King County
METRO

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Metro Transit

2015 Service Guidelines Report

October 2015

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METRO

We'll Get You There

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Using the Guidelines to Plan, Assess and Change Service

Where do we provide service?

Our Transit network is comprised of corridors connecting centers

Centers:

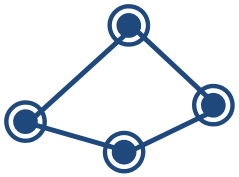
- Transit centers and places where many people work, live or go for services or activities
- 85 centers across King County today

Corridors

110 Metro corridors serve centers

All-Day and Peak Network

These 110 corridors create Metro's all-day transit network. Metro provides additional peak only service to meet demand.



How much service should we provide?

Target corridor productivity levels are set in two steps:

1. What is the preliminary service level?

Productivity (Jobs & Households)

+

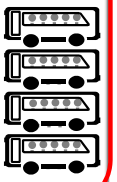
Social Equity (low-income & minority riders)

+

Geographic Value (connections to centers)

Preliminary Service Level

2. Does preliminary service level provide enough buses?

Preliminary Service level	Current Riders	Target
		

How is service performing?

Service analysis looks at both routes and corridors:

Route Productivity Rides/ Hr. Pass.Mi/ Mi.

Top 25%		Bottom 25%

Service Reliability

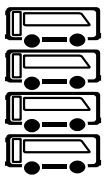
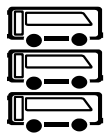
< 5 Minutes late

Overcrowding

Avg. load < 125% seats: regular service
Avg. load < 150% seats: 10 min. service
Standing load <20 min all service

Peak Criteria
Travel time
Ridership

Target Service Comparison

Target	Existing
	 Below

Above | At | Below

What should we do differently?

+ Investment Priorities

Invest to:

- Reduce overcrowding
- Improve reliability
- Achieve target service levels
- Become more productive

- Reduction Priorities

Reduce service to:

- Meet budget constraints
- Re-invest in investment priorities

Improvements & Restructures

Make improvements and restructures to:

- Match design guidelines
- Meet investment priorities

=

Service Change Proposals

EXECUTIVE SUMMARY

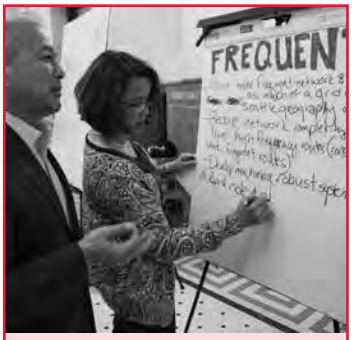
Metro Transit uses service guidelines to plan and manage our transit system and to let the public see the basis of our proposals to expand, reduce, or revise service. We developed the guidelines in response to a recommendation of the 2010 Regional Transit Task Force and included them in our Strategic Plan for Public Transportation, which was adopted by the King County Council in 2011 and amended in August 2013.

This report is based on the adopted guidelines and does not include any recommendations that may result from the ongoing Service Guidelines Task Force. Metro launched this task force in 2015 to analyze how transit service performance is measured, develop approaches to how geographic value and social equity are included in the guidelines, develop financial policies for the purchase of additional service by municipalities, and develop guidelines for implementing alternative services. Any changes to the guidelines approved by the King County Council will be reflected in future reports.

The service guidelines balance productivity, social equity, and geographic value. They help us use public tax and fare dollars as effectively as possible to provide high-quality service that gets people where they want to go, serves areas that have many low-income and minority residents, and responds to public transportation needs throughout the county.

This 2015 Service Guidelines Report was prepared to comply with Section 5 of King County Ordinance 17143 (adopted and approved in July 2011). It presents our analysis of Metro's 2015 All-Day and Peak Network, which sets target service levels for the corridors where we provide service and identifies where service-hour investments are needed. It also presents our performance analysis of 184 Metro bus routes and the South Lake Union Streetcar, identifying where investments are needed to improve service quality.

Unless noted otherwise, the data analyzed was from the February 14 to June 5, 2015 service period. In June 2015-March 2016, both Metro and the City of Seattle (through a Community Mobility Contract with Metro) are making investments to address all of the service quality needs identified in the 2014 Service Guidelines Report (see Section 4). Investments are also partially addressing Priority 3 investment needs. Although the service period analyzed precedes these investments, we took them into account as we calculated investment needs.



The service guidelines define a transparent process using objective data that helps Metro make decisions about adding, reducing and changing transit service to deliver productive, high-quality service where it's needed most.

Investment needs

The 2015 guidelines analysis found an estimated need of approximately 471,650 annual service hours to meet Metro's service quality objectives and target service levels after taking the June 2015-March 2016 service investments into account. These needs represent an increase of about 14 percent above the size of the system in spring 2015.

2015 Investment Needs

(Based on spring 2015 data, adjusted for 2015–2016 service investments)

Priority	Investment Purpose	Estimated Annual Hours Needed
1	Reduce passenger crowding	14,400
2	Improve schedule reliability	23,550
3	Increase service to meet target service levels on corridors in the All-Day and Peak Network	433,700
	Total investment need	471,650
4	Increase service on highly productive routes: A substantial portion of the growth needed to meet the *Transportation 2040 goals* (an additional 2.6 million annual service hours) will be on highly productive services.	

Investment priorities 1 and 2: Service quality needs. In 2015-2016, Metro and the City of Seattle will invest in a total of 30 routes to reduce passenger crowding and 87 routes to improve schedule reliability. The 2015 analysis found that after applying the 2015-2016 investments, 25 routes need investments to reduce passenger crowding, and 79 routes need investments to improve schedule reliability. Most of these routes need relatively minor investments, such as an added trip at a particular time of day or a few additional minutes of running time per bus trip. We determined a total need of 37,950 annual service hours beyond the investments we are already making to correct service quality problems.

Investment priority 3: Service to meet corridor target service levels. In 2015-2016, 13 corridors will receive investment toward meeting their target service levels. On top of these investments, 51 corridors need further investment to reach target service levels. Meeting target service levels typically requires the addition of many trips in a time period or in multiple time periods of the day, or complete revision of the schedules of routes serving an area. We determined a total investment need of approximately 433,700 annual service hours to meet target service levels.

Investment priority 4: Highly productive routes. Investment in highly productive services is the fourth investment priority. Seventy-one of the 185 routes evaluated were in the top 25 percent on one or both route productivity measures for at least one time period.

Highly productive routes generally serve areas where there is latent demand for transit. Although we know from experience that investments in very productive routes result in higher ridership, the guidelines do not attempt to quantify the service hours that would be necessary to satisfy that demand. Some of these highly productive routes also need investments because they are overcrowded, unreliable, or on corridors where service is not at the target level.

The need of 471,650 annual service hours represents only part of the transit growth expectation in the Puget Sound region's Transportation 2040 plan. To meet the plan's target, Metro must add approximately 2.6 million service hours within 25 years. While we are able to invest in service now because of the improved economy and funding approved by Seattle voters, a long-term funding solution is necessary if we are to make the additional large investments our region needs to accommodate growth. In the meantime, we will invest in highly productive routes incrementally as opportunities become available—such as through service restructures or partnerships with local jurisdictions. Metro's forthcoming long-range plan will identify corridors throughout the county where significant investment will be required to support projected growth in jobs and population.

Changes in investment needs since 2014

The total investment need of 471,650 annual service hours is less than the 547,350-hour need identified in the 2014 analysis. Metro's and the City of Seattle's service investments are addressing all priority 1 and 2 needs identified in the 2014 Service Guidelines Report. Metro and Seattle are making additional investments that address some of the priority 3 needs as well. However, need persists for several reasons:

- Continued growth in ridership, combined with Metro's reduction of over 150,000 annual service hours in September 2014, resulted in additional investment need to reduce overcrowding.
- More-crowded buses, more roadway construction, temporary road closures due to building construction, and increasing traffic congestion stemming from the growing economy have caused a decline in schedule reliability that requires more investment.
- Target service levels changed for some corridors as a result of changes in ridership, higher demand, land use changes, and changes in the distribution of low-income and minority populations in King County. Overall there was a slight decrease from 2014 in the number of hours needed to meet target service levels, with a large portion of the net decrease due to the start of the RapidRide F line in June 2014 and other targeted investments.

Alternative services

This report also reviews the performance and progress on Metro's alternative services. The King County Council approved a $12 million budget for an alternative services demonstration program in the 2015-2016 biennium. During this period, the program is focusing on mitigating the impact of service reductions made in September 2014, "right-sizing" service in areas identified in our five-year alternative services implementation plan, and developing projects that complement existing fixed-route or Demand Area Response Transit (DART) service.

The performance analysis found that ridership is growing steadily on all community shuttles the program has launched (serving Snoqualmie Valley between North Bend and Duvall, Issaquah-North Bend, Mercer Island-downtown Seattle, and Burien). The alternative services program is exploring, planning, or developing a number of other projects in Redmond, southeast King County, Duvall, Vashon Island, and other communities.

Potential changes to the guidelines

At the time this report was drafted, the Service Guidelines Task Force was analyzing how transit service is evaluated and allocated. Formed by the County Council after several years of experience using the service guidelines, the task force was asked to consider changes to the guidelines.

Potential recommendations the group was considering included changes to the corridor analysis, changes to Metro's service types (currently defined as Seattle Core, Non-Seattle Core, and Alternative Services), expanded consideration of peak commuter services, and changes to enhance the role of alternative services. These and other potential changes are discussed in Section 5. Any changes recommended by the task force and approved by the County Council will be incorporated into Metro's service planning practices and will be reflected in next year's Service Guidelines Report.

Metro at a Glance (2014)

Service area:	2,134 square miles
Population:	2.08 million (est.)
Employment:	1.3 million (est.)
Fixed-route ridership:	120.9 million
Vanpool ridership:	3.4 million
Access ridership:	1.1 million
Annual service hours:	3.5 million
Active fleet:	1,448
Bus stops:	over 8,000
Park-and-rides:	130

INTRODUCTION

This is the fifth annual service guidelines report. It presents the results of our analysis of spring 2015 data for the Metro system and identifies services that are candidates for investment, change, or reduction. It serves as a snapshot of Metro service in one service change—a four-month period—and allows us to compare service in that same period each year to identify trends and areas needing improvement. At the time this report was drafted, the Service Guidelines Task Force was considering changes to the guidelines (See Section 5). This report adheres to the adopted guidelines and does not include any recommendations that may arise from the task force. Recommendations from the task force will be reflected in an update to Metro's Strategic Plan and Service Guidelines, which is scheduled to be adopted in mid-2016.

When Metro makes service decisions to match budget projections—whether resources are shrinking, stable, or growing—the service guidelines help by identifying reduction and investment priorities. The service guidelines were used in 2013 and 2014 to develop a plan for service reductions to close Metro's revenue shortfall. They were also used when determining how new revenue from the City of Seattle's Transportation Benefit District and Metro's budget savings[1] would be invested. Some of these investments were made in June and September this year, and more are planned for March 2016 (collectively referred to as "2015-2016 service investments" in this report). Looking to the future, the service guidelines will help Metro manage the system after these additions are implemented and the system stabilizes. We will continue looking for ways to improve the system regardless of the future funding situation.

What is in this report?

This report is organized to lead readers through the following questions:

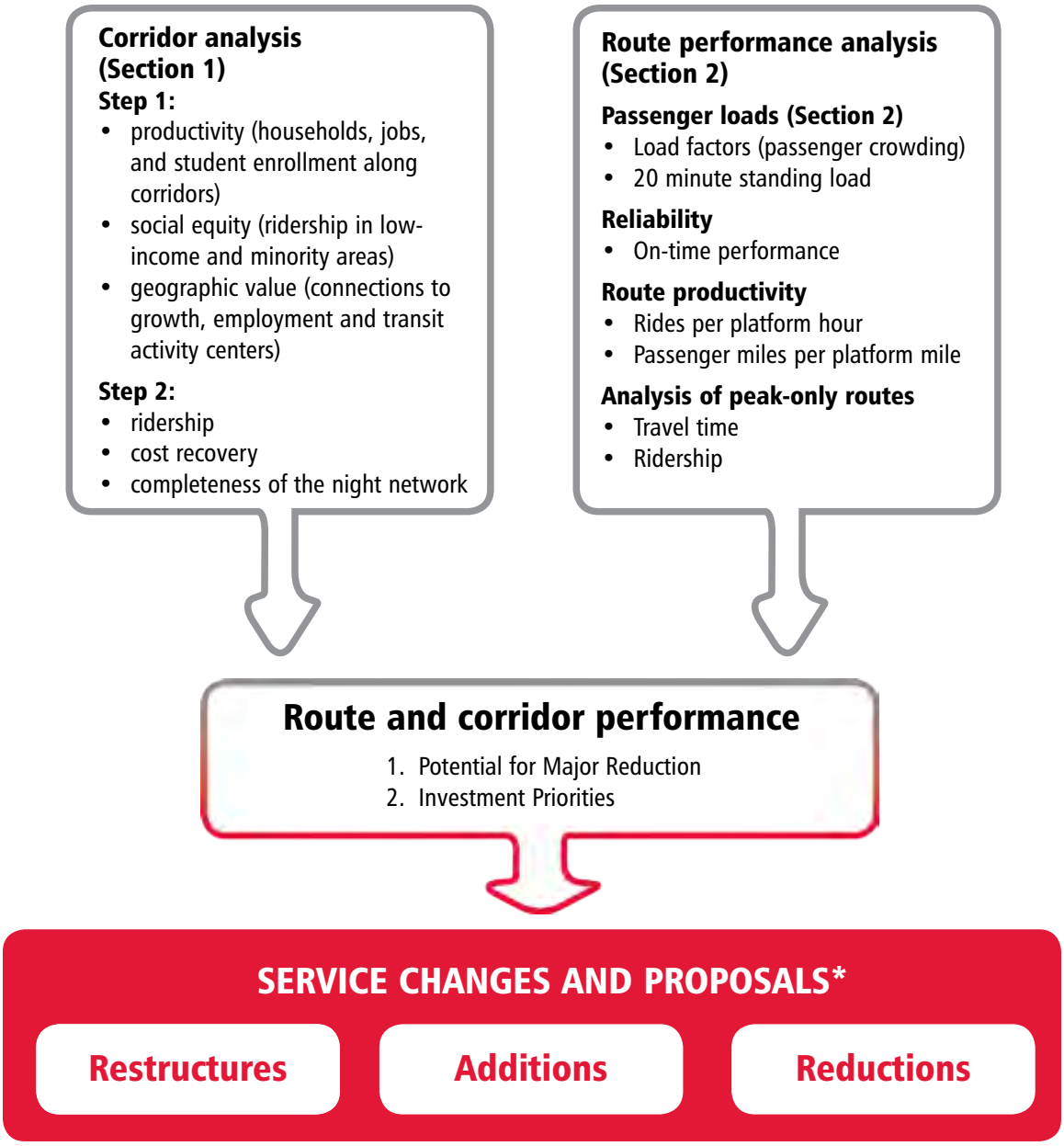
- **Where should service be provided?** Section 1 presents the results of our analysis of transit corridors throughout the county that determines how well they are being served and where need exists.
- **How is my route doing?** Section 2 presents the results of our route performance analysis. It also identifies specific investment needs based on service quality issues (overcrowding and poor reliability).
- **Where and how is Metro investing in alternative services?** Section 3 provides information about the performance of alternative services and steps we are taking to expand these services.
- **How are Seattle's investments affecting the system?** Section 4 describes the investments Seattle has made and how they relate to the guidelines.
- **What potential changes to policies are on the horizon?** Section 5 briefly covers some of the recent policy discussions about modifications to the guidelines, including preliminary ideas about how the guidelines will interface with Metro's forthcoming long-range plan.

[1] These savings resulted from a combination of program efficiencies Metro implemented, higher-than-expected sales tax revenues, and lower-than-expected fuel prices.

Figure 1 summarizes the main analyses of the transit system that we perform to generate this report. We review the results to estimate and prioritize investment needs. The analyses also guide service restructures and reductions when they become necessary.

FIGURE 1

Metro Service Guidelines Process



***Service Design Principles** guide changes to the system and are considered when planning for service changes.

Investment needs

Table 1 shows the investment needs identified in the analysis of spring 2015 data, adjusted to incorporate the 2015-2016 service investments. We give investment priority to service quality needs (priorities 1 and 2), as low-quality service negatively impacts riders and could discourage them and others from using transit. Next, we compare corridors' current service levels to their target service levels to generate priority 3 investment needs. If resources are available, we would next invest in highly-productive routes where increased service would result in higher ridership.

TABLE 1

2015 Investment Needs

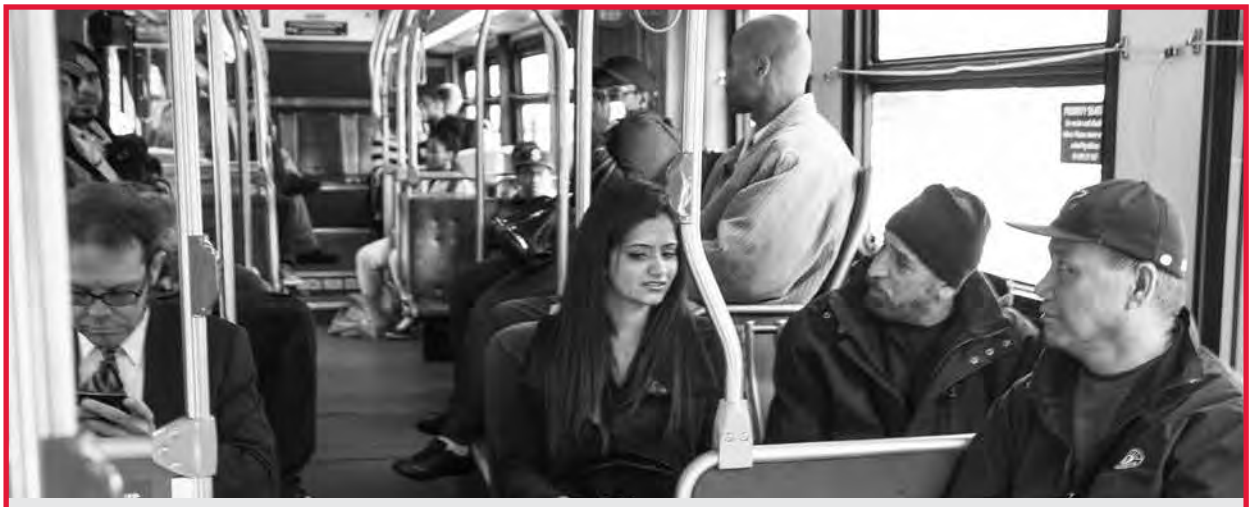
(Based on spring 2015 data, adjusted for 2015-2016 service investments)

Priority	Investment Purpose	Estimated Annual Hours Needed
1	Reduce passenger crowding	14,400
2	Improve schedule reliability	23,550
3	Increase service to meet target service levels on corridors in the All-Day and Peak Network*	433,700
	Total investment need	471,650
4	Increase service on highly productive routes	See discussion on page 2

*This is the result of the corridor analysis (section 1). Corridors needing investment are referred to as "corridors below target service levels."

Compared to 2014, annual service hours needed to reduce passenger crowding decreased 35 percent from 22,200 to 14,400; hours needed to improve schedule reliability decreased 39 percent from 38,650 to 23,550; and hours needed to meet target service levels in the All Day and Peak Network decreased 11 percent from 486,500 to 433,700. These investment needs decreased because of the investments made by Metro and the City of Seattle. However, investment needs remain because of the following factors:

- **Passenger crowding.** Continued growth in ridership, combined with the service reductions Metro made in September 2014, resulted in need that exceeded the 2015-2016 service investments made to reduce passenger crowding.
- **Schedule reliability.** More investment is needed to address a decline in schedule reliability that has resulted from more-crowded buses, more roadway construction, temporary road closures due to building construction, and increasing traffic congestion due to the growing economy. As with passenger crowding, the 2015-2016 service investments do not fully meet the growth in need from 2014 to 2015.
- **Target service levels** changed for some corridors as a result of changes in ridership and higher demand, changes to land use, and changes to the distribution of low-income and minority populations in King County. Overall there was a slight decrease from 2014 in the number of hours needed to meet target service levels, with a large portion of the net decrease due to the implementation of the RapidRide F line in June 2014 and other targeted investments.



Providing service where it's needed most: how the guidelines advance social equity and geographic value

Metro strives to provide equitable access to public transportation for everyone in our community and to deliver value throughout King County. The service guidelines help us by defining criteria and processes for analyzing and planning transit service that advances social equity and provides geographic value.

Social equity

One of the most important processes is that of setting target service levels for corridors in the All-Day and Peak Network. The guidelines define a process for determining a social equity score that makes up 25 percent of each corridor's total service-level score. First we categorize census tracts as low-income and minority using the most recent and best available census data (Appendix A). For each corridor, we compute the percentage of boardings that occur in those areas and compare it to the countywide average. Corridors that exceed the countywide average receive social equity points.

The social equity score is combined with scores for productivity (50 percent of the total) and geographic value (25 percent) to determine a preliminary target service level. The next step is to increase the service level if necessary to serve the actual number of current riders. This step helps ensure we set target service levels that will accommodate areas where many people have few transportation options and rely on Metro to get around.

The investment priorities defined in the guidelines also benefit corridors where low-income households and minorities use transit. The table below shows the findings of the 2015 guidelines analysis for investment needed to reduce overcrowding, improve reliability, and meet target service levels systemwide and on low-income and minority routes and corridors. Compared to 2014, the investment needed to improve reliability and meet target service levels on minority and low-income routes and corridors increased proportionally, while the investment needed to reduce passenger crowding decreased proportionally.

Priority Investment Category	Estimated total hours needed	Hours needed on minority routes/corridors	% of total need	Hours needed on low-income routes/corridors	% of total need
Passenger crowding	14,400	2,000	14%	2,800	19%
Schedule reliability	23,550	11,500	49%	13,800	59%
Meeting target service levels	433,700	322,500	75%	289,700	67%

We also consider historically disadvantaged populations and people who depend on transit when we develop proposals to add, reduce, or revise service. We strive to reach or maintain established target service levels. When reducing low-performing service, we avoid making reductions on corridors that are below target service levels and ensure that low-income and minority communities are not disproportionately affected.

Another way we avoid disproportionate impacts is to conduct robust public outreach that engages people who have low incomes or are members of minority groups—including those who speak little or no English. We develop partnerships with community organizations, have public open houses and information tables at convenient times and locations, translate public communication materials, and offer to have language interpreters at meetings. This outreach greatly informs the work we do when planning service changes.

We follow the requirements and guidance of Title VI of the Civil Rights Act, which prohibits discrimination on the basis of race, color or national origin; King County Ordinance 16948, related to the "fair and just" principle of the King County Strategic Plan, which strives to eliminate inequities and social injustices based on race, income, and neighborhood; and the Executive Order on Translation, which requires county agencies to ensure that public communications are culturally and linguistically appropriate for the target audience, including people with limited English proficiency.

For example, Ordinance 16948 lists 13 "determinants of equity." When planning service changes we strive to maintain or improve public transportation connections and access to the determinants of equity, including health care, education, food, housing, employment and other activities of daily living and civic engagement.

Geographic value

To help us deliver value throughout the county's geographic area, the guidelines identify the primary transit connections between centers on the basis of ridership and travel time. Centers are activity nodes that are the basis of the countywide transit network. They include regional growth centers, manufacturing/industrial centers, and transit activity centers. Transit activity centers include major destinations and transit attractions such as large employment sites, hospitals and clinics, and social service facilities. This year, we added to our analysis the Issaquah regional growth center, which was recently designated by the Puget Sound Regional Council (Appendix B).

In the process for setting target service levels, we assign higher service levels to corridors that serve as primary connections between centers.

