King County METRO

2016 System Evaluation

Annual Service Guidelines Report

September 2016

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King County
METRO

We'll Get You There

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Where do we provide service?

Our service network is made up of corridors connecting centers

CENTERS

Transit centers and places where many people work, live or go for services or activities

86 centers across King County today

CORRIDORS

112 Metro corridors serve centers today

ALL-DAY AND PEAK NETWORK

These 112 corridors create Metro's all-day transit network. Metro provides additional peak-only service to meet demand.

Corridor analysis: How much service should we provide?

Target service levels are set in two steps

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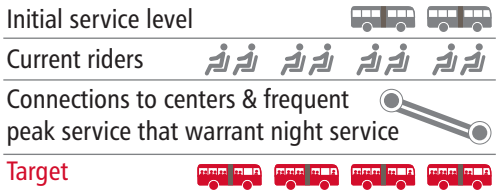
Productivity (jobs & households)

Social Equity (low-income & minority riders)

Geographic Value (connections to centers)

Initial Service Level

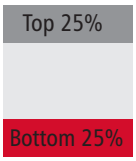
DOES INITIAL SERVICE LEVEL PROVIDE ENOUGH BUSES?



Route performance analysis: How is service performing?

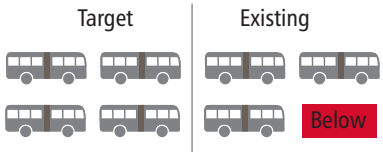
Overcrowding
Avg. max passenger load < crowding threshold
Standing load < 20 min all service

Service Reliability
< 5 minutes late



Route Productivity
Rides/Hr.
Pass.miles/mile

Peak-only Criteria
Travel time
Ridership



Comparison of Target and Existing Service

Above | At | Below

How should we change service?

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 contained in the Service Guidelines
- Meet investment priorities

Service change proposals

EXECUTIVE SUMMARY

This 2016 System Evaluation (called the Annual Service Guidelines Report in previous years) presents Metro Transit's assessment of our 2016 All-Day and Peak-Only Network. Using our adopted service guidelines, we analyzed data from the September 26, 2015 to March 25, 2016 service period (unless otherwise noted).

This period pre-dates the March 2016 restructure of Metro service around Sound Transit's extension of Link to Capitol Hill and the University of Washington (U-Link restructure), so that restructure is not reflected in the data. However, when calculating final investment needs, we made adjustments based on this restructure and on investments planned for fall 2016.

Based on the results, we set target service levels for the corridors where we provide service, and then identified where service-hour investments are needed to meet or move toward the targets. We also analyzed the performance of 186 Metro bus routes and the South Lake Union Streetcar, identifying where investments are needed to improve service quality by reducing passenger crowding and keeping buses on schedule.

The report also includes an annual report on alternative services performance and a status update on the development of the Alternative Services Program.

This year's report incorporates policy revisions and changes to analytic methodologies that were recommended by the Service Guidelines Task Force in 2015 and approved by the King County Council in June 2016. These revisions modified how Metro evaluates transit service performance. In particular, the corridor analysis now places stronger emphasis on social equity and on geographic value. These changes affect the target amount of bus service Metro should provide throughout the county and the investment needed to meet that target.

The report's findings were also affected by a number of recent developments. These include substantial service investments made by the City of Seattle and Metro in June and September 2015, continuing growth in population and employment in our region, and worsening traffic congestion. These changes affect ridership as well as crowding on buses and schedule reliability.

Investment needs

The 2016 system evaluation found a total estimated need of approximately 519,450 annual service hours to meet Metro's service quality objectives and target service levels after making adjustments for the 2016 restructure and service investments. This need represents an increase of about 14 percent above the size of the system in fall 2015 through winter 2016.

TABLE 1

2016 Investment Needs

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

Priority	Investment Purpose	Estimated Annual Hours Needed
1	Reduce passenger crowding	12,800
2	Improve schedule reliability	18,350
3	Increase service to meet target service levels on corridors in the All-Day and Peak-Only Network	488,300
	Total investment need	519,450
4	Increase service on highly productive routes: A substantial portion of the growth needed to meet the *Transportation 2040* goals (an additional 2.5 million annual service hours) will be on highly productive services.	

Changes in investment needs since 2015

The total investment need of 519,450 annual service hours is more than the 471,650 hour need identified in the 2015 analysis. This increase was expected because of the changes made to the service guidelines in response to the Service Guidelines Task Force recommendations. The changes are detailed on page 7.

Investment priorities 1 and 2: Service quality needs. Over the past 18 months, Metro and the City of Seattle made investments to meet previously identified needs to reduce crowding and improve reliability. Total 2016 service quality needs are 20 percent lower than last year's. Compared to 2015, annual service hours needed to reduce passenger crowding decreased 11 percent, from 14,400 to 12,800; hours needed to improve schedule reliability decreased 22 percent, from 23,550 to 18,350.

Our continued identification of crowded services this year reflects ridership growth—stemming in part from our service investments—and the standardization of our passenger crowding methodology (see Section 1, Route Performance Analysis). Crowding is spread fairly evenly throughout the county, reflecting high demand countywide for services connecting to the densest areas of the county.

The ability of buses to arrive on time was negatively affected by record ridership, roadway congestion, and construction impacts—despite substantial investments to improve reliability. We noted some significant declines in PM peak reliability, particularly on routes 308, 303 Express, 113, 107, 18 Express, 197, 148, 9 Express, and 249. Service-hour investments to improve reliability can do only so much, so Metro will be looking for opportunities to partner with local governments to make capital improvements, such as bus lanes and transit signal priority, that help buses move through congestion better.

Investment priority 3: Service to meet corridor target service levels. Target service levels represent the amount of service Metro ought to provide on transit corridors in our All-Day and Peak-Only Network. We determine the target levels using indicators of productivity, social equity, and geographic value. Meeting target service levels typically requires the addition of many trips in one or more time periods of the day, or complete revisions of route schedules.

Most of the increase in service-level need stemmed from the changes in how we conduct the corridor analysis, made in response to the Service Guidelines Task Force recommendations. Additional factors are now included in the analysis, and corridors can earn a range of points on each factor, in contrast to the previous method which awarded points in an "all or nothing" manner. (See page 7 for more details.) Target service levels changed for some corridors as a result of changes in ridership, land use, and the distribution of low-income and minority populations in King County.

Investment priority 4: Highly productive routes. Investment in highly productive services is the fourth investment priority. Of the 187 routes evaluated, 80 were in the top 25 percent on one or both of our 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; many are targeted for investment to address these issues, while others receive investment when a service restructure is undertaken.

The regional context

The total 519,450 hour investment need represents only part of the transit growth expectation in the Puget Sound region's Transportation 2040 plan. To meet the plan's target, Metro would have to increase the amount of service it provides by approximately 2.5 million hours. Metro's proposed long-range plan, METRO CONNECTS, has identified corridors throughout the county where significant investment will be required to support projected growth in jobs and population. Metro will continue to use the service guidelines to evaluate system performance and identify near-term investment needs.

Alternative Services

This report also reviews the performance and progress of Metro's Alternative Services Program, which 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.

Metro at a Glance (2015)

Service area:	2,134 square miles
Population:	2.05 million (est.)
Employment:	1.1 million (est.)
Fixed-route ridership:	121.8 million
Vanpool ridership:	3.6 million
Access ridership:	1.3 million
Annual service hours:	3.7 million
Active fleet:	1,472
Bus stops:	over 8,000
Park-and-rides:	130
Park-and ride spaces:	25,468

This program expanded over the past year with the successful launch of three innovative service solutions: Real-Time Rideshare, Community Van, and TripPool. These services expand on the success of three Community Shuttles launched in 2015 (Snoqualmie Valley, Mercer Island, and Burien). The two community shuttles for which historical data is available experienced mostly steady ridership compared to 2015; the Snoqualmie Valley Shuttle saw a slight increase, while the Upper Snoqualmie Valley service saw a slight decrease.

Metro continues to conduct outreach in partner communities—Redmond, southeast King County, Vashon Island, Bothell and Woodinville, Kenmore and Kirkland, Sammamish, and Lake Forest Park and Shoreline. We are collaborating with these and other communities to learn about transportation needs and gaps and then develop customized mobility solutions.

INTRODUCTION

This 2016 System Evaluation includes the following information to fulfill reporting requirements:

- Analysis of Metro's 2016 All-Day and Peak-Only Network, as required by King County Ordinance 17143
- An annual report on Alternative Services performance, as required by Motion 13736

About the service guidelines

Metro 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.

The Strategic Plan and Service Guidelines have been updated several times since then. The most recent amendments were proposed in 2015 and adopted by the King County Council in June 2016. Many of these changes responded to recommendations from the 2015 Service Guidelines Task Force. The Service Guidelines revisions modify how we evaluate transit service. In particular, the analysis of transit corridors places stronger emphasis on social equity and on geographic value. These changes affect the target amount of bus service Metro should provide throughout the county and the investment need required to meet that target.

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.

The service guidelines balance productivity and fairness. 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.

For more information about the Service Guidelines Task Force, visit http://kingcounty.gov/metro/serviceguidelinestaskforce.

For more information about Metro's Strategic Plan and Service Guidelines, visit http://kingcounty.gov/metro/strategicplan.

This is the sixth annual service guidelines report, now titled System Evaluation. It presents the results of our analysis of data for the Metro system from the Sept. 26, 2015 to March 25, 2016 service change period (unless otherwise noted) and identifies services that are candidates for investment, change, or reduction. It serves as a snapshot of Metro service in one six-month period. Previously, we produced the report based on spring data, but we now have only two rather than three service changes per year. To meet reporting requirements, we now analyze fall/winter data.

When Metro makes service decisions to match budget projections—whether resources are shrinking, stable, or growing—the service guidelines help by identifying investment and reduction 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, and they were used to program investments in 2016. 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:

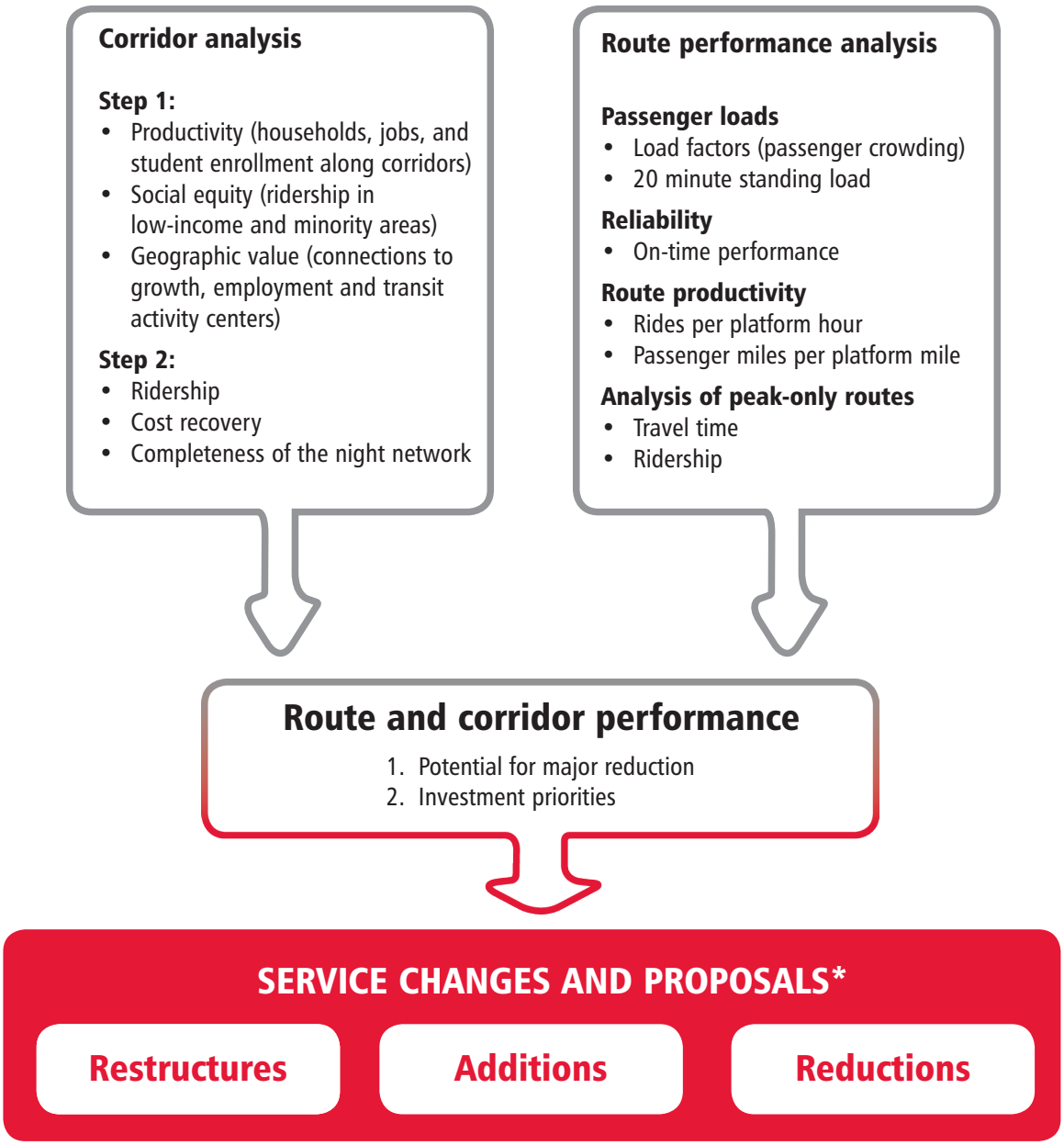
- **Where should service be provided?** The Corridor Analysis portion of Section 1 presents the results of our analysis of transit corridors throughout the county that determines how well they are being served and where need exists.
- **How is my route doing?** The Route Performance Analysis portion of Section 1 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 2 provides information about the performance of alternative services and steps we are taking to expand these services.
- **What potential changes to policies are on the horizon?** Section 3 briefly covers potential future changes to the guidelines, including preliminary ideas about how the guidelines would interface with Metro's proposed long-range plan, METRO CONNECTS.

Figure 1, on page 6, summarizes how we analyze the transit system. We review the results to estimate and prioritize investment needs. The analysis also guides service restructures and reductions when they become necessary.

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

FIGURE 1

Metro Service Guidelines Process



***Service Design Principles** contained in the Service Guidelines guide changes to the system and are considered when we plan for service changes.

Changes to the Service Guidelines

Based on recommendations from the Service Guidelines Task Force, the King County Council adopted the following changes to the service guidelines in 2016. We used the updated guidelines to produce this report, and some scores were affected as a result.

- **Corridor productivity.** One policy change affected corridor productivity: we now count park-and-ride stalls (weighted by an average occupancy factor of 1.1) alongside the number of households served by each corridor. Many corridors serving park-and-rides saw productivity score increases this year. Overall, shifts in scores this year were minor, with only one corridor losing or gaining more than two points: corridor 51 (Route 150 between Kent Station and downtown Seattle) saw a large increase in both households and jobs and gained four productivity points.
- **Social equity.** Two policy changes affected this portion of the corridor analysis:
  - The definition of "low income" changed from 100 percent to 200 percent of the federal poverty level to align with other programs and policies.
  - Previously, corridors would receive either zero or five points for each of the social equity categories (low income and minority). Now, corridors can score either zero, three, or five points. This change was designed to prevent large swings in scores from year to year resulting from relatively minor changes in the demographic landscape.

  These policy changes shuffled scores around, but ultimately resulted in a net increase in social equity scores systemwide. When changes to demographics were taken into account, two corridors received fewer minority points (losing only two points, whereas previously they would have lost all five), while 12 corridors' scores increased. Six corridors received lower low-income scores, while 19 received higher low-income scores.
- **Geographic value.** The updates to the Service Guidelines significantly revamped this measure. All corridors that serve any designated center now receive at least two points. Primary connections between transit activity centers receive five points, while primary connections between activity centers and regional centers receive seven points. Primary connections between regional centers receive 10 points. This change had by far the largest impact on corridor scores. A total of 76 corridors received more points than last year, with the average increase being 3.7 points.
- **Service types.** Routes are classified into groups so that when we look at their productivity, only like routes are compared. The previous system had two groups: Seattle core and non-Seattle core. The names of these groups were changed, and a third category for DART and shuttle service was added to better reflect the value of these services:
  - **Urban** routes, which connect to the greater downtown Seattle area and the University District, including commuter routes.
  - **Suburban** routes, which operate in other areas of Seattle and King County.
  - **DART** and shuttle services, which serve more rural areas and specialized markets.

    Urban routes are expected to perform at a higher level because their market potential is greater than Suburban routes. DART routes and shuttles are evaluated separately as they have characteristics that set them apart from traditional fixed-route service and add value where traditional, big-bus service is inefficient.
- **Crowding.** This year, we standardized the way we measure crowding so that each type of bus in our diverse fleet is measured fairly against the others. Since different buses have different numbers of seats, we moved away from a seats-based metric to an area-based metric. A crowding threshold is computed for each type of bus based on the number of seats and the space available for standing.

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-Only 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.

In previous years, corridors that exceeded the countywide average scored social equity points and were designated as low-income and/or minority corridors, while corridors below the average did not receive points. This year, corridors that exceed the countywide average still receive the most social equity points, but corridors just below the average also receive some points. This change results in a greater number of corridors being classified as low income and minority.

We also changed our definition of low income from 100 percent to 200 percent of the federal poverty level to align with other programs and policies and to include a larger proportion of transit-dependent populations.

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 for each corridor. 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. Table 2 shows the findings of the 2016 System Evaluation 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 2015, the investment needed to reduce crowding on minority and low-income routes increased proportionally, while the investment needed to improve reliability proportionally remained about the same. The investment needed to meet target service levels on low-income and minority corridors increased in both absolute and proportional terms; this is due in large part to an increase in the number of corridors designated as low-income and/or minority that has resulted from the policy changes outlined above.

TABLE 2

2016 Investment Needs Systemwide and on Minority and Low-income Routes

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	12,800	6,500	50%	4,000	31%
Schedule reliability	18,350	10,350	56%	10,400	57%
Meeting target service levels	488,300	394,700	81%	346,700	71%

We also consider historically disadvantaged populations and people who depend on transit when we develop proposals to add, reduce, or revise service. We continuously 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.

Our updated Service Guidelines outline other ways we avoid disproportionate impacts, including by conducting 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 our service change planning.

We follow the requirements and guidance of the following policy measures:

- 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.
- King County 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 changes to service 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.

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

TABLE 3

Number of Corridors Serving Centers

Primary Connections	Number of Corridors
Between regional growth centers and manufacturing/industrial centers	31
Between a transit activity center and a regional growth center and manufacturing/industrial center	43
Between transit activity centers	7
Other Connections	**Number of Corridors**
Serving any center (other than those already counted)	29

The guidelines also incorporate geographic value by classifying routes by service type, so that we compare similar routes when assessing route productivity. (See map in Appendix B.)

What changed?

The definition of "low income" changed from 100 percent to 200 percent of the federal poverty level.

Corridors have more opportunity to receive low-income and minority points.

Geographic value has a higher emphasis; all corridors connecting centers are valued.

Park-and-ride stalls are now included in the productivity measure.

SECTION 1

CORRIDOR ANALYSIS

The Service Guidelines establish transit corridors throughout the county that make up the All-Day and Peak-Only Network. Each of these corridors is assigned a target service level (how often the bus comes) based on a two-step process. The first step sets an initial service level based on productivity, social equity, and geographic value. The second step ensures that existing riders can be accommodated by the initial service level and, if not, raises the service level to arrive at the final target service level. Target service levels at night can also be increased in step 2, depending on the frequency of each corridor's service in the peak period and the connections between centers that each corridor provides. Table 4 shows the typical 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 H.

The data analyzed is from the Sept. 26, 2015–March 25, 2016 service period, so it reflects the service additions made in June and September 2015. Based on this data, no corridors had their routing changed since the last reporting period; corridors affected by the March 2016 U-Link restructure and the September 2016 southeast Seattle restructure will be addressed in next year's report. We used this data to comply with reporting timelines, as we now have only two service changes per year. When calculating investment needs, the additional service investments made in 2016, including the U-Link restructure, were taken into account.

TABLE 4

Summary of Typical Service Levels

Service family	Service Level: Frequency (minutes)			Days of service	Hours of service
	Peak*	Off-peak	Night		
Very frequent	15 or more frequent	15 or more frequent	30 or more frequent	7 days	16-24 hours
Frequent	15 or more frequent	30	30	7 days	16-24 hours
Local	30	30–60	**	5-7 days	12-16 hours
Hourly	60	60	--	5 days	8-12 hours
Peak	8 trips/day minimum	--	--	5 days	Peak
Alternative services	Determined by demand and community collaboration process				

* 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.

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 corridor analysis evaluates and sets target service levels for the corridors making up the All-Day and Peak-Only Network.

Routes are the actual bus services provided. Service within a single corridor might be provided by multiple bus routes. For example, the corridor between Renton and Enumclaw via Maple Valley and Black Diamond is served by two different routes, 143X and 907. 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).

Changes to land-use patterns, demographics, and the transit network produce fluctuations in the corridor analysis from year to year. Corridor scores are detailed in Appendix H and are summarized below.

After taking the 2016 restructures and service investments into account, we identified an estimated need of 488,300 annual service hours to bring corridors to their target service levels (priority 3). Our analysis found that 59 corridors are below target service levels in one or more time periods. Sixteen corridors are new to this list.

