

IMPACT STATEMENT

Legislation title: Recommend the Portland Bureau of Transportation develop new and expanded strategies to improve transit service and increase transit ridership throughout the City by developing an Enhanced Transit Program and endorse a list of transit projects for the Regional Transportation Plan 2018 Update Call for Projects (Resolution)

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Presenter name: April Bertelsen

Purpose of proposed legislation and background information:

The purpose of this legislation is to significantly improve transit service in Portland by developing an Enhanced Transit Program and plan with strategies, projects and performance measures and guidelines to be adopted by City Council at a future date. The resolution also calls for endorsing a list of transit-related projects that includes a strong list of Enhanced Transit projects that may be submitted as candidate projects for the Regional Transportation Plan (RTP) update. The candidate projects vary from local transit related enhancements in the right-of-way to full lines such as streetcars and bus rapid transit and projects to address key bottlenecks in the transit system.

All of the candidate projects have been identified in coordination with TriMet. The streetcar projects were identified in coordination with Portland Streetcar Inc. The streetcar project selection was informed by the recent Portland Streetcar Expansion Study. The Enhanced Transit projects to improve exiting bus lines were identified through the development of Enhanced Transit Corridors Plan still underway.

The Portland Bureau of Transportation (PBOT) is leading a planning process in coordination with TriMet to develop the Enhanced Transit Corridors (ETC) Plan. This plan will help identify where transit priority, streamlining, and access treatments could be most beneficial on the planned TriMet Frequent Service network within the City of Portland. Such improvements can help make transit more a more attractive and reliable option for people to get to work, school, and to meet their daily needs, especially for people who depend upon transit. The planning process began in the winter of 2017 and is anticipated to be complete in the winter of 2018.

The findings from this initial evaluation from the ETC planning process helped us develop RTP projects and recommend which ones to advance early. This includes:

- TriMet-led regional projects
- City-led projects, including bottlenecks, corridors or whole bus lines

The goals and objectives of the ETC Plan:

- Support planned growth in centers and along corridors consistent with the City's 2035 Comprehensive Plan.
- Define and identify "Enhanced Transit Corridors" in Portland.
- Establish clear and objective operational performance measures and thresholds to define what success looks like for the most heavily used Frequent Service lines.
- Guide the prioritization of capital and operational investments in Enhanced Transit Corridors.

Initial approach for identifying where it is most important to focus:

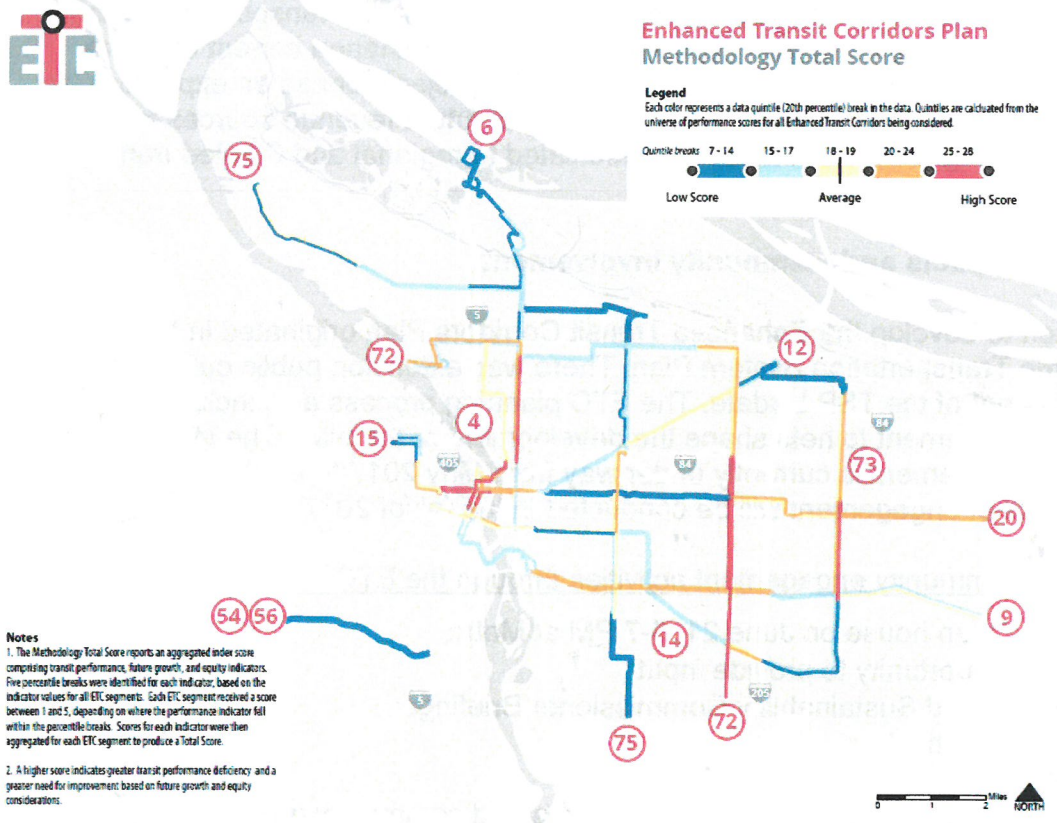
Our approach to identifying where it is most important to make Enhanced Transit improvements is grounded in understanding transit operations and guided by policy and ridership demand. TriMet has a wealth of operational data to analyze. The Portland Comprehensive Plan and Transportation System Plan provides policy guidance. Both help shape our proposed criteria for evaluating candidates for Enhanced Transit.

