

Regional Transit Strategy & Enhanced Transit

Planning and Sustainability Commission

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June 13, 2017

WE KEEP PORTLAND MOVING.



PBOT
PORTLAND BUREAU OF TRANSPORTATION

Today's Topics

- **Process Update**
- **Enhanced Transit**
 - **Update on Enhanced Transit Corridors Plan**
 - **Update on Streetcar**
- **Roll out a new transit vision, including Enhanced Transit**
- **Recommended transit projects for the Regional Transportation Plan (RTP) 2018 Update**
- **PSC Discussion and Input: How this fits with and supports Portland's Comprehensive Plan**

**THE SYMBIOTIC RELATIONSHIP
BETWEEN THE TSP AND RTP**



GETTING PROJECTS INTO THE REGIONAL TRANSPORTATION PLAN

Update Today on Current Efforts

In progress / process



Adopted

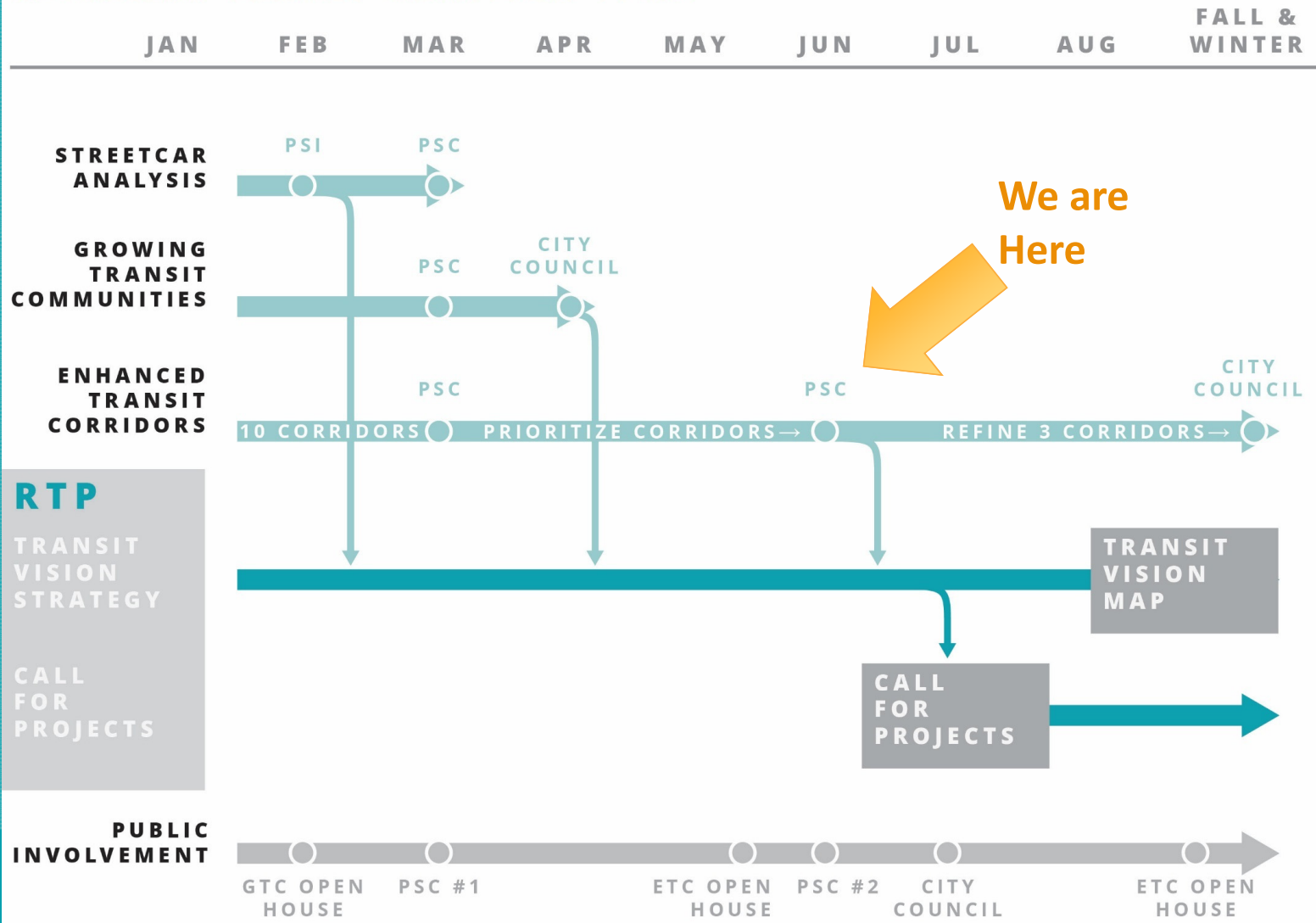
TRANSPORTATION SYSTEM PLAN

SERVICE ENHANCEMENT PLANS



TRANSPORTATION SYSTEM PLAN
FUTURE UPDATES

GETTING PROJECTS INTO THE REGIONAL TRANSPORTATION PLAN



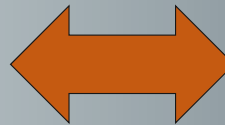
Enhanced Transit

Calibrating the strategy to our needs

Spectrum of Transit

Local & regional bus

Express bus, frequent bus



Enhanced transit, buses & streetcar

Bus rapid transit, light rail

Less frequent

Less capacity

Operates in mixed traffic

Streetscape doubles as stop or station

Supports linear development

Connects home, work, school and play

Locally funded

More frequent

More capacity

All or majority of operation in exclusive guideway

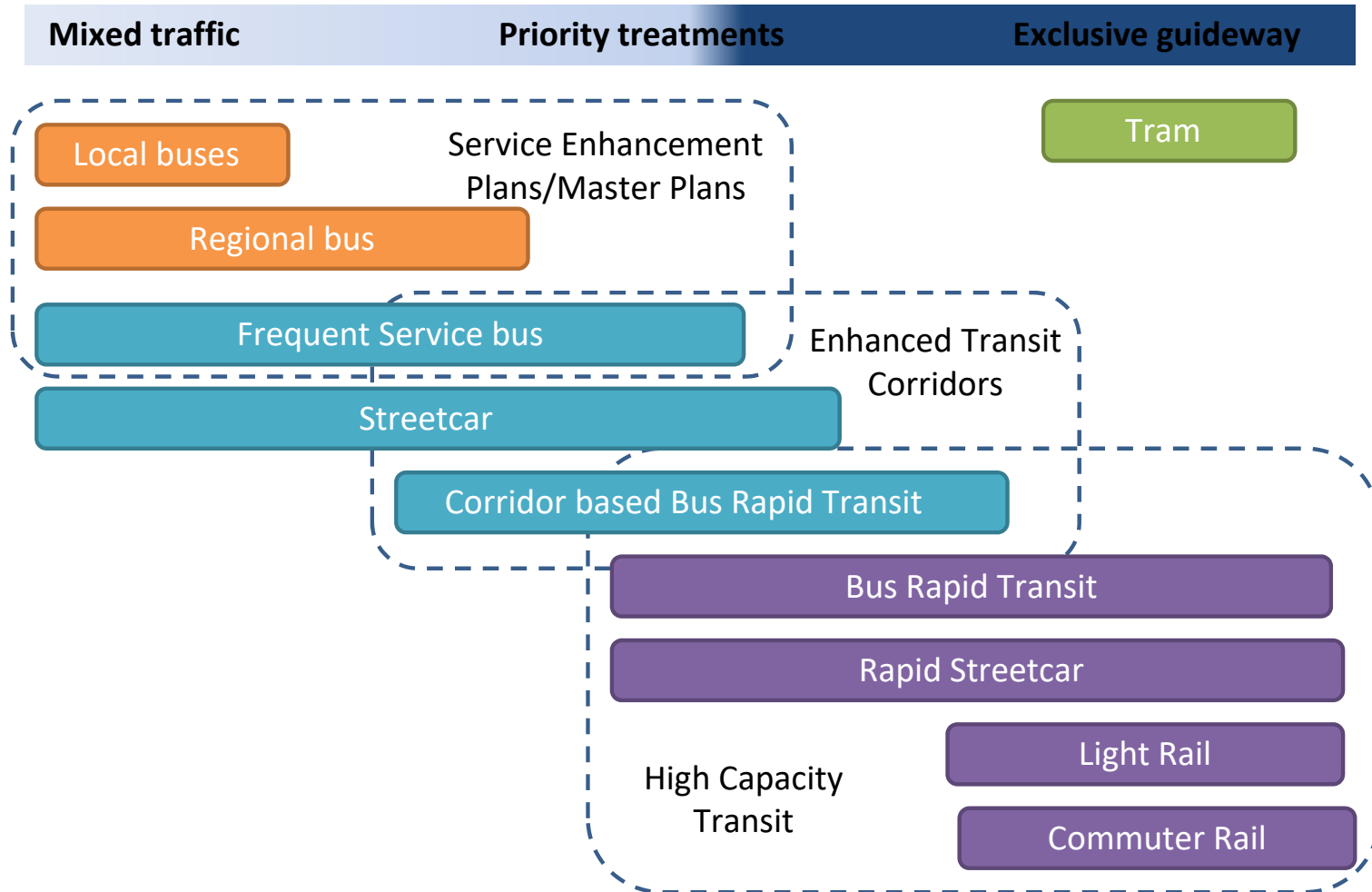
High investment in station access

Supports nodal development

Connects regional and town centers

Federally funded

REGIONAL TRANSIT SPECTRUM



Characteristics of Enhanced Transit

- Increased capacity, reliability and transit travel speed
- Moderate capital and operational investments
- Flexible and context sensitive
- Can be deployed relatively quickly
- Could be a hot spot, corridor or full line