This year's identified need is higher than the 2015 need of 433,700 annual service hours. Most of this increase in need is due to the policy changes explained earlier, and we expected the increase to be quite a bit larger. However, the effects of the policy changes were mitigated by recent investments and restructures and by redeploying service hours gained by integrating with Link light rail. These activities reduced the investment need by about 96,000 annual service hours.

Table 5 lists the corridors that still have investment need; they are also shown in Figure 2. Some corridors' primary routes were deleted after our data collection period; in these cases, the new primary route is shown in parentheses.

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 service investments are equitably distributed and productive.

Compared to last year, the analysis resulted in more corridors being identified for very frequent or frequent service, which also means that more corridors were identified as below their target service levels (hence the growth in the number of corridors with investment needs). Final target service levels for each corridor, along with scoring details, are listed in Appendix G.

TABLE 5

2016 Corridors Below Target Service Levels and Estimated Hours to Meet Service Level Targets, Ordered by Investment Priority

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

Corridor number	Between	And	Major route	Estimated hours to meet target
18	Burien	Seattle CBD	131	13,500
20	Capitol Hill	White Center	60	18,300
51	Kent	Seattle CBD	150	7,600
84	Renton	Seattle CBD	101/102	7,300
50	Kent	Renton	169	12,900
83	Renton	Burien	F Line	4,800
81	Redmond	Totem Lake	930	10,900
3	Auburn	Burien	180	9,100
4	Auburn/GRCC	Federal Way	181	6,500
33	Federal Way	Kent	183	12,800
52	Kent	Renton	153	13,900
41	Issaquah	Overlake	269	26,200
100	Tukwila	Des Moines	156	5,000
38	Greenwood	Seattle CBD	5	4,800
61	Magnolia	Seattle CBD	24	10,600
35	Fremont	U. District	31/32	4,100
92	Sand Point	U. District	30 (74EX)	22,500
19	Burien	Seattle CBD	132	15,300
93	Shoreline	U. District	373EX	32,600
86	Renton	Seattle CBD	106	7,400
112	White Center	Seattle CBD	125	8,800
94	Shoreline CC	Northgate	345	4,800
73	Overlake	Bellevue	249	12,400
87	Renton	Renton Highlands	105	6,300
6	Aurora Village	Northgate	346	4,700
16	Bellevue	Renton	240	10,400
90	Richmond Beach	Northgate	348	6,400
7	Avondale	Kirkland	248	4,200
54	Kirkland	Factoria	245	7,400
2	Alki	SODO	50	7,400
37	Green River CC	Kent	164	5,900
80	Redmond	Eastgate	221	8,200
1	Admiral District	Southcenter	128	9,100
31	Fairwood	Renton	148	5,200
48	Kent	Burien	166	5,500
101	Tukwila	Fairwood	906	15,200
49	Kent	Maple Valley	168	7,500
82	Redmond	Fall City	224	7,600

Corridor number	Between	And	Major route	Estimated hours to meet target
108	UW Bothell	Redmond	931	3,600
30	Enumclaw	Auburn	186/915	3,800
42	Issaquah	North Bend	208	10,200
88	Renton	Enumclaw	143/907	2,500
95	Shoreline CC	Lake City	330	3,300
44	Kenmore	Shoreline	331	9,800
24	Colman Park	Seattle CBD	27	7,700
64	Mount Baker	Seattle CBD	14	11,400
26	Discovery Park	Seattle CBD	33	4,300
72	Overlake	Bellevue	226	6,800
27	Eastgate	Bellevue	241	4,700
58	Laurelhurst	U. District	25 (78)	4,000
28	Eastgate	Bellevue	246	6,100
71	Othello Station	SODO	50	7,400*
89	Renton Highlands	Renton	908	3,000
102	Twin Lakes	Federal Way	903	1,700
103	Twin Lakes	Federal Way	187	1,300
74	Pacific	Auburn	917	3,100
91	S Vashon	N Vashon	118	1,200
46	Totem Lake	Finn Hill, Juanita	--**	9,500
47	Kennydale	Renton	--**	7,200
			Total	**488,300**

* Identical to need on corridor 2

** Corridors 46 and 47 do not have service along the full extent of the corridor. This precludes analyzing and ranking these corridors in the same way as all other corridors. Therefore, Metro may invest in these two corridors irrespective of their current ranking, but rather based on historical data. The need shown for these two corridors reflects the service hours required to provide 60-minute service in the peak and off-peak time periods.

Corridors that received investments in 2016 to help meet target service levels are listed in Table 6.

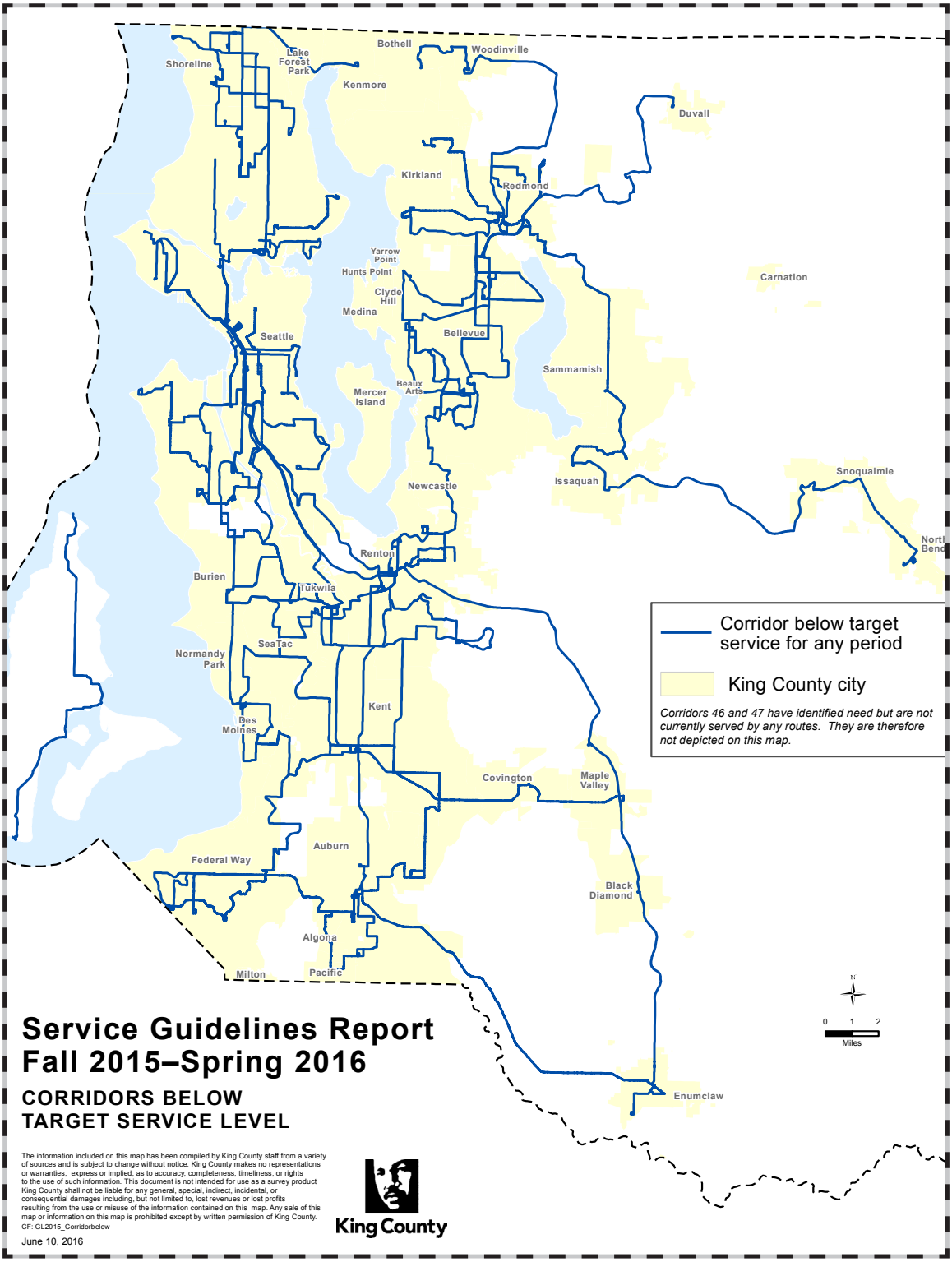
TABLE 6

Corridors that Received 2016 Service Investments

Corridor ID	Major Route	Between	And	Via
16	240	Bellevue	Renton	Newcastle, Factoria
38	5	Greenwood	Seattle CBD	Greenwood Ave N
56	75	Northgate	U District	NE 45th St
57	65	Lake City	U District	35th Ave NE
69	16 (62)	Northgate	Seattle CBD	Green Lake, Wallingford
84	101/102	Renton	Seattle CBD	MLK Jr Way, I-5
86	106	Renton	Seattle CBD	Skyway, S. Beacon Hill
93	373EX	Shoreline	U. District	Jackson Park, 15th Ave NE
99	124	Tukwila	Seattle CBD	Pacific Hwy S, 4th Ave S
105	49	U. District	Seattle CBD	Broadway

FIG. 2

2016 Corridors Below Target Service Levels



The complete network: integration with Sound Transit

Metro's efforts to integrate with Sound Transit continue, following King County Executive Dow Constantine's June 2014 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 (www.kingcounty.gov/metro/accountability). This report identifies efficiencies, potential savings, and ways Metro can deliver better transit service. It lays the foundation for coordination to optimize investments in rail and high-capacity bus service. The report also identifies both short- and long-term actions to coordinate and integrate planned and new services, and find "efficiency dividends" through this integration. The report provides specific suggestions for improved integration in the following areas:

- Short-term integration
- Long-term integration
- Rider engagement and information
- Capital facilities
- Operational efficiencies

Metro and Sound Transit worked closely to restructure service when Link light rail opened on Capitol Hill and at the University of Washington, extending mobility benefits to more people in those areas and beyond. Both agencies have also coordinated long-range planning and outreach efforts to ensure that future plans reflect an integrated network that serves the needs of King County residents. As Link light rail is built out, Metro will work with Sound Transit in capital facilities planning to improve multimodal access to transit and to enable smooth transfers between buses and light rail.

Key corridors in King County where Sound Transit is the primary provider of two-way, all-day transit service are listed in Table 7. In many of these corridors, Metro operates mainly peak service that complements Sound Transit's all-day service.

TABLE 7

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
University District	Downtown Seattle	Capitol Hill	Link light rail

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 integrate other existing services to maximize mobility.

ROUTE PERFORMANCE ANALYSIS

Metro analyzes the performance of bus routes using several metrics.

- First, we assess service quality by measuring passenger crowding and reliability (the lateness of buses). 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 to determine which routes are heavily used.
- Finally, we analyze peak-only routes to ensure that 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 Sept. 26, 2015–March 25, 2016 service period, unless otherwise noted, and the investment needs are adjusted for 2016 service investments and the U-Link restructure.

Crowding (Priority 1)

What changed?

The measurement of crowding was standardized so all buses are treated equally.

Investing 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. Crowding is defined as a trip that, on average, either exceeds a threshold based on the number of seats and the space available for standing, or has people standing for longer than 20 minutes. The crowding 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.

This year, we identified a total need of 12,800 annual service hours to relieve crowding. Table 8 and Figure 3 identify routes that need additional trips to reduce crowding after taking the 2016 service investments into account. While the guidelines provide 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 8

Priority 1: Routes Needing Investment to Reduce Passenger Crowding

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

Route	Description	Day	Annual Hours Needed
D Line	Crown Hill–Ballard-Seattle Center–Seattle CBD	Weekday	1,050
5	Shoreline CC–Seattle CBD	Weekday	300
14	Mount Baker–Seattle CBD	Weekday	250
15EX	Blue Ridge–Ballard–Seattle CBD	Weekday	400
18EX	North Beach–Ballard–Seattle CBD	Weekday	350
24	Magnolia–Seattle CBD	Weekday	250
101	Renton TC–Seattle CBD	Weekday	300
102	Fairwood–Renton TC–Seattle CBD	Weekday	450
116EX	Fauntleroy Ferry–Seattle CBD	Weekday	450
118EX	Tahlequah–Vashon	Weekday	700
119	Dockton–Vashon	Weekday	200
122	Highline CC–Burien TC–Seattle CBD via Des Moines Memorial Dr S	Weekday	500
125	Westwood Village–Seattle CBD	Weekday	200
128	Southcenter–Westwood Village–Admiral District	Weekday	500
132	Burien TC–South Park–Seattle CBD	Weekday	350
158	Kent East Hill–Seattle CBD	Weekday	550
167	Renton–Newport Hills–University District	Weekday	900
177	Federal Way–Seattle CBD	Weekday	450
212	Eastgate–Seattle CBD	Weekday	700
216	Sammamish–Seattle CBD	Weekday	500
219	Redmond–Sammamish–Seattle CBD	Weekday	550
252	Kingsgate–Seattle CBD	Weekday	400
255	Brickyard–Kirkland TC–Seattle CBD	Weekday	750
257	Brickyard–Seattle CBD	Weekday	400
268	Redmond–Seattle CBD	Weekday	500
271	Issaquah–Bellevue–University District	Weekday	400
355EX	Shoreline CC–University District–Seattle CBD	Weekday	450
		Total	**12,800**

Routes receiving investments in 2016 to relieve passenger crowding are listed in Table 9.

TABLE 9

Routes Receiving 2016 Service Investments to Relieve Passenger Crowding

Route	Description
C Line	Westwood Village – Alaska Junction – South Lake Union
E Line	Aurora Village – Seattle CBD
15EX	Blue Ridge – Ballard – Seattle CBD
27	Colman Park – Leschi Park – Seattle CBD
62	Sand Point – Green Lake – Seattle CBD
67	Northgate TC – University District
76	Wedgwood – Seattle CBD
101	Renton TC – Seattle CBD
214	Issaquah – Seattle CBD
218	Issaquah Highlands – Seattle CBD
240	Bellevue – Newcastle – Renton
301EX	Aurora Village – Seattle CBD
372EX	Woodinville – Lake City – University District

Route	Description
D Line	Ballard – Seattle Center – Pioneer Square
5	Shoreline CC – Seattle CBD
21EX	Arbor Heights – Westwood Village – Seattle CBD
40	Northgate TC – Ballard – Seattle CBD via Leary Ave NW
65	Jackson Park – Lake City – University District
75	Northgate TC – Lake City – Seattle CBD
77	North City – Seattle CBD
120	Burien TC – Westwood Village – Seattle CBD
216	Sammamish – Seattle CBD
219	Redmond – Sammamish – Seattle CBD
255	Brickyard – Kirkland TC – Seattle CBD
316	Meridian Park – Seattle CBD

Overall need decreased about 11 percent from last year.[2] We identified a total of 27 routes as having chronic crowding issues; 21 routes are new to the list, a result of standardizing our measurement. Crowding is spread fairly evenly throughout the county, reflecting high demand countywide for services connecting to the densest areas of the county. Metro and Seattle investments in popular, crowded routes induce more demand, much in the same way that widening a highway induces more people to drive.

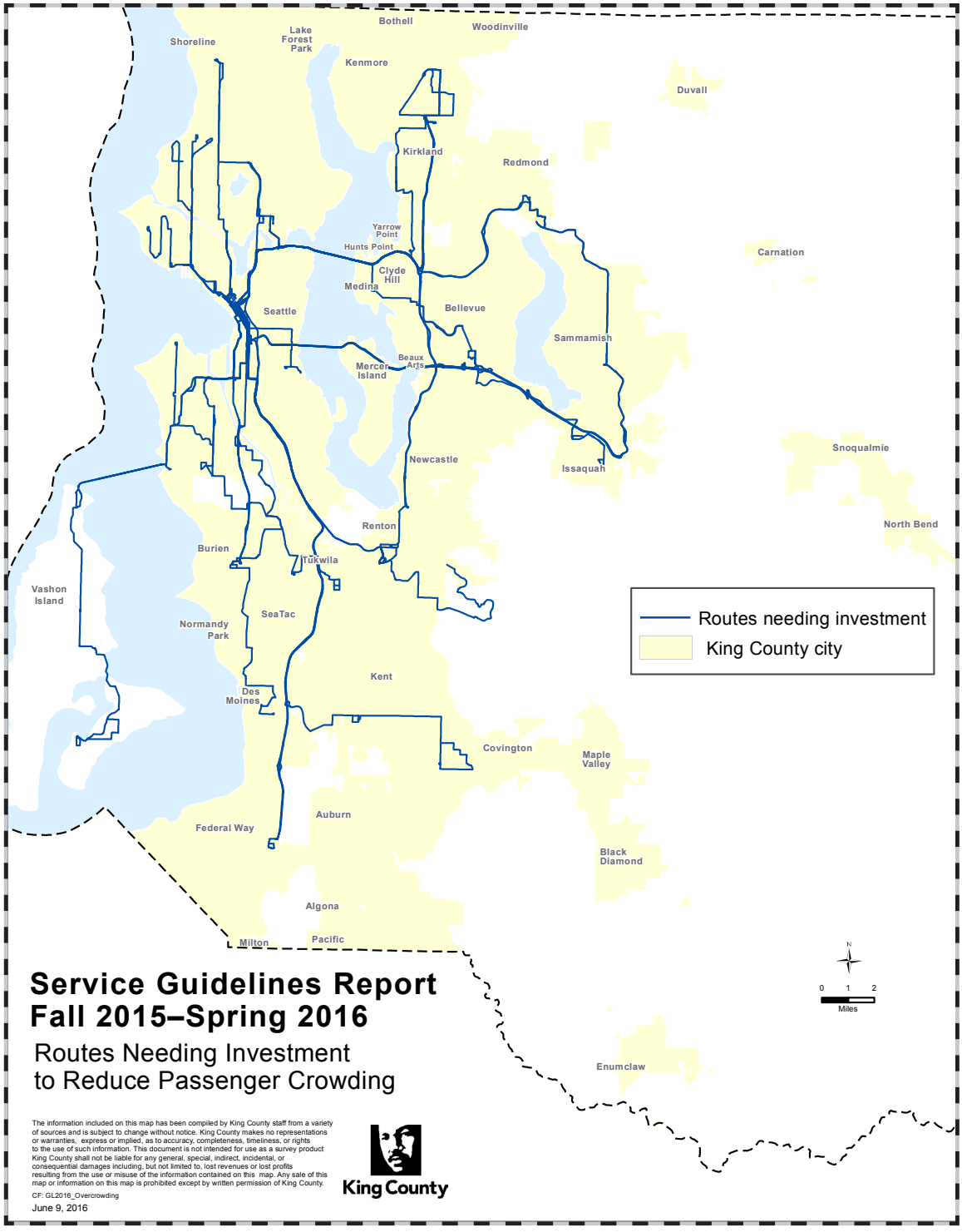
Table 9 includes routes that received reliability investments as part of restructures. A restructure enables all involved routes to be reblocked, rescheduled, and in some cases split into two parts to improve reliability. In essence, service hours are "picked up" from the restructure area and "laid down" in a new way that serves customers better and more reliably.

Routes 3, 60, 301, 303, and 312 have trips that are close to the crowding threshold, or that are over the threshold but have excess capacity within 15 minutes. These routes are on our watch list. Routes 18 Express, 132, 252, 257, and 271 were previously on the watch list and are now identified as having investment need.

2 Standardizing our measurement of crowding required an improved methodology. An apples-to-apples comparison reveals that crowding need – based on the new methodology – actually increased over last year

FIG. 3

Routes Needing Investment to Reduce Passenger Crowding



Schedule reliability (Priority 2)

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 Sept. 26, 2015 to March 25, 2016. We chose this time period because investments by both Metro and the City of Seattle were introduced to the system in June and late September 2015. Measuring this six-month period provides a snapshot of how the system performed following these investments. Please note that this period falls before the U-Link restructure.

Though both Metro and Seattle invested in schedule reliability in 2015, other investments added a significant number of trips to the system, with many of them serving the most congested parts of the county. This essentially amplified any residual need—as well as emergent need resulting from increased congestion. As a result, a greater number of trips on routes with reliability problems must be remediated.

In highly congested areas with chronic reliability problems, service-hour investments (adding time to the schedule) are only part of a long-term solution. Roadway improvements like bus lanes, queue jumps, and traffic signal priority can help keep buses moving reliably and at faster overall speeds. As we work to improve on-time performance, we will seek opportunities to form partnerships with cities to improve bus service reliability.

Table 10 lists the 60 routes identified as needing service-hour investments to improve their reliability—a decrease of 19 routes compared to last year. Thirty-one of these routes are new to the list. Total need decreased from 23,550 hours in 2015 to 18,350 annual hours in 2016. The total need was calculated based on how far above the lateness threshold routes were during different time periods. While this calculation provides a reasonable estimate of total need, individual routes may receive more or less investment than estimated depending on the scheduling techniques available to improve reliability and bus availability. The investment needs shown in Table 10 take the 2016 service investments and the U-Link restructure into account. (Routes that were substantially restructured had their schedules rebuilt to improve reliability.) A map of these routes is shown in Figure 4.

