Bellevue Transit Master Plan

July 2014

Draft

June 17, 2014

prepared for the
June 26, 2014 meeting of the
Transportation Commission

Executive Summary

FREQUENT TRANSIT NETWORK (FTN)

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 - 15	15 - 30

MAJOR HUBS:

BELLEVUE TC
East Link, 1, 2, 3, 5, 6, 11, 13

EASTGATE
1, 7, 12, 13, 14

FACTORIA
7, 11

SOUTH BELLEVUE P&R
East Link, 1, 3, 11

CROSSROADS
6, 7

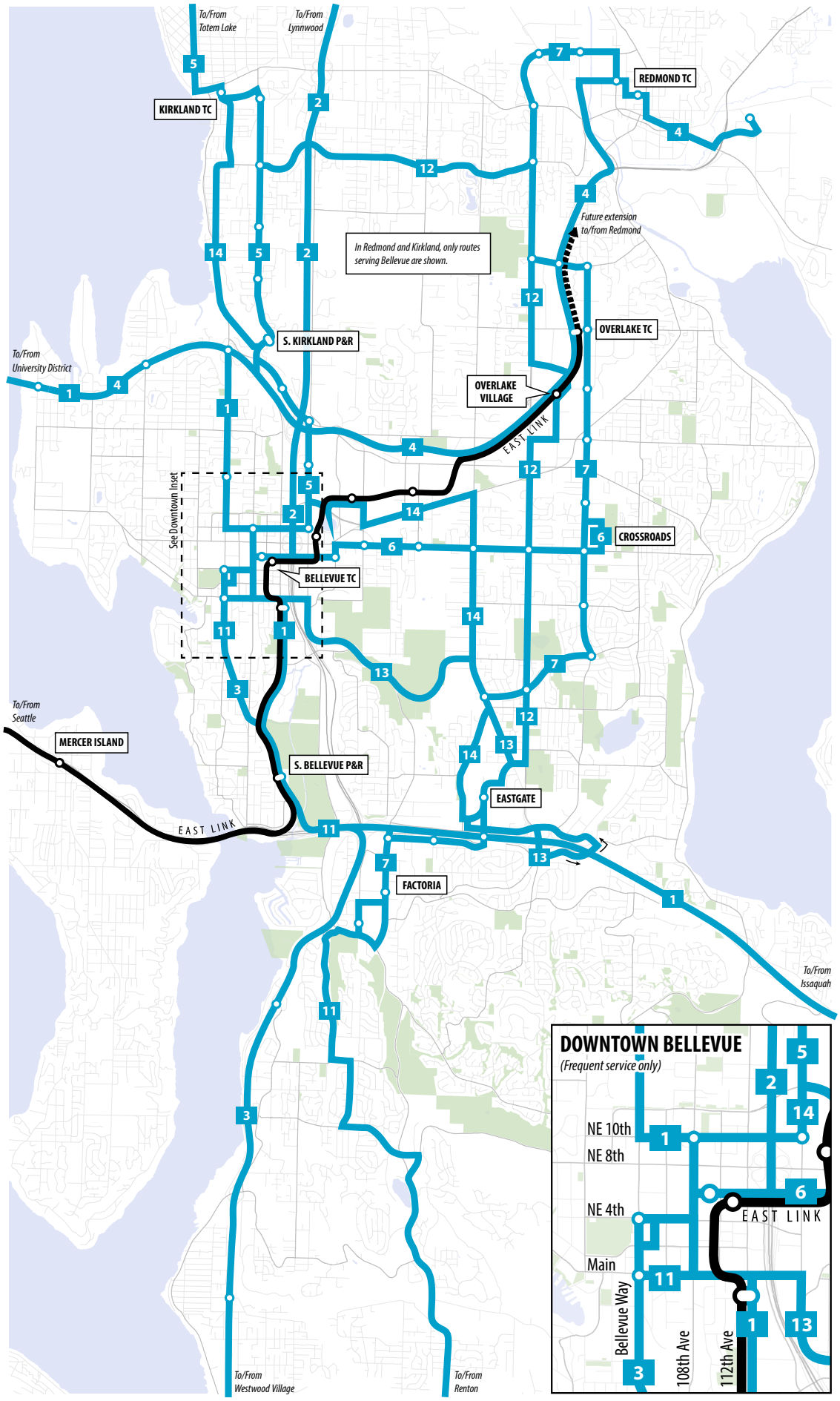
OVERLAKE VILLAGE
East Link, 12

OVERLAKE TC
East Link, 4, 7

REDMOND TC
4, 7

KIRKLAND TC
5, 12, 14

SOUTH KIRKLAND P&R
4, 5, 14



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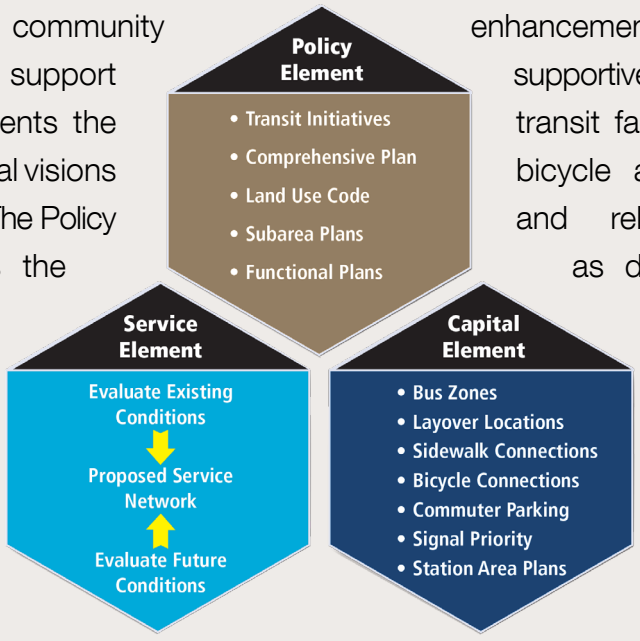
Executive Summary