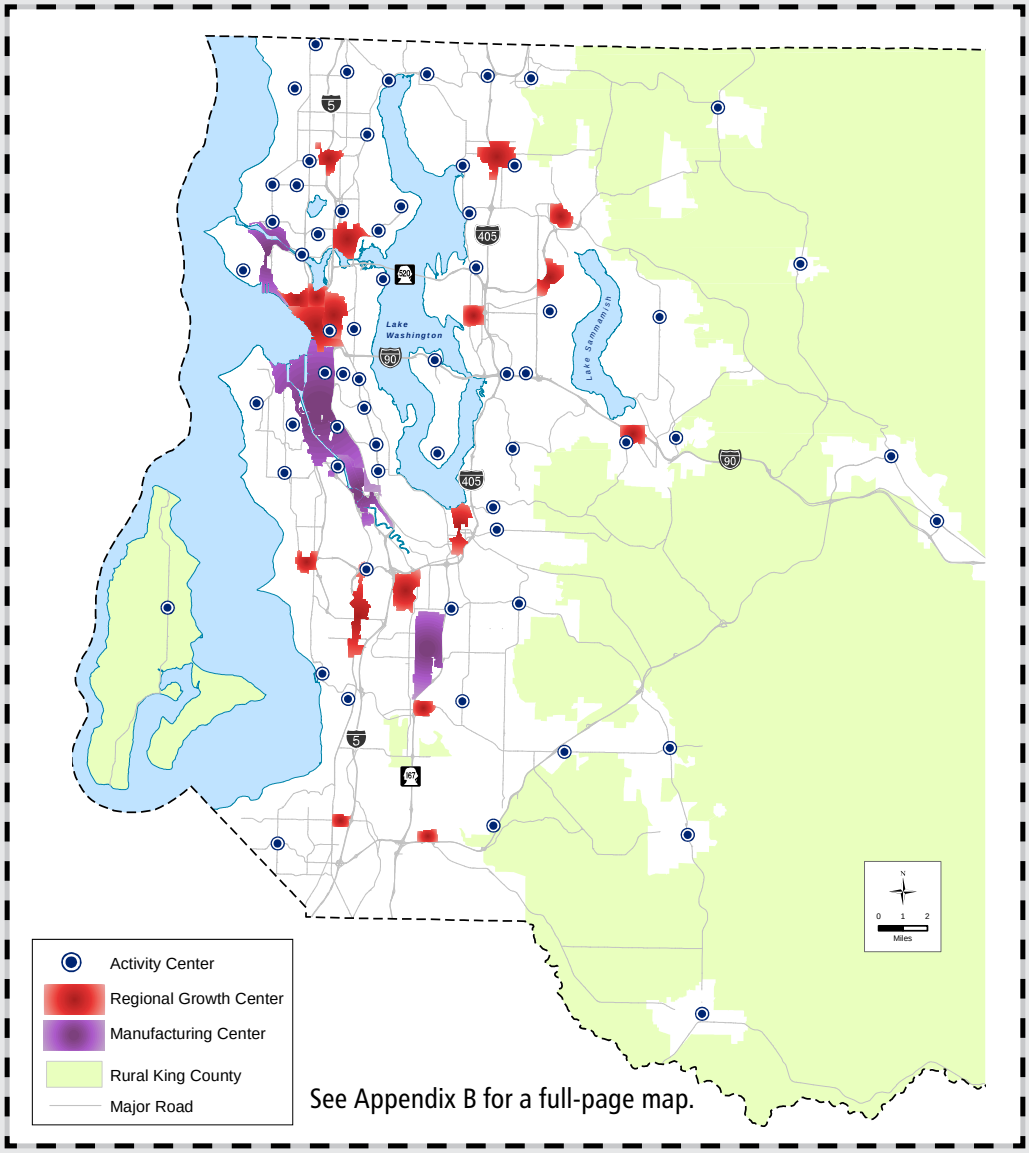
Primary Connections	Number of Corridors
Between regional growth centers	31
Between transit activity centers	48
Total corridors serving as primary connections	79

The guidelines also incorporate geographic value by classifying routes by market served, so that we compare similar routes when assessing route productivity. We classify our routes into two groups:

- Seattle core routes, which connect to the greater downtown Seattle area and the University District.
- Non-Seattle core routes, which operate in other areas of Seattle and King County.

Routes that serve the Seattle core are expected to perform at a higher level because their market potential is greater than routes serving other parts of Seattle and King County. The Service Guidelines Task Force is considering changes to this classification system (See Section 5).

Transit Activity Centers



See Appendix B for a full-page map.

SECTION 1

CORRIDOR ANALYSIS

The service guidelines establish transit corridors throughout the county that make up the All-Day and Peak Network. Each of these corridors is assigned a target service level (how often the bus comes) based on productivity, social equity, and geographic value. Table 2 shows the service family categories that are based on the target service levels. The corridor analysis compares the target service levels to existing service to determine whether a corridor is below, at, or above the target levels. The steps of the corridor analysis as well as the results are in Appendix G.

The data analyzed was from the February 14-June 5, 2015 service period, so it reflects the service reductions made in September 2014. When calculating investment needs, the June 2015-March 2016 service investments were taken into account.

What are corridors and routes?

Corridors are major transit pathways that connect regional growth, manufacturing/ industrial, and activity centers; park-and-rides and transit hubs; and major destinations throughout King County. The service guidelines use the corridor analysis to evaluate and set target service levels for the 110 corridors of the All-Day and Peak Network that currently have service.

Routes are the actual bus services provided. Service within a single corridor might be provided by multiple bus routes. For example, the corridor from Fremont to downtown Seattle via Dexter Avenue North is served by two different bus routes, 26 and 28, and both of these routes extend beyond Fremont. Some routes also cover multiple corridors. For example, Route 271 serves three distinct travel markets: Issaquah-Eastgate, Eastgate-Bellevue, and Bellevue-University District. The service guidelines evaluate routes for productivity and service quality (overcrowding and reliability) (see Section 2).

TABLE 2
Service Families

Service family	Service Level: Frequency (minutes)			Days of service	Hours of service
	Peak[1]	Off-peak	Night		
Very frequent	15 or better	15 or better	30 or better	7 days	16-20 hours
Frequent	15 or better	30	30	7 days	16-20 hours
Local	30	30 - 60	*	5-7 days	12-16 hours
Hourly	60 or worse	60 or worse	--	5 days	8-12 hours
Peak	8 trips/day minimum	--	--	5 days	Peak
Alternative services	Determined by demand and community collaboration process				

[1] Peak periods are 5-9 a.m. and 3-7 p.m. weekdays; off-peak are 9 a.m. to 3 p.m. weekdays and 5 a.m. to 7 p.m. weekends; night is 7 p.m. to 5 a.m. all days.
* Night service on local corridors is determined by ridership and connections.

Analysis

Changes to land use patterns, demographics, and the transit network produce fluctuations in the corridor analysis from year to year. These changes are detailed in Appendix G and are summarized below.

- **Corridor productivity.** Though many corridors registered significant increases in the number of jobs per corridor mile, most of these were already receiving the maximum number of points for jobs. Two corridors did receive additional points for job growth. Seventeen corridors received more points from increases in the number of households per corridor mile, reflecting the population growth our county is experiencing. Compared to last year, no corridors received lower scores for productivity this year.

- **Social equity.** Three corridors received more points for ridership in minority census tracts, while two corridors received fewer points. Eight corridors received more points for ridership in low-income census tracts, while five received fewer points. These changes are mostly due to census tracts either gaining or losing their designation as low-income or minority tracts based on demographic shifts. Changes in tract designations result from updates to census data.

- **Geographic value.** In addition to adding the Issaquah regional growth center to the geographic value analysis, Metro adopted an improved method to determine primary connections between centers this year. This new method is more comprehensive and provides greater precision when measuring travel times among competing corridors. As a result of this change, two pairs of corridors swapped primary connection status: corridor 18 (Route 131) replaced corridor 19 (Route 132) as the primary connection between Burien and the Duwamish manufacturing/industrial center, and corridor 23 (Routes 3 and 4) replaced corridor 22 (Route 12) as the primary connection between First Hill/Capitol Hill and the Seattle CBD. Two additional corridors (36 and 93) achieved new status as primary connections between activity centers. One corridor (57) lost its status as a primary connection due to a previous data error. These changes resulted in no negative impacts to target service levels, but corridor 36 (Route 28) received an increase in its target off-peak headway from 60 minutes to 30 minutes.

After applying the 2015-2016 service investments, we identified an estimated need of 433,700 hours to bring corridors to their target service levels (priority 3). Table 3 lists the corridors that still have investment need; they are also shown in Figure 2.

Priority for corridor investments was established according to the service guidelines by ordering the corridors in descending order of points, first by the geographic value score, then by the corridor productivity score, and finally by the social equity score. This priority order helps ensure that service investments are equitably distributed and productive.

TABLE 3

2015 Corridors Below Target Service Levels and Estimated Hours to Meet Service Level Targets, Ordered by Investment Priority

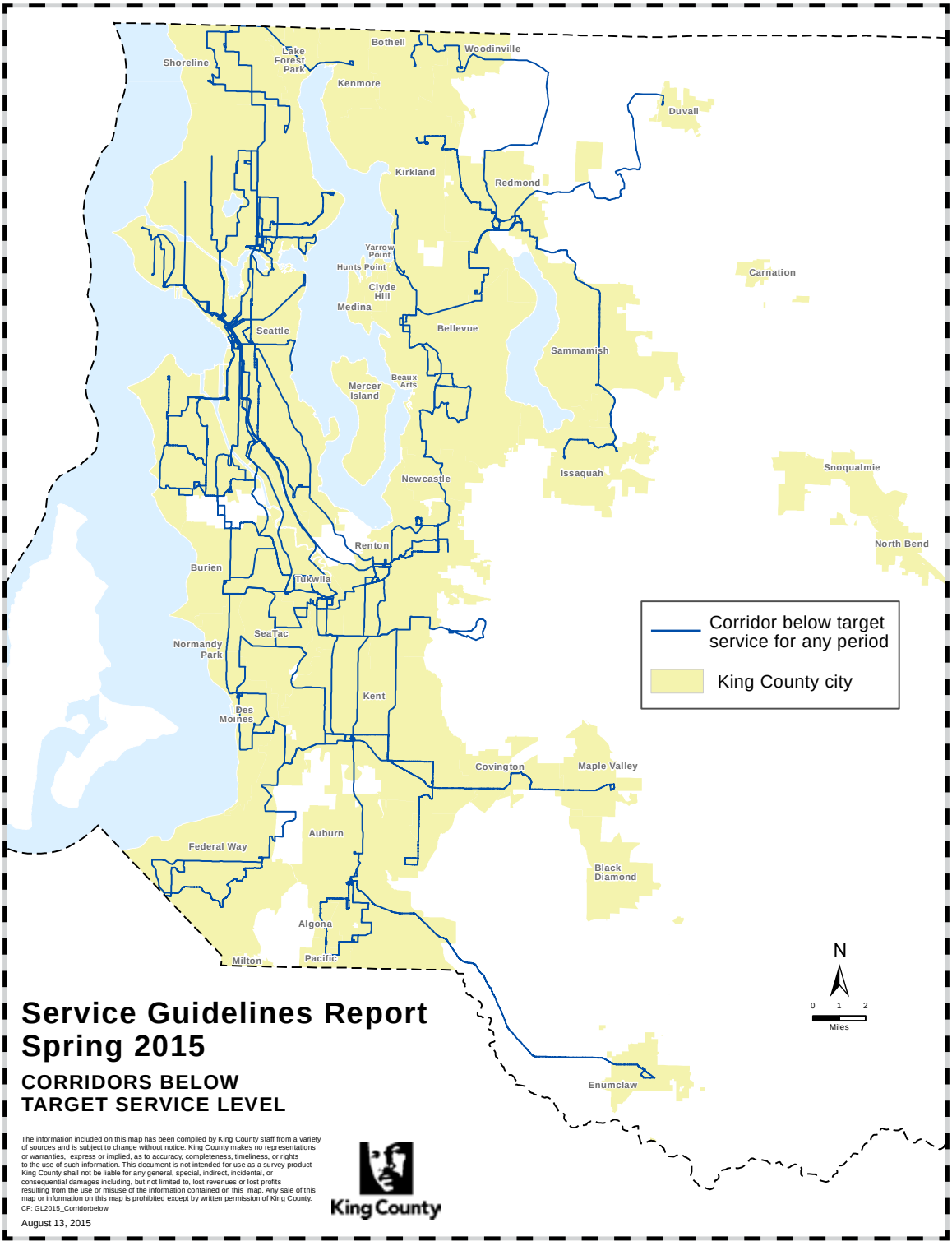
Shading indicates corridor is new this year to list of corridors below target service level

Corridor number	Between	And	Major Route	Estimated hours to meet target
105	U. District	Seattle CBD	49	4,900
10	Ballard	Seattle CBD	D Line	4,900
68	Northgate	U. District	66EX/67	4,800
69	Northgate	Seattle CBD	16	26,400
18	Burien	Seattle CBD	131	13,000
20	Capitol Hill	White Center	60	17,800
99	Tukwila	Seattle CBD	124	12,100
84	Renton	Seattle CBD	101/102	7,400
81	Redmond	Totem Lake	930	11,000
51	Kent	Seattle CBD	150	7,600
33	Federal Way	Kent	183	12,400
50	Kent	Renton	169	12,800
52	Kent	Renton	153	13,000
83	Renton	Burien	F Line	7,800
3	Auburn	Burien	180	21,700
100	Tukwila	Des Moines	156	5,000
59	Madison Park	Seattle CBD	11	3,500
38	Greenwood	Seattle CBD	5	2,800
61	Magnolia	Seattle CBD	24	10,100
79	Rainier Beach	Capitol Hill	9EX	14,600
111	West Seattle	Seattle CBD	C Line	2,100
19	Burien	Seattle CBD	132	15,300
93	Shoreline	U. District	373EX	24,700
53	Kirkland	Bellevue	234/235	5,500
86	Renton	Seattle CBD	106	16,800
16	Bellevue	Renton	240	10,600
87	Renton	Renton Highlands	105	2,700
112	White Center	Seattle CBD	125	3,800
95	Shoreline CC	Lake City	330	3,200
37	Green River CC	Kent	164	5,700
1	Admiral District	Southcenter	128	20,900
48	Kent	Burien	166	5,300
41	Issaquah	Overlake	269	11,600
44	Kenmore	Shoreline	331	8,300

Corridor number	Between	And	Major Route	Estimated hours to meet target
49	Kent	Maple Valley	168	7,600
101	Tukwila	Fairwood	906DART	6,000
82	Redmond	Fall City	224	5,200
108	UW Bothell	Redmond	931	3,400
30	Enumclaw	Auburn	186/915DART	2,600
24	Colman Park	Seattle CBD	27	13,300
26	Discovery Park	Seattle CBD	33	3,400
107	U. District	Seattle CBD	25	1,900
72	Eastgate	Bellevue	226	6,600
92	Sand Point	U. District	30	10,900
70	Northgate	U. District	68	7,500
58	Laurelhurst	U. District	25	1,900*
28	Eastgate	Bellevue	246	6,200
89	Renton Highlands	Renton	908DART	3,000
102	Twin Lakes	Federal Way	903DART	1,700
103	Twin Lakes	Federal Way	187	1,300
74	Pacific	Auburn	917DART	3,000
* Identical to corridor 107 need			**Total**	433,700

FIGURE 2

2015 Corridors Below Target Service Levels



Corridors receiving investments in June 2015-March 2016 to help meet target service levels are listed below.

TABLE 4
Corridors Receiving 2015-2016 Service Investments

Corridor ID	Major Route	Between	And	Via
9	40	Ballard	Northgate	Holman Road, Northgate
10	674	Ballard	Seattle CBD	15th Ave W
12	40	Ballard	Seattle CBD	Ballard/Interbay MIC, Fremont, South Lake Union
25	71E/72E/73E/74E	Cowen Park	Seattle CBD	University Way, I-5
58	25	Laurelhurst	U. District	NE 45th St
59	11	Madison Park	Seattle CBD	Madison St
61	24	Magnolia	Seattle CBD	34th Ave W, 28th Ave W
64	14	Mount Baker	Seattle CBD	31st Av S, S Jackson St
79	9E	Rainier Beach	Capitol Hill	Rainier Ave
92	30	Sand Point	U. District	NE 55th St
104	70/71/72/73	U. District	Seattle CBD	Eastlake, Fairview
107	25	U. District	Seattle CBD	Lakeview
111	C Line	West Seattle	Seattle CBD	Fauntleroy, Alaska Junction

Our analysis found that 51 corridors are below target service levels in one or more time periods based on spring 2015 data and the 2015-2016 service investments. Three corridors are new to this list in 2015 (corridors 53, 103, and 108). To bring service up to the target levels, an estimated investment of 433,700 annual service hours would be needed—lower than the 2014 need of 486,500 annual service hours. Most of this decrease in need is due to the 2015-2016 service investments and Metro's investment in the RapidRide F Line, which started last summer. The remaining decreases in need primarily arise from decreases in corridors' target service levels in specific time periods.

As an outcome of our analysis, fewer corridors were targeted for very frequent or frequent service and more corridors were targeted for local and hourly service than in 2014. Shifts in demographics and ridership drove most of these changes, which resulted in two corridors moving to a more frequent service family and seven others moving to a less frequent family. The reasons for these changes are listed in Table 5.

TABLE 5

Corridors that Changed Target Service Family

Corridor Number	Between	And	Major Route	2014 Service Family	2015 Service Family	Reasons for Change (Simplified)
7	Avondale	Kirkland	248	Frequent	Local	Fewer boardings from low-income tracts due to demographic shifts
43	Kenmore	Kirkland	234	Hourly	Local	Increased peak passenger loads
61	Magnolia	Seattle CBD	24	Frequent	Very frequent	Increase in the number of households served by the corridor
62	Mercer Island	S Mercer Island	204	Local	Hourly	Decreased peak passenger loads
64	Mount Baker	Seattle CBD	14	Very frequent	Frequent	Fewer boardings from low-income tracts due to demographic shifts
70	Northgate	U. District	68	Very frequent	Frequent	Decreased midday passenger loads
94	Shoreline CC	Northgate	345	Frequent	Local	Fewer boardings from minority tracts due to demographic shifts
102	Twin Lakes	Federal Way	903 DART	Frequent	Local	Decreased peak passenger loads
107	U. District	Seattle CBD	25	Frequent	Local	Fewer boardings from low-income tracts due to demographic shifts

Changes to the corridor list

Since we began using the guidelines in 2011, one corridor has been made redundant and two others have lost service on parts of their pathways. In 2013, route restructuring in south King County made two corridors connecting White Center to downtown Seattle overlap. We removed corridor 113 from the annual analysis, but corridor 18 (Route 131) covers the majority of the old pathway, and corridor 112 (Route 125) also provides service between these two centers along a separate pathway. Both of these corridors are evaluated annually. When Metro reduced service in September 2014, two corridors (46 and 47, routes 935 and 909) lost service along parts of their pathways. Since service was not provided along the full lengths of these corridors, we have no ridership data for them. This lack of data precludes us from including them in the corridor analysis, where current ridership is analyzed. However, Metro recognizes an unquantified demand for transit still exists in these areas. The future of these corridors will be shaped by the recommendations of the Service Guidelines Task Force (see Section 5) and by Metro's forthcoming long-range plan.

Additional corridors will likely be affected by the restructures to integrate Metro's service with Sound Transit's Link light rail and Express bus service. Two new stations are scheduled to open in 2016 — one in Capitol Hill and one at the University of Washington — and Metro has proposed targeted restructures to take advantage of this new high-capacity asset. As a result, existing corridors may be realigned, split into multiple corridors, truncated, or become redundant.

When service is reduced or eliminated on a corridor because of fiscal constraints, Metro's Altlernative Services program will consider the feasibility of mitigating impacts in coordination with local communities. See Section 3 for more details.

The complete network: integration with Sound Transit

In June 2014, King County Executive Dow Constantine issued an executive order directing Metro to develop an integrated transit service plan in coordination with Sound Transit and partner agencies. Executive Constantine also authored a motion, later passed by the Sound Transit Board, directing Sound Transit to study bus-rail integration in coordination with partner agencies.

In response, Metro and Sound Transit worked together to develop the Sound Transit/Metro Integration Report (which can be found at www.kingcounty.gov/metro/accountability). This report identifies efficiencies, potential savings, and ways Metro can deliver better transit service. It lays the foundation for coordinated efforts to optimize investments in rail and high-capacity bus service. The report also identifies both short and long-term actions to increase coordination and integration of planned and new services, and find "efficiency dividends" through this integration. The report provides specific suggestions for improved integration in the following areas:

1) Short-term integration

2) Long-term integration

3) Rider engagement and information

4) Capital facilities

5) Operational efficiencies

Both agencies continue to work together to improve the coordination of corridor analyses where both agencies operate service. Today, Metro's All-Day Network does not include corridors where Sound Transit is the primary provider of all-day service. Key corridors in King County where Sound Transit is the primary provider of two-way, all-day transit service are listed in the table on the following page. In many of these corridors, Metro operates mainly peak service that complements Sound Transit's all-day service.

TABLE 6

Corridors Served Primarily by Sound Transit

Between	And	Via	Major Route
Woodinville	Downtown Seattle	Bothell, Kenmore, Lake Forest Park, Lake City	522
UW Bothell	Bellevue	Totem Lake	535
Redmond	Downtown Seattle	Overlake	545
Bellevue	Downtown Seattle	Mercer Island	550
Issaquah	Downtown Seattle	Eastgate, Mercer Island	554
Burien	Bellevue	SeaTac, Renton	560
Auburn	Overlake	Kent, Renton, Bellevue	566
SeaTac	Federal Way	I-5	574
Federal Way	Downtown Seattle	I-5	577/578
SeaTac	Downtown Seattle	Rainier Valley	Link light rail

In 2016, Link service will expand northeast to Seattle's Capitol Hill and the University of Washington. In 2014 and 2015, Metro and Sound Transit jointly worked with riders, stakeholders, and affected communities to restructure service through the Link Connections service integration project. The result will be major service revisions on Capitol Hill, the U District, and northeast Seattle that will get people to Link while making Metro bus service more frequent, more reliable, and less crowded. The restructure preserves most connections to destinations Metro has been serving and creates connections to new places that the public asked for. Details are available at www.kingcounty.gov/metro/linkconnections.

As Link service continues to expand, Sound Transit will become the backbone provider in additional corridors, such as the Northgate-to-downtown Seattle corridor. As services are introduced and modified, Metro and Sound Transit will make adjustments to the network.

SECTION 2

ROUTE PERFORMANCE ANALYSIS

Metro analyzes the performance of bus routes using several metrics.

- First, we assess service quality by measuring passenger crowding and reliability (how often buses are late). Reducing crowding and improving reliability are our top two investment priorities, and the results of the analysis define our service quality investment needs.
- Next, we analyze route productivity by determining which routes are heavily used.
- Finally, we analyze peak-only routes to ensure the value they add justifies their higher cost.

Along with the corridor analysis, the resulting data helps us generate and prioritize investments and, when necessary, determine reduction priorities. This section describes how we do these analyses and presents the results. It is the starting point for planning service revisions but is not a service change proposal. As with the corridor analysis, the data analyzed was from the February 14-June 5, 2015 service period, unless otherwise noted, and the investment needs are adjusted for the June 2015-March 2016 service investments.

Passenger loads (crowding)

Investment in the most crowded routes is the highest priority in the service guidelines. When service is chronically very crowded, it has a negative impact on riders and slows service. Overcrowding is defined as a trip that on average has 25 to 50 percent more riders than seats (depending on service frequency) or has people standing for longer than 20 minutes. The passenger load thresholds are set so that we accept standing passengers on many of our services, but take action where crowding is at an unacceptable level and where it occurs regularly. To ensure investments are warranted to address problems, we may consider performance over a longer period than a single service change.

In 2014, Metro transmitted to the King County Council a report on Alternative Passenger Crowding Measures. It described possible new ways to measure crowding in future analyses and discussed the impacts to service needs that could result from using different measures. Metro is examining an alternative metric for passenger crowding that uses a space allowance of four square feet per standing passenger. This amount of space largely mirrors the passenger experience represented by current standards for evaluating passenger crowding, but it assesses crowding consistently across different types of buses. When Metro uses this metric and methodology, less overcrowding need is identified. Much of this overall reduction is due to decreases in need on routes using newer, low-floor buses that have fewer seats and more aisle space.

Table 7 on page 20 and Figure 3 identify routes that need additional trips to reduce crowding after taking the 2015-2016 service investments into account. While the guidelines analysis provides route-level estimates for need, we determine the actual investment any route receives by conducting a detailed analysis using the latest system data available. Changes in ridership patterns and the particular solutions we develop can either increase or decrease the number of hours we actually invest in a route.

TABLE 7

Routes Needing Investment to Reduce Passenger Crowding

Shading indicates route is new this year to list of routes needing investment to reduce crowding

Route	Description	Day	Annual Hours Needed
C Line	Westwood Village – Alaska Junction – Seattle CBD	Weekday	800
D Line	Ballard – Seattle Center – Seattle CBD	Weekday	1,100
5EX	Shoreline CC – Seattle CBD	Weekday	700
8	Seattle Center – Capitol Hill – Rainier Beach	Weekday, Saturday, Sunday	200
11	Madison Park – Seattle CBD	Weekday	200
16	Northgate TC – Wallingford – Seattle CBD	Weekday	500
17EX	Sunset Hill – Ballard – Seattle CBD	Weekday	500
27	Colman Park – Leschi Park – Seattle CBD	Weekday	500
28	Whittier Heights – Ballard – Seattle CBD via Leary Ave NW	Weekday	100
32	University District – Fremont – Seattle Center	Saturday	100
33	Discovery Park – Seattle CBD	Weekday	800
40	Northgate TC – Ballard – Seattle CBD via Leary Ave NW	Weekday	2,000
65	Lake City – University District	Weekday	500
71	Wedgwood – University District – Seattle CBD	Weekday	400
72	Lake City – University District – Seattle CBD	Weekday, Saturday, Sunday	700
75	Northgate TC – Lake City – Seattle CBD	Weekday	400
76	Wedgwood – Seattle CBD	Weekday	900
77EX	North City – Seattle CBD	Weekday	200
101	Renton TC – Seattle CBD	Weekday	400
118EX	Tahlequah – Seattle CBD via ferry	Weekday	700
119	Dockton – Vashon	Weekday	400
214	Issaquah – Seattle CBD	Weekday	100
219	Redmond – Sammamish – Seattle CBD	Weekday	600
255	Brickyard – Kirkland TC – Seattle CBD	Weekday	1,200
316	Meridian Park – Seattle CBD	Weekday	400
		Total	**14,400**

Routes receiving investments in June 2015-June 2016 to relieve passenger crowding are listed below.