Initial Six Criteria/Indicators for evaluating candidates:

- **Transit Reliability/Delay** – Where buses are delayed by traffic congestion and it takes longer to travel during the most congested periods of the day compared to free flow conditions. Calculation: 90th to 10th Percentile Bus Operating Speed Variance.
- **Transit Speeds** – Where buses are slower throughout the day compared to the posted speed. Calculation: Average Bus Operating Speed to Posted Speed Limit.
- **Transit Dwell Time** – Where buses are stopped at bus stops longer. Calculation: Transit Dwell Time (with the door open) to overall Transit Run Time.
- **Current Transit Trips** – Where transit ridership greater based on the Average Existing Weekday Transit Trips. Calculation: Entering ridership load + boardings.
- **Equity** – Where in our community there are concentrations above the citywide average of the following populations:
 - People of Color
 - Low Income Households
 - Limited English Proficiency Households
- **Forecasted Future Population and Job Growth between 2010 and 2035** – Where forecasted increase in population and jobs suggests more transit demand in the future, based on the preferred Growth Scenario for the Portland 2035 Comprehensive Plan.

The following map displays the score results based in the initial analysis using the initial six criteria/indicators. This map displays the total score with all the individual criteria/indicators combined. Higher scores indicate where it is most important to focus.

Learn more about the initial evaluation and other elements of the ETC Plan in development on the website: www.portlandoregon.gov/transportation/ETCplan



City Council has taken previous actions directly related to this legislation.

Under Ordinance No. 187169 on June 5, 2015, Council authorized application to the Oregon Department of Transportation and Department of Land Conservation and Development for two Transportation and Growth Management grants, including an Enhanced Transit Corridors Plan.

Under Ordinance No. 18### on December 21, 2016, City Council accepted a grant in the amount of \$36,660 from Oregon Department of Transportation for the Enhanced Transit Corridors Plan and authorize an Intergovernmental Agreement for the Enhanced Transit Corridors Plan.

In December, 2016, City Council adopted the Transportation System Plan (TSP) Update, which directed PBOT to complete an Enhanced Transit Corridors study to identify corridors needing higher transit capacity to accommodate projects growth and to support TSP outcomes including prosperity, equity, safety and climate. Among other things, the study will evaluate multiple corridors and will result in at least two enhanced transit projects (one in East Portland and one in Inner Ring neighborhoods).

Financial and budgetary impacts:

This resolution directs PBOT to complete the Enhanced Transit Corridors Plan and submit a list of transit-related project to Metro's 2018 Regional Transportation Plan (RTP) update. These actions do not amend the budget or change current or future revenue sources. PBOT has developed a list of RTP projects based on expected City revenue projections and a regional understanding of future revenue sources for the next 20 years, including revenues that can be dedicated to regional and City-led transit projects.

Community impacts and community involvement:

The direction to develop the Enhanced Transit Corridors Plan originated in the recent update to the Transportation System Plan. There was extension public outreach during the development of the TSP Update. The ETC planning process also includes community involvement to help shape the development of the plan. The initial round of community engagement is currently under way from May 2017 through June 2017. Another round of engagement will be conducted in the fall of 2017.

Spring 2017 community engagement activities through the ETC planning process:

- Public Open house on June 21, 5-7 PM at Metro
- Online opportunity to provide input
- Planning and Sustainability Commissioner Briefings:
 - March 14
 - June 13
- Present and gather input from committees and community groups:
 - OPAL on May 12
 - Transportation Justice Alliance on May 24
 - Portland Bus Lane Project on May 25
 - Portland Freight Committee on June 1
 - PBOT Fixing Our Street Oversight Committee on June 8
 - Portland Commission on Disabilities – Accessibility in the Built Environment subcommittee on June 9
 - TriMet Transit Equity Advisory Committee on June 15
 - Portland Pedestrian Advisory Committee on June 20
 - Additional meetings in the works.