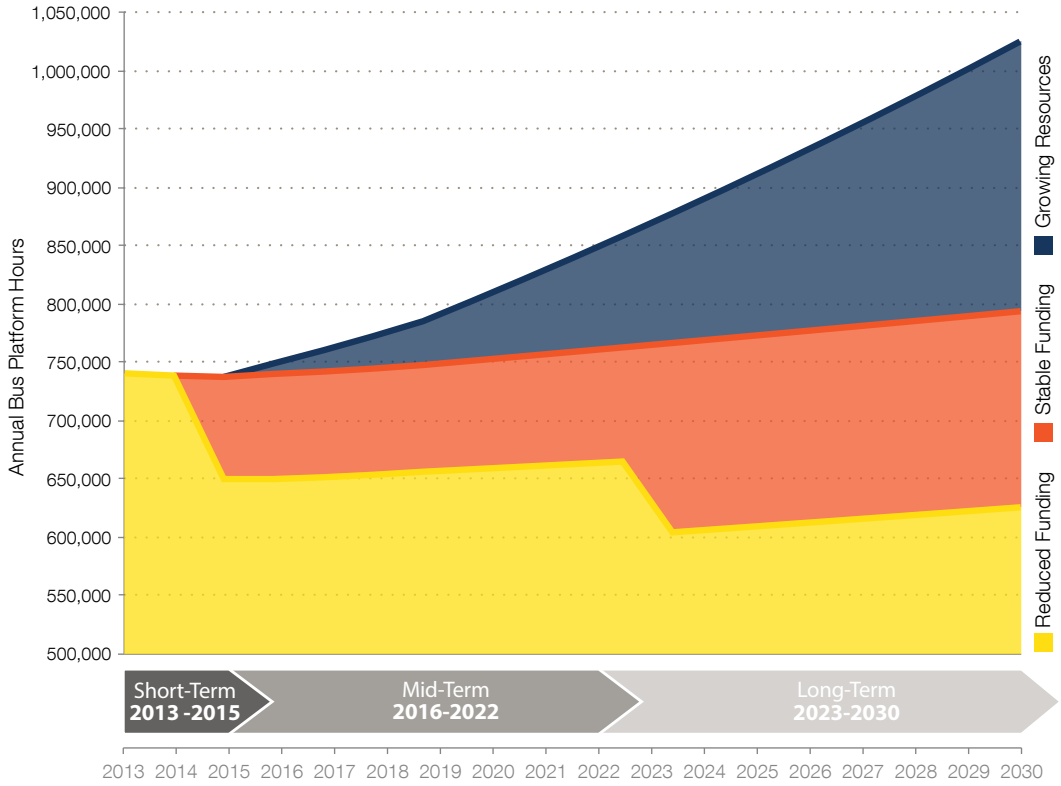
The Bellevue Transit Master Plan (TMP) is a comprehensive look ahead at the system that will be required to meet Bellevue's transit needs through 2030. The TMP establishes short- and long-term strategies and projects that foster a high-quality transit system that effectively connects residents, employees, and visitors in Bellevue with the places they want to go.

This executive summary presents the highlights of the full report, which summarizes the two-year long TMP planning process, including a review of existing and future conditions and the community outreach conducted in support of the plan, and presents the City's service and capital visions for transit in Bellevue. The Policy Element functions as the guiding framework for the planning process and identifies the strategies that should be pursued to realize the service and capital visions. The Service Element presents route-level recommendations that are responsive to different financial scenarios (reduced, stable, and growing resources) and attune to different time horizons (2015, 2022, and 2030).

The Service Element's highest priority is to enhance all-day service on Frequent Transit Network (FTN) corridors (shown at left). Encouraging long-term ridership growth in these corridors requires service enhancements paired with a supportive land use environment, transit facilities, pedestrian and bicycle amenities, and speed and reliability infrastructure, as detailed in the Capital Element.



◀ The Transit Master Plan (TMP) comprises three major elements—the Policy, Service, and Capital Elements.



▶ **Projected future bus service funding scenarios.**

What is the Transit Master Plan?

Although the City of Bellevue does not operate its own transit system, the Bellevue Transit Master Plan (TMP) is designed to positively influence regional transit agencies to keep Bellevue moving and maximize transit performance. The TMP envisions a public transportation network that serves a more diverse variety of people and trip purposes, and that is the mode of choice for an increasing number of people who live, work, shop, and play in Bellevue. Ultimately, achieving this vision will require new financial resources to be secured for transit. The TMP provides a realistic perspective on these financial uncertainties by carefully evaluating investment trade-offs and identifying the highest priority transit improvements to advance incrementally toward Bellevue's 2030 Growing Resources target (see above chart). The scalability of TMP strategies positions Bellevue to maximize the return on investment on existing and anticipated public transportation projects and to capture opportunities that might arise from improved economic conditions. Partnerships have already begun to coalesce around the TMP—such as the Bellevue College Connection project, shown on page 16—which bodes well for future opportunities for interagency partnerships and coordination with local and regional efforts to meet Bellevue's transit needs through 2030.

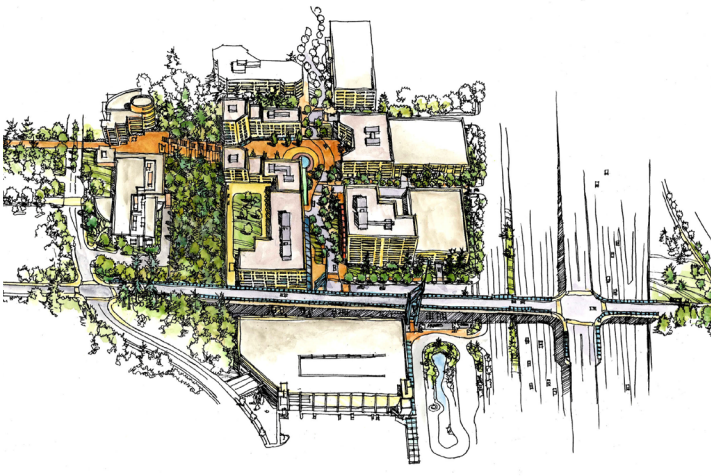
Why update the 2003 Transit Plan?

On July 9, 2012, Council initiated the Bellevue Transit Master Plan (TMP), an update of the City's 2003 Transit Plan. The TMP builds on the successes of the City's previous plan by considering current transit operations and performance, the priorities expressed by the public about the network, projected growth in population, employment, and ridership, and anticipated changes resulting from the introduction of East Link light rail and various planned and potential investments in roadway and transit infrastructure. Council charged the Transportation Commission with overseeing the update process with input from members of the Planning, Arts, and Human Services Commissions and the Parks and Community Services Board.