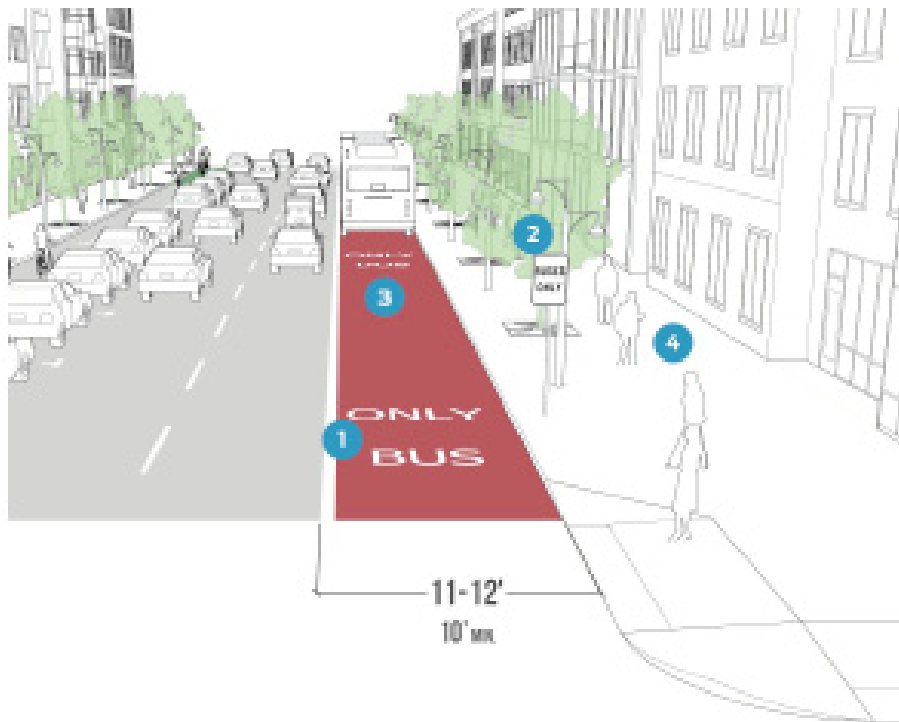


The Vine recently opened in Vancouver, WA



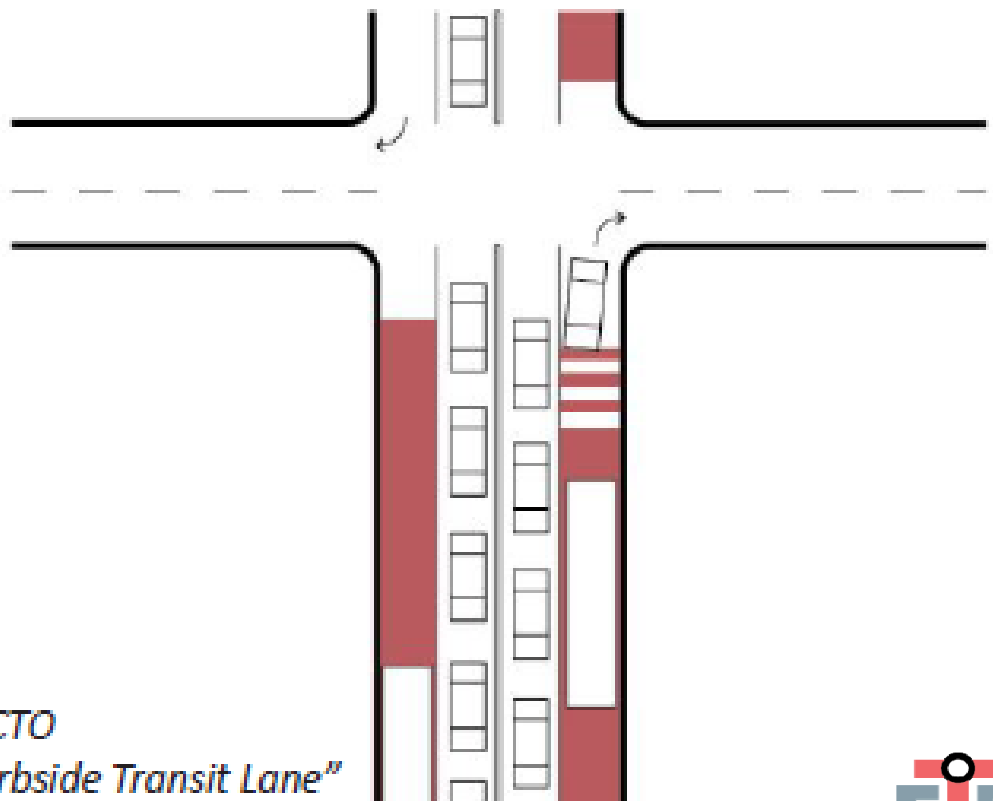
Laneways and Intersection Treatments

Dedicated Bus Lane



NACTO "Curbside Transit Lane"

Business Access and Transit (BAT)



NACTO "Curbside Transit Lane"

Enhanced Transit Corridors Plan Update

ETC Plan Goals

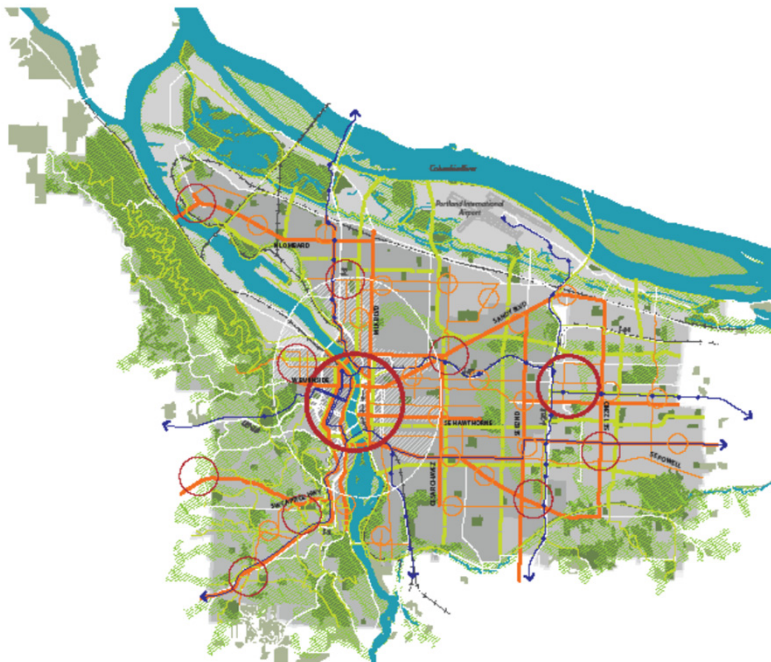
- Support planned growth in centers and along corridors consistent with the City's Comprehensive Plan update.
- Define and identify “Enhanced Transit Corridors” in Portland.
- Establish clear and objective operational performance measures and thresholds to define what success looks like for the most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



Enhanced Transit Corridors - Approach

Grounded in understanding transit operations.
Guided by policy and ridership demand.