TABLE 10

Priority 2: Routes Needing Investment to Improve Schedule Reliability

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

Route	Description	Day	Annual Hours Needed
E Line	Aurora Village–Seattle CBD	Weekday	500
5	Shoreline CC–Seattle CBD	Weekday	250
9EX	Rainier Beach–Capitol Hill	Weekday	300
15EX	Blue Ridge–Ballard–Seattle CBD	Weekday	250
17EX	Sunset Hill–Ballard–Seattle CBD	Weekday	250
18EX	North Beach–Ballard–Seattle CBD	Weekday	250
21EX	Arbor Heights–Westwood Village–Seattle CBD	Weekday	400
22	Arbor Heights–Westwood Village–Alaska Junction	Sunday	50
29	Ballard–Queen Anne–Seattle CBD	Weekday	1,000
37	Alaska Junction–Alki–Seattle CBD	Weekday	250
41	Lake City–Seattle CBD via Northgate	Weekday	250

Route	Description	Day	Annual Hours Needed
55	Admiral District–Alaska Junction–Seattle CBD	Weekday	300
57	Alaska Junction–Seattle CBD	Weekday	250
60	Westwood Village–Georgetown–Capitol Hill	Weekday	1,300
83	Seattle CBD–Ravenna	Weekday	300
84	Seattle CBD–Madison Park–Madrona	Saturday	50
99	International District–Waterfront	Weekday	250
101	Renton TC–Seattle CBD	Saturday, Sunday	150
102	Fairwood–Renton TC–Seattle CBD	Weekday	250
111	Lake Kathleen–Seattle CBD	Weekday	300
113	Shorewood–Seattle CBD	Weekday	250
114	Renton Highlands–Seattle CBD	Weekday	250
119EX	Dockton–Seattle CBD via ferry	Weekday	250
121	Highline CC -Burien TC–Seattle CBD via First Ave S	Weekday	500
122	Highline CC -Burien TC–Seattle CBD via Des Moines Memorial Dr S	Weekday	400
123	Burien–Seattle CBD	Weekday	250
128	Southcenter–Westwood Village–Admiral District	Weekday	300
143	Black Diamond–Renton TC–Seattle CBD	Weekday	600
148	Fairwood–Renton TC	Weekday	250
150	Kent Station–Southcenter–Seattle CBD	Weekday	250
153	Kent Station–Renton TC	Weekday	250
157	Lake Meridian–Seattle CBD	Weekday	300
158	Kent East Hill–Seattle CBD	Weekday	400
159	Timberlane–Seattle CBD	Weekday	250
164	Green River CC–Kent Station	Weekday	250
168	Maple Valley–Kent Station	Saturday	50
177	Federal Way–Seattle CBD	Weekday	300
180	Auburn–SeaTac Airport–Burien TC	Weekday	400
182	NE Tacoma–Federal Way TC	Weekday	250
187	Federal Way TC–Twin Lakes	Saturday	50
192	Star Lake–Seattle CBD	Weekday	250
193EX	Federal Way–First Hill	Weekday	500
197	Twin Lakes–University District	Weekday	500
217	Issaquah–Eastgate–Seattle CBD	Weekday	250
221	Education Hill–Overlake–Eastgate	Saturday	50
232	Duvall–Bellevue	Weekday	250
244	Kenmore–Overlake	Weekday	250
246	Eastgate–Factoria–Bellevue	Weekday	250

Route	Description	Day	Annual Hours Needed
252	Kingsgate–Seattle CBD	Weekday	250
269	Issaquah–Overlake	Weekday	250
271	Issaquah–Bellevue–University District	Saturday	50
303EX	Shoreline–First Hill	Weekday	500
304	Richmond Beach–Seattle CBD	Weekday	250
308	Horizon View–Seattle CBD	Weekday	250
309EX	Kenmore–First Hill	Weekday	250
312EX	Bothell–Seattle CBD	Weekday	600
330	Shoreline CC–Lake City	Weekday	250
331	Shoreline CC–Kenmore	Saturday	50
345	Shoreline CC–Northgate	Saturday	50
355EX	Shoreline CC–University District–Seattle CBD	Weekday	600
		Total	**18,350**

Routes that received investments in 2016 to improve schedule reliability are listed in Table 11.

TABLE 11

Routes that Received 2016 Service Investments to Improve Schedule Reliability

Route	Description
C Line	Westwood Village–Alaska Junction–South Lake Union
E Line	Aurora Village–Seattle CBD
48	Mount Baker–University District–Loyal Heights
101	Renton TC–Seattle CBD
105	Renton Highlands–Renton TC
114	Renton Highlands–Seattle CBD
131	Burien TC–Highland Park–Seattle CBD
166	Kent Station–Burien TC
168	Maple Valley–Kent Station
178	South Federal Way–Seattle CBD
180	Auburn–SeaTac Airport–Burien TC
192	Star Lake–Seattle CBD

Route	Description
D Line	Crown Hill–Ballard–Seattle Center–Pioneer Square
8	Rainier Beach–Capitol Hill–Seattle Center
62	Sand Point–Green Lake–Seattle CBD
102	Fairwood–Renton TC–Seattle CBD
111	Lake Kathleen–Seattle CBD
128	Southcenter–Westwood Village–Admiral District
132	Burien TC–South Park–Seattle CBD
167	Renton–Newport Hills–University District
177	Federal Way–Seattle CBD
179	Twin Lakes–Seattle CBD
190	Redondo Heights–Seattle CBD
193	Federal Way–First Hill

Route	Description
216	Sammamish–Seattle CBD
219	Redmond–Sammamish–Seattle CBD
242	North City–Overlake
255	Brickyard–Kirkland TC–Seattle CBD
268	Redmond–Seattle CBD
277	Juanita–University District
309	Kenmore–First Hill
316	Meridian Park–Seattle CBD
372EX	Woodinville–Lake City–University District

Route	Description
218	Issaquah Highlands–Seattle CBD
240	Bellevue–Newcastle–Renton
245	Kirkland–Overlake–Factoria
257	Brickyard–Seattle CBD
269	Issaquah–Overlake
301EX	Shoreline–First Hill
311	Woodinville–Seattle CBD
355EX	Shoreline CC–University District–Seattle CBD
601	Seattle CBD–Group Health (Tukwila)

Table 11 includes routes that received reliability investments as part of restructures. A restructure enables all involved routes to be reblocked, rescheduled, and in some cases split into two parts to improve reliability. In essence, service hours are "picked up" from the restructure area and "laid down" in a new way that serves customers better and more reliably.

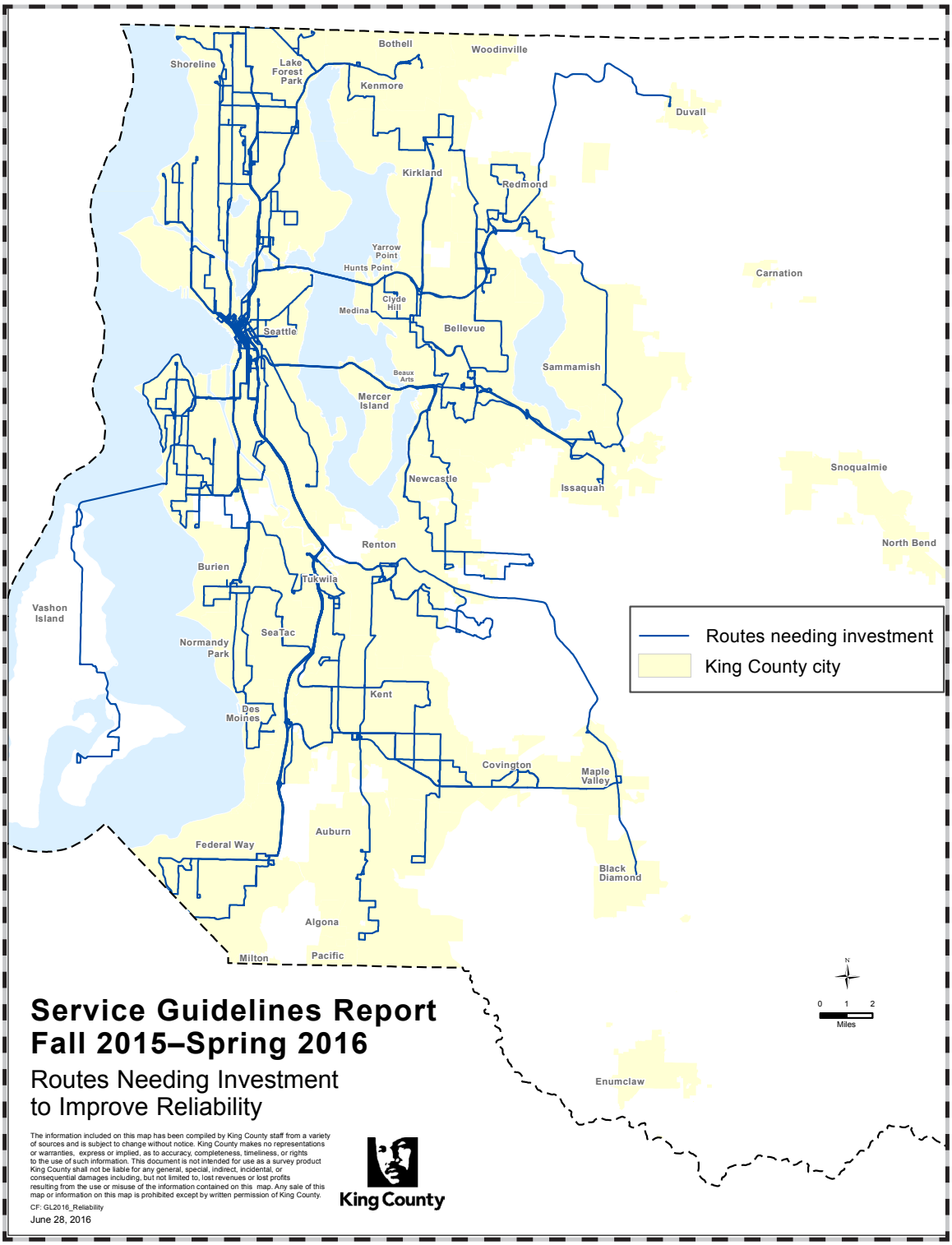
The vast majority of the need is due to late arrivals on weekdays throughout the day, although there is a concentration in the peak periods. Routes 24, 33, 43, 105, 166, 178, 179, 190, 216, 240, 257, 268, 301EX, and 601 recently received reliability investments and are no longer identified as needing investment. Routes that were restructured in March and September 2016 are being monitored and will receive investment as needs are identified and resources are available.

Reliability substantially improved this year on several routes: 1, 4, 14, 56, 57, 119 Express, 143, 169, 208, 237, 277, 301, and 342. 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.

PM peak reliability declined most dramatically (in descending order) on routes 308, 303 Express, 113, 107, 18 Express, 197, 148, 9 Express, and 249. Some of these routes, however, still meet performance standards.

FIG. 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 the Puget Sound Regional Council's Transportation 2040 plan—one reason why the Service 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 2.5 million annual service hours) will be on highly productive services.

What changed?

A new service type for DART and shuttle service was added

DART routes are only compared to other like routes, reflecting the value they bring to the system.

Metro has demonstrated that investments in highly productive service lead to increased ridership. We will continue to invest in highly productive routes 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 by service type.

Highly productive routes are defined as those that perform in the top 25 percent of routes in the same service type on one or both measures in at least one time period; these routes are targeted for investment priority 4. In the current reporting period, of the 187 routes evaluated, 80 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 in each service type that operate in the same time period. In the current reporting period, 92 routes were in the bottom 25 percent in at least one period on one or both route productivity measures. These routes are identified as candidates for reduction if and when Metro must make service cuts. The routes failing on both measures would be considered for reduction first.

Change in route productivity thresholds. The route productivity thresholds change in each annual report to reflect current network performance. From 2015 to 2016, route productivity and the productivity thresholds for urban routes decreased. This is a result of the Metro's significant investment via the City of Seattle's community mobility contract, which boosted both platform hours and miles on those routes. Ridership usually takes several years to grow, particularly after such large increases in service, so the productivity drop was neither unexpected nor unusual. Route productivity in the suburban category increased slightly, in part because of the separation of DART routes into their own category.

Route productivity threshold changes between 2015 and 2016 are shown in Tables 12 and 13. A full table showing route productivity is in Appendix C.

TABLE 12

2015–2016 Route Productivity Threshold Changes for Top 25%

Service Type	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
Suburban	2016	27.0	8.8	27.3	9.5	17.8	6.2
	2015*	26.7	8.4	27.0	8.3	18.4	6.3
	Change	0.3	0.4	0.3	1.2	-0.6	-0.1
Urban	2016	47.2	18.1	48.2	14.9	28.0	8.9
	2015*	51.7	18.4	52.5	15.7	34.4	10.7
	Change	-4.5	-0.3	-4.3	-0.8	-6.4	-1.8
DART/Shuttle	2016	13.4	2.5	15.3	3.5	12.4	2.2
	2015*	-	-	-	-	-	-
	Change	-	-	-	-	-	-

TABLE 13

2015–2016 Route Productivity Threshold Changes for Bottom 25%

Service Type	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
Suburban	2016	14.9	4.6	14.5	4.6	10.5	3.1
	2015*	13.4	3.6	14.0	3.7	11.1	2.8
	Change	1.5	1.0	0.5	0.9	-0.6	-0.3
Urban	2016	27.5	11.4	33.1	9.3	17.5	4.8
	2015*	26.4	11.6	36.0	10.2	22.2	6.2
	Change	1.1	-0.2	-2.9	-0.9	-4.7	-1.4
DART/Shuttle	2016	8.4	1.3	9.3	2.2	12.4	2.2
	2015*	-	-	-	-	-	-
	Change	-	-	-	-	-	-

* DART/Shuttle category did not exist in 2015. The 2015 thresholds shown for the Urban category correspond to the old Seattle core category, and the 2015 thresholds for the Suburban category correspond to the old Non-Seattle core category.

Many services that performed well in 2015 continued to do so in 2016. 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 remain in the top 25 percent of routes on both performance measures in all time periods. The C Line is in the top 25 percent of routes on one or both performance measures in all time periods. Overall RapidRide ridership has grown 53 percent over the baseline of the regular routes they replaced.
- **Peak-only routes serving east King County park-and-rides.** Several peak routes that provide service between downtown Seattle and Eastgate Park-and-Ride (and beyond), 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 their routes. Routes 252, 255, 257, and 268 also perform well on this measure.
- **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 and perform well in the peak period.
- **Services connecting to Kent Station.** Routes 164, 166, and 169 perform well all day and are among the top performers in the suburban category. Route 913, connecting Riverview to Kent Station, is a top-performing route in the DART category. Routes 128 and 180 connecting other south county destinations also performed well.
- **Seattle CBD to Capitol Hill routes.** Routes 8, 10, 11, 12, and 49 serve two high-demand markets and stand out as top performers in the system. The March 2016 opening of Link light rail and Metro's restructure will reduce these routes' performance in the near term.
- **Commuter routes serving north Seattle.** Routes 5, 17 Express, 18 Express, 74 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.

Peak analysis

This analysis compares the rides per 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 trip that its alternative local service has (in the peak period), 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-only routes meeting neither criteria may be considered for change or restructuring to improve performance and to use resources more efficiently.

What changed?

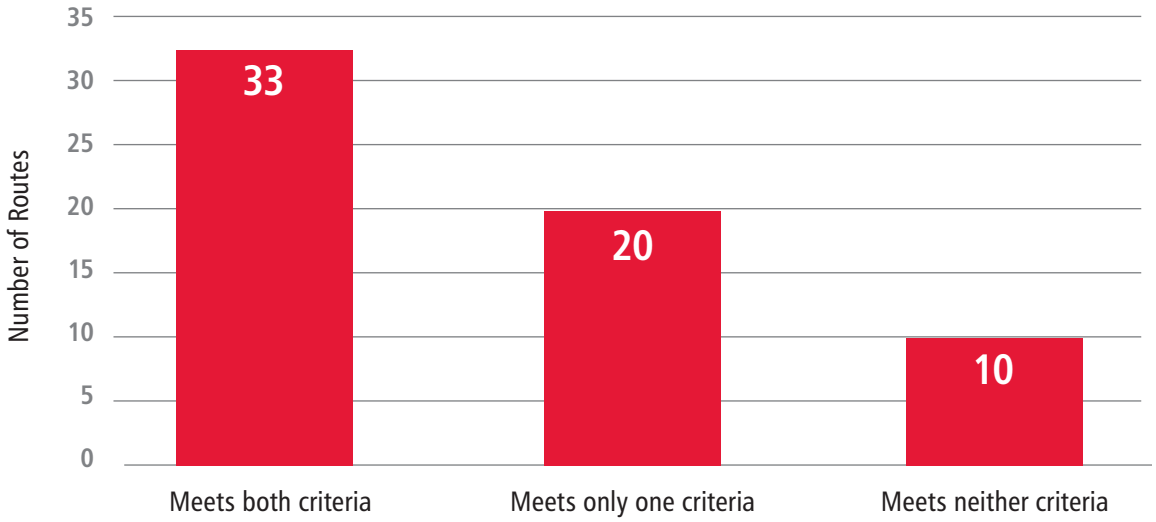
No changes were made to the analysis, but peak routes now have an added layer of protection when Metro is forced to reduce service.

In 2016 Metro analyzed 63 peak-only routes. Eight 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 presented in Section 1, Corridor Analysis.

Results are largely similar to last year's, with only a couple of routes changing status. The results of the peak analysis are in Figure 5 and Appendix D.

FIG. 5

2016 Peak-only Route Analysis Results



SECTION 2

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 ("Five Year Implementation Plan"), complying with the requirement for an annual report in King County Motion 13736. Data used for this section aligns with the timeframe of the data used to evaluate fixed-route service in this report. In June 2016, the recommendations made by the Service Guidelines Task Force, including those concerning the Alternative Services program, were incorporated into Metro's Strategic Plan for Public Transportation and Service Guidelines (Ordinance 18301). Annual reporting for alternative services is combined with the annual 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 2016.

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 2015 Service Guidelines Report, we reported the launch of four Community Shuttle services--two in the Snoqualmie Valley and one each on Mercer Island and in Burien. In 2015 and 2016 we have monitored ridership closely and adjusted schedules where necessary. We have worked closely with the partner communities to continue promoting these services to build ridership. Performance of these shuttle routes is reported below.

One of the most significant accomplishments of the Alternative Services Program in 2015/2016 has been the successful launch of three innovative service solutions—Real-Time Rideshare, Community Van, and TripPool. These service solutions are completely new concepts that leverage Metro's long-standing success in rideshare operations in combination with emerging mobile technologies. We have spent the past year refining the service specifications, building solid community partnerships, developing the market, building customer awareness, and recruiting volunteer drivers.

The other focus of 2015/2016 has been to conduct community outreach in partner communities to learn about transportation needs and gaps and develop customized service solutions to meet the identified needs. We have continued outreach in southeast King County and initiated new processes with Vashon Island, Bothell and Woodinville, Kirkland and Kenmore, Sammamish, and Lake Forest Park and Shoreline.

Annual shuttle performance report

Metro collects and analyzes ridership data for alternative services solutions. The performance of routes 629 (started in 2013), 628, 630, and 631 are described in Table 14. Note the reporting periods have changed from 2015 to 2016 to better align with the reporting timelines of other Metro services. Changes to the reporting period are reflected in performance metrics because ridership is often seasonal, decreasing during the winter and summer months when many riders are on vacation.

TABLE 14

Shuttle Performance

Route	Cost per vehicle trip (2015)***	Cost per vehicle trip (2016)**	Cost per ride (2015)	Cost per ride (2016)**	Rides per hour (2015)	Rides per hour (2016)**
628	$45.34	$47.25	$20.39	$19.91	2.87	3.04
629	$55.01*	$64.51*	$12.96*	$15.70*	2.55	2.51
630	n/a	$105.96	n/a	$9.19	n/a	10.18
631	n/a	$48.27	n/a	$11.30	n/a	8.35

* After the Snoqualmie Tribe contribution of $50,000/year which is paid in monthly installments directly to Snoqualmie Valley Transit.

** October 2015-March 2016

*** Route 629 reporting period was January–June 2015, Route 628 reporting period was mid-February through June 2015

Snoqualmie – Route 628

In September 2014, Metro routes 215 and 209 were eliminated because of their low performance, in accordance with the service guidelines. This made the Upper Snoqualmie Valley (North Bend, Snoqualmie, and Issaquah) a candidate for an alternative services project to mitigate the loss of these routes. In February 2015, in partnership with the community, Metro launched Route 628 to serve the corridor between North Bend, Snoqualmie, and Issaquah Highlands during the weekday peak period.

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. Performance on Route 628 has improved, with rides per hour going up from 2.87 in 2015 to 3.04 in 2016. Cost per ride has decreased from $20.39 in 2015 to $19.91 in 2016. Cost per vehicle trip increased from $45.34 in 2015 to $47.25. Metro pays the contractor a flat hourly operating rate, so the increase in cost per vehicle trip can be attributed to the change in reporting period (differences in the number of service days etc.).

Snoqualmie Valley – Route 629
The Snoqualmie Valley Shuttle, Route 629, was created in partnership with the Snoqualmie Tribe, which contributes $50,000 a year to its operation. It is operated by Snoqualmie Valley Transportation (SVT), a local nonprofit 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 2016, Route 629 provided 2.51 rides per hour at a cost of $15.70 per boarding compared to 2.55 rides per hour at a cost of $12.96 per boarding in 2015 (after the Snoqualmie Tribe's contribution). Part of this decrease in performance can be attributed to a single, low-performing month (December 2015) that greatly affected data tied to ridership.

