



Bellevue Transit Master Plan



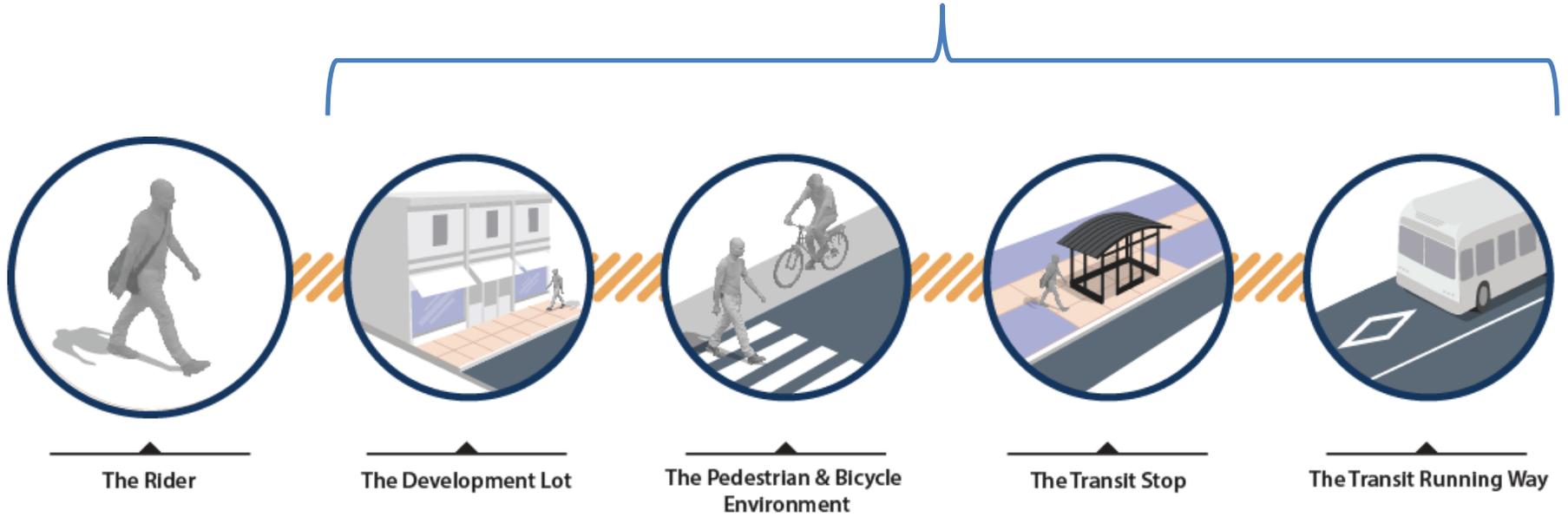
***Transportation Commission
January 9, 2014***



- 1. Commuter Park Needs Analysis Report**
- 2. Measures of Effectiveness Report**
- 3. Next Steps**



City of Bellevue's Influence



Park-and-Ride



Flyer Stop

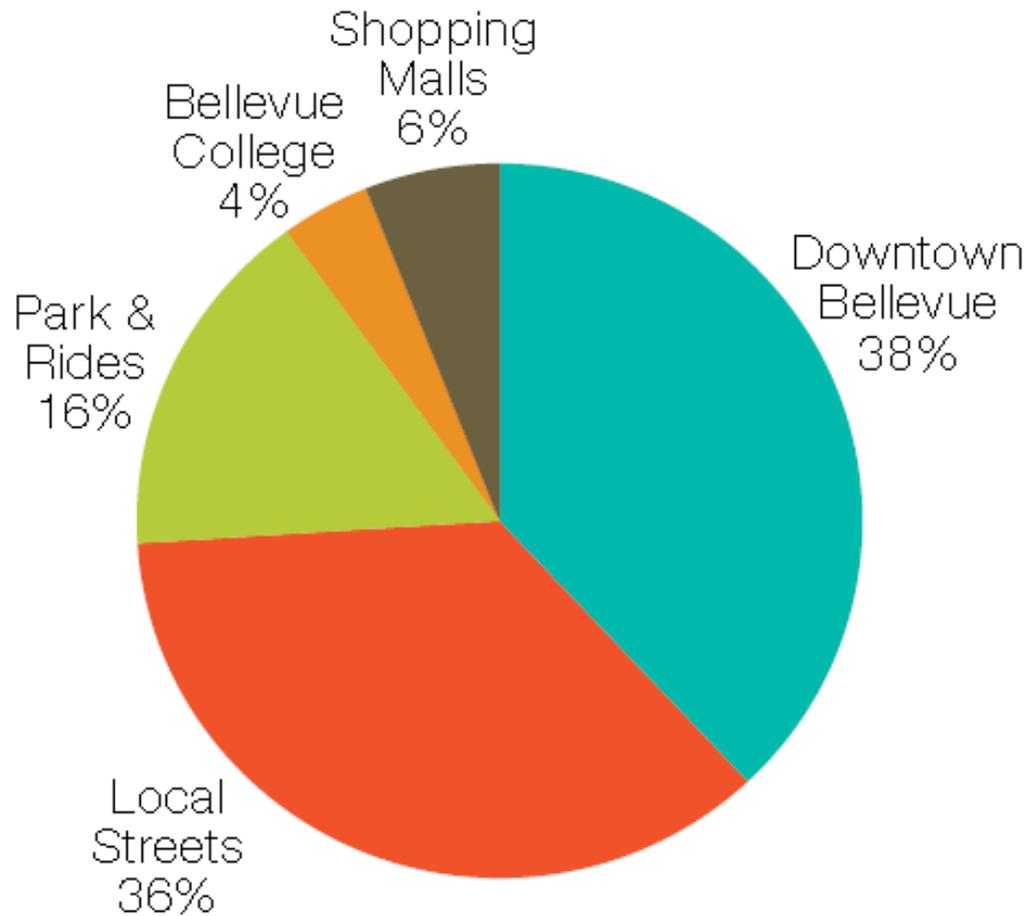


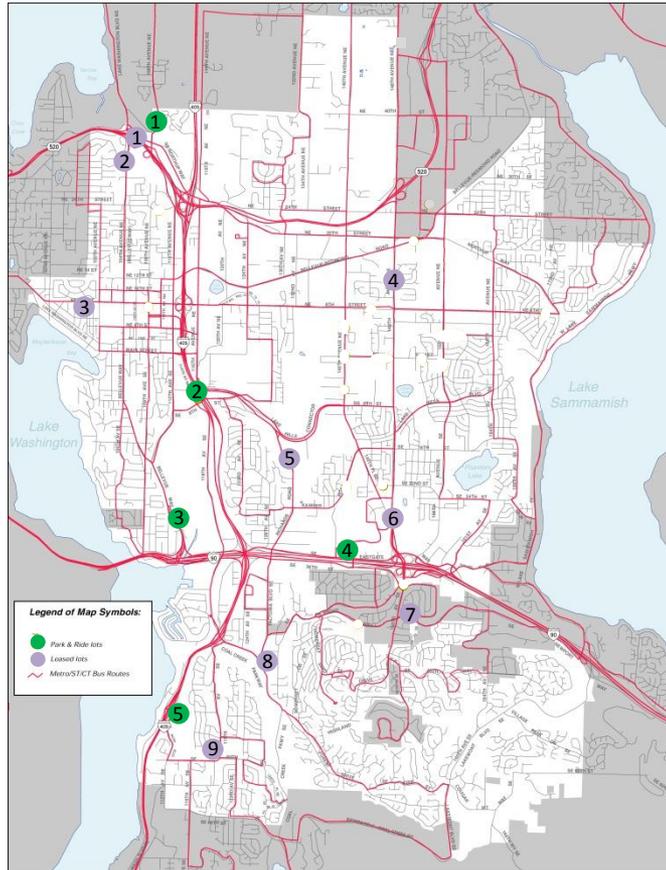
Transit Center



Bus Stop







Park-and-Ride Lots:

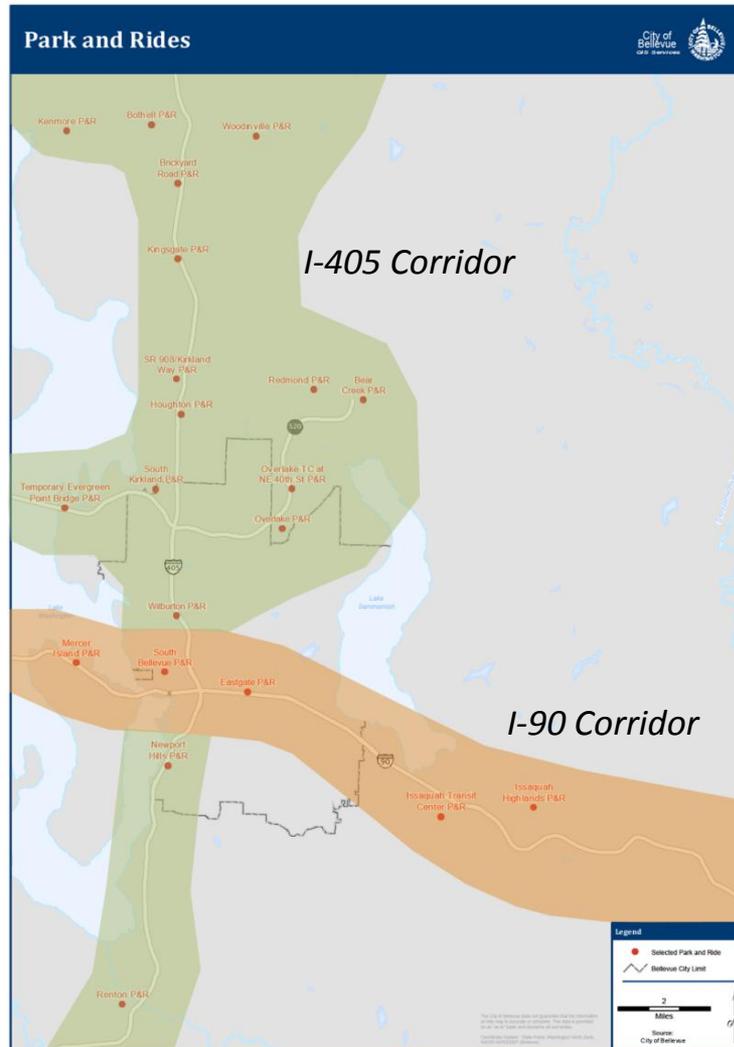
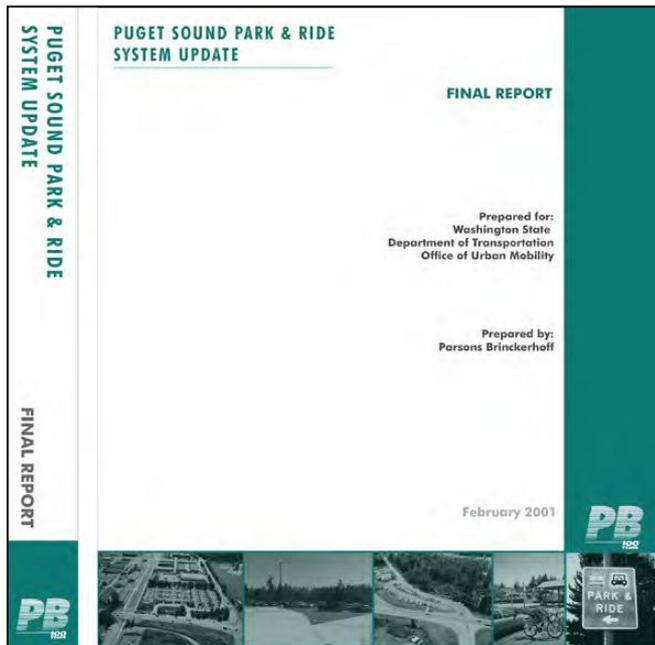
Map ID #	Park & Ride Lots	Lot Capacity	% Occupancy
1	S Kirkland (Bellevue and Kirkland)	783	100%*
2	Wilburton	186	82%
3	South Bellevue	519	100%
4	Eastgate	1,614	93%
5	Newport Hills	275	73%
TOTAL		3,377	

Leased Lots:

Map ID #	Leased Lots	Lot Capacity	% Occupancy
1	St. Luke's Lutheran Church	30	21%
2	St. Thomas Episcopal Church	64	38%
3	Grace Lutheran Church	50	100%
4	Bellevue Christian Reformed Church	20	5%
5	Bellevue Foursquare Church	35	8%
6	St. Andrew's Lutheran Church	20	37%
7	Eastgate Congregational Church	20	32%
8	Newport Covenant Church	75	50%
9	Newport Hills Community Church	37	72%
TOTAL		351	

- 100% occupancy for S Kirkland P & R is based on 2012 WSDOT observations. Current occupancy is undetermined due to recent opening of new garage.





I-90 Corridor:
 Mercer Island
 South Bellevue
 Eastgate
 Issaquah
 Issaquah
 Highlands
 Preston

I-405 Corridor:
 Kenmore
 Bothell
 Woodinville
 Brickyard
 Kingsgate
 SR 908 / Kirkland
 Way
 Houghton
 Redmond
 Bear Creek
 Evergreen Point
 S Kirkland
 NE 40th /
 Overlake TC
 Overlake
 Wilburton
 Newport Hills
 Renton