▲ *2030 Vision for Growth in Downtown Bellevue*

▲ *East Link Light Rail in Downtown Bellevue*

▲ *Transit-Oriented Development in Bel-Red*



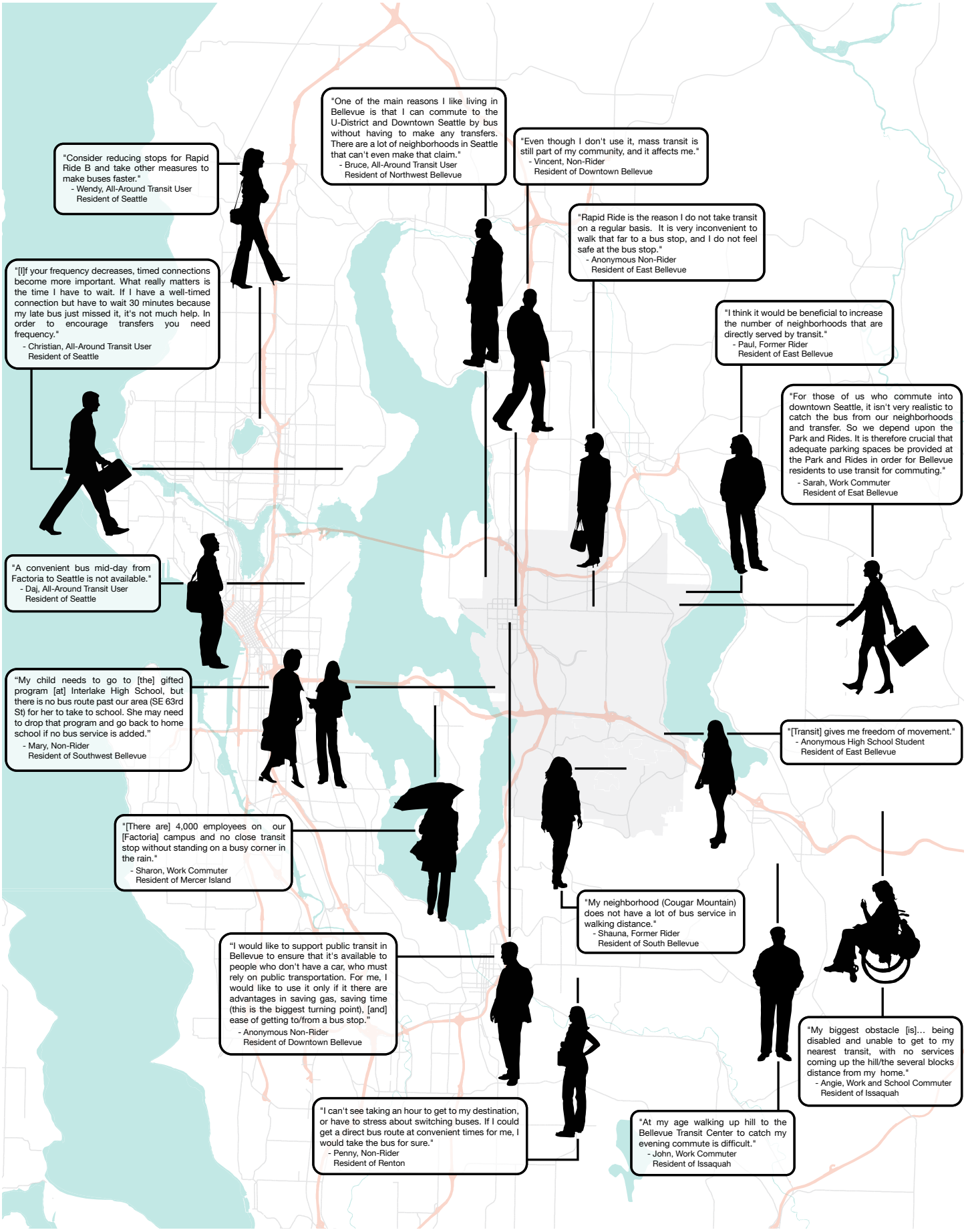
▲ *Transit-Oriented Development in Eastgate*

▶ **Planned and projected growth in Bellevue activity centers is closely related to investments in transit.**

▶ **A special thanks to all members of the community who provided input that helped to develop the Transit Master Plan.**

What did the community tell us?

The Bellevue Transit Master Plan obtained input from the community through a variety of means, each of which provided direction for the Policy, Service, and Capital Elements. The earliest and most expansive outreach was conducted via the web-based Transit Improvement Survey, which generated input from over 4,200 respondents, nearly 1,100 of whom are Bellevue residents, including current riders, former riders, and those who have never used transit in Bellevue. To facilitate input from recent immigrants and other non-native English speakers, comment cards were distributed to local human services agencies in multiple languages. Video interviews were conducted with representative members of the community, and voluntary surveys were distributed to bus drivers to gain their perspective about safety, signal, and delay issues affecting transit operations in Bellevue. Businesses and organizations also provided their perspectives on transit service in Bellevue by submitting letters to the City and encouraging their employees and members to complete the Transit Improvement Survey. The main themes from this input include strong support for improving service frequency throughout the day—especially in the peak—and if service cuts are necessary, they should be targeted to low-ridership coverage and peak-only routes before affecting the frequency or span of high-ridership routes. When asked how the City should invest in transit, respondents supported infrastructure that increase transit speed and reliability.



▶ Representative comments submitted by respondents of the Transit Improvement Survey.

City board and commission members, transit agency representatives, other local stakeholders, and City staff participated in three Transit Master Plan workshops.

What did we learn at TMP workshops?

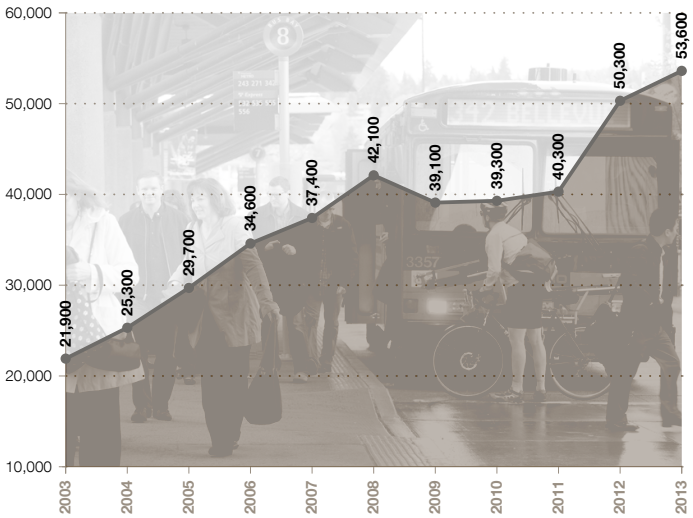
The Transportation Department sought the perspectives of City board and commission members, transit agency representatives, and representatives from other community stakeholders by engaging them at three workshops held at various stages of the Transit Master Plan (TMP) process. The three workshops included the TMP Forum in September 2012, the Transit Network Design Workshop in January 2013, and the Capital Workshop in September 2013. Each of these informed the development of the service and capital visions. These events served as valuable forums for evaluating the tradeoffs among competing service allocation and capital investment decisions that are inherent to transit planning.

For example, a mapping exercise was used to consider where participants thought services of varying frequencies might reasonably be deployed—and where they may not be warranted—based on projected changes in population and employment. The workshops also provided an opportunity for representatives to consider how the Council-approved Project Principles, existing Comprehensive Plan policies, and examples from other cities could inform transit-supportive policies in Bellevue that are reflective of the perspectives obtained from the broader community. Keypad polling was used at the latter two workshops to complement the discussion and record participants' preferences among competing priorities.

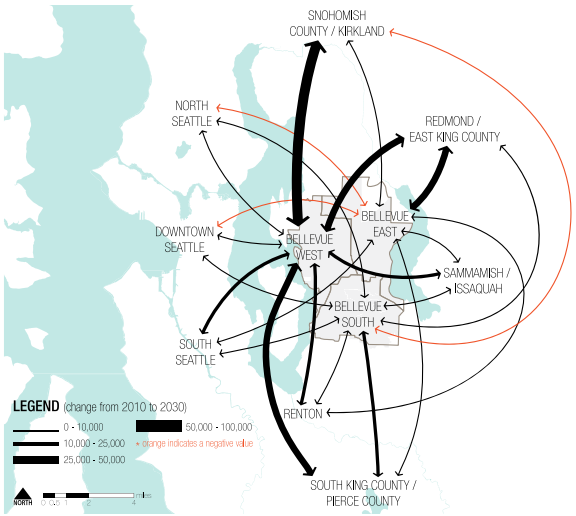
What did technical analysis tell us?