The cost per vehicle trip increased on Route 629 from $55.01 in 2015 to $64.51 in 2016 (after the Snoqualmie Tribe contribution). This is because the invoiced costs in the reporting period of October 2015 to March 2016 were higher than the invoiced costs of January to June 2015. Included in SVT invoice costs are exact maintenance, training, marketing, and equipment costs, which vary significantly month to month. For example, SVT invoiced Metro more than $5,000 in January 2016 for one-time ADA safety equipment upgrades and marketing expenses.

Mercer Island – Route 630
In September 2014, Metro routes 202 and 205 were deleted because of their low performance in accordance with the service guidelines. The Mercer Island community was identified as a mitigation candidate for alternative services because of the lack of service in the areas where routes were eliminated.

In partnership with the cities of Mercer Island and Seattle, Community Shuttle Route 630 was launched on June 8, 2015. This one-way peak-only service connects Mercer Island to downtown Seattle and First Hill. 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 daily 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 2016, Route 630 provided 10.18 rides per hour at a cost of $9.19 per ride. The cost per vehicle trip was $105.96.

Burien – Route 631
After Metro Route 139 was deleted in September 2014 because of low performance, creating a midday service gap, Burien was identified as a mitigation candidate for alternative services. In partnership with the community, the Burien Community Shuttle Route 631 was launched on June 8, 2015. This service provides off-peak weekday local circulation and connections to the regional transit network.

On weekdays, Route 631 makes a clockwise loop serving Burien Transit Center, Highline Medical Center, and Gregory Heights. 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 pick-up in advance. This service is made possible through an in-kind partnership between the City of Burien and Metro. In 2016, Route 631 provided 8.35 rides per hour at a cost of $11.30 per boarding. The cost per vehicle trip is $48.27.

2016 services

The following services launched in 2016. Metro is working to build performance evaluation systems for these mobility products.

Redmond Real-Time Rideshare
Building on a commute needs assessment conducted in 2014, Metro is partnering with the City of Redmond to pilot a new flexible ridesharing promotion targeted at the southeast Redmond and Willows Road employment centers. The Redmond Real-Time Rideshare project involves collaboration with app vendor iCarpool. The iCarpool app allows drivers to offer and accept rides in real-time and receive cashless reimbursement for gas from riders.

Redmond Real-Time Rideshare is a strategy to promote coordinated ridesharing in real-time. Metro and Redmond have developed an incentive structure, Emergency Ride Home benefit, and ad campaign to foster real-time ridesharing in Redmond. The app launched in January 2016 and Metro, Redmond, and the vendor continue collaborating to build the pool of potential riders and drivers.

Community Van
Duvall was identified as a candidate community in the 2012 Five Year Implementation Plan. As the result of work with community stakeholders, Duvall became the first community to start a Community Van service—which includes a Community Transportation Hub—in June 2016. The Duvall Community Van addresses the need for local midday, evening, and weekend mobility options. Vans are driven by volunteers and coordinated by a paid community transportation coordinator. Metro provides the vans, fuel, maintenance, insurance, and funding for the part-time coordinator's salary. This service is now open to the public and Metro will monitor ridership, vehicle use, and costs, which will be reported in the 2017 Service Guidelines Report.

TripPool
As further mitigation of the September 2014 deletion of Mercer Island bus routes, Metro and the City of Mercer Island partnered to pilot a TripPool project to address commuter needs and park-and-ride capacity issues. TripPool is a "first-mile connection" pilot program that provides a rideshare connection between home neighborhood and transit. Metro provides commuter vans that make one round trip each work day to a park-and-ride or transit center where they have reserved parking space. Volunteer drivers pick up and drop off registered riders along the way. TripPool trip requests, pick-up locations, and fares are coordinated by riders and drivers on their smartphones through the free mobile app, iCarpool. The Mercer Island TripPool service was launched in spring 2015. This service is now open to the public and Metro will monitor ridership, vehicle utilization, and costs, which will be reported in the 2017 Service Guidelines Report.

Redmond LOOP
The Redmond LOOP is a unique hybrid solution that combines the smaller Community Van vehicles with the paid driver and route design of a Community Shuttle. The Redmond LOOP makes nine daily trips, traveling clockwise from the Redmond Transit Center to Bella Bottega, north along 160th Ave NE, east along 104th, south on Avondale to Bear Creek Park-and-Ride, west on Redmond Way and back to the Redmond Transit Center via NE 166th. The service has one flexible service area on Education Hill and four flexible destinations for which riders may arrange a drop-off or pick-up. The Redmond LOOP is operated by an employee of the City of Redmond's sub-contractor, Hopelink. This project was made possible through a financial partnership with the City of Redmond. A soft launch of the Redmond LOOP started June 30, 2016. Full launch will occur with the September 2016 service change.

Ongoing projects

Southeast King County
Southeast King County was identified as a candidate for alternative services in the Five-Year Implementation Plan. Outreach began in May 2015. Working with community stakeholders, the Alternative Services team developed a set of concepts to improve access and mobility in southeast King County, including fixed-route transit service changes, an Emergency Ride Home Program, a Community Van program, and Rideshare promotions. The fixed-route transit service changes are being phased in, starting in September 2015 with an additional evening trip on Route 186 leaving Auburn Station at 7 p.m. In March 2016, 2,062 service hours were added to Route 915 to improve frequency from every 90 minutes to every 60 minutes between Enumclaw and Auburn. Metro is negotiating service partnerships to implement the other solutions.

Vashon Island
Vashon Island was identified as a candidate for alternative services in the Five-Year Implementation Plan. Outreach began in September 2015 and continued through summer 2016. The Vashon Island Stakeholder Working Group has evaluated different concepts for implementation, including Community Van, Community Hub, Real-Time Ridesharing, and Open Door Access.

Bothell-Woodinville
Bothell and Woodinville were identified as candidate communities for alternative services in legislation adopted by the County Council in September 2015.[3] Outreach began in the first quarter of 2016. A suite of alternative service concepts was developed during the second quarter and include Community Van, Real-Time Rideshare, Commuter Van, an education campaign, and a promotional partnership between the Woodinville Tourism District and the transportation network company industry. Metro is identifying partners to support implementation.

Kenmore-Kirkland
In September 2014, three Metro routes were deleted because of their low performance, in accordance with the service guidelines. These routes had served residential areas of Kenmore and the Juanita/Finn Hill area of Kirkland, and these areas were selected as mitigation candidates for alternative service. Two separate projects have been defined and are running in parallel: one in north Kenmore to mitigate the loss of Route 306, and one in south Kenmore and Kirkland to mitigate the loss of routes 260 and DART 935. Community outreach took place in summer 2016 in partnership with the cities of Kirkland and Kenmore.

Sammamish
In September 2014, Metro deleted poorly performing DART Route 927, which had served Sammamish, Issaquah, and the Klahanie area (which has since been incorporated into the City of Sammamish). Because of the lack of underlying service in Klahanie, the City of Sammamish was identified as a candidate for mitigation candidate through alternative services. Metro and the City of Sammamish staff will conduct community outreach in fall 2016.

Lake Forest Park, Shoreline
The cities of Lake Forest Park and Shoreline were impacted by the September 2014 reductions in Route 331 evening service. Because these communities have no underlying evening service, they were identified as candidates for mitigation projects. Metro has begun discussions with the jurisdictions about working together on an alternative services project.

Community-generated projects
The 2015/2016 Biennial Budget Ordinance 17941 identified alternative services projects that would complement the existing fixed-route bus and DART network as the third program priority. Projects will be selected from community-generated project ideas resulting from a call for letters of interest that will be advertised in the beginning of the fourth quarter of 2016. We intend to select candidate communities by the end of 2016 so we can begin community engagement in early 2017.

3 Ordinance 18110 directs the Alternative Services program to develop a "plan for implementation of an alternative services program providing service between the campus of the University of Washington-Bothell and Cascadia Community College and the cities of Woodinville and Bothell, which shall be designed to address travel needs of college students and employees; individuals living or working in the cities of Woodinville and Bothell; and other transit consumers."

SECTION 3

POTENTIAL CHANGES TO THE SERVICE GUIDELINES AND STRATEGIC PLAN

Alternative Services performance measurement

Ordinance 18301, approving updates to Metro's Strategic Plan for Public Transportation and Service Guidelines, directs Metro to provide updates to the Regional Transit Committee (RTC) on the implementation of the Alternative Services Program. A third quarter 2016 update was provided to RTC in September. The fourth quarter 2016 update will be delivered in November alongside this report and will include a schedule and process for evaluating the prioritization criteria contained in the service guidelines to aid in prioritizing projects when the demand for alternative services exceeds the revenues necessary to fund said services. Throughout 2017, quarterly updates will include a discussion of the schedule and process for evaluating the prioritization criteria. Recommended options for prioritization criteria resulting from this process will be incorporated into the fourth quarter update.

The Alternative Services Program is primarily community-driven and depends on close partnerships between Metro and local governments. The program conducts substantial outreach to understand community needs and tailors mobility solutions to suit. A wide array of products and services can be provided, each with its own characteristics and goals. A performance measurement system must be sufficiently flexible and adaptable to accommodate wide-ranging objectives and service characteristics.

Metro has developed pilot product performance measures for evaluating demonstration services that are currently operating or in planning. As the program matures, and assuming it becomes a permanently funded program, these or other performance measures may be formally incorporated into the Service Guidelines. The Service Guidelines Report would be the means for reporting annually on alternative services performance, as required by Motion 13736.

Integration with Metro's long-range plan

METRO CONNECTS presents a vision for public transportation in King County that provides more mobility to more people. This vision was developed in close coordination with cities and stakeholders throughout the county. It defines two future transit networks, one for 2025 and another for 2040. Both of these networks differ in substantial ways from our current service network.

In order to achieve this vision, Metro's resources would have to grow and the service network would have to evolve. METRO CONNECTS, if approved, will take shape through a series of rolling six-year implementation programs. These six-year plans will review existing revenues, existing needs, and the long-range plan network, and then develop projects in conjunction with cities and affected communities. Metro will lead this collaborative process to reconcile these projects with needs identified through the annual service guidelines assessment. Major drivers of these implementation programs will include:

- the expansion of Link light rail
- efforts to further integrate service with Sound Transit and, at the peripheries of the county, Community Transit and Pierce Transit
- expansion of the RapidRide program
- changes to roadway networks
- changes in land-use patterns as reflected in local governments' comprehensive plans.

As these processes proceed, and assuming service change proposals are approved by the King County Council, the network of corridors defined in the Service Guidelines will necessarily evolve and change. These types of network changes have occurred in the past, and Metro has continued to evaluate corridors in the context of the network in place after each restructure.

Metro will continue using the Service Guidelines to determine investment needs for each corridor to inform short- and long-range service planning.

APPENDICES

Appendix A: Map of Low-Income and Minority Tracts

Appendix B: Map of Activity Centers and Regional Growth/Manufacturing Centers

Appendix C: Route Productivity Data

Appendix D: Peak Analysis Results

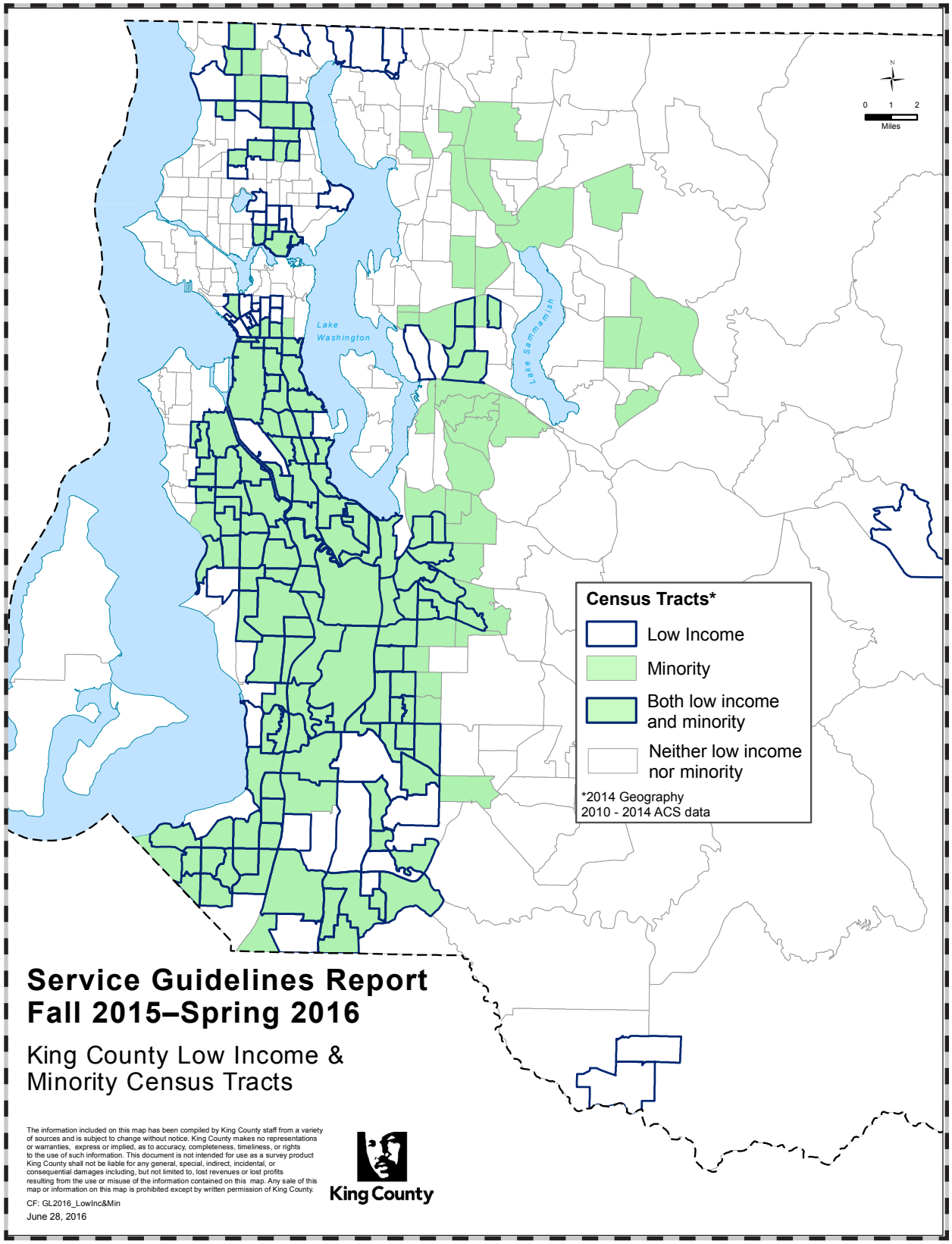
Appendix E: Route Reliability

Appendix F: 2015 Service Changes

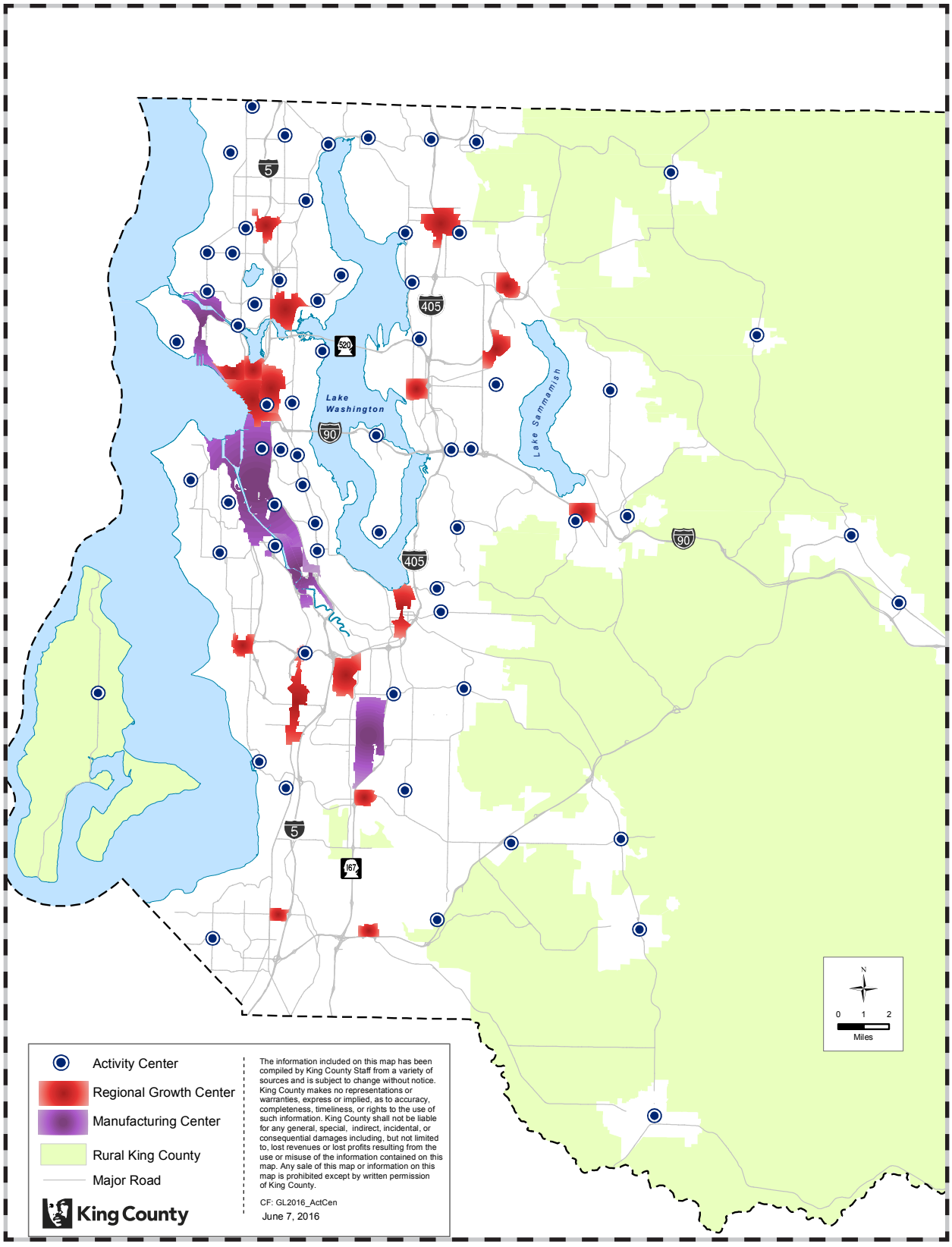
Appendix G: Route-level Ridership

Appendix H: Corridor Analysis of All-Day Network

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
Suburban Routes

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
22	Arbor Heights–Westwood Village–Alaska Junction	16.6	3.4	9.2	2.0	4.3	1.2
50	Alki–Columbia City–Othello Station	24.8	5.8	22.4	5.6	9.0	2.2
105	Renton Highlands–Renton TC	30.8	7.9	27.0	7.9	15.3	4.6
107	Renton TC–Rainier Beach	24.3	6.3	22.7	6.3	12.7	3.5
118	Tahlequah–Vashon	10.9	2.2	10.6	1.6	9.1	2.3
119	Dockton–Vashon	14.8	1.6	9.4	1.1		
128	Southcenter–Westwood Village–Admiral District	31.0	9.9	32.0	10.4	14.0	4.5
148	Fairwood–Renton TC	14.4	5.0	16.5	6.1	18.2	6.9
153	Kent Station–Renton TC	19.8	5.8				
154	Tukwila Station–Boeing Industrial	18.4	4.5				
156	Southcenter–SeaTac Airport–Highline CC	18.9	5.6	18.1	6.5	10.4	3.6
164	Green River CC–Kent Station	42.7	12.5	42.7	16.0	24.7	7.4
166	Kent Station–Burien TC	25.9	9.3	27.6	10.0	16.3	5.4
168	Maple Valley–Kent Station	24.6	7.6	25.1	8.5	18.4	4.9
169	Kent Station–East Hill–Renton TC	41.2	16.5	40.3	15.8	24.8	9.2
180	Auburn–SeaTac Airport–Burien TC	33.3	11.1	32.1	12.1	15.6	6.3
181	Twin Lakes P&R–Green River CC	26.2	8.3	25.5	9.0	15.1	3.9
182	NE Tacoma–Federal Way TC	14.9	3.8	20.1	6.3		
183	Federal Way–Kent Station	20.5	6.4	20.8	9.9		
186	Enumclaw–Auburn Station	10.8	2.8				
187	Federal Way TC–Twin Lakes	25.1	6.1	28.7	7.6	13.9	3.0
200	Downtown Issaquah–North Issaquah			10.3	2.2		
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	11.2	2.3	10.4	2.7		
208	Issaquah–North Bend	9.4	5.6	8.9	5.7	2.5	1.4
221	Education Hill–Overlake–Eastgate	19.6	5.5	19.1	5.0	9.8	2.1
224	Duvall–Redmond TC	7.8	3.3	7.9	3.5		
226	Eastgate–Crossroads–Bellevue	27.3	7.1	26.3	6.3	12.9	3.2
232	Duvall–Bellevue	18.4	7.1				
234	Kenmore–Kirkland TC–Bellevue	22.9	8.0	17.2	5.8	11.6	3.6
235	Kingsgate–Kirkland TC–Bellevue	21.2	7.0	15.9	6.1	10.6	3.7
236	Woodinville–Totem Lake–Kirkland	8.3	2.3	8.3	2.5		

