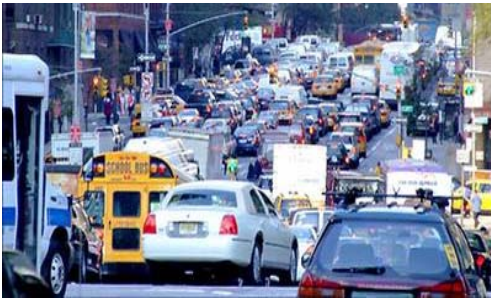


King County Metro Transit Speed and Reliability Corridor Improvements

FHWA Regional STP Application

Appendix B



Problem

Many corridors where buses travel in King County experience high levels of traffic congestion which reduces service reliability and increases travel time. Routes with poor reliability and slow travel times are unattractive to riders and incur increased person delay, wasted fuel and higher levels of emissions.

Project Overview

Metro’s Speed and Reliability Program identifies and prioritizes investments to improve transit performance and service quality across King County. The program promotes Metro’s Strategic Plan, including strategies 5.1.3 *Improve transit speed and reliability*, 6.1.1 *Manage the transit system through service guidelines and performance measures* and 6.2.2: *Provide and maintain capital assets to support efficient and effective service delivery*.

This project will implement a package of **transit preferential treatments** in transit corridors in several areas of King County identified as priorities by the Speed and Reliability program. The project will:

- Improve the transit operating environment and reduce delay on three key transit corridors that connect 10 regional growth and manufacturing/industrial centers, and 5 transit activity centers
- Improve the performance and efficiency of frequent, well-used routes with poor reliability – the three main routes addressed fall below Metro’s systemwide on-time performance target of 80%, with on-time performance ranges between 70-80% all day, and 55-70% in the evening peak

Transit preferential treatments include:

- traffic signal re-timing, traffic signal modification and signal synchronization
- modifications to existing transit signal priority (TSP) installations
- designation of bus or HOV lanes
- channelization improvements and parking restrictions
- upgraded bus stop amenities and improved bus stop spacing