URBAN DESIGN FRAMEWORK



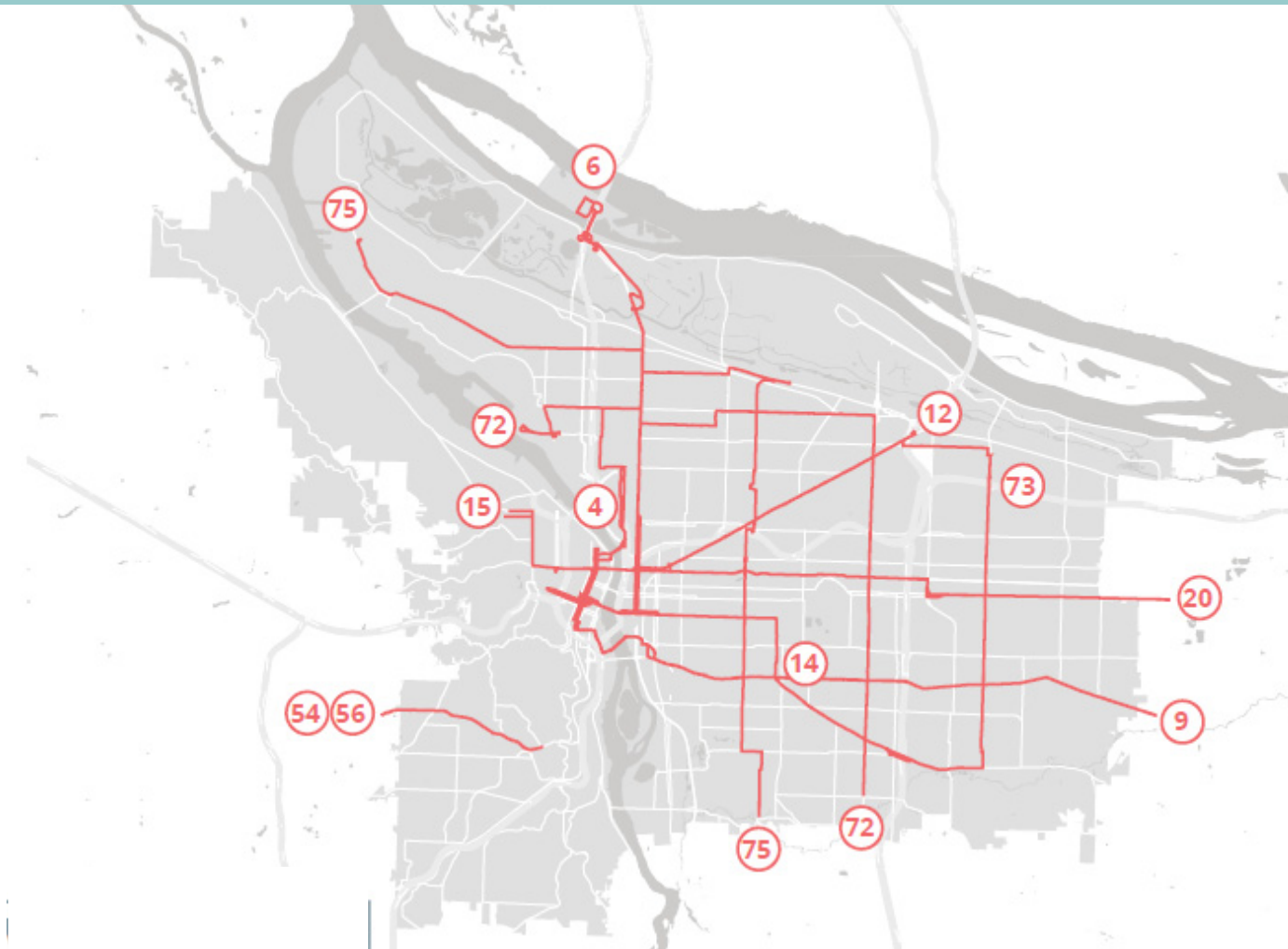
- TriMet has a wealth of data to analyze
- Portland Comprehensive Plan provides policy guidance
- This all shapes our criteria for evaluating and prioritizing candidate corridors

Analysis Indicators

- **Average Existing Weekday Transit Trips** (Entering load + boardings)
- **Reliability** (90th to 10th Percentile Speed Variance)
- **Transit Speed** (Average Operating Speed to Speed Limit)
- **Dwell Time** (Dwell to Run Time)
- **Equity** (Low income, people of color, Limited English Proficiency)
- **Future Growth** (Change in HH/Emp Density)



Candidate Corridors Studied

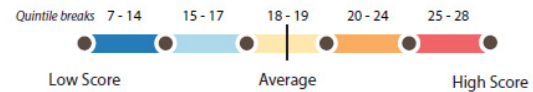




Enhanced Transit Corridors Plan Methodology Total Score

Legend

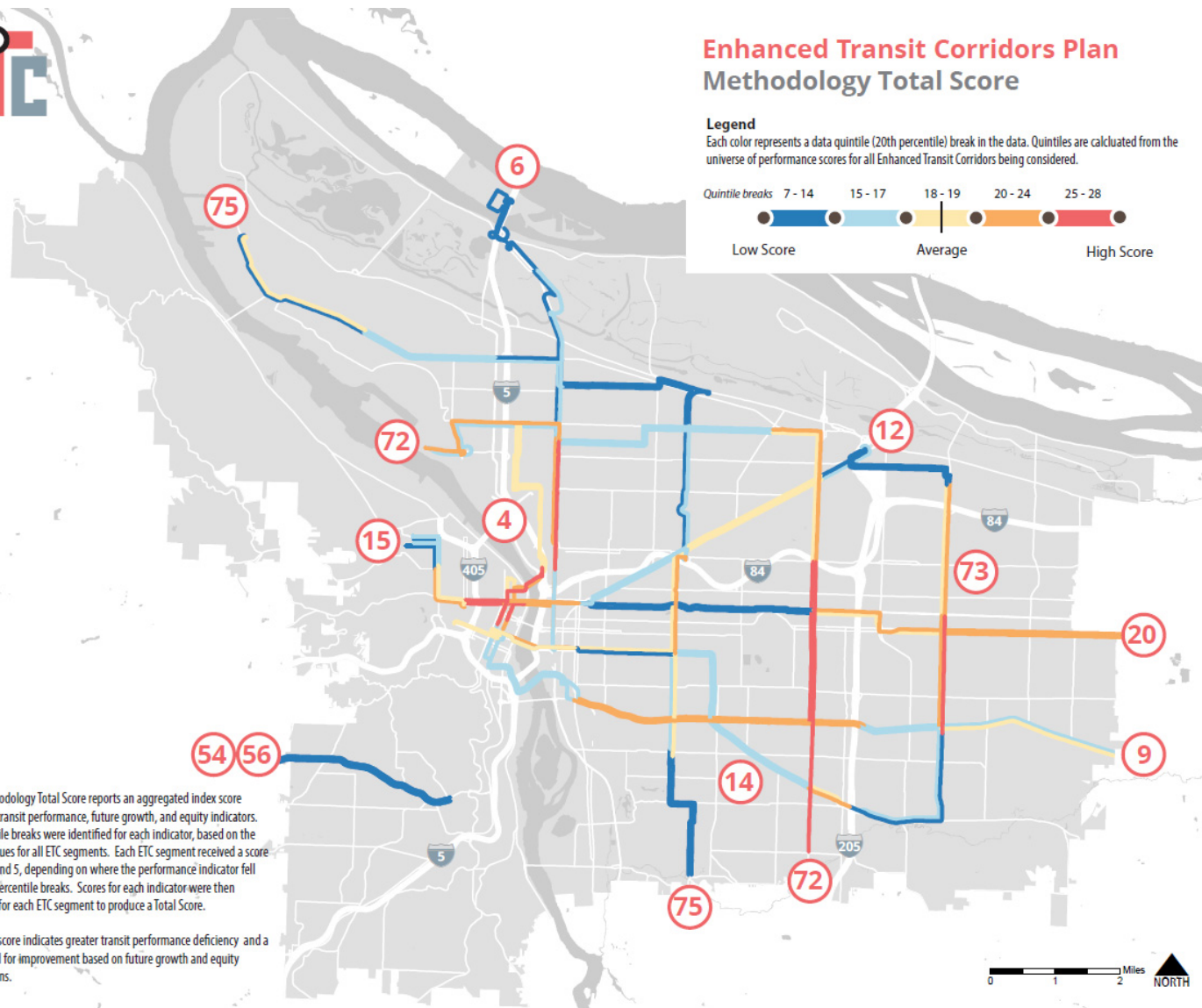
Each color represents a data quintile (20th percentile) break in the data. Quintiles are calculated from the universe of performance scores for all Enhanced Transit Corridors being considered.



Notes

1. The Methodology Total Score reports an aggregated index score comprising transit performance, future growth, and equity indicators. Five percentile breaks were identified for each indicator, based on the indicator values for all ETC segments. Each ETC segment received a score between 1 and 5, depending on where the performance indicator fell within the percentile breaks. Scores for each indicator were then aggregated for each ETC segment to produce a Total Score.

2. A higher score indicates greater transit performance deficiency and a greater need for improvement based on future growth and equity considerations.



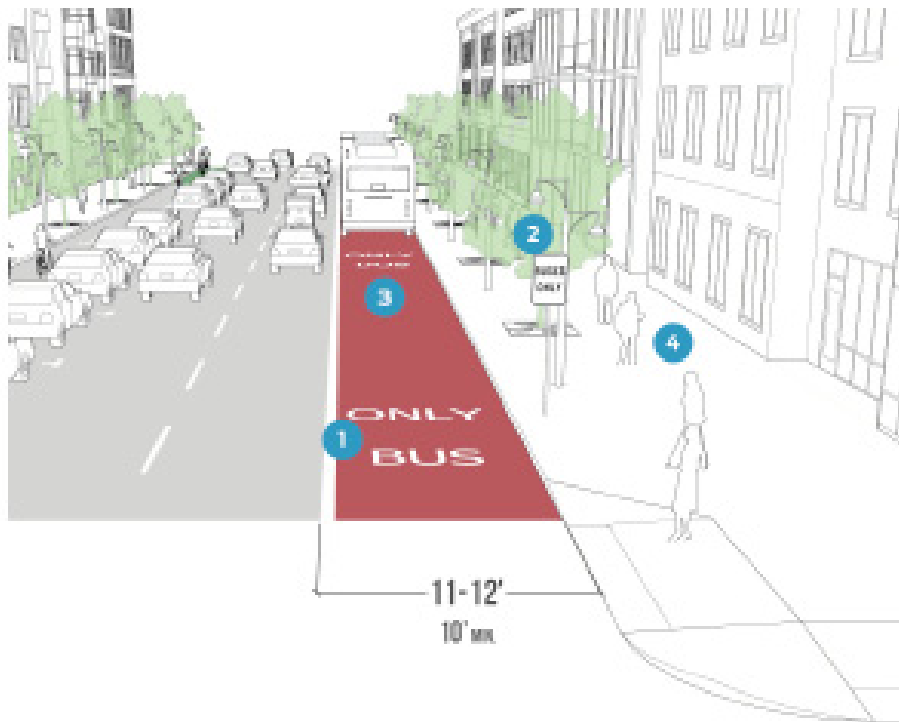
How the ETC Plan is helping inform the RTP Update