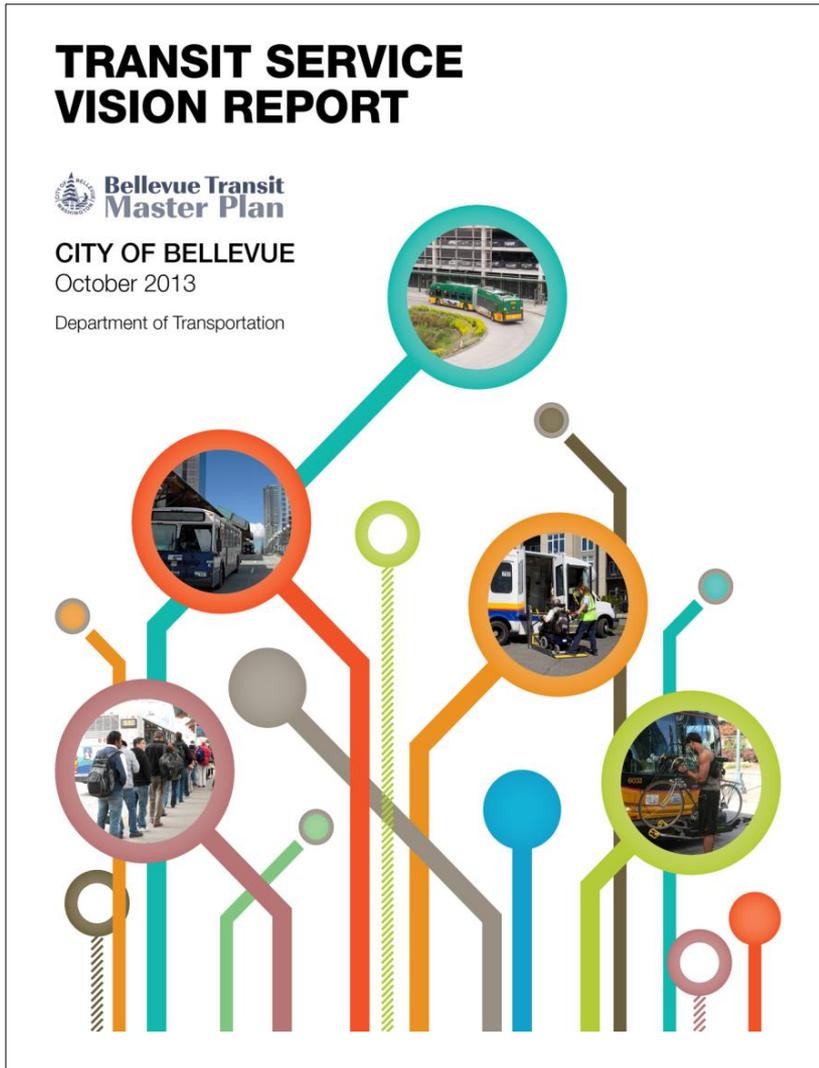


TRANSIT SERVICE VISION REPORT

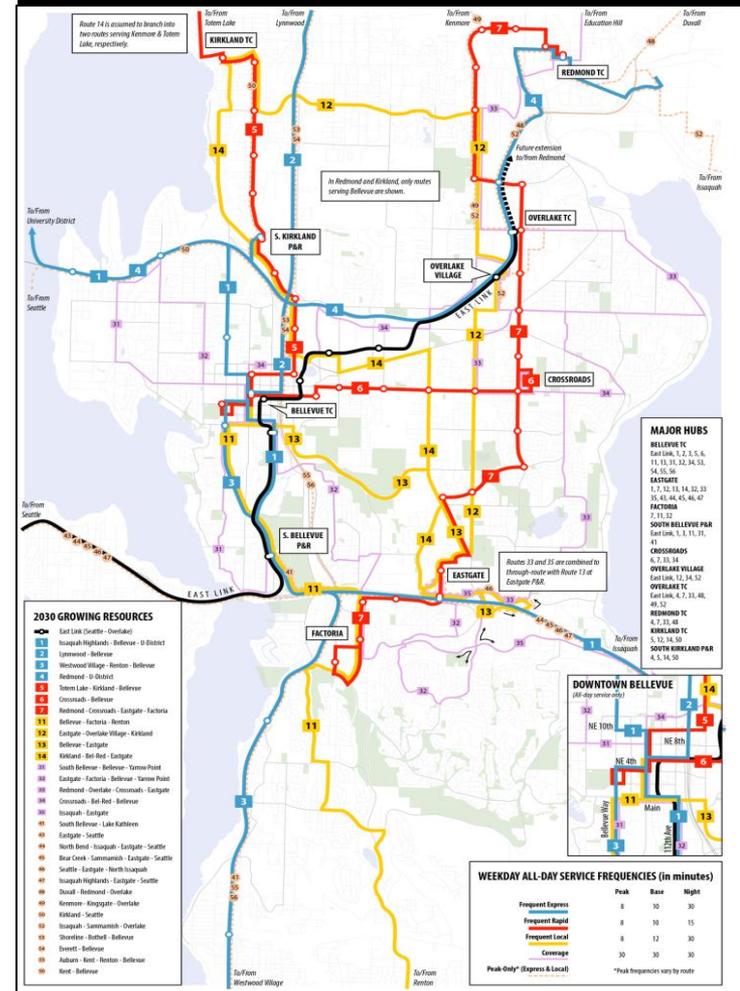


CITY OF BELLEVUE
October 2013

Department of Transportation



2030 Growing Resources



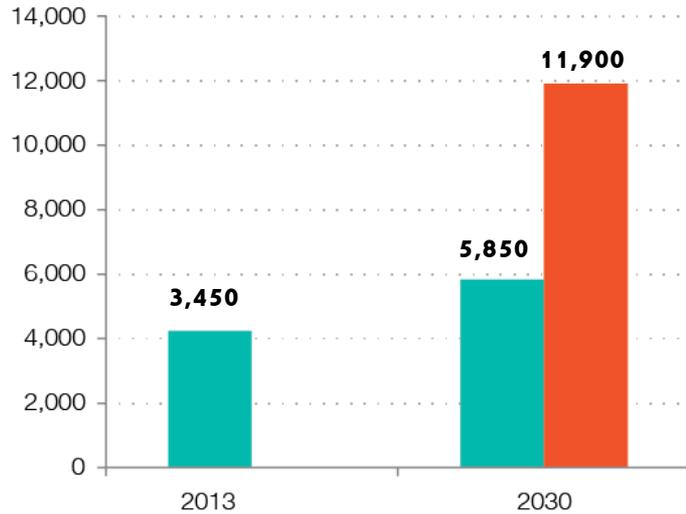
Constrained



Unconstrained

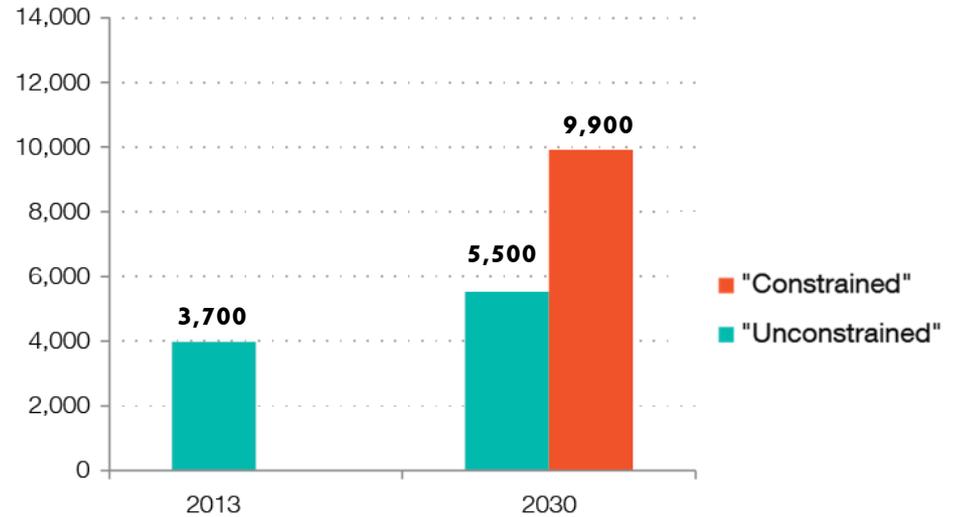


Interstate 90



2030 Constrained: 247 stall shortage
2030 Unconstrained: 6,310 stall shortage

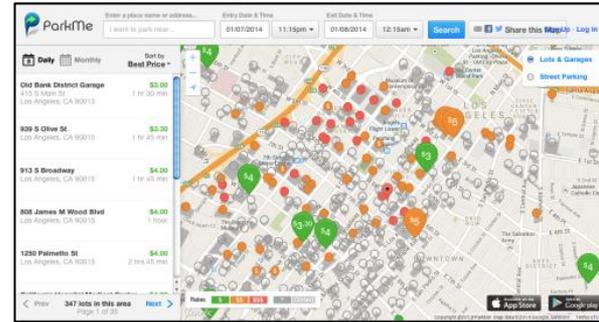
Interstate 405



2030 Constrained: 198 stall shortage
2030 Unconstrained: 4,596 stall shortage



Fees
(Sound Transit Pilot Study)



Technology (Los Angeles)



Leased Lots



New Construction



“Develop measures of effectiveness to evaluate transit investments and to track plan progress.”

- Bellevue City Council, Project Principles (Approved July 9, 2012)

1 Service Availability
Measure service availability on Bellevue's Frequent Transit Network corridors

2 Transit Usage
Measure transit usage in Bellevue's Mobility Management Areas.

3 Person Throughput
Measure person throughput by mode on Bellevue's Frequent Transit Network corridors.

4 Travel Time
Measure travel time savings resulting from speed and reliability improvements on Bellevue's Frequent Transit Network corridors.

