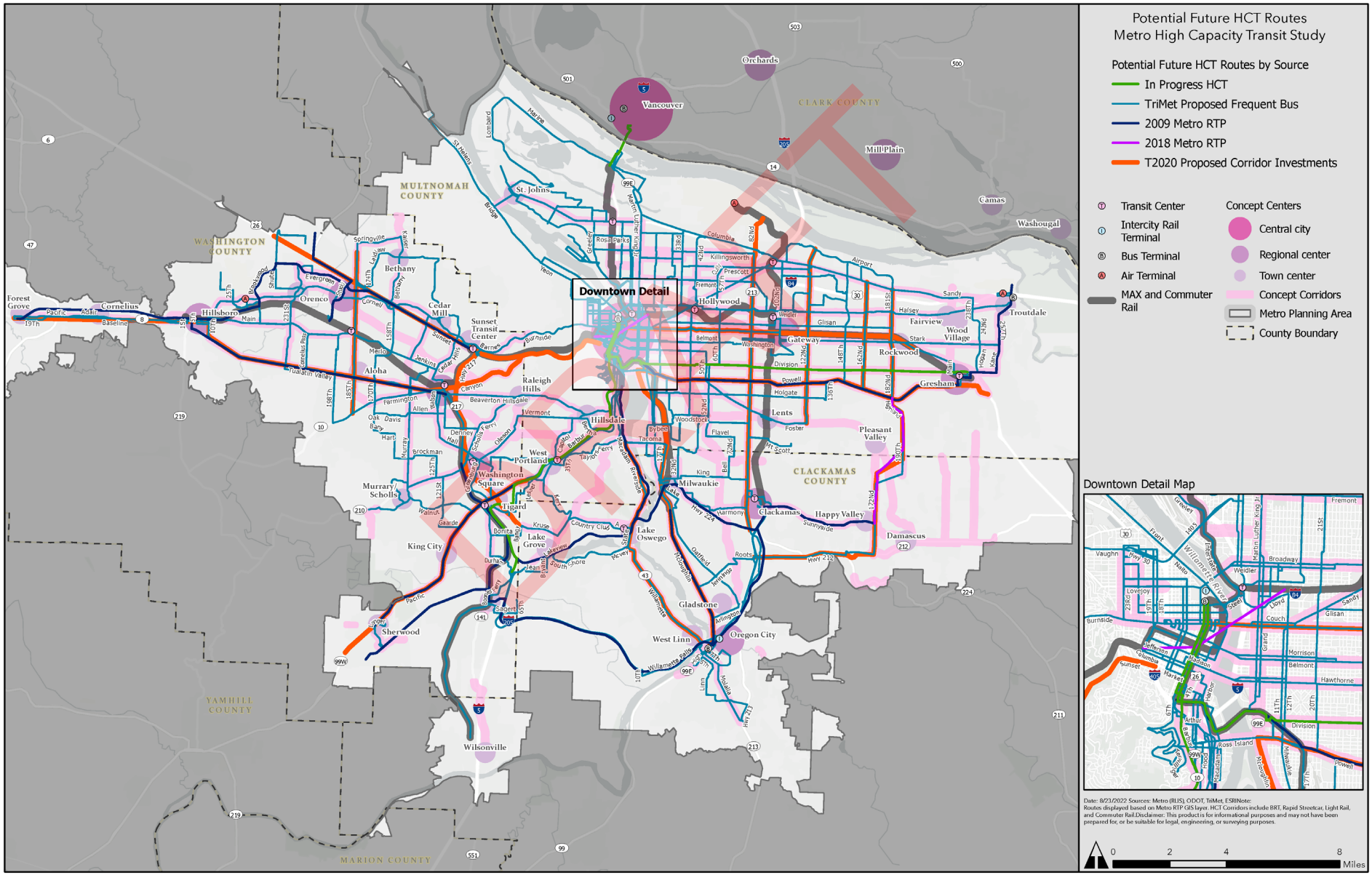


Figure 2 shows all potential HCT candidate corridors in the region. The corridors included in this figure represent the first draft of the HCT network vision that will be evaluated through the process described in this memorandum. In addition to the corridors shown in Figure 2, the project team will apply a standalone "big moves" analysis to identify additional corridors that should be considered for advancement.

Figure 2. HCT Network - "Universe" of Corridors



Date: 8/23/2022 Sources: Metro (RLIS), ODOT, TriMet, ESRINote:
Routes displayed based on Metro RTP GIS layer. HCT Corridors include BRT, Rapid Streetcar, Light Rail, and Commuter Rail.Disclaimer: This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes.

0 2 4 8 Miles

3 APPROACH TO CORRIDOR EVALUATION

3.1 Draft Policy Framework

The corridor evaluation builds upon work completed to date for the Regional Transportation Plan (RTP) 2023 Update, which developed a draft updated policy framework based on a review of existing regional transit network policy as well as peer agency policies to identify gaps and priorities for HCT now and in the future. Building from this work, the corridor screening and evaluation criteria were developed to reflect the updated 2023 RTP policy framework to ensure that the analysis reflects current and future regional priorities and desired outcomes for HCT. Some of the key policy areas and drivers influencing the development of screening and evaluation criteria include focus on:

- **Developing specific policies to address equity and climate.** The screening and evaluation criteria evaluate corridor-level impacts to equity and climate based on the RTP draft policy framework. These equity and climate criteria will be used to prioritize investments in the HCT plan.
- **Connecting regional centers.** As part of the 2040 Metro Growth Concept, current RTP network policy focuses on HCT with a majority or all of the service in exclusive guideway connecting Regional Centers and City Centers. With the additional consideration of corridor-based HCT that includes many of the same elements, but without the majority exclusive guideway, an expansion of the network policy was proposed to connect Regional Town Centers to Regional Centers and the Central City. In that case, the evaluation criteria include a policy screen to ensure HCT investments connect Regional Town Centers to Regional Centers and the Central City.
- **Higher capacities.** The RTP currently defines HCT as carrying more transit riders than local, regional, and frequent transit lines. The screening and evaluation criteria consider a range of ridership and operational factors to identify corridors with the highest potential for needing greater transit capacity.
- **Frequency and reliability.** The draft policy framework is also focused on improving access to the regional network by making local transit more frequent, faster, and more reliable through the Enhanced Transit Concept (ETC). Although Enhanced Transit or "better bus" improvements may not always qualify as corridor-based HCT investments, ETC investments supports complimentary investments to HCT by improving access to regional transit, jobs, services, parks, and other essential destinations in the Metro area.

3.2 Two-Phase Corridor Evaluation Process

The HCT Plan update will replicate the two-phase analysis process done in the 2018 HCT Plan. Level 1 refers to a corridor screening process, which applies criteria to sort and organize the initial universe of potential HCT corridors. As a first step, the screening process is intended to refine the universe of potential HCT corridors by identifying the lowest-performing corridors. The remaining corridors will then be evaluated using the Level 2 criteria and readiness evaluation. The Level 2 criteria and readiness evaluation will prioritize corridors into "tiers" based on the technical analysis and corridor readiness criteria. The following subsections summarize the draft Level 1 criteria; Level 2 screening and readiness criteria are documented separately.

3.2.1 Level 1 Corridor Screening Criteria

The Level 1 Corridor Screening Criteria is intended as a broad analysis step for sorting and screening out potential HCT corridors based on key evaluation criteria. The Level 1 analysis intentionally uses few criteria to home in on the most important characteristics for successful HCT corridors according to the draft policy framework. The Level

1 Screening also includes a "Policy Screen" that refers to qualitative determinations about where to invest in future HCT based on feedback from the Project Management team and Working Group. For example, the Policy Screen pulls out corridors that are already substantially underway (i.e., advanced design or environmental work underway) such as the I-5 Interstate Bridge Replacement Program and Division Transit Project. Table 1 below summarizes the proposed Level 1 Screening Criteria.

Table 1. HCT Level 1 Corridor Screening Criteria

Criteria	Approach to measurement	Data Source/Notes	Methodology
Existing Ridership	• Average Daily Boardings by Route (2019)[1]	• TriMet ridership data • Meets HCT Plan (2018) Core Criteria • Only applied to existing routes	• Assess TriMet Average Daily Boardings by TriMet Route IDs • Aggregate route-level boardings and classify using 20th percentile breaks
Future Ridership	• 2040 Person Productions + Attractions of TAZs within ½ mile of corridors • Average 2040 Person Productions + Attractions of TAZs within ½ mile of corridors[2]	• Metro Travel Model • Meets HCT Plan (2018) Core Criteria • Applied to existing and proposed routes • Person trips account for all modes • Productions + Attractions is a proxy measure for total activity	• Select TAZ boundaries within ½ mile of corridors as baseline geography for calculation • Sum existing 2040 Person Productions and 2040 Person Attractions for selected TAZs as a proxy for total future activity for corridors; • Calcualate the average of the sum of 2040 Person Productions and Attraction by TAZ to account for shorter corridors • Aggregate route-level future productions and attractings using 20th percentile breaks
Equity	• Metro Equity Focus Areas (EFAs) – EFAs within ½ mile of corridors	• Metro RTP Update (2022) • Meets HCT Plan (2018) Core Criteria • Metro Equity Focus Areas are measured at the Census Tract Level	• Select Census Tracts within ½ mile of potential HCT corridors • Identify Metro Equity Focus Areas (EFAs) within ½ mile of potential HCT corridors • Aggregate route-level EFAs based on 20th percentiles

[1] The Level 1 Corridor Screen will screen existing routes and planned/proposed routes separately to account for the fact that planned/proposed routes do not yet have ridership. Existing average weekday corridor ridership (2019) was only factored into the scoring for existing routes.

[2] Summing the *total* productions and attraction of all TAZs within a ½ mile of corridors accounts for longer corridors with higher potential demand for trips along the length of the route. Using the *average* of the sum of productions and attractions by TAZ within a ½ mile of corridors accounts for shorter corridors that may have concentrated activity but lower total person trips.

Criteria	Approach to measurement	Data Source/Notes	Methodology
Policy Screen (Qualitative)	• *Supports Metro Regional Concept:* Connects at least one (1) Town Center to a Regional Center/Central City. • *Remove Duplicity:* Remove corridors where HCT improvements are already planned such as Interstate Bridge Replacement Program and Southwest Corridor. • Remove C-TRAN routes, tram, and existing streetcar. Remove Division Transit since revenue service will start soon.	• Policy screens are conditional checks to qualify potential HCT routes from the starting universe of corridors.	• Qualitative assessment. Corridors are not scored based on the policy screen, but some candidate corridors will be eliminated based on the application of this criterion.

The “Big Moves" analysis complements the approach for screening candidate HCT corridors (HCT Screening) for inclusion in the regional HCT system vision. The HCT screening process analyzes existing and planned frequent service corridors as well as corridors identified through the original HCT Plan in 2009. However, since the screening is primarily based on corridors aligned with the existing TriMet service network, it may not identify travel “desire lines” where the existing transit network does not provide a convenient connection that people would choose for their trip. Applying another lens allows for assessing additional connections that may not have been identified through the screening process:

- where current and future travel demand are strong and
- where the current transit system does not provide a high quality connection.

This approach is documented in a separate memorandum.

Materials following this page were distributed at the meeting.

Regional High Injury Corridors and Intersections

DRAFT

- Top 1% High Injury Intersections
- Top 5% High Injury Intersections
- High Injury Corridors
- Central city; Regional center; Town center
- Employment/Industrial
- County boundary
- Urban growth boundary
- Metropolitan Planning Area

See inset map

Inset map

0 Mile 1

0 5 10 Miles

Data Resource Center/Metro

2023 REGIONAL TRANSPORTATION PLAN

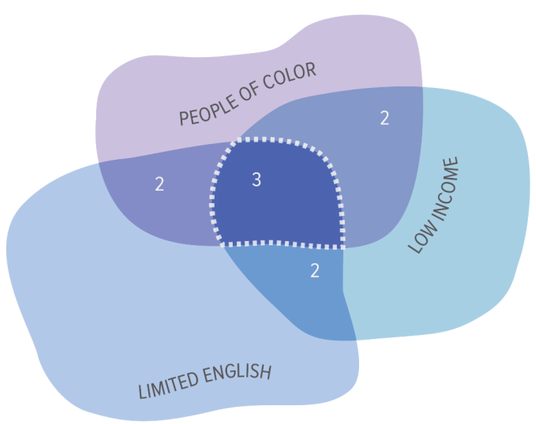
Metro

Equity Focus Areas

DRAFT

Equity Focus Areas are based on Census Tracts that have populations above the regional average and over twice the regional density.

- People of Color Equity Focus Areas
- Limited English Equity Focus Areas
- Low Income Equity Focus Areas



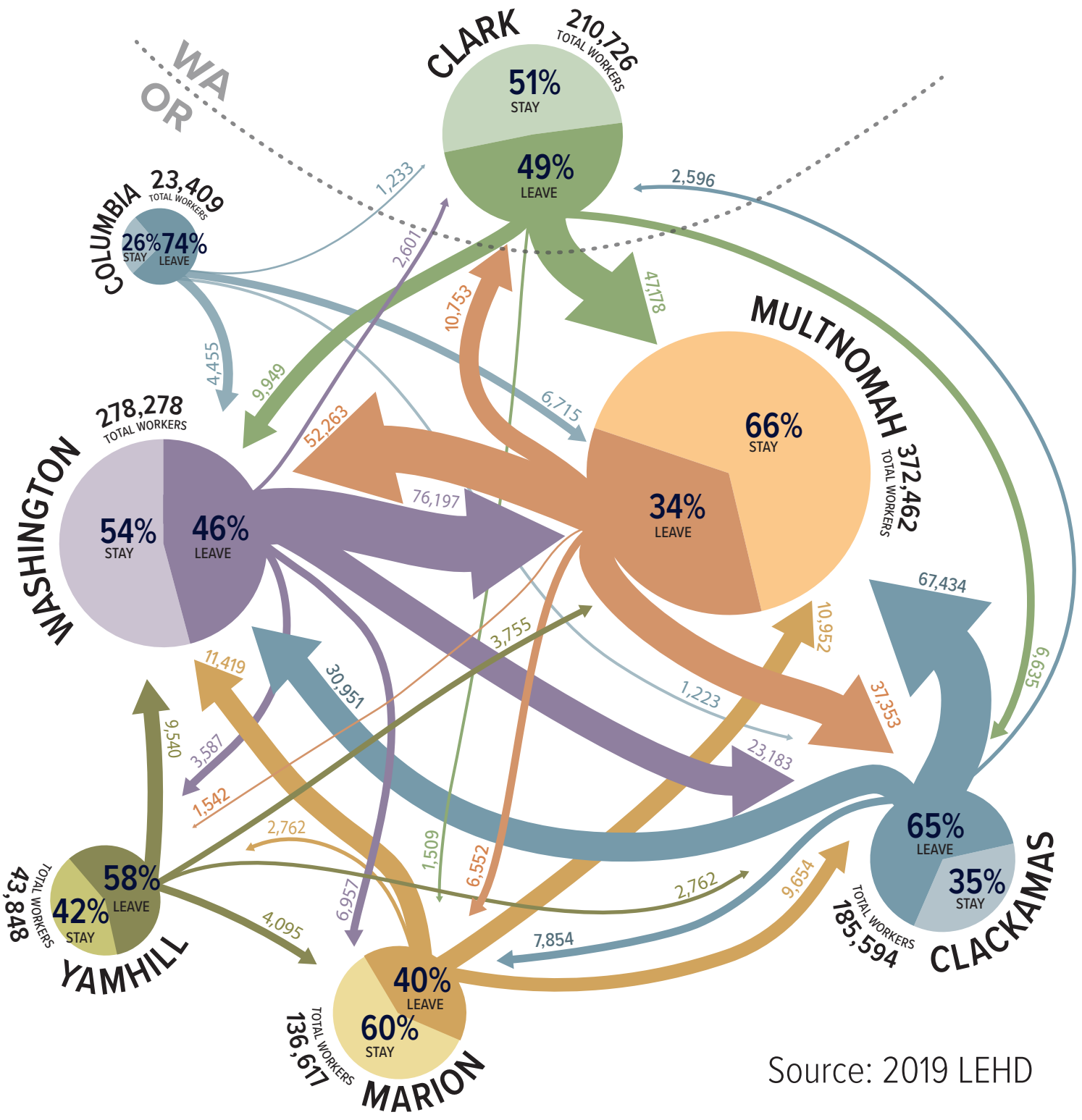
0 5 10 Miles

2023 REGIONAL TRANSPORTATION PLAN

Metro

9/29/2022

2019
COLUMBIA REGION
COMMUTING PATTERNS



Source: 2019 LEHD

Regional Transit Network Gaps

DRAFT

Existing Regional Transit Network
- Regular service
- Frequent Service

Gap in Regional Transit Network (Financially-constrained)
- Regular service
- Frequent service

Gap in Regional Transit Network (Vision)
- Regular Service
- Frequent service
- Equity Focus Area
- Central city; Regional or Town center
- Employment/Industrial
- Urban growth boundary
- Metropolitan Planning Area

See inset map

Inset map

0 Mile 1

0 5 10 Miles

2023 REGIONAL TRANSPORTATION PLAN

Metro

07/08/2022 Draft

Regional Pedestrian Network Gaps

Existing Regional (On-Street) Pedestrian Network
Gap in Regional (On-Street) Pedestrian Network
Existing Regional (Off-Street) Pedestrian Network
Gap in Regional (Off-Street) Pedestrian Network
Urban center
Employment/Industrial area
Urban growth boundary
Metropolitan planning area
County boundary

See inset map

Inset map

0 Mile 1

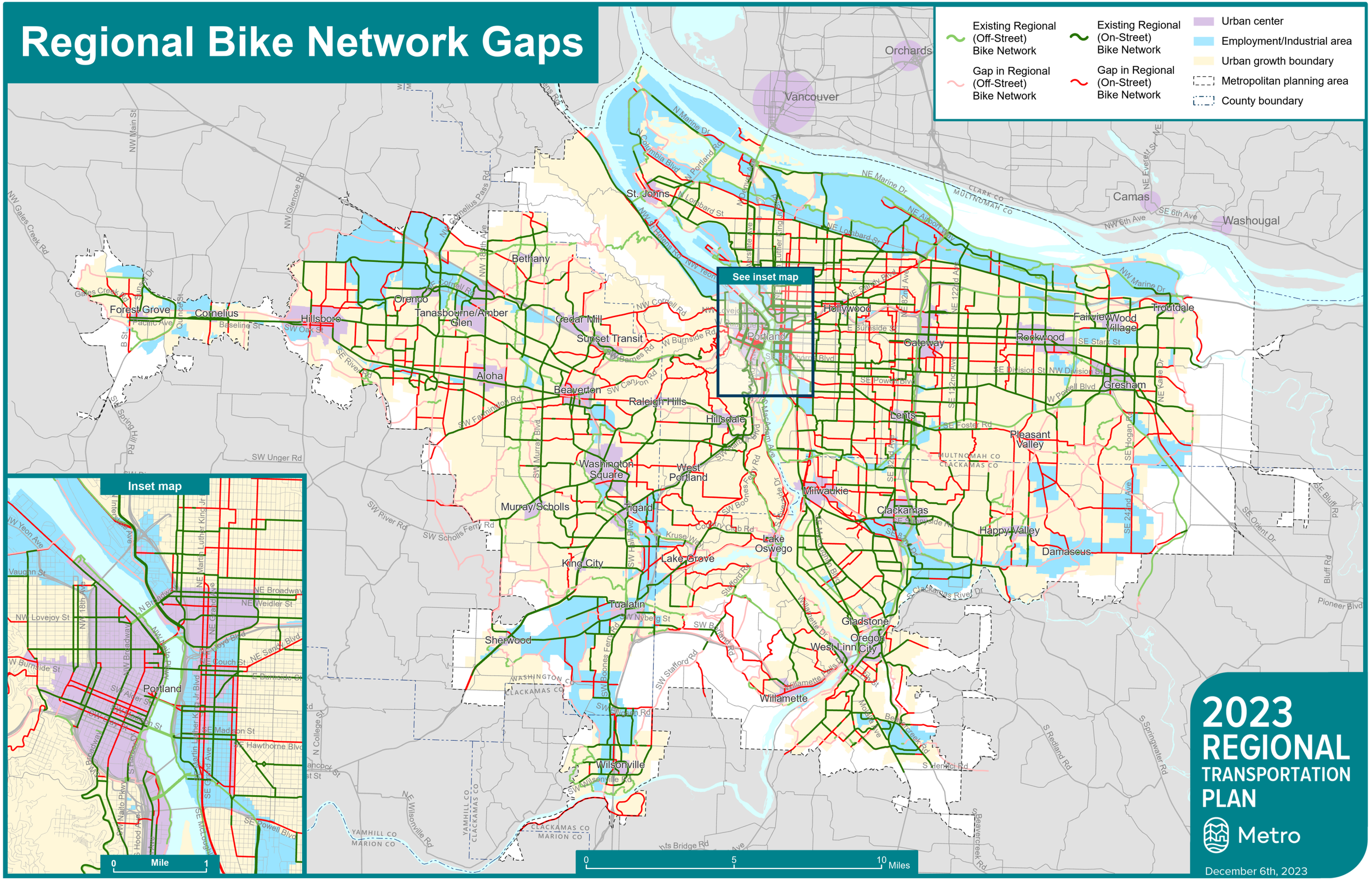
0 5 10 Miles

2023 REGIONAL TRANSPORTATION PLAN

Metro

December 6th, 2023

Regional Bike Network Gaps



2023 REGIONAL TRANSPORTATION PLAN

Metro

December 6th, 2023

Regional Trail Network Gaps

Existing Regional Trail
Gap in Regional Trail
Water Trail
Urban center
Employment/Industrial area
Urban growth boundary
Metropolitan planning area
County boundary

The Regional Trails System Plan was developed by Metro's Parks and Nature Department and adopted by the Metro Council. Not all trails identified in the Regional Trails System Plan are included in the 2023 RTP network maps

See inset map

Inset map

0 Mile 1

0 5 10 Miles

2023 REGIONAL TRANSPORTATION PLAN

Metro

December 6th, 2023

Regional Motor Vehicle Network

DRAFT

- Throughway
- Proposed Throughway
- Major arterial
- Proposed Major arterial
- Minor arterial
- Proposed Minor arterial
- Arterial Outside UGB
- Proposed Arterial Outside UGB
- Employment/Industrial
- Central city; Regional center; Town center
- County boundary
- Urban growth boundary
- Metropolitan Planning Area

See inset map

Inset map

0 Mile 1

0 5 10 Miles

Metro Data Resource Center
oregonmetro.gov

2023 REGIONAL TRANSPORTATION PLAN

Metro

10/10/2022

Vehicle Miles Traveled Per Capita (2020)

DRAFT

Home-based VMT per capita

- Significantly Below Average -- 400 tazs
- Below Average -- 401 tazs
- Average -- 379 tazs
- Above Average -- 333 tazs
- Significantly Above Average -- 268 tazs
- No data
- Metropolitan Planning Area
- Rail transit

Source: Metro Regional Travel Demand Model

0 5 10 Miles

2023 REGIONAL TRANSPORTATION PLAN

Metro

10/17/2022

Transit Frequency and Transit-supportive Communities

DRAFT

Activity Density (home and jobs)
- Over 700 people/acre
- 12.5 people/acre
- 2040 Finacially Constrained Frequent Transit (1,549 miles)
- Equity Focus Area
- Central city; Regional center; Town center
- County boundary
- Urban growth boundary
- Metropolitan Planning Area

Vancouver, Camas, Washougal, St. Johns, Bethany, Forest Grove, Cornelius, Hillsboro, Orenco, Tanasbourne/Amber Glen, Cedar Mill, Sunset Transit, Aloha, Beaverton, Raleigh Hills, Hillsdale, Portland, Hollywood, Troutdale, Fairview/Wood Village, Rockwood, Gateway, Gresham, Lents, Pleasant Valley, Washington Square, West Portland, Murray/Scholls, Tigard, Milwaukie, Clackamas, Happy Valley, Damascus, King City, Lake Grove, Lake Oswego, Tualatin, Sherwood, Gladstone, Oregon City, West Linn, Willamette, Wilsonville

0 5 10 Miles

2023 REGIONAL TRANSPORTATION PLAN

Metro

10/10/2022

2023 Draft RTP Needs Assessment

TPAC/MTAC workshop

October 19, 2022

About the Needs Assessment

Goal: provide a **snapshot of current conditions** within the region and highlight **key transportation challenges and needs**.

Location: **chapter 4** of the RTP.

Timeline: now through the end of 2022.

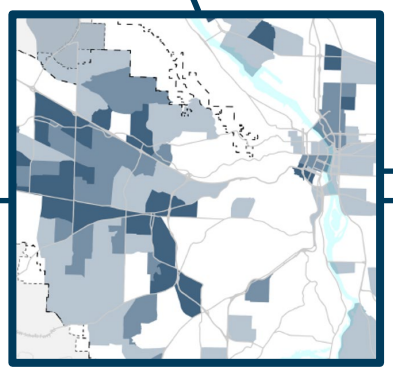
The RTP must "*confirm the transportation plan's validity and consistency with current and forecasted transportation and land use conditions and trends.*" - 23 Code of Federal Regulations §450.324

The RTP process, simplified

Engagement & research

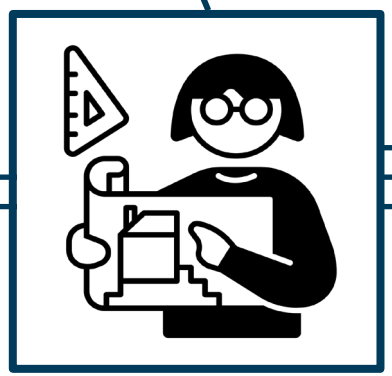
Vision, goals and policies (June-Oct ‘22)

Data & analysis (base year)



Needs assessment (July-Dec ‘22)

Partner agency projects



Project list (Jan-Feb ‘23)

Data & analysis (future)

Performance analysis (Mar-Jun ‘23)

Approach to the Needs Assessment

RTP stakeholders have provided feedback requesting that the RTP…

- **Organize the needs assessment around regional priorities** (Mobility, Safety, Equity, Climate and Vibrant and Prosperous Communities)
- **Highlight needs related to multiple priorities**.
- **Focus on clear and actionable information** (well-understood data, policy-relevant information, base year performance results)
- **Report back on ongoing processes that shape how the region defines and responds to needs** (especially for Mobility, Climate, and Vibrant and Prosperous Communities)

Some themes of today's presentation

- Metro and its agency partners have successfully been making progress toward many goals, and we are also being called upon to do more.
- We want to hear your perspective on regional needs, and we also want to bring community voices and insights from past work into the conversation.
- We want to make sure we're not missing anything, and also maintain a focus on our priorities and timeline.
- There's more in the memo!

Safety: key findings

- An average of 563 people die or are injured each year while traveling in the region.
- The region is not on track to meet its Vision Zero targets.
- Pedestrians experience a disproportionately high number of traffic deaths.
- Traffic fatalities are decreasing among bicyclists.
- Despite progress building out the transportation network in equity focus areas, a majority of serious crashes and bike/ped crashes occur in these areas.

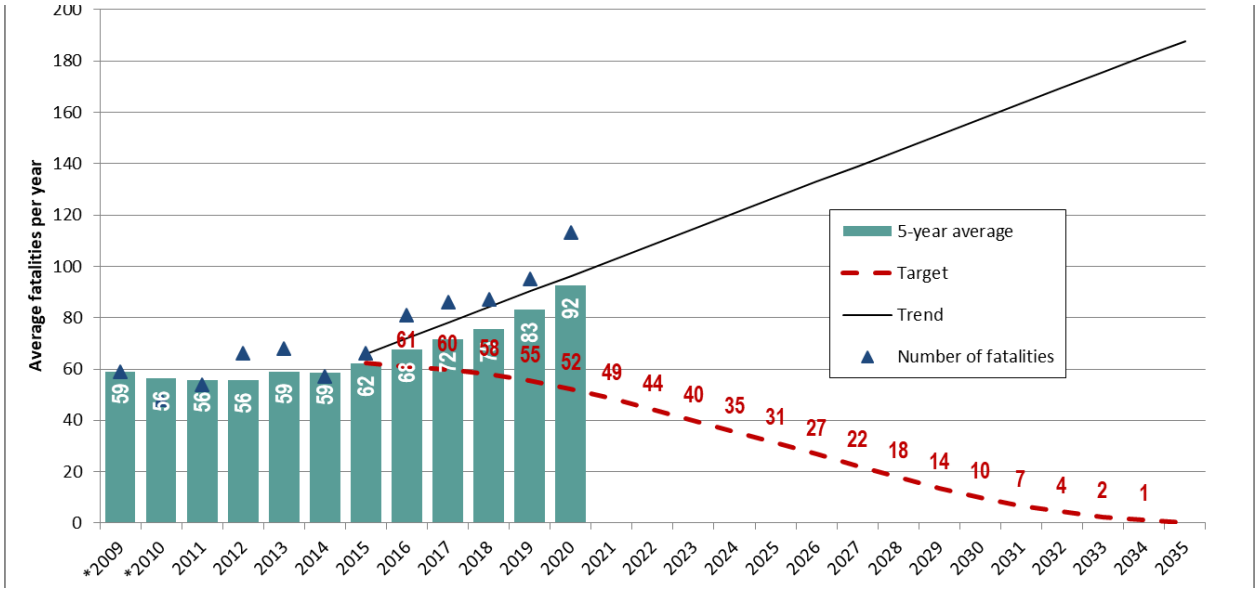
Safety performance measures

Performance Measure	5-year rolling averages 2011-2015 Baseline	2016-2020 Target	2016-2020 Actual
Number of fatalities	62	52	93
Fatalities per 100 million vehicle miles traveled	0.6	0.5	0.9
Number of serious injuries	458	384	512
Serious injuries per 100 million vehicle miles traveled	4.5	3.6	4.8
Number of non-motorized fatalities and serious injuries	113	95	129

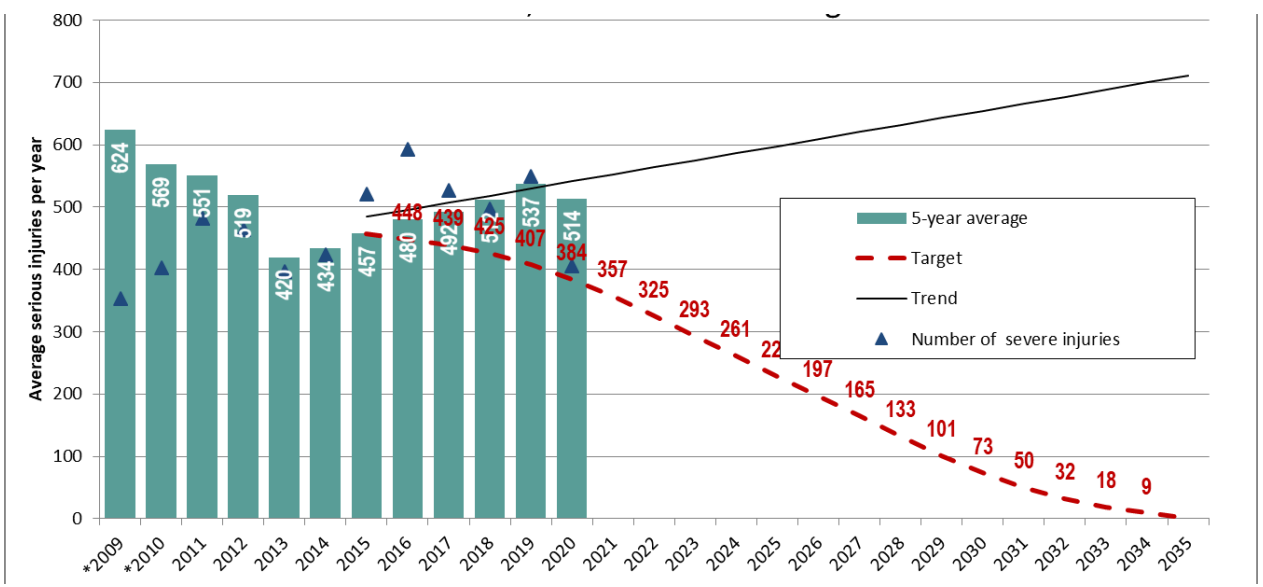
Across all Federal safety performance measures in the RTP, the region is currently not meeting targets, and has gotten less safe since Metro collected baseline data.