TABLE 8

Routes Receiving June 2015-March 2016 Service Investments to Relieve Passenger Crowding

Route	Description
C Line	Westwood Village – Alaska Junction – Seattle CBD
D Line	Ballard – Seattle Center – Seattle CBD
E Line	Aurora Village – Seattle CBD
5	Shoreline CC – Seattle CBD
8	Seattle Center – Capitol Hill – Rainier Beach
15EX	Blue Ridge – Ballard – Seattle CBD
16	Northgate TC – Wallingford – Seattle CBD
18EX	North Beach – Ballard – Seattle CBD
28	Whittier Heights – Ballard – Seattle CBD via Leary Ave NW
40	Northgate TC – Ballard – Seattle CBD via Leary Ave NW
41	Lake City – Seattle CBD via Northgate
44	Ballard – Wallingford – Montlake
48	Mount Baker – University District – Loyal Heights
70	University District – Seattle CBD
71	Wedgwood – University District – Seattle CBD

Route	Description
72	Lake City – University District – Seattle CBD
74EX	Sand Point – Seattle CBD
101	Renton TC – Seattle CBD
120	Burien TC – Westwood Village – Seattle CBD
143	Black Diamond – Renton TC – Seattle CBD
179	Twin Lakes – Seattle CBD
212	Eastgate – Seattle CBD
214	Issaquah – Seattle CBD
216	Sammamish – Seattle CBD
218	Issaquah Highlands – Seattle CBD
219	Redmond – Sammamish – Seattle CBD
240	Bellevue – Newcastle – Renton
268	Redmond – Seattle CBD
301	Aurora Village – Seattle CBD
372EX	Woodinville – Lake City – University District

Overall investment need to reduce crowding decreased from 22,200 last year to 14,000, but increases in ridership and the impacts of the September 2014 service reductions continue to produce crowded buses. After the September 2014 reductions, some riders moved to alternate routes, causing investment needs to shift around the system. Another factor is that we previously assumed overcrowded trips on smaller buses could be alleviated by substituting a larger bus. However, Metro is in the process of adding a substantial amount of service, and at this time we don't have spare larger buses to substitute.

A total of 25 routes were identified as having chronic crowding issues; 13 routes are new to the list. With the exception of the D Line and routes 40 and 255, most of these routes require relatively small investments to alleviate overcrowding.

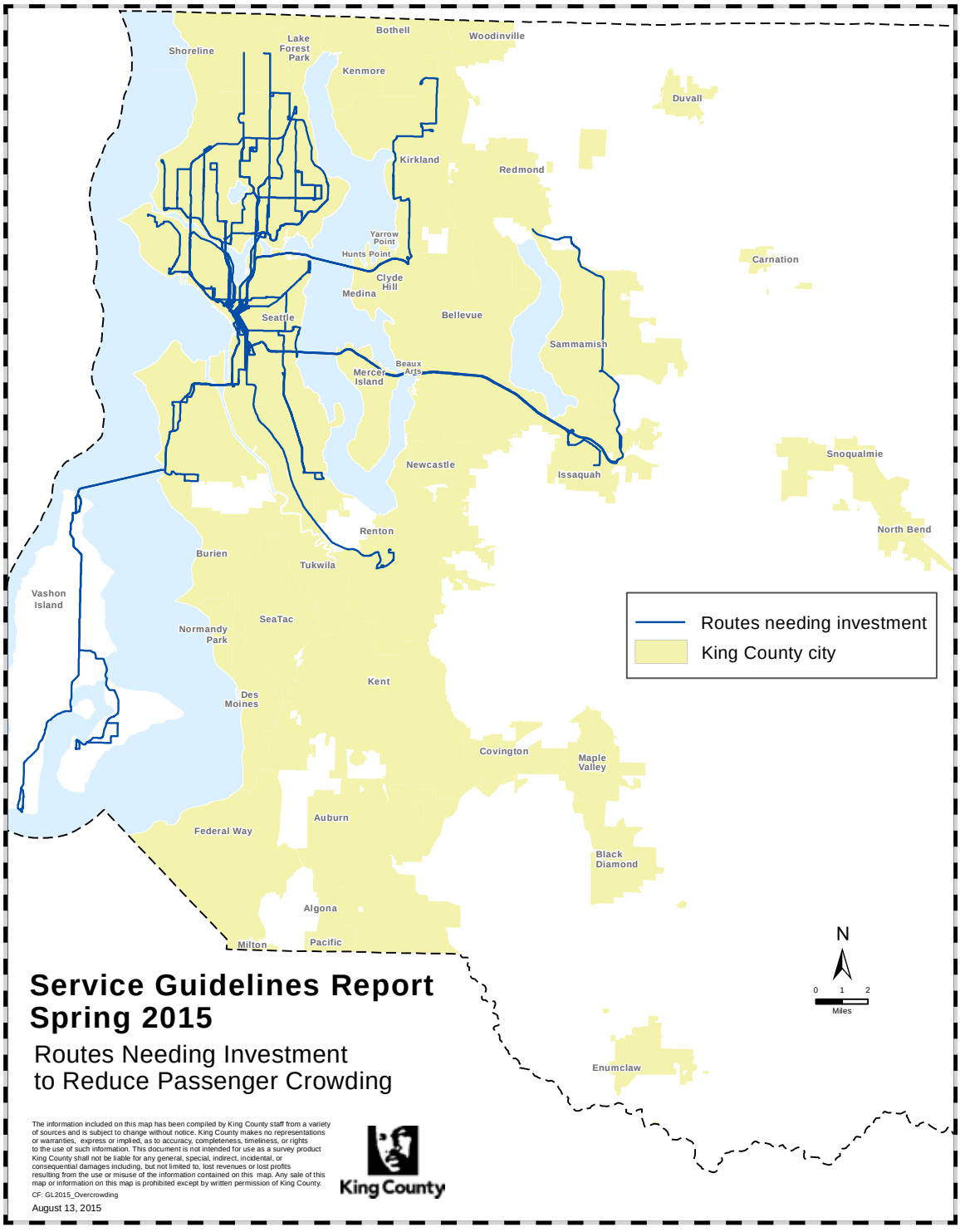
Twelve routes identified in last year's report continue to need investment, even after applying the 2015-2016 service investments. Routes that continue to need substantial investment to relieve crowding include the D Line, which had nearly 12,000 daily rides, Route 40, which saw an 18 percent increase in average weekday rides, and Route 255, which was previously on our watch list and now warrants two additional daily trips.

Routes 11, 16, 32, 65, 75, 76, and 316 need investment to relieve passenger crowding but are also part of the restructure associated with Link starting service to Capitol Hill and the University of Washington. This restructure rebuilds the network and route schedules and should help relieve passenger crowding. Crowding on these routes will be assessed with the latest system data after the restructure is implemented. In the future, we will continue to monitor passenger crowding on these routes alongside the entire network.

Routes previously on our watch list that have continued to experience crowding and are now identified as needing investment are routes 11, 17 Express, 32, 76, and 255. Routes that have some crowded trips, but still have surrounding trips with excess capacity are routes 4, 9, 13, 18 Express, 28, 31, 41, 50, 60, 66 Express, 67, 70, 107, 111, 114, 121, 123, 132, 164, 248, 252, 257, 271, 301 Express, and 311. These routes will continue to be monitored for possible future investments.

FIGURE 3

Routes Needing Investment to Reduce Passenger Crowding



Schedule reliability

Schedule reliability is measured as the percentage of trips that arrive late, which is defined as being more than five minutes behind schedule. Routes that are late more than 20 percent of the time (35 percent for weekday PM peak service) are candidates for investment of service hours. These thresholds allow for variations in travel time, congestion, and ridership. In this report, we used reliability data from June 2014 through May 2015. We use a longer time period for the reliability analysis whenever possible to ensure schedule reliability needs are captured fully by using data from just the four-month spring period.

Table 9, below, lists the 79 routes identified as needing service-hour investments to improve their reliability, after taking into account the June 2015-March 2016 service investments; a map of these routes is shown in Figure 4. Total need decreased from 38,650 hours in 2014 to 23,550 annual hours in 2015. The total need was calculated based on how far above the lateness threshold the routes were during the different time periods and the total number of bus trips that would need adjustment. While this calculation provides a reasonable estimate of total needs, individual routes may receive more or less investment than estimated depending on the scheduling techniques available to improve reliability.

TABLE 9

Routes Needing Investment to Improve Schedule Reliability

Shading indicates route is new this year to list of routes needing investment to improve reliability

Route	Description	Day	Estimated Annual Hours Needed
C Line	Westwood Village – Alaska Junction – Seattle CBD	Saturday	50
E Line	Aurora Village – Seattle CBD	Weekday	700
1	Kinnear – Seattle CBD	Weekday	150
3	North Queen Anne – Seattle CBD – Madrona Park	Weekday	200
8	Seattle Center – Capitol Hill – Rainier Beach	Weekday, Saturday, Sunday	1,800
9EX	Rainier Beach – Capitol Hill	Weekday	500
10	Capitol Hill – Seattle CBD	Weekday	650
11	Madison Park – Seattle CBD	Weekday	400
12	Interlaken Park – Seattle CBD	Weekday	400
16	Northgate TC – Wallingford – Seattle CBD	Weekday	250
21EX	Arbor Heights – Westwood Village – Seattle CBD	Weekday	50
24	Magnolia – Seattle CBD	Weekday	200
25	Laurelhurst – University District – Seattle CBD	Weekday	400
26	East Green Lake – Wallingford – Seattle CBD	Weekday	500
28	Whittier Heights – Ballard – Seattle CBD via Leary Ave NW	Weekday	450
29	Ballard – Queen Anne – Seattle CBD	Weekday	600
31	University District – Fremont – Magnolia	Weekday	250
32	University District – Fremont – Seattle Center	Weekday, Saturday, Sunday	600
33	Discovery Park – Seattle CBD	Weekday	300
41	Lake City – Seattle CBD via Northgate	Weekday	100
43	University District – Capitol Hill – Seattle CBD	Saturday	200

Route	Description	Day	Estimated Annual Hours Needed
44	Ballard – Wallingford – Montlake	Saturday	50
48	Mount Baker – University District – Loyal Heights	Saturday	100
49	University District – Capitol Hill – Seattle CBD	Weekday	350
60	Westwood Village – Georgetown – Capitol Hill	Weekday	700
64EX	Lake City – First Hill	Weekday	150
65	Lake City – University District	Saturday	50
68	Northgate TC – Ravenna – University District	Weekday	250
70	University District – Seattle CBD	Weekday	100
71	Wedgwood – University District – Seattle CBD	Weekday, Saturday	800
72	Lake City – University District – Seattle CBD	Weekday, Saturday, Sunday	850
73	Jackson Park – University District – Seattle CBD	Weekday, Saturday, Sunday	450
74EX	Sand Point – Seattle CBD	Weekday	50
75	Northgate TC – Lake City – Seattle CBD	Saturday, Sunday	100
77EX	North City – Seattle CBD	Weekday	250
83	Seattle CBD – Ravenna	Weekday	250
99	International District – Waterfront	Weekday	250
101	Renton TC – Seattle CBD	Weekday	100
105	Renton Highlands – Renton TC	Weekday, Saturday	450
106	Renton TC – Rainier Beach – Seattle CBD	Weekday	250
111	Lake Kathleen – Seattle CBD	Weekday	200
119EX	Dockton – Seattle CBD via ferry	Weekday	250*
122	Highline CC –Burien TC – Seattle CBD via Des Moines Memorial Dr S	Weekday	250
123	Burien – Seattle CBD	Weekday	250
124	Tukwila – Georgetown – Seattle CBD	Weekday	400
125	Westwood Village – Seattle CBD	Saturday	50
143	Black Diamond – Renton TC – Seattle CBD	Weekday	300
150	Kent Station – Southcenter – Seattle CBD	Sunday	50
153	Kent Station – Renton TC	Weekday	250
157	Lake Meridian – Seattle CBD	Weekday	250
164	Green River CC – Kent Station	Weekday	250
166	Kent Station – Burien TC	Weekday	300
168	Maple Valley – Kent Station	Sunday	50
169	Kent Station – East Hill – Renton TC	Weekday, Saturday	250
177	Federal Way – Seattle CBD	Weekday	200
178	South Federal Way – Seattle CBD	Weekday	400
179	Twin Lakes – Seattle CBD	Weekday	300

Route	Description	Day	Estimated Annual Hours Needed
180	Auburn – SeaTac Airport – Burien TC	Weekday	650
190	Redondo Heights – Seattle CBD	Weekday	250
193EX	Federal Way – First Hill	Weekday	150
197	Twin Lakes – University District	Weekday	250
208	Issaquah – North Bend	Weekday, Saturday	300*
216	Sammamish – Seattle CBD	Weekday	250
224	Duvall – Redmond TC	Weekday	250
226	Eastgate – Crossroads – Bellevue	Weekday	250
234	Kenmore – Kirkland TC – Bellevue	Saturday	50
240	Bellevue – Newcastle – Renton	Weekday	500
244	Kenmore – Overlake	Weekday	250
252	Kingsgate – Seattle CBD	Weekday	250
257	Brickyard – Seattle CBD	Weekday	50
268	Redmond – Seattle CBD	Weekday	250
301EX	Aurora Village – Seattle CBD	Weekday	250
301	Aurora Village – Seattle CBD	Weekday	250
304	Richmond Beach – Seattle CBD	Weekday	250
342	Shoreline – Bellevue TC – Renton	Weekday	250
348	Richmond Beach – Northgate	Saturday	50
355EX	Shoreline CC – University District – Seattle CBD	Weekday	200
373EX	Aurora Village – University Village	Weekday	250
601EX	Seattle CBD – Group Health (Tukwila)	Weekday	50
		Total	**23,550**

* Identified as potential alternative services candidate

Routes receiving investments in June 2015-June 2016 to improve schedule reliability are listed below.

TABLE 10

Routes Receiving June 2015-March 2016 Service Investments to Improve Schedule Reliability

Route	Description
C Line	Westwood Village – Alaska Junction – Seattle CBD
D Line	Ballard – Seattle Center – Seattle CBD
1	Kinnear – Seattle CBD
2	West Queen Anne – Seattle CBD – Madrona Park
3	North Queen Anne – Seattle CBD – Madrona Park
4	East Queen Anne – Seattle CBD – Judkins Park
5	Shoreline CC – Seattle CBD
7	Rainier Beach – Seattle CBD
8	Seattle Center – Capitol Hill – Rainier Beach
10	Capitol Hill – Seattle CBD
11	Madison Park – Seattle CBD
14	Mount Baker – Seattle CBD
16	Northgate TC – Wallingford – Seattle CBD
17EX	Sunset Hill – Ballard – Seattle CBD
18EX	North Beach – Ballard – Seattle CBD
21	Arbor Heights – Westwood Village – Seattle CBD
21EX	Arbor Heights – Westwood Village – Seattle CBD
24	Magnolia – Seattle CBD
25	Laurelhurst – University District – Seattle CBD
26	East Green Lake – Wallingford – Seattle CBD
26EX	East Green Lake – Wallingford – Seattle CBD
27	Colman Park – Leschi Park – Seattle CBD
28	Whittier Heights – Ballard – Seattle CBD via Leary Ave NW
28EX	Broadview – Ballard – Seattle CBD via Leary Av NW
29	Ballard – Queen Anne – Seattle CBD
31	University District – Fremont – Magnolia
32	University District – Fremont – Seattle Center
33	Discovery Park – Seattle CBD
37	Alaska Junction – Alki – Seattle CBD
40	Northgate TC – Ballard – Seattle CBD via Leary Av NW
41	Lake City – Seattle CBD via Northgate
43	University District – Capitol Hill – Seattle CBD
44	Ballard – Wallingford – Montlake
48	Mount Baker – University District – Loyal Heights
49	University District – Capitol Hill – Seattle CBD
55	Admiral District – Alaska Junction – Seattle CBD
56	Alki – Seattle CBD

Route	Description
74EX	Sand Point – Seattle CBD
76	Wedgwood – Seattle CBD
83	Seattle CBD – Ravenna
99	International District – Waterfront
101	Renton TC – Seattle CBD
102	Fairwood – Renton TC – Seattle CBD
105	Renton Highlands – Renton TC
111	Lake Kathleen – Seattle CBD
114	Renton Highlands – Seattle CBD
124	Tukwila – Georgetown – Seattle CBD
128	Southcenter – Westwood Village – Admiral District
131	Burien TC – Highland Park – Seattle CBD
132	Burien TC – South Park – Seattle CBD
157	Lake Meridian – Seattle CBD
158	Kent East Hill – Seattle CBD
159	Timberlane – Seattle CBD
166	Kent Station – Burien TC
167	Renton – Newport Hills – University District
168	Maple Valley – Kent Station
169	Kent Station – East Hill – Renton TC
177	Federal Way – Seattle CBD
178	South Federal Way – Seattle CBD
179	Twin Lakes – Seattle CBD
180	Auburn – SeaTac Airport – Burien TC
190	Redondo Heights – Seattle CBD
192	Star Lake – Seattle CBD
193	Federal Way – First Hill
219	Redmond – Sammamish – Seattle CBD
221	Education Hill – Overlake – Eastgate
232	Duvall – Bellevue
237	Woodinville – Bellevue
242	North City – Overlake
245	Kirkland – Overlake – Factoria
255	Brickyard – Kirkland TC – Seattle CBD
257	Brickyard – Seattle CBD
269	Issaquah – Overlake
277	Juanita – University District

Route	Description
57	Alaska Junction – Seattle CBD
60	Westwood Village – Georgetown – Capitol Hill
64EX	Lake City – First Hill
66EX	Northgate TC – Eastlake – Seattle CBD
70	University District – Seattle CBD
71	Wedgwood – University District – Seattle CBD
72	Lake City – University District – Seattle CBD

Route	Description
309	Kenmore – First Hill
311	Woodinville – Seattle CBD
316	Meridian Park – Seattle CBD
355	Shoreline CC – University District – Seattle CBD
372EX	Woodinville – Lake City – University District
601	Seattle CBD – Group Health (Tukwila)

The vast majority of the increased need is due to an increase in late arrivals on weekdays throughout the day. Additional need for approximately half of these routes was generated by an increase in late arrivals in the afternoon peak period, compared to spring 2014.

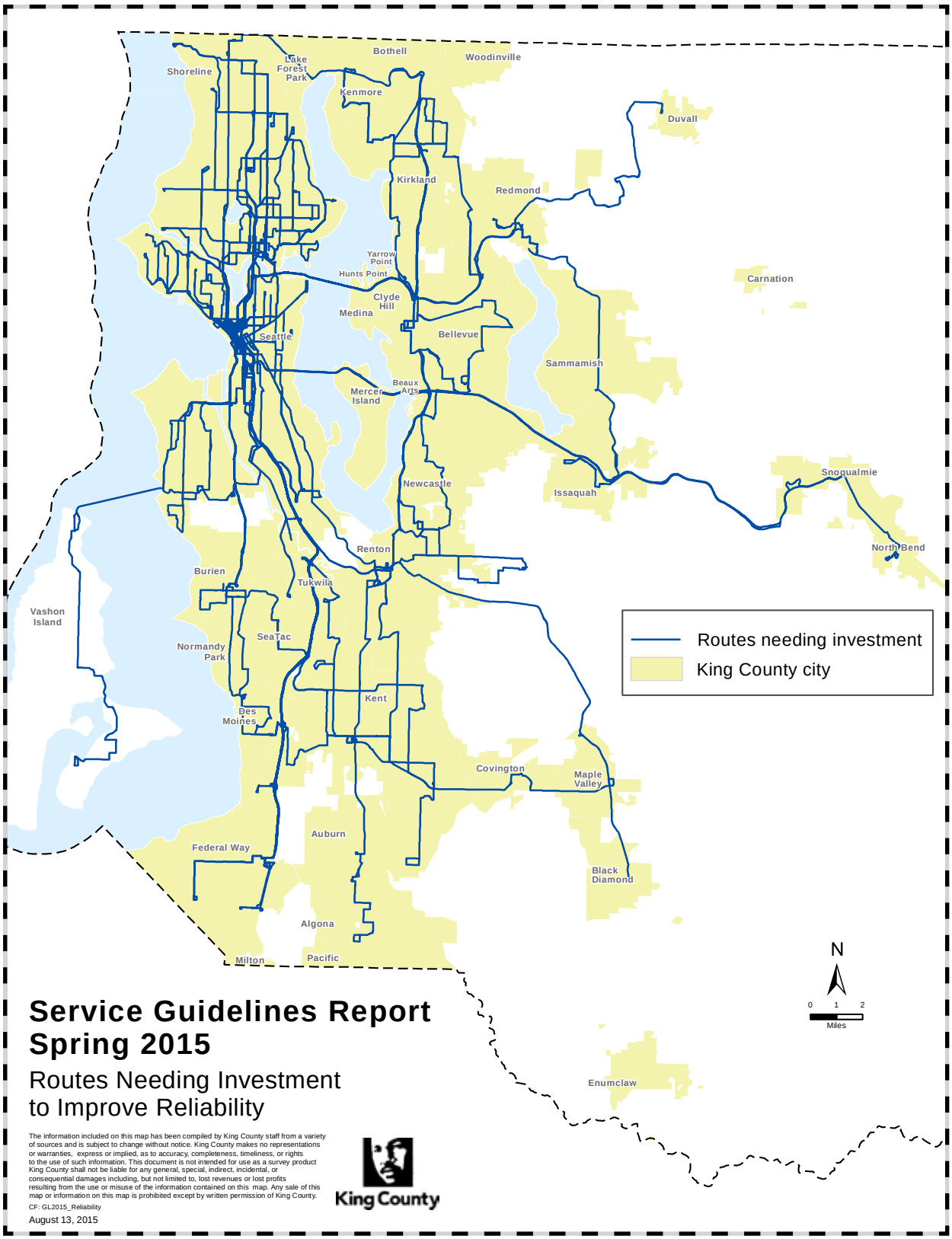
Seattle core routes make up 70 percent of the routes evaluated but account for 82 percent of the routes with reliability needs, indicative of worsening traffic in and around Seattle. Twenty-five percent of the total identified need, or 5,950 annual service hours, is for routes operating on I-5. In contrast, 450 hours of the total identified need is for routes operating on the I-90 bridge, 550 hours is for routes operating on the SR-520 bridge, and 750 hours is for routes operating on I-405.

Although the reliability of Route 8 worsened only slightly when compared to last year, its need increased by 1,800 hours (an 81 percent increase), mainly because of the large number of daily trips operated on the route. Routes 8, 10, 11, 12, 16, 26, 28, 31, 32, 44, 48, 49, 64 Express, 65, 70, 73, 74 Express, 75, and 373 Express need investment to improve reliability but are also part of the restructure associated with Link starting service to Capitol Hill and the University of Washington. This restructure rebuilds the network and route schedules and should help improve reliability on these routes. Schedule reliability will be assessed after the restructure is implemented with the latest system data. In the future, we will continue to monitor reliability on these routes alongside the entire network.

Performance on this metric improved this year on several routes: 2, 14, 17 Express, 18 Express, 22, 40, 44, 99 (on weekends) and 204. Reliability investments, schedule adjustments, the completion of construction projects, and traffic signal enhancements contributed to these improvements. Some of these routes are still targeted for reliability improvements as they do not meet standards.

FIGURE 4

Routes Needing Investment to Improve Schedule Reliability



Route productivity

Metro must become more productive and carry more riders to help fulfill the expectation for public transportation set in *Transportation 2040*—one reason why the guidelines define highly productive services as an investment priority. Investing in highly productive routes in areas where there is latent demand for transit will result in higher ridership. A substantial portion of the growth needed to meet the *Transportation 2040* service level (an additional 2.6 million annual service hours) will be on highly productive services.

Metro has demonstrated that investments in highly productive service lead to increased ridership. We will continue to invest in highly productive services when we restructure service, form service partnerships with local jurisdictions, or have other opportunities.