Once candidate projects are submitted to Metro for the RTP 2018 Update Call for Projects, there will be additional public engagement opportunities for community members to remain involved and provide input on the development of the RTP update and final RTP project list.

Budgetary Impact Worksheet

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Budgetary Impact Worksheet**Does this action change appropriations?**

- ☐ **YES:** Please complete the information below.
☒ **NO:** Skip this section

Fund	Fund Center	Commitment Item	Functional Area	Funded Program	Grant	Sponsored Program	Amount

KK 6-16-17

Proposed New Vision for Transit

RTP Projects

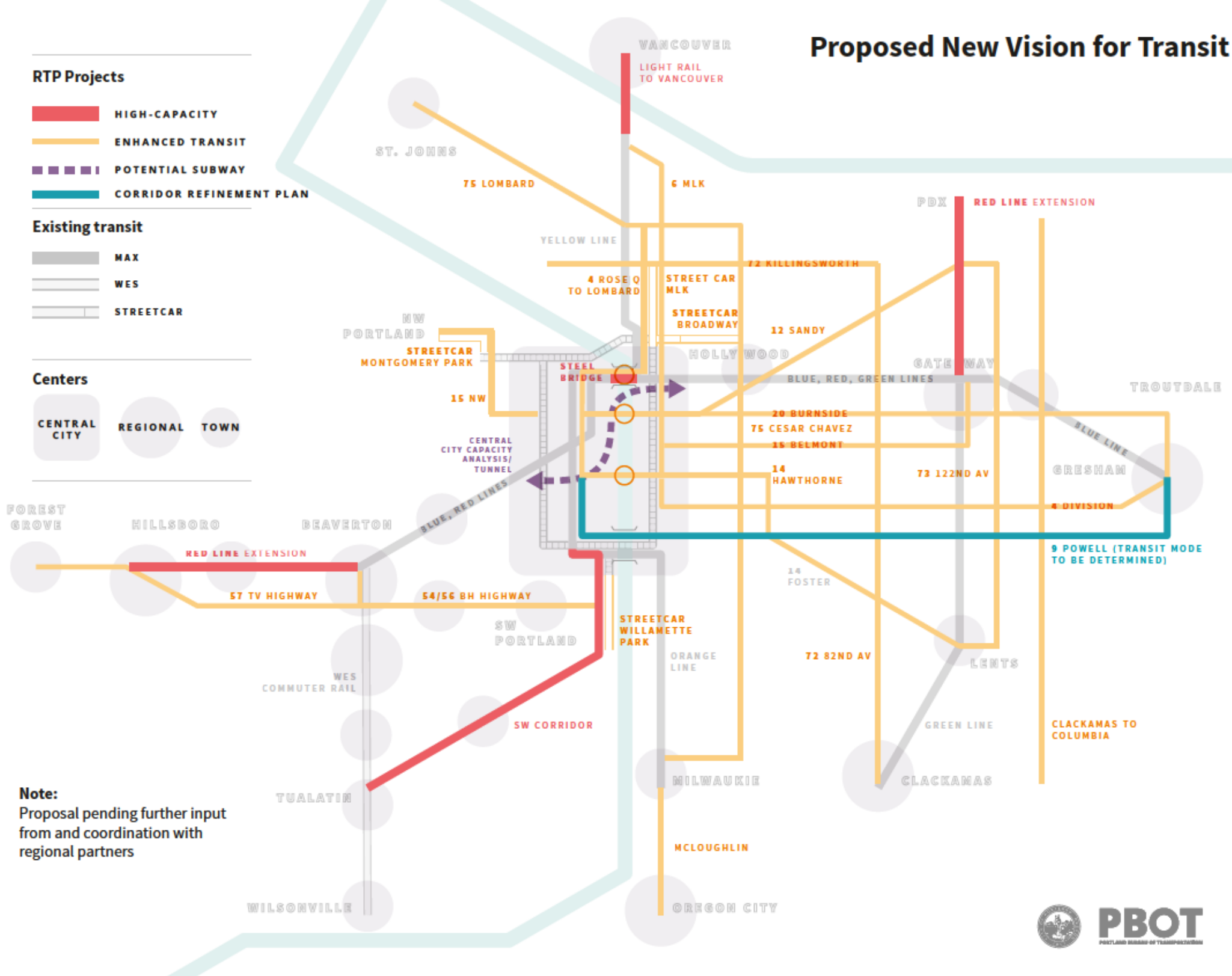
- HIGH-CAPACITY
- ENHANCED TRANSIT
- POTENTIAL SUBWAY
- CORRIDOR REFINEMENT PLAN

Existing transit

- MAX
- WES
- STREETCAR

Centers

- CENTRAL CITY
- REGIONAL
- TOWN



Note:

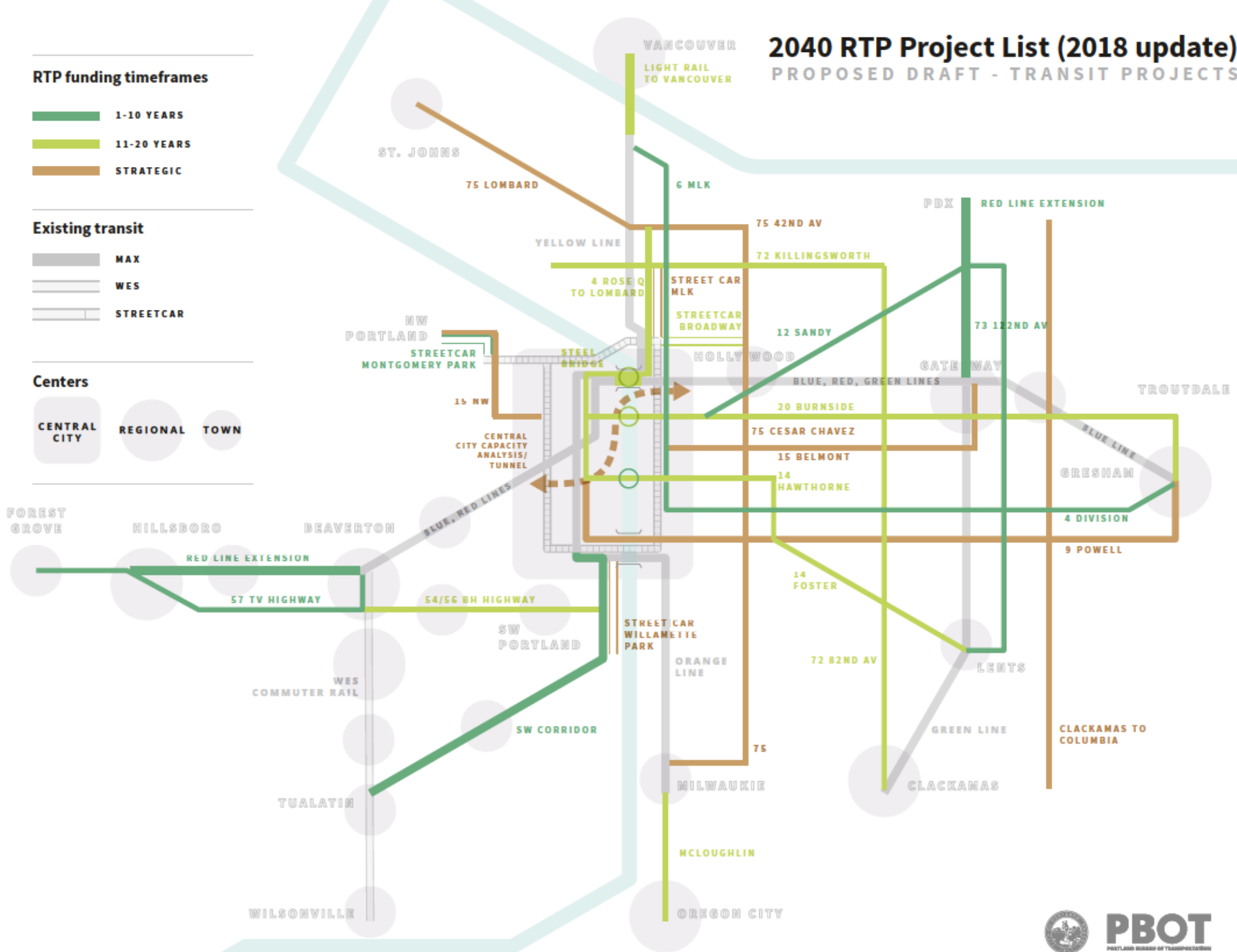
Proposal pending further input from and coordination with regional partners