Route Frequency

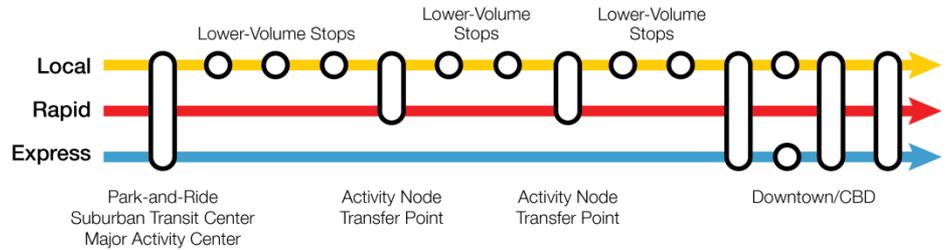
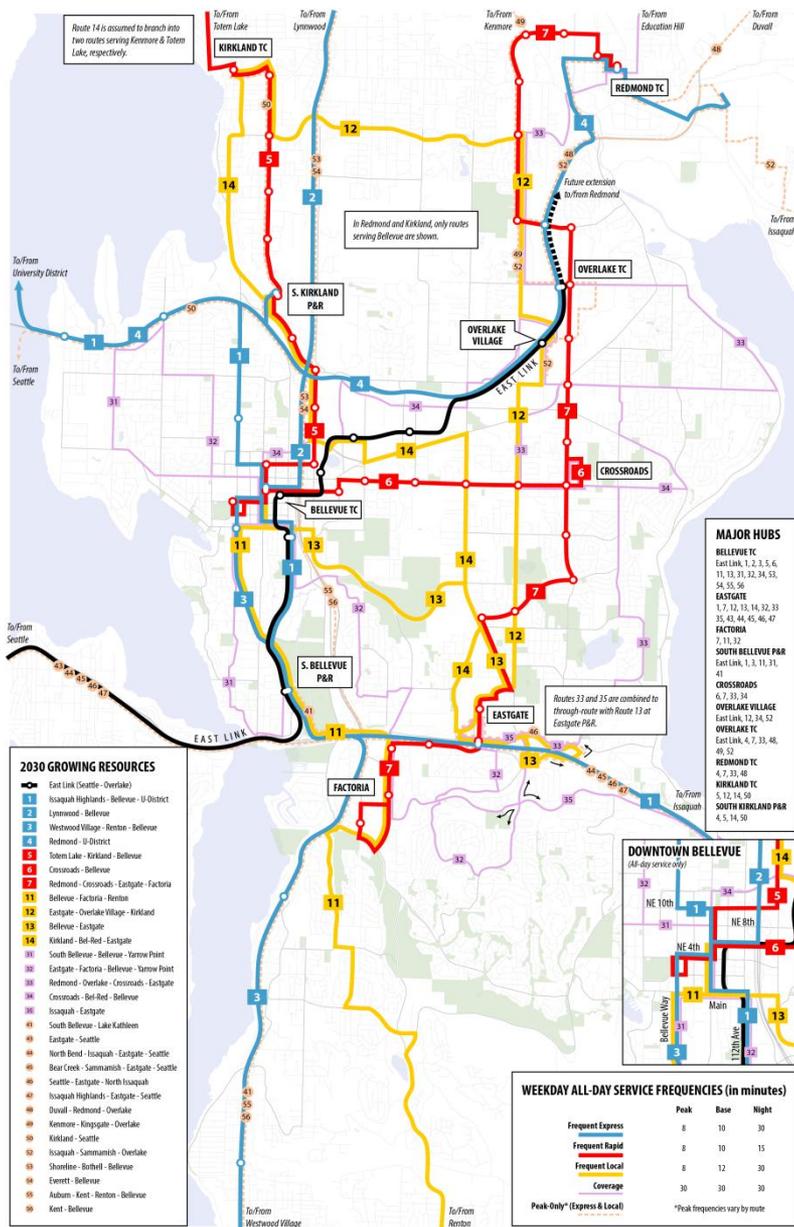
The number of transit vehicles scheduled to serve a given stop during one hour. The more frequent the service, the shorter the wait time and the greater the flexibility afforded to riders.



“Speed and frequency of service goes a long way to make up for schedule reliability and connection timing.”

“[I]f your frequency decreases, timed connections become more important. What really matters is the time I have to wait. If I have a well-timed connection but have to wait 30 minutes because my late bus just missed it, it's not much help. In order to encourage transfers you need frequency.”

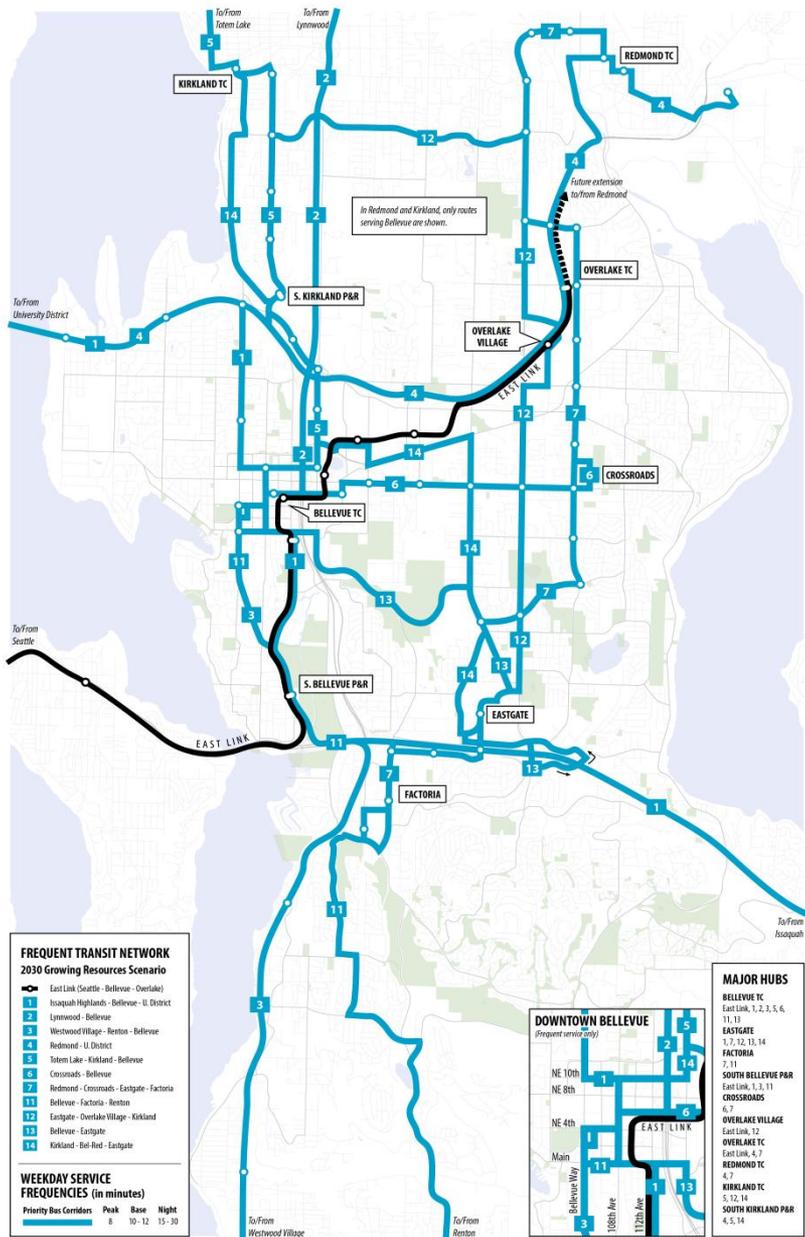




WEEKDAY ALL-DAY SERVICE FREQUENCIES (in minutes)

	Peak	Base	Night
Frequent Express	8	10	30
Frequent Rapid	8	10	15
Frequent Local	8	12	30
Coverage	30	30	30
Peak-Only* (Express & Local)			

*Peak frequencies vary by route



**FREQUENT TRANSIT NETWORK
2030 Growing Resources Scenario**

- East Link (Seattle - Bellevue - Overlake)
- 1 Issaquah Highlands - Bellevue - U. District
- 2 Lynnwood - Bellevue
- 3 Westwood Village - Renton - Bellevue
- 4 Redmond - U. District
- 5 Totem Lake - Kirkland - Bellevue
- 6 Crossroads - Bellevue
- 7 Redmond - Crossroads - Eastgate - Factoria
- 11 Bellevue - Factoria - Renton
- 12 Eastgate - Overlake Village - Kirkland
- 13 Bellevue - Eastgate
- 14 Kirkland - Bel-Red - Eastgate

**WEEKDAY SERVICE
FREQUENCIES (in minutes)**

Priority Bus Corridors	Peak	Base	Night
	8	10-12	15-30

DOWNTOWN BELLEVUE
(Frequent service only)



