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1 INTRODUCTION

The City of Seattle Transit Master Plan (TMP) is a 20-year plan that identifies the types of transit facilities, services, programs, and system features that will be required to meet Seattle's transit needs through 2030. Building from an extensive market analysis, review of future growth patterns, and evaluation of transit needs, the TMP identifies capital investment priorities needed to establish a network of top quality, frequent transit services that meets the travel needs of most Seattle residents and workers. The TMP evaluates and recommends preferred transit modes for high priority corridors and sets a framework for implementing corridor-based transit improvements in close coordination with other modal needs. The plan was developed with feedback from King County Metro and Sound Transit, the agencies that provide most transit service in the City of Seattle and whose partnership is critical to creating a seamless, fully integrated, and user-friendly Seattle transit system.

WHY A MASTER PLAN FOR SEATTLE?

MEETING CITY GOALS

The Seattle Transit Master Plan (TMP) is a 20-year plan designed to help meet Seattle's goals, including the development of a transit system that supports the mobility needs of Seattle residents and businesses and that serves as a backbone of sustainable urban growth. The TMP defines the critical role that transit plays in meeting city goals related to sustainability, equity, economic productivity, and livability. The plan recommends projects, strategies, and funding options to improve transit quality and delivery; as it is implemented, it will help to knit together the city's urban villages into an accessible network of great neighborhoods. Since all transit trips begin with walking or biking, the TMP considers important pedestrian and bicycle linkages to local and regional transit services and identifies ways to improve accessibility. The TMP recommends a heightened level of coordination for multimodal investments in Seattle under which pedestrian, bicycle, and transit investments are made simultaneously to optimize benefits in the City's most important mobility corridors.

FOCUS ON IMPLEMENTATION

The Seattle Transit Master Plan (TMP) updates and expands upon the 2005 Seattle Transit Plan. It identifies near-term and long-term strategies to improve the quality of transit options and increase transit mode share throughout the city. Serving as a blueprint for transit, the plan provides a vision for Seattle's transit network through 2030 and beyond and identifies transit capital, operational, and programmatic investments. The TMP establishes a strong policy framework for transit, in many cases confirming policy language already established in the Seattle Transit Plan, the Transportation Strategic Plan, and other approved plans. Building upon the 2005 plan, the TMP details specific capital projects

that will improve transit speed and reliability in high ridership bus corridors citywide and develop rapid streetcar lines in several of Seattle's most promising transit corridors.

To a degree, the City of Seattle's own success dictates the need for the Transit Master Plan. The Seattle Department of Transportation's (SDOT) transit program has delivered capital improvements in key city transit corridors using funds from Bridging the Gap (BTG), grants, partnerships with King County Metro, and through a local improvement district that funded a starter line of a proposed streetcar network. BTG is a nine-year local transportation levy for maintenance and multimodal transportation improvements passed in 2006. BTG provides funding for street and traffic signal improvements that increase the speed and reliability of bus travel in corridors that carry the most transit trips and connect Seattle's urban villages. Design and construction of improvements is already underway or complete in corridors around the city, including: Rainier Avenue, West Seattle, Ballard-Uptown, Third Avenue, and Market/45th Streets. The South Lake Union Streetcar is a 1.3 mile modern streetcar system that connects the rapidly developing South Lake Union Urban Center to the downtown retail core and regional transit system. Since opening in December 2007, the South Lake Union line has seen double-digit ridership percentage growth in each year of operation. The City is in the final design stages for the First Hill Streetcar, which will connect First Hill to Capitol Hill and transit connections in the International District. Building upon these projects, the TMP outlines a capital investment program to be funded through other future sources and leverages opportunities with other projects and investments. The TMP will ensure continued progress toward a top quality, Frequent Transit Network for Seattle residents.