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
237	Woodinville–Bellevue	21.3	9.1				
238	Bothell–Totem Lake–Kirkland	11.4	3.2	12.6	3.8		
240	Bellevue–Newcastle–Renton	26.5	10.4	23.5	10.4	13.7	6.5
241	Eastgate–Factoria–Bellevue	23.5	5.6	16.2	4.2	10.0	2.5
242	North City–Overlake	16.7	9.3				
244	Kenmore–Overlake	12.8	4.7				
245	Kirkland–Overlake–Factoria	26.9	7.9	23.1	6.8	15.2	3.7
246	Eastgate–Factoria–Bellevue	13.7	3.0	12.1	2.7		
248	Avondale–Redmond TC–Kirkland	21.0	5.8	17.8	4.9	10.3	2.7
249	Overlake–South Kirkland–South Bellevue	18.5	4.5	13.2	3.4		
269	Issaquah–Overlake	11.4	4.6				
330	Shoreline CC–Lake City	23.8	6.1	32.0	10.0		
331	Shoreline CC–Kenmore	17.9	5.8	19.6	5.5		
342	Shoreline–Bellevue TC–Renton	19.4	10.6				
345	Shoreline CC–Northgate	35.6	8.7	35.4	8.5	11.5	4.3
346	Aurora Village–Northgate	33.5	9.6	26.9	8.1	11.7	4.6
347	Mountlake Terrace–Northgate	27.7	7.7	24.0	6.5	18.2	6.0
348	Richmond Beach–Northgate	28.0	6.5	25.8	6.2	17.4	5.3
A Line	Federal Way–Tukwila	55.1	15.3	58.9	18.7	38.7	11.1
B Line	Bellevue–Crossroads–Redmond	43.5	12.2	36.7	10.4	25.8	6.4
F Line	Renton–Burien	31.4	9.3	33.9	11.1	21.9	6.7

Fall 2015 Thresholds: Suburban Routes	Peak		Off Peak		Night	
Bottom 25%	14.9	4.6	14.5	4.6	10.5	3.1
Top 25%	27.0	8.8	27.3	9.5	17.8	6.2

DART/Shuttles

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
901DART	Mirror Lake–Federal Way TC	**15.2**	**2.9**	**15.4**	2.4	12.4	2.2
903DART	Twin Lakes–Federal Way TC	10.3	1.9	14.5	3.2		
906DART	Fairwood–Southcenter	13.1	**5.2**	13.4	**6.6**		
907DART	Enumclaw–Renton TC	**3.4**	1.3	**5.2**	2.6		
908DART	Renton Highlands–Renton TC	9.7	1.7	**6.9**	**1.7**		
910DART	North Auburn–SuperMall			11.1	**1.8**		
913DART	Kent Station–Riverview	**14.8**	2.2				
914DART	Kent–Kent East Hill			**18.5**	3.5		
915DART	Enumclaw–Auburn Station			**19.7**	**5.2**		
916DART	Kent–Kent East Hill			14.9	**3.5**		
917DART	Pacific–Auburn	13.4	2.5	**8.8**	**2.1**		
930DART	Kingsgate–Redmond	8.4	**1.2**				
931DART	Bothell–Redmond	**4.9**	**1.2**				

Fall 2015 Thresholds: DART/Shuttles	Peak		Off Peak		Night	
Bottom 25%	**8.4**	**1.3**	**9.3**	**2.2**	**12.4**	**2.2**
Top 25%	**13.4**	**2.5**	**15.3**	**3.5**	**12.4**	**2.2**

Urban Routes

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
1*	Kinnear–Seattle CBD	50.4	12.8	36.8	8.5	19.1	4.9
2*	West Queen Anne–Seattle CBD–Madrona Park	53.4	11.8	48.2	10.1	23.9	5.6
3*	North Queen Anne–Seattle CBD–Madrona Park	59.0	11.7	48.5	9.9	20.7	4.5
4*	East Queen Anne–Seattle CBD–Judkins Park	46.5	10.5	35.0	7.5	18.4	4.5
5*	Shoreline CC–Seattle CBD	53.7	18.5	43.8	15.1	23.1	7.7
5EX*	Shoreline CC–Seattle CBD	40.0	14.6				
7*	Rainier Beach–Seattle CBD	47.2	13.7	53.6	15.2	29.9	10.1
8*	Seattle Center–Capitol Hill–Rainier Beach	52.3	11.5	40.0	9.7	24.1	5.6
9EX*	Rainier Beach–Capitol Hill	34.8	9.6	44.5	14.3		
10*	Capitol Hill–Seattle CBD	55.4	10.4	48.5	9.2	28.0	5.6
11*	Madison Park–Seattle CBD	51.5	11.5	43.3	8.9	25.5	4.5
12*	Interlaken Park–Seattle CBD	57.5	10.4	36.3	6.8	11.4	2.7
13*	Seattle Pacific University–Queen Anne–Seattle CBD	51.5	13.2	51.4	12.4	27.9	6.9
14*	Mount Baker–Seattle CBD	47.4	10.2	39.6	8.2	19.5	4.2
15EX	Blue Ridge–Ballard–Seattle CBD	44.6	17.6				
16	Northgate TC–Wallingford–Seattle CBD	34.6	12.5	25.2	8.9	13.5	4.6
17EX	Sunset Hill–Ballard–Seattle CBD	51.8	19.2				
18EX*	North Beach–Ballard–Seattle CBD	54.9	20.4				
19*	West Magnolia–Seattle CBD	27.9	8.1				
21*	Arbor Heights–Westwood Village–Seattle CBD	41.2	15.4	28.3	10.6	17.2	6.6
21EX*	Arbor Heights–Westwood Village–Seattle CBD	33.2	13.7				
24*	Magnolia–Seattle CBD	46.6	12.9	27.1	9.3	13.8	4.4
25	Laurelhurst–University District–Seattle CBD	18.9	4.5	19.0	4.5		
26*	East Green Lake–Wallingford–Seattle CBD	51.9	14.4	33.4	9.6	17.5	5.9
26EX*	East Green Lake–Wallingford–Seattle CBD	50.6	16.7				
27*	Colman Park–Leschi Park–Seattle CBD	28.4	7.2				
28*	Whittier Heights–Ballard–Seattle CBD via Leary Ave NW	48.2	11.5	29.2	8.9	16.3	4.3
28EX*	Broadview–Ballard–Seattle CBD via Leary Ave NW	42.4	13.6				

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
29	Ballard–Queen Anne–Seattle CBD	36.6	7.9				
30	Sand Point–University District	19.4	4.2				
31*	University District–Fremont–Magnolia	36.5	8.2	33.2	8.0		
32*	University District–Fremont–Seattle Center	43.2	13.2	35.5	10.8	25.9	6.6
33*	Discovery Park–Seattle CBD	44.8	12.4	26.4	6.5	14.1	4.0
36	Othello Station–Beacon Hill–Seattle CBD	47.2	12.9	49.2	13.1	23.0	6.1
37*	Alaska Junction–Alki–Seattle CBD	19.3	8.5				
40*	Northgate TC–Ballard–Seattle CBD via Leary Av NW	45.9	13.4	37.6	11.4	19.8	6.5
41*	Lake City–Seattle CBD via Northgate	59.7	27.3	48.7	22.6	27.4	13.3
43*	University District–Capitol Hill–Seattle CBD	52.4	14.7	41.1	10.6	24.8	7.1
44*	Ballard–Wallingford–Montlake	61.2	17.5	46.0	12.0	32.8	8.8
47*	Summit–Seattle CBD	33.0	6.8	20.6	4.2		
48*	Mount Baker–University District–Loyal Heights	49.1	14.1	45.0	13.3	25.8	7.2
49*	University District–Capitol Hill–Seattle CBD	60.9	20.7	48.5	14.8	36.3	10.6
55*	Admiral District–Alaska Junction–Seattle CBD	32.1	13.6				
56*	Alki–Seattle CBD	35.5	14.1				
57*	Alaska Junction–Seattle CBD	36.9	15.4				
60*	Westwood Village–Georgetown–Capitol Hill	39.4	11.8	35.2	10.9	15.8	4.6
64EX*	Lake City–First Hill	29.9	10.0				
65*	Lake City–University District	35.5	8.8	40.0	9.0	23.8	6.9
66EX	Northgate TC–Eastlake–Seattle CBD	45.5	14.3	30.6	9.7	15.9	4.6
67*	Northgate TC–University District	42.2	10.5	43.4	11.7	29.0	6.8
68	Northgate TC–Ravenna–University District	42.3	10.2	45.4	9.9		
70*	University District–Seattle CBD	51.6	15.6	32.8	9.7	14.1	4.6
71	Wedgwood–University District–Seattle CBD	61.0	21.1	52.0	19.7	25.5	8.2
72	Lake City–University District–Seattle CBD	61.9	21.8	53.8	18.7	25.7	8.4
73*	Jackson Park–University District–Seattle CBD	60.6	23.6	53.7	19.9	28.0	10.1
74EX	Sand Point–Seattle CBD	54.8	18.8				
75	Northgate TC–Lake City–Seattle CBD	45.1	11.2	47.0	11.5	31.7	7.7
76*	Wedgwood–Seattle CBD	36.4	13.8				

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
77EX	North City–Seattle CBD	45.1	22.2				
82*	Seattle CBD–Greenwood					10.3	5.9
83*	Seattle CBD–Ravenna					13.8	7.2
84*	Seattle CBD–Madison Park–Madrona					8.0	1.9
98	South Lake Union Streetcar	58.6	9.9	40.5	6.8	13.6	2.3
99	International District–Waterfront	22.7	5.8	11.7	2.6		
101*	Renton TC–Seattle CBD	44.1	22.7	49.5	26.4	32.6	19.0
102	Fairwood–Renton TC–Seattle CBD	38.4	21.7				
106	Renton TC–Rainier Beach–Seattle CBD	41.3	13.7	38.3	14.2	21.1	8.5
111	Lake Kathleen–Seattle CBD	25.2	16.3				
113	Shorewood–Seattle CBD	22.9	11.0				
114	Renton Highlands–Seattle CBD	21.8	13.0				
116EX	Fauntleroy Ferry–Seattle CBD	18.5	6.3				
118EX	Tahlequah–Seattle CBD via ferry	18.9	8.6				
119EX	Dockton–Seattle CBD via ferry	19.0	9.4				
120*	Burien TC–Westwood Village–Seattle CBD	41.7	18.3	44.6	20.1	32.5	15.3
121	Highline CC -Burien TC–Seattle CBD via First Ave S	20.4	9.7				
122	Highline CC -Burien TC–Seattle CBD via Des Moines Memorial Dr S	24.8	11.8				
123	Burien–Seattle CBD	28.6	17.7				
124*	Tukwila–Georgetown–Seattle CBD	33.7	12.0	34.9	14.8	21.8	8.9
125*	Westwood Village–Seattle CBD	38.1	15.3	25.3	11.2	17.7	8.0
131*	Burien TC–Highland Park–Seattle CBD	41.5	17.2	37.1	15.1	21.3	9.7
132*	Burien TC–South Park–Seattle CBD	34.7	14.6	29.4	12.8	17.4	7.7
143*	Black Diamond–Renton TC–Seattle CBD	17.1	11.4				
150	Kent Station–Southcenter–Seattle CBD	41.3	20.4	37.4	18.8	29.3	18.0
157	Lake Meridian–Seattle CBD	13.5	9.8				
158	Kent East Hill–Seattle CBD	25.5	17.6				
159	Timberlane–Seattle CBD	18.9	13.3				
167	Renton–Newport Hills–University District	25.9	21.4				
177	Federal Way–Seattle CBD	20.4	12.6				
178	South Federal Way–Seattle CBD	20.6	14.3				
179	Twin Lakes–Seattle CBD	21.8	16.3				
190	Redondo Heights–Seattle CBD	20.4	13.6				
192	Star Lake–Seattle CBD	19.4	12.9				

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
193EX	Federal Way–First Hill	**24.6**	17.0				
197	Twin Lakes–University District	**21.9**	**18.1**				
212	Eastgate–Seattle CBD	41.3	**21.9**	**54.4**	**25.1**		
214	Issaquah–Seattle CBD	28.7	17.6				
216	Sammamish–Seattle CBD	33.2	**23.9**				
217	Issaquah–Eastgate–Seattle CBD	**25.8**	17.2				
218	Issaquah Highlands–Seattle CBD	37.6	**23.9**				
219	Redmond–Sammamish–Seattle CBD	30.2	**24.9**				
252	Kingsgate–Seattle CBD	29.0	**18.3**				
255	Brickyard–Kirkland TC–Seattle CBD	36.6	**19.4**	**25.3**	13.2	23.2	**12.2**
257	Brickyard–Seattle CBD	28.6	**18.6**				
268	Redmond–Seattle CBD	33.2	**22.6**				
271	Issaquah–Bellevue–University District	**26.5**	11.4	**25.2**	10.9	17.5	7.7
277	Juanita–University District	**13.0**	**5.4**				
301	Aurora Village–Seattle CBD	34.5	**20.0**				
303EX	Shoreline–First Hill	31.2	15.9				
304	Richmond Beach–Seattle CBD	30.5	17.9				
308	Horizon View–Seattle CBD	**26.0**	14.9				
309EX*	Kenmore–First Hill	32.6	17.7				
311	Woodinville–Seattle CBD	27.5	**18.5**				
312EX	Bothell–Seattle CBD	32.0	16.0				
316*	Meridian Park–Seattle CBD	**50.7**	**21.1**				
355EX	Shoreline CC–University District–Seattle CBD	31.8	**11.1**				
372EX*	Bothell/Lake City–University District	38.1	13.2	40.2	14.5	**35.6**	8.9
373EX	Aurora Village–University Village	30.5	11.4				
601EX	Seattle CBD–Group Health (Tukwila)	**5.3**	**2.3**				
C Line*	Westwood Village–Alaska Junction–Seattle CBD	**52.5**	**21.8**	43.7	**18.2**	**28.0**	**12.7**
D Line*	Ballard–Seattle Center–Seattle CBD	**74.8**	**20.2**	**63.6**	**17.9**	**42.3**	**12.2**
E Line*	Aurora Village–Seattle CBD	**63.5**	**24.0**	**57.5**	**22.7**	**39.4**	**14.7**

Fall 2015 Thresholds: Urban Routes	Peak		Off Peak		Night	
Bottom 25%	**27.5**	**11.4**	**33.1**	**9.3**	**17.5**	**4.8**
Top 25%	**47.2**	**18.1**	**48.2**	**14.9**	**28.0**	**8.9**

* Designates routes receiving Seattle investments

Appendix D:
Peak Route Analysis

Route	Description	Alternative Route(s)*	Ridership ≥ 90% of Alternative	Travel Time ≥ 20% faster than Alternative
5EX	Greenwood–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
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	Yes	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	No	No
154	Tukwila Station–Boeing Industrial	124	No	No
157	Lake Meridian–Seattle CBD	None	Yes	Yes
158	Kent East Hill–Seattle CBD	164	Yes	No
159	Timberlane–Seattle CBD	164	Yes	No
167	Renton–Newport Hills–University District	560EX	Yes	Yes

Peak-only routes 27, 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.

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

** Route 30 was the alternative for Route 74EX through March 2016 and was used for this analysis. In the future, the alternative will be Route 75 to Link with a transfer at UW Station.

*** Route 71EX was the alternative for Route 76 through March 2016 and was used for this analysis. In the future, the alternative will be Route 71 to Link with a transfer at UW Station.

Route	Description	Alternative Route(s)*	Ridership ≥ 90% of Alternative	Travel Time ≥ 20% faster than Alternative
177	Federal Way–Seattle CBD	577EX	No	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	Yes	Yes
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 Way	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	No	Yes
219	Redmond–Sammamish–Seattle CBD	None	Yes	Yes
232	Duvall–Bellevue	248	Yes	Yes
237	Woodinville–Bellevue	311	No	Yes
244	Kenmore–Overlake	234	No	No
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	None	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.

** Route 16 was the alternative for Route 316 through March 2016 and was used for this analysis. In the future, the alternative will be Route 346 to Route 26 with a transfer at Northgate.

Appendix E: Route Reliability

Route	All-Day % Late	PM % Late	Saturday % Late	Sunday % Late
1	13%	15%	19%	16%
2	17%	20%	8%	12%
3	18%	19%	17%	14%
4	14%	15%	12%	13%
5EX	19%	19%	--	--
5	21%	32%	17%	10%
7	19%	22%	16%	11%
8	30%	39%	19%	17%
9EX	36%	45%	--	--
10	28%	37%	8%	7%
11	25%	45%	26%	17%
12	22%	31%	4%	11%
13	17%	20%	11%	9%
14	15%	20%	10%	13%
15EX	21%	16%	--	--
16	20%	29%	23%	20%
17EX	21%	34%	--	--
18EX	26%	37%	--	--
19	17%	20%	--	--
21EX	30%	35%	--	--
21	17%	29%	18%	9%
22	4%	9%	19%	27%
24	31%	27%	24%	12%
25	30%	68%	--	--
26EX	22%	20%	--	--
26	31%	34%	29%	18%
27	24%	36%	28%	19%
28EX	33%	42%	--	--
28	31%	38%	28%	23%
29	44%	51%	--	--
30	4%	4%	--	--
31	32%	41%	23%	--
32	27%	36%	30%	24%
33	21%	31%	22%	15%
36	16%	21%	10%	12%
37EX	12%	--	--	--
37	48%	48%	--	--
40	18%	27%	19%	19%
114	42%	46%	--	--

Route	All-Day % Late	PM % Late	Saturday % Late	Sunday % Late
41	19%	36%	6%	8%
43	17%	30%	24%	8%
44	10%	12%	15%	5%
47	12%	30%	12%	5%
48	24%	36%	34%	16%
49	24%	37%	13%	11%
50	15%	20%	8%	13%
55	28%	42%	--	--
56	15%	24%	--	--
57	30%	45%	--	--
60	27%	40%	13%	7%
64EX	47%	54%	--	--
65	16%	19%	14%	7%
66EX	23%	29%	10%	9%
67	14%	21%	12%	8%
68	24%	28%	13%	5%
70	19%	35%	12%	6%
71EX	15%	25%	17%	8%
71	7%	6%	15%	23%
72EX	17%	33%	18%	7%
72	12%	--	17%	17%
73EX	13%	26%	14%	8%
73	4%	17%	6%	4%
74EX	21%	27%	--	--
75	19%	29%	20%	15%
76	14%	11%	--	--
77EX	18%	19%	--	--
82	10%	--	10%	5%
83	37%	--	18%	26%
84	13%	--	49%	7%
99	23%	34%	--	--
101	24%	28%	26%	21%
102	29%	36%	--	--
105	28%	51%	23%	21%
106	24%	25%	15%	14%
107	23%	34%	15%	8%
111	40%	51%	--	--
113	32%	33%	--	--
190	41%	28%	--	--

Route	All-Day % Late	PM % Late	Saturday % Late	Sunday % Late
116EX	19%	9%	--	--
118EX	13%	7%	--	--
118	7%	9%	9%	--
119EX	23%	12%	--	--
119	11%	14%	--	--
120	13%	18%	9%	11%
121	28%	30%	--	--
122	31%	38%	--	--
123	24%	28%	--	--
124	32%	34%	31%	17%
125	12%	19%	16%	4%
128	26%	36%	7%	11%
131	34%	42%	30%	17%
132	24%	28%	27%	16%
143EX	36%	40%	--	--
143	20%	20%	--	--
148	22%	33%	17%	8%
150	21%	27%	17%	20%
153	29%	32%	--	--
154	10%	4%	--	--
156	7%	16%	11%	9%
157	36%	45%	--	--
158	32%	40%	--	--
159	28%	46%	--	--
164	22%	35%	17%	--
166	19%	45%	17%	9%
167	19%	28%	--	--
168	18%	25%	22%	22%
169	17%	33%	18%	9%
177	41%	36%	--	--
178	52%	54%	--	--
179	42%	51%	--	--
180	27%	48%	10%	10%
181	15%	23%	17%	11%
182	22%	25%	17%	6%
183	13%	20%	19%	--
186	15%	24%	--	--
187	18%	24%	21%	10%
301	14%	31%	--	--
303EX	30%	49%	--	--

Route	All-Day % Late	PM % Late	Saturday % Late	Sunday % Late
192	37%	26%	--	--
193EX	45%	47%	--	--
197	33%	39%	--	--
200	18%	--	--	--
201	20%	7%	--	--
204	4%	10%	--	--
208	11%	24%	10%	--
212	18%	27%	--	--
214	15%	17%	--	--
216	25%	31%	--	--
217	20%	16%	--	--
218	19%	11%	--	--
219	24%	30%	--	--
221	15%	28%	20%	15%
224	13%	33%	--	--
226	15%	23%	10%	13%
232	26%	26%	--	--
234	16%	25%	9%	10%
235	16%	25%	4%	7%
236	10%	20%	19%	13%
237	9%	2%	--	--
238	16%	23%	7%	7%
240	22%	28%	11%	10%
241	19%	24%	11%	11%
242	25%	21%	--	--
244	27%	37%	--	--
245	10%	13%	10%	6%
246	20%	36%	--	--
248	13%	19%	10%	5%
249	17%	22%	19%	10%
252	24%	33%	--	--
255	14%	20%	11%	7%
257	25%	36%	--	--
268	26%	25%	--	--
269	24%	33%	--	--
271	14%	25%	22%	9%
277	25%	30%	--	--
301EX	29%	35%	--	--
346	7%	11%	4%	4%
347	8%	15%	11%	10%