Digging deeper: data by crash type

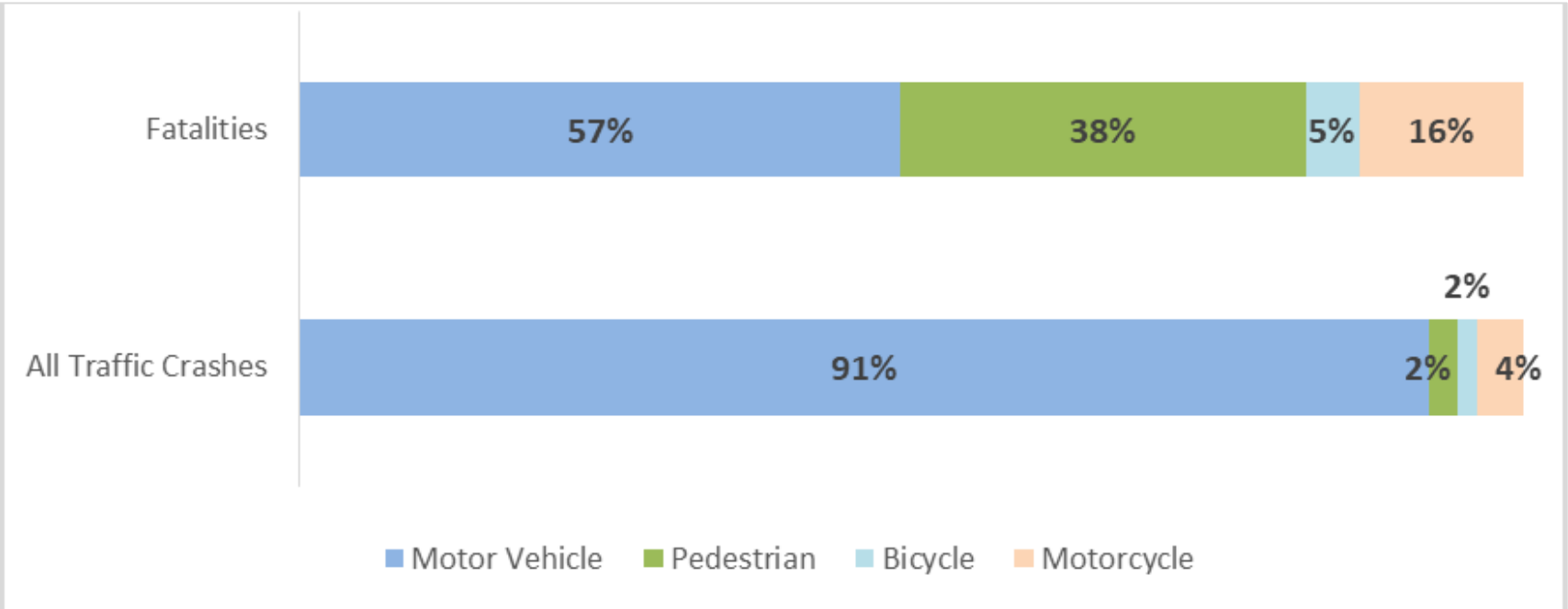
In the past 5 years, there has been a sharp and pronounced increase in **fatal crashes**.



Severe injury crashes are also increasing, though not as dramatically as fatal crashes.

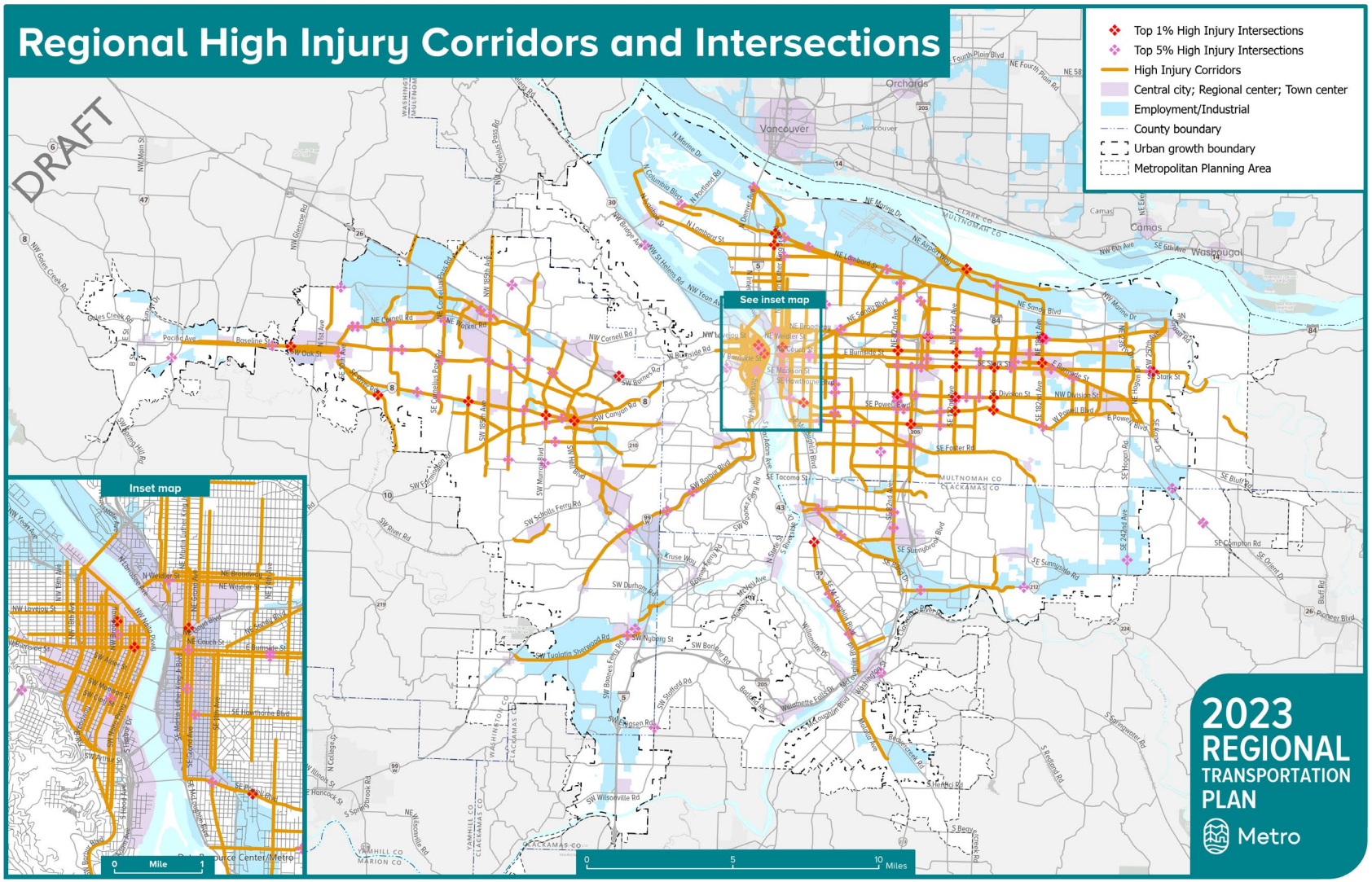


Digging deeper: data by mode



- Pedestrians who are involved in a crash are 26 times more likely to die than non-pedestrians.
- Pedestrian crashes make up 2% of all crashes and 38% of all fatal crashes.
- Bicyclists and motorcyclists who are involved in crashes also face disproportionate risk of death.

Updated High Injury Network

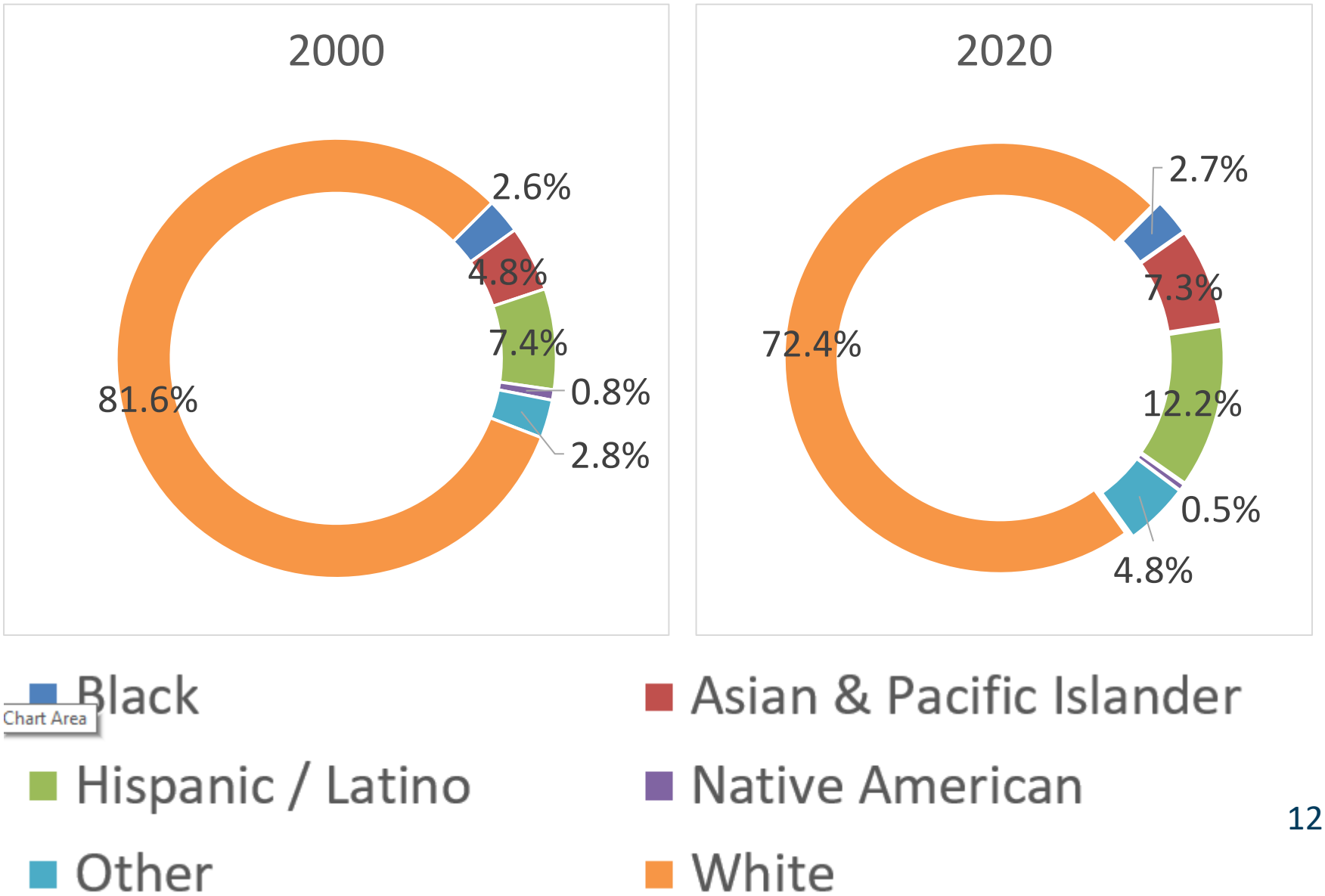


Corridors where 60 percent of serious/bike/ped crashes occur & the 5% of intersections with the highest rates of these crashes.

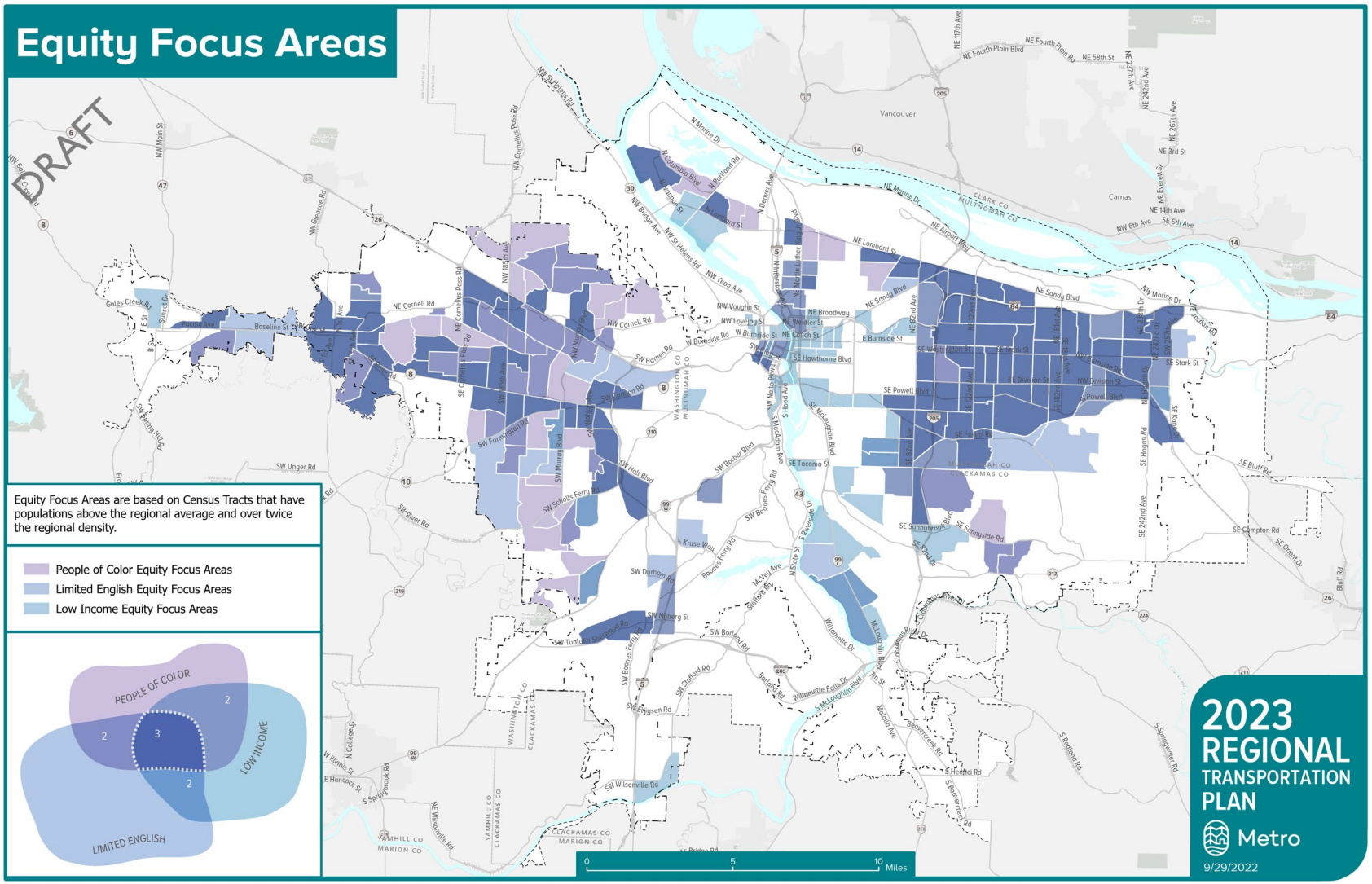
Equity: key findings

- The Portland region continues to grow more racially and ethnically diverse.
- Transportation agencies can advance equity by prioritizing transit and bike/ped investments in Equity Focus Areas (EFAs).
- Bike/ped infrastructure is more complete in EFAs than other communities. However, most serious crashes and bike/ped crashes occur in EFAs.
- A significant share of people of color and people with low incomes rely on transit. The region is focusing transit service on EFAs, but in general transit offers less access to destinations than driving does.

Race and ethnicity, 2000-2020



Updated Equity Focus Areas



EFAs are places with concentrations of people of color, people with low incomes, and people with limited English proficiency.

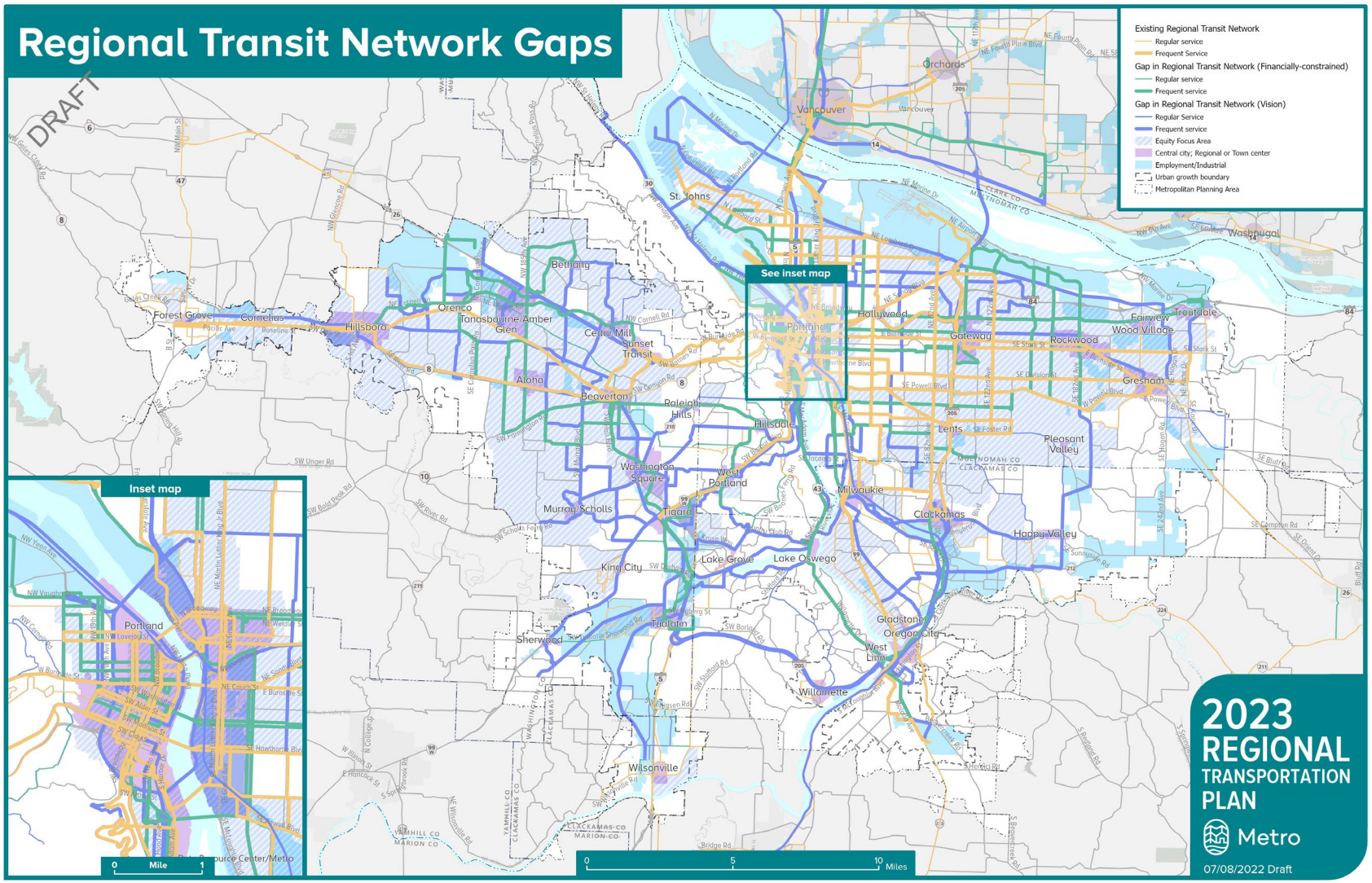
What we've heard from EFA community members

Metro has consistently heard through outreach to people who live and work in EFAs that they need:

- Fast, frequent and reliable transit service for all types of trips (including at off-peak travel times)
- Affordable transit that connects people to the places and things they need to thrive.
- Better conditions for walking and biking, including street lighting, protected crossings and crossing signals, particularly to improve access to transit.
- Connected and separated walking and biking infrastructure.

This feedback guides the RTP's focus on equity needs.

Transit gaps and equity focus areas



This map shows transit gaps (especially gaps in the **constrained frequent transit network**) and Equity Focus Areas.

Equity and access to destinations

	Percent of regional jobs accessible within…	
	… a 30-minute drive	…a 45-minute transit trip
During rush hour		
Average for EFAs	42%	8%
Average for non-EFAs	42%	6%
Average for the region	43%	7%
Outside of rush hour		
Average for EFAs	52%	7%
Average for non-EFAs	50%	5%
Average for the region	50%	6%

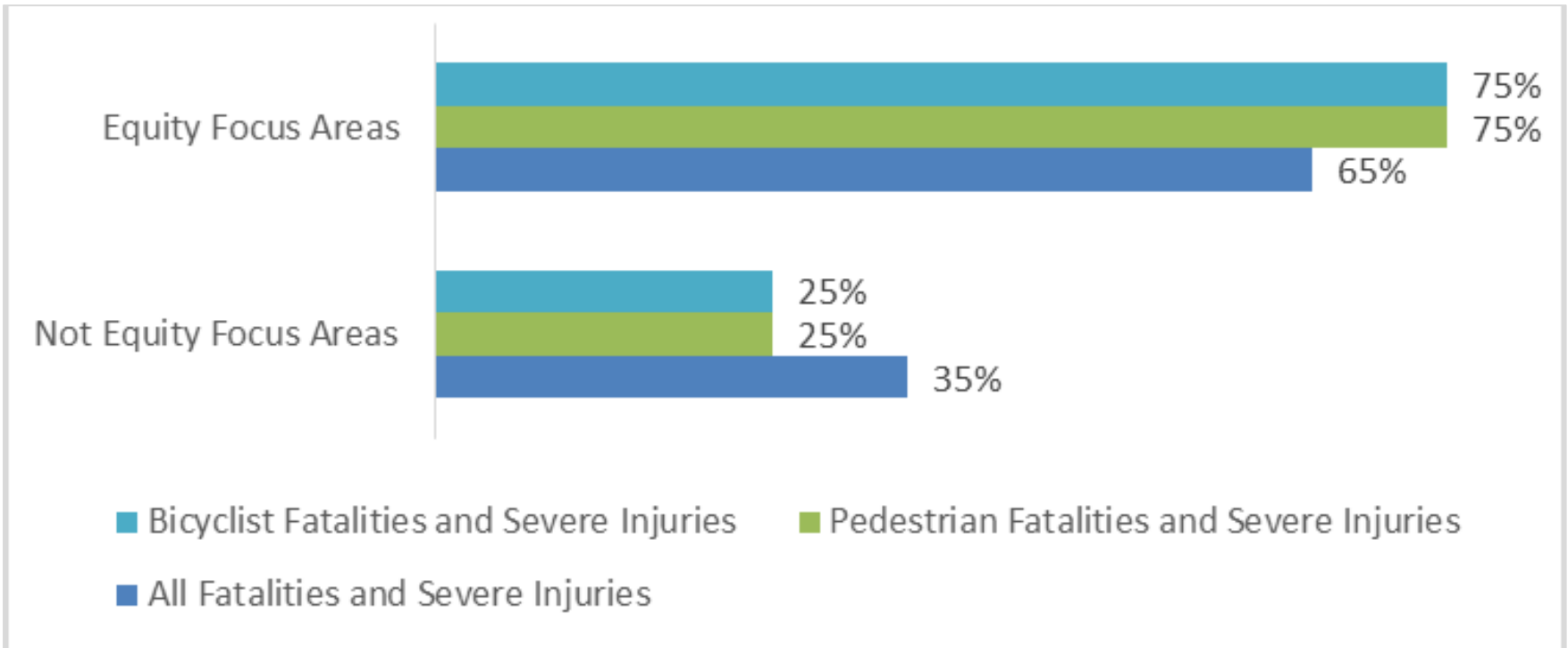
People living in EFAs have significantly better access to destinations via transit than people in other communities.

However, transit does not offer the same level of access to destinations as driving does.

The active transportation network is more complete in Equity Focus Areas

Network	Percent of the network that is complete… In EFAs	In non-EFAs	Total
Pedestrian network	72%	43%	58%
Pedestrian network near transit	76%	53%	65%
Bicycle network	61%	49%	54%
Bicycle network near transit	65%	56%	60%
Trail network	45%	42%	43%
Trail network near transit	51%	50%	51%

…but a disproportionate share of serious crashes are happening in EFAs



RTP climate policy framework

The Climate Smart Strategy establishes a plan to meet greenhouse gas reduction targets set by the State. It identifies high- and moderate-impact climate actions.

Climate Smart Strategy | Largest potential carbon reduction impact*

Vehicles and Fuels (Investment)
- Newer, more fuel efficient vehicles
- Low- and zero-emission vehicles
- Reduced carbon intensity of fuels

Pricing (Policy)
- Carbon pricing
- Gas taxes
- Per-mile road usage charges (e.g., OReGO)
- Parking management and pricing
- Pay-as-you-drive private vehicle insurance

Community Design (Policy with Investment)
- Walkable communities and job centers facilitated by compact land use in combination with walking, biking and transit connections

Transit (Investment)
- Expanded transit coverage
- Expanded frequency of service
- Improvements in right-of-way to increase speed and reliability of buses and MAX

Climate Smart Strategy | Moderate potential carbon reduction impact*

Active Transportation (Investment)
- New biking and walking connections to schools, jobs, downtowns and other community places

Travel Information and Incentives (Investment)
- Commuter travel options programs
- Household individualized marketing programs
- Car-sharing and eco-driving techniques

System Management and Operations (Investment)
- Variable message signs and speed limits
- Signal timing and ramp metering
- Transit signal priority, bus-only lanes, bus pull-outs
- Incident response detection and clearance

Climate Smart Strategy | Low potential carbon reduction impact*

Street and Highway Capacity (Investment)
- New lane miles (e.g, general purpose lanes, auxiliary lanes)

To meet the updated targets, the RTP needs to reduce per capita GHG emissions by 35 percent below 2005 levels by 2050.

RTP mobility policy framework

The updated Regional Mobility Policy will replace a 20-year-old interim policy that focused solely on addressing motor vehicle congestion.

The update will address a variety of modes and outcomes, including system completeness, VMT per capita, and throughway reliability (using travel speeds).