KEY OUTCOMES

The TMP lays out an aggressive plan for transit capital and program improvements that can start immediately, but may take 20 years or more to realize in full. Further, the plan addresses a number of other important outcomes identified through the work of the Transit Master Plan Advisory Group (TMPAG), a group of stakeholders that worked closely with SDOT and the consultant team to develop the TMP. The following TMP outcomes were prioritized by the TMPAG:

- Identify the city's most important transit corridors that carry high ridership today and have the greatest potential to serve transit needs that will emerge as Seattle's population and job base grows.
- Make transit more competitive with the private auto by enhancing transit speed and reliability and increasing service frequency in priority bus transit corridors. These corridors represent the City's most immediate opportunity to provide meaningful improvements in service quality for passengers.
- Expand the Seattle rail system. This was a strong sentiment among stakeholders and members of the public that responded to the TMP survey as well. Residents were attracted to the reliability and ride quality of rail and emphasized that Seattle should speed the development of its rail system.
- Improve Center City circulation. Many stakeholders want Seattle to prioritize expansion of the Center City streetcar, improve wayfinding and real-time information at transit stops, make right-of-way modifications to improve bus speed and efficiency, and improve coordination of transit modes for transfers.
- Leverage transit investments to support urban development, enhance placemaking, and achieve environmental goals.
- Elevate the integration of transit capital development with the expansion of walking and biking infrastructure. In particular, use TMP priority transit corridors to guide multimodal corridor investment (see Chapter 5: Mobility Corridors) where corridor access, placemaking, and linear mobility investments are made simultaneously, using a "transit project" as the means to holistically transform a corridor.
- Coordinate with Metro and Sound Transit to create a seamless, fully integrated, and user-friendly network of transit services.
- Develop design standards for transit stops and stations to make the user experience safe, comfortable, enjoyable, and convenient.
- Develop or enhance education and financial incentive programs that support transit use in Seattle.

- Identify transit funding options that allow TMP priorities to be implemented while supporting maintenance of existing local transit services.
- Create performance measures to allow the City to monitor TMP implementation and changes in transit performance levels and quality.

CHANGING TRANSIT LANDSCAPE

In 2010, the King County Council formed the Regional Transit Task Force (RTTF) to develop a policy framework to guide service investments or, if necessary, service reductions. The RTTF identified short-term and long-term objectives for transit service investment and developed policy guidance for service implementation based on those objectives. Among the most important for Seattle was the elimination of the 40/40/20 funding allocation¹ in favor of policy guidance for making service reduction and service expansion decisions based on the following priorities:

1. Emphasize productivity due to its linkage to economic development, land use, financial sustainability, and environmental sustainability
2. Ensure social equity
3. Provide geographic value throughout the county

By approving a temporary \$20 vehicle license fee in August 2011 to supplement declining operating revenues, the King County Council prevented dramatic cuts to transit service in late 2011 and 2012 that would have been necessary to deal with operating fund shortfalls. To some degree, this funding measure simply pushes Metro's financial challenges out for two years. However, it also provides the City of Seattle with an opportunity to determine the City's future role in funding service operations, the tradeoffs of which are discussed in Chapter 6 (Funding and Performance Measurement).

Approval of the \$20 vehicle license fee carried the condition that the Downtown Seattle Ride Free Area (RFA) be eliminated in 2012. Elimination of the RFA will require significant changes to downtown transit fare collection and creates opportunities for Metro and the City of Seattle to rethink how transit operates in downtown. Despite tradeoffs for transit access and circulation, elimination of the RFA could provide an opportunity for King County Metro, in partnership with the City of Seattle and Sound Transit, to consider significant restructuring of Seattle bus route operations. Such restructurings have the potential to reduce operating inefficiencies and create enhanced service levels through reinvestment.

¹ The 40/40/20 funding split refers to a King County policy that was developed by Metro Transit to balance transit operating funds between Seattle, which had a well developed transit system, and the remainder of the county, where transit services were more limited. Specifically, the 40/40/20 reference is the percentage split of new transit operating funds between South King County (40%), East King County (40%), and Seattle/Shoreline (20%).



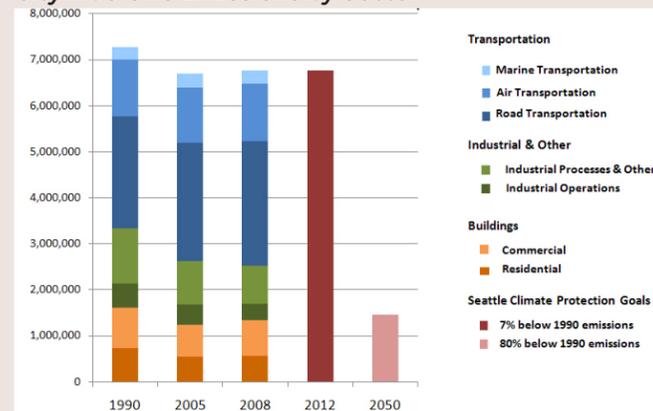
South Lake Union Streetcar

Image from SDOT

SEATTLE'S COMMITMENT TO SUSTAINABILITY

Seattle has demonstrated its commitment to sustainability by reducing carbon emissions, increasing energy efficiency, and improving recycling rates even as the City and economy have grown. The charts below provide examples of the City's commitment.