Recommendations in the Bellevue Transit Master Plan (TMP) arose from a detailed analysis of existing transit performance statistics and projected travel demand. Between 2003 and 2013, average weekday ridership in Bellevue increased by 144 percent, or an additional 31,700 daily boardings and alightings (ons/offs). Assessment of the current transit landscape also provided an improved understanding of service coverage in two dimensions: geographical coverage (where is service available) and time of day coverage (when is service available).

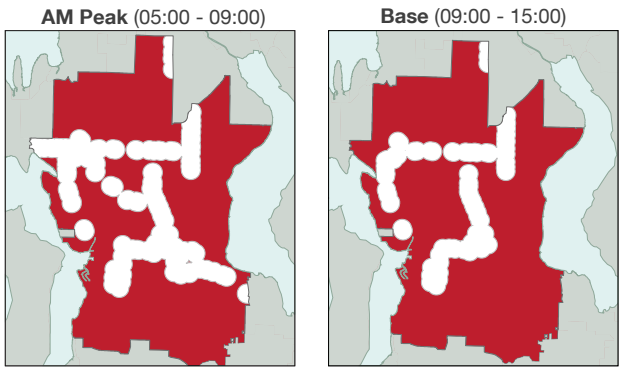
Travel demand modeling was used to evaluate changing demographics, land use characteristics, and travel patterns that affect future traffic conditions and transit performance. Projected vehicle and person throughput was considered by mode (bus and auto) for twenty Frequent Transit Network corridors being considered for potential speed and reliability improvements. In some cases, micro-simulation modeling software was also used to assess the benefits and impacts of repurposing existing general purpose travel lanes as arterial high-occupancy vehicle lanes.



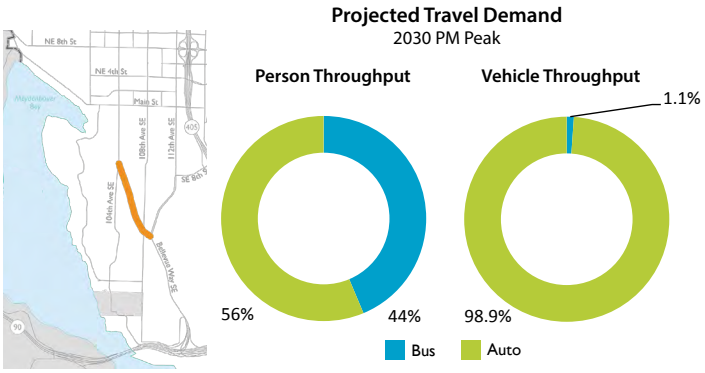
▲ *Daily ons/offs in Bellevue, Fall 2003–2013*



▲ *Projected change in regional travel demand, 2010–2030*

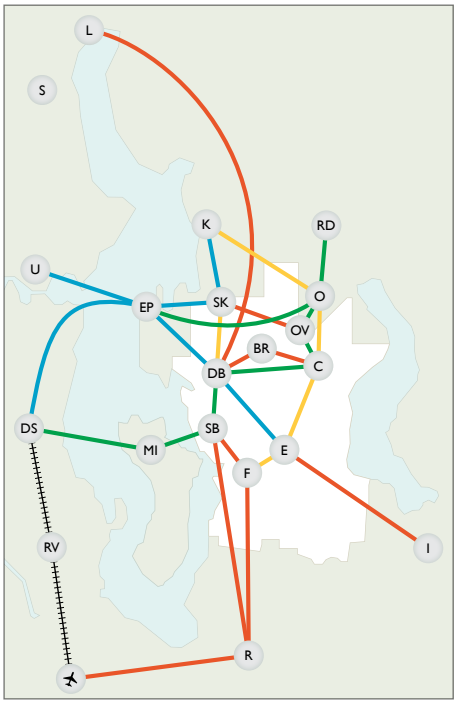


▲ *Areas (in red) lacking frequent (15-min.) service, Fall 2011*

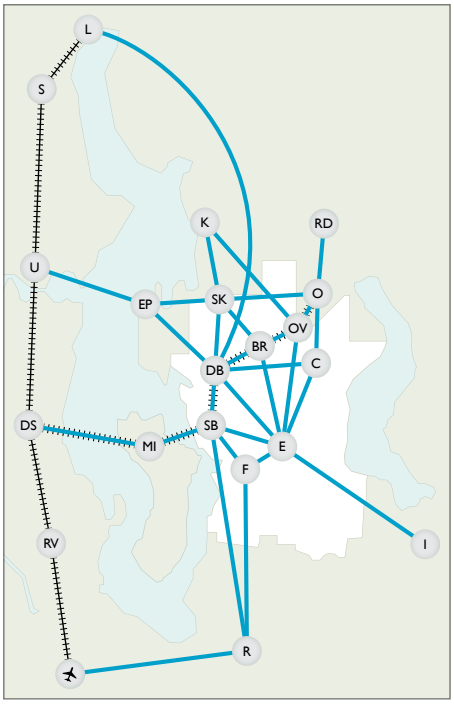


▲ *Projected person and vehicle throughput, Bellevue Way SE*

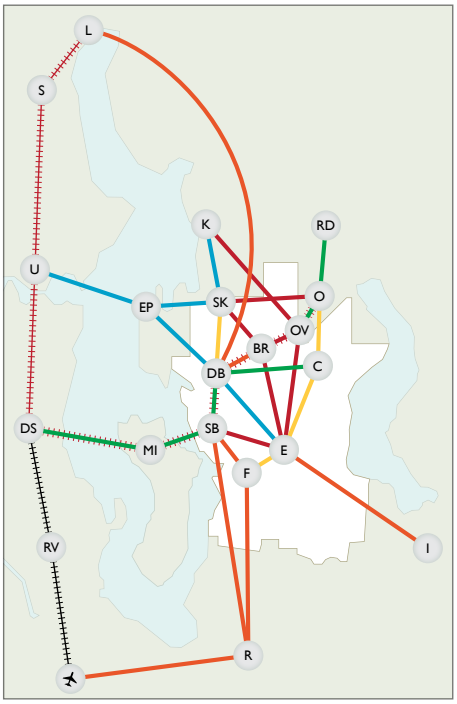
2013 Transit Network



2030 Growing Resources



Improvements Required



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

	Peak	Midday	Night
Very Frequent (every train connection)	8	10-15	15-30
LRT	8	10	15

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

▶ **Progress toward realizing the 2030 FTN by frequency of service connections between major centers.**

What does the TMP tell us?

Informed by public input, technical studies, and market analyses, the Bellevue Transit Master Plan (TMP) identifies service and capital investment priorities needed to establish a Frequent Transit Network that meets the transit needs of most Bellevue residents and workers. The plan was developed with feedback from Metro and Sound Transit, whose partnership is critical to creating a seamless, fully-integrated, and user-friendly transit network in Bellevue.