Route productivity determines investments under priority 4. We assess each route's productivity using two measures:

- **Rides per platform hour** – total ridership divided by the total hours a bus travels from the time it leaves its base until it returns.
- **Passenger miles per platform mile** – total miles traveled by all passengers divided by the total miles the bus operates from its base until it returns.
- **We analyze route productivity** in peak, off-peak, and night periods in the market the route serves:
  - **Seattle core** routes serve downtown Seattle, First Hill, Capitol Hill, South Lake Union, the University District, or Uptown.
  - **Non-Seattle-core** routes exclusively serve other areas of Seattle and King County.

A table showing productivity by route is in Appendix C.

Highly productive routes are defined as those that perform in the top 25 percent of routes in the same market on one or both measures in at least one time period; these routes are targeted for investment priority 4. In the spring 2015 period, of the 185 routes evaluated, 71 were in the top 25 percent in at least one time period on one or both productivity measures.

Routes below the productivity threshold are defined as those in the bottom 25 percent of routes that operate in the same time period and market. In the spring 2015 period, 90 routes were in the bottom 25 percent in at least one time period on one or both route productivity measures. These routes are identified as candidates for reduction if and when Metro must make service cuts, with the routes failing on both measures considered for reduction first.

Change in route productivity thresholds. The route productivity thresholds change in each annual report to reflect current network performance. From 2014 to 2015, route productivity thresholds increased nearly across the board for both markets. This reflects a combination of increased ridership and the September 2014 service reductions, which eliminated many of Metro's least productive routes and contributed to an increase in average system productivity. Route productivity threshold changes between 2014 and 2015 are shown in Tables 11 and 12.

TABLE 11

2014-2015 Route Productivity Threshold Changes for Top 25%

Market	Year	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
Routes that DO NOT serve Seattle core	2015	26.7	8.4	27.0	8.3	18.4	6.3
	2014	25.2	8.1	24.7	8.0	18.8	6.3
	Change	1.5	0.3	2.3	0.3	-0.4	0.0
Routes that serve Seattle core	2015	51.7	18.4	52.5	15.7	34.4	10.7
	2014	48.2	17.1	51.1	14.9	35.1	10.2
	Change	3.5	1.3	1.4	0.8	-0.7	0.5

TABLE 12

2014-2015 Route Productivity Threshold Changes for Bottom 25%

Market	Year	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
Routes that DO NOT serve Seattle core	2015	13.4	3.6	14.0	3.7	11.1	2.8
	2014	12.0	2.4	11.3	2.7	11.3	2.7
	Change	1.4	1.2	2.7	1.0	-0.2	0.1
Routes that serve Seattle core	2015	26.4	11.6	36.0	10.2	22.2	6.2
	2014	24.3	10.7	33.7	9.8	20.7	5.9
	Change	2.1	0.9	2.3	0.4	1.5	0.3

Many services that performed well in 2014 continued to do so in 2015. Some notable groups of highly productive routes include:

- **RapidRide lines.** Investments to improve frequency and quality of service have resulted in ridership growth in all RapidRide corridors. The A, B, D, E, and F Lines are among the top 25 percent of routes on both performance measures in all time periods. The C Line is among the top 25 percent of routes on one or both performance measures in all time periods.
- **Downtown Seattle to University District routes.** Routes 49, 71, 72, and 73 continue to be top performers that connect the largest transit markets in King County. Starting in 2016, the Link extension to the University of Washington will connect these two markets.
- **Downtown Seattle to Capitol Hill routes.** Routes 10, 11, and 49 serve two high-demand markets and stand out as top performers in the system. The Link expansion will also connect these two markets.
- **Commuter routes serving north Seattle.** Routes 5, 17 Express, 74 Express, 76, 77 Express, and 316 are the top-performing commuter routes. These highly successful routes operate in areas that have high demand, including Ballard, the University District, northeast Seattle, and Shoreline.

- **Routes that connect neighborhoods to Northgate.** The network of all-day routes in north King County connects several neighborhoods with the high-performing Route 41, which connects Northgate to downtown Seattle. Routes 345, 346, and 347 provide neighborhood circulation as well as a connection to Northgate. This group of routes performs well both in circulating and in connecting to the all-day trunk service to downtown Seattle.

- **Routes connecting regional growth centers in south King County.** The network of routes that connect regional growth centers in south King County—128, 164, 166, 169, 180, and 181—continued to perform well in 2015. Their good performance is indicative of the strong demand for transit between regional growth and activity centers in south King County, including Auburn, Burien, Des Moines, Federal Way, Renton, Seatac, Tukwila, Kent, Kent East Hill, Green River Community College, Highline Community College, Valley Medical Center, and Twin Lakes.

- **Peak routes serving Eastgate Park-and-Ride.** Several peak routes that provide service between Eastgate Park-and-Ride and downtown Seattle, including routes 212, 216, 218 and 219, perform well on passenger miles per platform mile. This measure indicates service is well-used and buses are full along most of these routes.

Peak analysis

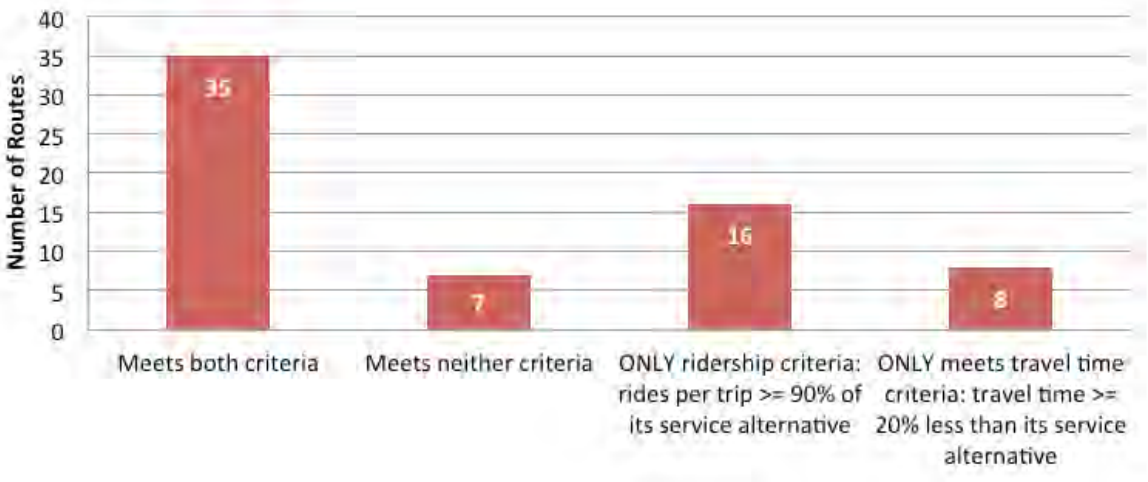
This analysis compares the rides per bus trip and the travel times of routes that operate only in the peak period to those that provide alternative local service. For a peak-only route to be justified, it must have at least 90 percent of the rides per bus trip that its alternative service has and must be at least 20 percent faster than its alternative. Information about whether routes meet one or both criteria is used in planning future service changes. Peak routes meeting neither criteria may be considered for change or restructuring to improve performance and use resources more efficiently.

In 2015 Metro analyzed 66 peak routes, 19 fewer than in 2014 as a result of the September 2014 service reductions. Nine peak-only routes included in the corridor analysis were not considered in the peak analysis; these routes are assumed to need all-day service, and the investments required to meet their targets are included in the priority 3 needs identified in Section 1.

Even though fewer routes were analyzed, more peak routes met both criteria in 2015 than in 2014. This year, only seven routes failed both criteria, compared to 16 last year; four of the routes that failed both criteria last year were deleted in September 2014. The results of the peak analysis are in Figure 6 and Appendix D.

FIGURE 6

2015 Peak Route Analysis Results



SECTION 3

ALTERNATIVE SERVICES PERFORMANCE AND PROGRESS REPORT

This section presents the annual progress report for the King County Metro Transit Five-Year Implementation Plan for Alternatives to Traditional Transit Service Delivery, complying with the requirement for an annual report in King County Motion 13736. Annual reporting for alternative services is combined with the Service Guidelines Report so readers get a comprehensive overview of services and performance.

Metro's alternative services program brings a range of mobility services to parts of King County that do not have the infrastructure, density, or land use to support traditional fixed-route bus service. This section reviews our alternative services plans and the performance of services that were operating in spring 2015.

The King County Council approved a $12 million budget for the 2015-2016 biennium for an alternative services demonstration program. The Council's direction for this period is to mitigate the impact of services that were eliminated or reduced in September 2014, to "right-size" service in areas identified in the five-year implementation plan, and to implement projects that complement existing fixed-route or DART service.

In the first half of 2015, we focused on developing community shuttle services to partially replace routes that were eliminated or reduced in September 2014. Shuttle Route 628 (Issaquah–North Bend) was launched in February 2015, and routes 630 (Mercer Island–downtown Seattle) and 631 (Burien) were launched in June 2015. Ridership on all routes continues to grow steadily. We also conducted a community-based collaborative planning process in southeast King County to assess opportunities to "right-size" service in those communities. Service changes from this process will be implemented in 2016.

We have also worked to bring two new alternative services products to market — Community Vans and TripPool. Community Vans are a small fleet of Metro-branded vans provided to local governments or community agencies along with a Metro-funded transportation coordinator who schedules local group trips in the vans with volunteer drivers. TripPool is a flexible rideshare option for commuters that lets them book carpool rides to the nearest transit center on demand using a mobile app. These products will be piloted in partner communities in late 2015 and 2016.

Annual performance report

Metro collects and analyzes ridership data for alternative services products. The performance of routes 629 (launched in Snoqualmie Valley in 2013) and 628 are described on the next page. Services that began after spring 2015 will be included in next year's service guidelines report.

TABLE 13

Alternative Services Performance*

Route	Cost per vehicle trip (2014)	Cost per vehicle trip (2015)	Cost per ride (2014)	Cost per ride (2015)	Rides per hour (2014)	Rides per hour (2015)
628	n/a	$45.34	n/a	$20.39	n/a	2.9
629	$64.67**/$56.70	$76.88**/$55.01	$19.25**/$16.88	$18.11**/$12.96	2.1	2.6

*628 data is from February 16 to June 30, 2015. 629 2015 data is from January 2 to June 30, 2015.
** Before Snoqualmie Tribe contribution

Snoqualmie Valley – Route 629

The Snoqualmie Valley Shuttle, Route 629, is a community shuttle that began offering trips between North Bend and Duvall in 2013. The shuttle was created in partnership with the Snoqualmie Tribe, which contributes $50,000 a year to its operation, and is operated by Snoqualmie Valley Transportation, a local non-profit organization. The shuttle serves Duvall, Carnation, Fall City, Snoqualmie, and North Bend, with flexible service areas at the north and south ends of the route. In the past year, the cost per vehicle trip and cost per ride both decreased as ridership improved. Rides per hour have improved from 2.1 rides per hour to 2.6. The cost per vehicle trip decreased from $56.70 in 2014 to $55.01 in 2015 while the cost per rider decreased from $16.88 in 2014 to $12.96 in 2015 — a 23 percent reduction.

Snoqualmie – Route 628

Launched in February 2015, Route 628 is a new alternative service community shuttle that serves North Bend, Snoqualmie, and Issaquah Highlands. The route was designed to mitigate the loss of commuter-oriented services (routes 209 and 215) in September 2014. Route 628 offers weekday service in the morning and evening between North Bend and the Issaquah Highlands Park-and-Ride, with flexible service areas in two neighborhoods in Issaquah Highlands. It connects to local and regional bus services. After 18 weeks of operation, the cost per bus trip is $45.34 and the route is serving approximately 2.9 riders per hour. The cost per rider is $20.39, which is an improvement over the $26.26/boarding of the eliminated Route 209, but more expensive than the $7.20/boarding of the eliminated Route 215. One reason for this difference in cost per boarding is that the 215 served a larger geographic area, including the Eastgate Park-and-Ride and downtown Seattle, and had higher ridership as a result.

In addition to creating the community shuttle through the alternative services partnership, Metro's rideshare outreach efforts after the September 2014 service reductions led to the formation of seven new VanPools in the Snoqualmie area.

2015 services

In June 2015, Metro started two community shuttles in areas that had lost underperforming fixed-route services. Performance data on these routes will be in the next report.

Mercer Island – Route 630

Started in June 2015, the new Route 630 shuttle makes weekday peak-period connections from central Mercer Island to downtown Seattle and First Hill, mitigating the September 2014 loss of routes 203 and 213. Route 630 is made possible through a financial partnership between the City of Mercer Island, the City of Seattle and Metro and is operated by Hopelink. With 10 vehicle trips, Route 630 primarily serves weekday commuters with a flexible service area along Island Crest Way. A new leased park-and-ride lot at the Congregational Church provides additional parking spaces to improve access to transit service.

In fall 2015, Metro began an In Motion marketing campaign on Mercer Island to educate residents and encourage them to try their new transportation options. This campaign includes an invitation to participate in the first trial of the new TripPool program, which provides flexible ridesharing between residential neighborhoods and the park-and-ride. TripPool uses Metro-branded vans and local volunteer drivers and offers guaranteed parking at the Mercer Island Park-and-Ride, improving access to regional services at this over-crowded facility.

Burien – Route 631

The Burien community shuttle, operated by Hopelink, also began offering local service in June 2015. On weekdays, Route 631 makes a clockwise loop serving Olde Burien, City Hall, the Highline Medical Center, Gregory Heights, and the Burien Transit Center. Route 631 makes 17 trips between 8 a.m. and 5 p.m. and includes a flexible service area that allows residents to book a deviation in advance. This service is made possible through an in-kind partnership between the City of Burien and Metro.

Ongoing projects

Southeast King County

Southeast King County was identified in Metro's five-year implementation plan as a candidate area for alternative services. Metro is working with a Stakeholder Working Group in this area to identify and implement alternative service options that will "right-size" service in this community. The Working Group has found that the community's needs include improving service on an underserved corridor from Enumclaw to the Auburn Sounder station, improved mobility options in the evening, and better ORCA card distribution. The anticipated proposed alternative services for this area include an adjustment to existing routes, an emergency ride home program, an ORCA card promotion, TripPool, a Community Van including a Metro-funded local transportation coordinator, and an alternative service connection between Black Diamond and Enumclaw. If approved, these services will start in two phases in early and late 2016.

Redmond iCarpool pilot

Building on a commute needs assessment conducted in 2014, Metro is partnering with the City of Redmond to pilot a new flexible ridesharing app in the southeast Redmond and Willows Road employment centers. Called iCarpool, the app allows riders to offer and accept rides in real time. It also supports cashless reimbursement for gas between rider and driver. By linking the app to the customer's RideshareOnline account, Metro can provide incentives and track usage. Metro and Redmond are working with the app developer to recruit and provide incentives to new riders and drivers in target neighborhoods.

Duvall

Metro is working with the City of Duvall to address some of the unmet demand for local transit service identified during the 2013 alternative service planning process. We are developing a community hub, a transportation coordinator (provided through a partnership and grant-funded through Hopelink), and a Metro-branded Community Van program. Implementation is projected for late 2015 or early 2016.

Vashon Island consultation

Vashon Island was identified in the five-year plan as a potential site for service "right-sizing." We developed a stakeholder engagement timeline and recruited volunteers for a local stakeholder working group in September 2015. The planning process will extend through early 2016, and any potential changes or improvements will be made in fall 2016.

Additional service reduction mitigation projects

Communities affected by the September 2014 service reductions may be suitable for an alternative service mitigation project. Metro has identified potential projects based on the impact of service reductions and market potential, and will begin engaging with selected communities in late 2015.

Complementary projects

Complementary projects will be initiated in communities where existing service could be enhanced through alternative services. Metro is beginning to engage with communities that qualify for complementary projects.

SECTION 4

COMMUNITY MOBILITY CONTRACTS

Metro's Community Mobility Contracts program allows cities to purchase transit service above what Metro is currently able to provide. This program was not designed as a permanent solution to the region's transit funding challenges, but rather as an option for cities to enhance or restore transit service. The program is similar to Metro's Service Partnership Program, but allows for a more significant investment that covers the full cost of providing service.

The Community Mobility Contracts program is based on three principles:

- Contracts must reflect the full cost of providing the service.
- Contracts cannot come at the expense of other cities or the regional allocation of service.
- The program is intended as a bridge to keep buses on the street until the state legislature provides a sustainable funding tool for local transportation needs.

This innovative partnership program allowed the City of Seattle to contract with Metro to provide increased transit service starting in June 2015.

Seattle community mobility contract

On November 4, 2014, City of Seattle residents voted to approve the Seattle Transportation Benefit District's Proposition 1. The approved transportation funding is estimated to bring in approximately $45 million annually for six years to restore and enhance transit service on routes with 80 percent or more of their stops in Seattle. Under the Community Mobility Contracts Program, the King County Council and the Seattle City Council approved a transit service funding agreement in February 2015, fully funding more than 220,000 hours of service additions on Seattle routes in 2015. Of these hours, 72,000 align with needs identified on Seattle routes in the 2014 Service Guidelines Report (Table 14). The remaining hours are being used to restore some of the service Metro cut in September 2014 and to make other investments consistent with Seattle's Transit Master Plan. The first round of service increases occurred in June 2015, followed by a second phase in September. A third phase of investments is planned for March 2016 to extend the RapidRide C and D lines to improve their reliability and serve important job markets.

The Seattle investments focus on boosting service quality (reducing overcrowding and improving reliability) and increasing service on the underserved transit corridors identified in the 2014 Service Guidelines Report.

TABLE 14

Alignment Between City of Seattle Investments and the Need Identified on Seattle Routes by the 2014 Service Guidelines Report

Service Guidelines Priority Investment Need	2014 Identified Need on Seattle Routes*	Seattle Investment
Priority 1 - Overcrowding	12,000	12,000
Priority 2 - Reliability	21,000	21,000
Priority 3 – Corridor Need	173,000	39,000
Total	206,000	72,000

*The needs identified in the 2014 report vary from those identified this year. The needs in the 2015 report will guide future investments.

The agreement also reversed some of the service reductions made in September 2014: Route 19 peak service was restored, with five morning and six afternoon peak direction trips; the Route 47 was partially restored; and Route 27 off-peak and night service returned.

Additional Seattle investments provide more service on Metro routes that are identified as priorities in the Seattle Transit Master Plan, a City-generated plan. These investments include peak period, midday, evening, and weekend service. Both the King County Council and Seattle City Council identified crowding and service reliability of Metro routes as ongoing priorities for Seattle investments during the term of the agreement.

In October 2016, the King County Executive will issue a report on the performance of service provided under the agreement along with Metro's Annual Service Guidelines Report. The report will include:

- A list of the routes and investments by time period that are included in the agreement
- A description of any transit service changes made since the previous service guidelines reporting period to routes funded under the agreement
- The performance of transit services by route that are funded under the agreement and any changes in the service guidelines thresholds since the previous reporting period
- A description of how services funded under the agreement are in alignment with or different from Metro's Strategic Plan for Public Transportation and service guidelines.

TABLE 15

Routes Receiving City of Seattle Investments

Route	Description
1	Kinnear – Seattle CBD
2	West Queen Anne – Seattle CBD – Madrona Park
3	North Queen Anne – Seattle CBD – Madrona Park
4	East Queen Anne – Seattle CBD – Judkins Park
5	Shoreline CC – Seattle CBD
5EX	Shoreline CC – Seattle CBD
7	Rainier Beach – Seattle CBD
8	Seattle Center – Capitol Hill – Rainier Beach
9EX	Rainier Beach – Capitol Hill
10	Capitol Hill – Seattle CBD
11	Madison Park – Seattle CBD
12	Interlaken Park – Seattle CBD
14	Mount Baker – Seattle CBD
15EX	Blue Ridge – Ballard – Seattle CBD
16	Northgate TC – Wallingford – Seattle CBD
17EX	Sunset Hill – Ballard – Seattle CBD
18EX	North Beach – Ballard – Seattle CBD
19	West Magnolia – Seattle CBD
21	Arbor Heights – Westwood Village – Seattle CBD
21EX	Arbor Heights – Westwood Village – Seattle CBD
24	Magnolia – Seattle CBD
25	Laurelhurst – University District – Seattle CBD
26	East Green Lake – Wallingford – Seattle CBD
26EX	East Green Lake – Wallingford – Seattle CBD
27	Colman Park – Leschi Park – Seattle CBD
28	Whittier Heights – Ballard – Seattle CBD via Leary Av NW
28EX	Broadview – Ballard – Seattle CBD via Leary Av NW
29	Ballard – Queen Anne – Seattle CBD
30	Sand Point – University District
31	University District – Fremont – Magnolia
32	University District – Fremont – Seattle Center
33	Discovery Park – Seattle CBD
37	Alaska Junction – Alki – Seattle CBD
40	Northgate TC – Ballard – Seattle CBD via Leary Av NW
41	Lake City – Seattle CBD via Northgate
43	University District – Capitol Hill – Seattle CBD
44	Ballard – Wallingford – Montlake
47	Summit – Seattle
48	Mt Baker – University District – Loyal Heights
49	University District – Capitol Hill – Seattle CBD
55	Admiral District – Alaska Junction – Seattle CBD
56	Alki – Seattle CBD
57	Alaska Junction – Seattle CBD
60	Westwood Village – Georgetown – Capitol Hill
64EX	Lake City – First Hill
65	Lake City – University District
66EX	Northgate TC – Eastlake – Seattle CBD
68	Northgate TC – Ravenna – University District
70	University District – Seattle CBD
71	Wedgwood – University District – Seattle CBD
72	Lake City – University District – Seattle CBD
73	Jackson Park – University District – Seattle CBD
74EX	Sand Point – Seattle CBD
75	Northgate TC – Lake City – Seattle CBD
76	Wedgwood – Seattle CBD
83	Seattle CBD – Ravenna
99	International District – Waterfront
120	Burien TC – Westwood Village – Seattle CBD
125	Westwood Village – Seattle CBD
355EX	Shoreline CC – University District – Seattle CBD
C Line	Westwood Village – Alaska Junction – Seattle CBD
D Line	Ballard – Seattle Center – Seattle CBD

Regional partnership

As part of the Seattle Transportation Benefit District's Proposition 1, Seattle also dedicated up to $3 million annually to partner with other cities on routes that cross Seattle's city limits. Taking advantage of this innovative Regional Partnership Fund, Metro is partnering with Seattle to make targeted investments in transit corridors that carry suburban commuters to work in downtown Seattle (see Table 16). Additionally, this fund is being used in partnership between Seattle and Mercer Island for the new Route 630, Community Shuttle. Seattle will reserve about one-third of the regional partnership fund to respond to future partnership requests from suburban jurisdictions.

TABLE 16

Regional Partnership Agreement Investments

Route	Investment Type	Phasing
101	Overcrowding and reliability	Mar 2016
102	Reliability	Mar 2016
120	Overcrowding and midday frequency improvement	Mar 2016
124	Reliability	Sep 2015
131	Reliability	Mar 2016
132	Reliability	Mar 2016
309	Reliability	Mar 2016
316	Reliability	Mar 2016
355EX	Reliability	Mar 2016
E Line	Overcrowding and midday frequency improvement	Mar 2016
143EX	Overcrowding	Sep 2015
372EX	Overcrowding and reliability	Mar 2016
630	Mitigate loss of Routes 203 and 203	June 2015

SECTION 5

POTENTIAL CHANGES TO THE SERVICE GUIDELINES AND STRATEGIC PLAN

The Service Guidelines Task Force and potential future changes

In 2010, King County formed a Regional Transit Task Force which recommended that Metro create objective, data-based guidelines for planning and managing transit service. Metro responded to this recommendation, and the King County Council adopted Metro's strategic plan and service guidelines in July 2011.

After several years' use of the service guidelines in transit planning, the King County Council asked Metro to form a new task force to further analyze how transit service is evaluated and allocated. Specifically, the Council asked the task force to review and make recommendations regarding:

- How transit service performance is measured to reflect the varied purposes of different types of transit service.
- Approaches to evaluating how the goal of geographic value is included in the guidelines, including minimum service standards.
- Approaches to evaluating how the goal of social equity is included in the guidelines.
- Financial policies for purchase of additional services within a municipality or among multiple municipalities.
- Guidelines for alternative services implementation.