MAJOR HUBS

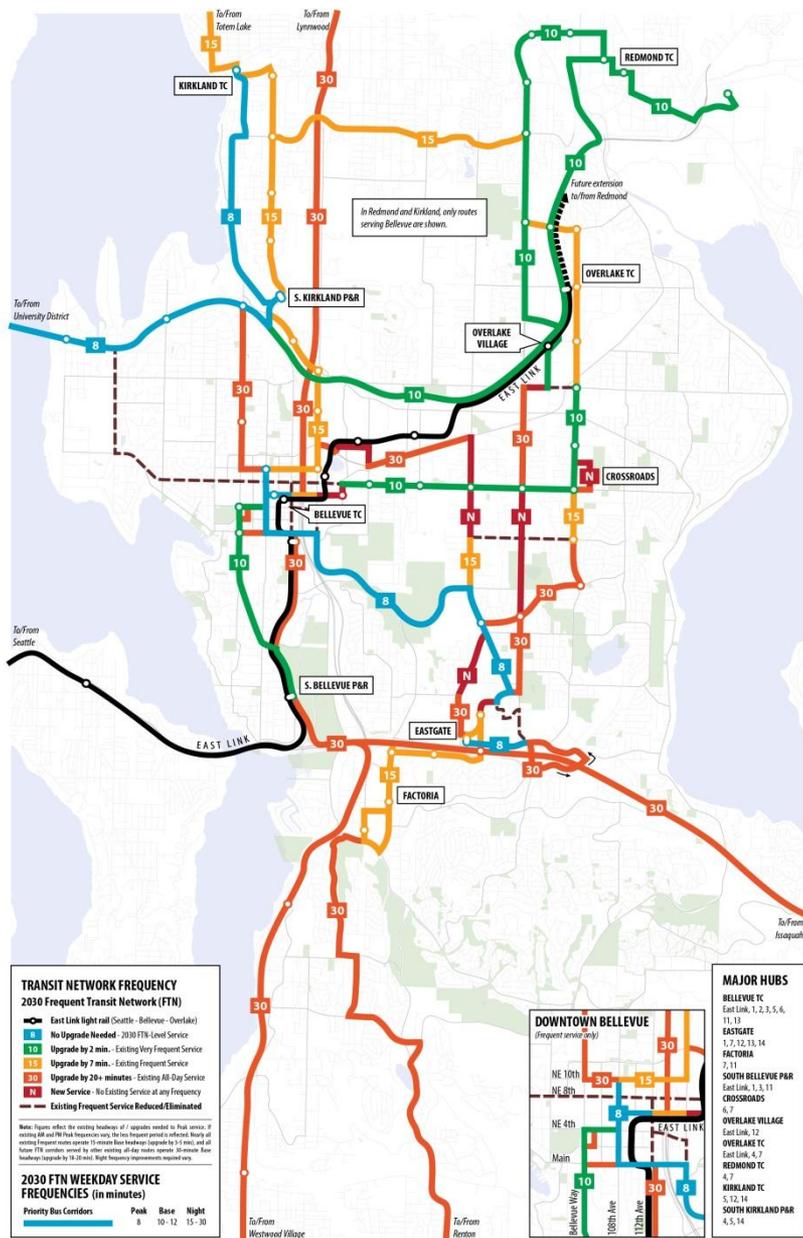
- BELLEVUE TC**
East Link, 1, 2, 3, 5, 6, 11, 13
- EASTGATE**
1, 7, 12, 13, 14
- SOUTH BELLEVUE P&R**
7, 11
- CROSSROADS**
East Link, 1, 3, 11
- OVERLAKE VILLAGE**
6, 7
- OVERLAKE TC**
East Link, 12
- REDMOND TC**
4, 7
- KIRKLAND TC**
5, 12, 14
- SOUTH KIRKLAND P&R**
4, 5, 14

FREQUENT TRANSIT NETWORK 2030 Growing Resources Scenario

- East Link (Seattle - Bellevue - Overlake)
- 1** Issaquah Highlands - Bellevue - U. District
- 2** Lynnwood - Bellevue
- 3** Westwood Village - Renton - Bellevue
- 4** Redmond - U. District
- 5** Totem Lake - Kirkland - Bellevue
- 6** Crossroads - Bellevue
- 7** Redmond - Crossroads - Eastgate - Factoria
- 11** Bellevue - Factoria - Renton
- 12** Eastgate - Overlake Village - Kirkland
- 13** Bellevue - Eastgate
- 14** Kirkland - Bel-Red - Eastgate

WEEKDAY SERVICE FREQUENCIES (in minutes)

Priority Bus Corridors	Peak	Base	Night
	8	10-12	15-30



TRANSIT NETWORK FREQUENCY

2030 Frequent Transit Network (FTN)

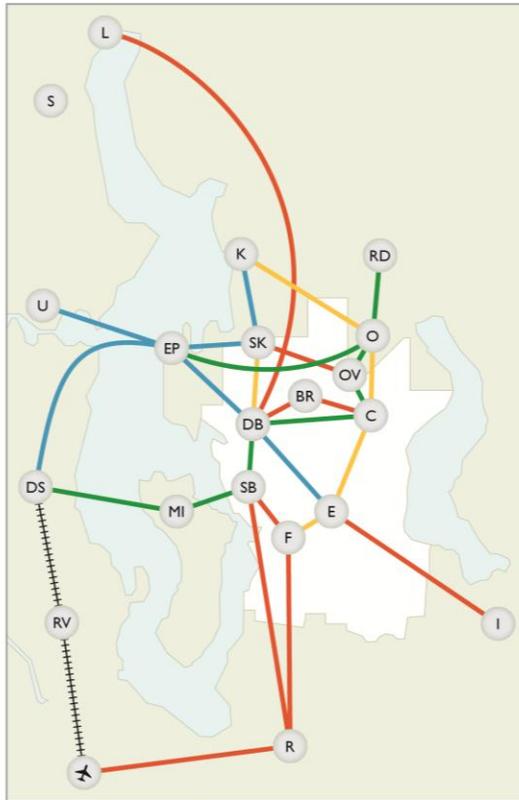
- East Link light rail (Seattle - Bellevue - Overlake)
- 8** No Upgrade Needed - 2030 FTN-Level Service
- 10** Upgrade by 2 min. - Existing Very Frequent Service
- 15** Upgrade by 7 min. - Existing Frequent Service
- 30** Upgrade by 20+ minutes - Existing All-Day Service
- N** New Service - No Existing Service at any Frequency
- Existing Frequent Service Reduced/Eliminated

Note: Figures reflect the existing headways of / upgrades needed to Peak service. If existing AM and PM Peak frequencies vary, the less frequent period is reflected. Nearly all existing Frequent routes operate 15-minute Base headways (upgrade by 3-5 min), and all future FTN corridors served by other existing all-day routes operate 30-minute Base headways (upgrade by 18-20 min). Night frequency improvements required vary.

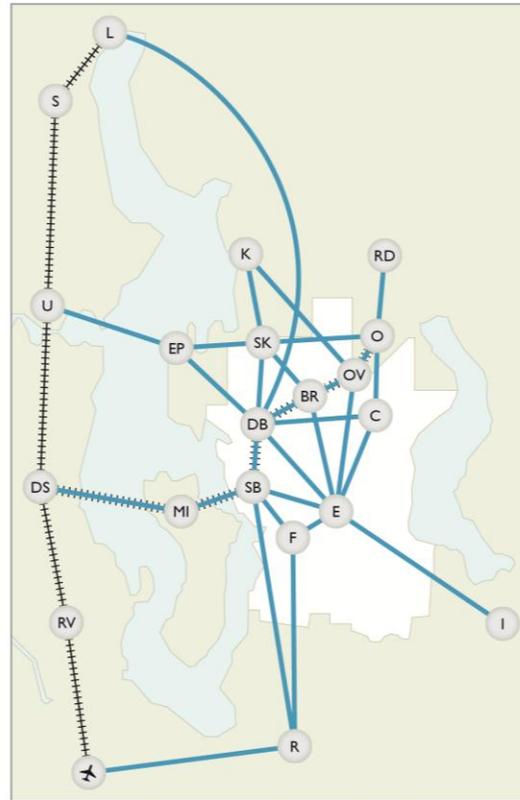
2030 FTN WEEKDAY SERVICE FREQUENCIES (in minutes)