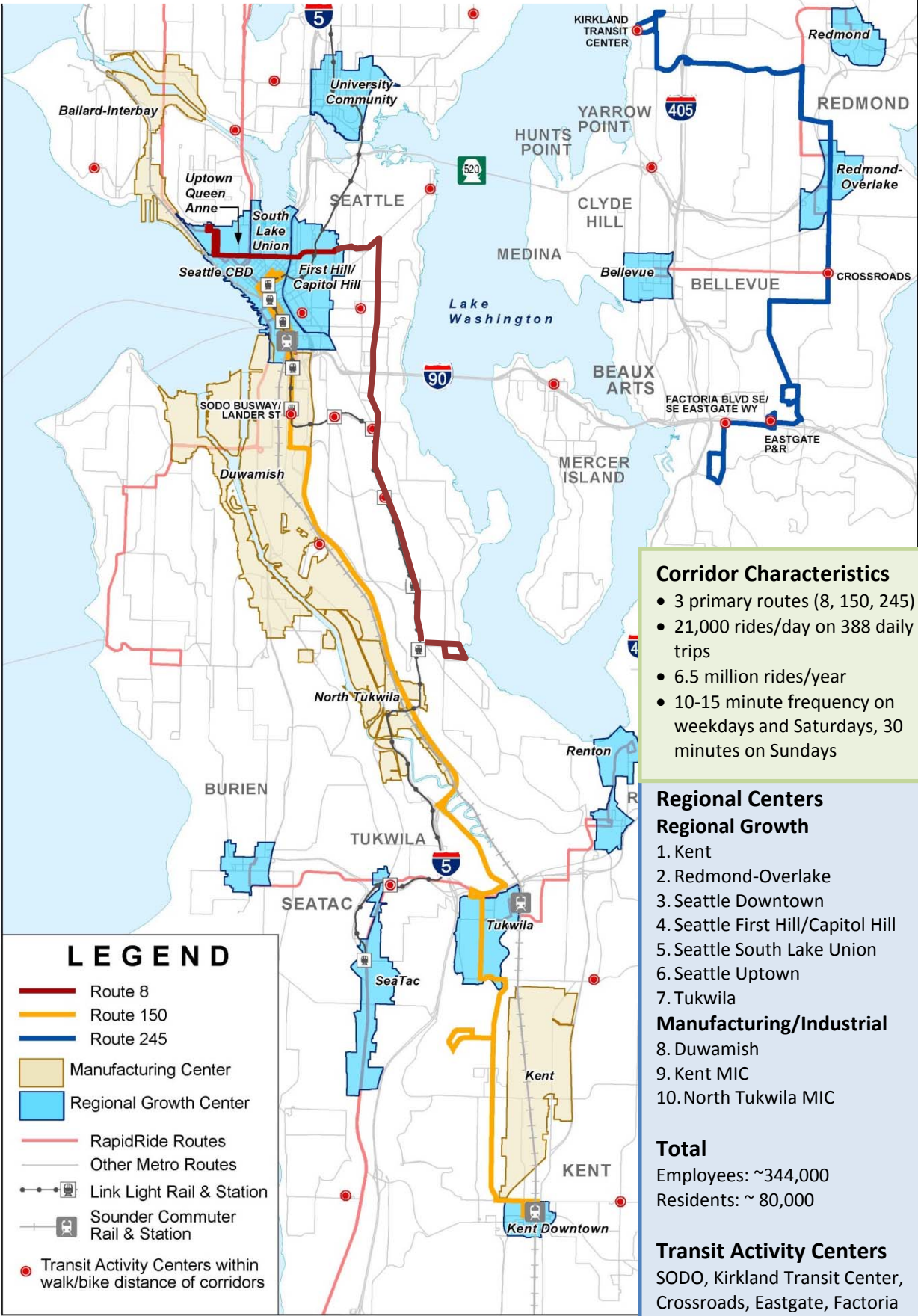
Project Benefits

- Improves travel time by 8-22% on corridors with poor reliability, saving between 3 and 9 minutes per trip on nearly 400 trips/day
- Increases reliability on multiple routes - including of one of the most unreliable routes in the system –thereby improving service quality for roughly 21,000 riders per day, or 6.5 million riders per year
- Makes bus service more attractive -projected to increase ridership on affected routes by 2-3%
- Reduces annual CO emissions by 68,000 tons and saves 950,000 gallons of fuel per year
- Improves connections to and between 10 regional centers with 344,000 employees and 80,000 residents.
- Improves accessibility and mobility for approximately 214,000 employees and 149,000 residents along the corridors.

Budget

Phase	Local Funding	STP Funds Requested	Total	Year Obligated	Completed
Preliminary Engineering/Design	\$ 591,000	\$ 2,556,000	\$ 3,147,000	2015	2017
Construction	\$ 722,000	\$ 3,127,000	\$ 3,849,000	2017	2018
Total	\$ 1,313,000	\$ 5,683,000	\$ 6,996,000		