Route	All-Day % Late	PM % Late	Saturday % Late	Sunday % Late
304	22%	24%	--	--
308	20%	36%	--	--
309EX	34%	56%	--	--
311	18%	29%	--	--
312EX	26%	30%	--	--
316	21%	25%	--	--
330	22%	34%	--	--
331	15%	20%	21%	11%
342	18%	20%	--	--
345	11%	19%	21%	9%

Route	All-Day % Late	PM % Late	Saturday % Late	Sunday % Late
348	15%	28%	20%	8%
355EX	36%	56%	--	--
372EX	24%	33%	2%	3%
373EX	26%	48%	--	--
A Line	18%	21%	--	--
B Line	14%	17%	--	--
C Line	21%	24%	--	--
D Line	20%	23%	--	--
E Line	23%	25%	--	--
F Line	15%	16%	--	--

Appendix F:
2016 Service Changes

Route(s)	Summary of Change	Type of Change
MARCH SERVICE CHANGE		
5*	Adjust layover for selected trips near Central Base	Terminal change
8*	Improve reliability by splitting route into two segments and improving frequency	Reliability improvement, increased frequency
10*	Revise outbound routing to improve transit flow	Revised routing
16	Delete route	Deleted route
25	Delete route	Deleted route
346	Minor schedule adjustment on Saturdays	Schedule adjustment
177, 178, 179	Temporary relocation of layover in Belltown due to construction	Terminal change
158	Terminal for Route 158 will shift from on Blanchard St nearside of 6th Ave	Terminal change
3*, 4*	Revise the layovers for routes 3 and 4 on Queen Anne	Terminal change
105	Trips added on Saturday and Sunday	Added trips
60*, 193, 303	Revise routing on First Hill from Spruce St to Fir St	Revised routing
931	Expansion of DART area in Woodinville	Revised routing
24*, 31*	Relocate layover area in Magnolia	Terminal change
27*	Add new p.m. trip to address overcrowding	Added trips
30	Delete route	Deleted route
36	Revise and through-route two late night trips with route 70	Revised routing, schedule adjustment
38*	Split Route 8 into two segments at Mount Baker Transit Center	New route added
40*	Shift inbound routing to Westlake Avenue; add new inbound trip; increase span	Revised routing, added trips, Increased span
41*	Relocate terminal for selected trips	Terminal change
43*	Reduce route 43 to a peak only, peak direction route	Service reduction
45	Split route 48 into two segments; northern portion between Loyal Heights and U district will be called route 45; improve evening frequency and span	New route added
48*	Split route 48 into two segments; southern portion between Mount Baker and U district will be called route 48; improve frequency; restore service on 23rd Ave	Revised routing, increased frequency
49*	Revise terminals at both ends; improve weekday and Saturday frequencies; add owl trip; revise outbound routing to improve transit flow	Revised routing, increased frequency, added trips
62	New route connecting Sand Point, View Ridge, Bryant, Ravenna, Roosevelt, Green Lake, Wallingford, Fremont, S Lake Union, and downtown Seattle	New route added
63	New route connecting Northgate, Maple Leak, Green Lake, S Lake Union and First Hill	New route added
64EX*	Revise routing to serve S Lake Union instead of center of downtown Seattle	Revised routing

Route(s)	Summary of Change	Type of Change
65*	Revise routing; improve frequency; through-route with route 67	Revised routing, increased frequency
66	Delete route	Deleted route
67*	Revise routing; improve frequency and span; through-route with Route 65	Revised routing, increased span
68	Delete route	Deleted route
70*	Increase span and peak frequency	Increased span, increased frequency
71	Shorten route to operate between Wedgwood and the U district; delete Sunday service	Revised routing, decreased service
72	Delete route	Deleted route
73*	Shorten route to operate between Jackson Park and the U district; delete peak direction service; delete Sunday service	Revised routing, decreased service
74	Provide additional trips; revise routing to serve the Roosevelt/11th Ave NE couplet	Added trips, revised routing
76*	Add three AM and three PM trips; improve frequency and span	Added trips, increased frequency, increased span
77	Add 1 AM trip to address overcrowding	Added trips, increased span
78	Create new route to connect Laurelhurst and the U district	New route added
120*	Add two AM and three p.m. trips	Added trips
179	Add two AM and two p.m. peak trips	Added trips
190	Add two AM and two p.m. peak trips	Added trips
200	Extend route from Issaquah-Highlands P&R to Swedish Medical Center	Revised routing
214	Add one AM trip	Added trips
238	Extend route from UWB/CCC to Woodinville on weekdays only	Revised routing
240	Add two AM and one PM trip to address overcrowding; schedule adjustments	Added trips, schedule adjustment
242	Delete route	Deleted route
255	Add one AM and one PM peak trips; move from Bay B to Bay A in the DSTT; schedule adjustments	Added trips, schedule adjustment
301	Add one AM and one PM. peak trips to address overcrowding; schedule adjustments, adjust layover	Added trips, schedule adjustment, terminal change
309EX*	Revise PM routing between First Hill and South Lake Union to improve speed and reliability	Revised routing, reliability improvement
316	Add three AM and two PM peak trips; improve frequency and span	Added trips, increased frequency, increased span
355	Revise AM routing to better coordinate with the revised Route 74 due to construction	Revised routing
372EX*	Improve frequency and span; shorten route to UW Bothell; add weekend service between Lake City and U District, revise express stop instructions to include additional stops	Increased frequency, increased span, revised routing, added trips, added stops
373	Revise route to serve UW Station; add peak period trips	Revised routing, added trips
E Line*	Add four AM and four PM weekday trips to address overcrowding	Added trips

Route(s)	Summary of Change	Type of Change
915	Improve weekday-midday frequency	Increased frequency
101*, 102	Add one AM and two PM weekday peak trips; add one Saturday and four Sunday trips	Added trips
101*, 102, 167, 169	Revise routing to be more direct	Revised routing
131*, 132*	Change through-routes to routes 26 EX and 28 EX	Revised routing
15, 17, 18EX*	Adjust layover near Central Base	Terminal change
166, 180, 631	Adjust bay assignments at the Burien Transit Center	Terminal change
18EX*	Adjust 7:21 AM trip to depart at 7:26 AM	Schedule adjustment
2*, 13*	Convert second to last Route 2 trip into a Route 13 trip	Schedule adjustment
216, 218, 219	Add three new trips; schedule adjustments	Added trips, schedule adjustment
24*, 124	Schedule adjustment to improve span and operate a more even frequency	Schedule adjustment, increased span, increased frequency
26, 26EX*	Combine local and express variants; extend route to Northgate Transit Center	Revised routing
28, 28EX*	Combine local and express variants; revise routing to use N 39th St to access Aurora Ave N	Revised routing
308, 312	Adjust layover for Routes 308, 312	Revised routing
31*, 32*, 75	Improve frequency of route 75; through-route trips on routes 31/32 with Route 75; revise routing in Wallingford	Increased frequency, revised routing
33*, 27*	Adjust schedule to have evening trips depart eight minutes earlier	Schedule adjustment
43*, 44*	Separate four of the seven planned PM Peak Route 43 trips from Route 44 to improve reliability for the Route 44; add a new Route 44 outbound trip	Reliability improvement
5EX*	Add a new PM express trip to help address overcrowding	Added trips
63, 64EX*	Revise PM routing between first Hill and S Lake Union	Revised routing
C Line*, D Line*	Split the C and D lines; extend C line to S Lake Union; extend D line to 5th Ave S	Revised routing

Route(s)	Summary of Change	Type of Change
JUNE SERVICE CHANGE		
3*	Add new pm trip to address overcrowding at Garfield HS	Added trips
7*	Add trips to address to address overcrowding at Franklin HS, reschedule trips to reflect new bell times	Added trips, schedule adjustment
38*	Add trips to address overcrowding at Franklin HS	Added trips
55*	Add trips to address overcrowding at West Seattle HS	Added trips
60*	Add trips to address overcrowding at Cleveland HS	Added trips
346	Delete school tripper	Deleted trips
D Line*	Delete two trippers, adjust other trips to address new bell time	Deleted trips
31*	Remove "reduced weekday" designation from one AM trip	Schedule adjustment
891, 892, 894	Delete Wednesday AM service on school routes serving Mercer Island School District	Service reduction
E Line*	Add new trip to address overcrowding at Ingraham HS, adjust other trips to address new bell time	Added trips, schedule adjustment
823	Adjust schedule to reflect later bell time. Adjust PM routing to no longer serve International School.	Schedule adjustment
824	Adjust schedule to reflect later bell time. Adjust PM routing to no longer serve International School.	Schedule adjustment
886	Create new Bellevue School District route to serve between Newport/ Bellevue/International high schools.	New route added
887	Adjust schedule to reflect later bell time. Adjust PM routing to no longer serve International school.	Schedule adjustment
888	Adjust schedule to reflect later bell time. Adjust PM routing to no longer serve International school.	Schedule adjustment
889	Adjust schedule to reflect later bell time.	Schedule adjustment
73*, 373	Add trips to address overcrowding at Roosevelt HS	Added trips
SEPTEMBER SERVICE CHANGE		
8*	Improve frequency to South Lake Union in the 6:00–6:30 PM time period	Increased frequency
15	Add one AM trip to relieve overcrowding	Added trips
17	Improve capacity and frequency into downtown Seattle and Ballard	Increased frequency
18EX*	Improve capacity and frequency into downtown Seattle and Ballard	Increased frequency
24*	Improve frequency on weekdays and Saturdays	Increased frequency
27*	Minor routing revision due to a construction project on Yesler Way	Revised routing
27*	Revise through routing and CBD stop pattern	Revised routing
33*	Revise through routing and CBD stop pattern	Revised routing
33*	Improve frequency on weekdays and Saturdays	Increased frequency
38*	Discontinue route	Deleted route
40*	Improve capacity and frequency of service	Increased frequency
45*	Adjust trip times, consolidate low ridership trips	Schedule adjustment
48*	Add two trips; adjust evening trip times	Added trips, schedule adjustment
48*	Routing revision due to construction project	Revised routing

Route(s)	Summary of Change	Type of Change
62	Add a new morning trip, adjust trip times	Added trips, schedule adjustment
63	Add a new southbound trip, revise PM routing	Added trips, revised routing
64EX*	Revise PM routing	Revised routing
65*, 67*	Cancel the morning "reduced weekday" trip on Route 65; add new PM trip on Route 65; adjust trip times on Route 67	Added trips, schedule adjustment
71	Adjust schedule to stagger trips from Route 373 trips between NE 65th/15th NE and UW Station	Schedule adjustment
73*	Add Sunday service to east side of Maple Leaf	Added trips
75	Delete one late outbound AM trip	Service reduction
76*	Adjust trip times	Schedule adjustment
77	Add four new trips	Added trips
106	Revise routing to operate through Rainier Valley to the International District	Revised routing
107	Revise and extend routing to S Lander St/15th Ave S via Beacon Hill and Georgetown	Revised routing
118	Add Sunday service on Route 118	Added service
120*	Add new AM trip	Added trips
124*	Improve frequency on weekdays and Saturdays	Increased frequency
131*	Add one new inbound Route 26X, consolidate two Route 131 outbound AM trips	Schedule adjustment
132*	Adjust trips times to smooth headways during peak	Schedule adjustment
143*	Revise routing due to new construction	Revised routing
148	Revise and extend routing to S Lander St/15th Ave S via Beacon Hill and Georgetown	Revised routing, increased span
193	Revise AM inbound routing	Added trips
243	New express route to serve between Overlake Transit Center and Kenmore Park-and-Ride	New route added
244	Connect new Route 243 Express trips to some Route 244 trips	Schedule adjustment
249	Revise to operate as a live loop in South Bellevue and Beaux Arts	Revised routing
303	Revise PM routing	Revised routing
304	Minor routing revision due to construction project on Yesler Way	Revised routing
309EX*	Revise PM routing	Revised routing
316	Adjust trip times	Schedule adjustment
355	Minor routing revision due to construction project on Yesler Way	Revised routing
372EX*	Add one AM and two PM trips; adjust schedule	Added trips
373	Add one pair of new stops	Added stops

Route(s)	Summary of Change	Type of Change
915	Extend the fixed routing in Enumclaw from Griffin Ave/Well St to Griffin Ave/Cedar St	Increased span
21EX*	Add one AM trip to relieve overcrowding	Added trips
9EX*	Reduce to operate peak only	Decrease service
11*, 49*	Shift outbound pathway of route 49 and 11 between Pike S. and Pine St to Eighth Ave and Pine St from Pike St and Bellevue Ave	Revised routing
111, 114	Extend the AM inbound routing from Howell St/Ninth Ave to Howell St/ Minor Ave	Revised routing
118, 119	Adjust weekday schedule	Schedule adjustment
177, 178, 190	Extend the AM inbound routing from Olive Way/Eighth Ave to Howell St/ Minor Ave	Revised routing
26EX*	Add one new inbound Route 26X	Added trips
28EX*	Adjust trips times to smooth headways during peak	Schedule adjustment
65*, 67*	Add two trips to the Route 65 and one to the Route 67 to address overcrowding issues	Added trips
73*, 373	Adjust trip times	Schedule adjustment
D Line*	Minor routing revision due to a construction project on Yesler Way	Revised routing
D Line*	Revise to terminate on S Main St between Third and Fourth Ave S after 9 PM	Revised routing
F Line	Return inbound/southbound service between Logan Ave N/N Eighth St and the Renton Transit Center back to the regular routing via Logan Ave N/S	Revised routing

* Designates routes receiving Seattle investments

Appendix G:
Route-level Ridership (weekday average, spring 2015 and fall 2015)

Route	Weekday Rides in Spring 2015	Weekday Rides in Fall 2015	Change in Rides	Weekday Platform Hours in Spring 2015	Weekday Platform Hours in Fall 2015	Change in Platform Hours
1	2,400	2,600	200	48	65	17
2	5,600	6,200	600	127	136	9
3	6,400	7,700	1,300	133	150	17
4	5,300	3,700	-1,600	113	99	-14
5	8,100	8,300	200	153	183	30
7	13,400	12,300	-1,100	250	259	9
8	10,000	9,400	-600	211	212	1
9	2,900	2,900	0	65	77	12
10	4,700	4,800	100	84	94	10
11	3,400	4,000	600	65	89	24
12	3,600	3,700	100	74	84	10
13	3,300	2,900	-400	61	60	-1
14	2,800	3,400	600	66	84	18
15EX	1,100	1,300	200	21	27	6
16	4,900	4,900	0	163	177	14
17EX	900	900	0	15	18	3
18EX	900	1,000	100	18	21	3
19	0	300	300	0	12	12
21	5,000	4,900	-100	140	141	1
22	200	200	0	16	16	0
24	2,500	2,300	-200	61	69	8
25	500	600	100	27	33	6
26EX	700	700	0	15	15	0
26	3,000	2,900	-100	73	75	2
27	700	1,300	600	22	41	19
28EX	1,200	1,200	0	28	28	0
28	2,900	2,900	0	74	81	7
29	1,200	1,200	0	33	33	0
30	400	500	100	22	26	4
31	1,900	1,900	0	52	52	0
32	2,800	2,700	-100	71	71	0
33	2,100	2,000	-100	55	58	3
36	10,700	10,600	-100	232	232	0
37	200	200	0	11	11	0
40	9,300	10,900	1,600	207	273	66
41	10,000	10,100	100	179	190	11

Route	Weekday Rides in Spring 2015	Weekday Rides in Fall 2015	Change in Rides	Weekday Platform Hours in Spring 2015	Weekday Platform Hours in Fall 2015	Change in Platform Hours
43	7,600	7,000	-600	148	152	4
44	7,600	8,100	500	136	154	18
47	0	700	700	0	23	23
48	12,300	11,500	-800	246	239	-7
49	7,800	7,400	-400	132	142	10
50	2,200	2,400	200	109	109	0
55	800	1,000	200	22	30	8
56	800	700	-100	19	20	1
57	400	400	0	10	11	1
60	5,300	5,300	0	141	151	10
64EX	800	800	0	25	26	1
65	3,200	3,300	100	87	88	1
66EX	3,300	3,200	-100	88	92	4
67	1,700	1,700	0	41	41	0
68	2,100	2,200	100	48	47	-1
70	4,700	5,600	900	102	147	45
71	5,100	4,800	-300	91	96	5
72	4,800	4,800	0	83	95	12
73	5,900	6,000	100	101	114	13
74EX	1,300	1,300	0	22	24	2
75	4,600	4,400	-200	98	99	1
76	1,200	1,200	0	21	32	11
77EX	1,100	900	-200	18	20	2
82	<50	<50	0	4	4	0
83	100	100	0	4	4	0
84	<50	<50	0	3	3	0
99	400	300	-100	16	16	0
101	5,200	5,000	-200	109	110	1
102	1,000	1,000	0	25	25	0
105	1,100	1,000	-100	37	37	0
106	5,400	5,100	-300	134	135	1
107	1,400	1,500	100	63	66	3
111	900	900	0	36	35	-1
113	300	300	0	12	12	0
114	400	400	0	18	18	0
116EX	600	600	0	30	31	1
118EX	200	200	0	10	11	1
118	300	300	0	33	33	0

Route	Weekday Rides in Spring 2015	Weekday Rides in Fall 2015	Change in Rides	Weekday Platform Hours in Spring 2015	Weekday Platform Hours in Fall 2015	Change in Platform Hours
119EX	100	100	0	5	5	0
119	100	200	100	13	13	0
120	9,200	8,900	-300	209	213	4
121	1,000	1,000	0	47	47	0
122	600	600	0	25	25	0
123	400	300	-100	12	12	0
124	3,600	3,200	-400	97	100	3
125	2,000	2,000	0	58	58	0
128	4,200	4,000	-200	134	134	0
131	3,200	3,100	-100	81	80	-1
132	3,200	3,000	-200	101	99	-2
143	600	600	0	27	33	6
148	600	600	0	38	40	2
150	7,300	7,200	-100	185	186	1
153	400	400	0	20	21	1
154	100	200	100	8	8	0
156	1,200	1,200	0	65	65	0
157	200	200	0	16	16	0
158	600	600	0	24	25	1
159	500	400	-100	23	24	1
164	2,100	2,000	-100	48	48	0
166	2,300	2,100	-200	78	80	2
167	400	400	0	16	16	0
168	1,700	1,600	-100	68	68	0
169	3,300	3,000	-300	78	79	1
177	600	600	0	30	30	0
178	700	600	-100	29	29	0
179	600	700	100	30	30	0
180	4,600	4,400	-200	148	148	0
181	2,300	2,200	-100	86	87	1
182	500	500	0	28	28	0
183	700	700	0	34	34	0
186	200	200	0	19	20	1
187	500	500	0	20	20	0
190	400	400	0	19	19	0
192	200	200	0	12	12	0
193EX	600	700	100	27	27	0
197	800	800	0	37	37	0

Route	Weekday Rides in Spring 2015	Weekday Rides in Fall 2015	Change in Rides	Weekday Platform Hours in Spring 2015	Weekday Platform Hours in Fall 2015	Change in Platform Hours
200	100	100	0	13	13	0
201	<50	<50	0	3	3	0
204	200	200	0	19	19	0
208	200	100	-100	17	17	0
212	2,700	2,900	200	62	68	6
214	1,200	1,200	0	40	41	1
216	1,000	900	-100	24	26	2
217	200	200	0	8	8	0
218	1,100	1,100	0	23	29	6
219	1,000	800	-200	29	28	-1
221	1,500	1,500	0	80	80	0
224	100	100	0	16	16	0
226	1,700	1,700	0	61	63	2
232	400	400	0	22	23	1
234	1,400	1,500	100	73	74	1
235	1,100	1,200	100	66	66	0
236	500	500	0	59	61	2
237	100	100	0	5	6	1
238	800	800	0	65	65	0
240	2,400	2,400	0	97	97	0
241	800	800	0	39	41	2
242	400	400	0	23	24	1
244	200	200	0	19	18	-1
245	3,900	3,700	-200	146	148	2
246	400	400	0	29	29	0
248	1,000	1,000	0	55	55	0
249	1,100	1,000	-100	56	56	0
252	700	700	0	25	25	0
255	6,900	6,900	0	218	218	0
257	600	600	0	23	22	-1
268	500	500	0	15	15	0
269	600	600	0	50	50	0
271	6,200	5,900	-300	222	223	1
277	300	200	-100	19	19	0
301	1,600	1,600	0	47	48	1
303EX	1,300	1,300	0	39	40	1
304	400	500	100	15	15	0
308	200	200	0	9	9	0

Route	Weekday Rides in Spring 2015	Weekday Rides in Fall 2015	Change in Rides	Weekday Platform Hours in Spring 2015	Weekday Platform Hours in Fall 2015	Change in Platform Hours
309EX	500	500	0	14	15	1
311	1,100	1,100	0	43	42	-1
312EX	2,200	2,400	200	61	76	15
316	1,000	900	-100	16	17	1
330	400	400	0	14	14	0
331	900	1,000	100	47	47	0
342	300	300	0	17	17	0
345	1,300	1,300	0	38	38	0
346	1,400	1,300	-100	43	43	0
347	1,400	1,400	0	56	56	0
348	1,300	1,500	200	56	56	0
355EX	900	900	0	31	30	-1
372EX	4,900	5,000	100	126	129	3
373EX	900	900	0	29	31	2
601EX	<50	<50	0	5	5	0
A Line	10,100	9,800	-300	179	179	0
B Line	6,600	6,500	-100	160	161	1
C Line	8,300	9,100	800	172	196	24
D Line	11,700	12,300	600	161	183	22
E Line	15,800	16,400	600	271	284	13
F Line	5,700	5,700	0	178	178	0
773	100	200	100	8	16	8
775	100	200	100	5	9	4
823	100	0	-100	2	1	-1
824	100	100	0	2	1	-1
887	100	100	0	2	2	0
888	100	100	0	2	2	0
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	1	-1
894	100	100	0	2	2	0
895	<50	100	50	2	1	-1
901DART	300	300	0	18	18	0
903DART	300	300	0	19	24	5
906DART	400	300	-100	26	26	0
907DART	100	100	0	19	19	0
908DART	100	100	0	10	10	0

Route	Weekday Rides in Spring 2015	Weekday Rides in Fall 2015	Change in Rides	Weekday Platform Hours in Spring 2015	Weekday Platform Hours in Fall 2015	Change in Platform Hours
910DART	100	100	0	9	9	0
913DART	200	200	0	13	12	-1
914DART	200	200	0	10	10	0
915DART	200	100	-100	7	7	0
916DART	200	200	0	11	11	0
917DART	200	200	0	14	14	0
930DART	100	100	0	13	13	0
931DART	100	100	0	28	28	0
952	300	300	0	26	26	0
980	<50	<50	0	1	1	0
981	<50	<50	0	2	2	0
982	100	100	0	3	3	0
984	<50	<50	0	2	2	0
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	3	-1
994	100	100	0	3	3	0
995	<50	100	50	3	3	0

Appendix H:
Corridor Analysis of All-Day Network

The corridor analysis tables listed on the following pages are based on data from fall 2015 to winter 2016. This period pre-dates significant restructures to the system in March and September 2016, so some of the route associations in the table are outdated. Metro is undertaking a process to re-assign routes to corridors affected by these restructures.