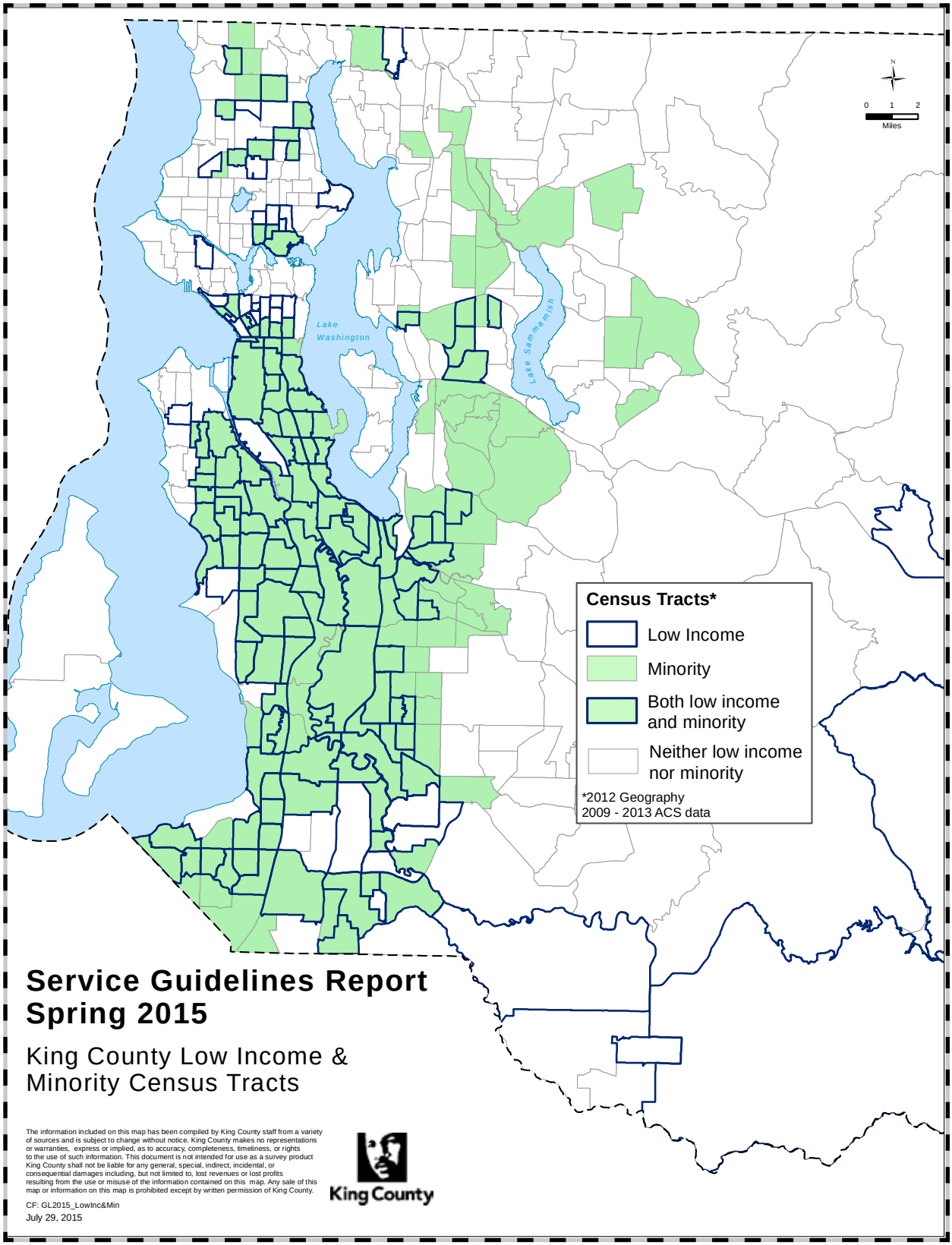
The Service Guidelines Task Force has undertaken this work in 2015 so that it can influence the development of both Metro's long-range plan, scheduled to be complete by mid-2016, and the service guidelines update, scheduled to be complete by April 2016. Metro is coordinating long-range plan development with regional planning efforts being undertaken by Sound Transit, Puget Sound Regional Council, local jurisdictions and stakeholders.

Potential changes beyond 2016 include:

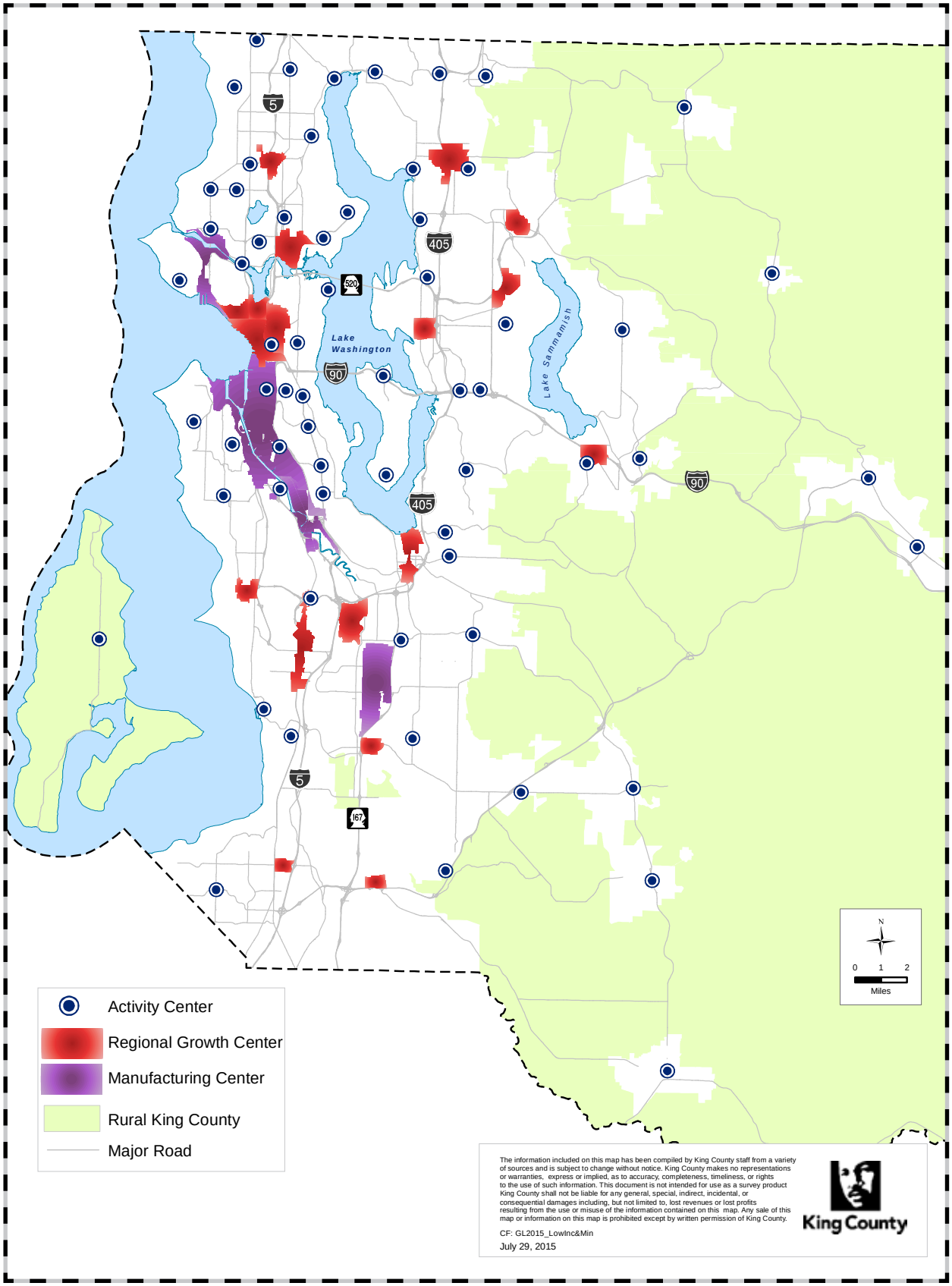
- **Long-range plan development.** The long-range plan will create a foundation for better coordination with partners, cities and other stakeholders, provide direction for cities in land use and policy decisions, and provide better guidance on the future of Metro's service network. To demonstrate Metro's needs and priorities, it will include service and capital elements of a future transit network. Metro anticipates that the service guidelines will remain the tool for evaluating our current network, while the long-range plan will be the tool for implementing new service and investing in our network as the county grows.
- **Evaluating the All-Day and Peak Network corridors.** As Metro has used the guidelines, we have identified several alternative ways to consider corridors that could improve our ability to analyze the network and revise service to achieve greater levels of mobility, particularly as we move to implement the long-range plan network and further integrate with Sound Transit. Some examples include: considering how existing corridors match up with the long-range plan network, how corridors change around future light rail investments, and analyzing Sound Transit corridors even though Metro is not the primary provider. These are among the conceptual changes Metro will be considering in future years.

APPENDICES

Appendix A:
King County Low-Income and Minority Census Tracts



Appendix B:
Transit Activity Centers and Regional Growth/Manufacturing Centers



Appendix C:
Route Productivity Data

Routes that Do Not Serve the Seattle Core

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
A Line	Federal Way – Tukwila	**55.7**	**15.2**	**61.1**	**19.5**	**42.1**	**11.9**
B Line	Bellevue – Crossroads – Redmond	**44.1**	**12.2**	**37.6**	**10.6**	**29.4**	**7.0**
F Line	Renton – Burien	**31.0**	**9.4**	**34.7**	**11.9**	**24.5**	**8.0**
22	Arbor Heights – Westwood Village – Alaska Junction	16.2	3.7	**9.8**	**2.4**	**5.1**	**1.5**
50	Alki – Columbia City – Othello Station	21.7	5.2	20.2	4.6	**8.4**	**1.9**
105	Renton Highlands – Renton TC	**33.1**	8.4	26.0	7.0	17.5	5.2
107	Renton TC – Rainier Beach	22.6	6.1	21.5	5.7	12.8	3.7
118	Tahlequah – Vashon	**11.0**	**2.1**	**10.9**	**1.8**	**8.3**	**1.5**
119	Dockton – Vashon	**11.8**	**1.9**	**9.3**	**1.1**		
128	Southcenter – Westwood Village – Admiral District	**32.5**	**10.5**	**33.3**	**11.0**	16.3	5.3
148	Fairwood – Renton TC	16.2	5.8	17.1	6.4	**19.6**	**7.7**
153	Kent Station – Renton TC	21.9	6.4				
154	Tukwila Station – Boeing Industrial	16.9	4.3				
156	Southcenter – SeaTac Airport – Highline CC	18.5	5.3	18.5	6.6	11.6	3.8
164	Green River CC – Kent Station	**44.3**	**12.7**	**43.3**	**16.0**	**29.8**	**8.5**
166	Kent Station – Burien TC	**28.9**	**10.1**	**31.0**	**11.2**	**19.6**	**6.5**
168	Maple Valley – Kent Station	26.1	7.7	26.3	**8.6**	**19.6**	5.1
169	Kent Station – East Hill – Renton TC	**45.0**	**17.9**	**42.9**	**16.7**	**29.5**	**10.5**
180	Auburn – SeaTac Airport – Burien TC	**34.4**	**11.2**	**33.4**	**12.6**	16.8	**6.6**
181	Twin Lakes P&R – Green River CC	**27.5**	**9.5**	27.0	**9.7**	17.4	4.4
182	NE Tacoma – Federal Way TC	14.9	4.0	20.1	6.5		
183	Federal Way – Kent Station	21.1	6.4	22.0	**9.0**		
186	Enumclaw – Auburn Station	**12.0**	**3.3**				
187	Federal Way TC – Twin Lakes	25.1	6.1	**28.5**	7.6	16.8	3.5
200	Downtown Issaquah – North Issaquah			**11.0**	**2.5**		
201	South Mercer Island – Mercer Island P&R via Mercer Way	**3.8**	**0.6**				
204	South Mercer Island – Mercer Island P&R via Island Crest	**10.5**	**1.8**	**10.5**	**2.3**		
208	Issaquah – North Bend	**11.6**	6.7	**12.2**	7.6	**2.8**	**1.1**
221	Education Hill – Overlake – Eastgate	19.9	5.8	18.1	4.9	**10.8**	**2.5**
224	Duvall – Redmond TC	**8.3**	**3.2**	**9.3**	3.7		
226	Eastgate – Crossroads – Bellevue	**28.3**	7.5	**28.1**	6.6	**10.8**	2.9
232	Duvall – Bellevue	18.2	6.7				

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
234	Kenmore – Kirkland TC – Bellevue	21.8	7.4	18.0	6.1	12.3	3.8
235	Kingsgate – Kirkland TC – Bellevue	21.7	7.0	15.4	6.0	**10.7**	3.8
236	Woodinville – Totem Lake – Kirkland	**9.0**	**2.4**	**8.6**	**2.6**		
237	Woodinville – Bellevue	20.8	8.3				
238	Bothell – Totem Lake – Kirkland	**10.7**	**3.0**	**12.1**	**3.3**		
240	Bellevue – Newcastle – Renton	**27.6**	**10.3**	22.2	**9.6**	14.0	6.3
241	Eastgate – Factoria – Bellevue	21.7	5.0	16.2	4.1	11.2	**2.4**
242	North City – Overlake	17.6	**9.5**				
244	Kenmore – Overlake	**13.1**	4.6				
245	Kirkland – Overlake – Factoria	**29.0**	**8.9**	24.2	7.4	17.6	4.8
246	Eastgate – Factoria – Bellevue	14.3	3.7	14.0	**3.2**		
248	Avondale – Redmond TC – Kirkland	20.1	5.4	17.2	4.6	**10.8**	**2.5**
249	Overlake – South Kirkland – South Bellevue	19.1	4.8	14.0	3.8		
269	Issaquah – Overlake	**11.4**	4.9				
330	Shoreline CC – Lake City	25.2	6.6	**31.0**	**9.6**		
331	Shoreline CC – Kenmore	16.5	5.8	18.7	6.0		
342	Shoreline – Bellevue TC – Renton	18.7	**10.0**				
345	Shoreline CC – Northgate	**35.7**	**9.4**	**34.2**	8.3	11.3	4.2
346	Aurora Village – Northgate	**35.7**	**9.8**	**28.5**	8.3	12.9	5.3
347	Mountlake Terrace – Northgate	26.7	7.3	24.4	6.6	18.1	5.6
348	Richmond Beach – Northgate	23.2	5.4	24.1	5.9	17.7	4.7
901DART	Mirror Lake – Federal Way TC	18.8	3.6	18.7	**2.9**	15.0	**2.6**
903DART	Twin Lakes – Federal Way TC	16.7	**3.1**	17.5	3.8		
906DART	Fairwood – Southcenter	14.8	5.9	15.3	7.5		
907DART	Enumclaw – Renton TC	**4.3**	**1.6**	**6.1**	**3.0**		
908DART	Renton Highlands – Renton TC	**8.1**	**1.4**	**6.4**	**1.6**		
910DART	North Auburn – SuperMall			**9.6**	**1.5**		
913DART	Kent Station – Riverview	14.9	**2.4**				
914DART	Kent – Kent East Hill			20.6	5.1		
915DART	Enumclaw – Auburn Station			20.6	5.4		
916DART	Kent – Kent East Hill			16.6	3.9		
917DART	Pacific – Auburn	13.4	**2.4**	**8.9**	**2.1**		
930DART	Kingsgate – Redmond	**8.2**	**1.1**				
931DART	Bothell – Redmond	**4.9**	**1.2**				

Spring 2015 Thresholds Routes that Do Not serve the Seattle Core	Peak		Off Peak		Night	
Bottom 25%	**13.4**	**3.6**	**14.0**	**3.7**	**11.1**	**2.8**
Top 25%	**26.7**	**8.4**	**27.0**	**8.3**	**18.4**	**6.3**

Routes that Serve the Seattle Core

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
C Line	Westwood Village – Alaska Junction – Seattle CBD	**52.2**	**21.8**	46.4	**20.8**	30.2	**13.5**
D Line	Ballard – Seattle Center – Seattle CBD	**80.0**	**22.2**	**70.7**	**21.2**	**46.2**	**13.6**
E Line	Aurora Village – Seattle CBD	**60.3**	**22.0**	**61.6**	**23.8**	**41.3**	**14.7**
1	Kinnear – Seattle CBD	**54.8**	12.3	46.4	**9.7**	29.4	**5.9**
2	West Queen Anne – Seattle CBD – Madrona Park	49.0	**11.5**	45.1	10.3	26.1	6.2
3	North Queen Anne – Seattle CBD – Madrona Park	**53.7**	**11.3**	47.4	**10.1**	22.6	**5.2**
4	East Queen Anne – Seattle CBD – Judkins Park	**54.1**	**11.3**	46.5	**9.8**	24.9	**5.5**
5	Shoreline CC – Seattle CBD	**60.0**	**20.6**	50.7	**18.2**	**35.4**	**11.5**
5EX	Shoreline CC – Seattle CBD	48.2	16.9				
7	Rainier Beach – Seattle CBD	**53.9**	14.4	**61.7**	**16.0**	**34.9**	9.4
8	Seattle Center – Capitol Hill – Rainier Beach	**52.4**	11.8	45.5	11.3	31.7	7.3
9EX	Rainier Beach – Capitol Hill	43.7	11.6	46.9	14.2		
10	Capitol Hill – Seattle CBD	**57.1**	**10.5**	**57.7**	11.3	34.0	6.9
11	Madison Park – Seattle CBD	**57.2**	**10.7**	**53.6**	**9.4**	**38.6**	**5.8**
12	Interlaken Park – Seattle CBD	**55.8**	**10.7**	38.0	**7.6**	**16.0**	**4.1**
13	Seattle Pacific University – Queen Anne – Seattle CBD	**63.3**	15.0	**58.2**	13.7	29.5	6.7
14	Mount Baker – Seattle CBD	45.9	**9.8**	48.3	**9.7**	23.2	**4.9**
15EX	Blue Ridge – Ballard – Seattle CBD	51.0	**20.8**				
16	Northgate TC – Wallingford – Seattle CBD	36.0	12.7	**28.1**	10.8	**18.0**	6.3
17EX	Sunset Hill – Ballard – Seattle CBD	**56.2**	**19.7**				
18EX	North Beach – Ballard – Seattle CBD	51.5	**19.2**				
21	Arbor Heights – Westwood Village – Seattle CBD	43.8	16.2	**32.8**	12.5	**19.8**	7.9
21EX	Arbor Heights – Westwood Village – Seattle CBD	33.5	13.4				
24	Magnolia – Seattle CBD	**53.4**	16.0	**29.0**	**9.7**	**19.5**	**5.5**
25	Laurelhurst – University District – Seattle CBD	**21.6**	**5.8**	**17.4**	**4.6**		
26	East Green Lake – Wallingford – Seattle CBD	**53.6**	13.7	**34.1**	11.6	23.6	7.2

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
26EX	East Green Lake – Wallingford – Seattle CBD	49.0	16.8				
27	Colman Park – Leschi Park – Seattle CBD	32.3	**8.7**				
28	Whittier Heights – Ballard – Seattle CBD via Leary Ave NW	51.5	13.3	36.7	**10.1**	**21.2**	**5.4**
28EX	Broadview – Ballard – Seattle CBD via Leary Ave NW	43.1	14.1				
29	Ballard – Queen Anne – Seattle CBD	37.7	**8.2**				
30	Sand Point – University District	**20.2**	**4.4**				
31	University District – Fremont – Magnolia	37.4	**8.4**	**32.2**	**7.9**		
32	University District – Fremont – Seattle Center	46.2	14.5	**35.9**	11.1	29.0	7.5
33	Discovery Park – Seattle CBD	49.8	15.5	**27.2**	**8.5**	**13.5**	**5.2**
36	Othello Station – Beacon Hill – Seattle CBD	46.6	13.0	52.4	14.1	27.2	7.2
37	Alaska Junction – Alki – Seattle CBD	**19.8**	**7.9**				
40	Northgate TC – Ballard – Seattle CBD via Leary Ave NW	49.4	15.4	41.6	13.0	28.7	10.1
41	Lake City – Seattle CBD via Northgate	**57.5**	**25.4**	**56.7**	**24.8**	**40.8**	**21.1**
43	University District – Capitol Hill – Seattle CBD	**56.3**	14.8	49.3	12.3	**35.9**	9.6
44	Ballard – Wallingford – Montlake	**63.0**	17.5	**54.6**	14.6	34.0	9.6
48	Mount Baker – University District – Loyal Heights	**52.5**	14.7	50.3	14.8	31.2	8.8
49	University District – Capitol Hill – Seattle CBD	**62.4**	**20.2**	**55.6**	**16.1**	**52.2**	**13.3**
55	Admiral District – Alaska Junction – Seattle CBD	36.1	14.3				
56	Alki – Seattle CBD	40.9	14.9				
57	Alaska Junction – Seattle CBD	37.0	13.7				
60	Westwood Village – Georgetown – Capitol Hill	40.1	11.8	36.0	11.0	22.6	6.4
64EX	Lake City – First Hill	32.1	**9.8**				
65	Lake City – University District	34.7	**8.3**	40.8	**9.5**	22.6	**6.2**
66EX	Northgate TC – Eastlake – Seattle CBD	47.6	16.5	**32.3**	11.2	**20.2**	6.4
67	Northgate TC – University District	40.7	**11.4**	**53.3**	**16.4**	30.6	7.5
68	Northgate TC – Ravenna – University District	37.2	**9.1**	**52.6**	11.4		
70	University District – Seattle CBD	50.3	15.1	36.9	11.1		
71	Wedgwood – University District – Seattle CBD	**60.2**	**22.2**	**58.5**	**21.2**	**38.0**	**12.4**

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
72	Lake City – University District – Seattle CBD	64.6	22.3	61.8	21.7	34.2	10.6
73	Jackson Park – University District – Seattle CBD	60.3	21.4	58.2	20.7	42.6	14.8
74EX	Sand Point – Seattle CBD	59.2	20.8				
75	Northgate TC – Lake City – Seattle CBD	47.9	12.1	48.9	11.9	36.6	9.1
76	Wedgwood – Seattle CBD	57.0	21.2				
77EX	North City – Seattle CBD	61.2	28.5				
82	Seattle CBD – Greenwood					8.3	3.8
83	Seattle CBD – Ravenna					14.9	7.4
84	Seattle CBD – Madison Park – Madrona					7.1	1.5
98	South Lake Union Streetcar	79.8	11.1	48.5	8.4	23.1	4.0
99	International District – Waterfront	24.3	5.9	16.8	3.6		
101	Renton TC – Seattle CBD	45.1	23.0	52.0	26.4	37.0	20.7
102	Fairwood – Renton TC – Seattle CBD	38.7	21.1				
106	Renton TC – Rainier Beach – Seattle CBD	43.0	14.6	41.0	15.3	24.9	9.6
111	Lake Kathleen – Seattle CBD	25.9	16.8				
113	Shorewood – Seattle CBD	24.3	11.6				
114	Renton Highlands – Seattle CBD	24.0	14.3				
116EX	Fauntleroy Ferry – Seattle CBD	19.6	6.5				
118EX	Tahlequah – Seattle CBD via ferry	17.3	7.5				
119EX	Dockton – Seattle CBD via ferry	9.1	3.8				
120	Burien TC – Westwood Village – Seattle CBD	43.7	18.3	47.4	19.9	36.1	16.5
121	Highline CC –Burien TC – Seattle CBD via First Ave S	20.4	9.5				
122	Highline CC –Burien TC – Seattle CBD via Des Moines Memorial Dr S	23.8	11.5				
123	Burien – Seattle CBD	31.0	18.5				
124	Tukwila – Georgetown – Seattle CBD	37.6	13.3	41.1	15.4	24.2	9.8
125	Westwood Village – Seattle CBD	36.2	15.0	33.4	14.7	17.8	7.7
131	Burien TC – Highland Park – Seattle CBD	42.5	17.9	36.9	15.4	24.7	11.1
132	Burien TC – South Park – Seattle CBD	35.0	15.1	30.7	12.7	20.1	8.2
143	Black Diamond – Renton TC – Seattle CBD	21.3	12.9				
150	Kent Station – Southcenter – Seattle CBD	41.3	20.5	39.1	20.7	32.0	19.3
157	Lake Meridian – Seattle CBD	15.2	10.5				
158	Kent East Hill – Seattle CBD	25.2	17.1				
159	Timberlane – Seattle CBD	20.9	14.6				
167	Renton – Newport Hills – University District	24.1	20.4				
177	Federal Way – Seattle CBD	20.5	12.2				
178	South Federal Way – Seattle CBD	23.7	15.6				