- We studied bus lines in the planned TriMet Frequent Service Network.
- Our criteria reflect Comprehensive Plan policy and the preferred growth scenario.
- We evaluated where ridership demand and equity considerations are high and buses are delayed most.
- The findings of this initial evaluation helped us develop RTP projects and recommend which ones to advance early.
 - TriMet-led regional projects
 - City-led projects, including bottlenecks, corridors or whole bus lines



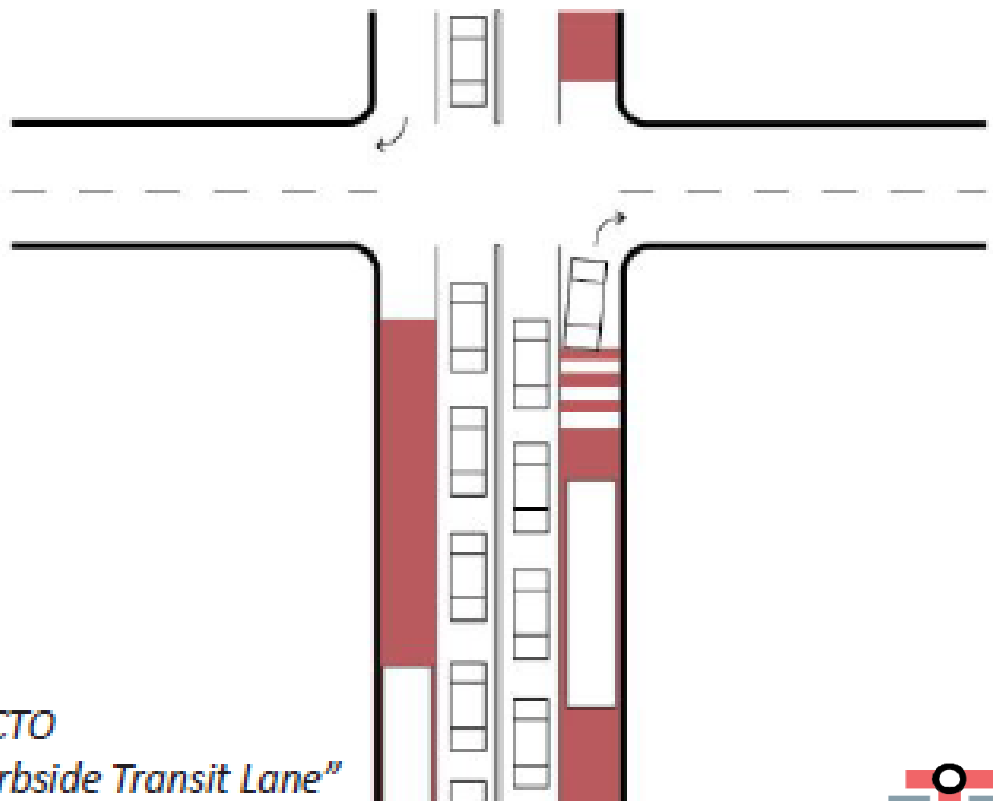
Laneways and Intersection Treatments

Dedicated Bus Lane



NACTO "Curbside Transit Lane"

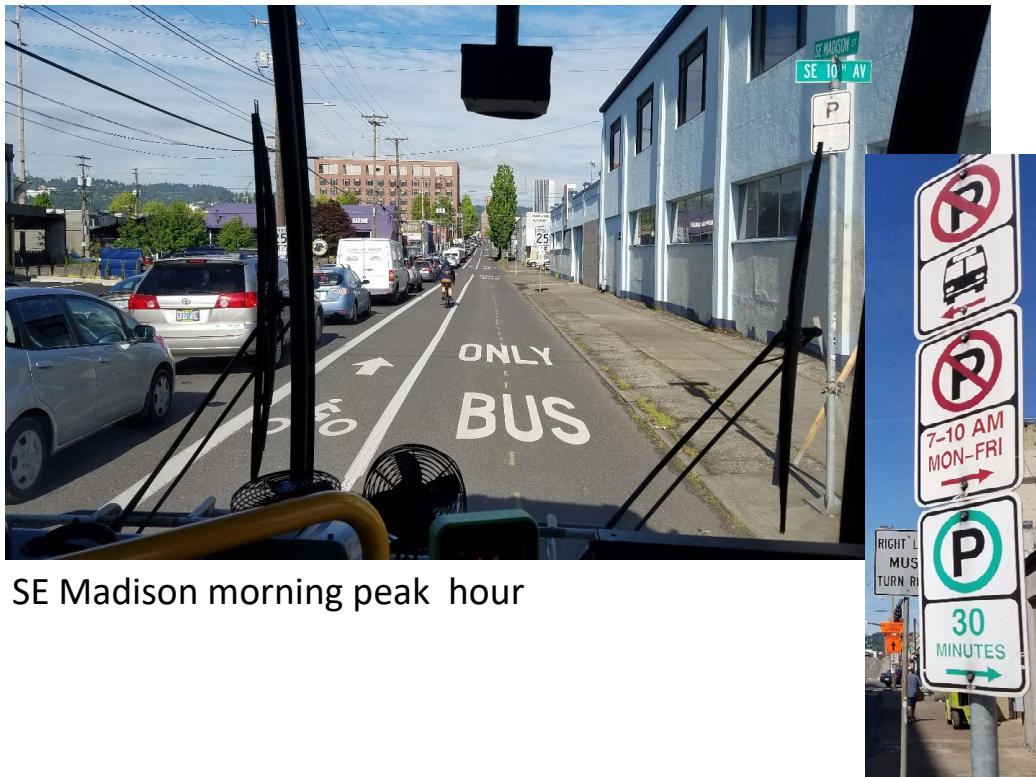
Business Access and Transit (BAT)



NACTO "Curbside Transit Lane"