Citywide GhG Emissions by Sector



The City reduced its overall carbon emissions to 7% of 1990 levels as of 2008, meeting the City's 2012 goal (shown in the dark red bar). The City's goal for 2050 is to reduce emissions to 80% of 1990 levels. In addition, by 2005 Seattle City Light had purchased carbon offsets to match its greenhouse gas emissions, allowing it to meet a goal of net zero emissions.

Source: City of Seattle, Climate Protection Initiative Progress Report, 2009

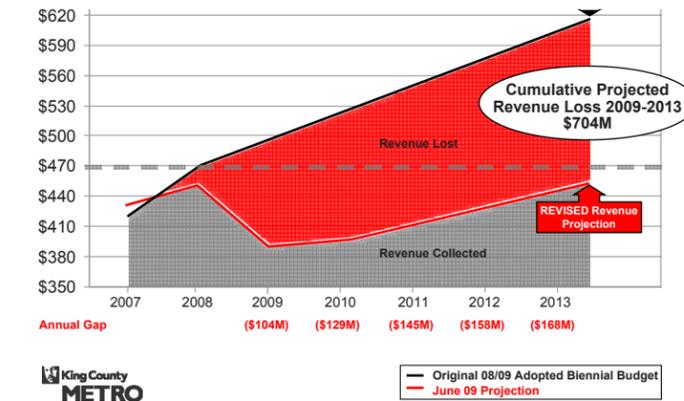
City of Seattle Recycling Rate through 2010



Since 2003, Seattle's recycling rate has increased each year, working towards a recycling goal of 60% by 2012.

Source: City of Seattle, Recycling Rate Report, 2010

FIGURE 1-3 KING COUNTY METRO – SALES TAX REVENUE SHORTFALL



Source: King County Metro

its partner transit agencies will struggle to fully implement the TMP and shift more people to riding transit. Chapter 6 (Funding and Performance Monitoring) sets forth a strategy for the City of Seattle to take a more active role in funding transit operations and developing capital projects in priority transit corridors.

- Accommodating Growth Gracefully and Sustainably:** The City of Seattle and its residents are committed to addressing climate change, reducing energy consumption, and improving public health, while continuing to expand the local economy. Transit plays a key role in moving more people in less space. It also brings communities together in new ways by organizing development more efficiently and creating new opportunities for people to travel around the city in a convenient, safe, social, and fun way. Implementing the TMP will help Seattle to grow in size, vitality, and accessibility. The TMP proposes that existing infrastructure is made more efficient, inviting, and accommodating. Moreover, the TMP calls for strategic infrastructure investments that are critical to support local economic development and manage growth in a sustainable manner. Plan implementation would be a dramatic environmental achievement, one where the presence of a population expands and the impacts of occupancy are reduced.
- Serving Seattle's Underrepresented Populations:** The TMP is a framework for a transportation system where mobility and access is provided equally and affordably to all residents. A basic tenet of the plan is that transportation is a right. All people, regardless of income or ability, need transportation services that include good mobility, equal access to opportunities, and affordable cost. People should not need to own a car to have mobility and access to services, jobs, and recreation. Even stakeholders that stressed the importance of high-quality, high-frequency corridor transit service also noted the important social human service aspects of transit that is delivered by providing good fixed-route coverage and paratransit service. Figures 1-4 and 1-5 illustrate two of

the metrics used in assessing social equity as part of the TMP—an index of transit reliance and auto ownership rates in Seattle, shown at the Census block group level. Social equity considerations were fundamental in understanding Seattle's transit needs and developing TMP recommendations.