Route	Description	Peak		Off Peak		Night	
		Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile	Rides/ Platform Hour	Passenger Miles/ Platform Mile
179	Twin Lakes – Seattle CBD	**20.8**	16.2				
190	Redondo Heights – Seattle CBD	**21.1**	12.9				
192	Star Lake – Seattle CBD	**20.5**	13.7				
193EX	Federal Way – First Hill	**23.7**	16.0				
197	Twin Lakes – University District	**21.3**	14.8				
212	Eastgate – Seattle CBD	43.2	**23.1**				
214	Issaquah – Seattle CBD	29.6	18.4				
216	Sammamish – Seattle CBD	42.0	**24.8**				
217	Issaquah – Eastgate – Seattle CBD	**26.3**	18.0				
218	Issaquah Highlands – Seattle CBD	50.1	**27.1**				
219	Redmond – Sammamish – Seattle CBD	33.4	**23.7**				
252	Kingsgate – Seattle CBD	28.4	18.1				
255	Brickyard – Kirkland TC – Seattle CBD	35.9	**18.8**	**26.2**	13.5	24.1	**12.4**
257	Brickyard – Seattle CBD	26.4	17.6				
268	Redmond – Seattle CBD	31.2	**21.9**				
271	Issaquah – Bellevue – University District	27.9	11.9	**27.3**	12.0	**19.4**	8.8
277	Juanita – University District	**13.7**	**5.5**				
301	Aurora Village – Seattle CBD	33.5	**18.7**				
303EX	Shoreline – First Hill	32.9	16.4				
304	Richmond Beach – Seattle CBD	27.8	16.9				
308	Horizon View – Seattle CBD	**24.8**	14.1				
309EX	Kenmore – First Hill	37.3	**21.1**				
311	Woodinville – Seattle CBD	**24.7**	16.1				
312EX	Bothell – Seattle CBD	36.4	18.2				
316	Meridian Park – Seattle CBD	**62.2**	**24.1**				
355EX	Shoreline CC – University District – Seattle CBD	29.6	**10.0**				
372EX	Woodinville – Lake City – University District	38.4	13.0	41.3	14.1	32.8	7.8
373EX	Aurora Village – University Village	31.9	11.8				
601EX	Seattle CBD – Group Health (Tukwila)	**5.7**	**2.7**				

Spring 2015 Thresholds Routes that serve Seattle Core	Peak		Off Peak		Night	
Bottom 25%	**26.4**	**11.6**	**36.0**	**10.2**	**22.2**	**6.2**
Top 25%	**51.7**	**18.4**	**52.5**	**15.7**	**34.4**	**10.7**

Appendix D:
Peak Route Analysis Results

Route	Description	Alternative Route(s)*	Ridership ≥ 90% of alternative	Travel Time ≥ 20% faster than alternative
5EX	Shoreline CC – Seattle CBD	5	No	No
15EX	Blue Ridge – Ballard – Seattle CBD	D Line	Yes	Yes
17EX	Sunset Hill – Ballard – Seattle CBD	29	Yes	Yes
18EX	North Beach – Ballard – Seattle CBD	40	No	No
21EX	Arbor Heights – Westwood Village – Seattle CBD	21	Yes	Yes
26EX	East Green Lake – Wallingford – Seattle CBD	26	Yes	No
28EX	Broadview – Ballard – Seattle CBD via Leary Ave NW	28	Yes	Yes
29	Ballard – Queen Anne – Seattle CBD	2	Yes	Yes
37	Alaska Junction – Alki – Seattle CBD	773	Yes	Yes
55	Admiral District – Alaska Junction – Seattle CBD	50	Yes	No
56	Alki – Seattle CBD	50	Yes	Yes
57	Alaska Junction – Seattle CBD	56	Yes	No
64EX	Lake City – First Hill	76	No	Yes
74EX	Sand Point – Seattle CBD	30	Yes	No
76	Wedgwood – Seattle CBD	71EX	No	No
77EX	North City – Seattle CBD	73	Yes	Yes
99	International District – Waterfront	None	Yes	Yes
102	Fairwood – Renton TC – Seattle CBD	148	Yes	No
111	Lake Kathleen – Seattle CBD	None	Yes	Yes
113	Shorewood – Seattle CBD	None	Yes	Yes
114	Renton Highlands – Seattle CBD	240	Yes	Yes
116EX	Fauntleroy Ferry – Seattle CBD	C Line	No	No
118EX	Tahlequah – Seattle CBD via ferry	118	Yes	No
119EX	Dockton – Seattle CBD via ferry	119	Yes	No
121	Highline CC – Burien TC – Seattle CBD via First Ave S	166	Yes	Yes
122	Highline CC – Burien TC – Seattle CBD via Des Moines Memorial Dr S	156	Yes	Yes
123	Burien – Seattle CBD	121	Yes	No
154	Tukwila Station – Boeing Industrial	F Line	No	No
157	Lake Meridian – Seattle CBD	None	Yes	Yes
158	Kent East Hill – Seattle CBD	None	Yes	Yes
159	Timberlane – Seattle CBD	164	Yes	No
167	Renton – Newport Hills – University District	560EX	Yes	Yes
177	Federal Way – Seattle CBD	577EX	Yes	No
178	South Federal Way – Seattle CBD	177	Yes	No
179	Twin Lakes – Seattle CBD	181	Yes	No
190	Redondo Heights – Seattle CBD	574EX	Yes	Yes
192	Star Lake – Seattle CBD	574EX	No	Yes

Route	Description	Alternative Route(s)*	Ridership ≥ 90% of alternative	Travel Time ≥ 20% faster than alternative
193EX	Federal Way – First Hill	None	Yes	Yes
197	Twin Lakes – University District	181	Yes	Yes
201	South Mercer Island – Mercer Island P&R via Mercer Wy	None	Yes	Yes
212	Eastgate – Seattle CBD	554EX	Yes	No
214	Issaquah – Seattle CBD	554EX	No	No
216	Sammamish – Seattle CBD	269	Yes	No
217	Issaquah – Eastgate – Seattle CBD	554EX	No	Yes
218	Issaquah Highlands – Seattle CBD	554EX	Yes	Yes
219	Redmond – Sammamish – Seattle CBD	None	Yes	Yes
232	Duvall – Bellevue	248	Yes	Yes
237	Woodinville – Bellevue	311	No	Yes
242	North City – Overlake	66EX	No	Yes
244	Kenmore – Overlake	None	Yes	Yes
252	Kingsgate – Seattle CBD	255	No	Yes
257	Brickyard – Seattle CBD	238	Yes	Yes
268	Redmond – Seattle CBD	545	No	Yes
277	Juanita – University District	235	Yes	Yes
301	Aurora Village – Seattle CBD	E Line	No	Yes
303EX	Shoreline – First Hill	None	Yes	Yes
304	Richmond Beach – Seattle CBD	348	Yes	Yes
308	Horizon View – Seattle CBD	331	Yes	No
309EX	Kenmore – First Hill	312EX	Yes	Yes
311	Woodinville – Seattle CBD	232	Yes	Yes
312EX	Bothell – Seattle CBD	522EX	Yes	No
316	Meridian Park – Seattle CBD	16	Yes	Yes
342	Shoreline – Bellevue TC – Renton	None	Yes	Yes
355EX	Shoreline CC – University District – Seattle CBD	5	No	No
601EX	Seattle CBD – Group Health (Tukwila)	None	Yes	Yes
913DART	Kent Station – Riverview	None	Yes	Yes

* Alternative routes must serve at least 50% of riders on the peak-only route.

Peak-only routes 27, 30, 143, 153, 186, 269, 373 Express, 930, and 931 are included in the corridor analysis because they each serve as the only route on one of Metro's 110 corridors during at least one time period. These routes are not analyzed as part of the peak analysis because their target service levels are set by the corridor analysis.

Appendix E:
2015 Service Changes

Month	Route	Description of Change	Type
February	111	Revise routing to accommodate community request	Revised routing
February	114	Revise routing to accommodate community request	Revised routing
February	120	Revise routing to accommodate community request	Revised routing
February	143	Revise routing to accommodate community request	Revised routing
February	156	Return to original routing with the completion of construction project at Southcenter	Revised routing
February	204	Shift span to run later in PM	Increased span
February	255	Manage trips to address overcrowding	Schedule adjustment
February	55	Revise routing to accommodate community request	Revised routing
February	628	Implement a new commuter shuttle between North Bend, Snoqualmie, and Issaquah Highlands P&R	Added new Route
February	7	Schedule peak service to Prentice loop more efficiently	Schedule adjustment
February	913	Revise routing through the Kent Boeing facility	Revised routing
February	916	Revise routing to accommodate community request	Revised routing
February	116/118/119	Revise routing to accommodate community request	Revised routing
February	212	Add one PM trip address existing passenger crowding and anticipated increased demand, adjustment to AM schedule	Added trips, schedule adjustment
February	312	AM trip added to address existing passenger crowding and anticipated increased demand, adjustment to schedule of other AM trips	Added trips, schedule adjustment
February	64EX/65	Restore regular routing on 35th Ave NE due to the end of a construction project	Revised routing
February	28	Northern terminal relocated – new layover on northbound 7th Avenue NW farside Holman Road NW	Relocate terminal
February	193/303	Adjust some evening trips to coordinate with PM shifts at First Hill medical centers	Schedule adjustment
June	4	Revise routing to accommodate 23rd Ave construction improvements	Revised routing
June	10	Improve evening and Sunday frequency, Schedule adjustment	Added trips, schedule adjustment
June	11	Reliability improvements for Route 11	Reliability improvement
June	111	Relocate the PM terminal due to pending construction	Relocate terminal
June	114	Relocate the PM terminal due to pending construction	Relocate terminal
June	120	Add three AM turnback trips from White Center to downtown Seattle	Added trips
June	125	Improve weekend frequency	Increased frequency

Month	Route	Description of Change	Type
June	15EX	Add two AM and two PM trips	Added trips
June	156	Revise service in SeaTac/McMicken Heights to return back to routing via Military Road South.	Revised routing
June	16	Add two PM trips and invest in reliability on weekends	Added trips, reliability improvement
June	167	Revise routing to operate between Renton Transit Center and I-405 via Park Ave N	Revised routing
June	17	Add one PM trip, invest in reliability issues	Added trips, reliability improvement
June	18	Add one PM trip, invest in reliability issues	Added trips, reliability improvement
June	200	Extend routing to Issaquah Highlands Park and Ride; eliminate loops through SE 51st (Microsoft) and the Fred Meyer parking lot.	Revised routing
June	21EX	Reliability improvements for Route 21X	Reliability improvement
June	238	Route 238 will be revised to use a new segment of NE 120th Street in the Totem Lake neighborhood of Kirkland	Revised routing
June	245	Relocate terminal to improve comfort station access	Relocate terminal
June	246	Extend Route 246 to the 92nd Ave NE lid over SR-520 and Clyde Hill/ Yarrow Point Freeway Station	Revised routing
June	25	Reliability improvements for Route 25	Reliability improvement
June	28	New terminal for local variant trips	Relocate terminal
June	29	Reliability improvements for Route 29	Reliability improvement
June	312	Add two AM and two PM trips to relieve overcrowding	Added trips
June	37	Reliability improvements for Route 37	Reliability improvement
June	40	Improve reliability and frequency	Added trips, reliability improvement
June	40	Add midday trips to restore 15-minute service	Add trips
June	41	Add one AM and one PM trip, improve reliability and frequency	Added trips, reliability improvement
June	44	Add one AM trip and improve reliability and frequency	Added trips, reliability improvement
June	47	Restore Route 47 during peak and off-peak hours	Restore service
June	48	Add one AM trip, extend one AM trip to Mount Baker TC, invest in reliability	Added trips, reliability improvement

Month	Route	Description of Change	Type
June	48	Revise routing to accommodate 23rd Ave construction improvements	Revised routing
June	55	Add three AM and three PM trips, invest in reliability	Added trips, reliability improvement
June	56	Reliability improvements for Route 56	Reliability improvement
June	57	Reliability improvements for Route 57	Reliability improvement
June	60	Improve weekday frequency; invest in reliability on Saturday, extend weekend span and add additional trip on weekends	Added trips, reliability improvement, increased span
June	628	Adjust schedule in the flexible service area	Schedule adjustment
June	629	Routing revision to no longer serve old Snoqualmie Valley Hospital location	Revised routing
June	630	Implement new commuter shuttle between Mercer Island, First Hill and downtown Seattle	Added new Route
June	631	Implement new local alternative shuttle service in Burien	Added new Route
June	64	Relocate the AM terminal to accommodate Route 73	Relocate terminal
June	64	Reliability improvements for Route 64	Reliability improvement
June	F Line	Revise inbound service routing between The Landing and Renton Transit Center	Revised routing
June	68	Relocate terminal for some trips due to construction	Relocate terminal
June	70	Reliability improvements for Route 70	Reliability improvement
June	73	Relocate the northern terminal to westbound NE 143rd St, between 17th Ave NE and 15th Ave NE	Relocate terminal
June	76	Reliability improvements for Route 76	Reliability improvement
June	8	Add one PM peak trip, additionally invest in reliability on weekdays	Added trips, reliability improvement
June	8	Revise the southbound Route 8 pathway to turn left to Rainier Avenue South from the Mount Baker Transit Center	Revised routing
June	8	Revise routing to accommodate 23rd Ave construction improvements	Revised routing
June	84	Revised routing for night owl terminal	Relocate terminal
June	891	Revise terminal at Mercer Island High School	Revised routing
June	892	Revise terminal at Mercer Island High School	Revised routing
June	894	Revise terminal at Mercer Island High School	Revised routing
June	1/14	Reliability improvements for routes 1/14	Reliability improvement
June	118/119	Revised schedule adjusted to accommodate change in Vashon Island ferry schedule	Schedule adjustment

Month	Route	Description of Change	Type
June	19	Restore Route 19 with five morning and six afternoon trips	Restore service
June	24/124	Add one PM trip on Route 24 and extend evening service to midnight; revise terminal for selected peak trips; convert deadhead trips to in-service trips for Route 124 where possible	Restore service, added trips, increased span
June	2/13	Reliability improvements for routes 2/13	Reliability improvement
June	26/28/ 131/132	Invest in reliability on weekdays, Saturdays, and Sundays	Reliability improvement
June	27/33	Restore Route 27 during off-peak, nights, and weekends; invest in reliability and convert deadhead trips into in-service trips where possible	Restore service, added trips
June	31/32/ 65/75	Reliability improvements for routes 31/32/65/75	Reliability improvement
June	5/5EX/21	Add four AM and four PM trips to the 5EX; invest in reliability issues for routes 5 and 21	Added trips, reliability improvement
June	5/21	Add a Route 21 northbound PM trip; add a Route 5 northbound PM trip	
June	66/67/68	Reliability improvements for routes 66/67/68	Reliability improvement
June	C Line/ D Line	Improve frequency and add service hours on Saturdays	Added trips
June	71/72/ 73/74	Add one AM trip to Route 74, add two Sunday PM trips to Route 73, invest in reliability	Added trips, reliability improvement
September	Multiple	Eliminate reduced weekday schedule on routes 1/2/3/4/5/7/8/9/10/11/12 /13/14/15/16/17/21/24/26/27/28/29/33/36/40/41/43/44/50/56/60/64/70/ 76/77/124/131/132	Schedule adjustment
September	E Line	Increase ridership by improving frequency	Added trips
September	11	Increase ridership by improving frequency	Added trips
September	113	Relocate the PM terminal	Relocate terminal
September	114	Relocate terminal to improve comfort station access	Relocate terminal
September	12	Increase ridership by improving frequency	Added trips
September	123	Relocate terminal due to layover constraints in the Seattle CBD	Relocate terminal
September	124	Reliability improvements for Route 124	Reliability improvement
September	143	Add one AM and one PM peak trips to address overcrowding.	Added trips
September	157	Reliability improvements for Route 157	Reliability improvement
September	158	Reliability improvements for Route 158	Reliability improvement
September	159	Reliability improvements for Route 159	Reliability improvement
September	16	Increase ridership by improving frequency	Added trips

Month	Route	Description of Change	Type
September	169	Reliability improvements for Route 169	Reliability improvement
September	186	Add one evening trip leaving Auburn to improve bus connections with Sounder trains	Added trips
September	212	Add two AM and two PM peak trips to address overcrowding	Added trips
September	214	Revised routing to avoid congestion on Front St.	Revised routing
September	216	Relocate route from the tunnel to downtown surface streets in advance of U-Link extension	Revised routing
September	218	Add one AM and two PM peak trips; relocate route from the tunnel to downtown surface streets in advance of U-Link extension	Added trips, revised routing
September	219	Relocate route from the tunnel to downtown surface streets in advance of U-Link extension	Revised routing
September	221	Reliability improvements for Route 221	Reliability improvement
September	232	Reliability improvements for Route 232	Reliability improvement
September	237	Reliability improvements for Route 237	Reliability improvement
September	246	Revised routing at new Clyde Hill/Yarrow Point Freeway Station	Revised routing
September	25	Increase ridership by improving frequency	Added trips
September	25	Improve ridership by increasing frequency	Added trips
September	30	Increase ridership by increasing span of service	Added trips
September	30	Improve ridership by increasing span of service	Increased span
September	312	Add one AM trip and two PM trips to address overcrowding	Added trips
September	316	Relocate route from the tunnel to downtown surface streets in advance of U-Link extension	Revised routing
September	40	Increase ridership by improving frequency	Added trips
September	40	Improve ridership by increasing frequency	Added trips
September	41	Increase ridership by improving frequency and additional trips	Added trips
September	43	Increase ridership by improving frequency	Added trips
September	48	Increase ridership by improving frequency	Added trips
September	5EX	Reallocate service to address PM overcrowding	Schedule adjustment
September	68	Add early morning and evening on Saturdays; add Sunday service	Added trips
September	70	Add AM trip on weekday; add night service on Saturdays and add Sunday service	Added trips
September	76	Add two AM and two PM peak trips; relocate route from the tunnel to downtown surface streets in advance of U-Link extension	Added trips, revised routing
September	77	Relocate route from the tunnel to downtown surface streets in advance of U-Link extension	Revised routing
September	8	Add early morning and late evening weekend trips to extend 15-minute frequency	Added trips
September	9EX	Increase ridership by improving frequency	Added trips

Month	Route	Description of Change	Type
September	903	Selected weekday peak trips will be extended beyond Federal Way into NE Tacoma	Revised routing
September	913	Revise trip times to maintain connections with Sounder trains at Kent Station	Schedule adjustment
September	997	Add new custom bus route to serve Eastside Prep school from the Woodinville Park-and-Ride	Added new Route
September	1/14	Increase ridership by improving frequency	Added trips
September	177/178	Relocate the PM terminal	Relocate terminal
September	190/192	Relocate terminal due to layover constraints in the Seattle CBD	Relocate terminal
September	2/3/4/13	Improve frequency in evening and weekends	Added trips
September	212/214	Operate a routing/stop pattern consistent with other East King County commuter service	Revised routing
September	3/4	Reliability improvements	Reliability improvement
September	3/4/8/48	Continue routing revisions due to construction project on 23rd Ave	Revised routing
September	32/65/75	Add one late night trip every day	Added trips
September	33/27	Increase ridership by improving frequency	Added trips
September	43/44	Improve ridership with additional peak trips; split with Route 43 in evenings and Sundays to improve reliability	Added trips
September	5/21	Increase ridership by improving frequency	Added trips
September	66/67	Increase ridership by improving frequency	Added trips
September	7/49	Route 7: Add two AM and two PM trips on weekdays, improve weekend frequency; Route 49: improve frequency on weekdays and Saturday; split Routes on Sundays	Added trips
September	71/72/73	Extend express mode operation to midnight on weekdays and weekends; increase frequency for routes 72 and 73 in evenings and Sunday	Added trips, revised routing

Appendix F:
Route-level Ridership (weekday average, spring 2014 and spring 2015)

Route	Weekday Rides in 2014	Weekday Rides in 2015	Change in Rides	Weekday Platform Hours in 2014	Weekday Platform Hours in 2015	Change in Platform Hours
1	2,400	2,400	0	48	48	0
2	5,600	5,600	0	127	127	0
3	6,600	6,400	(200)	132	133	1
4	5,000	5,300	300	113	113	0
5	7,900	8,100	200	153	153	0
7EX	400	-	-	12	-	-
7	13,100	13,400	300	247	250	3
8	10,300	10,000	(300)	211	211	0
9EX	2,800	2,900	100	65	65	0
10	4,700	4,700	0	84	84	0
11	3,700	3,400	(300)	65	65	0
12	3,500	3,600	100	74	74	0
13	3,200	3,300	100	61	61	0
14	2,700	2,800	100	66	66	0
15EX	1,000	1,100	100	21	21	0
16	4,800	4,900	100	160	163	3
17EX	700	900	200	15	15	0
18EX	900	900	0	19	18	(1)
19	300	-	-	10	-	-
21EX	1,000	1,000	0	29	29	0
21	4,000	4,000	0	111	111	0
22	200	200	0	16	16	0
24	2,400	2,500	100	61	61	0
25	600	500	(100)	27	27	0
26EX	700	700	0	15	15	0
26	3,000	3,000	0	71	73	2
27	1,400	700	(700)	39	22	(17)
28EX	1,200	1,200	0	28	28	0
28	3,000	2,900	(100)	74	74	0
29	1,200	1,200	0	32	33	1
30	1,300	400	(900)	49	22	(27)
31	2,100	1,900	(200)	52	52	0
32	2,800	2,800	0	70	71	1
33	1,700	2,100	400	44	55	11
36	10,600	10,700	100	232	232	0
37	200	200	0	11	11	0
40	7,900	9,300	1400	206	207	1

Route	Weekday Rides in 2014	Weekday Rides in 2015	Change in Rides	Weekday Platform Hours in 2014	Weekday Platform Hours in 2015	Change in Platform Hours
41	9,700	10,000	300	170	179	9
43	7,700	7,600	(100)	144	148	4
44	7,400	7,600	200	136	136	0
47	800	-	-	26	-	-
48	12,000	12,300	300	251	246	(5)
49	8,000	7,800	(200)	134	132	(2)
50	2,200	2,200	0	108	109	1
55	600	800	200	21	22	1
56	700	800	100	19	19	0
57	400	400	0	10	10	0
60	4,900	5,300	400	152	141	(11)
61	200	-	-	35	-	-
62	300	-	-	16	-	-
64EX	800	800	0	24	25	1
65	3,200	3,200	0	88	87	(1)
66EX	3,100	3,300	200	89	88	(1)
67	1,800	1,700	(100)	42	41	(1)
68	2,200	2,100	(100)	48	48	0
70	4,600	4,700	100	101	102	1
71	5,300	5,100	(200)	92	91	(1)
72	4,800	4,800	0	83	83	0
73	6,100	5,900	(200)	102	101	(1)
74EX	1,400	1,300	(100)	22	22	0
75	4,400	4,600	200	98	98	0
76	1,100	1,200	100	21	21	0
77EX	1,000	1,100	100	17	18	1
82	<50	<50	0	4	4	0
83	<50	100	50	4	4	0
84	<50	<50	0	3	3	0
99	400	400	0	16	16	0
101	4,900	5,200	300	110	109	(1)
102	900	1,000	100	25	25	0
105	1,100	1,100	0	37	37	0
106	5,100	5,400	300	134	134	0
107	1,500	1,400	(100)	63	63	0
111	900	900	0	34	36	2
113	300	300	0	12	12	0
114	300	400	100	17	18	1
116EX	500	600	100	26	30	4
118EX	200	200	0	9	10	1

Route	Weekday Rides in 2014	Weekday Rides in 2015	Change in Rides	Weekday Platform Hours in 2014	Weekday Platform Hours in 2015	Change in Platform Hours
118	400	300	(100)	31	33	2
119EX	100	100	0	5	5	0
119	200	100	(100)	13	13	0
120	9,000	9,200	200	209	209	0
121	900	1,000	100	47	47	0
122	500	600	100	26	25	(1)
123	300	400	100	12	12	0
124	3,400	3,600	200	96	97	1
125	1,900	2,000	100	57	58	1
128	4,400	4,200	(200)	134	134	0
131	3,100	3,200	100	81	81	0
132	3,000	3,200	200	102	101	(1)
139	100	-	-	15	-	-
143	600	600	0	27	27	0
148	700	600	(100)	38	38	0
150	7,000	7,300	300	185	185	0
152	300	-	-	15	-	-
153	400	400	0	20	20	0
154	200	100	(100)	9	8	(1)
156	1,200	1,200	0	65	65	0
157	200	200	0	16	16	0
158	600	600	0	26	24	(2)
159	500	500	0	23	23	0
161	400	-	-	22	-	-
164	2,000	2,100	100	48	48	0
166	2,200	2,300	100	78	78	0
167	400	400	0	16	16	0
168	1,700	1,700	0	68	68	0
169	3,200	3,300	100	78	78	0
173	100	-	-	6	-	-
177	600	600	0	30	30	0
178	700	700	0	28	29	1
179	700	600	(100)	31	30	(1)
180	5,000	4,600	(400)	149	148	(1)
181	2,400	2,300	(100)	86	86	0
182	500	500	0	28	28	0
183	700	700	0	35	34	(1)
186	200	200	0	20	19	(1)
187	500	500	0	20	20	0
190	400	400	0	20	19	(1)