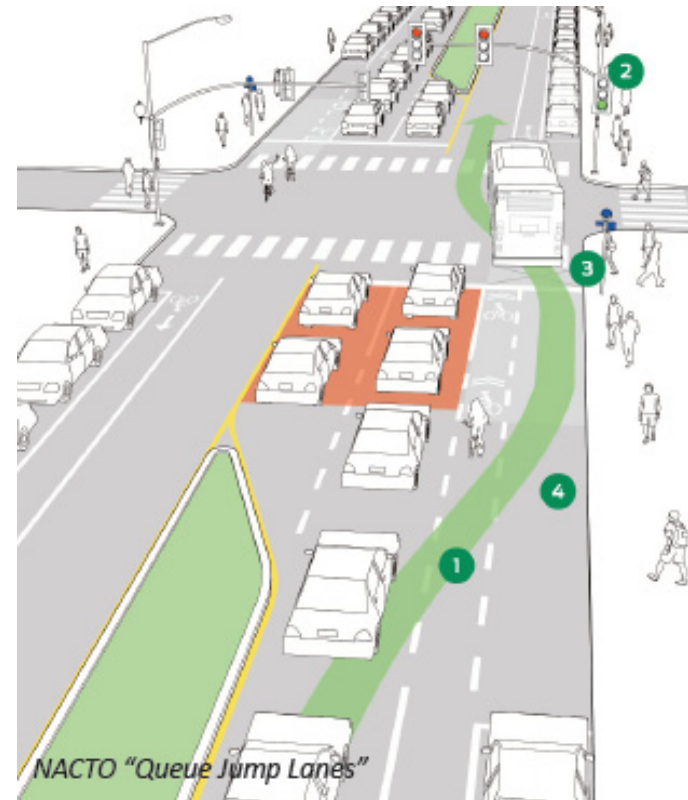
Laneways and Intersection Treatments

Pro-Time (Peak Period Only) Transit Lane



SE Madison morning peak hour

Intersection Queue Jump/Right Turn Except Bus Lane



Stops and Stations

Curb Extension for Stops/Stations



Level Boarding



Stops and Stations

Far-Side Bus Stop Placement

Local Example

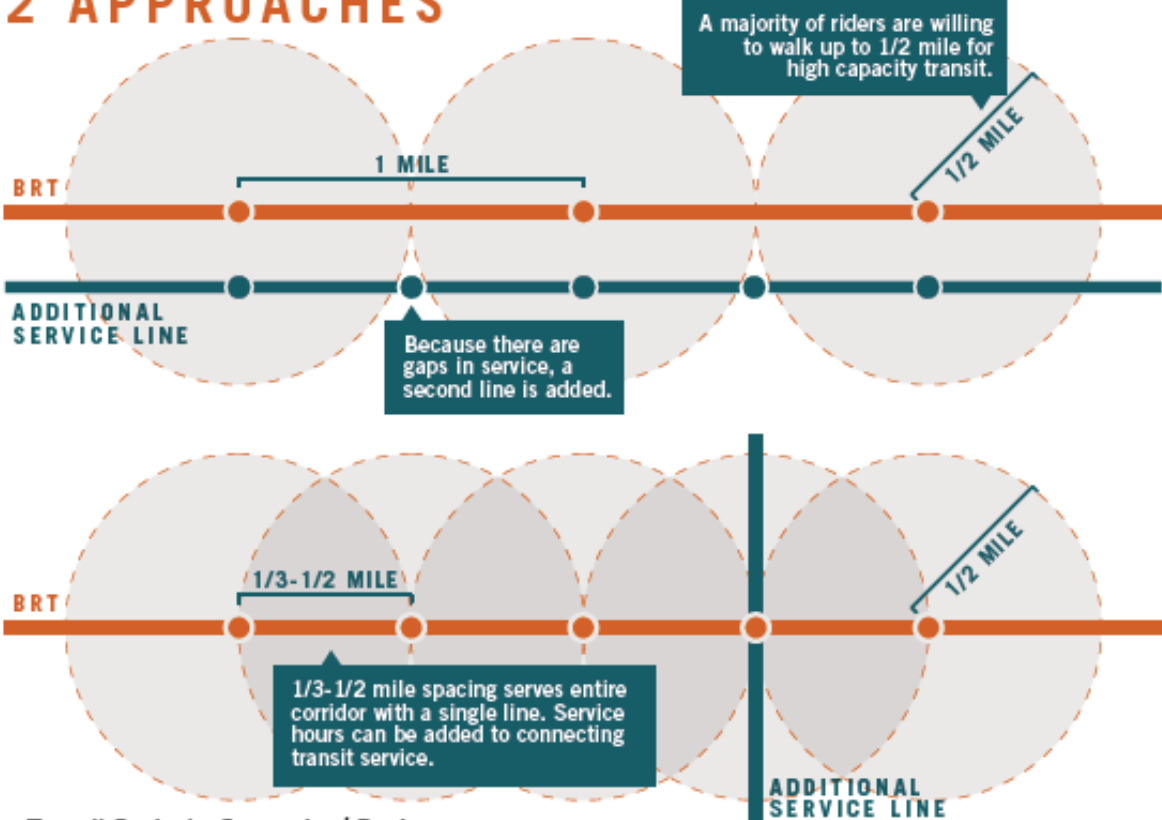
Westbound Stop at SE Division Street and 148th Avenue (Portland, OR)



Stops and Stations

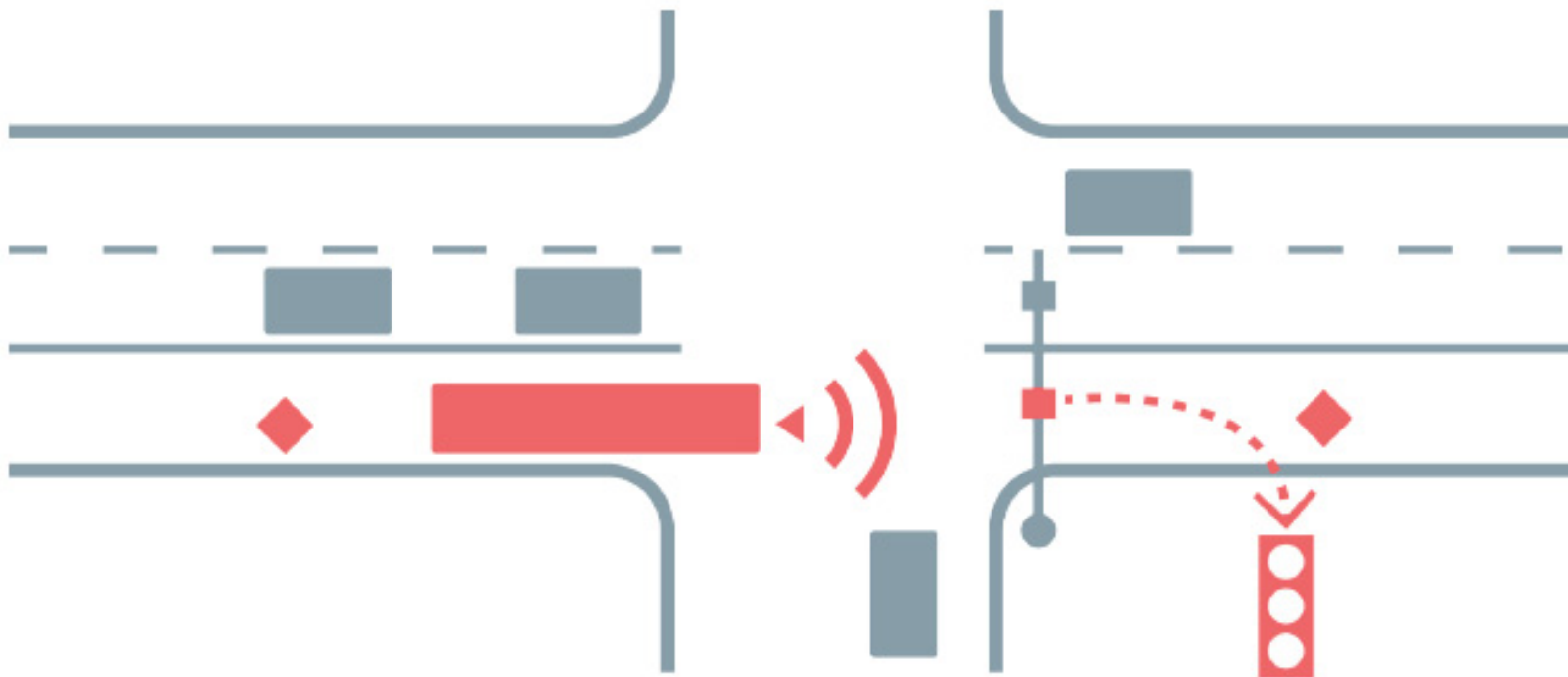
Bus Stop Consolidation

STOP-SPACING TRADEOFFS 2 APPROACHES



Operations/Other

Transit Signal Priority and Signal Improvements



CH2M



**Staff Recommendation
for where to focus more in the
next phase**

Staff Recommendation

- Select up to three corridors to explore applying the toolbox and develop conceptual investment plans:
 - **Line 72** – Killingsworth/82nd Ave, with a focus on 82nd Ave
 - **Line 12** – NE Sandy Blvd
 - **Line 6** – MLK Jr Blvd/Jantzen Beach (if resources allow)
- Potential opportunity to focus on portions of candidates through other planning efforts:
 - **Line 73** - through the 122nd Ave Safety Improvement Project planning process
 - **Line 20** - through an Outer SE Stark Safety and Access planning process
 - **Key bottlenecks**, including in the Central City

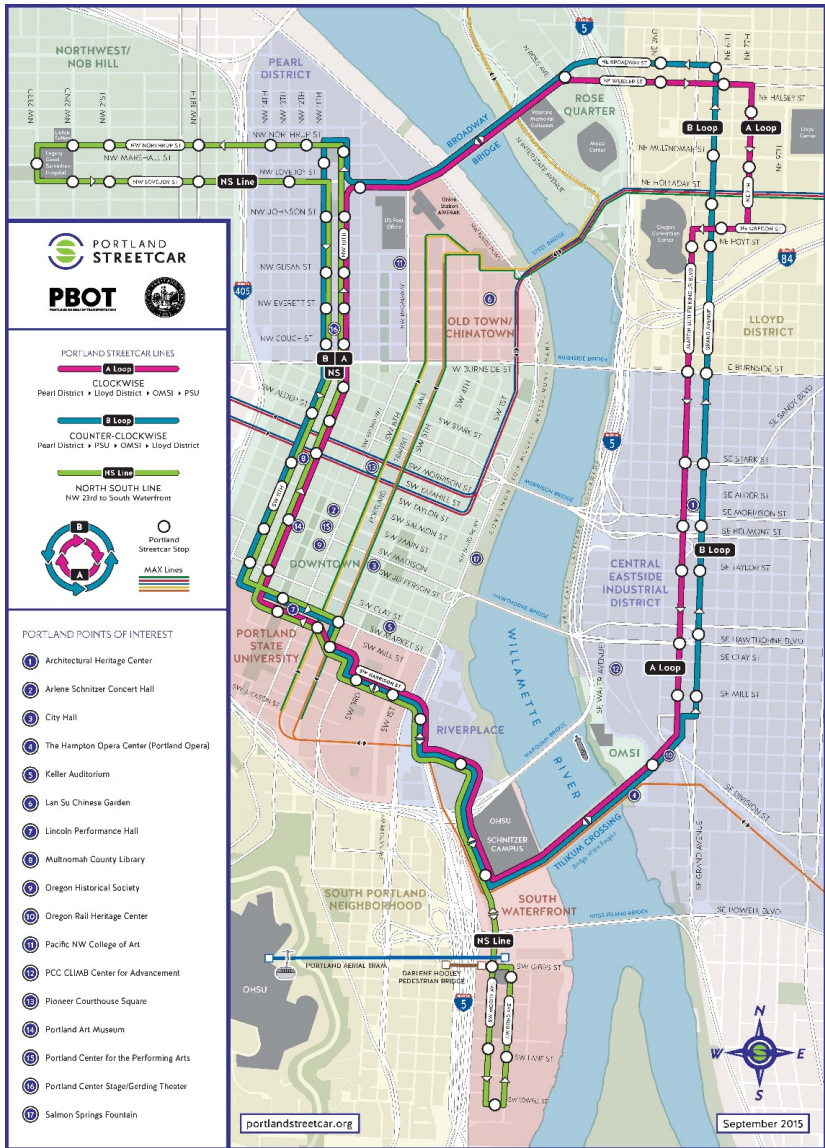


ETC Plan Next Steps

- Public open house on June 21
- Refine the methodology to identify, monitor and prioritize Enhanced Transit improvements
- Include on-going performance measures and thresholds
- More public outreach in fall 2017
- Complete the recommended plan in winter 2018



What does this mean for Portland Streetcar?