Priority Bus Corridors	Peak	Base	Night
	8	10-12	15-30

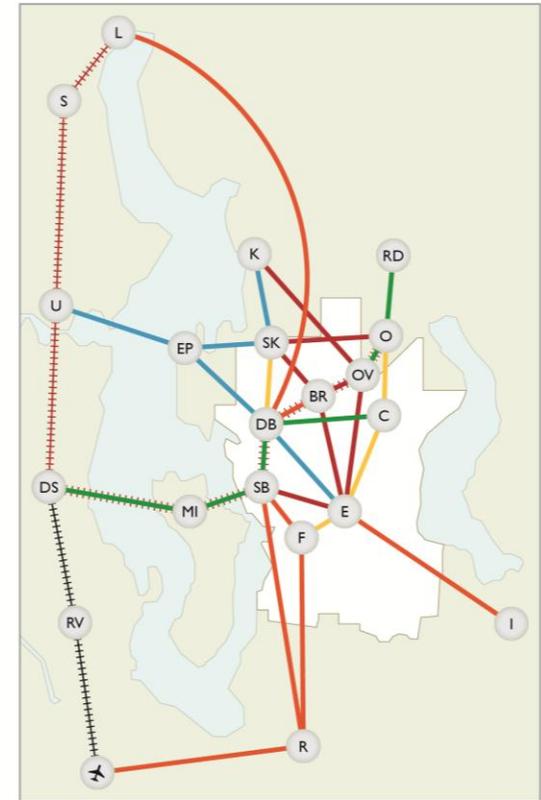
2013



2030



Changes



Legend

- BELLEVUE**
- BR** Bel-Red
 - C** Crossroads
 - DB** Downtown Bellevue
 - E** Eastgate
 - F** Factoria
 - SB** S. Bellevue Park & Ride
- REGION**
- DS** Downtown Seattle
 - EP** Evergreen Point
 - I** Issaquah Transit Center
 - K** Kirkland Transit Center
 - L** Lynnwood
 - MI** Mercer Island
 - O** Overlake Transit Center
 - OV** Overlake Village

- R** Renton
- RD** Redmond Transit Center
- RV** Rainier Valley
- S** Shoreline
- SK** S. Kirkland Park & Ride
- U** University District
- SeaTac** SeaTac

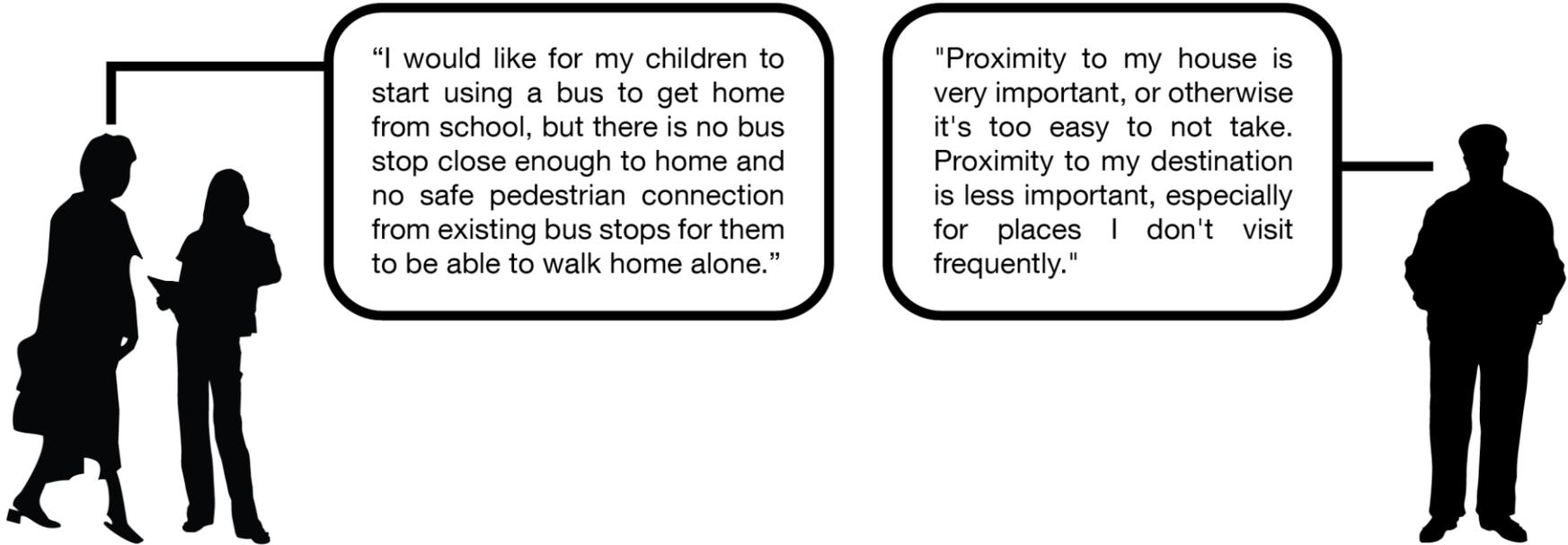
	Peak	Midday	Night
Very Frequent (every train connection)	≤8	≤12	15-30
Infrequent	30	15-30	30-60
LRT			

Note: numbers reflect approximate peak/midday/night frequencies.

- 2013 - 2030 FTN Upgrades Required**
- 8** No Upgrade Needed - 2030 FTN-Level Service
 - 10** Upgrade by 2 min. - Existing Very Frequent Service
 - 15** Upgrade by 7 min. - Existing Frequent Service
 - 30** Upgrade by 20+ minutes - Existing All-Day Service
 - N** New Service - No Existing Service at any Frequency
 - Existing Frequent Service Reduced/Eliminated**

Route Coverage

A measure of the area within a reasonable walking distance of transit service (1/4-mile), which helps identify the number of opportunities people have to access transit from different locations.



Areas in Bellevue lacking 15 min or Less Bus Service on Weekdays (Fall 2011)

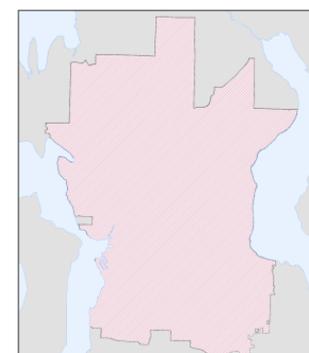
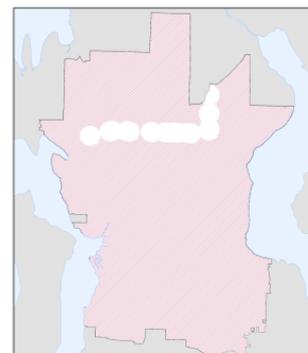
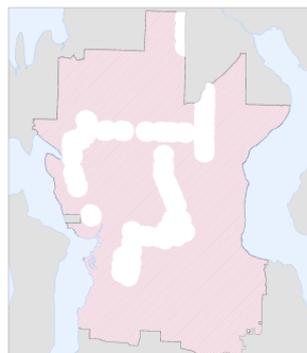
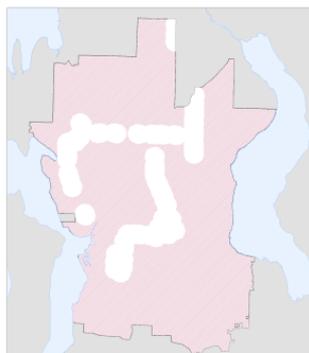
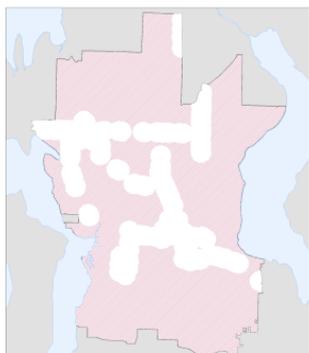
AM Peak (05:00 - 09:00)

Base (09:00 - 15:00)

PM Peak (15:00 - 18:00)

Evening (18:00 - 22:00)

Night (22:00 - 01:00)



Percent of population served:

Residents - 37%
 Older adults - 36%
 Minorities - 42%
 Speak language other than English - 56%
 People in poverty - 51%
 Affordable housing complexes - 56%
 Major employers - 79%
 Jobs - 63%

Percent of population served:

Residents - 29%
 Older adults - 28%
 Minorities - 35%
 Speak language other than English - 48%
 People in poverty - 44%
 Affordable housing complexes - 43%
 Major employers - 67%
 Jobs - 51%

Percent of population served:

Residents - 30%
 Older adults - 28%
 Minorities - 36%
 Speak language other than English - 50%
 People in poverty - 46%
 Affordable housing complexes - 49%
 Major employers - 67%
 Jobs - 51%

Percent of population served:

Residents - 13%
 Older adults - 13%
 Minorities - 17%
 Speak language other than English - 23%
 People in poverty - 18%
 Affordable housing complexes - 18%
 Major employers - 48%
 Jobs - 25%

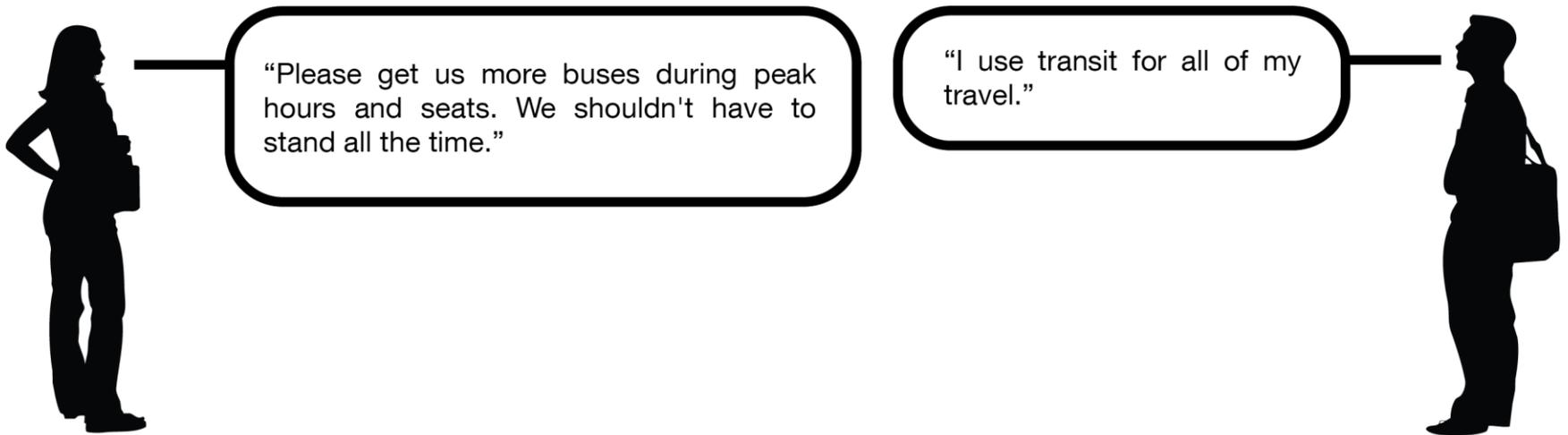
Percent of population served:

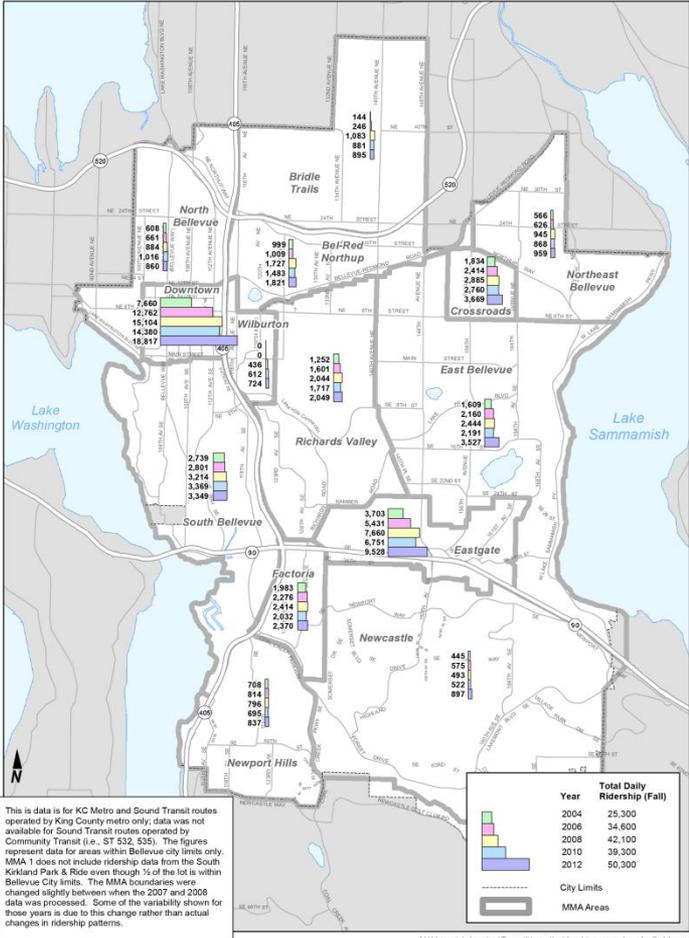
Residents - 0%
 Older adults - 0%
 Minorities - 0%
 Speak language other than English - 0%
 People in poverty - 0%
 Affordable housing complexes - 0%
 Major employers - 0%
 Jobs - 0%

Areas served by a bus stop within 1/4 mile and 15/30 minute or less service provided during weekdays.
 Areas not served by Metro or under-served during weekdays (i.e. bus stop not within 1/4 mile or 15/30 minute or less service not provided).
 Other jurisdictions

Transit Usage

An indicator of both the demand for transit and satisfaction with the quality of transit services operating in Bellevue. Transit usage is tracked by Mobility Management Area (MMA).





Average Transit Weekday Usage (ons/off)

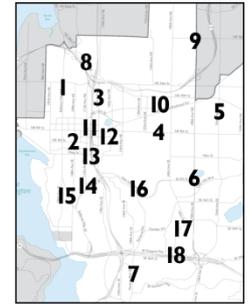
MMA	Fall 2003	Fall 2012	% Change
Downtown	7,346	18,817	156%
Eastgate	2,197	9,528	334%
Crossroads	1,706	3,669	115%
East Bellevue	1,695	3,527	108%
South Bellevue	2,908	3,349	15%
Factoria	1,724	2,370	37%
Richards Valley	1,301	2,049	58%
Bel-Red Northup	883	1,821	106%
Northeast Bellevue	532	959	80%
Newcastle	384	897	134%
Bridle Trails	62	895	1,337%
North Bellevue	512	860	68%
Newport Hills	670	837	25%
Wilburton	-	724	N/A
Total	21,920	50,302	129%

Person Throughput

The maximum number of people that can be carried past a given location during a given time period under specified operating conditions—regardless of the type of vehicle in which those people are traveling.



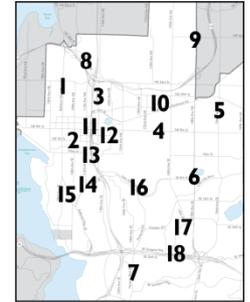
"If you advocate for ANYTHING, PLEASE make this city less accommodating to cars and MORE accommodating to PEOPLE!"