The plan presents a bold vision supported by practical, achievable strategies in the near term that establish a foundation for longer-term improvements through the 2030 plan horizon year. The TMP also provides guidance on how transit investments will be prioritized in the future, and contains performance measures that establish how the city will track progress made in accomplishing the plan over time.

What does "Abundant Access" mean?

The Bellevue Transit Master Plan aims to:

"Support planned growth and development with a bold transit vision that provides efficient, useful, attractive service for most people, to most destinations, most of the time, serving maximum ridership."

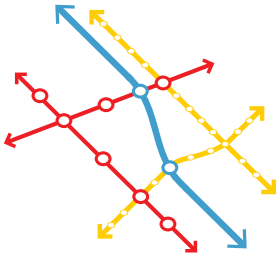
This "Abundant Access" statement and supporting Market Driven Strategies—detailed in the Policy Element—supports Downtown growth, Bel-Red corridor redevelopment, and Bellevue's other activity centers (Crossroads, Eastgate, and Factoria) with a well-connected Frequent Transit Network (FTN) that seamlessly interfaces with East Link light rail. The FTN also focuses capital investments to serve the most riders and provide the highest quality of service to people who travel to/from or within Bellevue.

► **The "Abundant Access" vision statement and supporting Market Driven Strategies.**

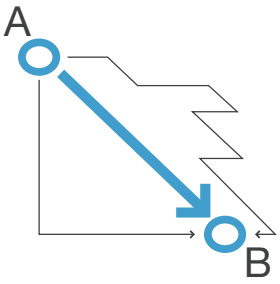
▲ **Convenient**
making it the logical choice for the largest possible share of trips.

▲ **Frequent**
to minimize waiting times and improve connections.

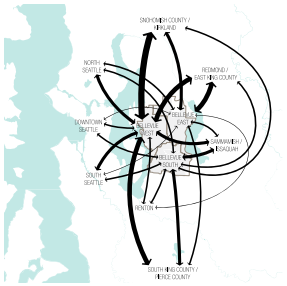
▲ **Efficient**
in terms of being designed for high ridership and cost-effective operations.



▲ **Simple**
with the fewest possible discrete lines so that each can have the best possible frequency, speed, and duration without complicated redundancy.



▲ **Direct**
to major activity centers in Bellevue by minimizing the degree to which a route deviates from the shortest path between its start and end points.



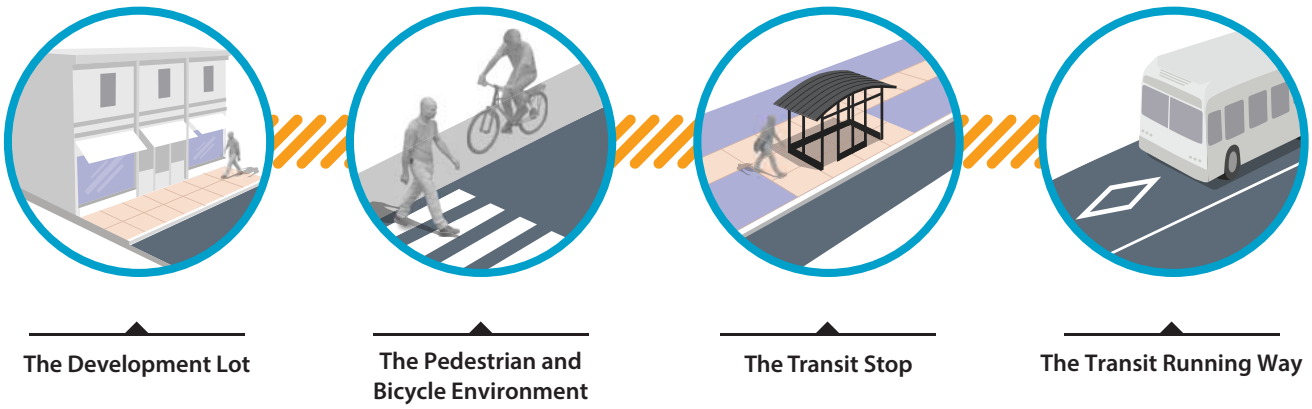
▲ **Regionally Connected**
with a complete network of regional links in all directions, with particular focus on abundant north-south service along I-405.

▶ **Goal statements reflecting what the "Abundant Access" vision statement aims to achieve.**

What are the Service-Oriented Strategies?

On May 20, 2013, the Bellevue City Council approved a set of service-oriented strategies that lead to a vision of "Abundant Access," which aims to guide additional transit service to/from Bellevue's major activity centers where transit demand is high and expected to increase in the future. The City recognizes that this approach of maximizing the return on investment of limited resources has an impact on coverage routes in Bellevue's lower-density residential areas where service is less productive. Participants in the Bellevue Transit Master Plan (TMP) outreach efforts overwhelmingly agreed that if service reductions are necessary, Metro should delete commuter routes operating empty in the counter-flow direction and low-performing coverage routes before impacting high demand Frequent Transit Network corridors. Consistent with this guidance, the Service Element details route-level recommendations for nine funding/time-horizon scenarios that align with the TMP's vision statement and service-oriented strategies. The service vision presented on page 14 demonstrates how these strategies translate into service allocation decisions in the most optimistic scenario considered by the Transit Master Plan.

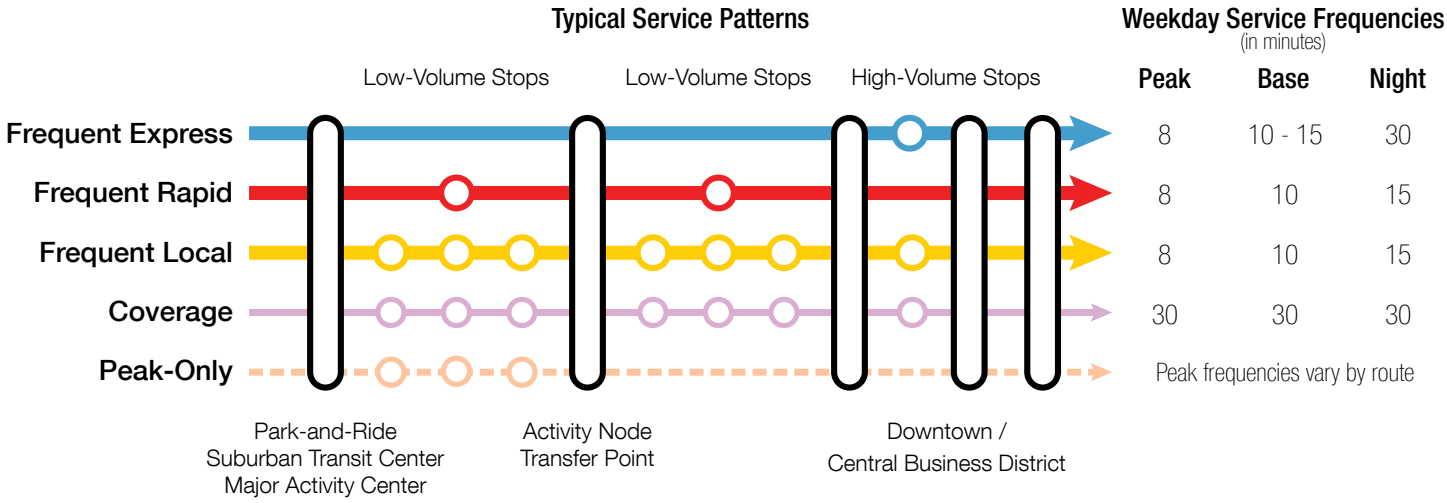
What are the Capital-Oriented Strategies?