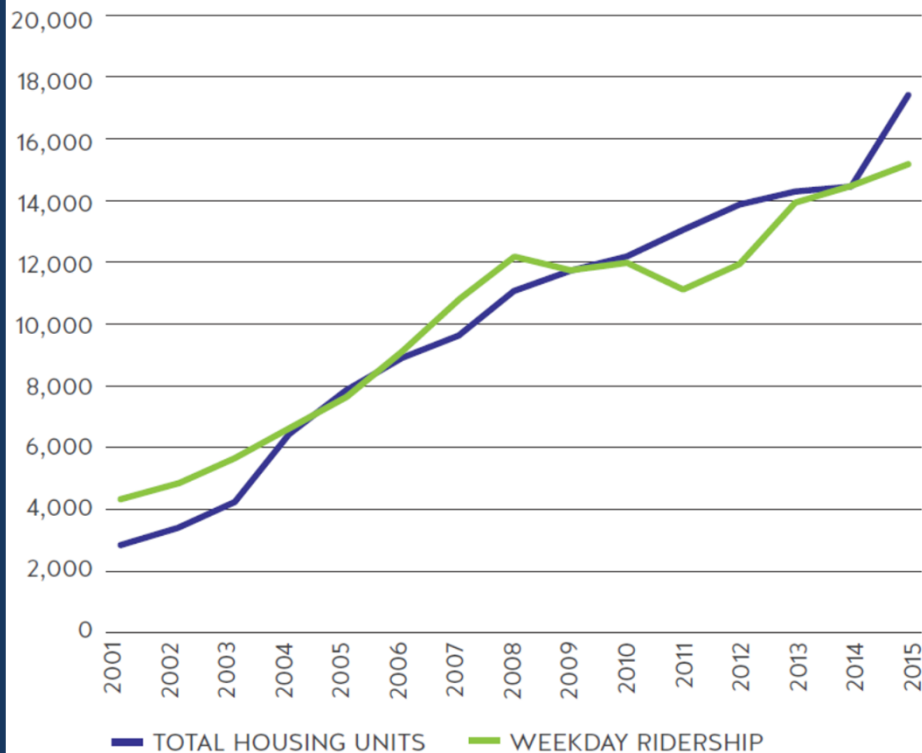
SERVICE PLAN
NORTH/SOUTH LINE (6 STREETCARS);
A/B LOOPS (4 STREETCARS EACH)

ALL LINES ON 15-MINUTE FREQUENCIES;
7.5-MINUTES THROUGH CENTRAL CITY.

WEEKDAY RIDERSHIP ~ 15,800/DAY

Generating Ridership: Housing Units within ¼ mile of Streetcar, and Avg. Weekday Ridership on Streetcar

TOTAL NUMBER OF HOUSING UNITS BUILT WITHIN 1/4 MILE OF PORTLAND STREETCAR & AVERAGE WEEKDAY RIDERSHIP: 2001-2015



- 6,659 Regulated Affordable Housing Units are on the Portland Streetcar Alignment
- Over 1/3 of all Affordable Housing Supply in Portland are within ¼ mile of Portland Streetcar

Connecting the Entire Community

66%



of streetcar trips begin at home



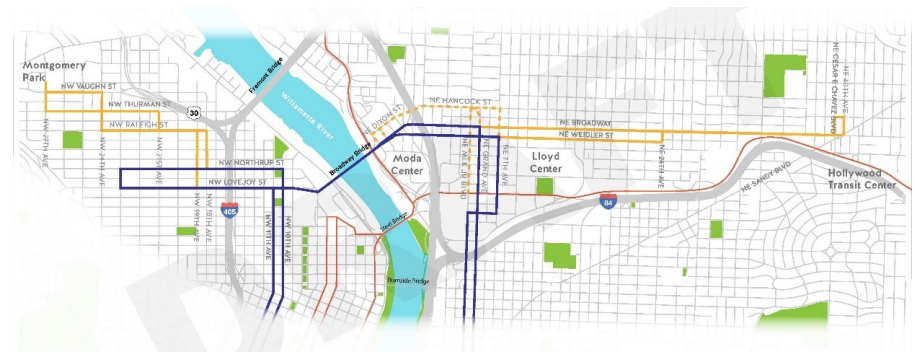


Planning for the Future

Short-Term Investments

- 5 Additional Streetcars to Improve Service on Existing System
- Responsive to Changes Occurring on and Around our System
 - Zidell Yards, SW Bond
 - South Portal/Moody Extension
 - I-5 Rose Quarter
- Responding to Traffic and Congestion Related Issues (ETC Toolbox)
- Improved Service and Schedules to Meet Growing Demand

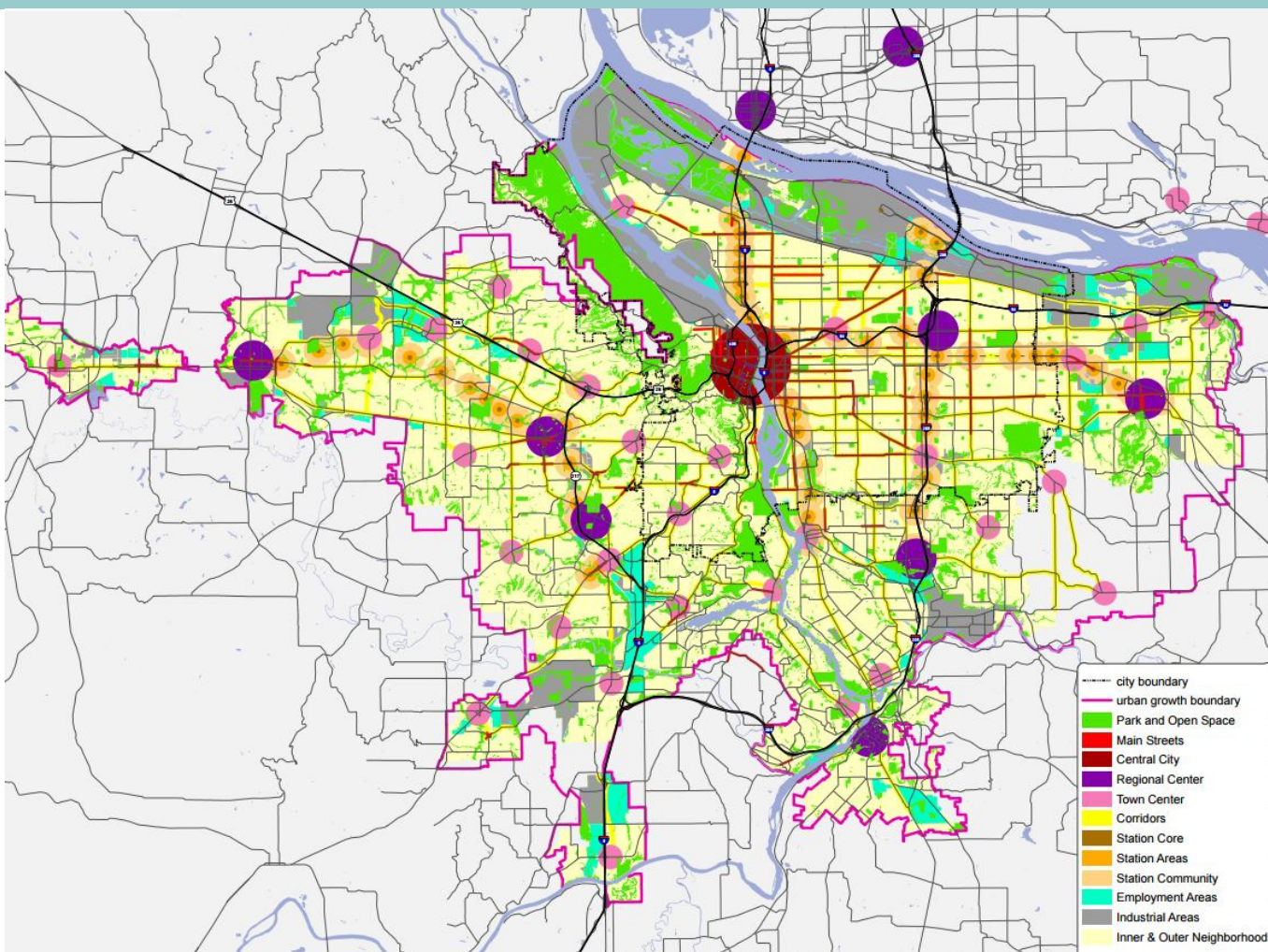
Long-Term Investments



- Inclusion of Planned Extensions in Metro's RTP
 - Preliminary Engineering for Hollywood to Montgomery Park (various alignments in NW).
 - Other Corridors included in ETC Planning