Mobility + climate

The mobility- and climate-related elements of the RTP are evolving in similar directions:

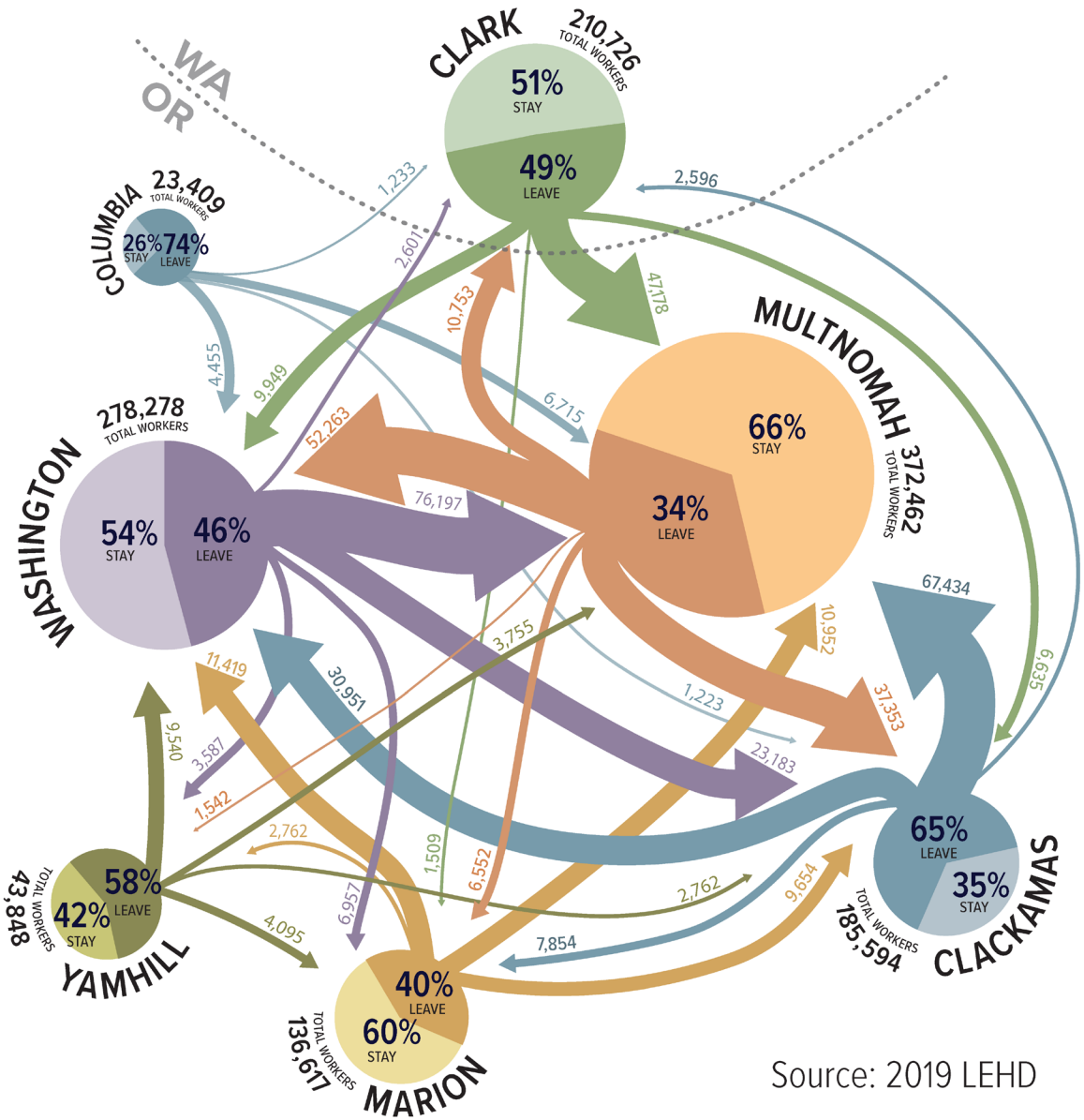
- Both establish VMT per capita and system completeness as key performance measures.
- Achieving success in both areas depends on making transit and active transportation as convenient and useful as driving is.
- Both mobility and climate are shaped by ongoing processes.

The draft of the needs assessment focuses on examining current conditions with respect to system completeness and VMT/capita.

Mobility + climate: key findings

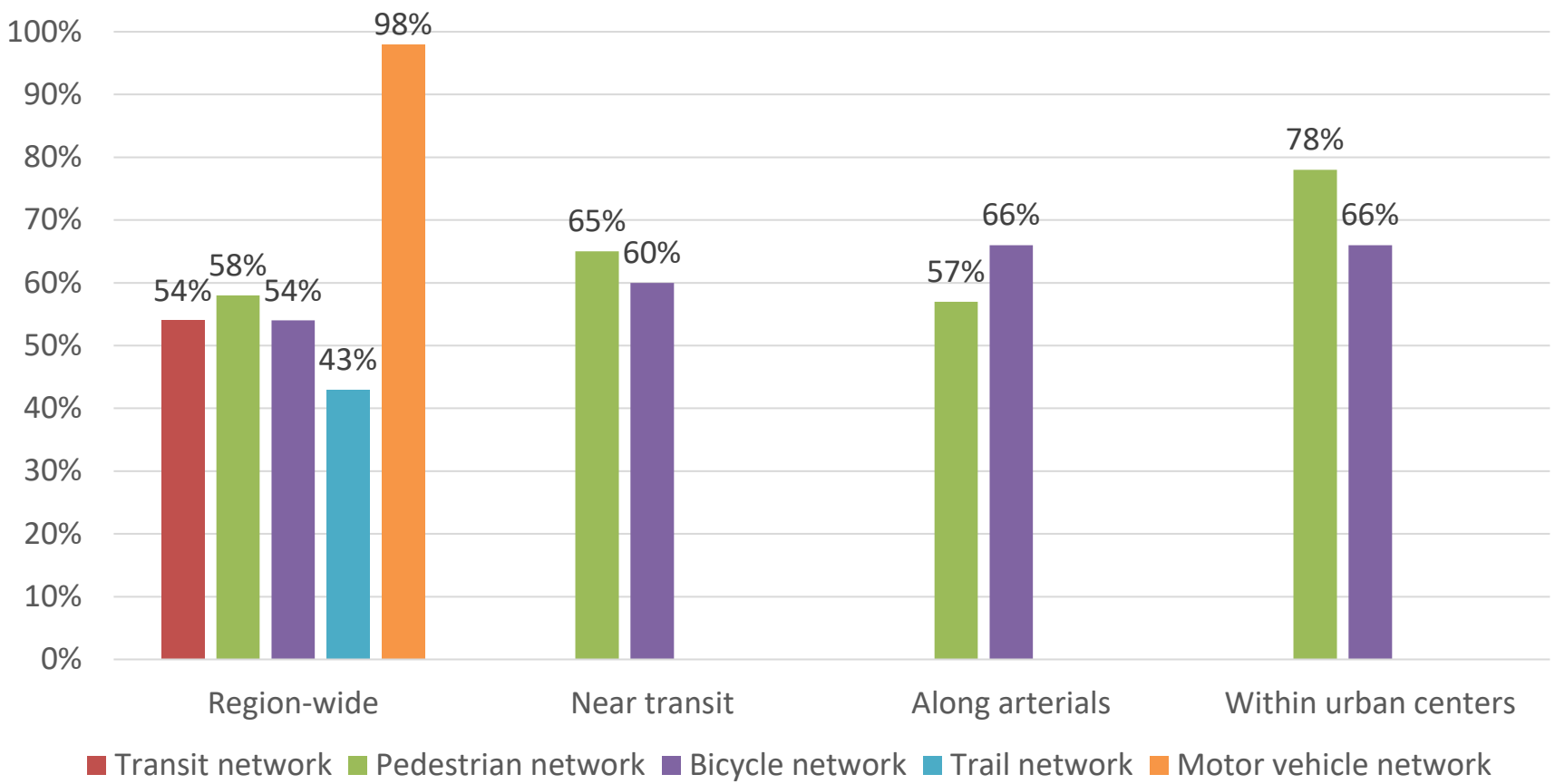
- Over 45 percent of workers in the 3 Metro-area counties work in a different county than they live in.
- The planned motor vehicle network is much more complete than other modal networks.
- Active transportation networks are mostly complete within regional centers and near transit. However, there are still plenty of small gaps in these areas that hinder people's ability to walk and bike.
- Per capita VMT in the region has been lower than the national average since 1997. But in order to meet ambitious GHG reduction targets the region may need to take new approaches.

County-to-county commute flows



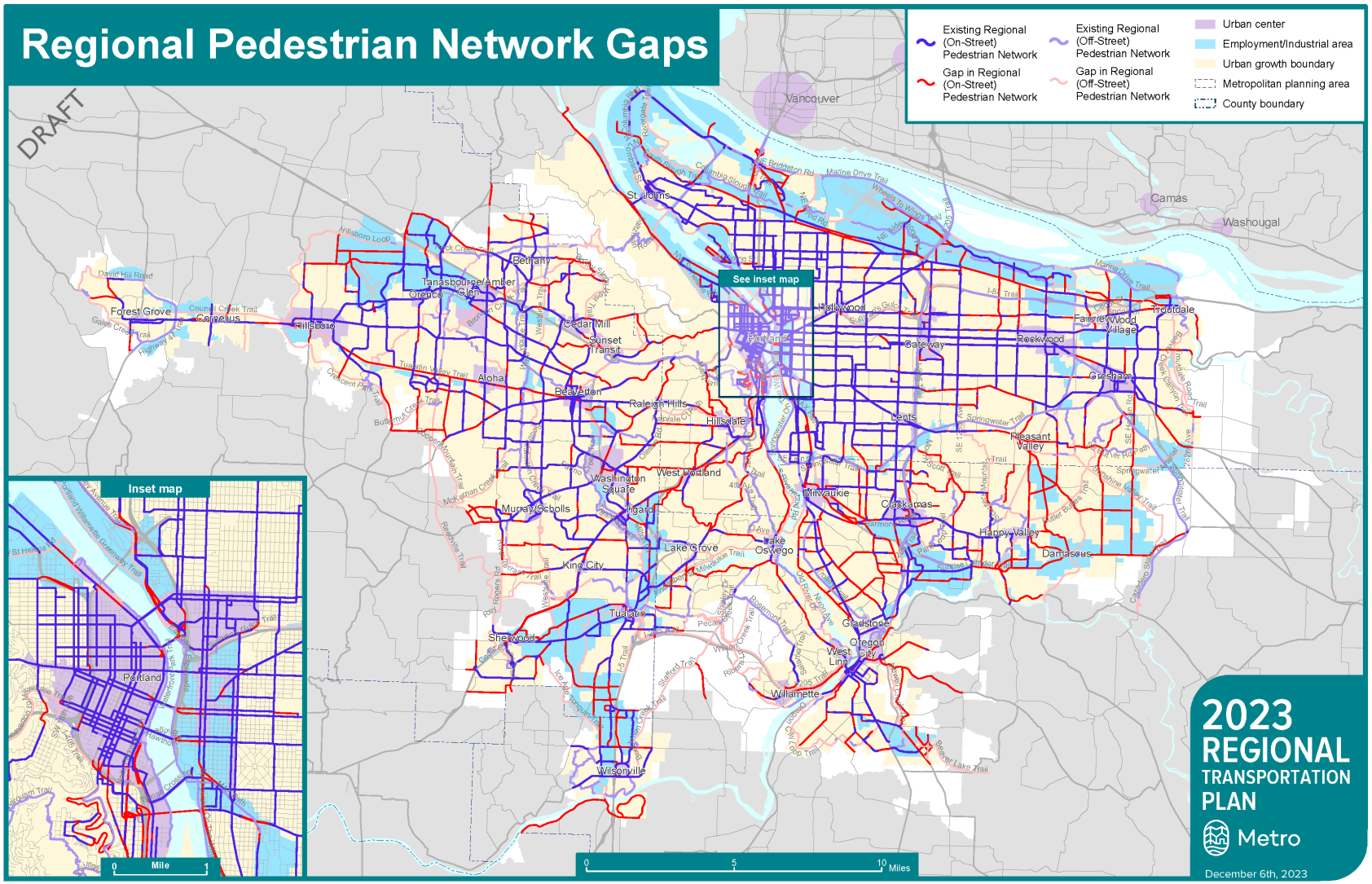
Source: 2019 LEHD

System completeness



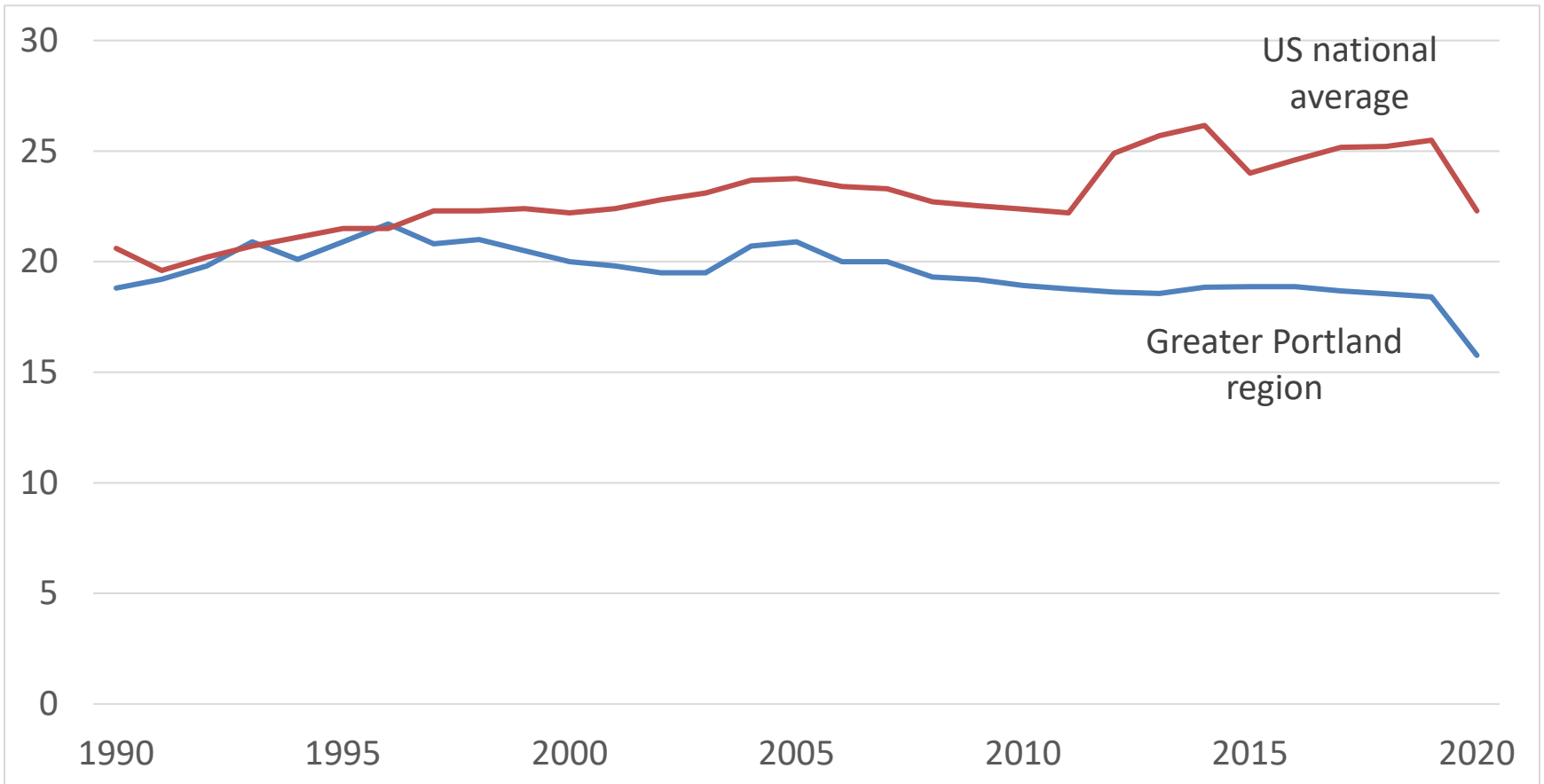
The motor vehicle network is generally much more complete than other modal networks. The bicycle and pedestrian networks are generally more complete in key locations – though not along arterials.

Gap maps are available!



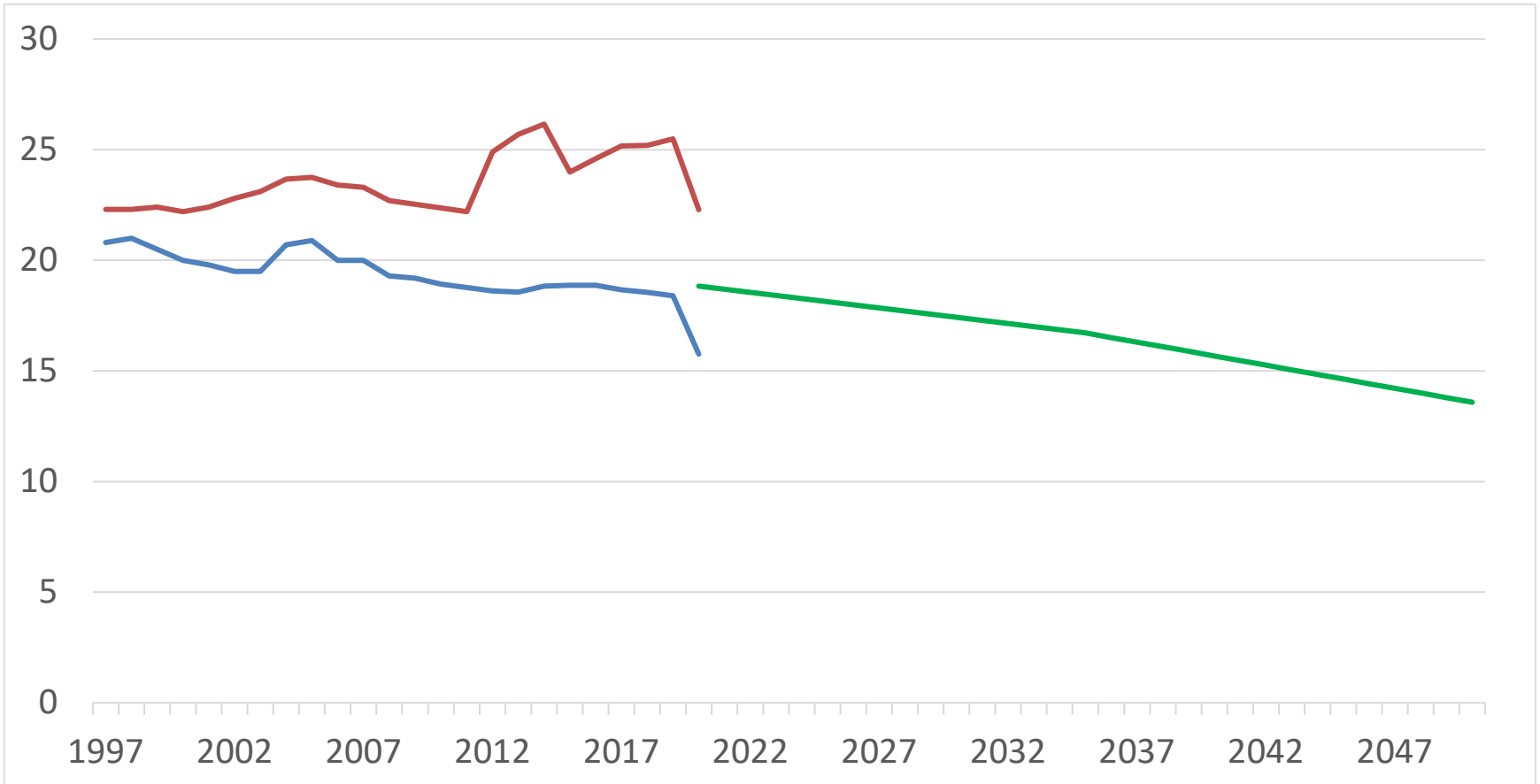
Please explore these gap maps in detail to help us identify opportunities to complete important connections.

VMT per capita: how are we doing?



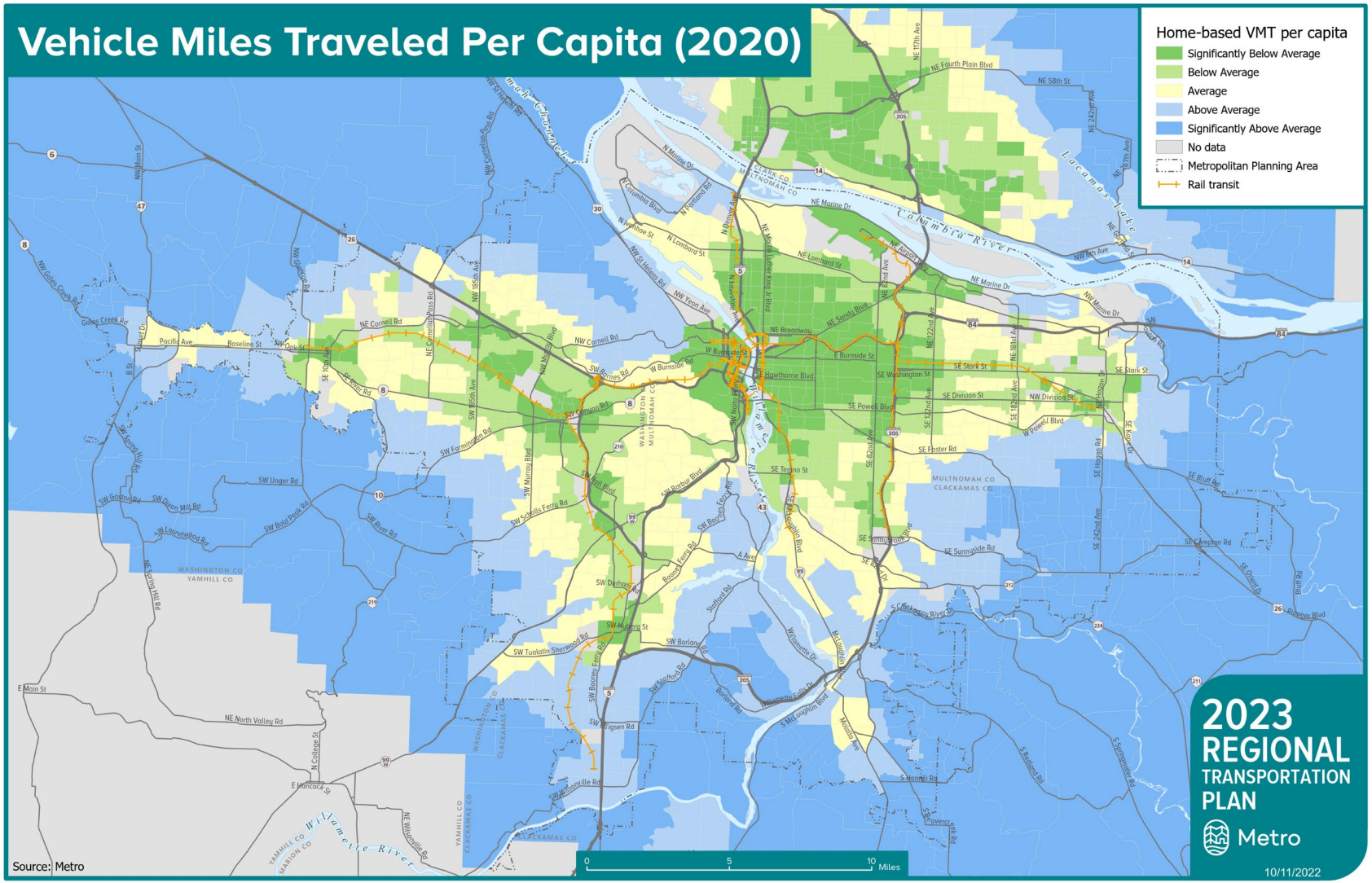
VMT per capita in the Greater Portland region has been significantly lower than the national average since 1997. The region's successes in transportation and land use planning appear to have had a lasting impact on people's travel choices.

VMT per capita: what is our target?

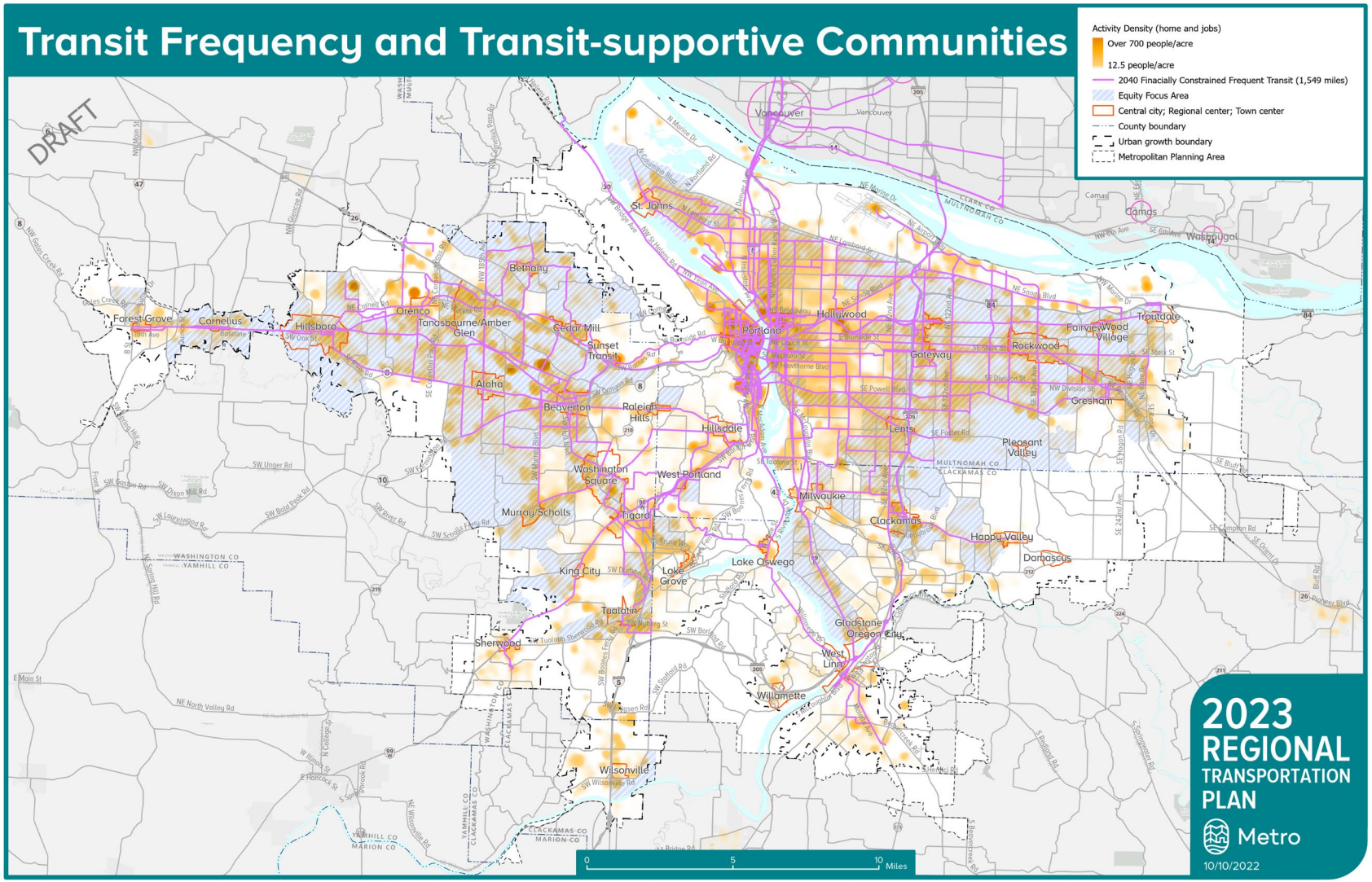


This chart shows regional and national VMT per capita trends alongside a trendline illustrating regional GHG reduction targets – which, per State direction, are equivalent to VMT reductions. [27]

VMT/capita varies by community



Potential opportunities to increase frequent transit



Vibrant and Prosperous Communities

- JPACT and Metro Council directed staff to add a fifth RTP priority, Vibrant and Prosperous Communities, focused on coordinating transportation and land use.
- Many of the figures and tables in the draft Needs Assessment describe the extent to which regional centers offer better connections and more diverse travel options.

Next steps

- By October 26, email feedback to eliot.rose@oregonmetro.gov
- Oct-Dec 2022: Share additional information from the draft needs assessment, particularly on Climate and Mobility, with agency and community partners.
- Nov-Dec 2022: Share information about the RTP Call for Projects.
- Jan 6 - Feb 17 2023: RTP Call for Projects is open
- Mar 2023: RTP performance analysis

Discussion questions

- Does the draft Needs Assessment reflect RTP policy direction on Climate, Mobility, Safety, and Equity?
- What strategies should the region consider focusing on in the RTP to address the needs highlighted today?
- What other information could help illuminate needs related to Vibrant and Prosperous Communities?

eliot.rose@oregonmetro.gov
oregonmetro.gov

FORWARD TOGETHER

10/19/2022

Service Concept Overview

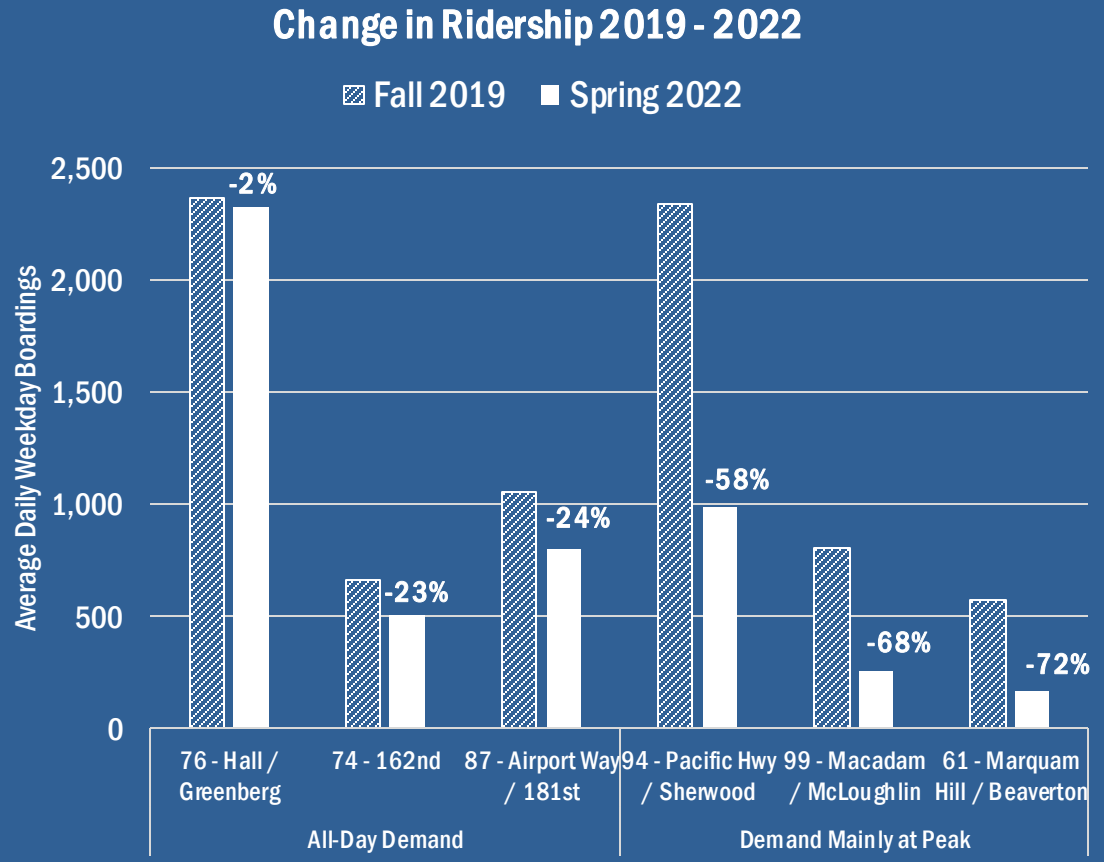
FORWARD TOGETHER

- TriMet's new post-pandemic service concept.
- Network changes that respond to:
  - Changes in demand.
  - Changes in goals and expectations.
  - Changes in resources available to operate bus service.