▶ **Areas related to transit capital facilities over which the City of Bellevue has influence.**

The Bellevue Transit Master Plan (TMP) recognizes that the City has an influence over how well transit services perform along Frequent Transit Network (FTN) corridors locally. This includes influencing demand for transit by co-locating appropriate land uses to transit services, connecting pedestrians and bicycles to the transit network, providing convenient, safe, and comfortable transit stops and commuter parking facilities, and maintaining roadways, traffic signals, and other infrastructure that supports efficient and reliable operations. The Capital Element recommends investments that will help the City realize its proposed 2030 FTN thereby enabling more people, to reach more destinations, in less time. All running way projects have been ranked as high, medium, or low priority depending on the value they bring to improving transit speed and reliability along FTN corridors. The project prioritization presented in the TMP is the first step in the multi-stage process from transportation project inception to implementation. To move these projects forward to construction, transit capital investments will still have to compete with other infrastructure priorities identified in other Long Range Facility Plans before they are incorporated into Bellevue's Transportation Facilities Plan and then Capital Investment Program. The capital vision presented on page 16 demonstrates how this policy framework would translate into practical, achievable strategies in the near term that establish a foundation for longer-term improvements through the 2030 plan horizon year.

What is the Transit Service Vision?



▸ **Types of transit service proposed by Transit Master Plan, their typical service patterns, and weekday service frequencies.**

The Transit Master Plan (TMP) envisions restructuring transit services in Bellevue such that by 2030: (1) the route structure is simplified to create easier to understand, higher-frequency, and less redundant service; (2) transfers are generally more common, but they are faster and more reliable; (3) coverage routes through low-ridership areas are differentiated from high-ridership Frequent Transit Network (FTN) services, improving operating efficiency and freeing up resources to enhance the frequency of core services; (4) East Link users will enjoy "every-train connections" to FTN bus services throughout most of the day, so transferring between bus and light rail will typically require a wait of only a few minutes.

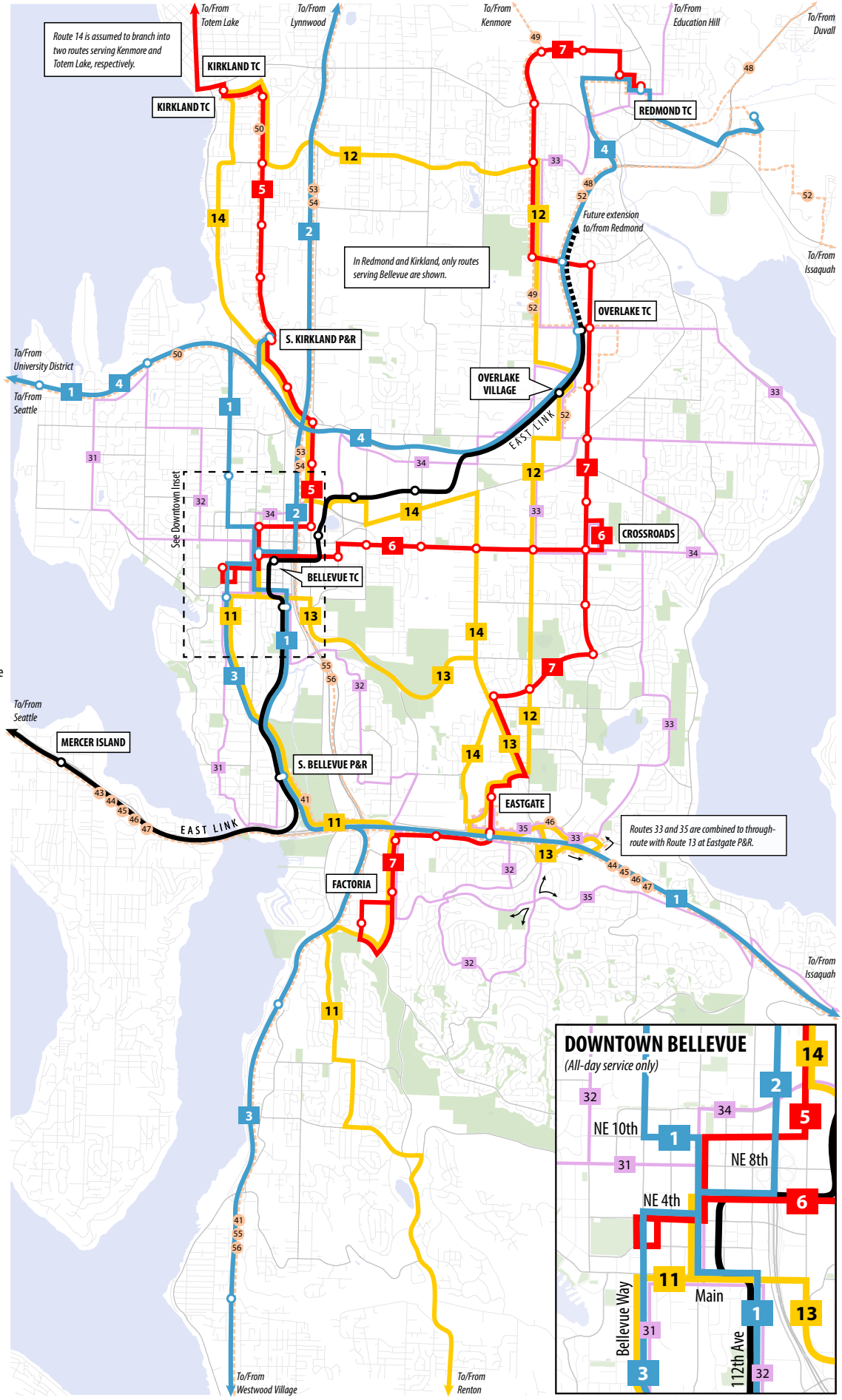
This vision for transit service in Bellevue in 2030 is based on the Growing Resources scenario, which anticipates a growth in total bus operating resources of 38 percent by 2030 from Spring 2012 levels to accommodate the projected near tripling of transit demand over this time period. If these increases in operating resources do not occur—or if resources are reduced instead—the 2030 Stable and Reduced Funding scenarios provide recommendations for how the core features of the Growing Resources scenario can be largely retained. In the lower resource scenarios, the 2030 vision calls for a similarly structured Frequent Transit Network, albeit with reduced frequency, which is achieved by eliminating Coverage and low-ridership Peak-Only services.