Route	Weekday Rides in 2014	Weekday Rides in 2015	Change in Rides	Weekday Platform Hours in 2014	Weekday Platform Hours in 2015	Change in Platform Hours
192	200	200	0	12	12	0
193EX	600	600	0	27	27	0
197	800	800	0	38	37	(1)
200	300	100	(200)	35	13	(22)
201	<50	<50	0	2	3	1
202	200	-	-	17	-	-
204	100	200	100	11	19	8
205	200	-	-	12	-	-
208	200	200	0	24	17	(7)
209	<50	-	-	8	-	-
210	400	-	-	16	-	-
211	400	-	-	24	-	-
212	2,000	2,700	700	56	62	6
213	<50	-	-	1	-	-
214	1,000	1,200	200	38	40	2
215	400	-	-	23	-	-
216	900	1,000	100	24	24	0
217	200	200	0	8	8	0
218	1,000	1,100	100	23	23	0
219	900	1,000	100	28	29	1
221	1,500	1,500	0	80	80	0
224	100	100	0	16	16	0
226	1,800	1,700	(100)	60	61	1
232	400	400	0	21	22	1
234	1,500	1,400	(100)	73	73	0
235	1,200	1,100	(100)	66	66	0
236	500	500	0	60	59	(1)
237	100	100	0	5	5	0
238	800	800	0	71	65	(6)
240	2,500	2,400	(100)	97	97	0
241	800	800	0	41	39	(2)
242	400	400	0	22	23	1
243	200	-	-	8	-	-
244	200	200	0	18	19	1
245	3,800	3,900	100	146	146	0
246	400	400	0	29	29	0
248	1,200	1,000	(200)	55	55	0
249	1,000	1,100	100	58	56	(2)
250	300	-	-	14	-	-
252	700	700	0	24	25	1

Route	Weekday Rides in 2014	Weekday Rides in 2015	Change in Rides	Weekday Platform Hours in 2014	Weekday Platform Hours in 2015	Change in Platform Hours
255	6,400	6,900	500	217	218	1
257	500	600	100	21	23	2
260	200	-	-	11	-	-
265	500	-	-	29	-	-
268	400	500	100	15	15	0
269	600	600	0	49	50	1
271	6,400	6,200	(200)	224	222	(2)
277	200	300	100	19	19	0
280	100	-	-	3	-	-
301	1,600	1,600	0	48	47	(1)
303EX	1,300	1,300	0	37	39	2
304	400	400	0	15	15	0
306EX	600	-	-	17	-	-
308	200	200	0	9	9	0
309EX	500	500	0	13	14	1
311	1,000	1,100	100	44	43	(1)
312EX	1,800	2,200	400	55	61	6
316	900	1,000	100	16	16	0
330	400	400	0	14	14	0
331	1,000	900	(100)	55	47	(8)
342	300	300	0	16	17	1
345	1,300	1,300	0	36	38	2
346	1,400	1,400	0	43	43	0
347	1,400	1,400	0	56	56	0
348	1,300	1,300	0	56	56	0
355EX	900	900	0	29	31	2
372EX	5,100	4,900	(200)	126	126	0
373EX	1,000	900	(100)	29	29	0
601EX	<50	<50	0	5	5	0
A Line	10,100	10,100	0	179	179	0
B Line	6,700	6,600	(100)	162	160	(2)
C Line	8,100	8,300	200	171	172	1
D Line	11,000	11,700	700	160	161	1
E Line	13,700	15,800	2100	277	271	(6)
F Line	3,600	5,700	2100	132	178	46
773	100	100	0	8	8	0
775	100	100	0	5	5	0
823	100	100	0	2	2	0
824	100	100	0	2	2	0
887	100	100	0	2	2	0

Route	Weekday Rides in 2014	Weekday Rides in 2015	Change in Rides	Weekday Platform Hours in 2014	Weekday Platform Hours in 2015	Change in Platform Hours
888	100	100	0	3	2	(1)
889	100	100	0	2	2	0
891	100	100	0	3	3	0
892	100	100	0	2	2	0
893	100	100	0	2	2	0
894	-	100	-	-	2	-
895	-	<50	-	-	2	-
901DART	300	300	0	19	18	(1)
903DART	500	300	(200)	28	19	(9)
906DART	400	400	0	26	26	0
907DART	100	100	0	19	19	0
908DART	100	100	0	10	10	0
909DART	200	-	-	14	-	-
910DART	100	100	0	9	9	0
913DART	200	200	0	13	13	0
914DART	200	200	0	10	10	0
915DART	100	200	100	7	7	0
916DART	200	200	0	11	11	0
917DART	100	200	100	14	14	0
919DART	100	-	-	8	-	-
927DART	200	-	-	21	-	-
930DART	100	100	0	13	13	0
931DART	300	100	(200)	39	28	(11)
935DART	100	-	-	19	-	-
952	300	300	0	25	26	1
980	<50	<50	0	2	1	(1)
981	<50	<50	0	2	2	0
982	100	100	0	3	3	0
984	<50	<50	0	1	2	1
986	100	100	0	3	3	0
987	100	100	0	3	3	0
988	100	100	0	3	3	0
989	100	100	0	4	4	0
994	100	100	0	3	3	0
995	100	<50	(50)	3	3	0

Appendix G:
Corridor Analysis

Changes in land use patterns, demographics, and the transit network result in changes in the corridor analysis results from year to year. These changes are reflected in the table on the following pages.

Corridor productivity. Many of the corridors registered significant increases in the number of jobs per corridor mile; however, most of these were already receiving the maximum number of points for jobs. Two corridors (74 and 81) did receive additional points for job growth.

Seventeen corridors (5, 11, 13, 19, 20, 24, 25, 26, 45, 56, 61, 68, 69, 78, 79, 93, and 97) received more points from increases in the number of households per corridor mile, reflecting the population growth our county is experiencing.

Compared to last year, no corridors received lower scores for productivity this year.

Social equity. Three corridors (4, 30, and 37) received more points for ridership in minority census tracts, while two corridors (90 and 94) received fewer points.

Eight corridors (1, 17, 45, 56, 71, 101, 103, and 112) received more points for ridership in low-income census tracts, while five (4, 7, 37, 64, and 107) received fewer points.

These changes are mostly due to census tracts either gaining or losing their designation as low-income or minority tracts based on demographic shifts. Changes in tract designations result from updates to census data.

	Connections				Corridor Productivity				Social Equity - Demographics				Geographic Value - Primary Connections						Preliminary Target Service Levels		
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	HOUSEHOLDS/CORRIDOR MILE	POINTS	JOBS/CORRIDOR MILE	POINTS	MINORITY	POINTS	LOW-INCOME	POINTS	ACTIVITY CENTERS	POINTS	REGIONAL & MANUFACTURING/ INDUSTRIAL CENTERS	POINTS	**TOTAL SCORE**	**RAPIDRIDE**	PEAK	OFFPEAK	NIGHT
1	Admiral District	Southcenter	California Ave SW, Military Rd, TIBS	128	1069	2	956	2	69%	5	77%	5	Yes	5	No	0	19		15	30	30
2	Alki	SODO	Alaska Junction	50	1330	4	2100	4	22%	0	67%	5	Yes	5	No	0	18		30	30	0
3	Auburn	Burien	Kent, SeaTac	180	585	0	1220	2	67%	5	99%	5	No	0	Yes	10	22		15	30	30
4	Auburn/GRCC	Federal Way	15th St SW, Lea Hill Rd	181	593	0	1233	2	64%	5	59%	0	No	0	Yes	10	17		30	30	0
5	Aurora Village	Seattle CBD	Aurora Ave N	E Line	2537	8	8897	8	58%	5	39%	0	Yes	5	No	0	26	Yes	< 15	15	15
6	Aurora Village	Northgate	Meridian Av N	346	1107	2	2591	4	69%	5	28%	0	Yes	5	No	0	16		30	30	0
7	Avondale	Kirkland	NE 85th St, NE Redmond Wy, Avondale Wy NE	248	1191	2	1566	4	53%	5	0%	0	Yes	5	No	0	16		30	30	0
8	Ballard	U. District	Green Lake, Greenwood	48	2383	6	8355	8	9%	0	29%	0	Yes	5	No	0	19		15	30	30
9	Ballard	Northgate	Holman Road, Northgate	40	2343	6	3458	6	11%	0	42%	0	No	0	Yes	10	22		15	30	30
10	Ballard	Seattle CBD	15th Ave W	D Line	3844	10	11637	10	0%	0	23%	0	No	0	Yes	10	30	Yes	< 15	15	15
11	Ballard	U. District	Wallingford (N 45th St)	44	2929	8	14174	10	14%	0	14%	0	No	0	Yes	10	28		15	15	30
12	Ballard	Seattle CBD	Ballard/Interbay MIC, Fremont, South Lake Union	40	3944	10	21451	10	17%	0	25%	0	No	0	Yes	10	30		15	15	30
13	Beacon Hill	Seattle CBD	Beacon Ave	36	2624	8	13903	10	95%	5	86%	5	No	0	No	0	28		15	15	30
14	Bellevue	Eastgate	Lake Hills Connector	271	774	2	5912	8	98%	5	91%	5	Yes	5	No	0	25		15	15	30
15	Bellevue	Redmond	NE 8th St, 156th Ave NE	B Line	1328	4	4393	6	90%	5	13%	0	No	0	Yes	10	25	Yes	< 15	15	15
16	Bellevue	Renton	Newcastle, Factoria	240	967	2	3637	6	92%	5	74%	5	Yes	5	No	0	23		15	30	30
17	Burien	Seattle CBD	Delridge, Ambaum	120	1406	4	5795	8	70%	5	93%	5	No	0	Yes	10	32		15	15	30
18	Burien	Seattle CBD	1st Ave S, South Park, Airport Wy	131	1470	4	6516	8	63%	5	85%	5	No	0	Yes	10	32		15	15	30
19	Burien	Seattle CBD	Des Moines Mem Dr, South Park	132	1302	4	6832	8	65%	5	100%	5	Yes	5	No	0	27		15	15	30
20	Capitol Hill	White Center	South Park, Georgetown, Beacon Hill, First Hill	60	2366	6	5425	6	90%	5	74%	5	No	0	Yes	10	32		15	15	30
21	Capitol Hill	Seattle CBD	15th Ave E	10	6044	10	22766	10	0%	0	87%	5	No	0	No	0	25		15	15	30
22	Capitol Hill	Seattle CBD	Madison St	12	7604	10	39795	10	11%	0	100%	5	No	0	No	0	25		15	15	30
23	Central District	Seattle CBD	E Jefferson St	3/4	4679	10	31882	10	71%	5	100%	5	No	0	Yes	10	40		15	15	30
24	Colman Park	Seattle CBD	Leschi, Yesler	27	3272	10	20195	10	84%	5	75%	5	No	0	No	0	30		15	15	30
25	Cowen Park	Seattle CBD	University Way, I-5	71EX/72EX/73EX/74EX	1944	6	20493	10	70%	5	100%	5	No	0	Yes	10	36		15	15	30
26	Discovery Park	Seattle CBD	Gilman Ave W, 22nd Ave W, Thorndyke Av W	33	3199	10	11837	10	5%	0	26%	0	No	0	No	0	20		15	30	30
27	Eastgate	Bellevue	Newport Wy , S. Bellevue, 112th	241	1014	2	6640	8	78%	5	57%	0	No	0	No	0	15		30	30	0
28	Eastgate	Bellevue	Somerset, Factoria, Woodridge	246	985	2	5699	8	86%	5	35%	0	No	0	No	0	15		30	30	0
29	Eastgate	Overlake	Phantom Lake	226	726	2	2600	4	32%	0	16%	0	No	0	No	0	6		60	60	0
30	Enumclaw	Auburn	Auburn Wy S, SR 164	186/915	215	0	488	0	52%	5	98%	5	Yes	5	No	0	15		30	30	0
31	Fairwood	Renton	S Puget Dr, Royal Hills	148	767	2	872	2	100%	5	30%	0	Yes	5	No	0	14		30	30	0
32	Federal Way	SeaTac	SR-99	A Line	785	2	2234	4	100%	5	100%	5	No	0	Yes	10	26	Yes	< 15	15	15
33	Federal Way	Kent	Military Road	183	834	2	678	2	97%	5	97%	5	No	0	Yes	10	24		15	30	30
34	Fremont	Seattle CBD	Dexter Ave N	26/28	5319	10	26450	10	1%	0	1%	0	No	0	Yes	10	30		15	15	30
35	Fremont	U. District	N 40th St	31/32	2306	6	26664	10	9%	0	9%	0	Yes	5	No	0	21		15	30	30
36	Fremont	Whittier Hts	8th Av NW, 3rd Av NW	28	1711	4	2142	4	0%	0	11%	0	Yes	5	No	0	13		30	30	0
37	Green River CC	Kent	132nd Ave SE	164	970	2	1781	4	82%	5	50%	0	Yes	5	No	0	16		30	30	0
38	Greenwood	Seattle CBD	Greenwood Ave N	5	4203	10	14013	10	5%	0	13%	0	Yes	5	No	0	25		15	15	30
39	High Point	Seattle CBD	35th Ave SW	21	2163	6	9740	8	62%	5	62%	5	Yes	5	No	0	29		15	15	30

† Figures rounded for display purposes.

Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points
> 3000	10	> 10250	10	≥ 51%	5	≥ 61%	5	Yes	5	Yes	10
> 2400	8	> 5500	8	DART 48%	5	DART 41%	5	No	0	No	0
> 1800	6	> 3000	6	< 51%	0	< 61%	0				
> 1200	4	> 1400	4								
> 600	2	> 500	2								

Levels	Points	Points	Points
15	19-40	25-40	--
30	10-18	10-24	19-40
60	0-9	0-9	0-18

	Connections				Corridor Productivity				Social Equity - Demographics				Geographic Value - Primary Connections						Preliminary Target Service Levels		
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	HOUSEHOLDS/CORRIDOR MILE	POINTS	JOBS/CORRIDOR MILE	POINTS	MINORITY	POINTS	LOW-INCOME	POINTS	ACTIVITY CENTERS	POINTS	REGIONAL & MANUFACTURING/ INDUSTRIAL CENTERS	POINTS	**TOTAL SCORE**	**RAPIDRIDE**	PEAK	OFFPEAK	NIGHT
40	Issaquah	Eastgate	Newport Way	271	256	0	2547	4	64%	5	43%	0	No	0	No	0	9		60	60	0
41	Issaquah	Overlake	Sammamish, Bear Creek	269	468	0	1927	4	82%	5	0%	0	Yes	5	No	0	14		30	30	0
42	Issaquah	North Bend	Fall City, Snoqualmie	208	202	0	411	0	0%	0	43%	0	Yes	5	No	0	5		60	60	0
43	Kenmore	Kirkland	Juanita	234	1043	2	746	2	0%	0	0%	0	Yes	5	No	0	9		60	60	0
44	Kenmore	Shoreline	Lake Forest Park, Aurora Village TC	331	701	2	1032	2	25%	0	4%	0	Yes	5	No	0	9		60	60	0
45	Kenmore	U. District	Lake Forest Park, Lake City	372EX	1228	4	7339	8	39%	0	62%	5	Yes	5	No	0	22		15	30	30
48	Kent	Burien	Kent-DM Rd, S. 240th St, 1st Av S	166	853	2	1276	2	60%	5	85%	5	Yes	5	No	0	19		15	30	30
49	Kent	Maple Valley	Kent-Kangley Road	168	639	2	667	2	43%	0	35%	0	Yes	5	No	0	9		60	60	0
50	Kent	Renton	Kent East Hill	169	792	2	1238	2	100%	5	72%	5	No	0	Yes	10	24		15	30	30
51	Kent	Seattle CBD	Tukwila	150	498	0	4634	6	99%	5	100%	5	No	0	Yes	10	26		15	15	30
52	Kent	Renton	84th Av S, Lind Av SW	153	363	0	2957	4	100%	5	100%	5	No	0	Yes	10	24		15	30	30
53	Kirkland	Bellevue	South Kirkland	234/235	1635	4	7255	8	1%	0	1%	0	Yes	5	No	0	17		30	30	0
54	Kirkland	Factoria	Overlake, Crossroads, Eastgate	245	908	2	3485	6	61%	5	18%	0	Yes	5	No	0	18		30	30	0
55	Lake City	Seattle CBD	NE 125th St, Northgate, I-5	41	1468	4	9028	8	64%	5	77%	5	No	0	Yes	10	32		15	15	30
56	Northgate	U. District	Lake City, Sand Point	75	1236	4	9102	8	33%	0	76%	5	Yes	5	No	0	22		15	30	30
57	Lake City	U. District	35th Ave NE	65	1485	4	8923	8	33%	0	35%	0	No	0	No	0	12		30	30	0
58	Laurelhurst	U. District	NE 45th St	25	867	2	11772	10	0%	0	20%	0	No	0	No	0	12		30	30	0
59	Madison Park	Seattle CBD	Madison St	11	4879	10	17373	10	0%	0	78%	5	Yes	5	No	0	30		15	15	30
60	Madrona	Seattle CBD	Union St	2	4268	10	22749	10	3%	0	83%	5	No	0	No	0	25		15	15	30
61	Magnolia	Seattle CBD	34th Ave W, 28th Ave W	24	3288	10	11459	10	0%	0	25%	0	Yes	5	No	0	25		15	15	30
62	Mercer Island	S Mercer Island	Island Crest Way	204	656	2	722	2	0%	0	0%	0	Yes	5	No	0	9		60	60	0
63	Mirror Lake	Federal Way	S 312th St	901	886	2	577	2	97%	5	63%	5	No	0	No	0	14		30	30	0
64	Mount Baker	Seattle CBD	31st Av S, S Jackson St	14	2575	8	18310	10	100%	5	49%	0	No	0	No	0	23		15	30	30
65	Mountlake Terrace	Northgate	15th Ave NE, 5th Ave NE	347	1277	4	2075	4	19%	0	4%	0	No	0	No	0	8		60	60	0
66	Mt Baker	U. District	23rd Ave E	48	1727	4	11896	10	76%	5	90%	5	Yes	5	No	0	29		15	15	30
67	NE Tacoma	Federal Way	SW 356th St, 9th Ave S	182	423	0	1109	2	60%	5	35%	0	No	0	No	0	7		60	60	0
68	Northgate	U. District	Roosevelt	66EX/67	1835	6	13731	10	16%	0	70%	5	No	0	Yes	10	31		15	15	30
69	Northgate	Seattle CBD	Green Lake, Wallingford	16	2453	8	7993	8	28%	0	39%	0	No	0	Yes	10	26		15	15	30
70	Northgate	U. District	Roosevelt Way NE, NE 75th St	68	1713	4	13349	10	23%	0	84%	5	No	0	No	0	19		15	30	30
71	Othello Station	SODO	Columbia City Station	50	984	2	1446	4	100%	5	86%	5	No	0	No	0	16		30	30	0
72	Eastgate	Bellevue	Bell-Red Road	226	2000	6	10839	10	93%	5	76%	5	No	0	No	0	26		15	15	30
73	Overlake	Bellevue	Sammamish Viewpoint, Northup Way	249	1059	2	5089	6	40%	0	4%	0	Yes	5	No	0	13		30	30	0
74	Pacific	Auburn	Algona	917	319	0	501	2	94%	5	63%	5	No	0	No	0	12		30	30	0
75	Queen Anne	Seattle CBD	Queen Anne Ave N	2/13	5265	10	20849	10	19%	0	77%	5	No	0	No	0	25		15	15	30
76	Queen Anne	Seattle CBD	Taylor Ave N	3/4	5362	10	22334	10	28%	0	94%	5	No	0	No	0	25		15	15	30
77	Rainier Beach	Seattle CBD	Rainier Ave	7	2157	6	11893	10	96%	5	96%	5	No	0	No	0	26		15	15	30
78	Rainier Beach	Seattle Center	MLK Jr Wy, E John St, Denny Way	8	3184	10	4137	6	51%	0	95%	5	No	0	Yes	10	31		15	15	30
79	Rainier Beach	Capitol Hill	Rainier Ave	9EX	2466	8	4949	6	96%	5	93%	5	Yes	5	No	0	29		15	15	30
80	Redmond	Eastgate	148th Ave, Crossroads, Bellevue College	221	772	2	2168	4	84%	5	45%	0	Yes	5	No	0	16		30	30	0

† Figures rounded for display purposes.

Corridors 46 and 47 lost all service with the deletion of routes 935 and 909 and are thus not included in this table.

Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points
> 3000	10	> 10250	10	≥ 51%	5	≥ 61%	5	Yes	5	Yes	10
> 2400	8	> 5500	8	DART 48%	5	DART 41%	5	No	0	No	0
> 1800	6	> 3000	6	< 51%	0	< 61%	0				
> 1200	4	> 1400	4								
> 600	2	> 500	2								

Levels	Points	Points	Points
15	19-40	25-40	--
30	10-18	10-24	19-40
60	0-9	0-9	0-18

	Connections				Corridor Productivity				Social Equity - Demographics				Geographic Value - Primary Connections						Preliminary Target Service Levels		
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	HOUSEHOLDS/CORRIDOR MILE	POINTS	JOBS/CORRIDOR MILE	POINTS	MINORITY	POINTS	LOW-INCOME	POINTS	ACTIVITY CENTERS	POINTS	REGIONAL & MANUFACTURING/ INDUSTRIAL CENTERS	POINTS	**TOTAL SCORE**	**RAPIDRIDE**	PEAK	OFFPEAK	NIGHT
81	Redmond	Totem Lake	Willows Road	930	740	2	3003	6	72%	5	0%	0	No	0	Yes	10	23		15	30	30
82	Redmond	Fall City	Duvall, Carnation	224	455	0	561	2	53%	5	0%	0	Yes	5	No	0	12		30	30	0
83	Renton	Burien	S 154th St	F Line	514	0	1700	4	93%	5	100%	5	No	0	Yes	10	24	Yes	< 15	15	15
84	Renton	Seattle CBD	MLK Jr Wy, I-5	101/102	959	2	6854	8	97%	5	100%	5	No	0	Yes	10	30		15	15	30
85	Renton	Rainier Beach	West Hill, Rainier View	107	840	2	549	2	100%	5	92%	5	No	0	No	0	14		30	30	0
86	Renton	Seattle CBD	Skyway, S. Beacon Hill	106	1175	2	7537	8	95%	5	80%	5	Yes	5	No	0	25		15	15	30
87	Renton	Renton Highlands	NE 4th St, Union Ave NE	105	1222	4	2472	4	96%	5	90%	5	Yes	5	No	0	23		15	30	30
88	Renton	Enumclaw	Maple Valley, Black Diamond	143/907	183	0	272	0	12%	0	0%	0	Yes	5	No	0	5		60	60	0
89	Renton Highlands	Renton	NE 7th St, Edmonds Av NE	908	999	2	2632	4	87%	5	77%	5	No	0	No	0	16		30	30	0
90	Richmond Beach	Northgate	Richmond Bch Rd, 15th Ave NE	348	1368	4	2148	4	36%	0	33%	0	Yes	5	No	0	13		30	30	0
91	S Vashon	N Vashon	Valley Center	118	39	0	79	0	0%	0	0%	0	No	0	No	0	0		60	60	0
92	Sand Point	U. District	NE 55th St	30	1975	6	13351	10	9%	0	73%	5	No	0	No	0	21		15	30	30
93	Shoreline	U. District	Jackson Park, 15th Av NE	373EX	1240	4	5838	8	62%	5	18%	0	Yes	5	No	0	22		15	30	30
94	Shoreline CC	Northgate	N 130th St, Meridian Av N	345	1252	4	3946	6	40%	0	41%	0	Yes	5	No	0	15		30	30	0
95	Shoreline CC	Lake City	N 155th St, Jackson Park	330	1407	4	1967	4	32%	0	14%	0	Yes	5	No	0	13		30	30	0
96	Shoreline CC	Greenwood	Greenwood Av N	5	1933	6	2383	4	17%	0	29%	0	Yes	5	No	0	15		30	30	0
97	Totem Lake	Seattle CBD	Kirkland, SR-520	255	1230	4	6067	8	7%	0	4%	0	No	0	Yes	10	22		15	30	30
98	Woodinville	Kirkland	Kingsgate	236	1033	2	1264	2	31%	0	0%	0	Yes	5	No	0	9		60	60	0
99	Tukwila	Seattle CBD	Pacific Hwy S, 4th Ave S	124	1652	4	9796	8	90%	5	84%	5	No	0	Yes	10	32		15	15	30
100	Tukwila	Des Moines	McMicken Heights, Sea-Tac	156	527	0	1120	2	100%	5	93%	5	No	0	Yes	10	22		15	30	30
101	Tukwila	Fairwood	S 180th St, Carr Road	906	588	0	1310	2	100%	5	54%	5	Yes	5	No	0	17		30	30	0
102	Twin Lakes	Federal Way	SW Campus Dr, 1st Ave S	903	839	2	1266	2	100%	5	68%	5	No	0	No	0	14		30	30	0
103	Twin Lakes	Federal Way	S 320th St	187	745	2	616	2	100%	5	94%	5	No	0	No	0	14		30	30	0
104	U. District	Seattle CBD	Eastlake, Fairview	70/71/72/73	3793	10	33167	10	43%	0	63%	5	No	0	Yes	10	35		15	15	30
105	U. District	Seattle CBD	Broadway	49	3587	10	19246	10	38%	0	71%	5	No	0	Yes	10	35		15	15	30
106	U. District	Bellevue	SR-520	271	899	2	12073	10	83%	5	58%	0	No	0	Yes	10	27		15	15	30
107	U. District	Seattle CBD	Lakeview	25	2842	8	22747	10	17%	0	46%	0	No	0	No	0	18		30	30	0
108	UW Bothell	Redmond	Woodinville, Cottage Lake	931	372	0	1091	2	6%	0	0%	0	Yes	5	No	0	7		60	60	0
109	UW Bothell/CCC	Kirkland	132nd Ave NE, Lk Wash Voch Tech	238	922	2	1966	4	14%	0	6%	0	Yes	5	No	0	11		30	30	0
110	Wedgwood	Cowen Park	View Ridge, NE 65th St	71EX	1379	4	481	0	0%	0	19%	0	No	0	No	0	4		60	60	0
111	West Seattle	Seattle CBD	Fauntleroy, Alaska Junction	C Line	2395	6	8600	8	16%	0	57%	0	Yes	5	No	0	19	Yes	< 15	15	15
112	White Center	Seattle CBD	16th Ave SW, SSCC	125	720	2	4698	6	95%	5	69%	5	Yes	5	No	0	23		15	30	30

† Figures rounded for display purposes.

Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points
> 3000	10	> 10250	10	≥ 51%	5	≥ 61%	5	Yes	5	Yes	10
> 2400	8	> 5500	8	DART 48%	5	DART 41%	5	No	0	No	0
> 1800	6	> 3000	6	< 51%	0	< 61%	0				
> 1200	4	> 1400	4								
> 600	2	> 500	2								

Levels	Points	Points	Points
15	19-40	25-40	--
30	10-18	10-24	19-40
60	0-9	0-9	0-18

	Connections				Loads at Preliminary Service Level		Load-Based Service Level Improvements		Cost Recovery at Preliminary Service Level			Cost Recovery-Based Service Level Improvements			Night Service Additions (shown as frequencies)				Service Level Improvements			Final Target Service Levels and Family			
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	PEAK	OFFPEAK	PEAK	OFFPEAK	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	PRIMARY CONNECTIONS BETWEEN URBAN CENTERS	COST RECOVERY BASIS (8% / 16%)	CORRIDOR HAS 15 MIN PEAK SERVICE	ADD WHAT FREQUENCY NIGHT SERVICE?	PEAK	OFFPEAK	NIGHT	**PEAK**	**OFFPEAK**	**NIGHT**	**RESULTING SERVICE FAMILY**
1	Admiral District	Southcenter	California Ave SW, Military Rd, TIBS	128	0.38	0.78	-	1	19%	24%	12%	-	-	-	-	60	30	30	-	1	-	15	15	30	Very Frequent
2	Alki	SODO	Alaska Junction	50	0.66	0.54	-	-	29%	15%	6%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
3	Auburn	Burien	Kent, SeaTac	180	0.43	0.82	-	1	15%	24%	12%	-	-	-	60	60	30	30	-	1	-	15	15	30	Very Frequent
4	Auburn/GRCC	Federal Way	15th St SW, Lea Hill Rd	181	0.57	0.54	-	-	24%	20%	13%	-	-	-	60	60	-	60	-	-	-	30	30	60	Local
5	Aurora Village	Seattle CBD	Aurora Ave N	E Line	1.76	1.04	2	1	67%	56%	0%	1	1	-	-	-	30	30	2	1	-	< 15	< 15	15	Very Frequent
6	Aurora Village	Northgate	Meridian Av N	346	0.61	0.47	-	-	42%	21%	0%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
7	Avondale	Kirkland	NE 85th St, NE Redmond Wy, Avondale Wy NE	248	0.41	0.35	-	-	18%	12%	8%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
8	Ballard	U. District	Green Lake, Greenwood	48	1.48	1.38	1	1	71%	73%	45%	1	1	1	-	30	30	30	1	1	1	< 15	15	15	Very Frequent
9	Ballard	Northgate	Holman Road, Northgate	40	1.22	1.14	1	1	57%	60%	21%	1	1	-	60	30	30	30	1	1	-	< 15	15	30	Very Frequent
10	Ballard	Seattle CBD	15th Ave W	D Line	1.39	1.10	1	1	71%	64%	34%	1	1	1	60	30	30	30	1	1	1	< 15	< 15	< 15	Very Frequent
11	Ballard	U. District	Wallingford (N 45th St)	44	1.56	0.56	2	-	84%	40%	49%	1	-	1	60	30	30	30	2	-	1	< 15	15	15	Very Frequent
12	Ballard	Seattle CBD	Ballard/Interbay MIC, Fremont, South Lake Union	40	1.22	0.57	1	-	44%	30%	21%	-	-	-	60	30	30	30	1	-	-	< 15	15	30	Very Frequent
13	Beacon Hill	Seattle CBD	Beacon Ave	36	1.56	1.20	2	1	102%	71%	0%	2	1	-	-	-	30	30	2	1	-	< 15	< 15	30	Very Frequent
14	Bellevue	Eastgate	Lake Hills Connector	271	0.55	0.30	-	-	23%	10%	0%	-	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
15	Bellevue	Redmond	NE 8th St, 156th Ave NE	B Line	0.74	0.48	-	-	51%	27%	0%	1	-	-	60	-	30	30	1	-	-	< 15	15	15	Very Frequent
16	Bellevue	Renton	Newcastle, Factoria	240	0.23	0.59	-	-	12%	16%	0%	-	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
17	Burien	Seattle CBD	Delridge, Ambaum	120	1.54	0.56	2	-	95%	34%	26%	1	-	-	60	30	30	30	2	-	-	< 15	15	30	Very Frequent
18	Burien	Seattle CBD	1st Ave S, South Park, Airport Wy	131	0.40	0.26	-	-	25%	13%	0%	-	-	-	60	-	30	30	-	-	-	15	15	30	Very Frequent
19	Burien	Seattle CBD	Des Moines Mem Dr, South Park	132	0.38	0.28	-	-	20%	11%	15%	-	-	-	-	60	30	30	-	-	-	15	15	30	Very Frequent
20	Capitol Hill	White Center	South Park, Georgetown, Beacon Hill, First Hill	60	1.03	0.57	1	-	47%	20%	0%	-	-	-	60	-	30	30	1	-	-	< 15	15	30	Very Frequent
21	Capitol Hill	Seattle CBD	15th Ave E	10	1.58	0.71	2	-	125%	42%	25%	2	-	-	-	30	30	30	2	-	-	< 15	15	30	Very Frequent
22	Capitol Hill	Seattle CBD	Madison St	12	1.34	0.46	1	-	98%	28%	12%	1	-	-	-	60	30	30	1	-	-	< 15	15	30	Very Frequent
23	Central District	Seattle CBD	E Jefferson St	3/4	1.48	1.24	1	1	90%	64%	35%	1	1	1	60	30	30	30	1	1	1	< 15	< 15	15	Very Frequent
24	Colman Park	Seattle CBD	Leschi, Yesler	27	0.50	N/A	-	-	14%	N/A	N/A	-	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
25	Cowen Park	Seattle CBD	University Way, I-5	71EX/72EX/73EX/74EX	2.14	1.41	2	1	107%	87%	N/A	2	1	-	60	-	30	30	2	1	-	< 15	< 15	30	Very Frequent
26	Discovery Park	Seattle CBD	Gilman Ave W, 22nd Ave W, Thorndyke Av W	33	0.55	0.30	-	-	22%	20%	0%	-	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
27	Eastgate	Bellevue	Newport Wy , S. Bellevue, 112th	241	0.34	0.28	-	-	19%	12%	0%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
28	Eastgate	Bellevue	Somerset, Factoria, Woodridge	246	0.12	0.12	-	-	7%	5%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
29	Eastgate	Overlake	Phantom Lake	226	0.56	0.61	-	-	33%	20%	4%	-	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
30	Enumclaw	Auburn	Auburn Wy S, SR 164	186/915	0.46	0.22	-	-	12%	8%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
31	Fairwood	Renton	S Puget Dr, Royal Hills	148	0.59	0.37	-	-	19%	12%	0%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
32	Federal Way	SeaTac	SR-99	A Line	0.75	0.74	1	-	50%	44%	31%	-	-	-	60	30	30	30	1	-	-	< 15	15	15	Very Frequent
33	Federal Way	Kent	Military Road	183	0.20	0.22	-	-	12%	8%	N/A	-	-	-	60	-	30	30	-	-	-	15	30	30	Frequent
34	Fremont	Seattle CBD	Dexter Ave N	26/28	1.23	0.45	1	-	70%	26%	32%	1	-	-	60	30	30	30	1	-	-	< 15	15	30	Very Frequent
35	Fremont	U. District	N 40th St	31/32	1.24	1.02	1	1	74%	50%	32%	1	-	-	-	30	30	30	1	1	-	< 15	15	30	Very Frequent
36	Fremont	Whittier Hts	8th Av NW, 3rd Av NW	28	0.71	0.24	-	-	34%	13%	8%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
37	Green River CC	Kent	132nd Ave SE	164	1.02	0.68	1	-	52%	31%	0%	1	-	-	-	-	30	30	1	-	-	15	30	30	Frequent
38	Greenwood	Seattle CBD	Greenwood Ave N	5	1.35	0.56	1	-	53%	37%	51%	1	-	1	-	30	30	30	1	-	1	< 15	15	15	Very Frequent
39	High Point	Seattle CBD	35th Ave SW	21	0.66	0.49	-	-	39%	24%	22%	-	-	-	-	30	30	30	-	-	-	15	15	30	Very Frequent

† Figures rounded for display purposes.

Load Factor*	Peak	Off Peak
1.50	2	2
0.75	1	1

Cost Recovery*	Peak	Off Peak	Night
≥ 100%	2	2	2
≥ 50%	1	1	1
≥ 33%	--	--	1
≥ 16%	--	--	30 min
≥ 8%	--	--	60 min

* Load Factor and Cost Recovery service level improvements move the preliminary levels of service up one or two levels. A cost recovery >8% warrants 60 min. night service, >16% warrants 30 min.

Above Target

Below Target

	Connections				Loads at Preliminary Service Level		Load-Based Service Level Improvements		Cost Recovery at Preliminary Service Level			Cost Recovery-Based Service Level Improvements			Night Service Additions (shown as frequencies)				Service Level Improvements			Final Target Service Levels and Family			
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	PEAK	OFFPEAK	PEAK	OFFPEAK	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	PRIMARY CONNECTIONS BETWEEN URBAN CENTERS	COST RECOVERY BASIS (8% / 16%)	CORRIDOR HAS 15 MIN PEAK SERVICE	ADD WHAT FREQUENCY NIGHT SERVICE?	PEAK	OFFPEAK	NIGHT	**PEAK**	**OFFPEAK**	**NIGHT**	**RESULTING SERVICE FAMILY**
40	Issaquah	Eastgate	Newport Way	271	0.65	0.61	-	-	25%	20%	0%	-	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
41	Issaquah	Overlake	Sammamish, Bear Creek	269	0.35	N/A	-	-	10%	N/A	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
42	Issaquah	North Bend	Fall City, Snoqualmie	208	0.44	0.44	-	-	10%	9%	0%	-	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
43	Kenmore	Kirkland	Juanita	234	0.77	0.39	1	-	19%	13%	0%	-	-	-	-	-	-	-	1	-	-	30	60	0	Local
44	Kenmore	Shoreline	Lake Forest Park, Aurora Village TC	331	1.98	1.00	2	1	29%	28%	N/A	-	-	-	-	-	30	30	2	1	-	15	30	30	Frequent
45	Kenmore	U. District	Lake Forest Park, Lake City	372EX	1.18	0.61	1	-	52%	30%	0%	1	-	-	-	-	30	30	1	-	-	< 15	30	30	Frequent
48	Kent	Burien	Kent-DM Rd, S. 240th St, 1st Av S	166	0.42	0.66	-	-	13%	22%	14%	-	-	-	-	60	30	30	-	-	-	15	30	30	Frequent
49	Kent	Maple Valley	Kent-Kangley Road	168	1.98	0.96	2	1	46%	38%	0%	-	-	-	-	-	30	30	2	1	-	15	30	30	Frequent
50	Kent	Renton	Kent East Hill	169	0.52	0.84	-	1	20%	31%	0%	-	-	-	60	-	30	30	-	1	-	15	15	30	Very Frequent
51	Kent	Seattle CBD	Tukwila	150	0.89	0.55	1	-	37%	28%	23%	-	-	-	60	30	30	30	1	-	-	< 15	15	30	Very Frequent
52	Kent	Renton	84th Av S, Lind Av SW	153	0.34	N/A	-	-	10%	N/A	N/A	-	-	-	60	-	30	30	-	-	-	15	30	30	Frequent
53	Kirkland	Bellevue	South Kirkland	234/235	1.50	0.74	2	-	39%	24%	8%	-	-	-	-	60	30	30	2	-	-	< 15	30	30	Frequent
54	Kirkland	Factoria	Overlake, Crossroads, Eastgate	245	1.38	0.84	1	1	52%	35%	13%	1	-	-	-	60	30	30	1	1	-	15	15	30	Very Frequent
55	Lake City	Seattle CBD	NE 125th St, Northgate, I-5	41	1.88	0.69	2	-	96%	41%	0%	1	-	-	60	-	30	30	2	-	-	< 15	15	30	Very Frequent
56	Northgate	U. District	Lake City, Sand Point	75	0.88	0.64	1	-	55%	35%	27%	1	-	-	-	30	30	30	1	-	-	< 15	30	30	Frequent
57	Lake City	U. District	35th Ave NE	65	1.80	0.55	2	-	104%	30%	16%	2	-	-	-	30	30	30	2	-	-	< 15	30	30	Frequent
58	Laurelhurst	U. District	NE 45th St	25	0.20	0.07	-	-	5%	3%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
59	Madison Park	Seattle CBD	Madison St	11	0.79	0.27	1	-	51%	19%	28%	1	-	-	-	30	30	30	1	-	-	< 15	15	30	Very Frequent
60	Madrona	Seattle CBD	Union St	2	0.96	0.59	1	-	54%	33%	19%	1	-	-	-	30	30	30	1	-	-	< 15	15	30	Very Frequent
61	Magnolia	Seattle CBD	34th Ave W, 28th Ave W	24	0.71	0.20	-	-	36%	11%	14%	-	-	-	-	60	30	30	-	-	-	15	15	30	Very Frequent
62	Mercer Island	S Mercer Island	Island Crest Way	204	0.52	0.15	-	-	20%	8%	N/A	-	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
63	Mirror Lake	Federal Way	S 312th St	901	0.54	0.30	-	-	17%	14%	0%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
64	Mount Baker	Seattle CBD	31st Av S, S Jackson St	14	0.96	0.70	1	-	41%	35%	17%	-	-	-	-	30	30	30	1	-	-	< 15	30	30	Frequent
65	Mountlake Terrace	Northgate	15th Ave NE, 5th Ave NE	347	1.42	0.70	1	-	47%	35%	13%	-	-	-	-	60	-	60	1	-	-	30	60	60	Local
66	Mt Baker	U. District	23rd Ave E	48	1.53	0.68	2	-	93%	36%	45%	1	-	1	-	30	30	30	2	-	1	< 15	15	15	Very Frequent
67	NE Tacoma	Federal Way	SW 356th St, 9th Ave S	182	0.66	0.43	-	-	28%	15%	0%	-	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
68	Northgate	U. District	Roosevelt	66EX/67	0.78	0.48	1	-	42%	26%	33%	-	-	-	60	30	30	30	1	-	-	< 15	15	30	Very Frequent
69	Northgate	Seattle CBD	Green Lake, Wallingford	16	0.92	0.38	1	-	24%	15%	13%	-	-	-	60	60	30	30	1	-	-	< 15	15	30	Very Frequent
70	Northgate	U. District	Roosevelt Way NE, NE 75th St	68	0.85	0.65	1	-	37%	39%	N/A	-	-	-	-	-	30	30	1	-	-	< 15	30	30	Frequent
71	Othello Station	SODO	Columbia City Station	50	0.66	0.54	-	-	38%	15%	6%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
72	Eastgate	Bellevue	Bell-Red Road	226	0.28	0.30	-	-	13%	10%	0%	-	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
73	Overlake	Bellevue	Sammamish Viewpoint, Northup Way	249	0.44	0.24	-	-	23%	7%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
74	Pacific	Auburn	Algona	917	0.26	0.12	-	-	7%	3%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
75	Queen Anne	Seattle CBD	Queen Anne Ave N	2/13	1.18	0.61	1	-	72%	35%	40%	1	-	1	-	30	30	30	1	-	1	< 15	15	15	Very Frequent
76	Queen Anne	Seattle CBD	Taylor Ave N	3/4	0.94	0.60	1	-	72%	34%	35%	1	-	1	-	30	30	30	1	-	1	< 15	15	15	Very Frequent
77	Rainier Beach	Seattle CBD	Rainier Ave	7	1.22	0.94	1	1	72%	67%	51%	1	1	1	-	30	30	30	1	1	1	< 15	< 15	15	Very Frequent
78	Rainier Beach	Seattle Center	MLK Jr Wy, E John St, Denny Way	8	0.66	0.50	-	-	47%	33%	23%	-	-	-	60	30	30	30	-	-	-	15	15	30	Very Frequent
79	Rainier Beach	Capitol Hill	Rainier Ave	9EX	0.86	0.28	1	-	39%	17%	N/A	-	-	-	-	-	30	30	1	-	-	< 15	15	30	Very Frequent
80	Redmond	Eastgate	148th Ave, Crossroads, Bellevue College	221	0.42	0.43	-	-	18%	13%	0%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local

† Figures rounded for display purposes.

Corridors 46 and 47 lost all service with the deletion of routes 935 and 909 and are thus not included in this table.

Load Factor*	Peak	Off Peak
1.50	2	2
0.75	1	1

Cost Recovery*	Peak	Off Peak	Night
≥ 100%	2	2	2
≥ 50%	1	1	1
≥ 33%	--	--	1
≥ 16%	--	--	30 min
≥ 8%	--	--	60 min

* Load Factor and Cost Recovery service level improvements move the preliminary levels of service up one or two levels. A cost recovery >8% warrants 60 min. night service, >16% warrants 30 min.

Above Target

Below Target

	Connections				Loads at Preliminary Service Level		Load-Based Service Level Improvements		Cost Recovery at Preliminary Service Level			Cost Recovery-Based Service Level Improvements			Night Service Additions (shown as frequencies)				Service Level Improvements			Final Target Service Levels and Family			
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	PEAK	OFFPEAK	PEAK	OFFPEAK	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	PRIMARY CONNECTIONS BETWEEN URBAN CENTERS	COST RECOVERY BASIS (8% / 16%)	CORRIDOR HAS 15 MIN PEAK SERVICE	ADD WHAT FREQUENCY NIGHT SERVICE?	PEAK	OFFPEAK	NIGHT	**PEAK**	**OFFPEAK**	**NIGHT**	**RESULTING SERVICE FAMILY**
81	Redmond	Totem Lake	Willows Road	930	0.16	N/A	-	-	4%	N/A	N/A	-	-	-	60	-	30	30	-	-	-	15	30	30	Frequent
82	Redmond	Fall City	Duvall, Carnation	224	0.17	0.09	-	-	4%	3%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
83	Renton	Burien	S 154th St	F Line	0.26	0.44	-	-	18%	25%	9%	-	-	-	60	60	30	30	-	-	-	< 15	15	15	Very Frequent
84	Renton	Seattle CBD	MLK Jr Wy, I-5	101/102	1.88	0.40	2	-	72%	19%	28%	1	-	-	60	30	30	30	2	-	-	< 15	15	30	Very Frequent
85	Renton	Rainier Beach	West Hill, Rainier View	107	0.98	0.46	1	-	40%	16%	9%	-	-	-	-	60	30	30	1	-	-	15	30	30	Frequent
86	Renton	Seattle CBD	Skyway, S. Beacon Hill	106	0.82	0.26	1	-	38%	15%	18%	-	-	-	-	30	30	30	1	-	-	< 15	15	30	Very Frequent
87	Renton	Renton Highlands	NE 4th St, Union Ave NE	105	0.30	0.37	-	-	15%	19%	13%	-	-	-	-	60	30	30	-	-	-	15	30	30	Frequent
88	Renton	Enumclaw	Maple Valley, Black Diamond	143/907	0.82	0.11	1	-	16%	2%	N/A	-	-	-	-	-	-	-	1	-	-	30	60	0	Local
89	Renton Highlands	Renton	NE 7th St, Edmonds Av NE	908	0.11	0.10	-	-	5%	2%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
90	Richmond Beach	Northgate	Richmond Bch Rd, 15th Ave NE	348	0.74	0.42	-	-	27%	18%	0%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
91	S Vashon	N Vashon	Valley Center	118	1.24	0.20	1	-	20%	8%	0%	-	-	-	-	-	-	-	1	-	-	30	60	0	Local
92	Sand Point	U. District	NE 55th St	30	0.21	N/A	-	-	12%	N/A	N/A	-	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
93	Shoreline	U. District	Jackson Park, 15th Av NE	373EX	0.44	N/A	-	-	24%	N/A	N/A	-	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
94	Shoreline CC	Northgate	N 130th St, Meridian Av N	345	0.73	0.55	-	-	32%	25%	0%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
95	Shoreline CC	Lake City	N 155th St, Jackson Park	330	0.10	0.20	-	-	13%	11%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
96	Shoreline CC	Greenwood	Greenwood Av N	5	1.35	0.56	1	-	53%	37%	13%	1	-	-	-	60	30	30	1	-	-	15	30	30	Frequent
97	Totem Lake	Seattle CBD	Kirkland, SR-520	255	1.61	0.78	2	1	48%	38%	0%	-	-	-	60	-	30	30	2	1	-	< 15	15	30	Very Frequent
98	Woodinville	Kirkland	Kingsgate	236	0.56	0.38	-	-	17%	13%	0%	-	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
99	Tukwila	Seattle CBD	Pacific Hwy S, 4th Ave S	124	0.62	0.26	-	-	25%	15%	18%	-	-	-	60	30	30	30	-	-	-	15	15	30	Very Frequent
100	Tukwila	Des Moines	McMicken Heights, Sea-Tac	156	0.18	0.32	-	-	8%	13%	0%	-	-	-	60	-	30	30	-	-	-	15	30	30	Frequent
101	Tukwila	Fairwood	S 180th St, Carr Road	906	0.28	0.34	-	-	7%	6%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
102	Twin Lakes	Federal Way	SW Campus Dr, 1st Ave S	903	0.64	0.25	-	-	15%	6%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
103	Twin Lakes	Federal Way	S 320th St	187	0.44	0.18	-	-	22%	10%	0%	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
104	U. District	Seattle CBD	Eastlake, Fairview	70/71/72/73	1.26	0.50	1	-	65%	30%	55%	1	-	1	60	30	30	30	1	-	1	< 15	15	15	Very Frequent
105	U. District	Seattle CBD	Broadway	49	0.94	0.56	1	-	55%	40%	76%	1	-	1	60	30	30	30	1	-	1	< 15	15	15	Very Frequent
106	U. District	Bellevue	SR-520	271	1.11	0.60	1	-	47%	20%	0%	-	-	-	60	-	30	30	1	-	-	< 15	15	30	Very Frequent
107	U. District	Seattle CBD	Lakeview	25	0.40	0.14	-	-	10%	6%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
108	UW Bothell	Redmond	Woodinville, Cottage Lake	931	0.24	N/A	-	-	9%	N/A	N/A	-	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
109	UW Bothell/CCC	Kirkland	132nd Ave NE, Lk Wash Voch Tech	238	0.28	0.32	-	-	9%	9%	N/A	-	-	-	-	-	-	-	-	-	-	30	30	0	Local
110	Wedgwood	Cowen Park	View Ridge, NE 65th St	71EX	1.21	0.81	1	1	54%	48%	0%	1	-	-	-	-	-	-	1	1	-	30	30	0	Local
111	West Seattle	Seattle CBD	Fauntleroy, Alaska Junction	C Line	1.82	0.88	2	1	58%	34%	22%	1	-	-	-	30	30	30	2	1	-	< 15	< 15	15	Very Frequent
112	White Center	Seattle CBD	16th Ave SW, SSCC	125	0.68	0.74	-	-	24%	24%	13%	-	-	-	-	60	30	30	-	-	-	15	30	30	Frequent

† Figures rounded for display purposes.

Load Factor*	Peak	Off Peak
1.50	2	2
0.75	1	1

Cost Recovery*	Peak	Off Peak	Night
≥ 100%	2	2	2
≥ 50%	1	1	1
≥ 33%	--	--	1
≥ 16%	--	--	30 min
≥ 8%	--	--	60 min

* Load Factor and Cost Recovery service level improvements move the preliminary levels of service up one or two levels. A cost recovery >8% warrants 60 min. night service, >16% warrants 30 min.

Above Target

Below Target