The COVID-19 pandemic has changed the way people travel, so we're evaluating our plans to move forward together.

Changes in Demand

- Since 2020, the pattern of ridership on TriMet's services has changed.
- Peak commute ridership, driven by more affluent workers, has declined the most and stayed low.
- Ridership in other places has fallen less, and recovered faster
  - Commercial and educational destinations,
  - Retail/industrial/service job centers
  - Areas high on TriMet's equity index.

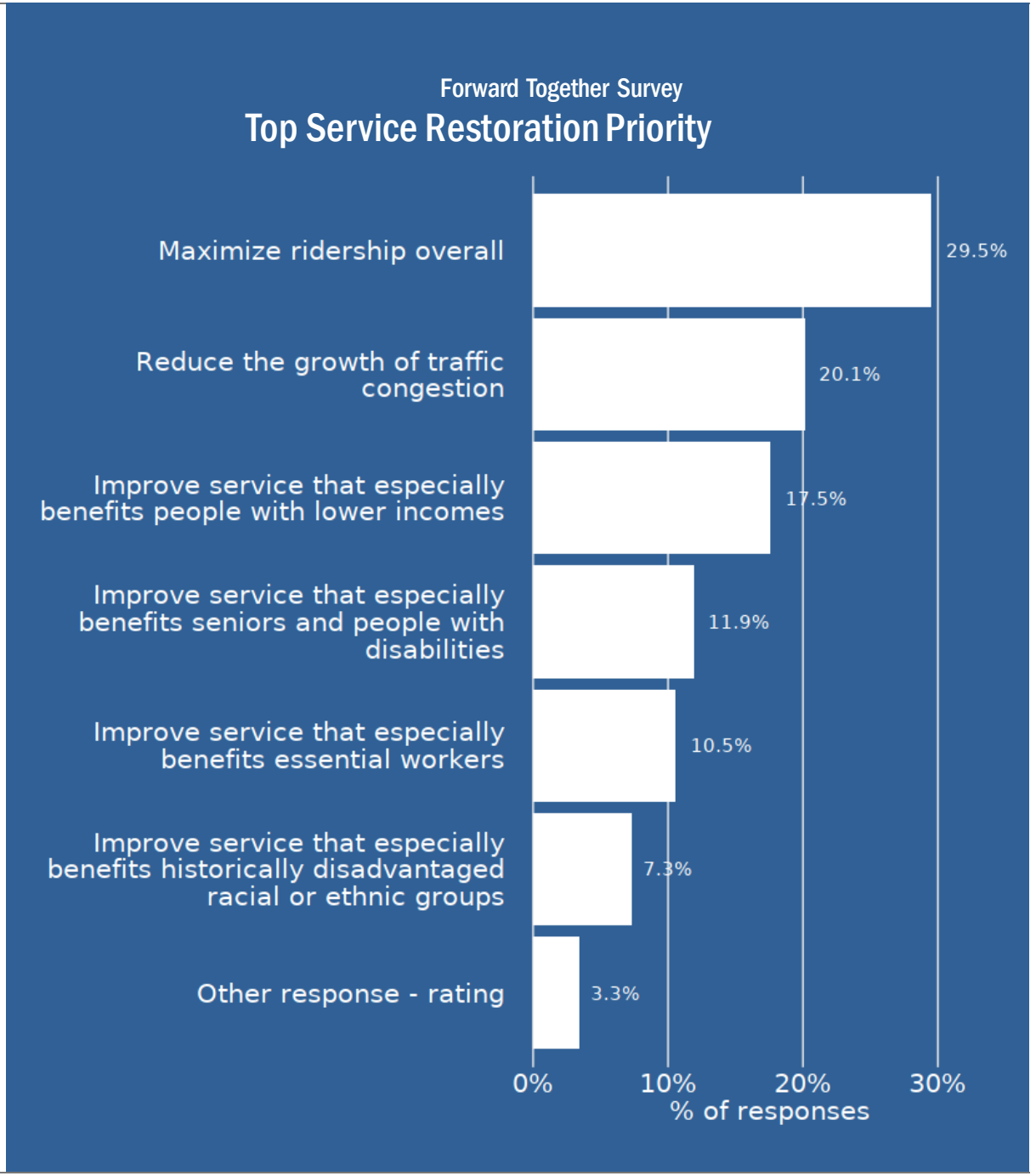


Want to learn more about how TriMet's network and ridership has changed since 2020?

Read the Transit Existing Conditions report, available at trimet.org/forward/.

Changes in Goals

- In spring 2022, TriMet engaged in a public outreach effort intended to guide its service recovery planning.
- This survey focused on asking about what TriMet's priorities should be as it restores service. Over 5,500 people responded.
- The three most popular responses:
  - Restore ridership.
  - Reduce congestion.
  - Improve services for lower-income people.



Changes in Financial Resources

- TriMet has the resources to restore and expand service. But the staffing shortage means that we can't deploy all those resources today.

- How quickly this happens will depend on TriMet's success recruiting and retaining operators.

- Eventually we anticipate being able to increase TriMet's overall service level by:
  - +38%, compared to existing levels.
  - Over +10% compared to 2019 levels.

This is a network concept.

- It is not yet a proposal.

- Its purpose is to start a conversation.

We're saying:

- Based on the values and goals that the community expressed in the survey, the network would look something like this.

- Do we have the balance of goals right?

- And are there other good ideas for improving the design?

Focus on equity

The concept addresses gaps in the network and prioritizes Frequent Service in areas with more

- lower-income people.
- people of color.
- retail, service and industrial workers.

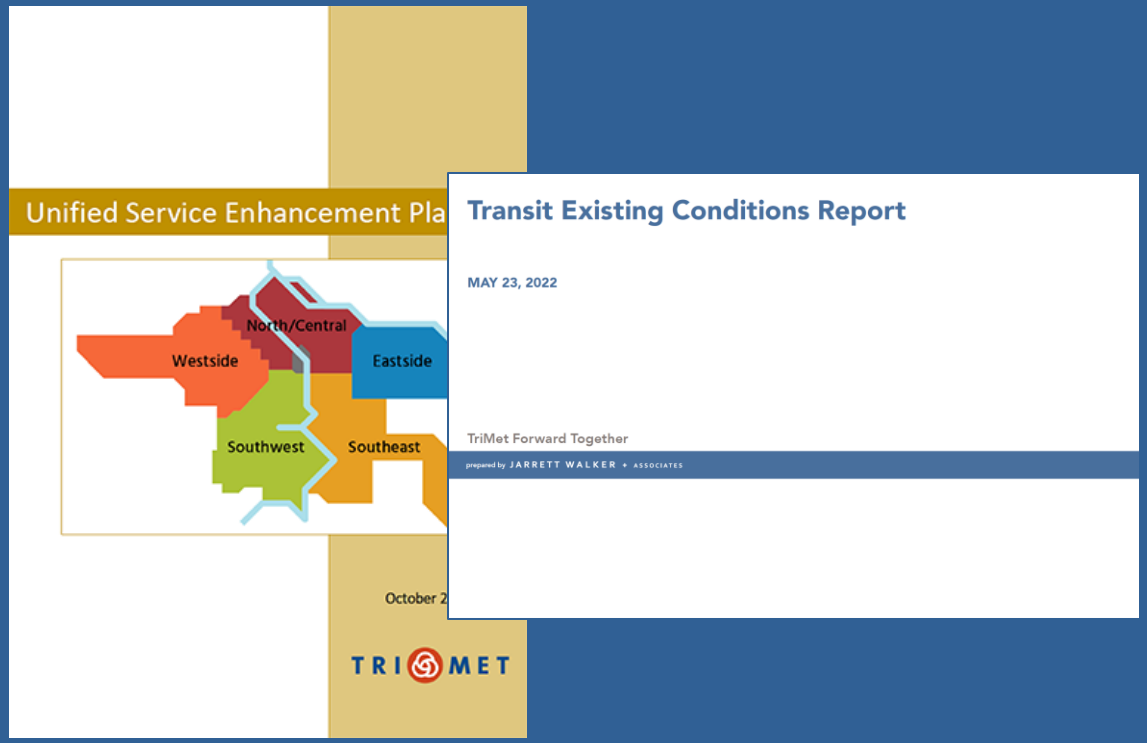
+35% increase in the median number of jobs reachable by a person living in any of TriMet's Equity Areas

+50% for residents of the Equity Areas outside of the Central City

+50k more lower-income residents and +33k more people of color would be near Frequent Service than today.

What's in the service concept?

- An expanded Frequent Network.
- Extending the grid to new areas.
- More local services running every 30 minutes.
- Expanded weekend service.
- New lines serving areas that are far from transit today.
- Reduced service to some low-demand, mostly higher-income areas.



Where did these ideas come from?

Many of the ideas come from the TriMet's Service Enhancement Plans (2011-2016).

The Forward Together "Transit Existing Conditions Report" added more recent data and insights.

Municipal staffs helped us with an earlier draft.

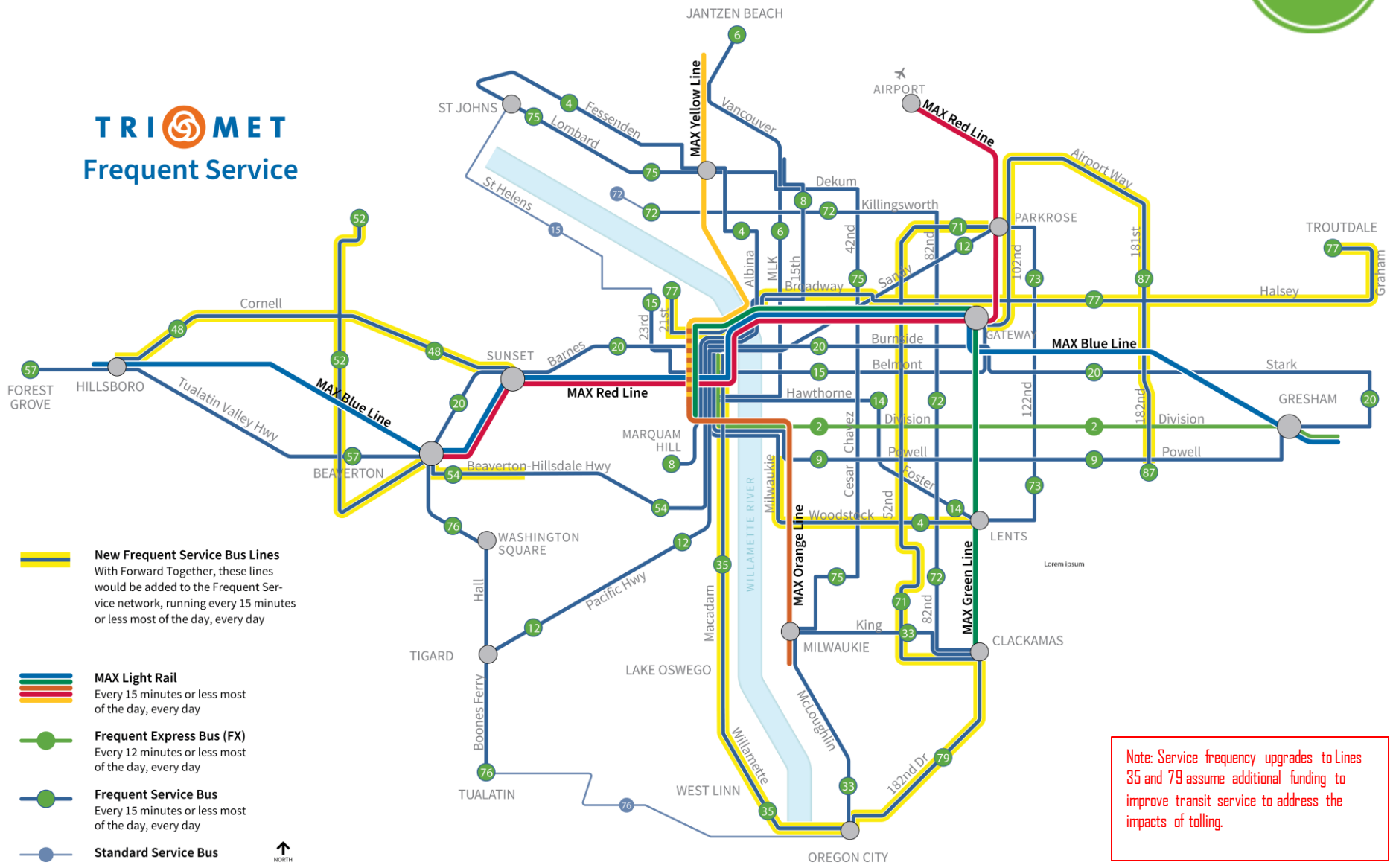
An expanded Frequent Network

Frequent Service

50% more residents and jobs within ¼-mile walk of Frequent Service.

New Frequent Service corridors:

- Woodstock (Line 4)
- Macadam (35)
- Cornell Rd (48)
- 185th Ave (52)
- 52nd / 60th (71)
- Broadway / Halsey (77)
- 82nd Dr (79)
- Airport Way / 181st (87)



Note: Service frequency upgrades to Lines 35 and 79 assume additional funding to improve transit service to address the impacts of tolling.

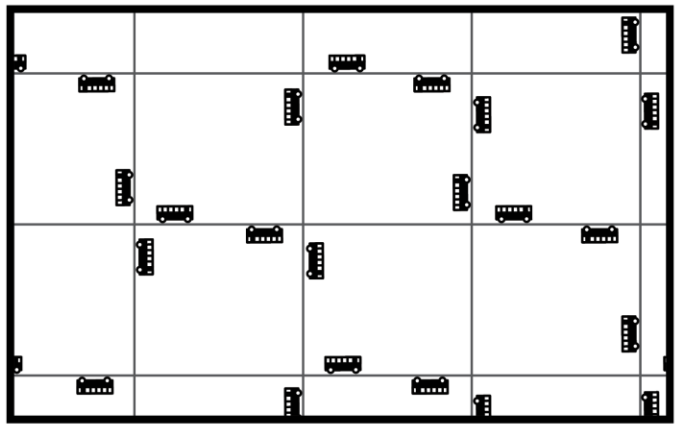
Extending the Frequent Grid

TriMet's inner city network is organized as a frequent grid.

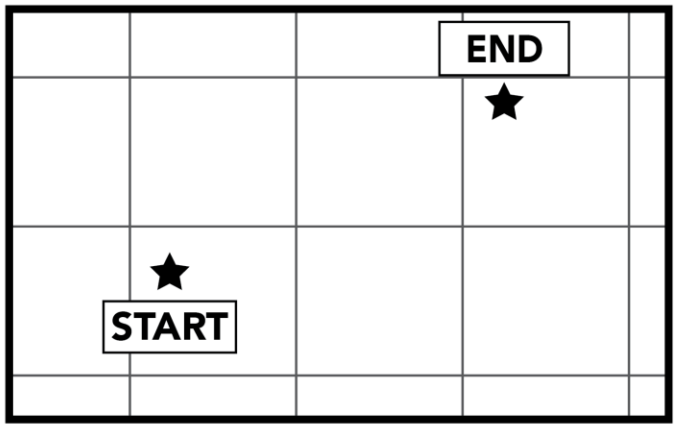
We want to extend this concept further.

How Frequent Grids Work

A frequent grid consists of perpendicular lines all running **frequently.**

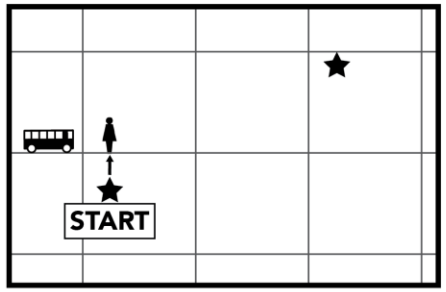


A grid serves trips from **anywhere** to **anywhere.** For example:

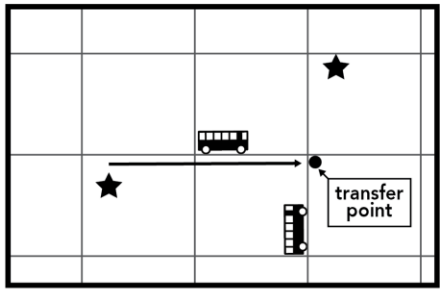


For any trip...

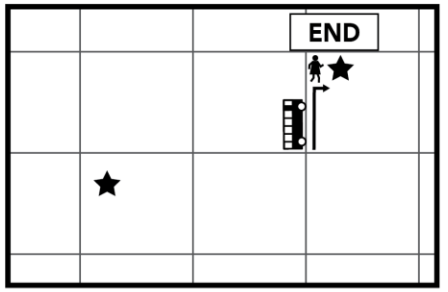
1. Walk and **Wait*** for the first bus.
*The wait is **short** because service is **frequent.**



2. Ride and **Wait*** for the first bus.
*The wait is **short** because service is **frequent.**



3. Ride and **Walk** to the destination.
You've arrived!



The high frequency is critical.
It makes the transfer fast, so that the whole travel time is reasonable.

Enhancing standard service

- Many standard service bus lines run less frequently than every 30 minutes.

- Where these lines have strong ridership potential, or serve areas of high equity concern, the service concept increases frequencies to every 30 minutes, all day.

Just a few examples

Line	County	Current Midday Frequency	Service Concept Midday Frequency
NE San Rafael	Multnomah	60 min	30 min
Outer NE Glisan	Multnomah	60 min	30 min
SE Webster Rd	Clackamas	40 min	30 min
River Rd	Clackamas	60-65 min	30 min
Evergreen Pkwy	Washington	35 min	30 min
158th / Bethany	Washington	60 min	30 min

New service areas

- The network concept creates some new coverage, addressing gaps in the network and some limited areas of new development.

- Examples include:
  - In central Portland – Columbia Blvd
  - On the eastside - SE 112th, SE 148th, SE 201st, SE 242nd
  - On the westside – Cornelius Pass Rd, Century Blvd
  - In Clackamas – SE 172nd, Mt. Scott Blvd, Jennings Ave

50,000 more residents would be within a ¼-mile walk to a bus stop.

26,000 more jobs would be within a ¼-mile walk to a bus stop

Improved Weekend Service

- Today, many infrequent and peak-only lines do not run at all on weekends.
- Lower income people and essential workers rarely have weekends off.
- Forward Together provides weekend service on nearly all standard service bus lines.
- This would add new weekend service on secondary lines all over the region.

+100,000 more people near service running on Sunday.

+130,000 more people near Frequent Service on Sunday.

Service reductions

- While this is a growth plan, there are some services that would be reduced compared to today / pre-pandemic.
- These are all lower-ridership services focused on:
  - peak commuters, or
  - higher-income neighborhoods.

Examples

Area	Lines	Change with Forward Together
Southwest rush-hour buses	Line 1, 18, 26, 51, 55	Reduced to trips at school bell times.
OHSU rush-hour expresses	Line 61, 64, 65	Marquam Hill peak services replaced by all-day access via Line 43 and 56
	Line 66, 68	Discontinued
Lower-ridership service in Portland	Line 17 - Broadway	24th / 27th segment discontinued
Lake Oswego services	Line 36 – South Shore	Service to South Shore discontinued
	Line 38 – Boones Ferry Rd	Service to Boones Ferry Rd N of Country Club discontinued

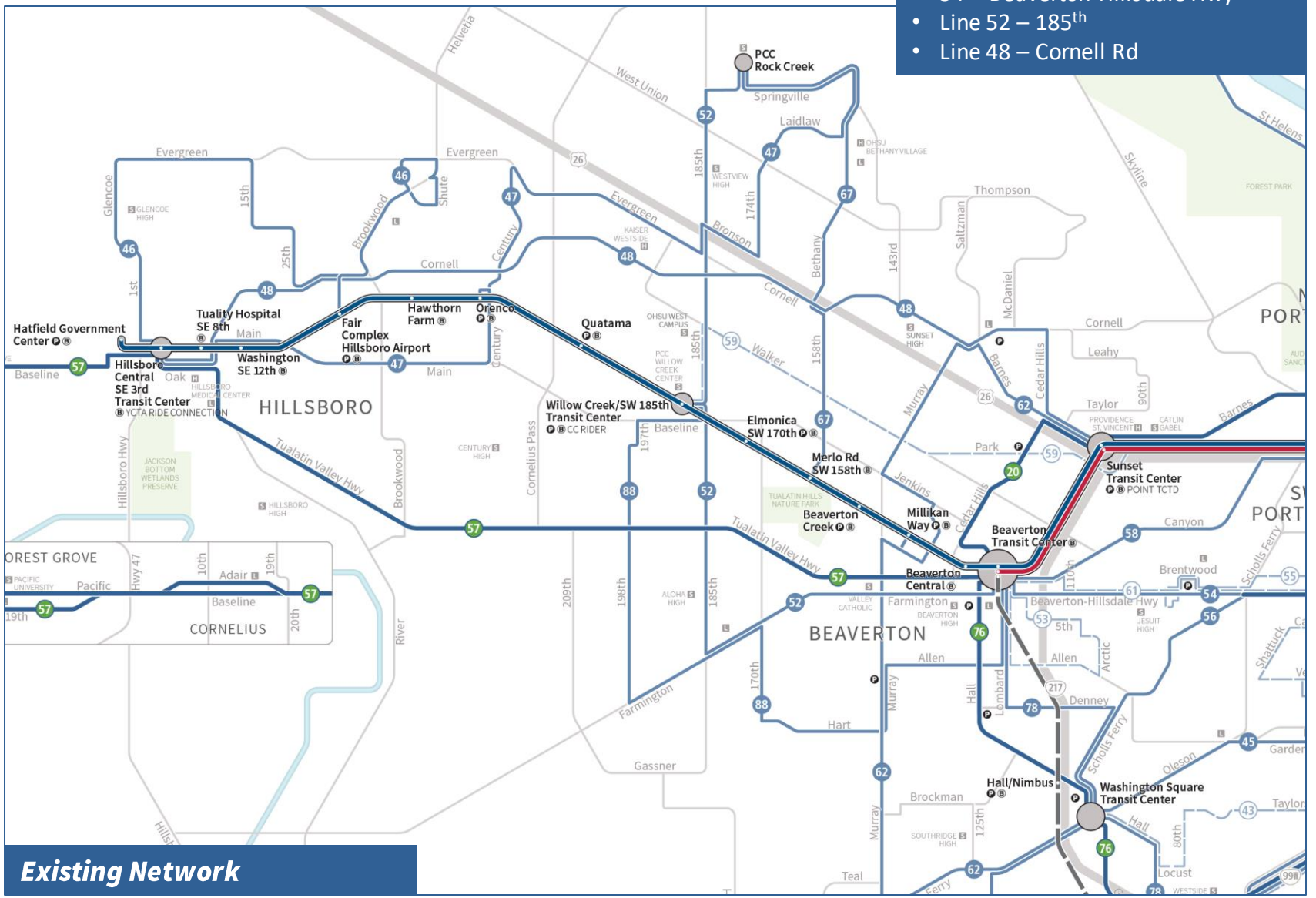
Westside

Key connections

- Frequent Service from Beaverton to Hillsdale, PSU and Downtown Portland.
- Frequent Service from Sunset to Hillsboro via Barnes and Cornell.
- Frequent Service from TV Highway to PCC Rock Creek via 185th.
- New north-south service on Century and Cornelius Pass.

New Frequent Service in this area:

- 54 – Beaverton-Hillsdale Hwy
- Line 52 – 185th
- Line 48 – Cornell Rd



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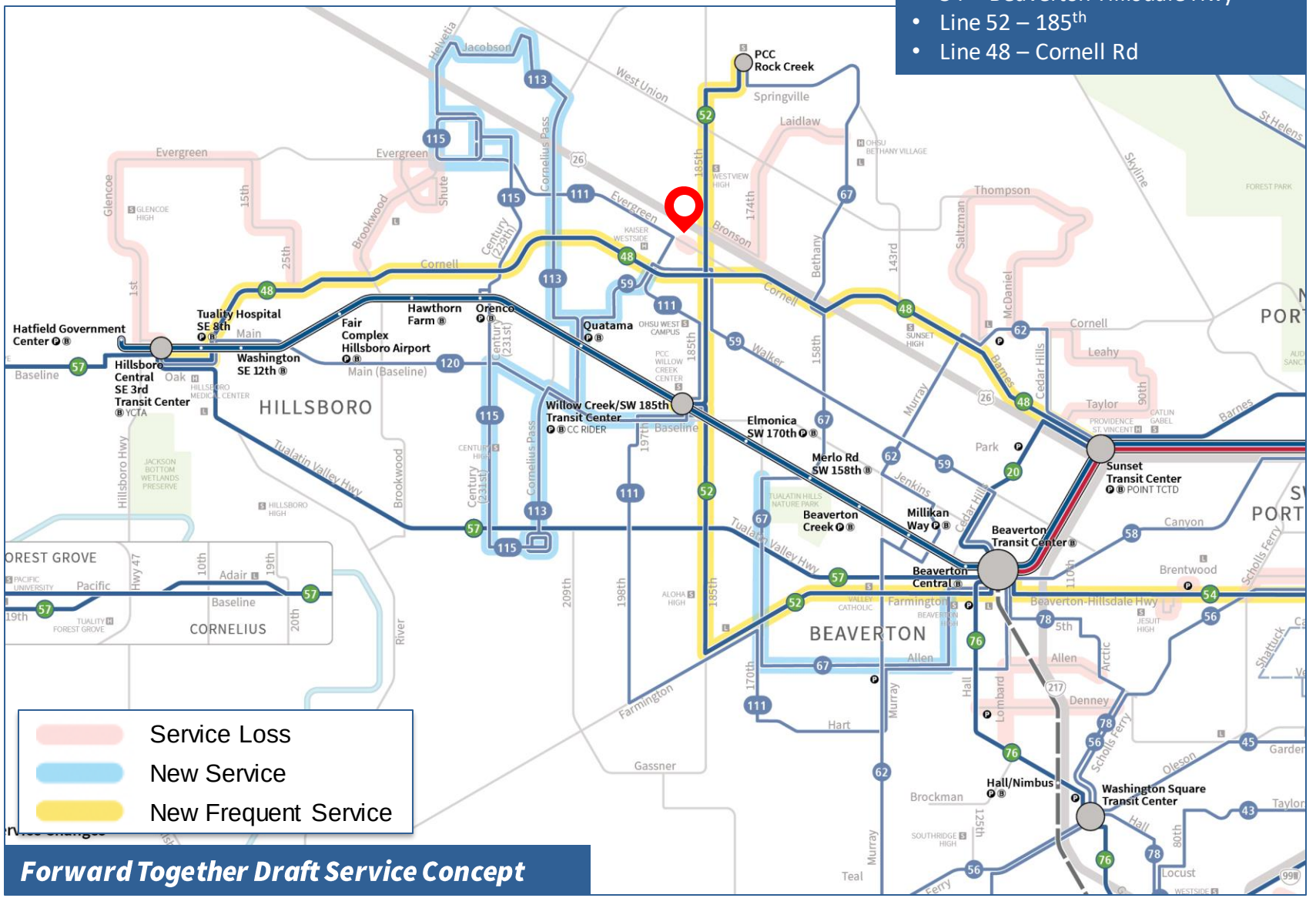
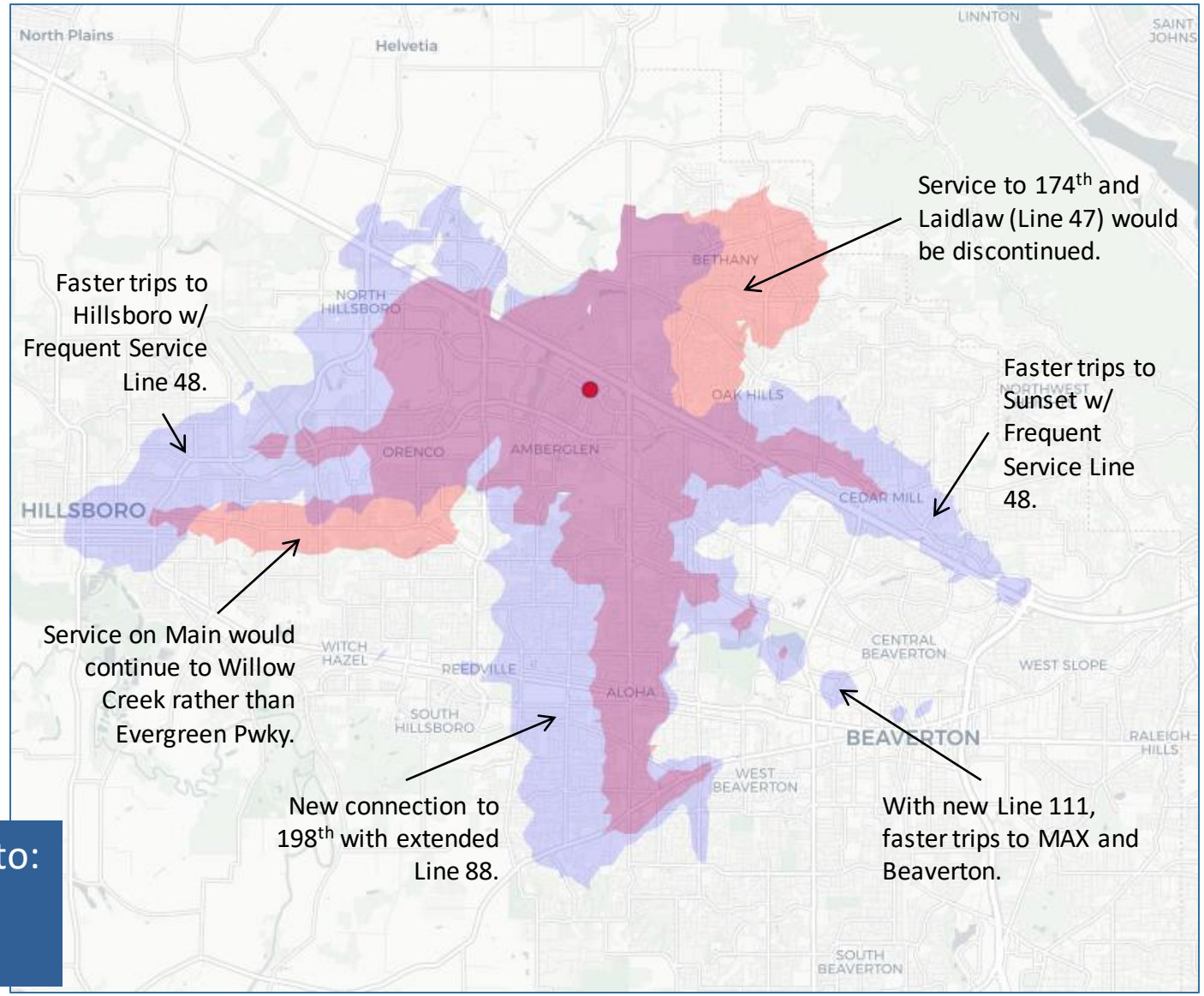


Forward Together Draft Service Concept

Where could I travel in 45 minutes from Evergreen Parkway @ Amberglen?