PROPOSED DRAFT - TRANSIT PROJECTS

- 1-10 YEARS
- 11-20 YEARS
- STRATEGIC

	MAX
	WES
	STREETCAR

CENTRAL CITY **REGIONAL** **TOWN**



PBOT
PORTLAND BUREAU OF TRANSPORTATION

ETC Enhanced Transit Corridors Plan

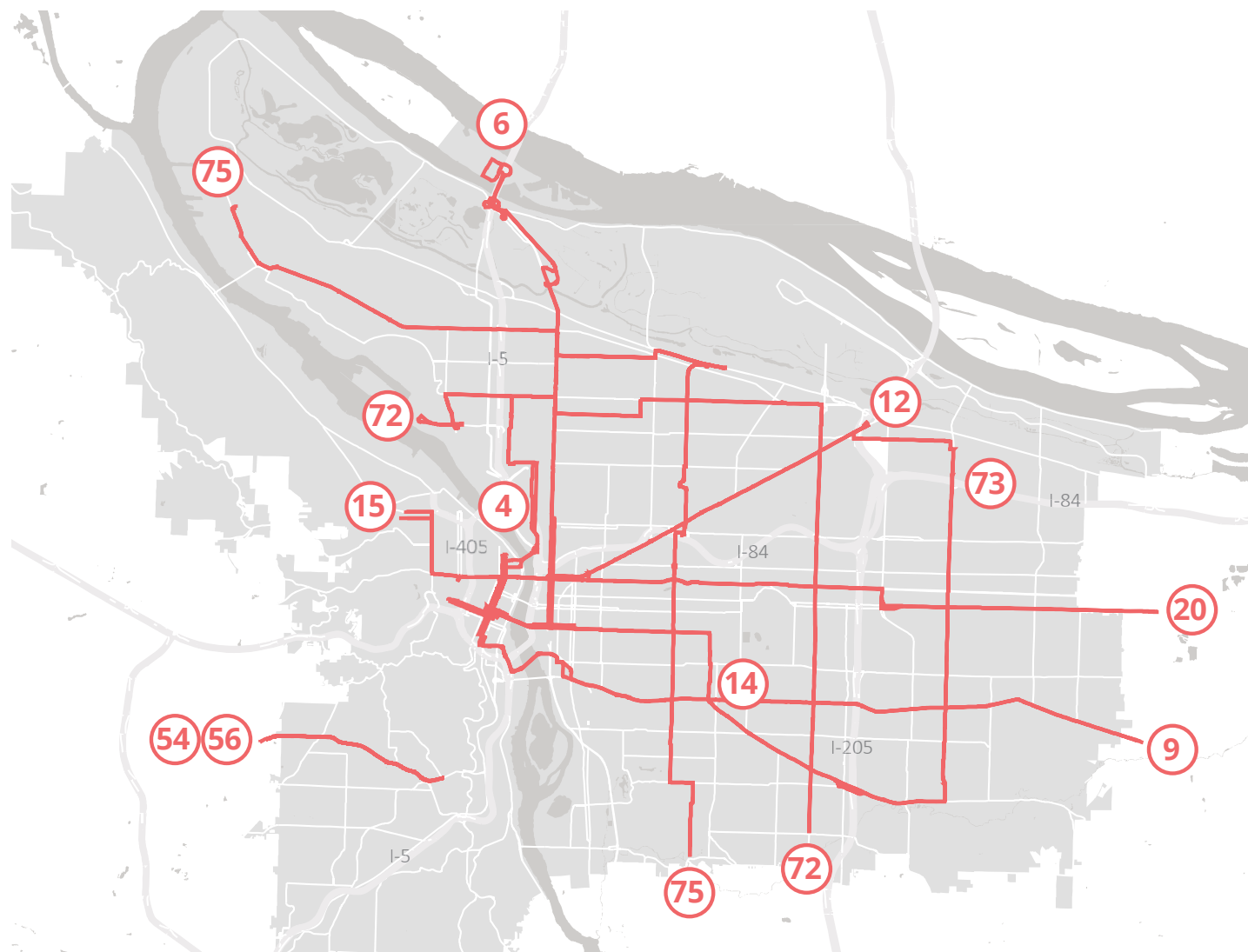
Project Description

The Portland Bureau of Transportation (PBOT) is leading a planning process in coordination with TriMet to develop the Enhanced Transit Corridors Plan. This plan will help identify where transit priority, streamlining, and access treatments could be most beneficial on the planned TriMet Frequent Service network within the City of Portland. Such improvements can help make transit a more attractive and reliable option for people to get to work, school, and to meet their daily needs, especially for people who depend upon transit.

Characteristics of Enhanced Transit

- Increased capacity, reliability and transit travel speed
- Flexible and context sensitive
- Moderate level of capital and operational investment
- Can be deployed relatively quickly

Map of Recommended Candidate Corridors



Source: PBOT Staff recommendation on eleven candidate corridors for Enhanced Transit and selection process (January 18, 2017)

Project Goals and Activities

- Support planned growth in centers and along corridors consistent with the City's Comprehensive Plan update
- Define and identify "Enhanced Transit Corridors" in Portland
- Guide the prioritization of capital and operational investments in Enhanced Transit Corridors
- Establish clear and objective operational performance measures and thresholds to define what success looks like for the most heavily used Frequent Service lines

Initial Evaluation Criteria and Measures

Transit Performance Measures

Average Existing Weekday Transit Trips



This measure is calculated using the Federal Transit Administration (FTA) Warrants ridership methodology.