BELLEVUE TRANSIT VISION
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
- 31 South Bellevue - Bellevue - Yarrow Point
- 32 Eastgate - Factoria - Bellevue - Yarrow Point
- 33 Redmond - Overlake - Crossroads - Eastgate
- 34 Crossroads - Bel-Red - Bellevue
- 35 Issaquah - Eastgate
- 41 South Bellevue - Lake Kathleen
- 43 Eastgate - Seattle
- 44 North Bend - Issaquah - Eastgate - Seattle
- 45 Bear Creek - Sammamish - Eastgate - Seattle
- 46 Seattle - Eastgate - North Issaquah
- 47 Issaquah Highlands - Eastgate - Seattle
- 48 Duvall - Redmond - Overlake
- 49 Kenmore - Kingsgate - Overlake
- 50 Kirkland - Seattle
- 52 Issaquah - Sammamish - Overlake
- 53 Shoreline - Bothell - Bellevue
- 54 Everett - Bellevue
- 55 Auburn - Kent - Renton - Bellevue
- 56 Kent - Bellevue

WEEKDAY SERVICE FREQUENCIES (in minutes):

	Peak	Base	Night
Frequent Express	8	10 - 15	30
Frequent Rapid	8	10	15
Frequent Local	8	10	15
Coverage	30	30	30
Peak-Only	Frequency varies by route		



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What is the Transit Capital Vision?

Existing Conditions ▸

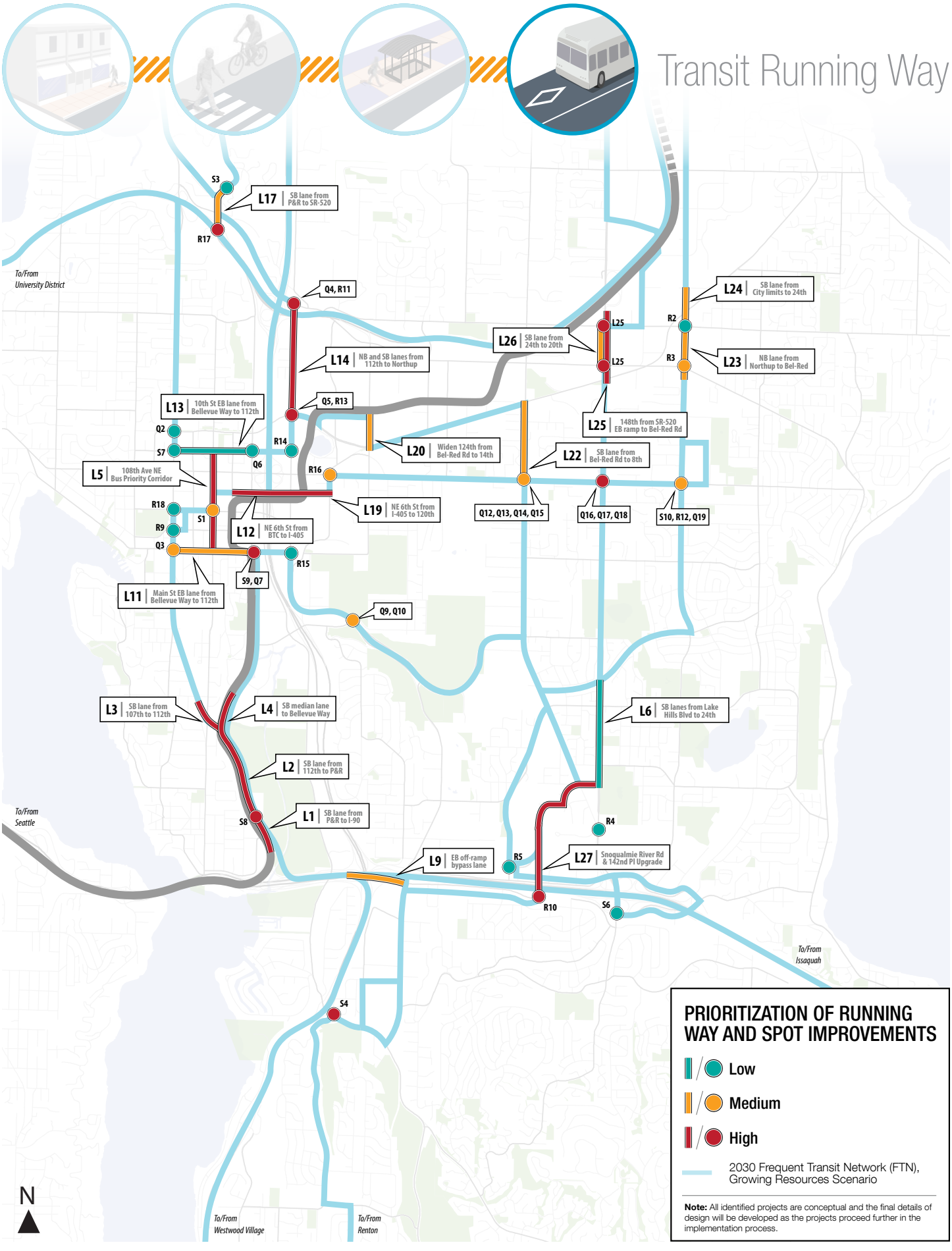
Preliminary Design Concept ▸

▸ **Running Way Project L27: The Bellevue College Connection Multimodal Transportation Corridor**

The capital vision addresses the various ways that the City can positively affect the performance and user experience of transit within Bellevue through land use planning, urban design, and physical infrastructure. This includes consideration of four broad topics based on the areas over which the City of Bellevue has direct influence: (1) influencing demand for transit by co-locating appropriate land uses to transit services; (2) connecting pedestrians and bicyclists to the transit network; (3) providing convenient, safe, and comfortable transit stops; (4) constructing and maintaining roadways and traffic signals in a way that supports efficient and reliable transit operations.

Increasing traffic congestion and the associated increases in transit travel time and reduced reliability have detrimental effects both on transit ridership and on operating costs for the region's transit providers. The Transit Running Way section of the capital vision identifies a total of 107 capital projects that would benefit transit speed and reliability, 60 of which are depicted in the map at right. The Transit Master Plan also includes several tracking and additional study projects and 44 near-term transit signal priority projects, identifies existing non-motorized projects that are a priority for transit, and reviews potential improvements to bus stops and commuter parking facilities.

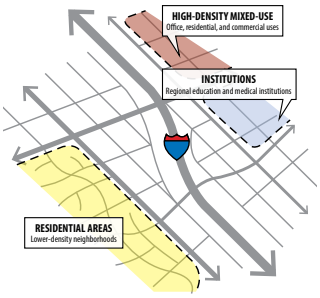
Transit Running Way



PRIORITIZATION OF RUNNING WAY AND SPOT IMPROVEMENTS

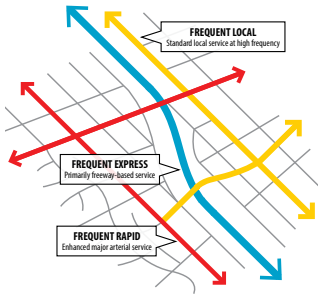
- Low
- Medium
- High
- 2030 Frequent Transit Network (FTN), Growing Resources Scenario

Note: All identified projects are conceptual and the final details of design will be developed as the projects proceed further in the implementation process.