- Evergreen Parkway would be served by Line 111 every 20 minutes, continuing north to North Hillsboro Industrial Area and south along 198th and Farmington.
- Nearby lines 48-Cornell and 52-Farmington/185th are upgraded to Frequent Service.



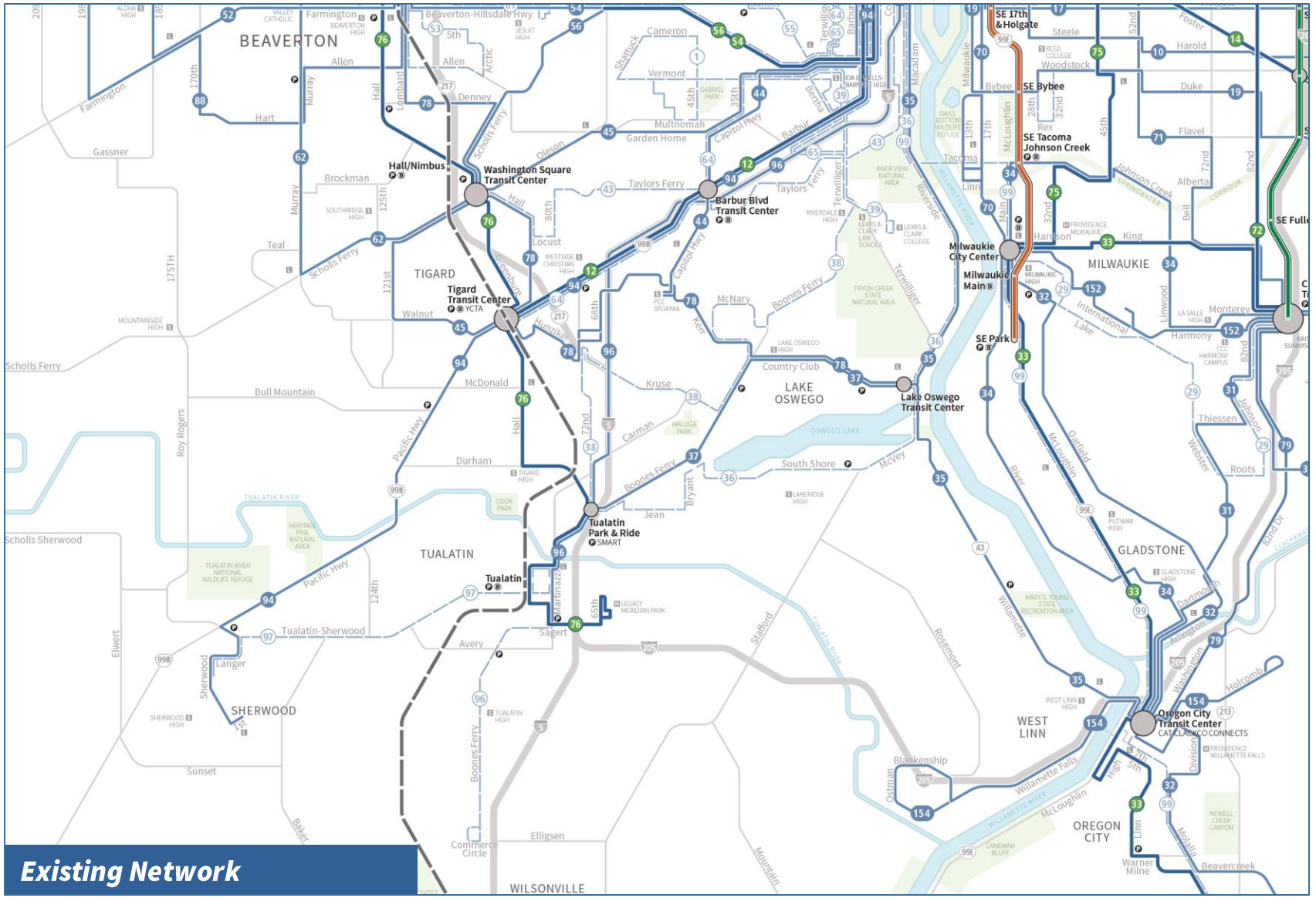
From this point, in 45 min, you could get to:
- 36k more jobs (+75%)
- 37k more residents (+39%)

Southwest

Key connections

- Peak only services replaced by all-day.
  - Hillsdale-OHSU
  - Boones Ferry
  - Tualatin to Sherwood
- Better access to 72nd Ave jobs.
- Access to PCC Sylvania from Tualatin
- New Wash. Co. – Oregon City service.

New Frequent Service in this area:
- Line 35 – Macadam
- Line 54 – Beaverton Hwy to Beaverton



Existing Network

Southwest

Key connections

- Peak only services replaced by all-day.
  - Hillsdale-OHSU
  - Boones Ferry
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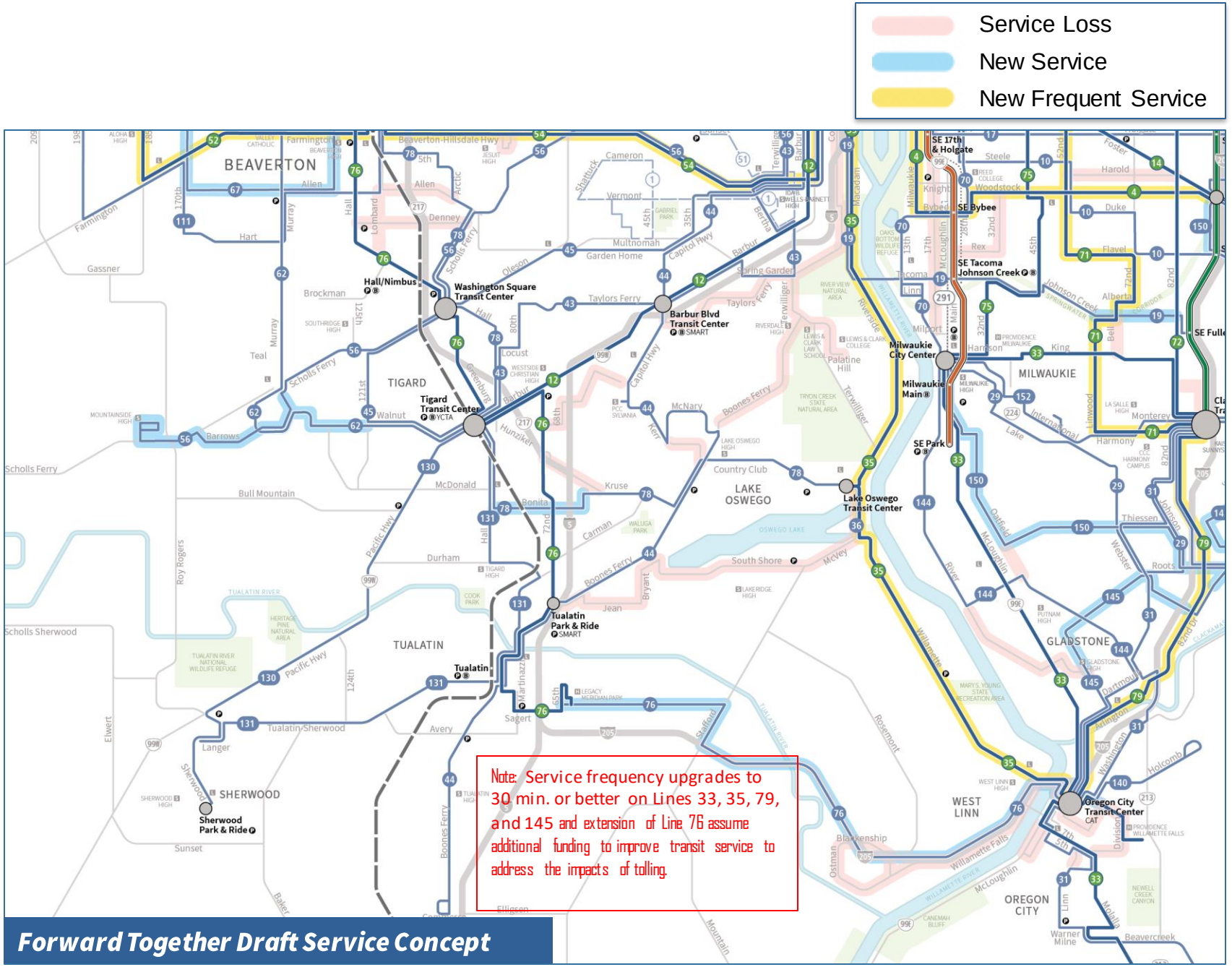


Forward Together Draft Service Concept

Improved access to OHSU from the southwest.

- OHSU is a key regional job center, but today, no all-day bus lines serve it from the southwest.

- In Forward Together, OHSU is served by 3 lines:
  - **Frequent Service Line 8** from the north.
  - **Line 43** from Tigard.
  - **Line 56** from Washington Square and Progress Ridge.

- Lines 43 and 56 would run every 30 minutes, and provide 4 trips per hour between Hillsdale and OHSU.

Where could I travel in 45 minutes from Downtown Tigard?

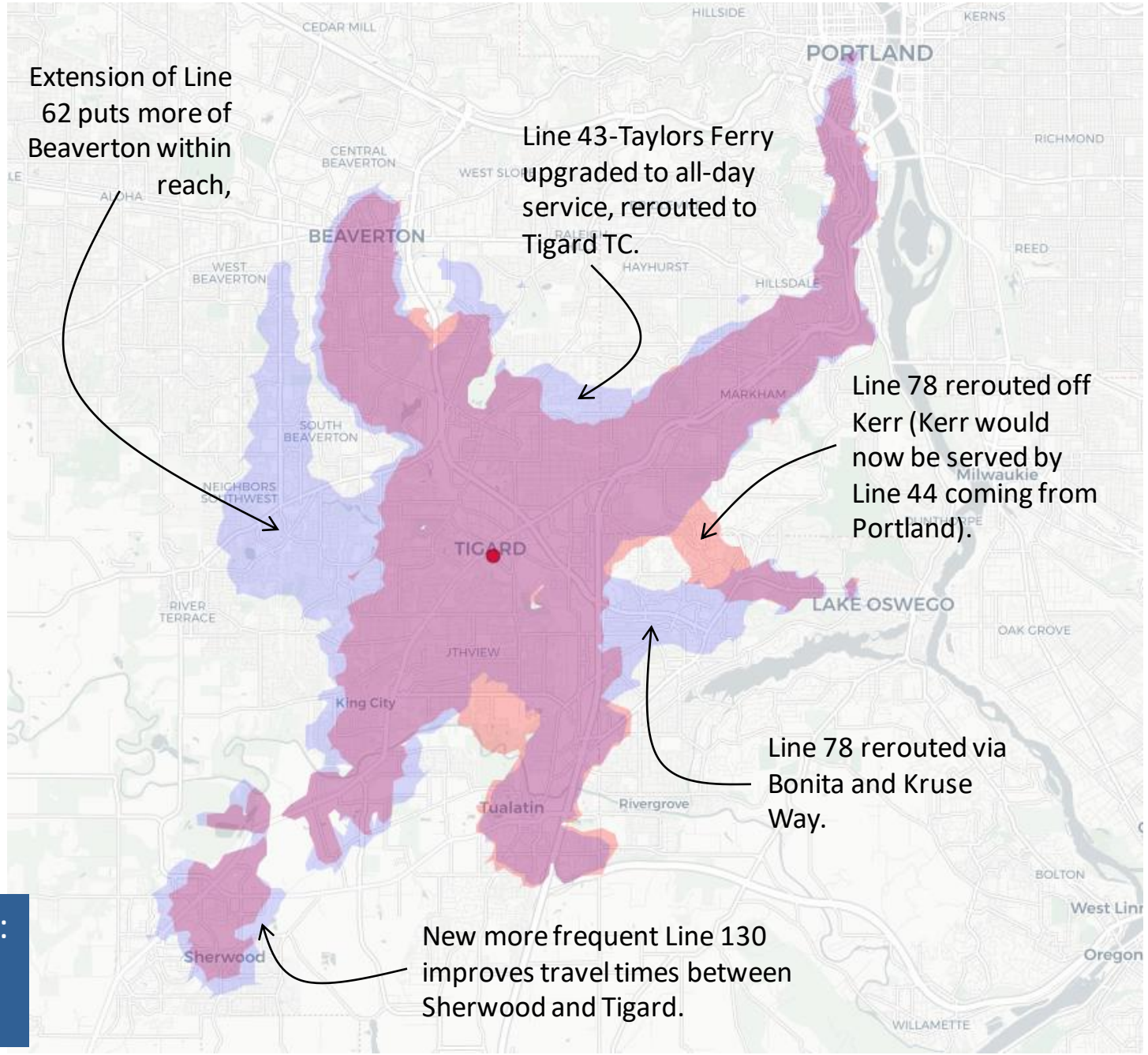
- New Line 130 would offer more frequent service between Sherwood and Tigard on 99W.
- Line 62-Murray Blvd would be extended south through Progress Ridge to new terminus in Tigard.
- Line 43-Taylors Ferry Rd would be upgraded to run all day, would now terminate at Tigard TC.

Only reachable with Draft Service Concept

Only reachable with Existing Network

Reachable with both Existing and Concept.

From this point, in 45 min, you could get to:
- 28k more jobs (+24%)
- 43k more residents (+35%)



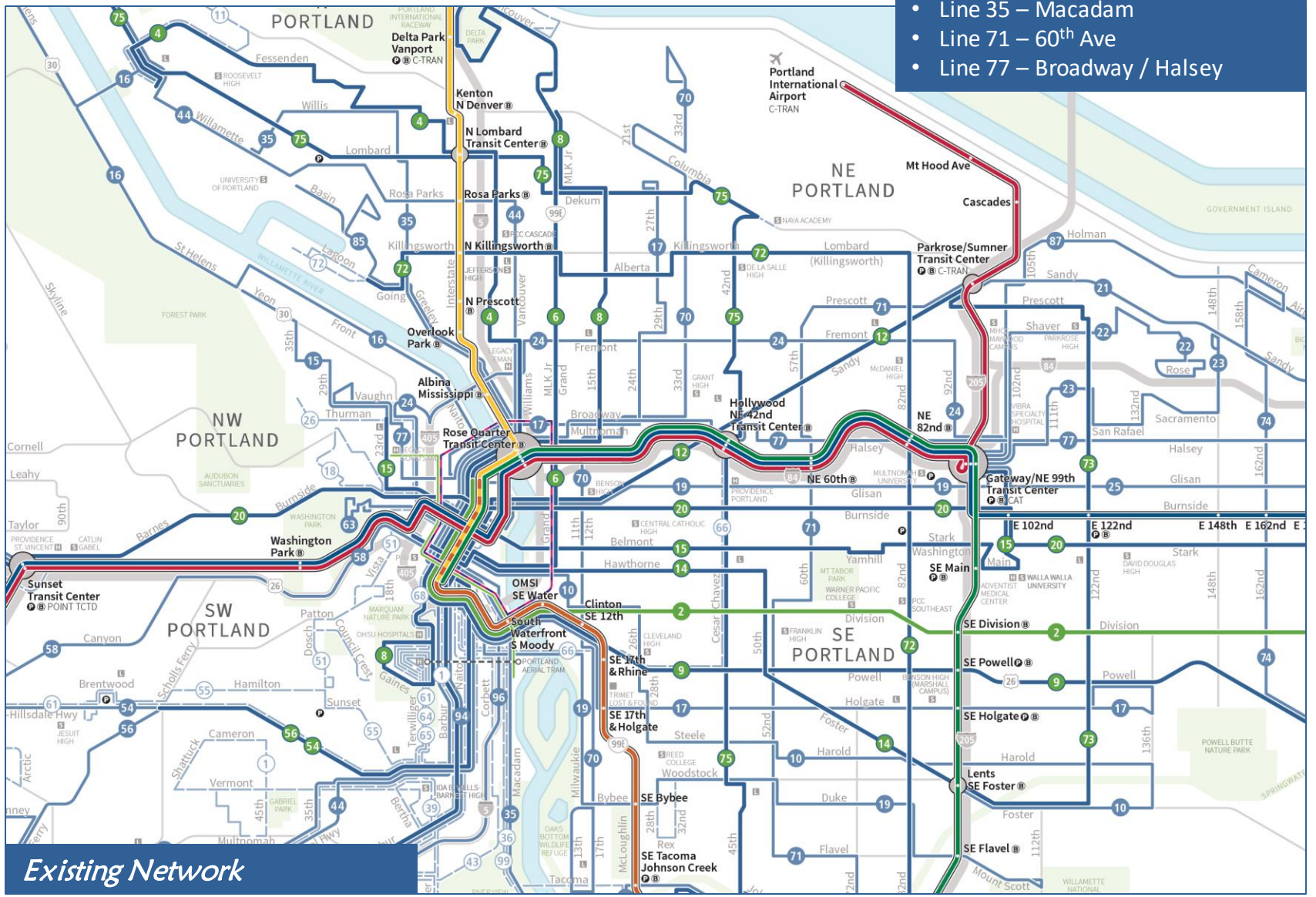
Central Portland

Key connections

- New frequent segments:
  - 57th/60th/52nd (71)
  - Broadway Halsey (77)
  - NW Glisan/Everett (77)
  - Milwaukie Ave (4)
  - Woodstock (4)
  - Macadam (35)
- New lines
  - Tacoma/Johnson Cr (19)
  - Columbia Blvd (190)
- Line 70 revised to avoid 11th/12th UP line crossing.
- Better links between NE and East Portland.
- Deleted segments
  - NE 24th/27th (17)
  - SE Harold (10)

New Frequent Service in this area:

- Line 4 – Fessenden / Woodstock
- Line 35 – Macadam
- Line 71 – 60th Ave
- Line 77 – Broadway / Halsey



Existing Network

Central Portland

Key connections

- New frequent segments:
  - 57th/60th/52nd (71)
  - Broadway Halsey (77)
  - NW Glisan/Everett (77)
  - Milwaukie Ave (4)
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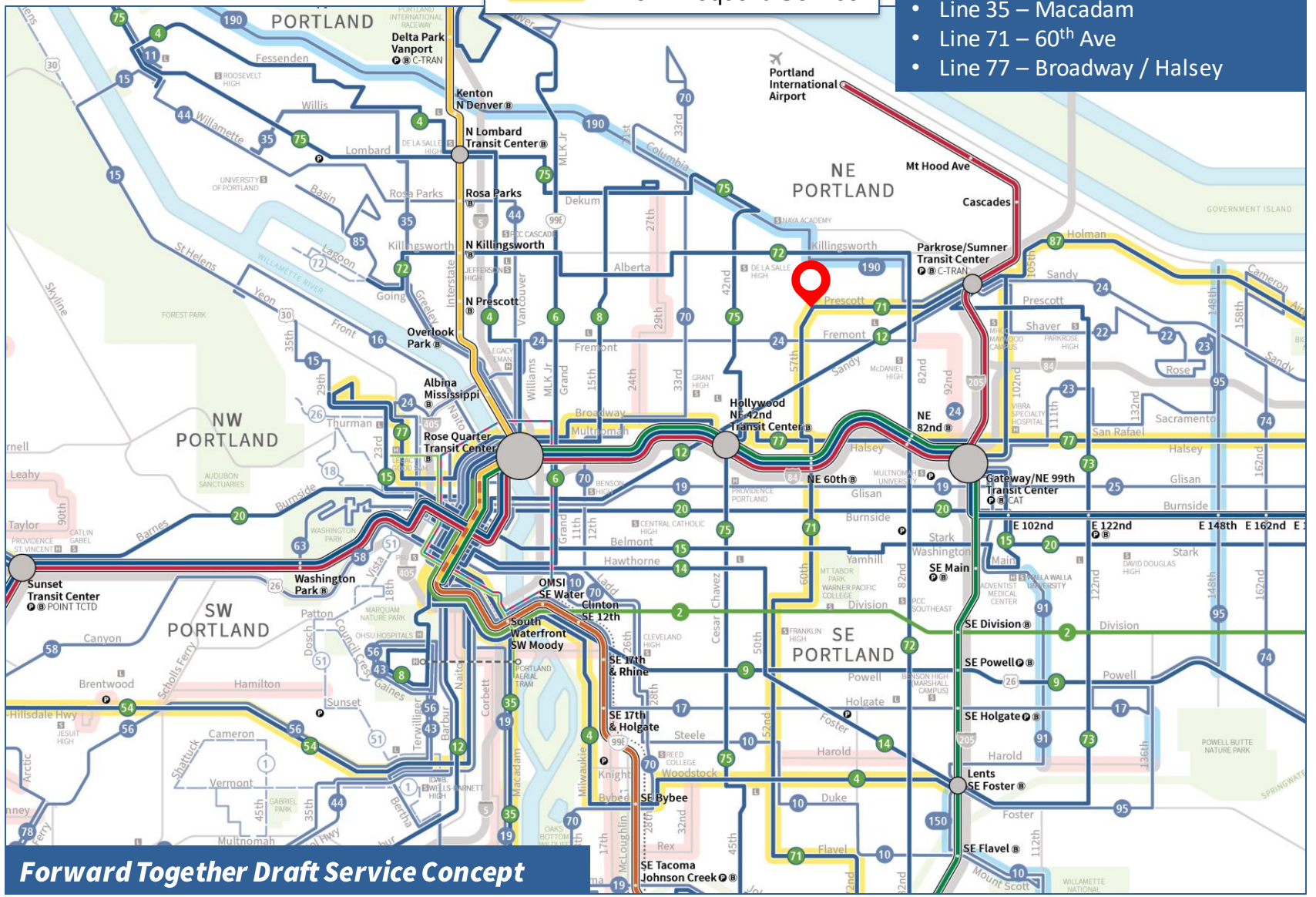
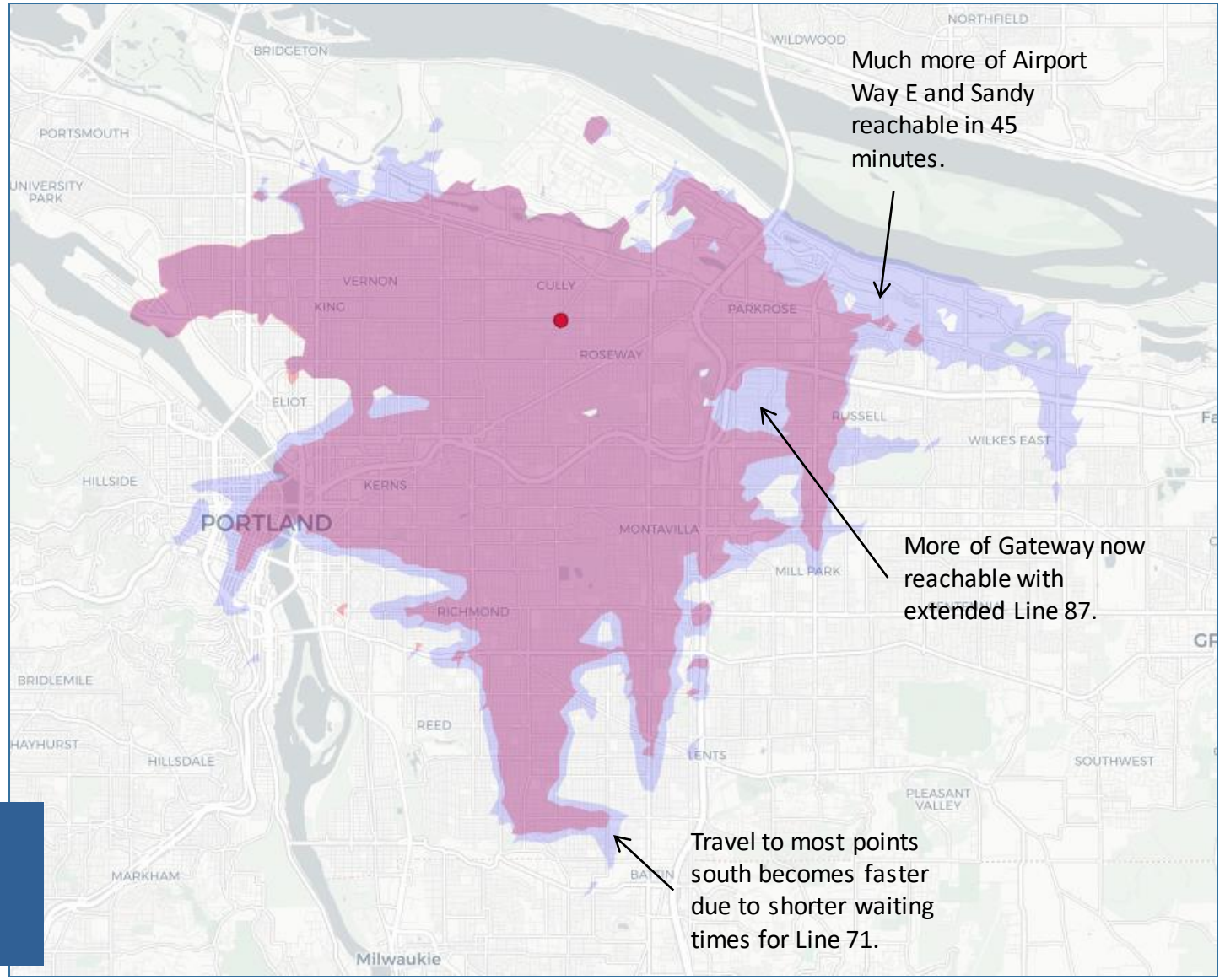


Where could I travel in 45 minutes from Cully Blvd & Prescott?

- In Cully, Line 71 is upgraded to Frequent Service.
- Line 87 upgraded to Frequent Service (connects with 71 at Parkrose TC), and extended to Gateway TC.