- Developing a well-integrated, complete system in an environment with multiple non-City operators:** Seattle residents generally have access to high quality transit in most urban neighborhoods and major travel corridors. Most local transit services are provided by diesel bus or electric trolley

bus. However, recent ongoing construction of regional light rail transit by Sound Transit and the development of Seattle Streetcar lines in South Lake Union and on First Hill/Capitol Hill (nearing construction) demonstrate that the transit landscape in Seattle is changing. It is imperative that the City of Seattle take an assertive role in coordinating the design and development of intermodal facilities and station access projects. Chapter 5 (Places: Access and Connections) sets a policy framework and identifies priority projects to improve the intermodal experience for transit travelers in Seattle.

Downtown is the heart of the region that focuses 60% of the state's economic energy. In the next half century, Downtown is expected to expand dramatically to the east (First Hill), north (South Lake Union, Denny Triangle) and south (Sodo). This expansion will double downtown employment and quadruple residential occupancy. Reliance on auto access to and through Downtown limits the person capacity of available rights-of-way. Improved transit access to the Center City and Seattle's urban village neighborhoods is critical to support the City's economic growth.

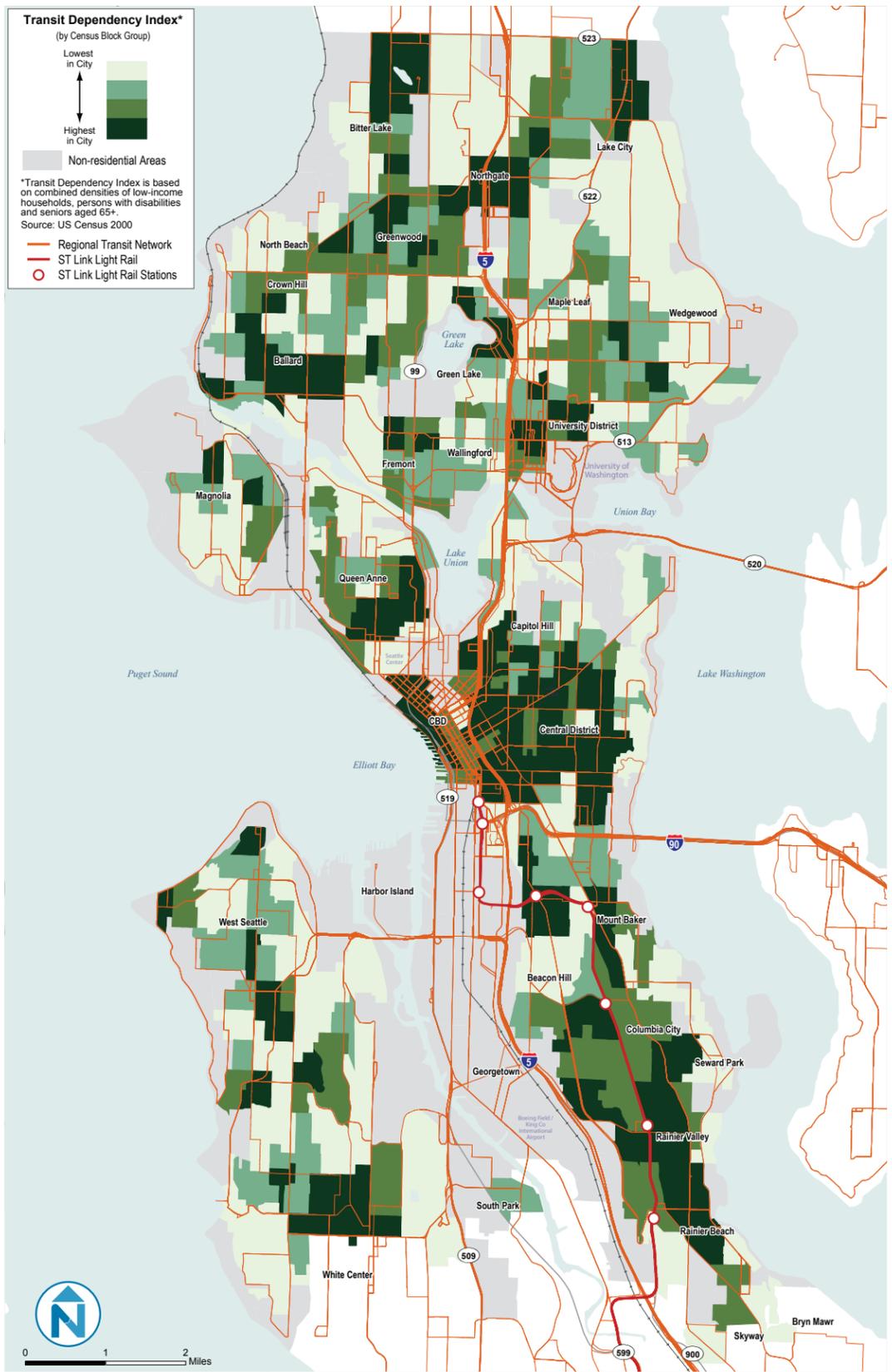
TRANSIT AND CLIMATE CHANGE

The update to the Seattle Climate Action Plan currently under development identifies four types of impacts on GhG emissions from the recommended transit investments of the Transit Master Plan:

- Reduced vehicle miles traveled (VMT) from private vehicles.** Improved bus and rail service reduce emissions by encouraging travelers to shift some trips from driving to transit.
- Increased and decreased energy consumption from transit vehicles.** Service expansions require additional electricity for rail and trolley bus operations and new diesel fuel consumption for diesel bus operations. At the same time, the conversion of some diesel bus services to electric operations and service changes that make some routes more efficient reduce energy consumption.
- Increased emissions from construction.** Building new transit facilities and vehicles uses materials that are energy-intensive to produce, resulting in significant up-front emissions.
- Reduced VMT due to land use change.** Expanding high-capacity transit will change how Seattle uses land in the coming decades, with more homes and businesses able to locate in compact, walkable neighborhoods near high-frequency transit modes. The impact of land use changes could generally be expected to significantly increase the GhG reduction potential of transit expansion.

Viewed in isolation, transit-related GhG emission reductions justify only a fraction of the cost of high capacity transit (HCT) investment. The main reason to invest in HCT corridors in Seattle is that they provide benefits for mobility, transportation choice, and livable neighborhoods. The mobility benefits of these investments are necessary for the City to effectively pursue other transportation-sector strategies for GHG reduction—some of which are very efficient on a cost-per-ton basis—including land use and transportation demand management strategies.