The Current Regional Transit Vision

Metro 2040 Growth Concept

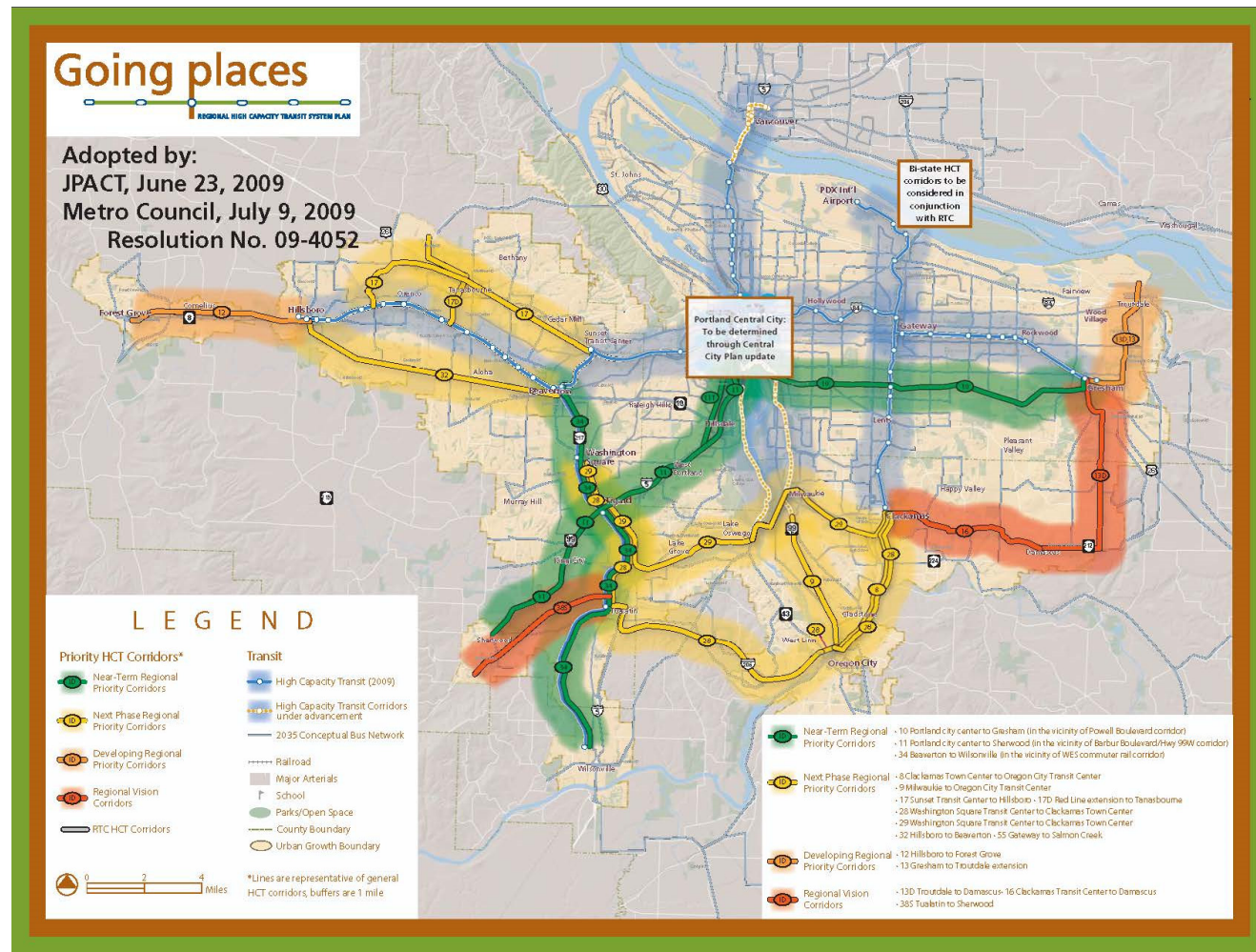


Regional Transportation Plan (RTP) & High Capacity Transit Plan

This map will be updated as part of the 2018 RTP Update and Regional Transit Strategy.

We are moving beyond just High Capacity Transit.

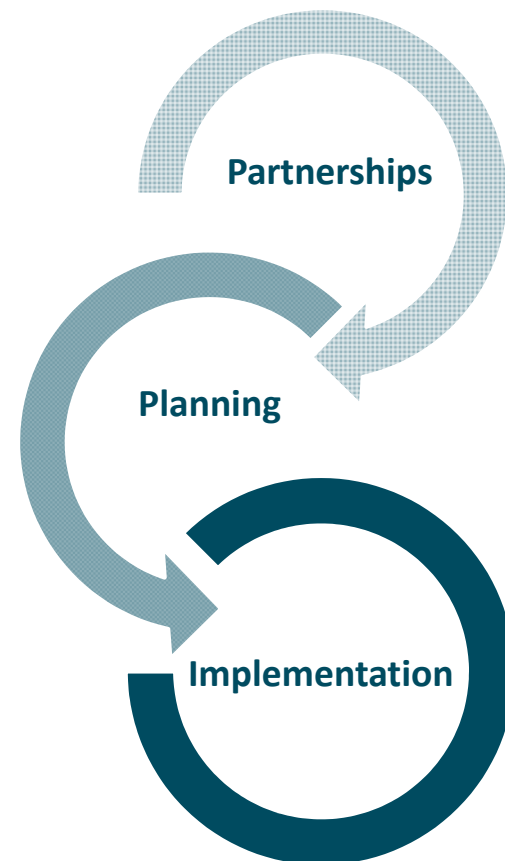
New transit strategies and projects, including “Enhanced Transit.”



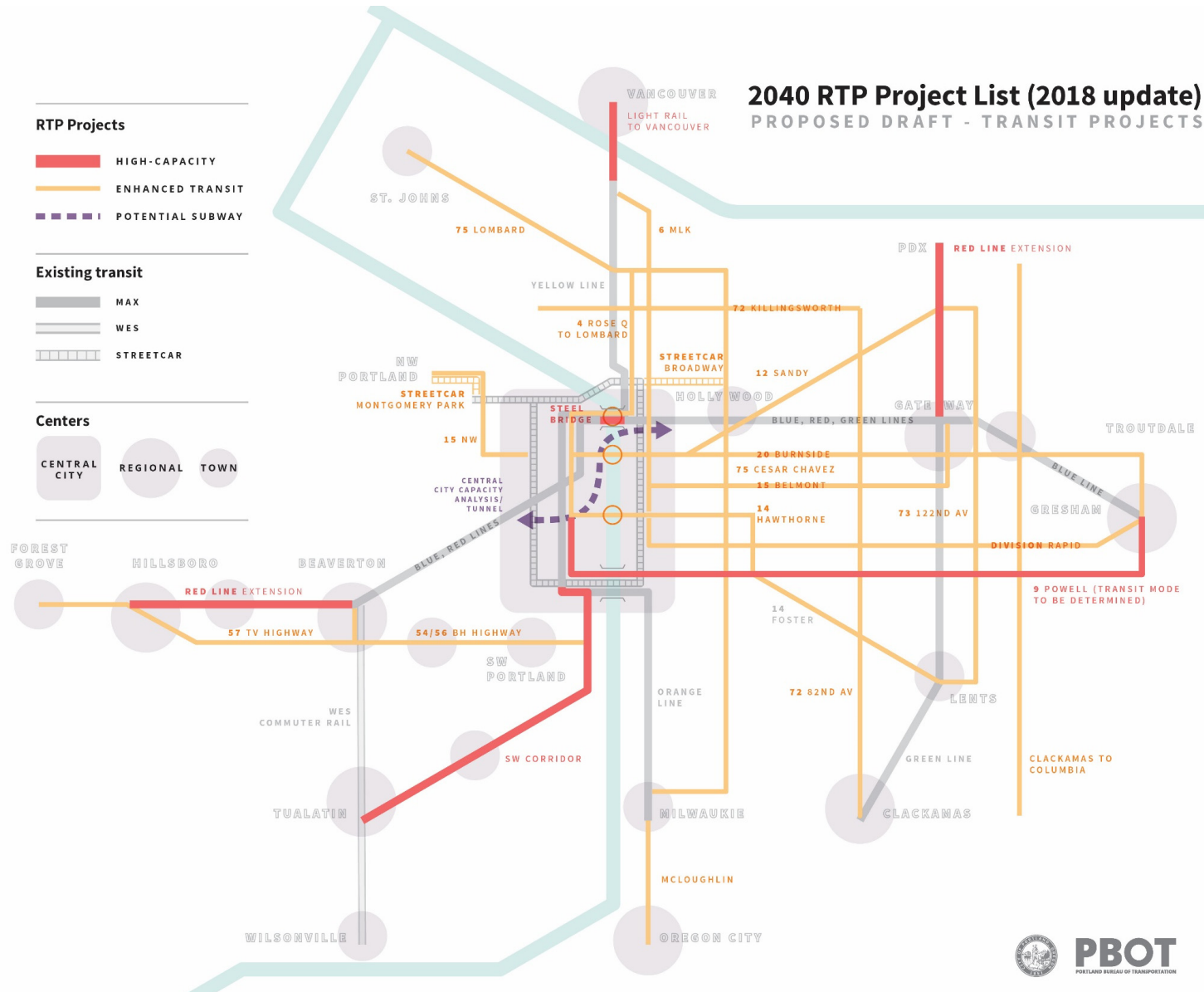
A Proposed New Transit Vision

Regional Transit Vision

To make transit more frequent, convenient, accessible and affordable for everyone