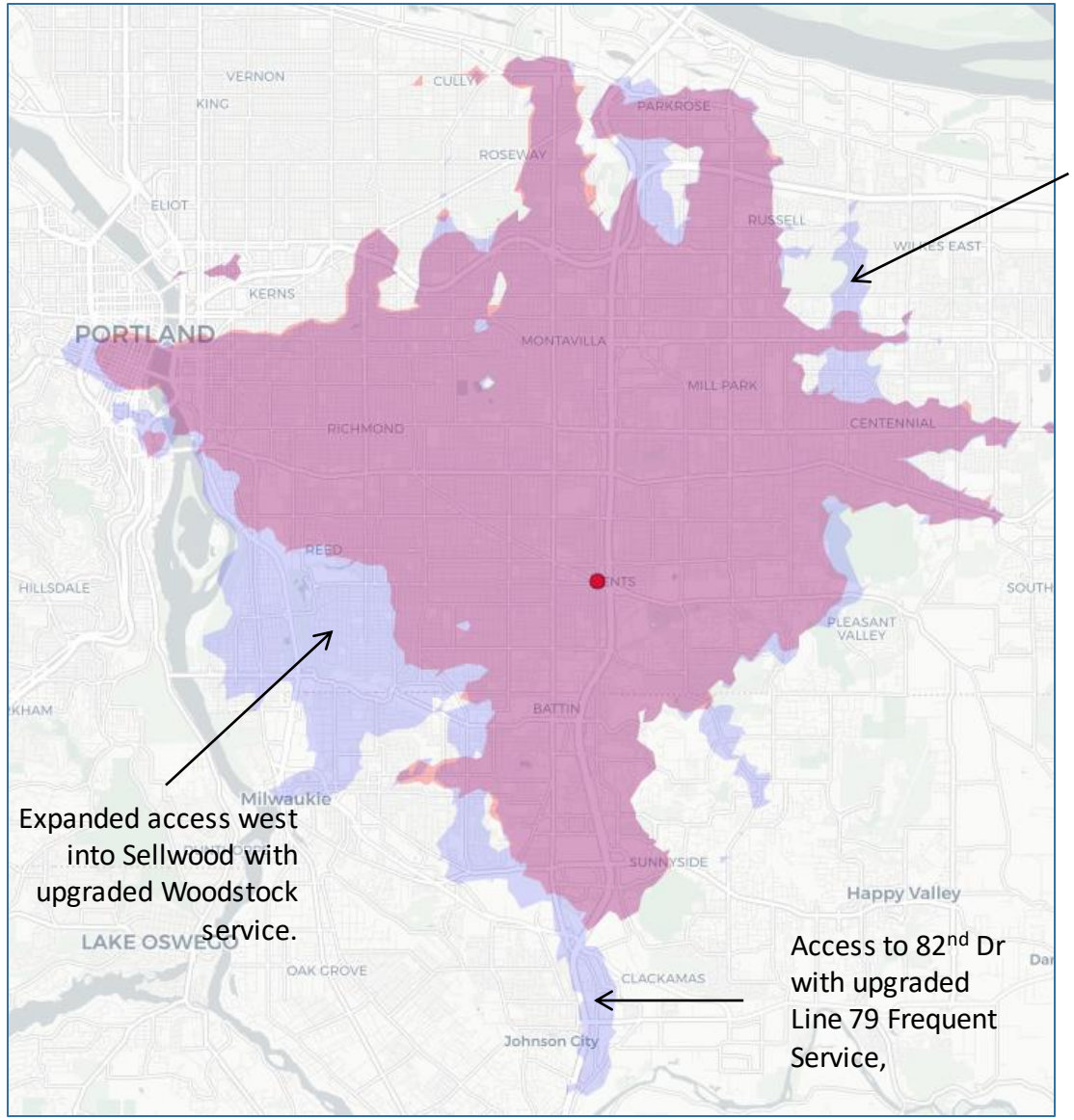
From this point, in 45 min, you could get to:

- 60k more jobs (+36%)
- 47k more residents (+20%)

Where could I travel in 45 minutes from Lents?

- Lents is already a major transit node.
- New Frequent Service along Woodstock terminating at Lents.
- New 148th Ave service terminating at Lents.

From this point, in 45 min, you could get to:
- 17k more jobs (+11%)
- 48k more residents (+17%)

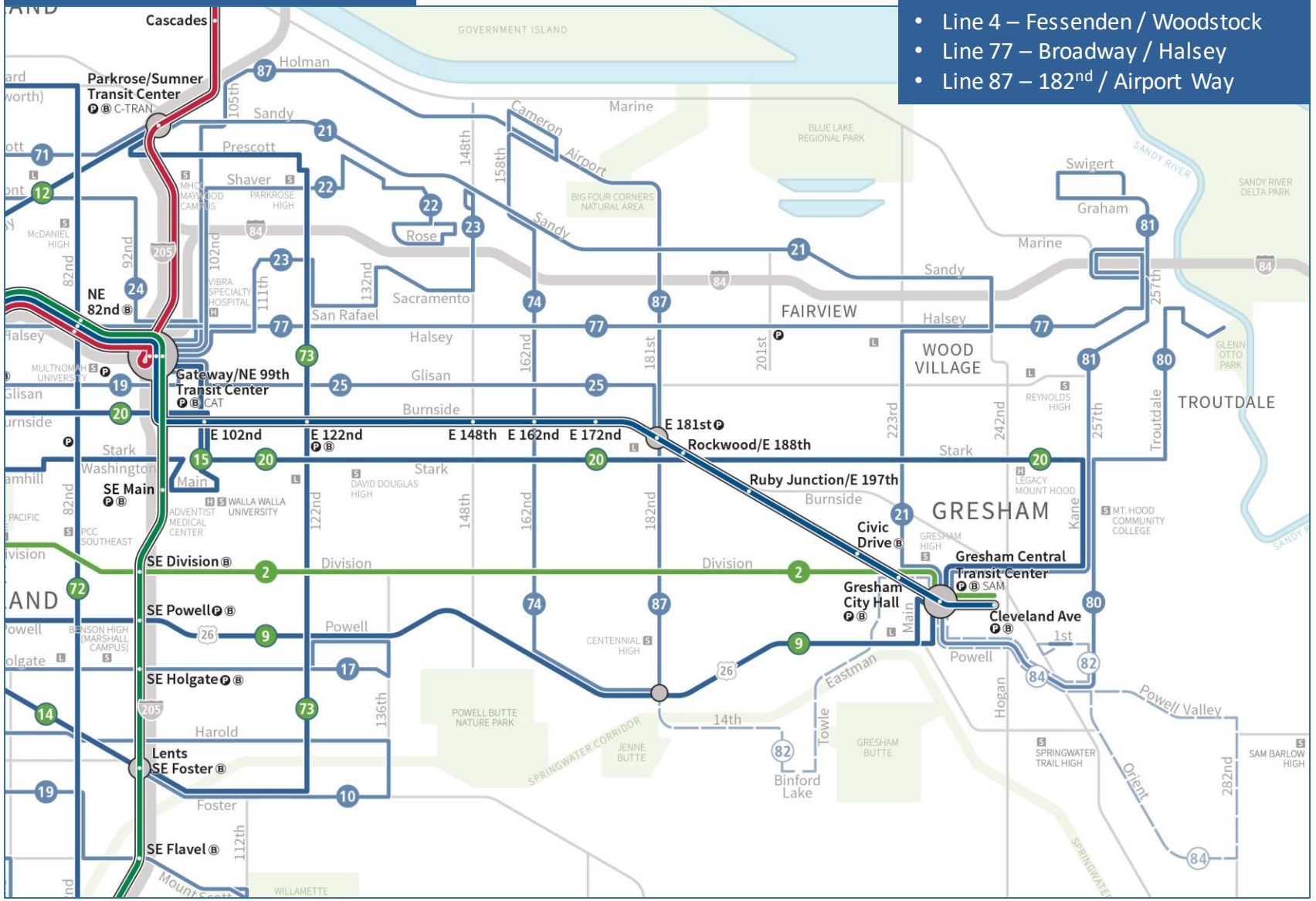


Eastside

Key connections

- Enhanced regional access to Airport Way.
  - New Frequent Service
  - Better connections at Parkrose and Gateway
- Frequent Service on Halsey.
- New north-south lines (112th, 148th, 201st, 242nd).
- Continuous service along Glisan.
- Streamlined service in Troutdale and E Gresham.

Existing Network



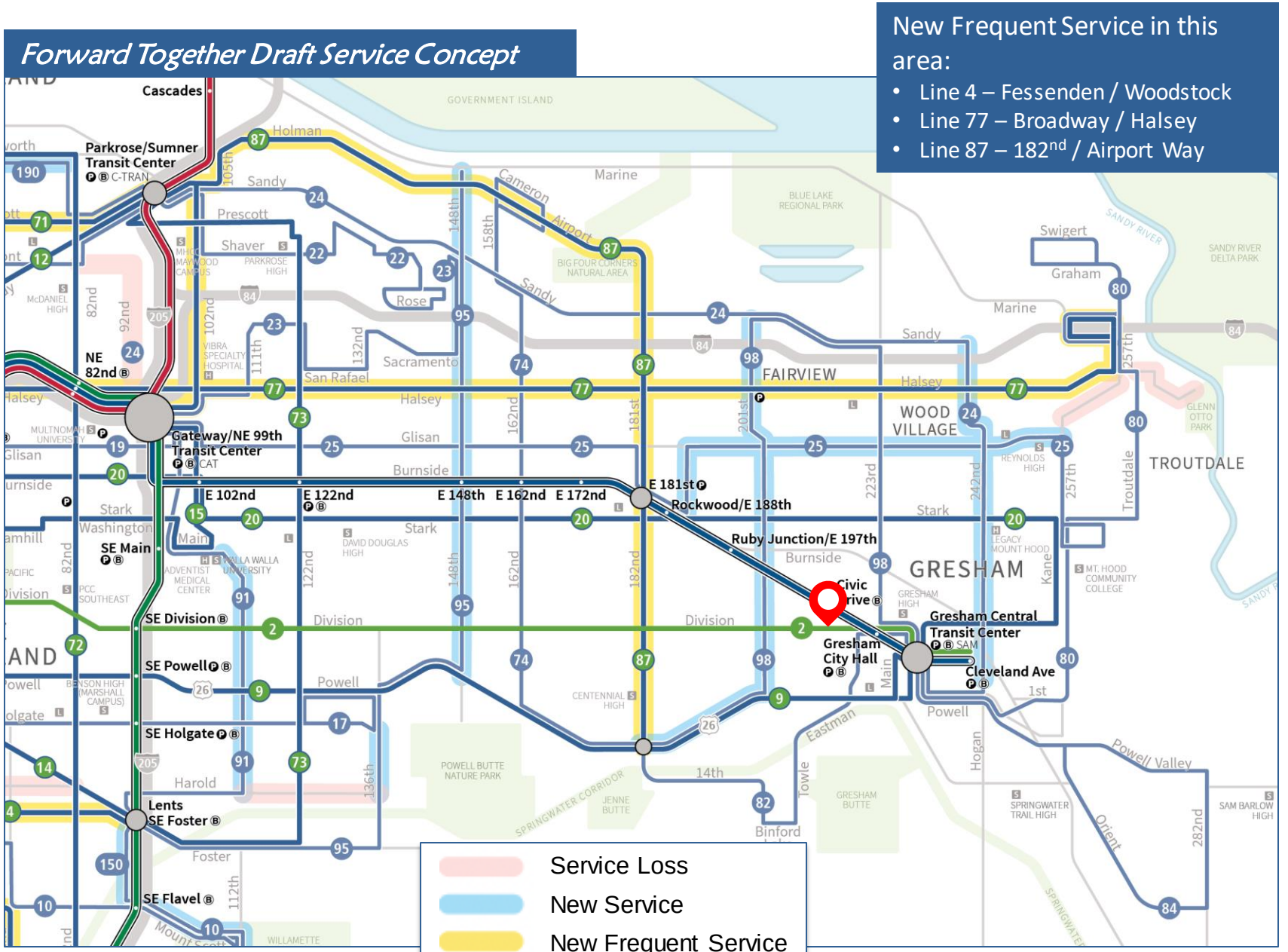
New Frequent Service in this area:

- Line 4 – Fessenden / Woodstock
- Line 77 – Broadway / Halsey
- Line 87 – 182nd / Airport Way

Eastside

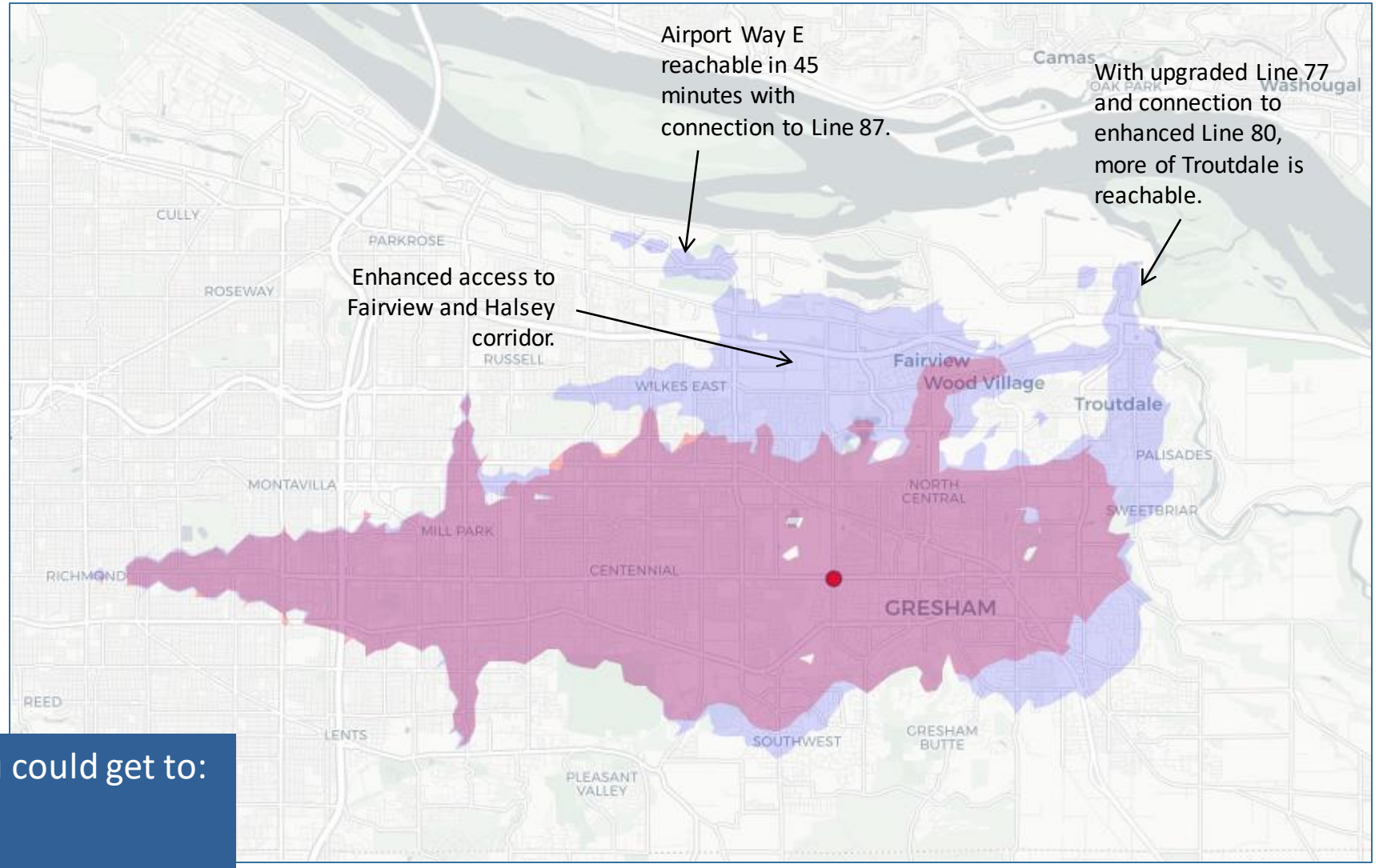
Key connections

- Enhanced regional access to Airport Way.
  - New Frequent Service
  - Better connections at Parkrose and Gateway
- Frequent Service on Halsey.
- New north-south lines (112th, 148th, 201st, 242nd).
- Continuous service along Glisan.
- Streamlined service in Troutdale and E Gresham.



Where could I travel in 45 minutes from Division & 202nd?

- New service along 201st / 202nd (Line 98).
- Line 98 would connect to new Frequent Service on Halsey, as well as enhanced service on Sandy and Glisan.
- Troutdale and E Gresham streamlining shows benefits.



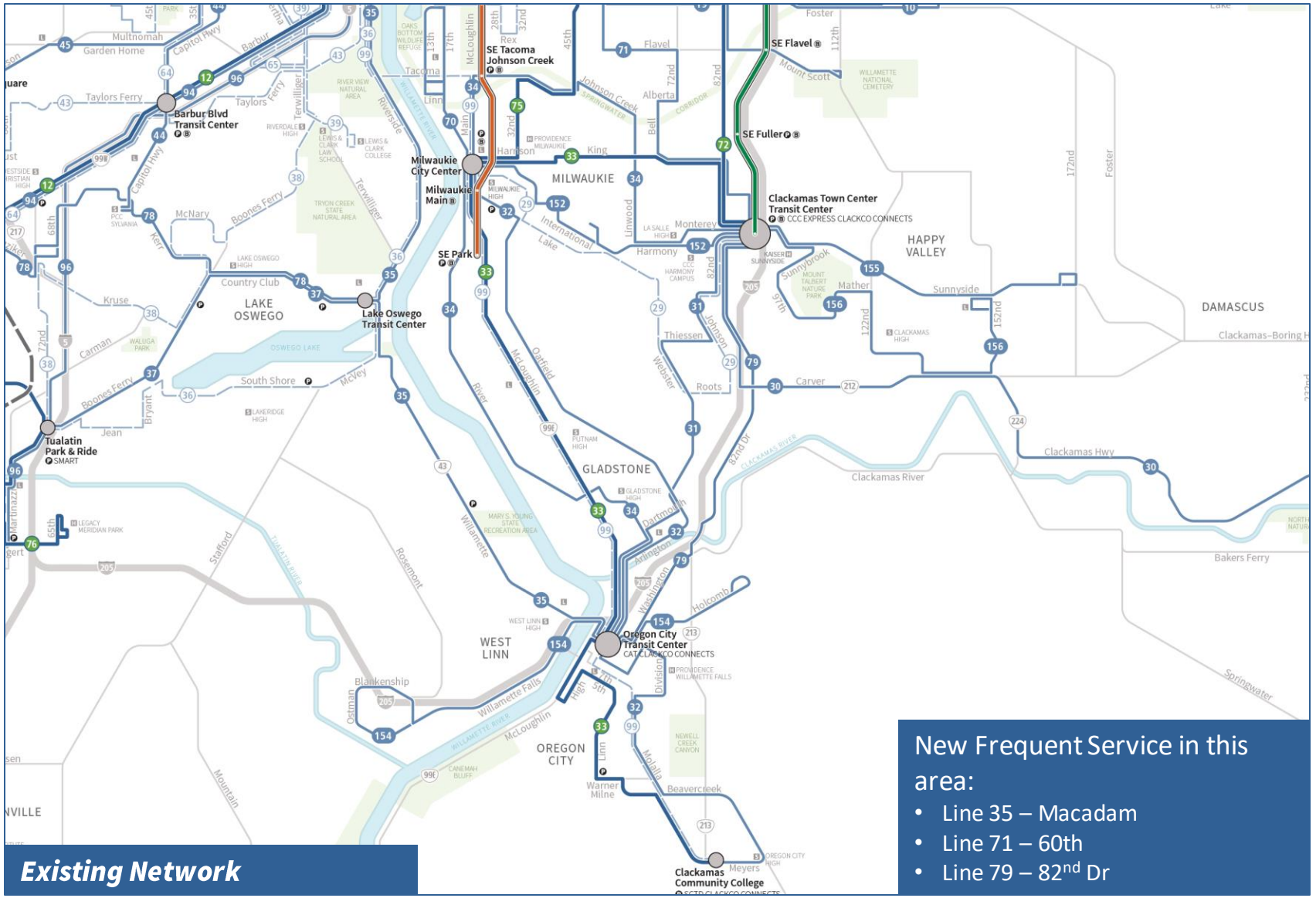
From this point, in 45 min, you could get to:

- 15k more jobs (+41%)
- 35k more residents (+24%)

Clackamas

Key connections

- Frequent Service directly connecting Clackamas Town Center and Oregon City.
- Frequent Service between Oregon City, Lake Oswego and Downtown Portland.
- New connection between Oregon City and Tualatin, Tigard, Beaverton.
- More coverage in Gladstone, Oatfield, Happy Valley, Johnson City, and Sunnyside.
- Streamlined Oregon City network.



New Frequent Service in this area:

- Line 35 – Macadam
- Line 71 – 60th
- Line 79 – 82nd Dr

Clackamas

Key connections

- Frequent Service directly connecting Clackamas Town Center and Oregon City.
- Frequent Service between Oregon City, Lake Oswego and Downtown Portland.
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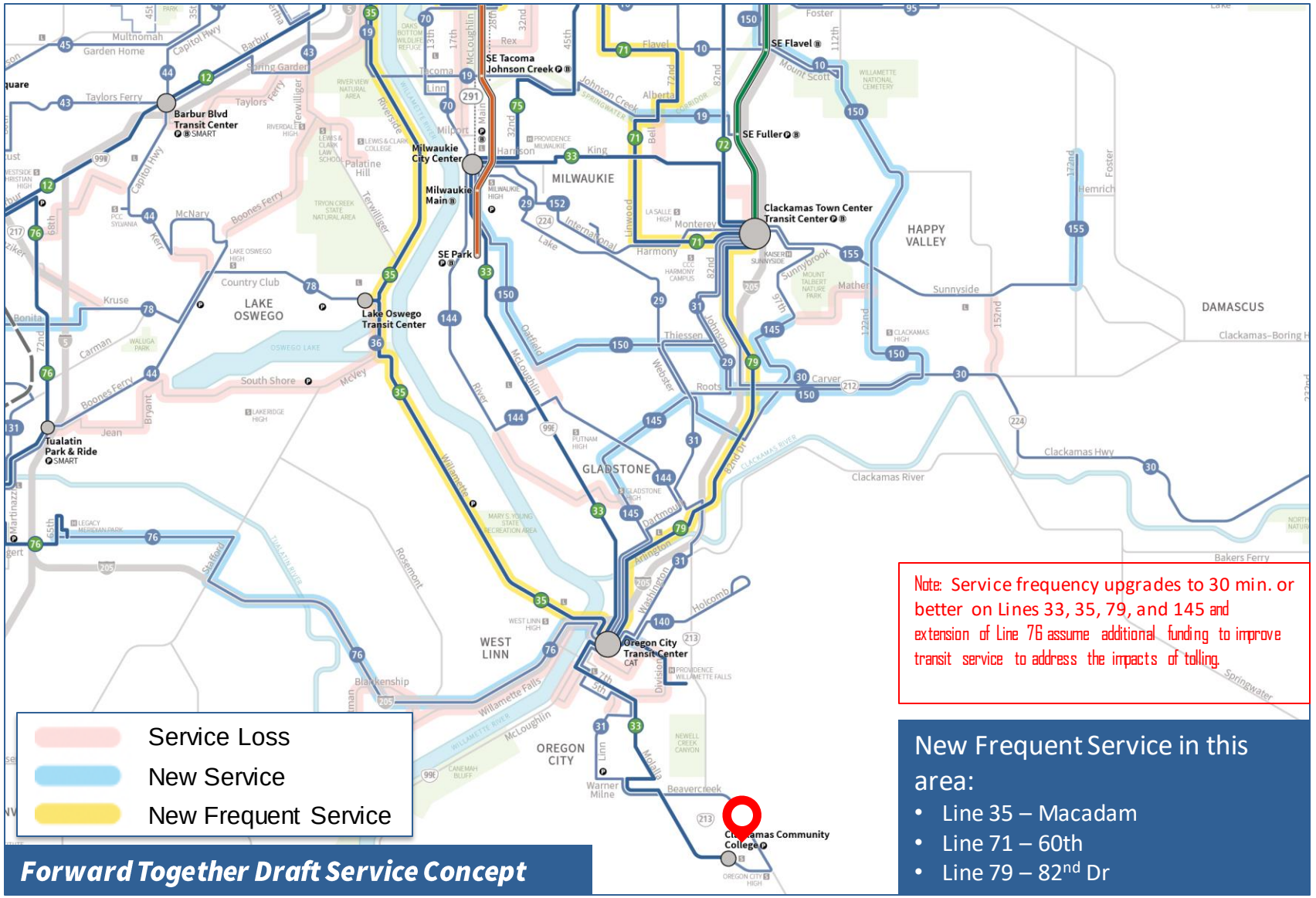


Note: Service frequency upgrades to 30 min. or better on Lines 33, 35, 79, and 145 and extension of Line 76 assume additional funding to improve transit service to address the impacts of tolling.

New Frequent Service in this area:

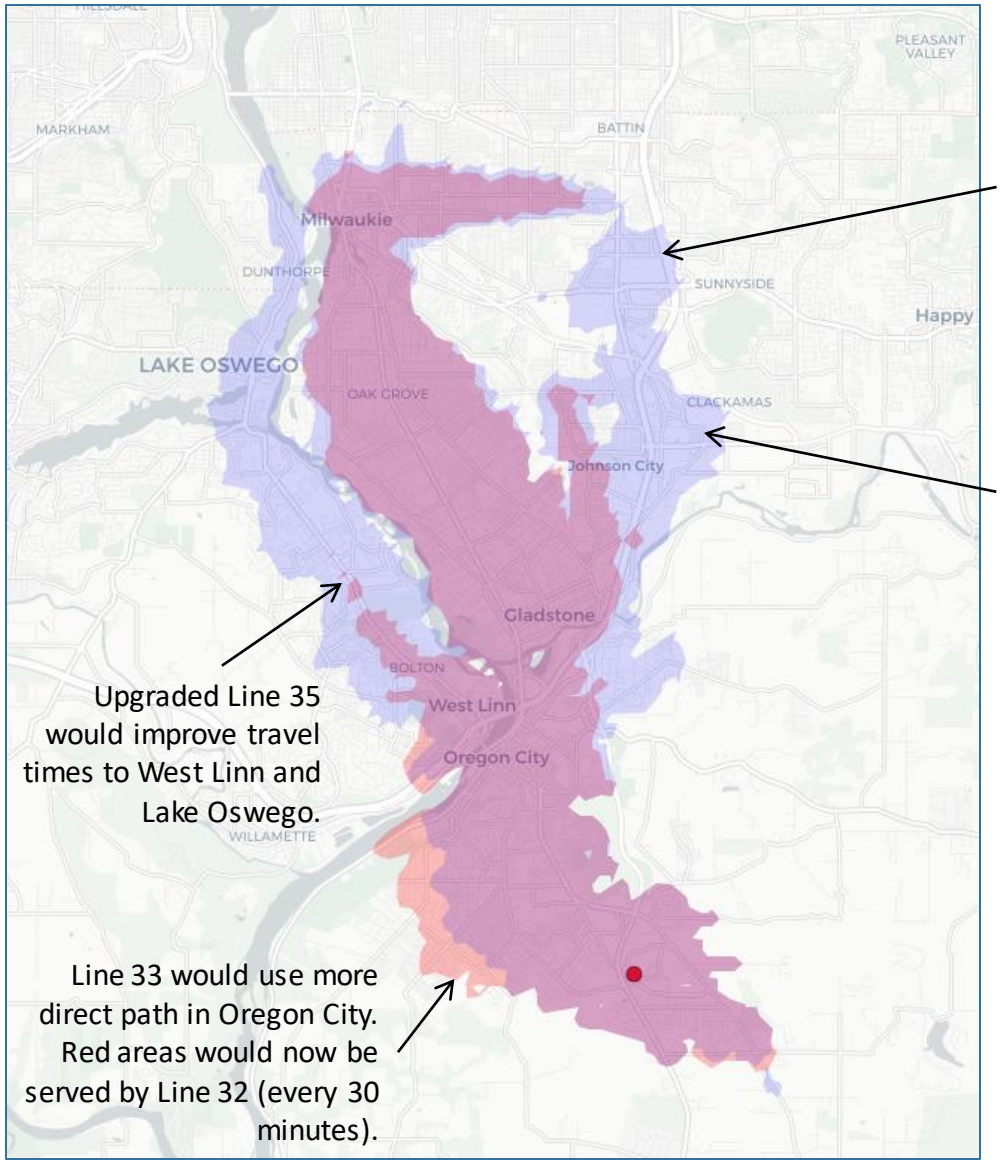
- Line 35 – Macadam
- Line 71 – 60th
- Line 79 – 82nd Dr

Forward Together Draft Service Concept

Where could I travel in 60 minutes from Clackamas Community College?

- CCC would still be served by Line 32 and 33.
- Line 33 would take a more direct path into Oregon City.
- At Oregon City TC, connecting Lines 35 and 79 would be upgraded to Frequent Service.

From this point, in 60 min, you could get to:
- 21k more jobs (+75%)
- 29k more residents (+37%)



Clackamas Town Center reachable from CCC within 60 minutes' travel time with Frequent Service Line 79.

Frequent Service Line 79 would put all areas along 82nd Drive within reach from CCC in 60 minutes.

Summary

+38% more resources.

+45% more jobs reachable by the median resident.

+50% more people and jobs near Frequent Service.

+50,000 more residents near service.

New routes serving new areas in all 3 counties.

+100,000 people near service running on the weekend.

Next Steps

- This is not a proposal. It's a draft concept to start the conversation.
- Outreach and engagement following public launch at September 28 board meeting.
- Refined full network in late 2022 based on input received in this process.
- First changes in 2023, subject to an additional round of outreach and Board review.