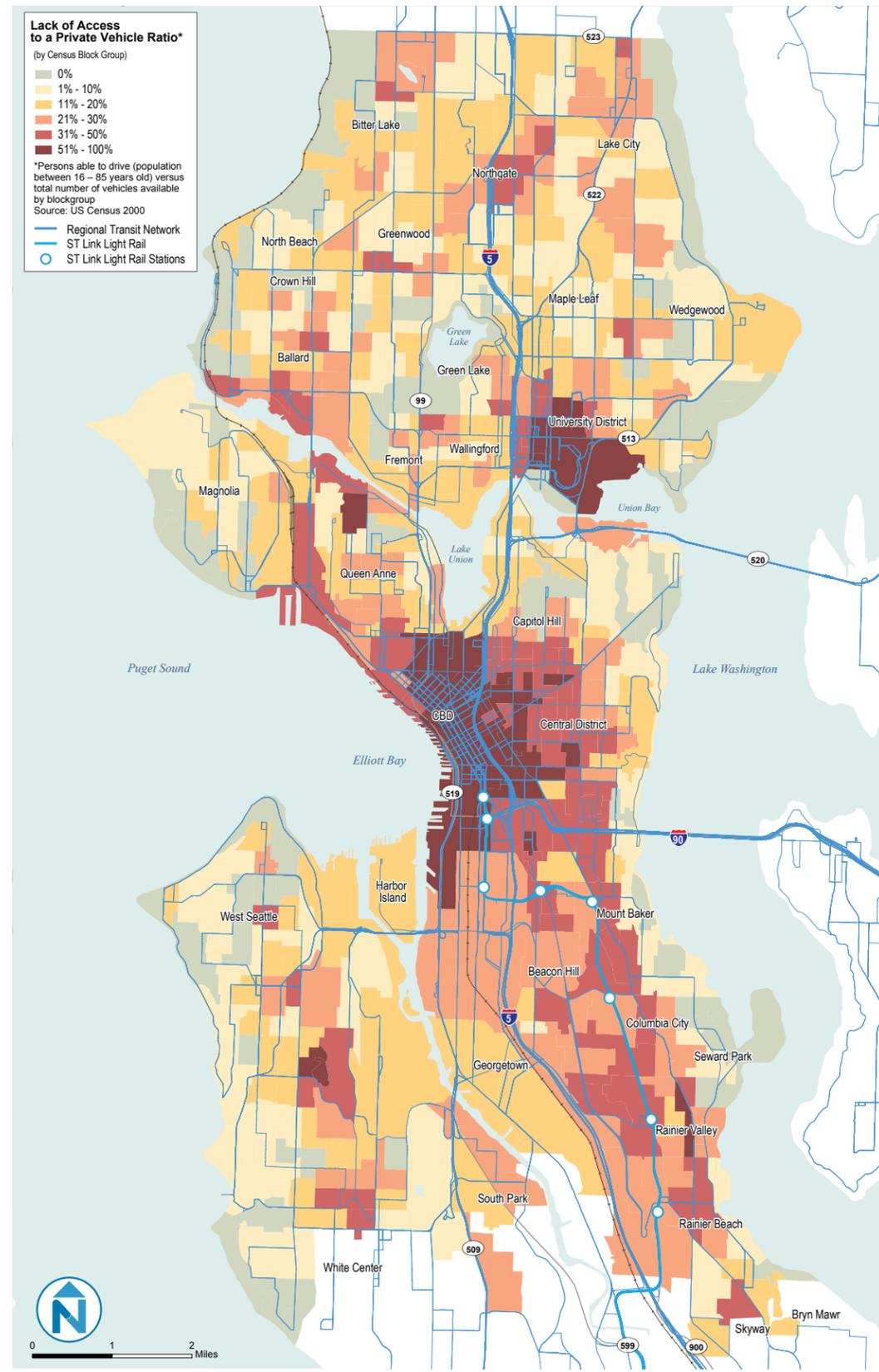
FIGURE 1-4 TRANSIT RELIANCE INDEX



This map shows the extent to which people in various parts of the city that are more likely to be reliant on transit as their primary means of transportation. This includes individuals that rely on transit because they are physically unable to drive and those that do not own a private automobile.

Source: King County, ESRI, US Census 2008

FIGURE 1-5 AUTO OWNERSHIP



This map shows the overall ratio of population to private vehicles, providing an indicator of auto ownership. It reflects people who are unable to own an automobile, those who chose to live without a car, and multi-adult households that have just one car.

Source: King County, ESRI, US Census 2008

CITY OF SEATTLE'S ROLE IN TRANSIT DELIVERY

Many large U.S. cities are served by transit providers that operate under separate governance from the municipality. Seattle is unique, however, in the active role SDOT takes in planning, funding, and delivering transit for its residents, visitors, and employees. The City's role in transit delivery includes funding and building capital transit speed and reliability projects, maintaining a current transit plan, and providing policy representation on regional transit boards and committees. The City allocates time and resources to the following transit programs and activities:



Bridging the Gap funds multimodal improvements along important transit and bicycle/pedestrian corridors.

Image from Nelson\Nygaard



The Transit Master Plan is a five-year update to the 2005 Seattle Transit Plan.

Image from Nelson\Nygaard



In 2008, SDOT released the Seattle Streetcar Network Development Report, which proposed four new streetcar lines. The First Hill line, included in the Sound Transit ST2 plan, is now in the final design stages.

Image from Flickr user Dan Haneckow

Funding

Seattle generates capital funding for transit corridor improvements through the Bridging the Gap funding package. SDOT regularly pursues federal grants for transit capital improvements and has successfully partnered with King County Metro to secure federal funding for RapidRide corridor improvements and other transit projects. The City also subsidizes transit service on the Seattle Streetcar and a number of frequent services provided by Metro and currently provides partial funding for the downtown Seattle Ride Free Area (RFA). With the upcoming elimination of the RFA (2012), the City will have the opportunity to consider other uses for its annual RFA contribution of \$400,000, perhaps for improvements to downtown fare collection systems.

Planning and Policy

SDOT maintains an active transit plan and has planning, policy, and design staff to support policy coordination with Metro and Sound Transit as well as development of bus corridor improvements, station area planning, and the Seattle Streetcar program.