Reliability



Describes travel speed variability over the course of the day and helps identify the influence of traffic congestion on transit during peak periods. Reliability is defined as the percent difference between the 90th and 10th percentile operating speeds.

Transit Speed



This indicator identifies the overall operating speed and reveals a number of operating deficiencies across all time periods. Transit speed is defined as the 50th percentile average operating speed (exclusive of dwell time) proportional to the posted speed limit along each segment.

Dwell Time



This indicator describes open door time spent at bus stops, and helps to identify the influence of bus stop delay. Dwell time is defined as the 50th percentile dwell time proportional to the 50th percentile overall running time.

Future Growth (2010 – 2035)



Based on the Portland Comprehensive Plan 2035 Growth Scenario, this measure shows aggregated household and job growth between 2010 and 2035 within a quarter mile of a transit line.

Equity



Equity measures the percentage of households in each corridor with people of color, low income (households below 200% of the federal poverty level), and limited English proficiency (LEP) households; the score is a composite index of scores for these three demographic factors.

Website and Contact Info

Visit our website:
www.portlandoregon.gov/transportation/ETCplan

Contact Info:

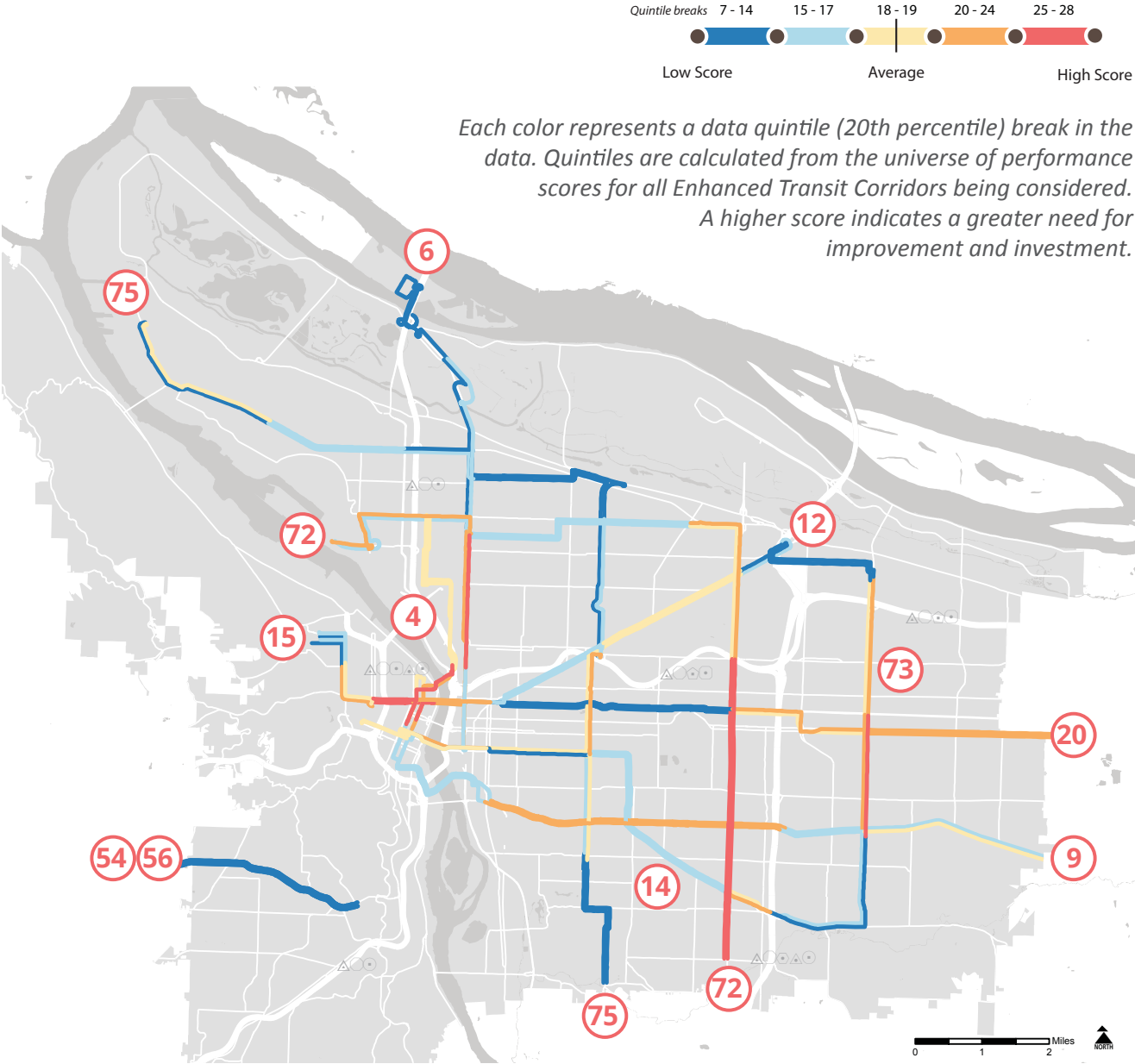
April Bertelsen, Project Manager
Email: etcplan@portlandoregon.gov
Phone: 503.823.6177