Discussion

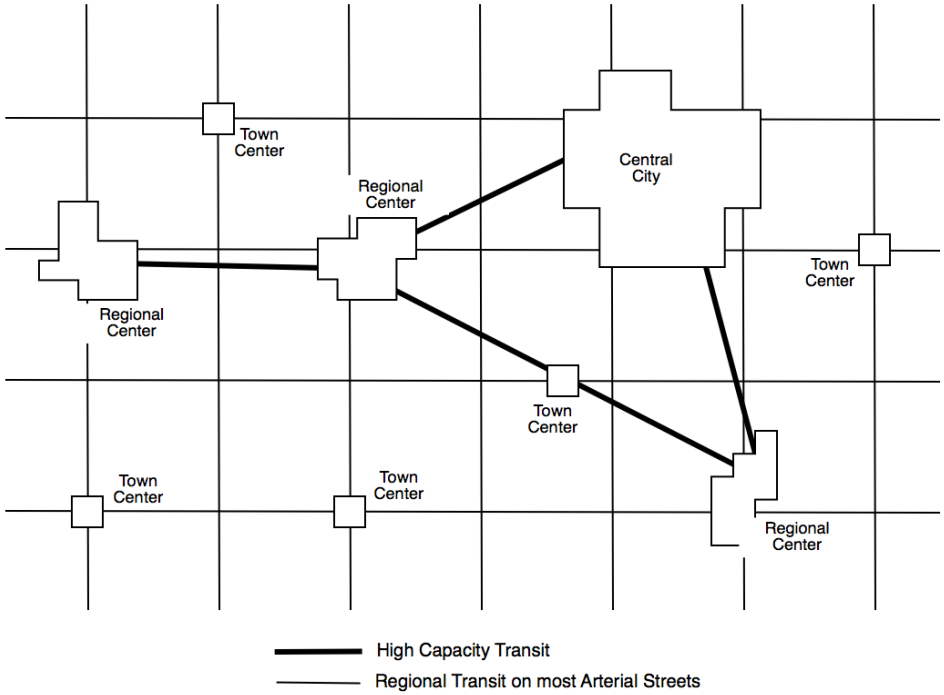
Metro

HCT Strategy Update: Policy Framework & Vision

What we heard…

Metro

Establishing the Policy Framework



Regional Transit Network Policy 4*: Make transit more convenient by expanding high capacity transit; improving transit speed and reliability through the regional enhanced transit concept.*

We looked at the current regional framework…

2040 Growth Concept

Regional Framework Plan (RFP)

Existing Overarching RTP Policies

- Safety and Security Policies
- Transportation Equity Policies
- Climate Leadership Policies
- Emerging Technology Policies

Regional Transportation Functional Plan (RTFP)

Urban Growth Management Functional Plan (UGMFP)

Review of policies related to HCT → Regional Transit Network Policies → Updated policies related to HCT

We looked at the policies…

Foundational to Role of HCT in the region and its definition

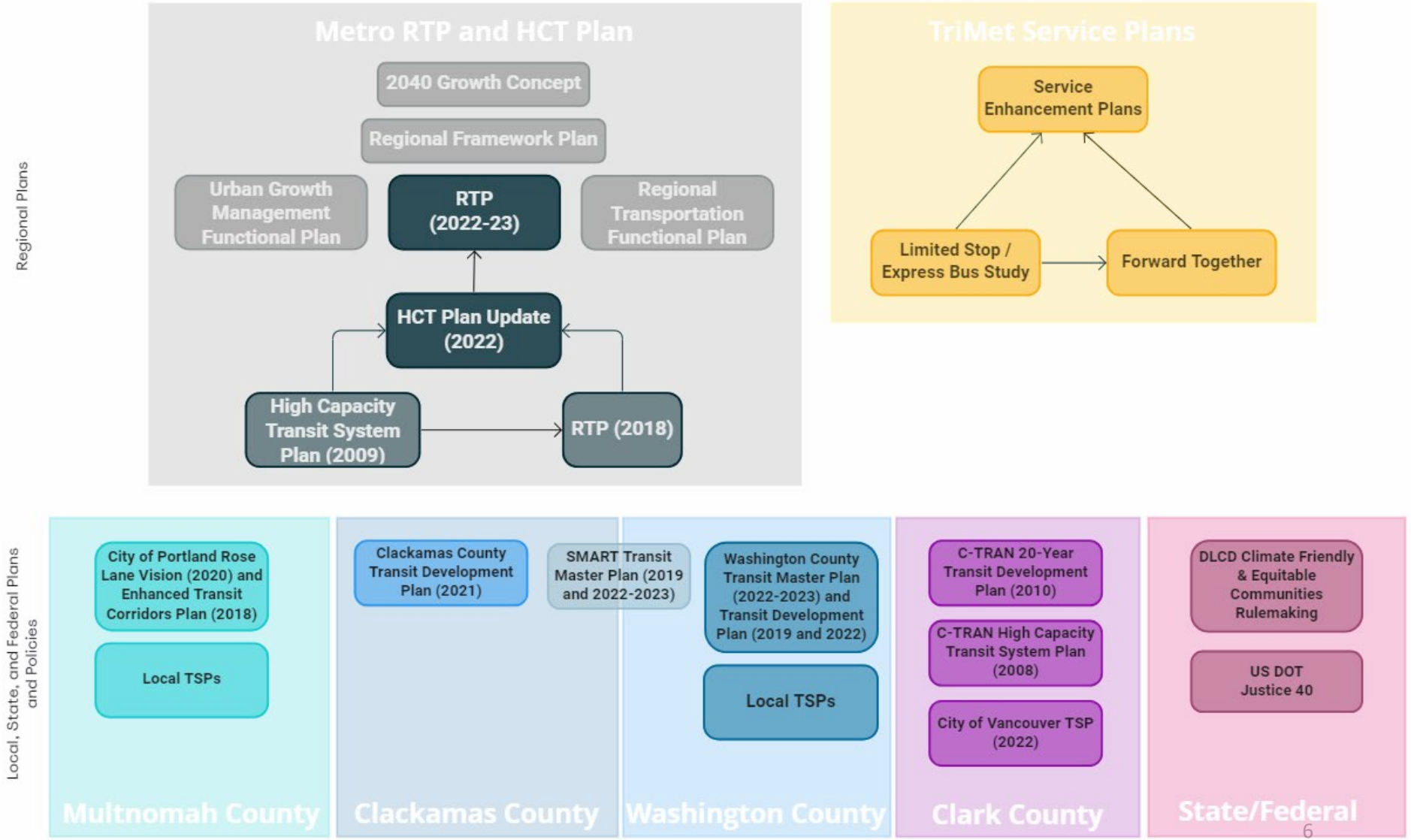
Directs Investments by directly influencing key evaluation / readiness measure(s) used for HCT decision making

Influences Outcomes of HCT system investments

Existing Regional Transit Network Policy (2018 RTP)	*Proposed* Policy Headline	2023 RTP Outcomes	Relationship to HCT
Policy 1: Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options.	Equity	☒ Equity ☐ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes
Policy 2: Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.	Maintenance and Resilience	☐ Equity ☒ Safety ☐ Climate ☐ Mobility	☐ Foundational to Role ☒ Directs Investments ☐ Influences Outcomes
Policy 3: Make transit more reliable and frequent by expanding regional and local frequent service transit and improving local service transit options.	Frequency and Reliability	☐ Equity ☐ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes
Policy 4: Make transit more convenient by expanding high-capacity transit; improving transit speed and reliability through the regional enhanced transit concept.	High-Capacity Transit	☐ Equity ☐ Safety ☒ Climate ☒ Mobility	☒ Foundational to Role ☐ Directs Investments ☐ Influences Outcomes
Policy 5: Evaluate and support expanded commuter rail and intercity transit service to neighboring communities and other destinations outside the region.	Intercity / Inter-Regional Transit	☐ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☐ Directs Investments ☒ Influences Outcomes
Policy 6: Make transit more accessible by improving pedestrian and bicycle access to and bicycle parking at transit stops and stations and using new mobility services to improve connections to high-frequency transit when walking, bicycling or local bus service is not an option.	Accessibility	☐ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☐ Directs Investments ☒ Influences Outcomes
Policy 7: Use technology to provide better, more efficient transit service – focusing on meeting the needs of people for whom conventional transit is not an option.	Mobility Technology	☒ Equity ☒ Safety ☐ Climate ☒ Mobility	☐ Foundational to Role ☐ Directs Investments ☐ Influences Outcomes
Policy 8: Ensure that transit is affordable, especially for people who depend on transit.	Affordability	☒ Equity ☐ Safety ☐ Climate ☐ Mobility	☐ Foundational to Role ☐ Directs Investments ☐ Influences Outcomes

We looked at partner plans and policies…

Local, State, and Federal Plans informing the Regional HCT Plan



RTP = Regional Transportation Plan, TDP = Transit Development Plan, TSP = Transportation System Plan

We looked to peer regions…

- Seattle
- San Francisco
- Los Angeles
- Twin Cities
- Austin
- Boston
- Philadelphia

RTP Priorities

- ☑ Equity
- ☑ Safety
- ☑ Climate
- ☑ Mobility

What refinements could be made?

Existing #	Revised #	Proposed Headline	Existing Policy Text	Gaps / Considerations Addressed	Updated Policy Text Considerations
1	1	**System Quality**	*Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options.*	▪ Separated existing Policy 1 into two policies ▪ Aligned with overarching Transportation Equity Policy 3 ▪ Integrated quality of service into policy language	Provide a high-quality, safe, and accessible system that makes transit a convenient and comfortable transportation choice for everyone to use.
	2	**Equity**			Ensure that the regional transit network equitably prioritizes service to those who depend on transit or lack travel options; makes service, amenities, and access safe and secure; and proactively supports stability of vulnerable communities, particularly communities of color and other historically marginalized communities.[2]
N/A	3	**Climate Change**	*N/A*	▪ Strengthen policies to focus on transit's role in addressing climate change	Prioritize our transit investments to create a transit system that encourages people to ride rather than drive alone and support transitioning to a clean fleet, enabling us to meet our state, regional, and local climate goals.
2	4	**Maintenance and Resiliency**	*Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.*	▪ Incorporated reliability into State of Good Repair	Preserve and maintain the region's transit infrastructure in a manner that improves safety, reliability, and resiliency while minimizing life-cycle cost and impact on the environment.

What refinements could be made?

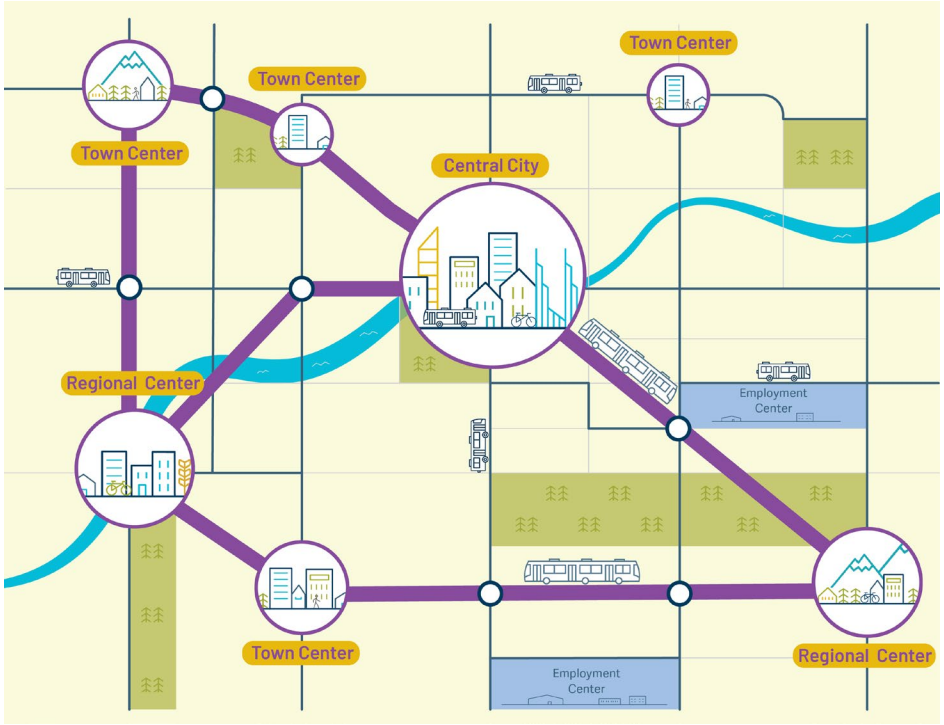
Existing #	Revised #	Proposed Headline	Existing Policy Text	Gaps / Considerations Addressed	Updated Policy Text Considerations
4	5	**High Capacity Transit**	*Make transit more convenient by expanding high capacity transit; improving transit speed and reliability through the regional enhanced transit concept.*	▪ Align with equity and climate outcomes and HCT definition ▪ Reframe "convenient" around equity ▪ Revise description of capacity	Complete and strengthen a well-connected network of high capacity transit along mobility corridors with the highest travel demand. High capacity transit prioritizes transit speed to connect regional centers with the Central City, link regional centers with each other and link regional centers to major town centers to provide people with high-quality service and convenient connections.
3	6	**Coverage and Frequency**	*Make transit more reliable and frequent by expanding regional and local frequent service transit and improving local service transit options.*	▪ Moved reliability and the Enhanced Transit Concept to a new policy (see Policy 7)	Complete a well-connected network of local and regional transit on most arterial streets – prioritizing frequency along mobility corridors and main streets linking town centers to each other and neighborhoods to centers.
3 and 4	7	**Reliability**	*See Policy #4*	▪ Created a separate policy focused on reliability that clarifies the role of ETC in the regional transit network	Through the Better Bus program, prioritize capital and traffic operational treatments identified in the Enhanced Transit Toolbox in key locations or corridors to improve transit speed and reliability.

Could we expand HCT's role in the regional transit network?

Connecting regional centers and major town centers

"The 2040 Growth Concept sets forth a vision for connecting the central city to regional centers like Gresham, Clackamas and Hillsboro with high capacity transit. The RTP expands this vision to include **high capacity connections to major town centers, as well as** a complete network of regional transit along most arterial streets to better serve existing and growing communities."

2018 RTP - Regional Transit Strategy – Page 4-4

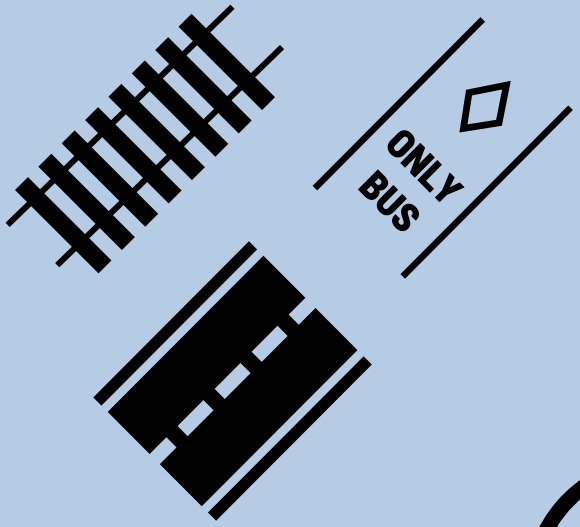


How could we refine the definition?

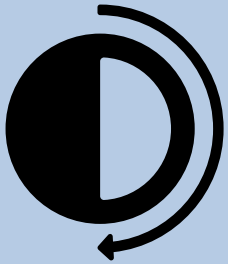
Transit is essential and the backbone of the transportation network. The high capacity transit system is meant to connect **people** to regional centers with high-quality service (fast, frequent, safe and reliable) and carry more transit riders **more comfortably** than the local, regional, and frequent service transit lines. HCT operates with the majority or all of the service in exclusive guideway and could include light rail, commuter rail, rapid streetcar, bus rapid transit (BRT), and corridor-based BRT. **Corridor-based BRT makes a substantial investment in a specific corridor but may not operate in an exclusive guideway for the full corridor**."

2018 RTP - Regional Transit Strategy – Page 4-10

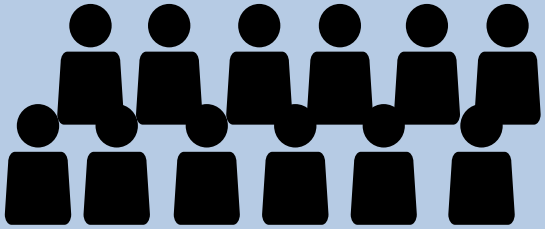
What makes a transit investment high capacity?



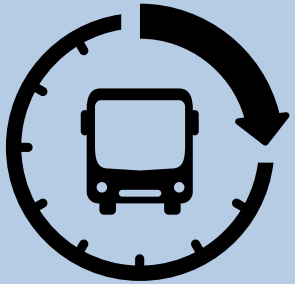
most to full priority (speed + reliability)



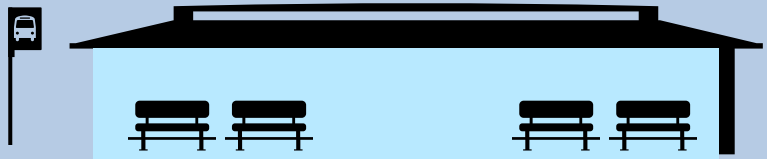
runs 16-18+ hours per day (span)



moves a lot of people (volume)

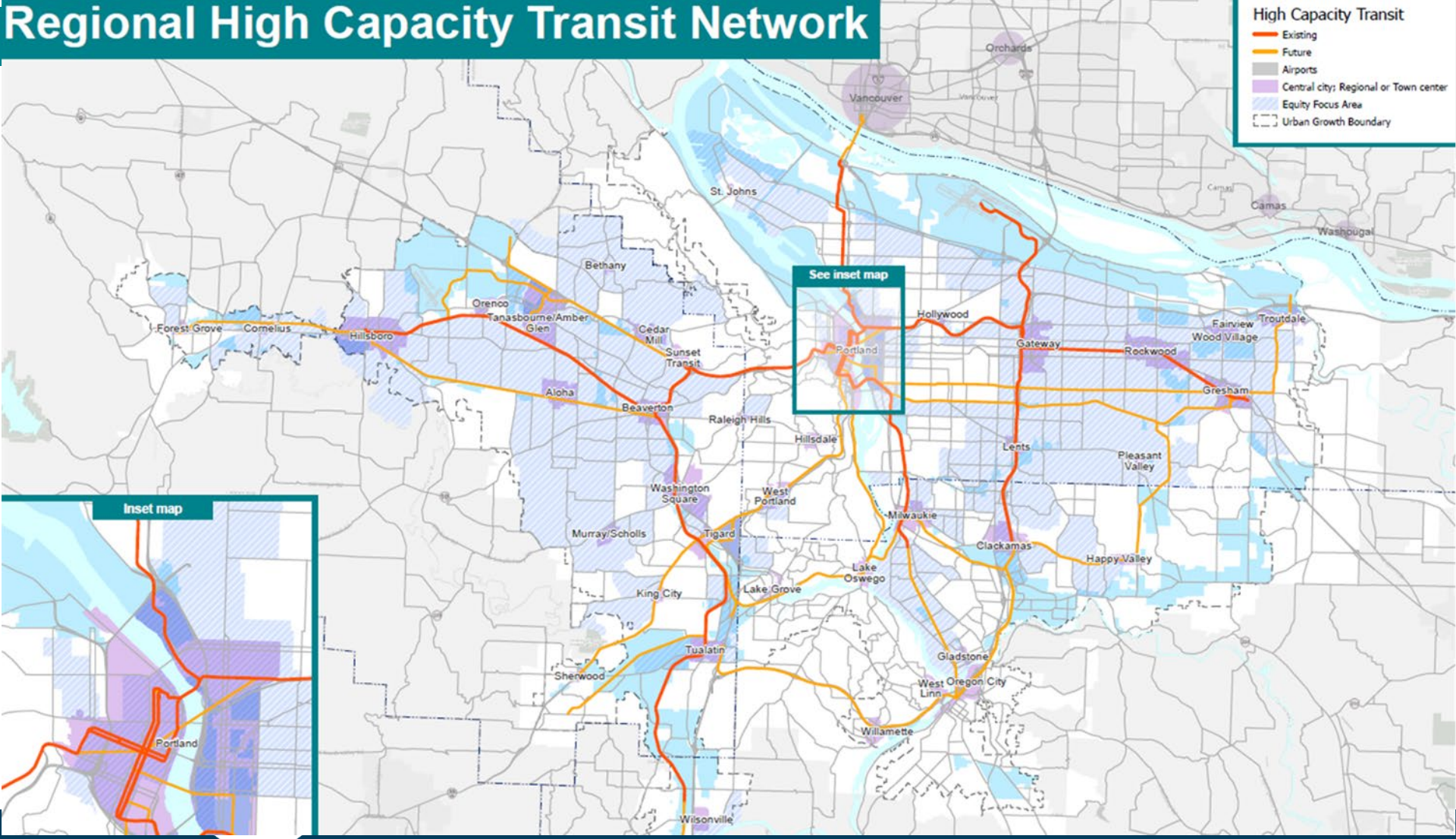


frequent to very frequent (<15 minutes, convenience)



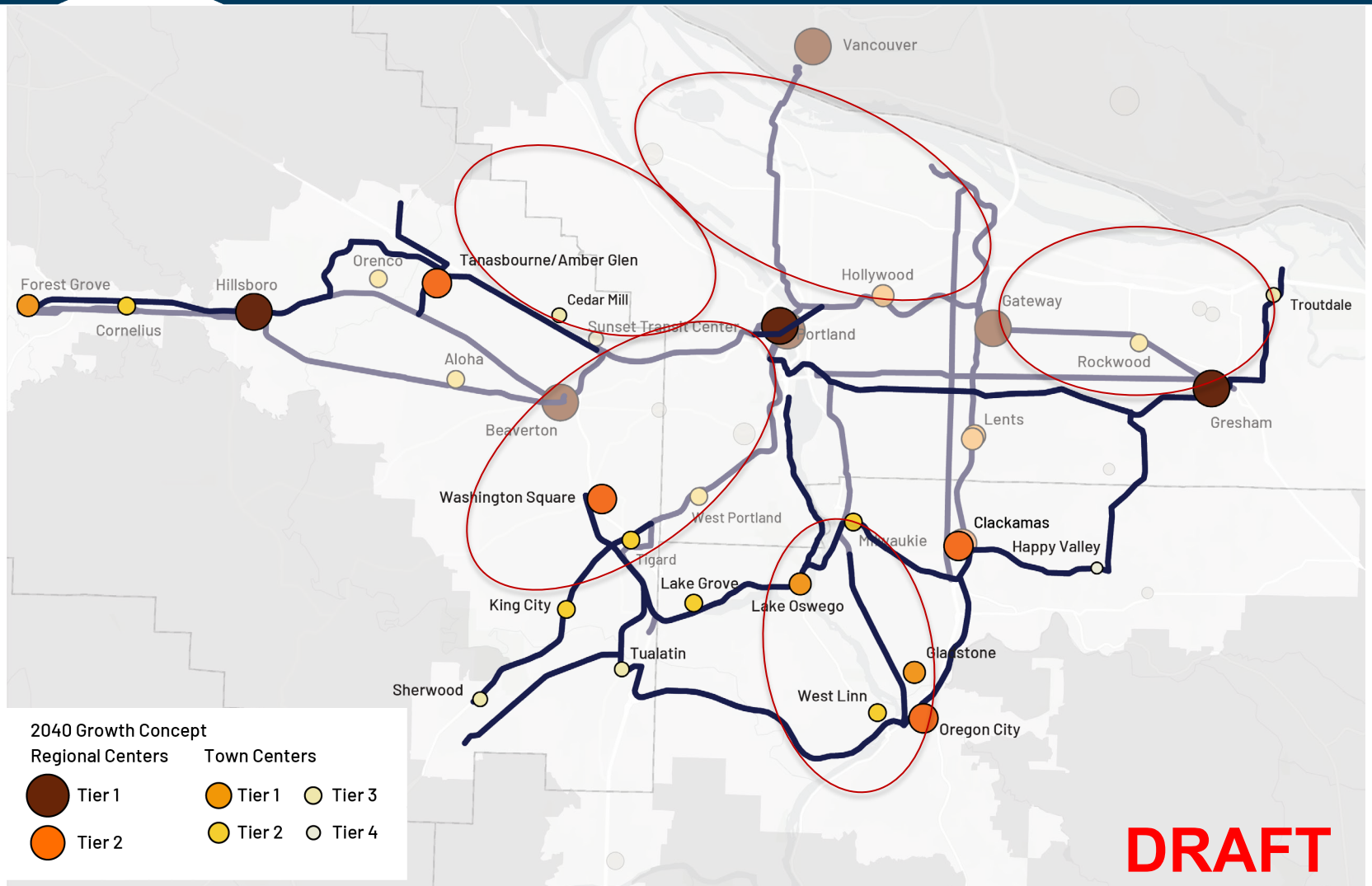
better to best amenities (efficiency + comfort)

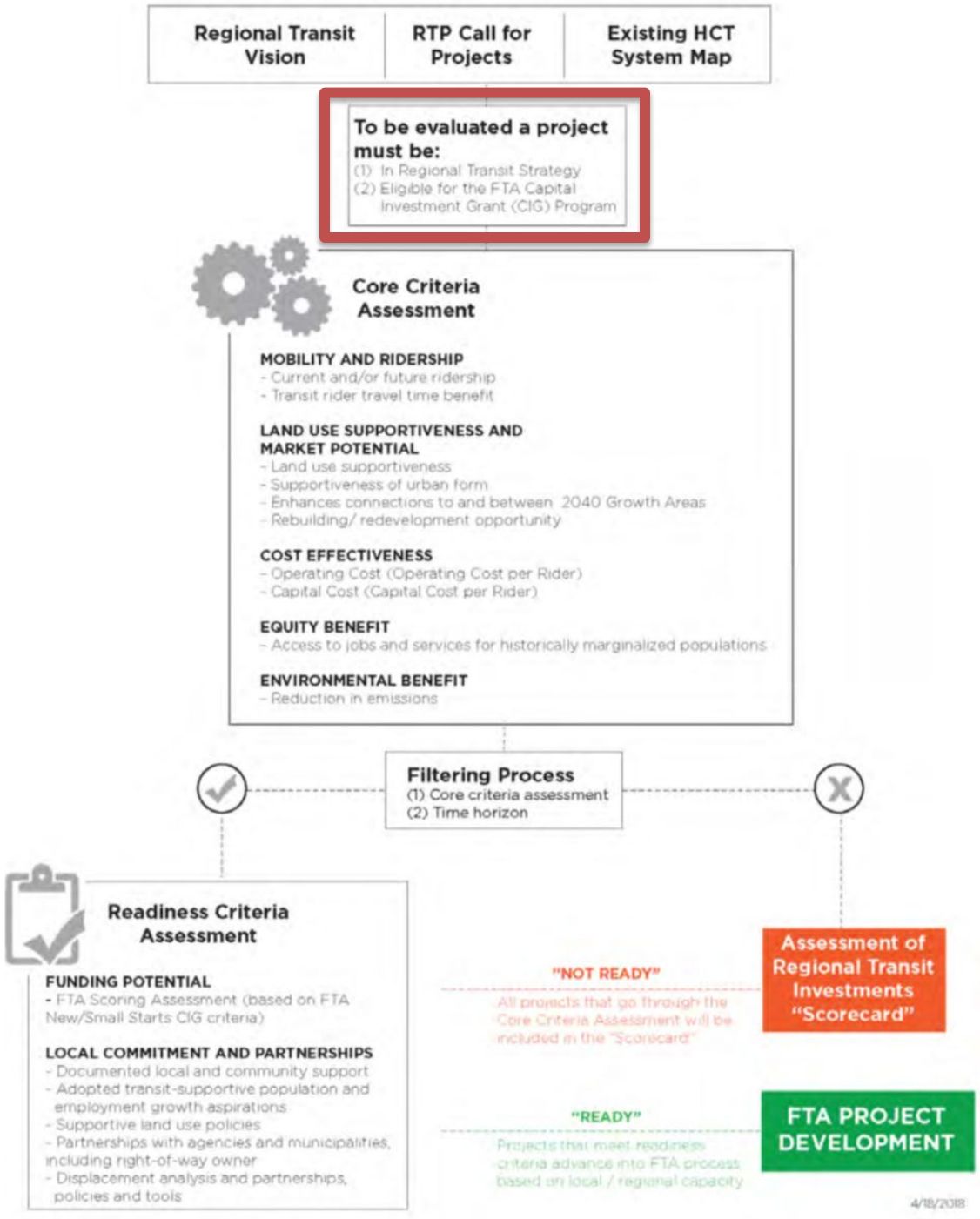
What makes a corridor ready?