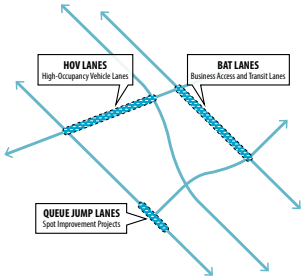
The Development Lot

The places, public and private, where all trips begin. Density, land use diversity, and urban design impact a place's ability to support frequent transit service.



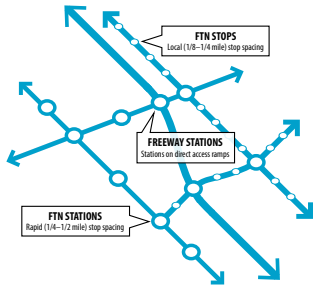
Frequent Transit Network

Convenient, efficient, frequent, simple, direct, and regionally connected service that connects more people to more destinations in less time.



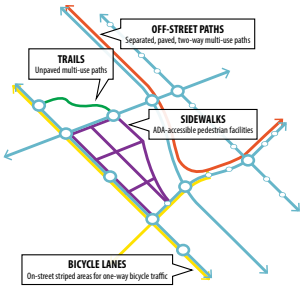
Running Way Projects

Roadway and traffic signal infrastructure investments improve the speed and reliability of transit services operating along FTN corridors.



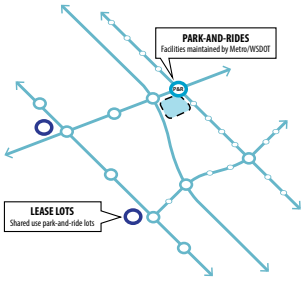
FTN Stations and Stops

The first point of contact between the passenger and the transit system should be comfortable, safe, and accessible to pedestrians and bicyclists.



Ped-Bike Access Network

All transit users are pedestrians at some point of the trip. Sidewalks, bicycle lanes, off-street paths, and trails link places to transit service.

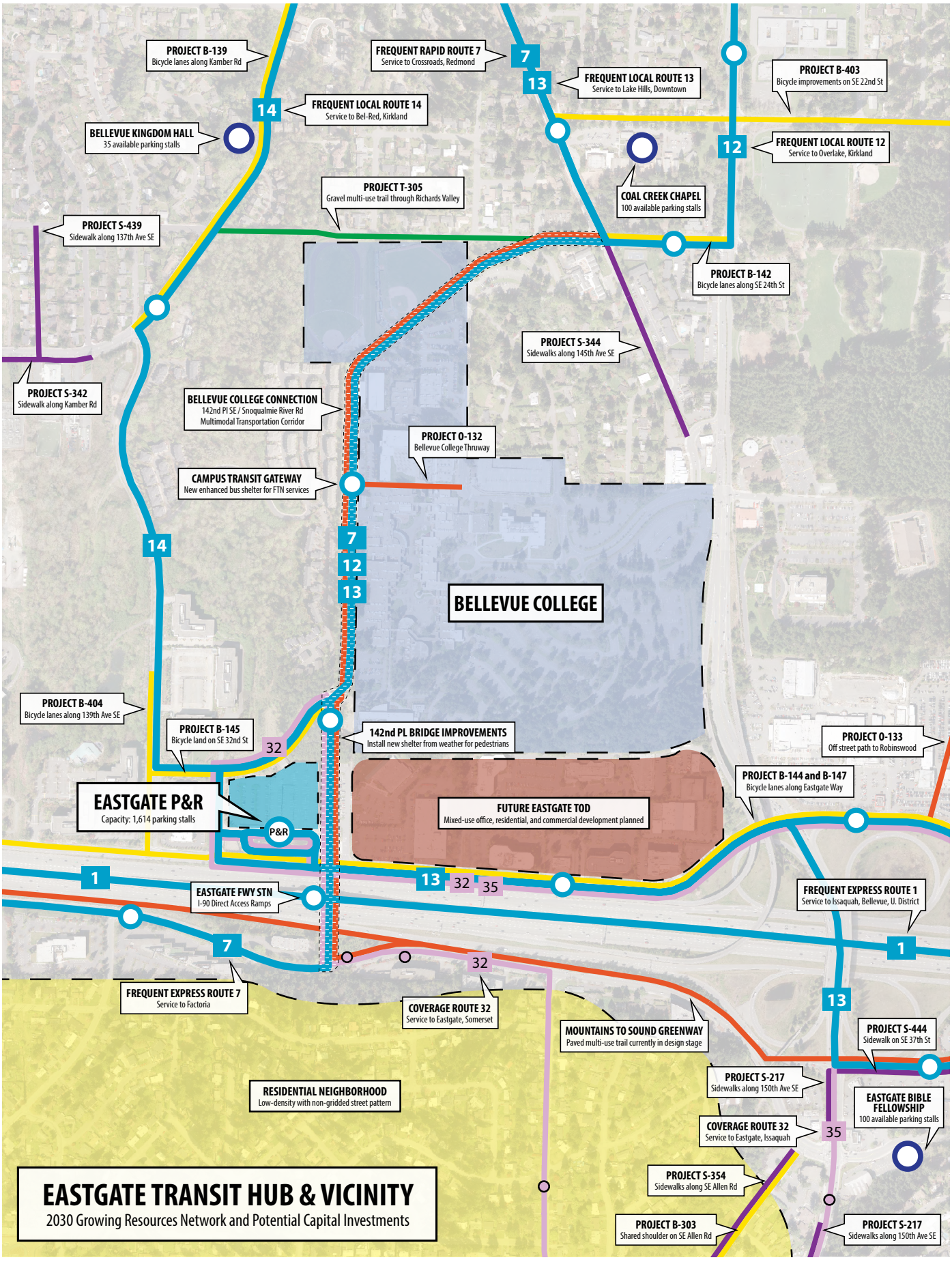


Park-and-Ride Access

Facilities that offer automobile and bicycle parking adjacent to transit service, connecting those who do not live near transit to concentrated services.

How does it all fit together?

The service and capital visions of the Transit Master Plan describe two distinct components of the transit system, but they are inseparably related to one another, with each both influencing and being influenced by the other. Existing and future land uses, population and employment characteristics, and street networks directly inform the location of transit services and stops. The 2030 Frequent Transit Network (FTN) represents the core of the services envisioned and includes all routes operating 8–15 minute headways all-day. Because these routes will serve the primary connections between local and regional activity centers and the majority of ridership, corridors served by the FTN are the most important to target for capital investments, including running way enhancements and pedestrian, bicycle, and park-and-ride facilities that help people reach transit services. Each of these components is vital to achieving an attractive, useful, and well-utilized transit system. The map at right provides an example of how these components relate to one another in Eastgate and vicinity.



► **The proposed 2030 Growing Resources Network and its supporting capital investments in Eastgate and vicinity.**

Bellevue Transit Master Plan

FOR MORE INFORMATION:

Visit the project website:
http://www.ci.bellevue.wa.us/bellevue-transit-plan.htm

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