15 Bellevue Way SE btw SE 8th St and I 13th Ave SE

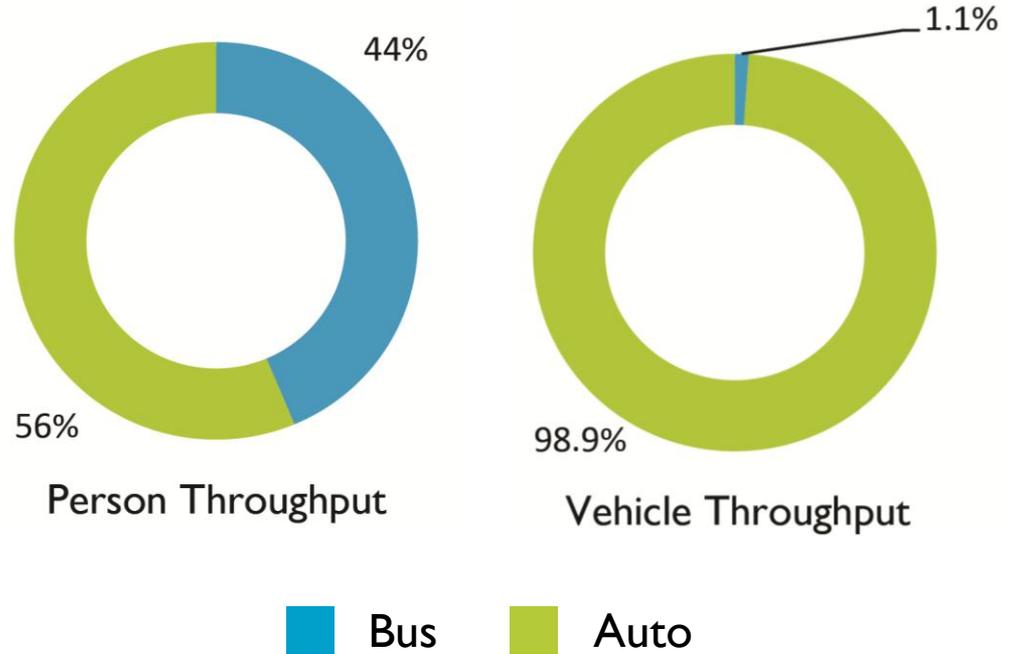
Buses ¹	36
Total Vehicles ¹	3,230
Percent Transit ¹	1.1%
Person Trips – Transit ¹	3,363
Person Trips – Total ¹	7,705
Percent Transit ¹	44%

¹ Based on City of Bellevue 2030 PM Peak Hour BKR Model (MP30R6.2).



15

Bellevue Way SE btw SE 8th St and 113th Ave SE



Transit/Auto Travel Time

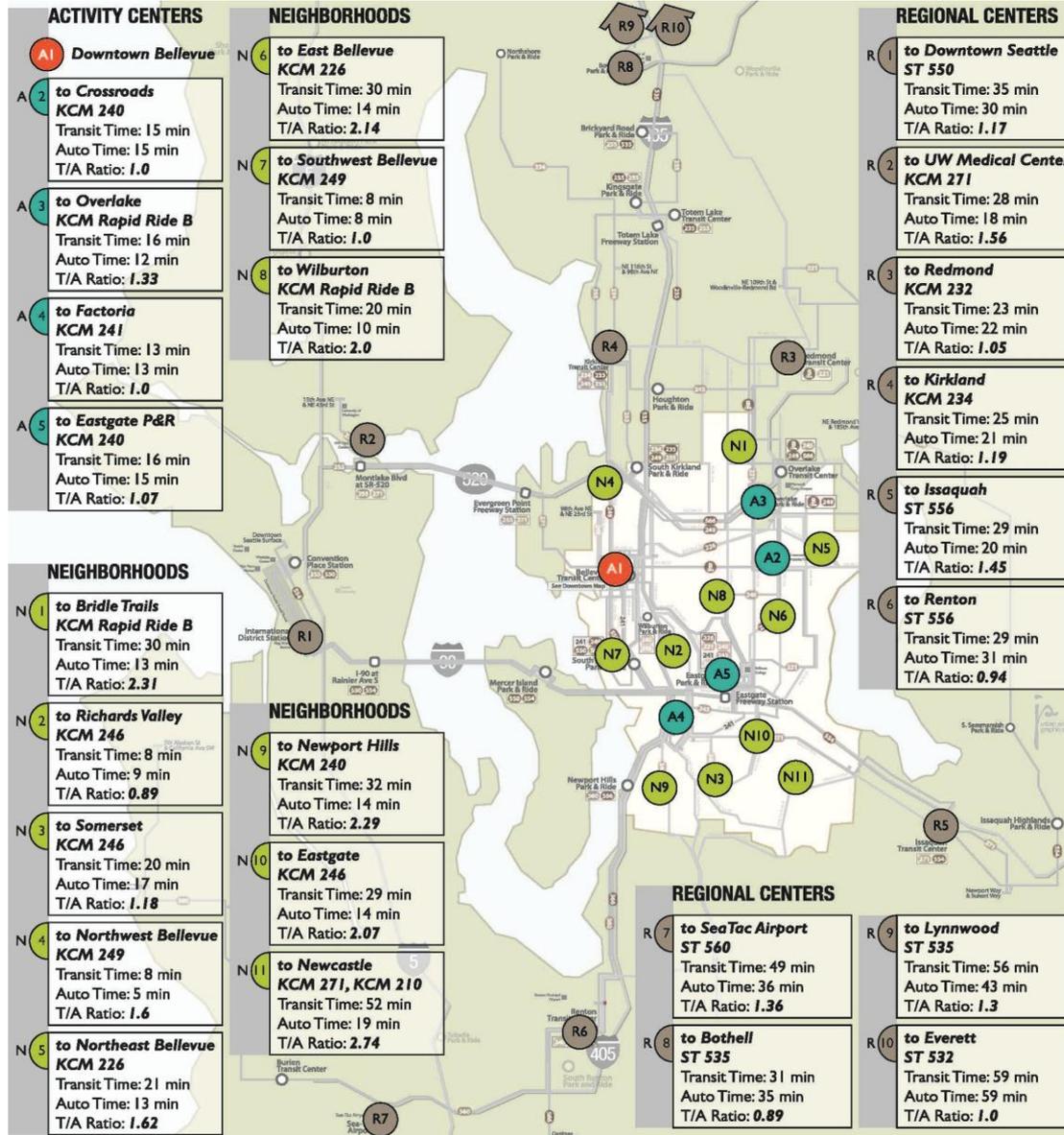
It is the most frequently cited reason why former-riders and non-riders do not use transit, and many riders also lament how much longer some trips take by transit than by car. The T/A ratio will be measured as a means of assessing the attractiveness of transit service to those who have travel alternatives.



“I would like to ride the bus to work and would if the trip didn't take twice as long as driving alone.”

“I would like to take the bus to work, but it would take significantly longer than driving and require 3 different buses in order to do it.”





Operating Speed

Current transit users identified speed- and reliability-related capital improvements as the highest priority for municipal investment in transit. Given this, and because operating speed has a direct impact on how much service can be provided given a limited budget, transit operating speeds will be tracked by FTN service type.



“Increase HOV lanes for buses to use to get around rush [hour] traffic, [and] prioritize signals to allow buses to move through congested areas faster...”

“Partner with transit agencies to build necessary infrastructure for transit speed and reliability.”



Year	Service	AAM	AM	MD	PM	EVE	NITE
2012	Express	24.81	23.14	23.07	20.62	24.15	25.85
	Rapid	18.14	15.63	13.74	13.03	16.72	19.03
	Local	20.52	16.34	15.76	14.48	16.95	18.71
	Local*	20.52	16.41	15.89	14.54	17.00	18.75
2022	Express	24.85	21.59	23.19	20.00	23.77	24.91
	Rapid	20.16	16.88	16.78	15.25	17.87	19.60
	Local	18.32	15.35	15.25	13.86	16.24	17.82
2030	Express	26.28	24.26	24.51	21.58	25.24	26.77
	Rapid	19.56	16.38	16.28	14.80	17.34	19.02
	Local	17.78	14.89	14.80	13.45	15.76	17.29

* Route 271 includes Local and Express segments. For the 2012 observed figures shown here, revenue miles and hours cannot be extracted for only a single segment. Two figures are therefore provided for Local speeds—the first without Route 271 factored in, and the second (*) with Route 271 included. Express speeds include only Sound Transit Express routes.

Note: Estimated speeds for 2022 and 2030 are calculated by dividing the distance between route timepoints by the scheduled travel time. Observed operating speeds for 2012 are calculated by dividing daily weekday revenue miles by revenue hours. All figures in miles per hour.

<http://www.bellevuewa.gov/bellevue-transit-plan.htm>



Franz Loewenherz

Transportation Department

floewenherz@bellevuewa.gov

425-452-4077