Developing the Network Vision

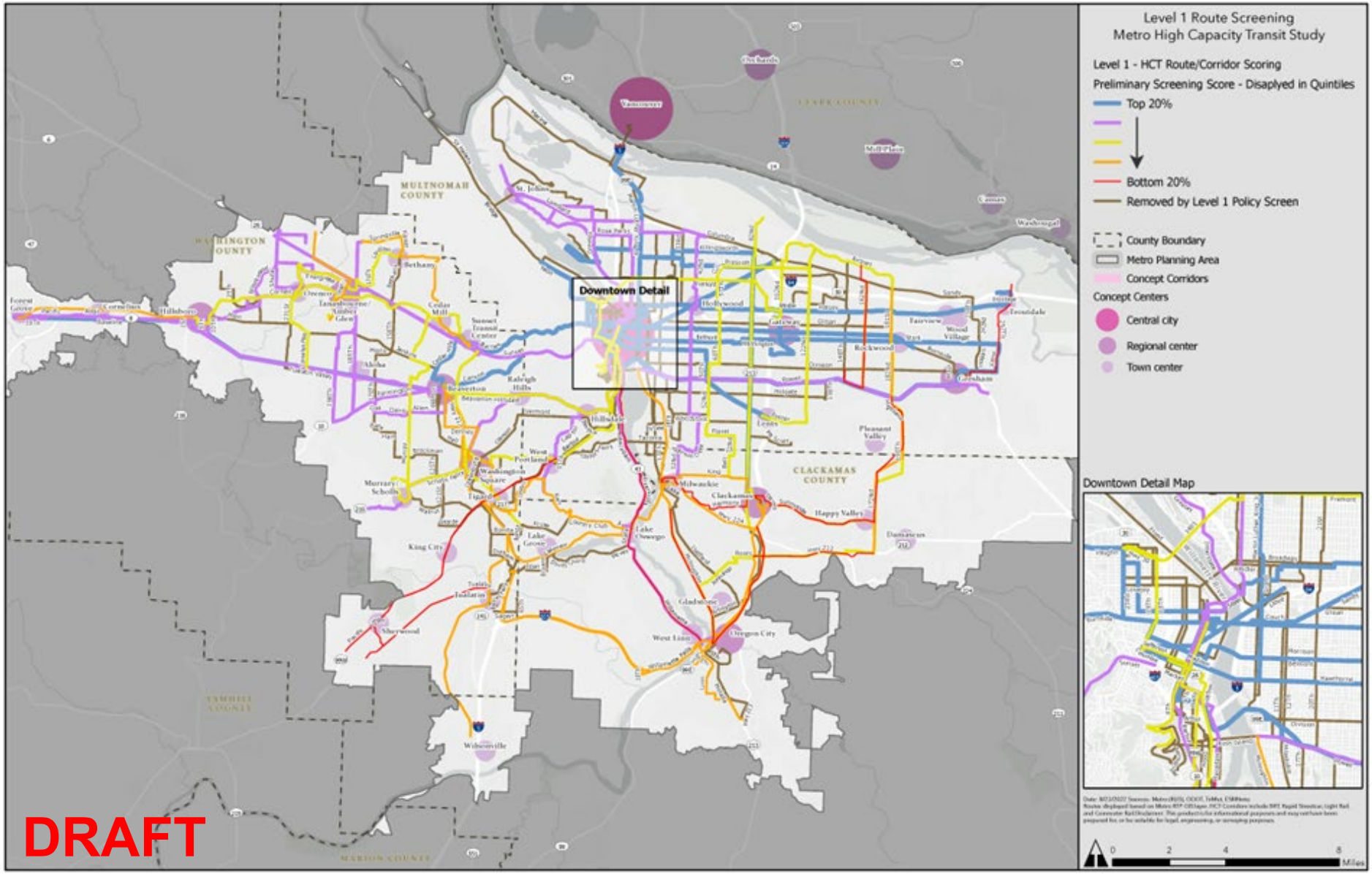
Looking at today's network plan…



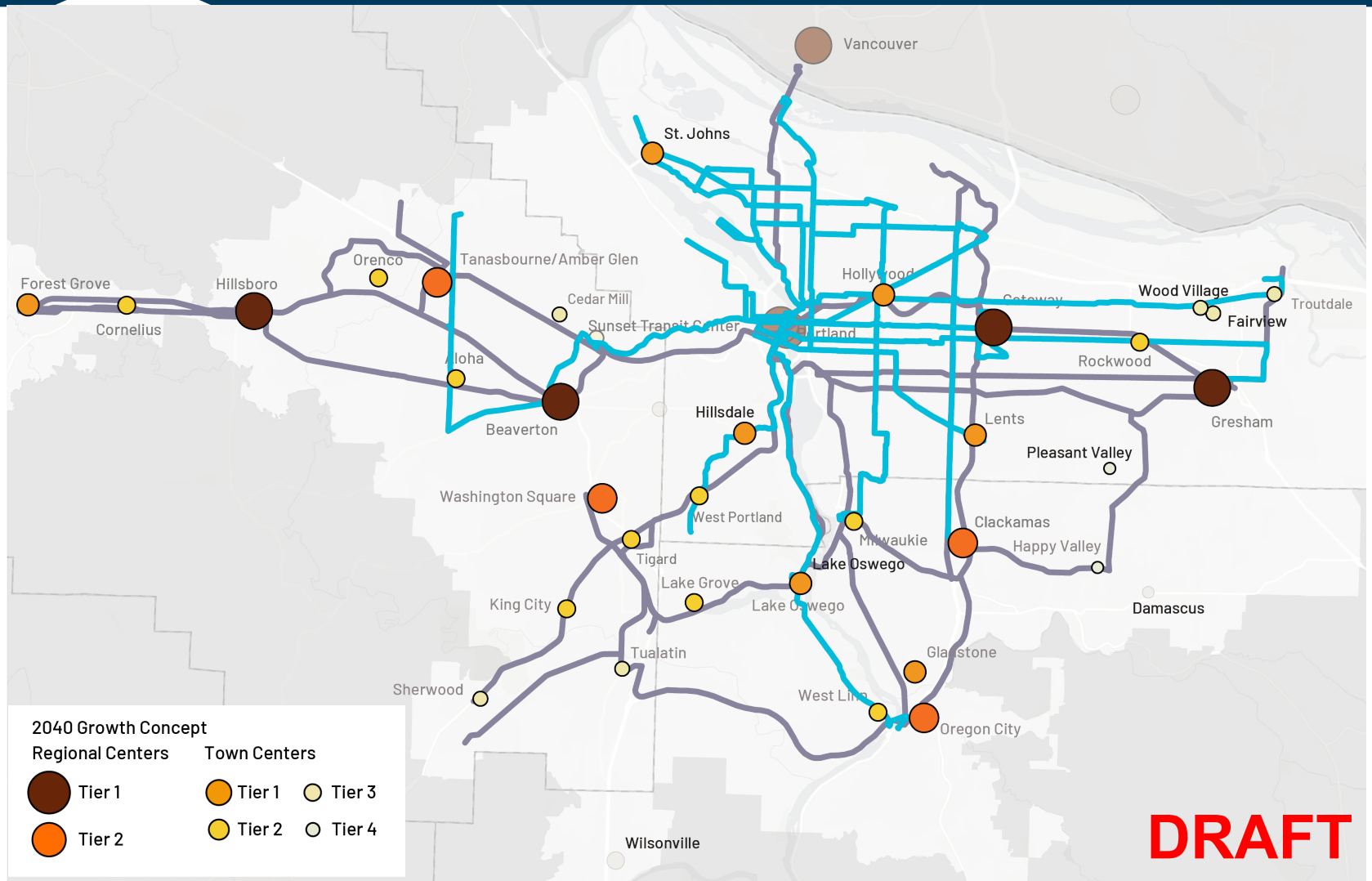


Thinking about initial corridor screening…

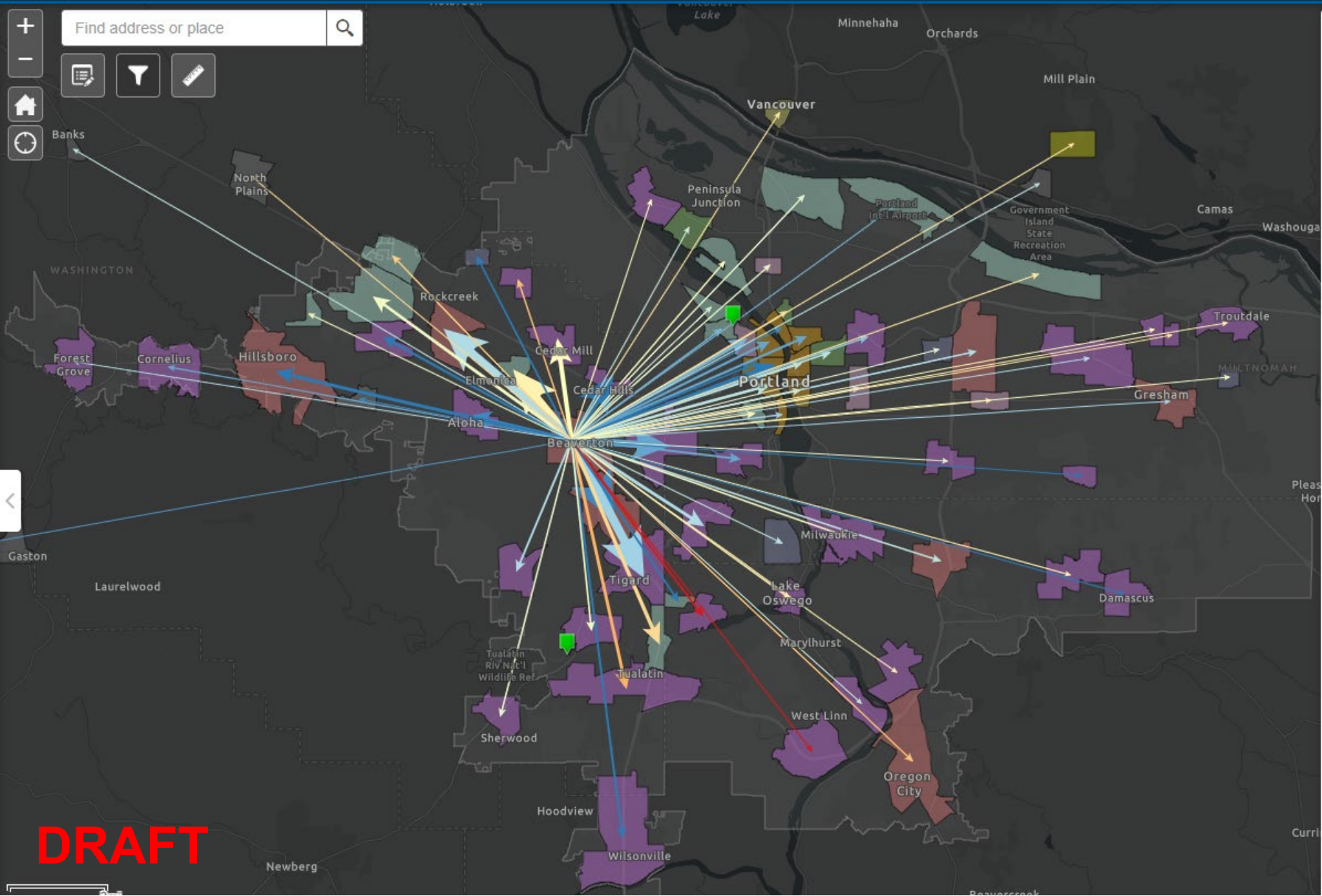
Looking at mobility, climate, equity…



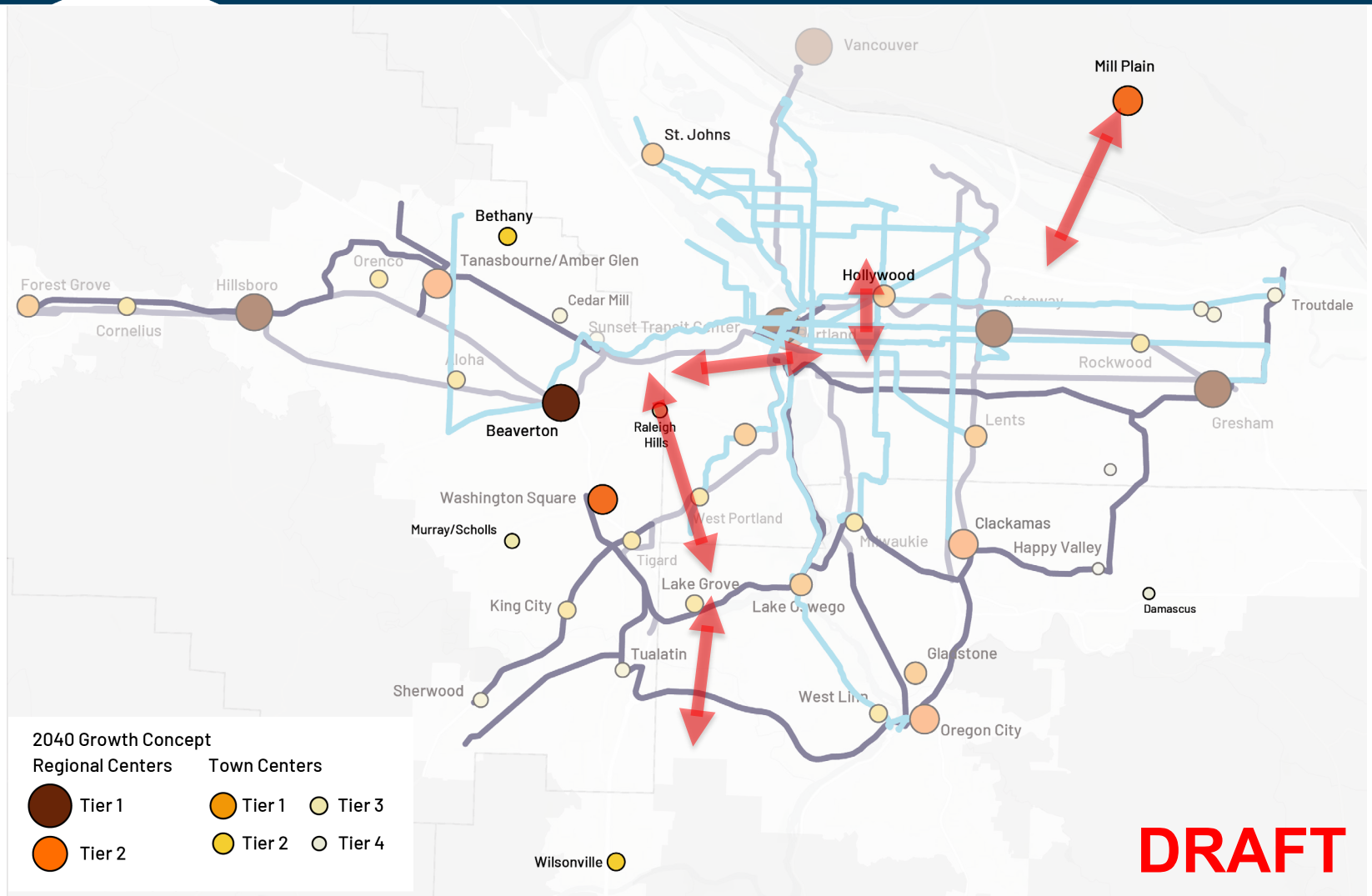
Identifying corridor opportunities…



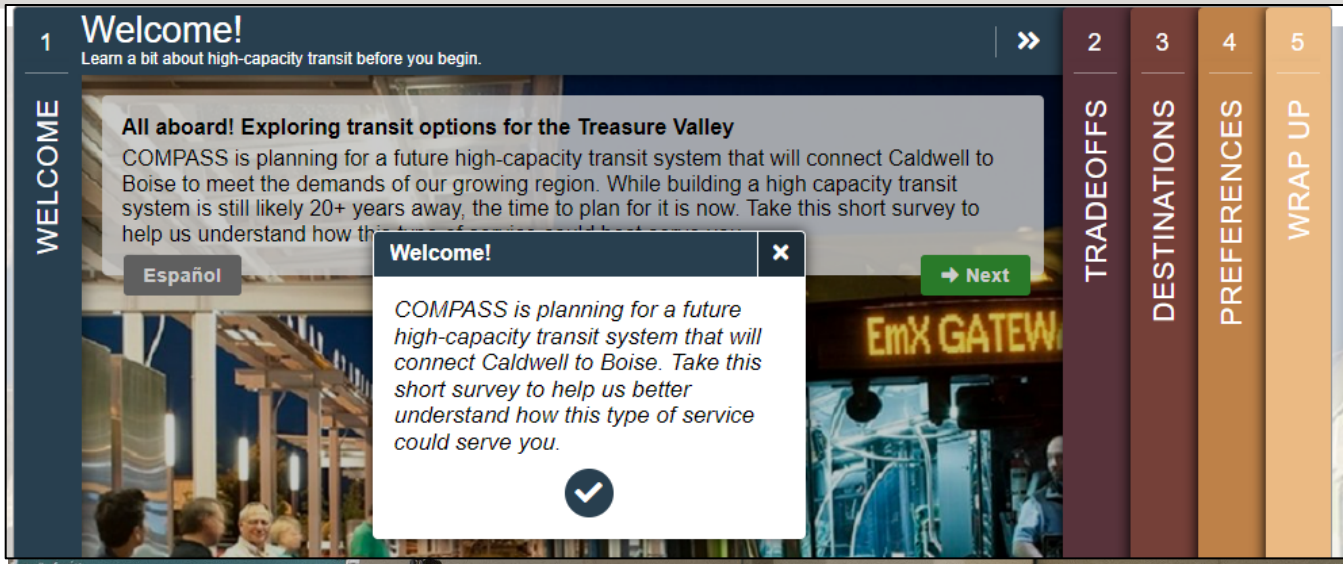
Thinking about other “big moves”…

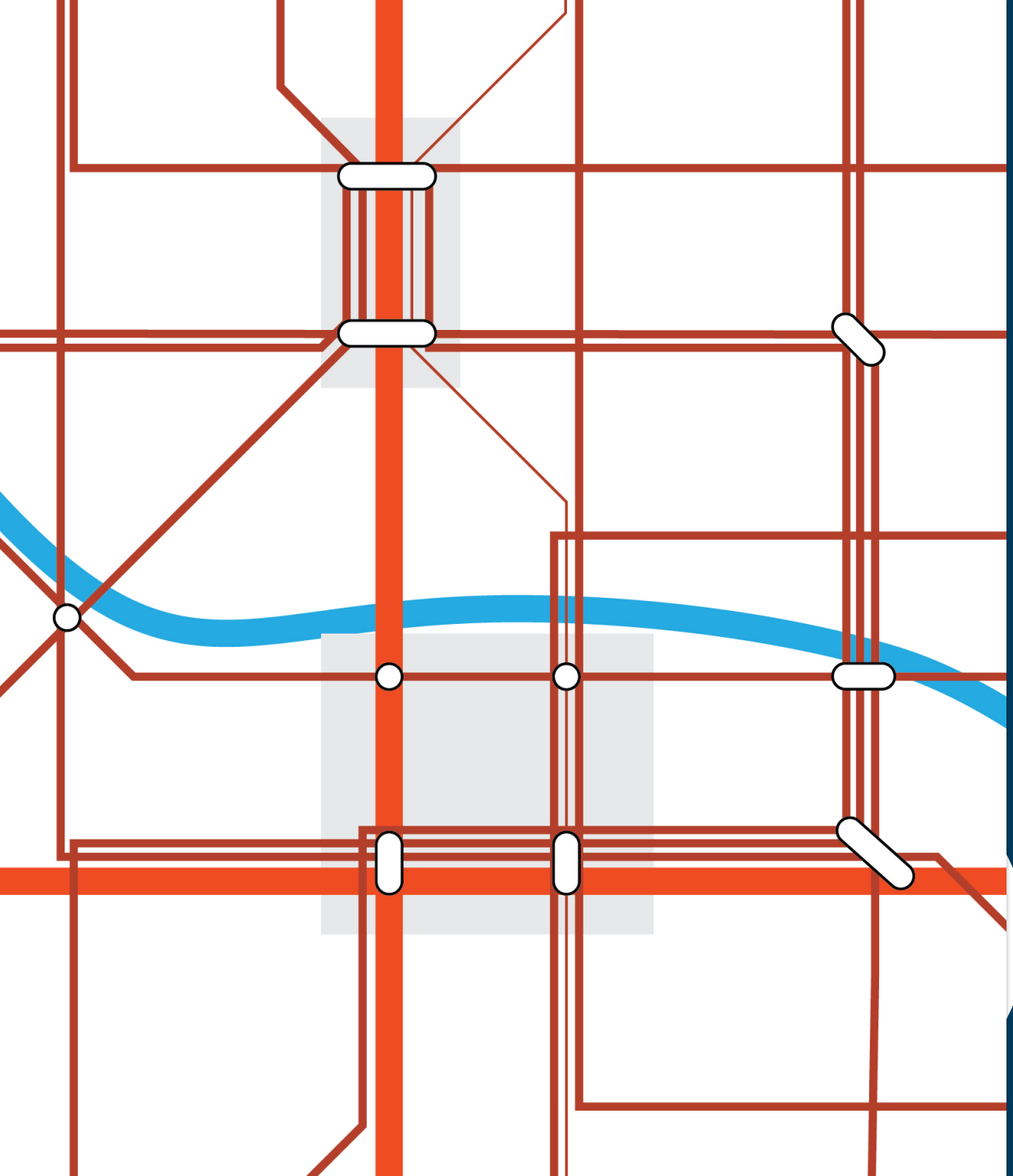


Identifying more opportunities…

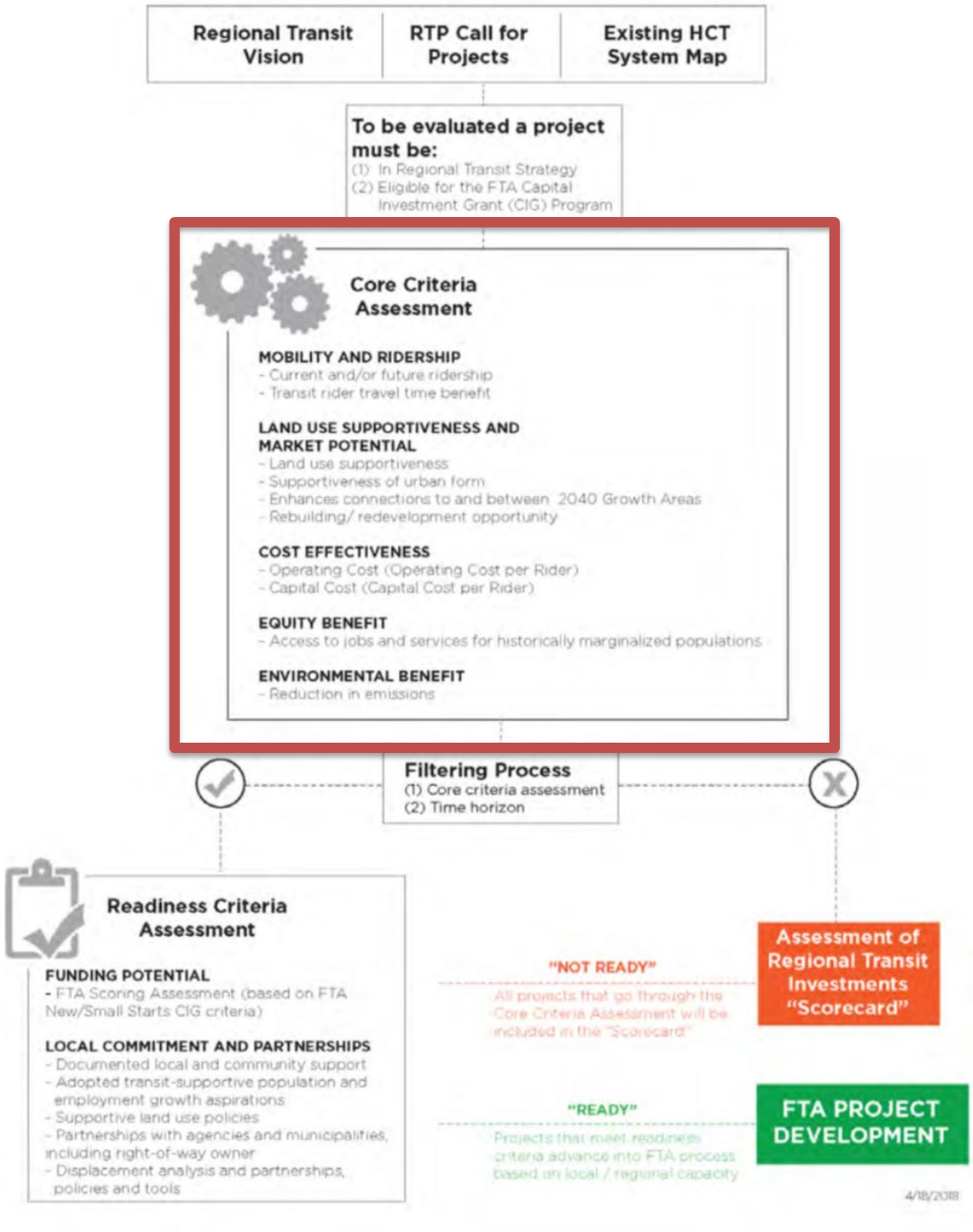


Engaging to add to these lenses…

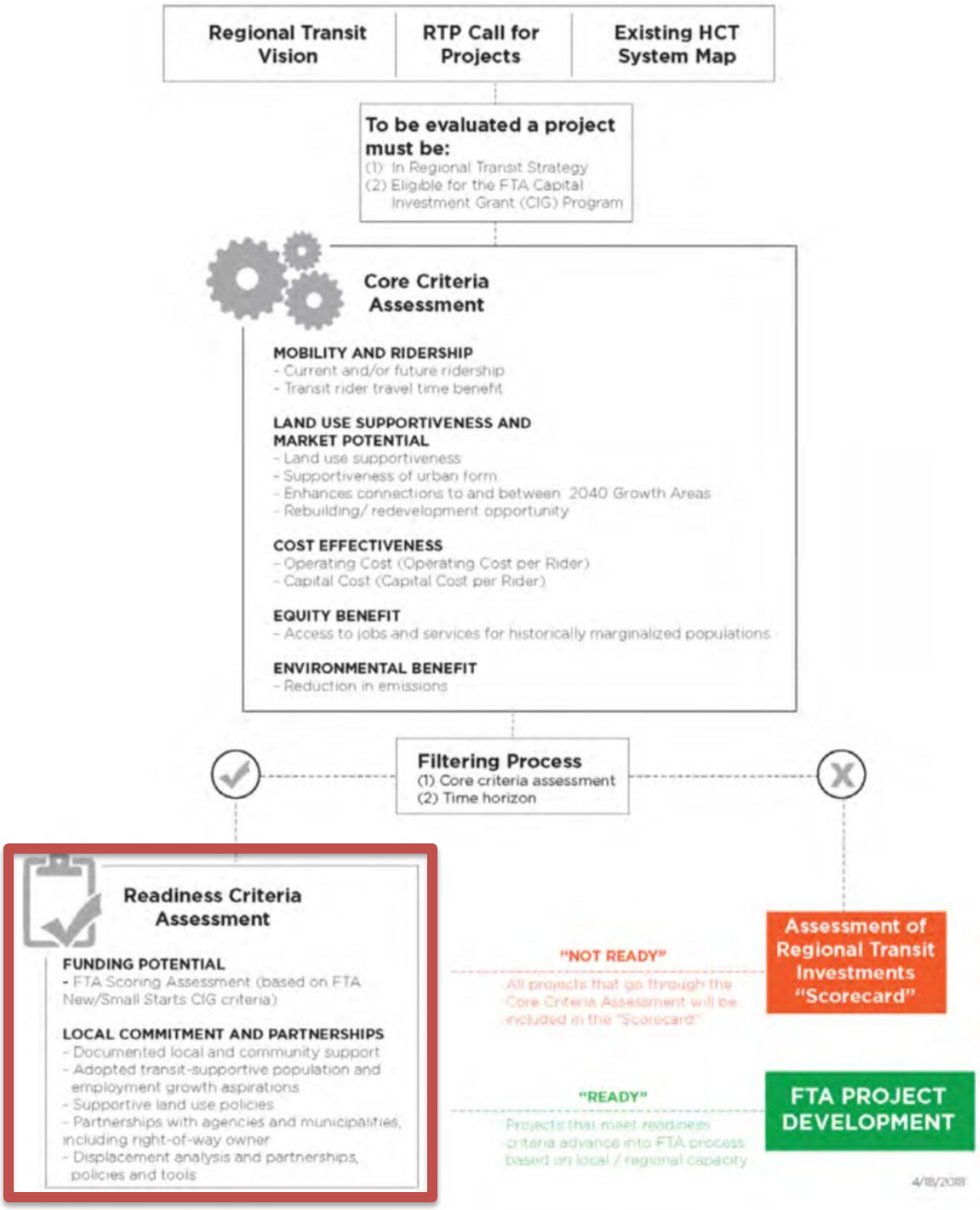




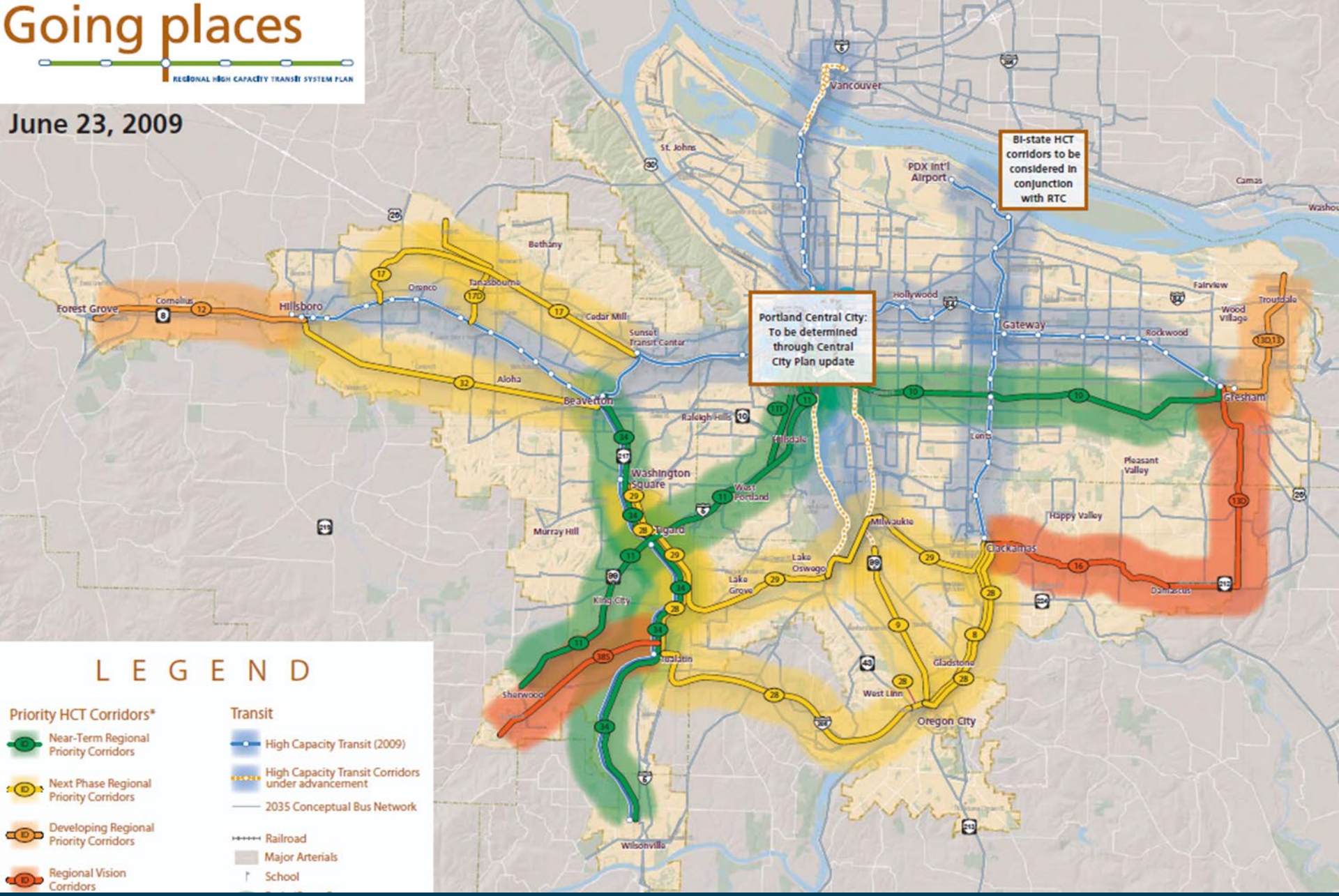
Thinking about the whole system…



Looking to evaluate for readiness…



Looking at other aspects of readiness…



Grouping the Corridor Tiers

Next Steps

Metro

Thank you!!

oregonmetro.gov