Seattle Streetcar

SDOT owns and contracts with King County Metro to operate the South Lake Union streetcar, which provides frequent transit service between Westlake Plaza and South Lake Union. SDOT is also designing and building the First Hill Streetcar, which was approved by voters in 2008 as part of Sound Transit's ST2 package. The First Hill Streetcar will connect the diverse and vibrant neighborhoods of Capitol Hill, First Hill, and the Chinatown/International District, while serving medical centers (Harborview, Swedish, and Virginia Mason) and universities (Seattle Central Community College and Seattle University).



SDOT's investments in key transit corridors are aimed at improving transit speed/reliability and pedestrian access conditions along the corridors and at major stations. In 2011, SDOT installed a raised bus platform and buffered bike lanes on Dexter Avenue (above) in conjunction with street resurfacing funded by Bridging the Gap.

Image from Nelson\Nygaard



Notice of proposed land use action for developing a 4-story mixed-use building on Rainier Avenue near the Mt. Baker Link station. No parking is proposed.

Image from Nelson\Nygaard

Corridor Capital Investment Program

Bridging the Gap provides funding for street improvements that will increase bus speeds in key corridors and improve bus stops and passenger waiting areas. SDOT is currently improving four corridors, two of which are planned Metro RapidRide lines. All four are part of the backbone of the Metro system, are identified as TMP Priority Bus Corridors, and are critical elements of the Seattle Frequent Transit Network. Routes that serve these corridors carry high numbers of transit trips, connect Seattle's most populous neighborhoods, and are key routes to support sustainable growth. These corridor projects include West Seattle, Ballard-Uptown, Rainier/Jackson, and NW Market/45th Street.

Station Area Planning and Permitting

SDOT and the Seattle Department of Planning and Development (DPD) are the lead departments in access and land use planning, development review, and permitting for light rail station areas on the existing Sound Transit Central Link line and planned University and North Link extensions. A key focus of DPD activities in recent years has been to update Neighborhood Plans in areas where stations have been built, including areas along Martin Luther King, Jr. Way S and on Beacon Hill, and areas where RapidRide lines are planned, such as along Aurora Avenue. Rezoning, however, has lagged somewhat in failing to take full advantage of the opportunity to leverage transit-oriented development in station neighborhoods.

INCREASED TRANSIT SERVICE FUNDED BY BRIDGING THE GAP

2008 Route Additions

Route	Area	Time
3	Central Area, First Hill, Downtown, Queen Anne	Mid-Day, Evening
4	Central Area, First Hill, Downtown, Queen Anne	Mid-Day, Evening
10	Downtown, Capitol Hill	Peak
11	Downtown, Capitol Hill, Madison Park	Peak
12	Downtown, First Hill, Interlaken Park	Peak
14	Downtown, Central Area, Mt. Baker	Peak
26	Downtown, Fremont, East Green Lake	Peak, evening, Sunday
28	Downtown, Fremont, Broadview	Peak, evening, Sunday
44	University District, Wallingford, Ballard	Evening (attains 15 min./18 hr. goal)

2009 Route Additions

Route	Area	Time
2	Downtown, First Hill, Madrona Park	Peak
13	Downtown, Queen Anne, Seattle Pacific University	Peak, late night
48	Rainier Beach, Columbia City, University District, Loyal Heights	Evening All trips extended to Rainier Beach at all times

2010 Route Additions

Route	Area	Time
5	Downtown, Greenwood, Northgate, Shoreline	Peak
7	Downtown, Rainier Beach	Evening, Sunday (attains 15 min./18 hr. goal)
8	Seattle Center, Capitol Hill, MLK Blvd.	All day
60	White Center, Georgetown, Broadway	Evening, Weekend All trips extended to White Center at all times
70	Downtown, Fremont, University District	Peak
30	Seattle Center, Fremont, University District, Sandpoint	Extended to Seattle Center during most hours of operation
75	Northgate, Ballard	Evening, Sunday

Route service additions funded through Seattle's Bridging the Gap and Metro's Transit Now initiatives. These additions move Seattle closer to meeting goals of providing 15 minute service all day, seven days per week between major neighborhoods and business centers.

Source: SDOT, Bridging the Gap Fact Sheet, 6/21/2010

TRANSIT INVESTMENT FRAMEWORK

The Transit Master Plan Summary Report is organized around the five areas of transit investment and policy development shown in the graphic below.