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Total Scores by Corridor Segment

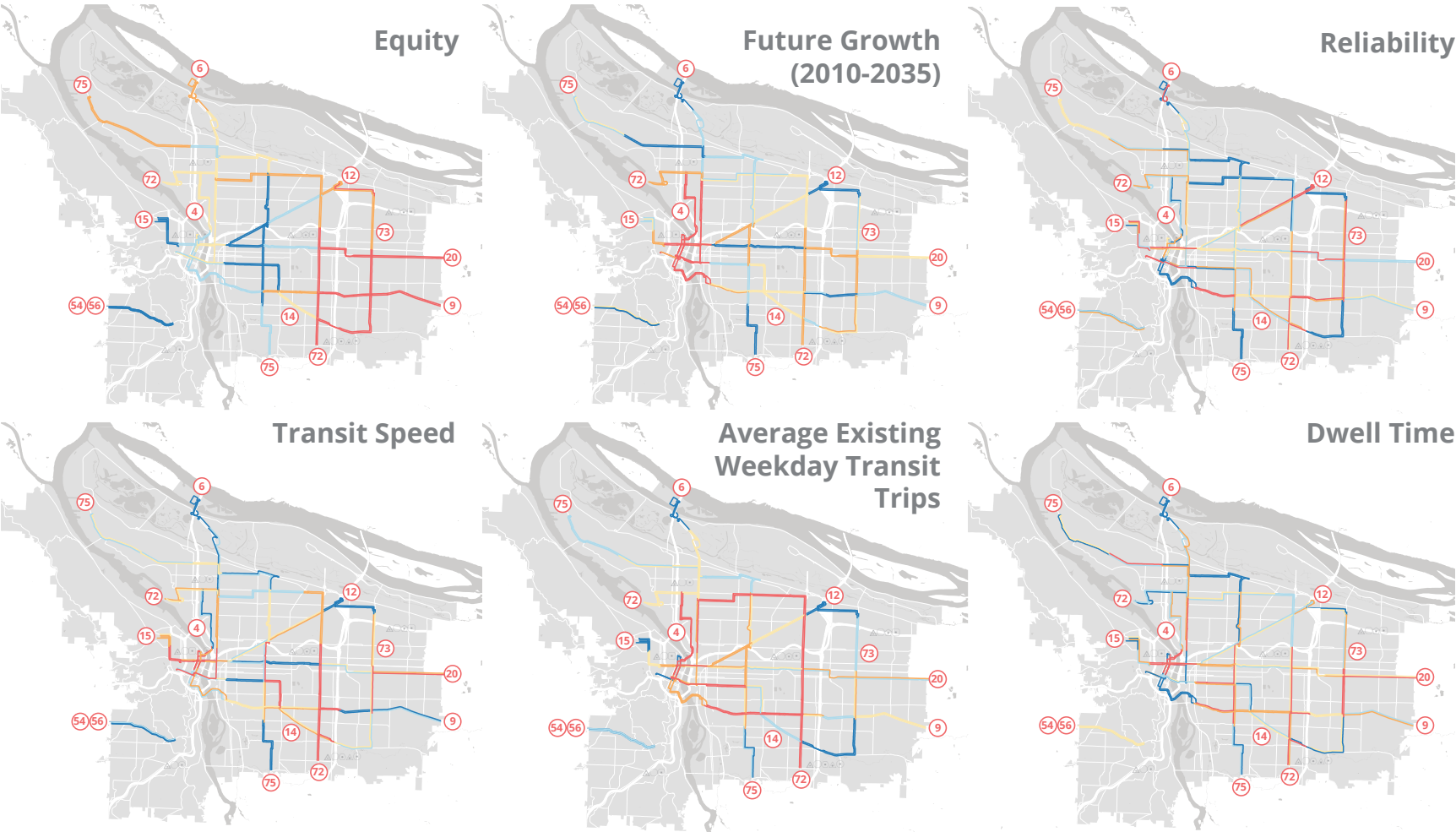
Methodology Total Scores Map



ETC Plan Next Steps

- Select up to three corridors for development of Conceptual Investment Plans
- Identify recommended revisions to existing projects or new projects for Metro’s Regional Transportation Plan (RTP)
- Re~~fine~~ne the methodology to identify, monitor, and prioritize transit lines for Enhanced Transit