Corridor Investment Locations



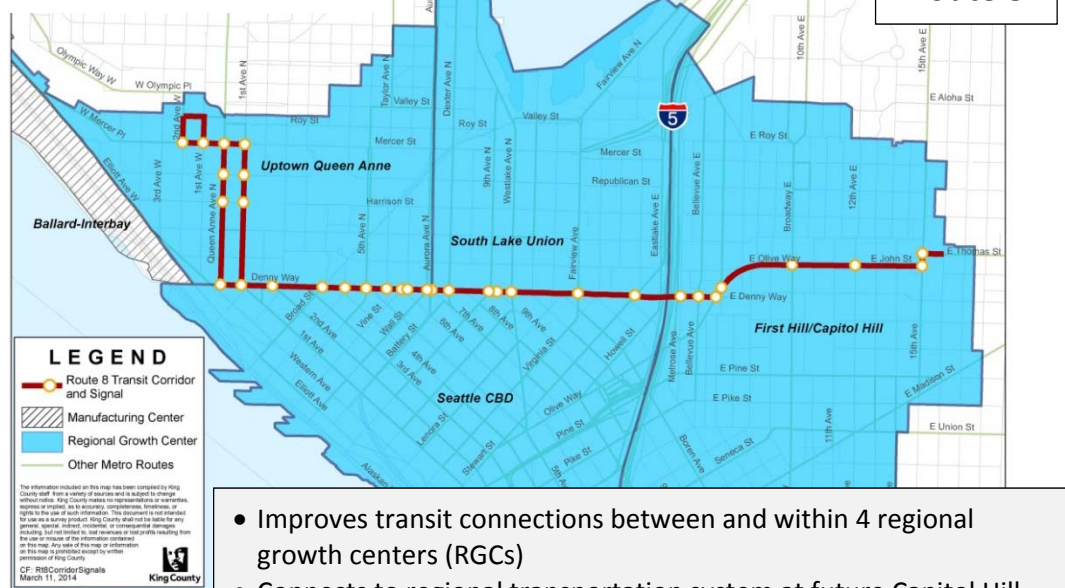


Project Elements

- Retimes and synchronizes 80 – 100 traffic signals
- Improves bus stop amenities and spacing
- Modifies channelization and manages left turns
- Modifies signals and adjusts signal operations at up to 20 intersections
- Considers opportunities to designate HOV/Bus lanes



Project Focus Area



- Improves transit connections between and within 4 regional growth centers (RGCs)
- Connects to regional transportation system at future Capitol Hill light rail station as well as BRT (D and E lines)
- 211,000 jobs- nearly 50% of total jobs in the City of Seattle and 74,000 residents are in the 4 centers
- Signal modification, parking restrictions, left turn restrictions, channelization improvements, bus stop improvements, signal synchronization, transit signal priority adjustments
- Low income corridor
- Denny Way average daily traffic (ADT): 30,000

Route 8



- Connects 3 MICs, 2 RGCs and 1 transit activity center with 30,000 residents and 244,000 jobs
- Connects to Sounder and future Rapid Ride F-line; C and D line, Link light rail
- Connects to Southcenter Mall
- Low income and minority corridor
- Signal retiming, HOV /bus lanes, signal queue jumps and bus stop improvements
- West Valley Highway ADT: 100,000

Route 150



- Connects to Redmond-Overlake RGC as well as transit activity centers at Factoria, Eastgate, Crossroads and the Kirkland Transit Center
- 31% of Redmond's jobs (~24,000) in Overlake
- Signal modifications and retiming, new signals, queue jumps, improved stop spacing
- 3rd Street in downtown Kirkland ADT: 10,000

Route 245

Benefit to Centers

- Connects to and between 10 designated centers with 344,000 employees and 80,000 residents and 5 transit activity centers
- Connects to jobs from all sectors, with nearly 50% in the service sector
- Serves all job clusters, except aerospace, with the top three sectors being Information Technology (46,300 jobs), Business Services (43,000 jobs), and Tourism (35,000 jobs)
- Improves accessibility and mobility for approximately 214,000 employees and 149,000 residents along the corridors connecting centers

System Continuity/Long Term Benefit and Sustainability

- Implements investments to reduce delay across King County prioritized by Metro's Speed and Reliability program
- Improves travel time by 8-22% on 3 corridors with poor reliability – saving between 3 and 9 minutes per trip
- Promotes Metro's commitment to improve both service quality and to operate more efficiently
- Implements strategic investments to improve frequent, high ridership services

Air Quality and Climate Change

- Saves 68,000 kg of CO and 950,000 gallons of fuel per year
- Attracts 190,000 new riders per year
- Reduces diesel emissions due to more efficient bus operation
- Diverts SOV trips and reduces vehicle miles traveled
- Reduces delay and fuel consumption for general traffic due to efficient signal timing
- Realizes immediate air quality benefits upon project completion

Project Readiness

- Occurs within existing right-of-way – no additional ROW needed
- Included in the King County Metro adopted Six-Year budget
- Consistent with the King County Metro Strategic Plan for Public Transportation and the King County Comprehensive Plan
- Supported by local jurisdictions and consistent with local and regional plans including City of Seattle and City of Bellevue's Transit Master Plans.