The tables reflect the following updates to the service guidelines:

- Addition of park-and-rides stalls to the households metric
- Change in definition of low-income from 100% to 200% of the federal poverty level
- New point structure for social equity scores
- New system to classify connections to centers
- New point structure for geographic value scores
- Removal of the redundant cost recovery element

	Connections				Land Use - Productivity				Social Equity - Demographics				Geographic Value - Connections to Centers				Initial Target Service Levels		
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	HOUSEHOLDS/CORRIDOR MILE	POINTS	JOBS/CORRIDOR MILE	POINTS	MINORITY	POINTS	LOW-INCOME	POINTS	CONNECTION TYPE	POINTS	**TOTAL SCORE**	**RAPIDRIDE**	PEAK	OFFPEAK	NIGHT
1	Admiral District	Southcenter	California Ave SW, Military Rd, TIBS	128	1,068	2	979	2	67%	5	67%	5	RGC/MIC - TAC	7	21		15	30	30
2	Alki	SODO	Alaska Junction	50	1,241	4	2,215	4	24%	0	24%	0	RGC/MIC - TAC	7	15		30	30	0
3	Auburn	Burien	Kent, SeaTac	180	672	2	1,199	2	65%	5	99%	5	RGC/MIC - RGC/MIC	10	24		15	30	30
4	Auburn/GRCC	Federal Way	15th St SW, Lea Hill Rd	181	763	2	1,211	2	59%	5	88%	5	RGC/MIC - RGC/MIC	10	24		15	30	30
5	Aurora Village	Seattle CBD	Aurora Ave N	E Line	2,677	8	9,207	8	57%	5	60%	5	RGC/MIC - TAC	7	33	Yes	< 15	15	15
6	Aurora Village	Northgate	Meridian Av N	346	1,449	4	2,201	4	66%	5	55%	3	RGC/MIC - TAC	7	23		15	30	30
7	Avondale	Kirkland	NE 85th St, NE Redmond Wy, Avondale Wy NE	248	1,290	4	1,617	4	54%	5	0%	0	RGC/MIC - TAC	7	20		15	30	30
8	Ballard	U. District	Green Lake, Greenwood	48	2,440	8	9,022	8	9%	0	44%	3	RGC/MIC - TAC	7	26		15	15	30
9	Ballard	Northgate	Holman Road, Northgate	40	2,455	8	3,395	6	11%	0	11%	0	RGC/MIC - RGC/MIC	10	24		15	30	30
10	Ballard	Seattle CBD	15th Ave W	D Line	3,914	10	14,371	10	0%	0	0%	0	RGC/MIC - RGC/MIC	10	30	Yes	< 15	15	15
11	Ballard	U. District	Wallingford (N 45th St)	44	2,675	8	14,836	10	17%	0	17%	0	RGC/MIC - RGC/MIC	10	28		15	15	30
12	Ballard	Seattle CBD	Ballard/Interbay MIC, Fremont, South Lake Union	40	3,579	10	23,739	10	14%	0	21%	0	RGC/MIC - RGC/MIC	10	30		15	15	30
13	Beacon Hill	Seattle CBD	Beacon Ave	36	1,827	6	11,478	10	95%	5	100%	5	Other	2	28		15	15	30
14	Bellevue	Eastgate	Lake Hills Connector	271	851	2	5,459	6	98%	5	48%	3	RGC/MIC - TAC	7	23		15	30	30
15	Bellevue	Redmond	NE 8th St, 156th Ave NE	B Line	1,425	4	5,069	6	89%	5	12%	0	RGC/MIC - RGC/MIC	10	25	Yes	< 15	15	15
16	Bellevue	Renton	Newcastle, Factoria	240	1,139	2	3,712	6	92%	5	42%	3	RGC/MIC - TAC	7	23		15	30	30
17	Burien	Seattle CBD	Delridge, Ambaum	120	1,519	4	6,863	8	70%	5	93%	5	RGC/MIC - RGC/MIC	10	32		15	15	30
18	Burien	Seattle CBD	1st Ave S, South Park, Airport Wy	131	1,627	4	9,702	8	66%	5	100%	5	RGC/MIC - RGC/MIC	10	32		15	15	30
19	Burien	Seattle CBD	Des Moines Mem Dr, South Park	132	1,346	4	8,711	8	69%	5	100%	5	RGC/MIC - TAC	7	29		15	15	30
20	Capitol Hill	White Center	South Park, Georgetown, Beacon Hill, First Hill	60	2,067	6	5,427	6	89%	5	87%	5	RGC/MIC - RGC/MIC	10	32		15	15	30
21	Capitol Hill	Seattle CBD	15th Ave E	10	5,519	10	23,000	10	0%	0	86%	5	Other	2	27		15	15	30
22	Capitol Hill	Seattle CBD	Madison St	12	5,695	10	41,926	10	0%	0	100%	5	Other	2	27		15	15	30
23	Central District	Seattle CBD	E Jefferson St	3/4	6,937	10	38,173	10	74%	5	100%	5	RGC/MIC - RGC/MIC	10	40		15	15	30
24	Colman Park	Seattle CBD	Leschi, Yesler	27	4,671	10	22,172	10	89%	5	61%	5	Other	2	32		15	15	30
25	Cowen Park	Seattle CBD	University Way, I-5	71EX/72EX/73EX/74EX	2,164	6	22,880	10	71%	5	100%	5	RGC/MIC - RGC/MIC	10	36		15	15	30
26	Discovery Park	Seattle CBD	Gilman Ave W, 22nd Ave W, Thorndyke Av W	33	3,270	10	13,945	10	0%	0	1%	0	Other	2	22		15	30	30
27	Eastgate	Bellevue	Newport Wy , S. Bellevue, 112th	241	1,331	4	6,286	8	80%	5	32%	0	Other	2	19		15	30	30
28	Eastgate	Bellevue	Somerset, Factoria, Woodridge	246	1,184	2	5,525	8	86%	5	16%	0	Other	2	17		30	30	0
29	Eastgate	Overlake	Phantom Lake	226	896	2	2,579	4	32%	0	15%	0	Other	2	8		60	60	0
30	Enumclaw	Auburn	Auburn Wy S, SR 164	186/915	261	0	394	0	43%	3	86%	5	RGC/MIC - TAC	7	15		30	30	0
31	Fairwood	Renton	S Puget Dr, Royal Hills	148	917	2	1,002	2	99%	5	71%	5	RGC/MIC - TAC	7	21		15	30	30
32	Federal Way	SeaTac	SR-99	A Line	990	2	2,220	4	100%	5	100%	5	RGC/MIC - RGC/MIC	10	26	Yes	< 15	15	15
33	Federal Way	Kent	Military Road	183	996	2	821	2	94%	5	89%	5	RGC/MIC - RGC/MIC	10	24		15	30	30
34	Fremont	Seattle CBD	Dexter Ave N	26/28	4,697	10	28,105	10	4%	0	5%	0	RGC/MIC - TAC	7	27		15	15	30
35	Fremont	U. District	N 40th St	31/32	2,219	6	27,764	10	10%	0	10%	0	RGC/MIC - TAC	7	23		15	30	30
36	Fremont	Whittier Hts	8th Av NW, 3rd Av NW	28	1,661	4	1,716	4	0%	0	0%	0	TAC - TAC	5	13		30	30	0
37	Green River CC	Kent	132nd Ave SE	164	980	2	1,893	4	82%	5	87%	5	RGC/MIC - TAC	7	23		15	30	30
38	Greenwood	Seattle CBD	Greenwood Ave N	5	4,047	10	14,118	10	4%	0	4%	0	RGC/MIC - TAC	7	27		15	15	30
39	High Point	Seattle CBD	35th Ave SW	21	2,175	6	10,712	10	63%	5	63%	5	RGC/MIC - TAC	7	33		15	15	30

† Figures rounded for display purposes.

Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points
> 3000	10	> 10250	10	FR: 50%	5	FR: 59%	5	RGC/MIC - RGC/MIC	10
> 2400	8	> 5500	8	DART: 46%	5	DART: 44%	5	RGC/MIC - TAC	7
> 1800	6	> 3000	6	FR: 32%	3	FR: 41%	3	TAC - TAC	5
> 1200	4	> 1400	4	DART: 32%	3	DART: 24%	3	Other	2
> 600	2	> 500	2	(FR: Fixed-route)				(RGC: Regional Growth Center)	
				(DART: Dial-a-Ride Transit)				(MIC: Manufacturing/Industrial Center)	
								(TAC: Transit Activity Center)	

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

	Connections				Land Use - Productivity				Social Equity - Demographics				Geographic Value - Connections to Centers				Initial Target Service Levels		
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	HOUSEHOLDS/CORRIDOR MILE	POINTS	JOBS/CORRIDOR MILE	POINTS	MINORITY	POINTS	LOW-INCOME	POINTS	CONNECTION TYPE	POINTS	**TOTAL SCORE**	**RAPIDRIDE**	PEAK	OFFPEAK	NIGHT
40	Issaquah	Eastgate	Newport Way	271	588	0	2,480	4	68%	5	53%	3	Other	2	14		30	30	0
41	Issaquah	Overlake	Sammamish, Bear Creek	269	585	0	1,746	4	63%	5	0%	0	RGC/MIC - RGC/MIC	10	19		15	30	30
42	Issaquah	North Bend	Fall City, Snoqualmie	208	258	0	397	0	0%	0	44%	3	RGC/MIC - TAC	7	10		30	30	0
43	Kenmore	Kirkland	Juanita	234	871	2	559	2	0%	0	23%	0	TAC - TAC	5	9		60	60	0
44	Kenmore	Shoreline	Lake Forest Park, Aurora Village TC	331	809	2	1,034	2	32%	0	63%	5	TAC - TAC	5	14		30	30	0
45	Kenmore	U. District	Lake Forest Park, Lake City	372EX	1,250	4	7,693	8	32%	0	72%	5	RGC/MIC - TAC	7	24		15	30	30
46	Kenmore	Totem Lake	Finn Hill, Juanita	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
47	Kennydale	Renton	Edmonds Av NE	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
48	Kent	Burien	Kent-DM Rd, S. 240th St, 1st Av S	166	895	2	1,259	2	56%	5	93%	5	RGC/MIC - TAC	7	21		15	30	30
49	Kent	Maple Valley	Kent-Kangley Road	168	671	2	707	2	39%	3	39%	0	RGC/MIC - TAC	7	14		30	30	0
50	Kent	Renton	Kent East Hill	169	884	2	1,414	4	100%	5	96%	5	RGC/MIC - RGC/MIC	10	26		15	15	30
51	Kent	Seattle CBD	Tukwila	150	677	2	5,972	8	99%	5	100%	5	RGC/MIC - RGC/MIC	10	30		15	15	30
52	Kent	Renton	84th Av S, Lind Av SW	153	463	0	2,914	4	100%	5	100%	5	RGC/MIC - RGC/MIC	10	24		15	30	30
53	Kirkland	Bellevue	South Kirkland	234/235	1,912	6	7,330	8	1%	0	0%	0	RGC/MIC - TAC	7	21		15	30	30
54	Kirkland	Factoria	Overlake, Crossroads, Eastgate	245	1,060	2	3,269	6	66%	5	17%	0	RGC/MIC - TAC	7	20		15	30	30
55	Lake City	Seattle CBD	NE 125th St, Northgate, I-5	41	1,559	4	8,617	8	55%	5	65%	5	RGC/MIC - RGC/MIC	10	32		15	15	30
56	Northgate	U. District	Lake City, Sand Point	75	1,467	4	9,456	8	35%	3	59%	5	RGC/MIC - TAC	7	27		15	15	30
57	Lake City	U. District	35th Ave NE	65	1,440	4	9,306	8	54%	5	56%	3	RGC/MIC - TAC	7	27		15	15	30
58	Laurelhurst	U. District	NE 45th St	25	440	0	17,509	10	45%	3	56%	3	Other	2	18		30	30	0
59	Madison Park	Seattle CBD	Madison St	11	4,485	10	17,316	10	0%	0	60%	5	RGC/MIC - TAC	7	32		15	15	30
60	Madrona	Seattle CBD	Union St	2	4,437	10	25,094	10	6%	0	74%	5	Other	2	27		15	15	30
61	Magnolia	Seattle CBD	34th Ave W, 28th Ave W	24	3,369	10	13,907	10	0%	0	0%	0	RGC/MIC - TAC	7	27		15	15	30
62	Mercer Island	S Mercer Island	Island Crest Way	204	700	2	692	2	0%	0	0%	0	TAC - TAC	5	9		60	60	0
63	Mirror Lake	Federal Way	S 312th St	901	1,073	2	569	2	97%	5	97%	5	Other	2	16		30	30	0
64	Mount Baker	Seattle CBD	31st Av S, S Jackson St	14	4,207	10	19,600	10	100%	5	100%	5	Other	2	32		15	15	30
65	Mountlake Terrace	Northgate	15th Ave NE, 5th Ave NE	347	1,585	4	1,917	4	48%	3	32%	0	Other	2	13		30	30	0
66	Mt Baker	U. District	23rd Ave E	48	1,680	4	12,488	10	76%	5	89%	5	RGC/MIC - TAC	7	31		15	15	30
67	NE Tacoma	Federal Way	SW 356th St, 9th Ave S	182	692	2	1,004	2	35%	3	35%	0	Other	2	9		60	60	0
68	Northgate	U. District	Roosevelt	66EX/67	2,071	6	9,870	8	17%	0	51%	3	RGC/MIC - RGC/MIC	10	27		15	15	30
69	Northgate	Seattle CBD	Green Lake, Wallingford	16	2,568	8	8,351	8	27%	0	42%	3	RGC/MIC - RGC/MIC	10	29		15	15	30
70	Northgate	U. District	Roosevelt Way NE, NE 75th St	68	1,993	6	14,001	10	26%	0	66%	5	Other	2	23		15	30	30
71	Othello Station	SODO	Columbia City Station	50	975	2	1,407	4	89%	5	89%	5	Other	2	18		30	30	0
72	Eastgate	Bellevue	Bell-Red Road	226	2,195	6	10,557	10	92%	5	9%	0	Other	2	23		15	30	30
73	Overlake	Bellevue	Sammamish Viewpoint, Northup Way	249	1,231	4	4,809	6	42%	3	0%	0	RGC/MIC - TAC	7	20		15	30	30
74	Pacific	Auburn	Algona	917	390	0	485	0	94%	5	100%	5	Other	2	12		30	30	0
75	Queen Anne	Seattle CBD	Queen Anne Ave N	2/13	5,260	10	22,306	10	10%	0	33%	0	Other	2	22		15	30	30
76	Queen Anne	Seattle CBD	Taylor Ave N	3/4	5,129	10	23,241	10	33%	3	93%	5	Other	2	30		15	15	30
77	Rainier Beach	Seattle CBD	Rainier Ave	7	2,017	6	11,062	10	93%	5	97%	5	Other	2	28		15	15	30
78	Rainier Beach	Seattle Center	MLK Jr Wy, E John St, Denny Way	8	3,005	10	4,387	6	44%	3	75%	5	RGC/MIC - RGC/MIC	10	34		15	15	30

† Figures rounded for display purposes.

Corridors 46 and 47 are not currently served by any route.

Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points
> 3000	10	> 10250	10	FR: 50%	5	FR: 59%	5	RGC/MIC - RGC/MIC	10
> 2400	8	> 5500	8	DART: 46%	5	DART: 44%	5	RGC/MIC - TAC	7
> 1800	6	> 3000	6	FR: 32%	3	FR: 41%	3	TAC - TAC	5
> 1200	4	> 1400	4	DART: 32%	3	DART: 24%	3	Other	2
> 600	2	> 500	2						

(FR: Fixed-route)
(DART: Dial-a-Ride Transit)

(RGC: Regional Growth Center)
(MIC: Manufacturing/Industrial Center)
(TAC: Transit Activity Center)

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

	Connections				Land Use - Productivity				Social Equity - Demographics				Geographic Value - Connections to Centers				Initial Target Service Levels		
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	HOUSEHOLDS/CORRIDOR MILE	POINTS	JOBS/CORRIDOR MILE	POINTS	MINORITY	POINTS	LOW-INCOME	POINTS	CONNECTION TYPE	POINTS	**TOTAL SCORE**	**RAPIDRIDE**	PEAK	OFFPEAK	NIGHT
79	Rainier Beach	Capitol Hill	Rainier Ave	9EX	2,292	6	5,647	8	91%	5	93%	5	TAC - TAC	5	29		15	15	30
80	Redmond	Eastgate	148th Ave, Crossroads, Bellevue College	221	865	2	2,159	4	81%	5	43%	3	RGC/MIC - TAC	7	21		15	30	30
81	Redmond	Totem Lake	Willows Road	930	813	2	2,408	4	77%	5	0%	0	RGC/MIC - RGC/MIC	10	21		15	30	30
82	Redmond	Fall City	Duvall, Carnation	224	469	0	553	2	52%	5	0%	0	RGC/MIC - TAC	7	14		30	30	0
83	Renton	Burien	S 154th St	F Line	697	2	1,718	4	87%	5	89%	5	RGC/MIC - RGC/MIC	10	26	Yes	< 15	15	15
84	Renton	Seattle CBD	MLK Jr Wy, I-5	101/102	875	2	6,957	8	96%	5	100%	5	RGC/MIC - RGC/MIC	10	30		15	15	30
85	Renton	Rainier Beach	West Hill, Rainier View	107	865	2	587	2	100%	5	100%	5	Other	2	16		30	30	0
86	Renton	Seattle CBD	Skyway, S. Beacon Hill	106	1,161	2	7,336	8	95%	5	94%	5	RGC/MIC - TAC	7	27		15	15	30
87	Renton	Renton Highlands	NE 4th St, Union Ave NE	105	1,335	4	2,592	4	97%	5	92%	5	RGC/MIC - TAC	7	25		15	15	30
88	Renton	Enumclaw	Maple Valley, Black Diamond	143EX/907	215	0	271	0	11%	0	0%	0	RGC/MIC - TAC	7	7		60	60	0
89	Renton Highlands	Renton	NE 7th St, Edmonds Av NE	908	1,080	2	2,797	4	81%	5	72%	5	Other	2	18		30	30	0
90	Richmond Beach	Northgate	Richmond Bch Rd, 15th Ave NE	348	1,693	4	2,031	4	53%	5	48%	3	RGC/MIC - TAC	7	23		15	30	30
91	S Vashon	N Vashon	Valley Center	118	51	0	71	0	0%	0	0%	0	Other	2	2		60	60	0
92	Sand Point	U. District	NE 55th St	30	1,657	4	13,727	10	9%	0	74%	5	RGC/MIC - TAC	7	26		15	15	30
93	Shoreline	U. District	Jackson Park, 15th Av NE	373EX	1,272	4	6,520	8	73%	5	52%	3	RGC/MIC - TAC	7	27		15	15	30
94	Shoreline CC	Northgate	N 130th St, Meridian Av N	345	1,565	4	3,796	6	34%	3	58%	3	RGC/MIC - TAC	7	23		15	30	30
95	Shoreline CC	Lake City	N 155th St, Jackson Park	330	1,418	4	1,884	4	31%	0	81%	5	TAC - TAC	5	18		30	30	0
96	Shoreline CC	Greenwood	Greenwood Av N	5	1,867	6	2,301	4	11%	0	31%	0	TAC - TAC	5	15		30	30	0
97	Totem Lake	Seattle CBD	Kirkland, SR-520	255	1,258	4	6,239	8	6%	0	16%	0	RGC/MIC - RGC/MIC	10	22		15	30	30
98	Woodinville	Kirkland	Kingsgate	236	1,086	2	882	2	31%	0	0%	0	RGC/MIC - TAC	7	11		30	30	0
99	Tukwila	Seattle CBD	Pacific Hwy S, 4th Ave S	124	1,671	4	9,701	8	90%	5	94%	5	RGC/MIC - RGC/MIC	10	32		15	15	30
100	Tukwila	Des Moines	McMicken Heights, Sea-Tac	156	555	0	1,165	2	93%	5	86%	5	RGC/MIC - RGC/MIC	10	22		15	30	30
101	Tukwila	Fairwood	S 180th St, Carr Road	906	590	0	1,401	4	100%	5	78%	5	RGC/MIC - TAC	7	21		15	30	30
102	Twin Lakes	Federal Way	SW Campus Dr, 1st Ave S	903	1,106	2	1,190	2	100%	5	98%	5	Other	2	16		30	30	0
103	Twin Lakes	Federal Way	S 320th St	187	908	2	596	2	100%	5	89%	5	Other	2	16		30	30	0
104	U. District	Seattle CBD	Eastlake, Fairview	70/71/72/73	3,388	10	34,680	10	37%	3	64%	5	RGC/MIC - RGC/MIC	10	38		15	15	30
105	U. District	Seattle CBD	Broadway	49	3,654	10	21,172	10	42%	3	75%	5	RGC/MIC - RGC/MIC	10	38		15	15	30
106	U. District	Bellevue	SR-520	271	851	2	12,018	10	82%	5	7%	0	RGC/MIC - RGC/MIC	10	27		15	15	30
107	U. District	Seattle CBD	Lakeview	25	2,636	8	24,878	10	21%	0	53%	3	Other	2	23		15	30	30
108	UW Bothell	Redmond	Woodinville, Cottage Lake	931	473	0	1,004	2	15%	0	0%	0	RGC/MIC - TAC	7	9		60	60	0
109	UW Bothell/CCC	Kirkland	132nd Ave NE, Lk Wash Voch Tech	238	1,018	2	1,572	4	13%	0	6%	0	RGC/MIC - TAC	7	13		30	30	0
110	Wedgwood	Cowen Park	View Ridge, NE 65th St	71EX	1,363	4	474	0	0%	0	11%	0	Other	2	6		60	60	0
111	West Seattle	Seattle CBD	Fauntleroy, Alaska Junction	C Line	2,264	6	8,732	8	18%	0	18%	0	RGC/MIC - TAC	7	21	Yes	< 15	15	15
112	White Center	Seattle CBD	16th Ave SW, SSCC	125	740	2	6,117	8	95%	5	95%	5	RGC/MIC - TAC	7	27		15	15	30

† Figures rounded for display purposes.

Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points	Threshold	Points
> 3000	10	> 10250	10	FR: 50%	5	FR: 59%	5	RGC/MIC - RGC/MIC	10
> 2400	8	> 5500	8	DART: 46%	5	DART: 44%	5	RGC/MIC - TAC	7
> 1800	6	> 3000	6	FR: 32%	3	FR: 41%	3	TAC - TAC	5
> 1200	4	> 1400	4	DART: 32%	3	DART: 24%	3	Other	2
> 600	2	> 500	2	(FR: Fixed-route)				(RGC: Regional Growth Center)	
				(DART: Dial-a-Ride Transit)				(MIC: Manufacturing/Industrial Center)	
								(TAC: Transit Activity Center)	

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

	Connections				Loads at Preliminary Service Level *			Load-Based Service Level Improvements			Other Policy-based Night Service Additions			Service Level Improvements			Final Target Service Levels and Family			
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	PRIMARY CONNECTIONS BETWEEN URBAN CENTERS	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	23%	51%	25%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
2	Alki	SODO	Alaska Junction	50	59%	46%	23%	1	-	-	-	30	30	1	-	-	15	30	30	Frequent
3	Auburn	Burien	Kent, SeaTac	180	27%	53%	35%	-	-	-	60	30	30	-	-	-	15	30	30	Frequent
4	Auburn/GRCC	Federal Way	15th St SW, Lea Hill Rd	181	17%	34%	23%	-	-	-	60	30	30	-	-	-	15	30	30	Frequent
5	Aurora Village	Seattle CBD	Aurora Ave N	E Line	118%	75%	55%	2	1	-	-	30	30	2	1	-	< 15	< 15	15	Very Frequent
6	Aurora Village	Northgate	Meridian Av N	346	22%	31%	12%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
7	Avondale	Kirkland	NE 85th St, NE Redmond Wy, Avondale Wy NE	248	16%	29%	19%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
8	Ballard	U. District	Green Lake, Greenwood	48	131%	50%	71%	2	-	1	-	30	30	2	-	1	< 15	15	15	Very Frequent
9	Ballard	Northgate	Holman Road, Northgate	40	121%	75%	73%	2	1	1	60	30	30	2	1	1	< 15	15	15	Very Frequent
10	Ballard	Seattle CBD	15th Ave W	D Line	101%	74%	48%	1	1	-	60	30	30	1	1	-	< 15	< 15	15	Very Frequent
11	Ballard	U. District	Wallingford (N 45th St)	44	108%	44%	81%	1	-	1	60	30	30	1	-	1	< 15	15	15	Very Frequent
12	Ballard	Seattle CBD	Ballard/Interbay MIC, Fremont, South Lake Union	40	121%	38%	73%	2	-	1	60	30	30	2	-	1	< 15	15	15	Very Frequent
13	Beacon Hill	Seattle CBD	Beacon Ave	36	122%	89%	85%	2	1	1	-	30	30	2	1	1	< 15	< 15	15	Very Frequent
14	Bellevue	Eastgate	Lake Hills Connector	271	44%	48%	24%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
15	Bellevue	Redmond	NE 8th St, 156th Ave NE	B Line	49%	30%	25%	-	-	-	60	30	30	-	-	-	< 15	15	15	Very Frequent
16	Bellevue	Renton	Newcastle, Factoria	240	19%	43%	11%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
17	Burien	Seattle CBD	Delridge, Ambaum	120	118%	39%	50%	2	-	-	60	30	30	2	-	-	< 15	15	30	Very Frequent
18	Burien	Seattle CBD	1st Ave S, South Park, Airport Wy	131	28%	21%	29%	-	-	-	60	30	30	-	-	-	15	15	30	Very Frequent
19	Burien	Seattle CBD	Des Moines Mem Dr, South Park	132	28%	18%	26%	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
20	Capitol Hill	White Center	South Park, Georgetown, Beacon Hill, First Hill	60	69%	39%	41%	1	-	-	60	30	30	1	-	-	< 15	15	30	Very Frequent
21	Capitol Hill	Seattle CBD	15th Ave E	10	130%	49%	91%	2	-	1	-	30	30	2	-	1	< 15	15	15	Very Frequent
22	Capitol Hill	Seattle CBD	Madison St	12	106%	33%	32%	1	-	-	-	30	30	1	-	-	< 15	15	30	Very Frequent
23	Central District	Seattle CBD	E Jefferson St	3/4	113%	94%	67%	2	1	1	60	30	30	2	1	1	< 15	< 15	15	Very Frequent
24	Colman Park	Seattle CBD	Leschi, Yesler	27	42%	13%	25%	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
25	Cowen Park	Seattle CBD	University Way, I-5	71EX/72EX/73EX/74EX	164%	97%	0%	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	62%	23%	22%	1	-	-	-	30	30	1	-	-	< 15	30	30	Frequent
27	Eastgate	Bellevue	Newport Wy , S. Bellevue, 112th	241	14%	22%	7%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
28	Eastgate	Bellevue	Somerset, Factoria, Woodridge	246	9%	9%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
29	Eastgate	Overlake	Phantom Lake	226	48%	43%	12%	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
30	Enumclaw	Auburn	Auburn Wy S, SR 164	186/915	29%	11%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
31	Fairwood	Renton	S Puget Dr, Royal Hills	148	22%	27%	23%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
32	Federal Way	SeaTac	SR-99	A Line	48%	47%	35%	-	-	-	60	30	30	-	-	-	< 15	15	15	Very Frequent
33	Federal Way	Kent	Military Road	183	11%	14%	N/A	-	-	-	60	30	30	-	-	-	15	30	30	Frequent
34	Fremont	Seattle CBD	Dexter Ave N	26/28	114%	33%	54%	2	-	-	-	30	30	2	-	-	< 15	15	30	Very Frequent
35	Fremont	U. District	N 40th St	31/32	91%	81%	68%	1	1	1	-	30	30	1	1	1	< 15	15	15	Very Frequent
36	Fremont	Whittier Hts	8th Av NW, 3rd Av NW	28	54%	15%	15%	-	-	-	-	-	-	-	-	-	30	30	0	Local
37	Green River CC	Kent	132nd Ave SE	164	34%	46%	23%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
38	Greenwood	Seattle CBD	Greenwood Ave N	5	96%	38%	78%	1	-	1	-	30	30	1	-	1	< 15	15	15	Very Frequent
39	High Point	Seattle CBD	35th Ave SW	21	51%	33%	38%	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent

† Figures rounded for display purposes.

Ridership*	Peak	OffPeak	Night
110%	2	2	2
55%	1	1	1

* The average load's proportion to the crowding threshold. Ridership service level improvements move the preliminary levels of service up one or two levels, e.g. a ridership service level improvement of 2 changes a 30 min. service to <15 or a 60 min. service to 15, etc.

Above Target
At Target
Below Target

	Connections				Loads at Preliminary Service Level *			Load-Based Service Level Improvements			Other Policy-based Night Service Additions			Service Level Improvements			Final Target Service Levels and Family			
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	PRIMARY CONNECTIONS BETWEEN URBAN CENTERS	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	26%	23%	24%	-	-	-	-	-	-	-	-	-	30	30	0	Local
41	Issaquah	Overlake	Sammamish, Bear Creek	269	11%	N/A	N/A	-	-	-	60	30	30	-	-	-	15	30	30	Frequent
42	Issaquah	North Bend	Fall City, Snoqualmie	208	0%	8%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
43	Kenmore	Kirkland	Juanita	234	53%	22%	12%	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
44	Kenmore	Shoreline	Lake Forest Park, Aurora Village TC	331	59%	36%	N/A	1	-	-	-	30	30	1	-	-	15	30	30	Frequent
45	Kenmore	U. District	Lake Forest Park, Lake City	372EX	100%	47%	39%	1	-	-	-	30	30	1	-	-	< 15	30	30	Frequent
46	Kenmore	Totem Lake	Finn Hill, Juanita	-	-	-	-	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
47	Kennydale	Renton	Edmonds Av NE	-	-	-	-	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
48	Kent	Burien	Kent-DM Rd, S. 240th St, 1st Av S	166	24%	42%	27%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
49	Kent	Maple Valley	Kent-Kangley Road	168	71%	33%	43%	1	-	-	-	30	30	1	-	-	15	30	30	Frequent
50	Kent	Renton	Kent East Hill	169	29%	26%	36%	-	-	-	60	30	30	-	-	-	15	15	30	Very Frequent
51	Kent	Seattle CBD	Tukwila	150	65%	38%	48%	1	-	-	60	30	30	1	-	-	< 15	15	30	Very Frequent
52	Kent	Renton	84th Av S, Lind Av SW	153	21%	N/A	N/A	-	-	-	60	30	30	-	-	-	15	30	30	Frequent
53	Kirkland	Bellevue	South Kirkland	234/235	46%	43%	32%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
54	Kirkland	Factoria	Overlake, Crossroads, Eastgate	245	61%	73%	25%	1	1	-	-	30	30	1	1	-	< 15	15	30	Very Frequent
55	Lake City	Seattle CBD	NE 125th St, Northgate, I-5	41	143%	48%	86%	2	-	1	60	30	30	2	-	1	< 15	15	15	Very Frequent
56	Northgate	U. District	Lake City, Sand Point	75	0%	21%	0%	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
57	Lake City	U. District	35th Ave NE	65	68%	21%	37%	1	-	-	-	30	30	1	-	-	< 15	15	30	Very Frequent
58	Laurelhurst	U. District	NE 45th St	25	14%	6%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
59	Madison Park	Seattle CBD	Madison St	11	79%	48%	58%	1	-	1	-	30	30	1	-	1	< 15	15	15	Very Frequent
60	Madrona	Seattle CBD	Union St	2	82%	49%	62%	1	-	1	-	30	30	1	-	1	< 15	15	15	Very Frequent
61	Magnolia	Seattle CBD	34th Ave W, 28th Ave W	24	45%	14%	26%	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
62	Mercer Island	S Mercer Island	Island Crest Way	204	36%	12%	N/A	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
63	Mirror Lake	Federal Way	S 312th St	901	33%	19%	29%	-	-	-	-	-	-	-	-	-	30	30	0	Local
64	Mount Baker	Seattle CBD	31st Av S, S Jackson St	14	84%	34%	58%	1	-	1	-	30	30	1	-	1	< 15	15	15	Very Frequent
65	Mountlake Terrace	Northgate	15th Ave NE, 5th Ave NE	347	49%	25%	42%	-	-	-	-	-	-	-	-	-	30	30	0	Local
66	Mt Baker	U. District	23rd Ave E	48	98%	50%	71%	1	-	1	-	30	30	1	-	1	< 15	15	15	Very Frequent
67	NE Tacoma	Federal Way	SW 356th St, 9th Ave S	182	42%	29%	16%	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
68	Northgate	U. District	Roosevelt	66EX/67	87%	35%	49%	1	-	-	60	30	30	1	-	-	< 15	15	30	Very Frequent
69	Northgate	Seattle CBD	Green Lake, Wallingford	16	85%	28%	49%	1	-	-	60	30	30	1	-	-	< 15	15	30	Very Frequent
70	Northgate	U. District	Roosevelt Way NE, NE 75th St	68	69%	50%	N/A	1	-	-	-	30	30	1	-	-	< 15	30	30	Frequent
71	Othello Station	SODO	Columbia City Station	50	59%	46%	23%	1	-	-	-	30	30	1	-	-	15	30	30	Frequent
72	Eastgate	Bellevue	Bell-Red Road	226	24%	43%	12%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
73	Overlake	Bellevue	Sammamish Viewpoint, Northup Way	249	13%	15%	16%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
74	Pacific	Auburn	Algona	917	20%	9%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
75	Queen Anne	Seattle CBD	Queen Anne Ave N	2/13	89%	98%	79%	1	1	1	-	30	30	1	1	1	< 15	15	15	Very Frequent
76	Queen Anne	Seattle CBD	Taylor Ave N	3/4	79%	45%	64%	1	-	1	-	30	30	1	-	1	< 15	15	15	Very Frequent
77	Rainier Beach	Seattle CBD	Rainier Ave	7	93%	65%	75%	1	1	1	-	30	30	1	1	1	< 15	< 15	15	Very Frequent
78	Rainier Beach	Seattle Center	MLK Jr Wy, E John St, Denny Way	8	48%	32%	21%	-	-	-	60	30	30	-	-	-	15	15	30	Very Frequent

† Figures rounded for display purposes.

Corridors 46 and 47 are not currently served by any route.

Ridership*	Peak	OffPeak	Night
110%	2	2	2
55%	1	1	1

* The average load's proportion to the crowding threshold. Ridership service level improvements move the preliminary levels of service up one or two levels, e.g. a ridership service level improvement of 2 changes a 30 min. service to <15 or a 60 min. service to 15, etc.

Above Target
At Target
Below Target

	Connections				Loads at Preliminary Service Level *			Load-Based Service Level Improvements			Other Policy-based Night Service Additions			Service Level Improvements			Final Target Service Levels and Family			
CORRIDOR ID NUMBER	BETWEEN	AND	VIA	MAJOR ROUTE	PEAK	OFFPEAK	NIGHT	PEAK	OFFPEAK	NIGHT	PRIMARY CONNECTIONS BETWEEN URBAN CENTERS	CORRIDOR HAS 15 MIN PEAK SERVICE	ADD WHAT FREQUENCY NIGHT SERVICE?	PEAK	OFFPEAK	NIGHT	**PEAK**	**OFFPEAK**	**NIGHT**	**RESULTING SERVICE FAMILY**
79	Rainier Beach	Capitol Hill	Rainier Ave	9EX	52%	16%	N/A	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
80	Redmond	Eastgate	148th Ave, Crossroads, Bellevue College	221	17%	36%	8%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
81	Redmond	Totem Lake	Willows Road	930	13%	N/A	N/A	-	-	-	60	30	30	-	-	-	15	30	30	Frequent
82	Redmond	Fall City	Duvall, Carnation	224	9%	5%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
83	Renton	Burien	S 154th St	F Line	21%	28%	15%	-	-	-	60	30	30	-	-	-	< 15	15	15	Very Frequent
84	Renton	Seattle CBD	MLK Jr Wy, I-5	101/102	130%	27%	49%	2	-	-	60	30	30	2	-	-	< 15	15	30	Very Frequent
85	Renton	Rainier Beach	West Hill, Rainier View	107	80%	37%	27%	1	-	-	-	30	30	1	-	-	15	30	30	Frequent
86	Renton	Seattle CBD	Skyway, S. Beacon Hill	106	58%	18%	29%	1	-	-	-	30	30	1	-	-	< 15	15	30	Very Frequent
87	Renton	Renton Highlands	NE 4th St, Union Ave NE	105	19%	13%	25%	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
88	Renton	Enumclaw	Maple Valley, Black Diamond	143EX/907	77%	5%	N/A	1	-	-	-	-	-	1	-	-	30	60	0	Local
89	Renton Highlands	Renton	NE 7th St, Edmonds Av NE	908	10%	8%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
90	Richmond Beach	Northgate	Richmond Bch Rd, 15th Ave NE	348	30%	32%	26%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
91	S Vashon	N Vashon	Valley Center	118	91%	22%	16%	1	-	-	-	-	-	1	-	-	30	60	0	Local
92	Sand Point	U. District	NE 55th St	30	15%	N/A	N/A	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
93	Shoreline	U. District	Jackson Park, 15th Av NE	373EX	49%	N/A	N/A	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent
94	Shoreline CC	Northgate	N 130th St, Meridian Av N	345	23%	43%	16%	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
95	Shoreline CC	Lake City	N 155th St, Jackson Park	330	7%	15%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
96	Shoreline CC	Greenwood	Greenwood Av N	5	96%	38%	19%	1	-	-	-	30	30	1	-	-	15	30	30	Frequent
97	Totem Lake	Seattle CBD	Kirkland, SR-520	255	121%	56%	44%	2	1	-	60	30	30	2	1	-	< 15	15	30	Very Frequent
98	Woodinville	Kirkland	Kingsgate	236	22%	14%	16%	-	-	-	-	-	-	-	-	-	30	30	0	Local
99	Tukwila	Seattle CBD	Pacific Hwy S, 4th Ave S	124	42%	17%	27%	-	-	-	60	30	30	-	-	-	15	15	30	Very Frequent
100	Tukwila	Des Moines	McMicken Heights, Sea-Tac	156	13%	22%	13%	-	-	-	60	30	30	-	-	-	15	30	30	Frequent
101	Tukwila	Fairwood	S 180th St, Carr Road	906	9%	22%	N/A	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
102	Twin Lakes	Federal Way	SW Campus Dr, 1st Ave S	903	41%	16%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
103	Twin Lakes	Federal Way	S 320th St	187	29%	12%	20%	-	-	-	-	-	-	-	-	-	30	30	0	Local
104	U. District	Seattle CBD	Eastlake, Fairview	70/71/72/73	115%	40%	75%	2	-	1	60	30	30	2	-	1	< 15	15	15	Very Frequent
105	U. District	Seattle CBD	Broadway	49	65%	39%	75%	1	-	1	60	30	30	1	-	1	< 15	15	15	Very Frequent
106	U. District	Bellevue	SR-520	271	89%	48%	48%	1	-	-	60	30	30	1	-	-	< 15	15	30	Very Frequent
107	U. District	Seattle CBD	Lakeview	25	14%	11%	N/A	-	-	-	-	30	30	-	-	-	15	30	30	Frequent
108	UW Bothell	Redmond	Woodinville, Cottage Lake	931	19%	N/A	N/A	-	-	-	-	-	-	-	-	-	60	60	0	Hourly
109	UW Bothell/CCC	Kirkland	132nd Ave NE, Lk Wash Voch Tech	238	22%	27%	N/A	-	-	-	-	-	-	-	-	-	30	30	0	Local
110	Wedgwood	Cowen Park	View Ridge, NE 65th St	71EX	90%	56%	25%	1	1	-	-	-	-	1	1	-	30	30	0	Local
111	West Seattle	Seattle CBD	Fauntleroy, Alaska Junction	C Line	118%	75%	49%	2	1	-	-	30	30	2	1	-	< 15	< 15	15	Very Frequent
112	White Center	Seattle CBD	16th Ave SW, SSCC	125	54%	24%	36%	-	-	-	-	30	30	-	-	-	15	15	30	Very Frequent

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Ridership*	Peak	OffPeak	Night
110%	2	2	2
55%	1	1	1

* The average load's proportion to the crowding threshold. Ridership service level improvements move the preliminary levels of service up one or two levels, e.g. a ridership service level improvement of 2 changes a 30 min. service to <15 or a 60 min. service to 15, etc.

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