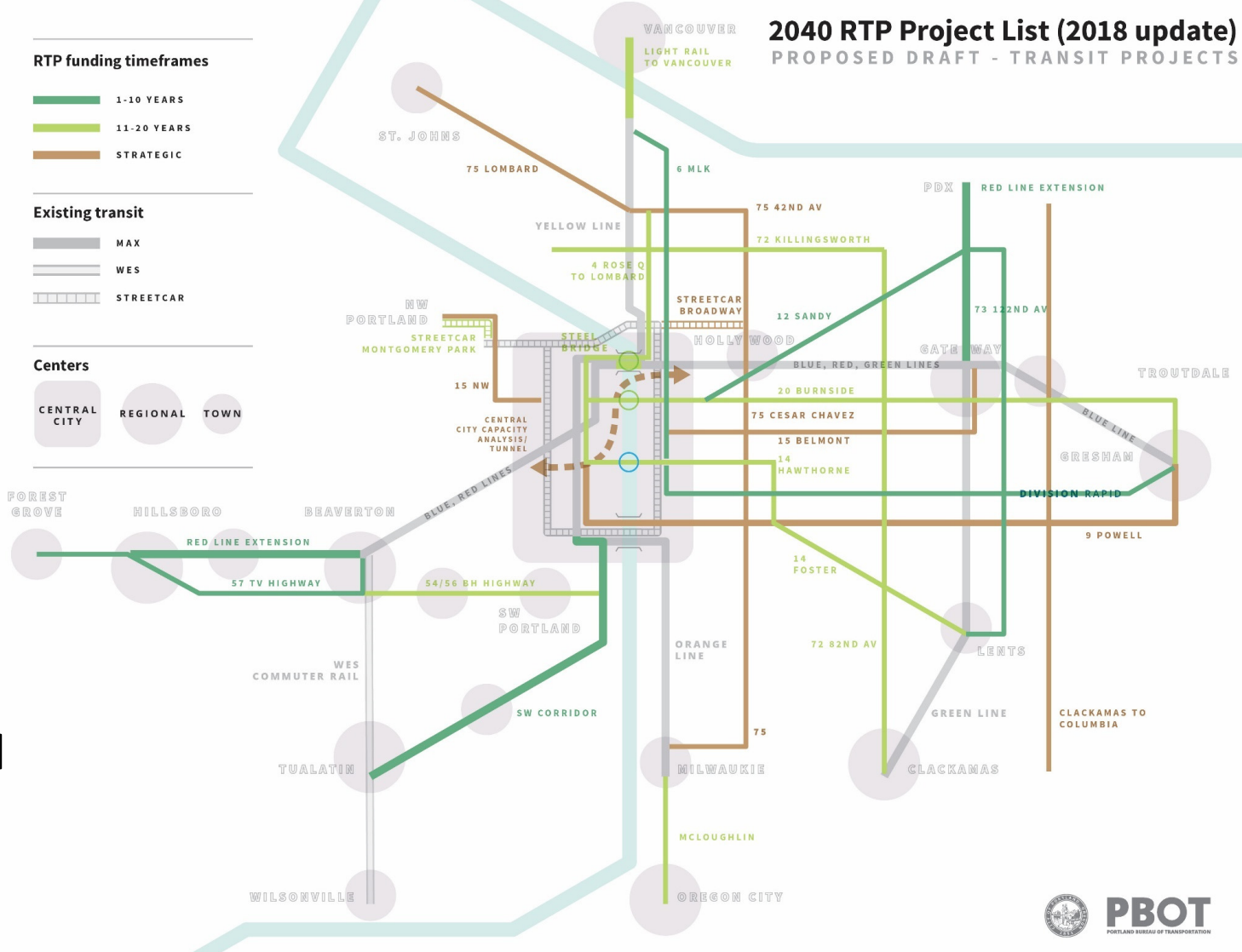


- Extend MAX lines
- Address transit bottlenecks
- Add Enhanced Transit
 - Streetcar
 - Buses
- Pursue High Capacity Transit in the Powell Corridor (mode TBD)





1-10 Year Constrained
11-20 Year Constrained
Strategic



2040 RTP Project List (2018 update) PROPOSED DRAFT - TRANSIT PROJECTS

RTP Projects

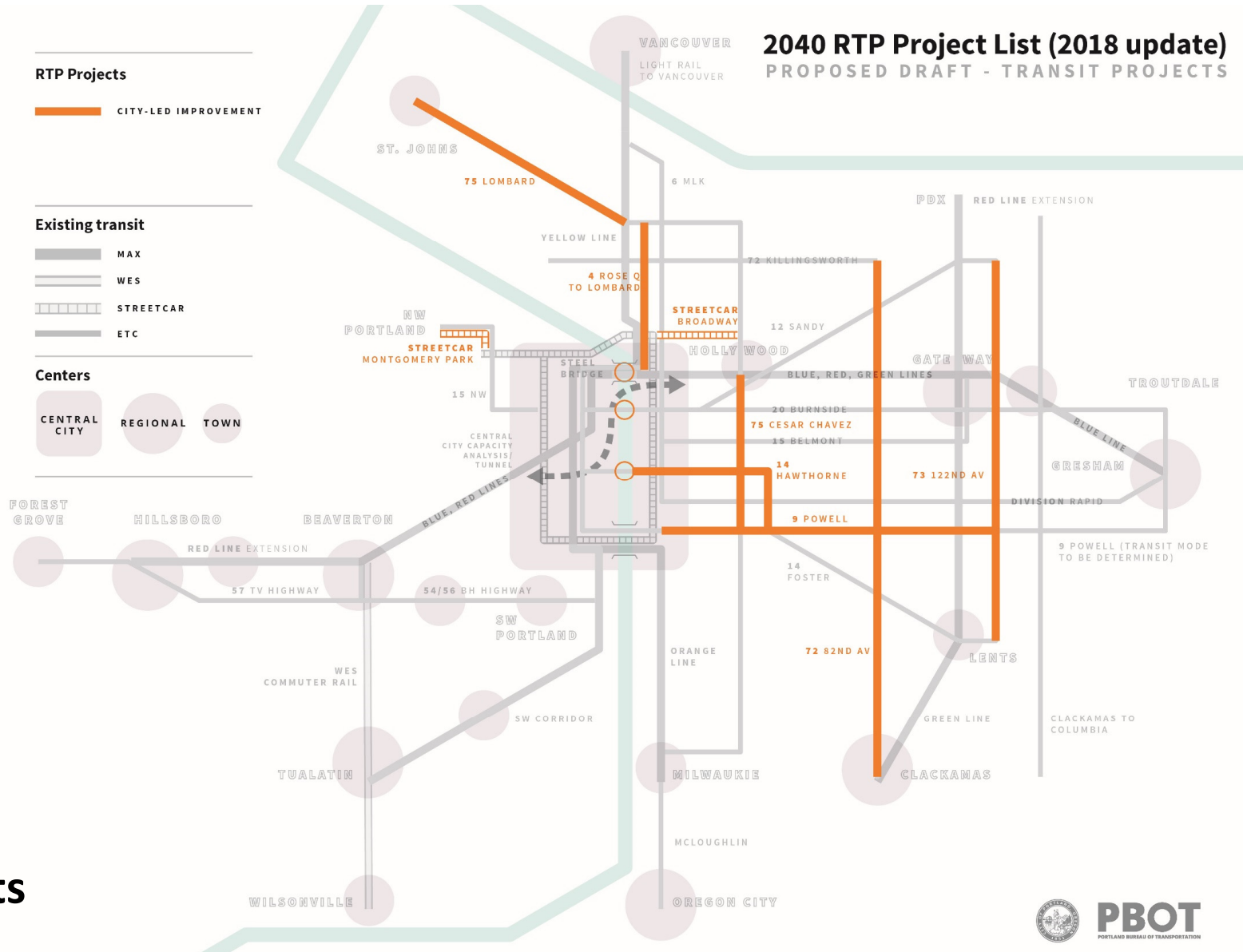
CITY-LED IMPROVEMENT

Existing transit

MAX
WES
STREETCAR
ETC

Centers

CENTRAL CITY REGIONAL TOWN



City-Led Investments

PSC Discussion and Input

- How this fits with and supports Portland's Comprehensive Plan
- How this advances PSC direction in the TSP Update to study an inner ring and outer ring transit study