Evaluation Results by Individual Criteria



* See reverse side for description of criteria

Top Corridor Segments					
Line	Corridor	Segment	Line	Corridor	Segment
1 72	82nd Ave	SE Flavel to SE Powell	6 9	Powell	SE 82nd to Powell Garage Dr.
2 72	82nd Ave	SE Powell to MAX	8 9	Powell	SE 12th to SE Cesar Chavez
3 73	122nd Ave	E Burnside to SE Powell	8 20	Burnside	NE 12th to NW 15th
4 20	Burnside	NW 5th to NW 19th	10 9	Powell	SE Cesar Chavez to SE 82nd
5 6	MLK	NE Holladay to NE Alberta	10 12	Sandy	NE Couch & 12th to SW 5th & Morrison
6 4	Steel Bridge	Rose Qtr Transit Ctr to SW 5th & Salmon			



Enhanced Transit Corridors Plan

Toolbox Applicability Matrix

06.07.17

06.07.17

		<div>Reliability</div> <div>Transit Speed</div> <div>Dwell Time</div>			
Laneways and Intersection Treatments				Context/Applicability	
	Dedicated Bus Lane	●	●	Most effective in high-volume, highly-congested corridors or hot spots; cost and impacts vary depending on context and available space.	
	Business Access and Transit (BAT) Lane	●	●	Provides partially dedicated bus lane while maintaining business and residence access. May be applicable where there is more than one lane in each direction.	
	Intersection Queue Jump/Right Turn Except Bus Lane	●	●	Most effective at high-traffic intersections; general purpose right-turn lane enables bus to bypass traffic backups and move through intersection more quickly.	
	Transit-Only Aperture	●	●	Best suited for intersections where the benefit of prioritizing transit (and bicycles) is great and the impacts of limiting vehicle traffic are lower – often where a large multi-lane street changes character to a smaller neighborhood street.	
	Pro-Time (Peak Period Only) Transit Lane	●	●	Used in highly-congested locations where restricting parking during peak hours can move transit more quickly through time-limited traffic backups (e.g. access to bridgeheads during rush hour).	
	Bus on Shoulder	●	●	Can be applied on freeways and highways with adequate shoulder width (10 feet or more); signage and re-stripping can create a low-cost dedicated transit lane.	
Multi-Modal Interaction					
	Bikes Behind Station		●	●	Most appropriate on heavily-used transit routes that are also heavily-used or protected bikeways. May require reallocation of existing roadway space, or acquisition of additional right-of-way.
	Left-Side Bike Lane	●	●	●	Appropriate for one-way streets with heavily used transit routes where traffic speed and volume requires separated bicycle facilities. Can minimize or eliminate bus/bike conflicts for right-side boarding.
	Dedicated Bike Signal	●		●	Can be applied on heavily used bicycle routes where transit/bicycle interactions present safety challenges or impact transit performance; organizes interaction among modes and can improve safety but does not necessarily improve transit travel time.
	Shared Bus/Bike Zone		●		Not a preferred treatment, but can be applied in transit stop/station areas where full separation between buses and bikes is not feasible.
Stops and Stations					
	Curb Extensions for Stations/Stops	●	●	●	Typically applied where there is on-street parking. Applicable in both mixed-flow and dedicated transit lane conditions; can be installed mid-block or at intersections.
	Level Boarding	●	●	●	Application varies based on adjacent building entrance locations, right-of-way widths and availability, and integration with the sidewalk environment; cost varies widely depending on the need for new platforms or rolling stock.
	All-Door Boarding	●	●	●	Can be combined with off-board fare collection and/or on-board electronic fare technology at each door to facilitate quick entry and compliant fare payment.
	Far-Side Bus Stop Placement	●	●	●	Stop placement depends on corridor land use, street/intersection design, sidewalk availability, driveway locations, and other conditions; most effective when used in combination with transit signal priority (TSP).
	Bus Stop Consolidation	●	●	●	May be appropriate in corridors with a large number of closely spaced stops where roadway and pedestrian conditions allow for safe access to consolidated stops.
Operations/Other					
	Rolling Stock Modification			●	Longer vehicles can accommodate more passengers, and/or on-board amenities; this may help address crowding. Modern low-floor vehicles enable level boarding and all-door boarding. May require new or retrofitted maintenance facilities.
	Street Design Traffic Flow Modifications	●	●		Applicability dependent on context and conditions.
	Transit Signal Priority and Signal Improvements	●	●		Signal adaptations may include extending a green light, triggering a transit priority phase, and/or progression changes to improve conditions for all traffic.
	Headway Management	●			Strategies may include monitoring/management for specific lines or groups of lines, or headway-based service that operates without published schedules. Often requires new software, hardware and staff.