CAPITAL & POLICY WORKSHOP REPORT

Bellevue Transit Master Plan

CITY OF BELLEVUE

October 2013

Transportation Department

THANK YOU

The City of Bellevue would like to thank the following individuals who took the time to participate in the Capital and Policy Workshop:

Aaron Laing, Planning Commission
Chester Knapp, City of Redmond
Deric Gruen, Bellevue College
Ernie Simas, Transportation Commission
Francois Larrivee, Transportation Commission
Genevieve Tremblay, Arts Commission
James McEachran, Human Services Commission
Janice Zahn, Transportation Commission
Jay Hamlin, Planning Commission
Jim Stanton, Microsoft
John Toone, King County Metro
Jon Morrison Winters, Hopelink
Lynne Robinson, Parks & Community Services Board
Mike Bergman, Sound Transit
Owen Kehoe, King County Metro
Patrick Bannon, Bellevue Downtown Association
Paulo Nunes-Uneo, Seattle Children's Hospital
Scott Lampe, Transportation Commission
Stephen Hunt, King County Metro
Stuart Heath, Parks & Community Services Board
Vic Bishop, Transportation Commission

Also in attendance were the following city officials, staff, and project consultants:

Mayor Conrad Lee, City of Bellevue
Dave Berg, City of Bellevue
Paula Stevens, City of Bellevue
Franz Loewenherz, City of Bellevue
Andreas Piller, City of Bellevue
Kim Becklund, City of Bellevue
Jarrett Walker, Jarrett Walker + Associates
Jon Pascal, Transpo Group
Adam Parast, Transpo Group

PHOTO BY Oran Viriyincy

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INTRODUCTION

The City of Bellevue is updating its 2003 Transit Plan with a comprehensive twenty year look ahead to the type of system that will be required to meet Bellevue's transit needs through 2030. The Transit Master Plan (TMP) will establish short- and long-term policies, programs, and projects that help foster a high-quality transit system that is more effective at connecting residents, employees, and visitors in Bellevue with the places they want to go.

As part of the ongoing outreach supporting this planning process, the Transportation Department held the Capital and Policy Workshop on September 6, 2013 to gain insight into the willingness of members of Bellevue's boards and commissions, regional transit professionals, and other local stakeholders to pursue policies and infrastructure investments that improve transit travel time and reliability. This report details the main themes and polling results from the workshop.

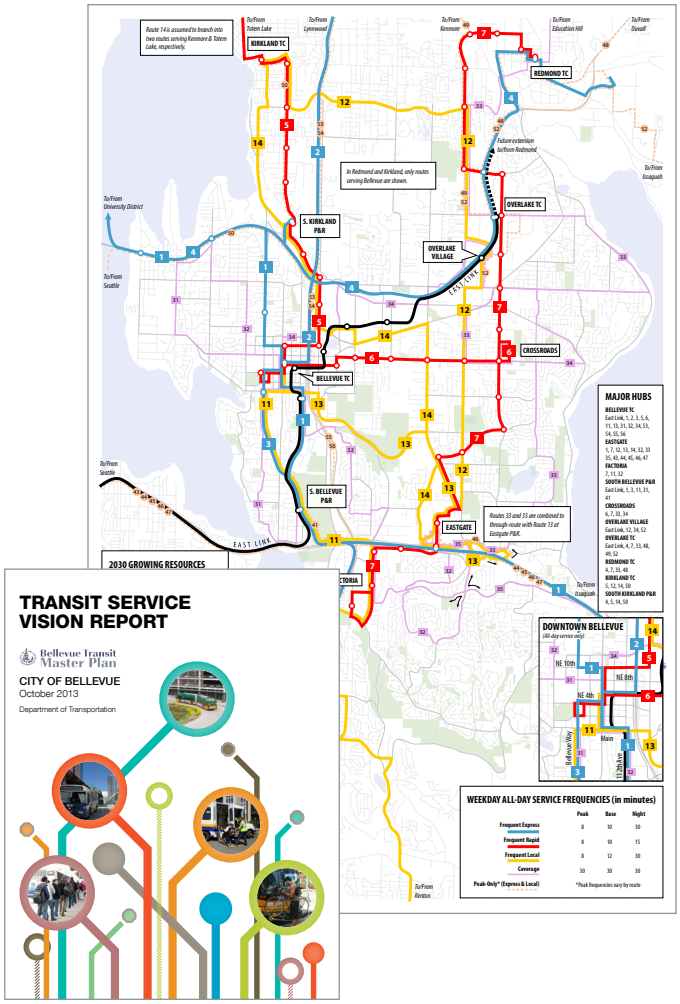


Figure 1 The *Transit Service Vision Report* presents route-level recommendations for transit in Bellevue that are responsive to three financial scenarios (reduced, stable, and growing resources) and attune to three time horizons (short-, medium-, and long-term). The 2030 Growing Resources Network (pictured above) is the most visionary of the networks presented, supporting the future East Link Light Rail, Bel-Red corridor redevelopment, downtown density, and Bellevue's other centers of activity with frequent, well-connected transit services. The proposals advanced in the *Service Vision* will serve as the guiding vision that the forthcoming Capital and Policy Elements of the TMP seek to help realize.

PURPOSE

The Bellevue Transit Master Plan comprises three major elements (Service, Capital, and Policy) supported by extensive outreach and data driven technical analysis. The results of the Service Element are summarized in the *Transit Service Vision Report*. Developed in accordance with the Market Driven Strategies approved by the Bellevue City Council on May 20, 2013, the *Transit Service Vision Report* defines nine future transit networks, including the location and frequency of services to be operated, which vary based on three time horizons and three funding scenarios (Figure 1). Various analyses were conducted using these networks to assess how transit operations and general traffic could be affected by the services proposed; these results were leveraged as inputs to the capital planning process.

The Capital Element of the TMP has three primary objectives:

1. Stimulate discussion on congestion problems in Bellevue that compromise transit's efficiency;
2. Evaluate the trade-offs associated with different street design decisions on mode choice, traffic delay, person throughput, etc.;
3. Assess roadway, signal system, and other rights-of-way improvements that could be made to support the Service Vision outlined in the Service Element.

The result of this process will be the Transit Capital Vision, which will identify locations and corridors that warrant speed and reliability treatments that support efficient and effective transit operations, as well as their appropriate implementation period. The Policy Element, also currently underway, is tasked with establishing clear principles that help drive these capital improvements. This will be accomplished by reviewing transit-related policies in Bellevue's Comprehensive Plan and researching transit-supportive policies and targets employed by peer jurisdictions.

Like the Service Element, the Capital and Policy Elements will also require difficult trade-offs to be made between competing interests. However, whereas service trade-offs deal primarily with competing interests among different groups of transit users, capital investments in transit need to be balanced against the potential impacts on other modes of travel—namely private automobiles, but also bicycles and pedestrians. In the context of transit service, the limited resources to be allocated are the hours of service available to Bellevue based on the amount of funding available to area transit agencies. In contrast, the limited resource in the capital context is physical space—the public street right-of-way. The extent to which the right-of-way is segmented in favor of any one mode necessarily reduces that available to other travel modes, so it is vital to carefully consider how alternative courses of action address the values and interests of the end-users of the transportation system—the public. Outreach has therefore been an important part of the Bellevue Transit Master Plan process to ensure that the decisions ultimately made reasonably reflect the expectations of the community.

On September 6, 2013, the City invited various transit officials, board and commission members, and other local stakeholders to engage in a discussion about the appropriate degree to which transit should be given priority over other modes—if at all—and in which situations. This was considered both in terms of the language used in City policies and in relation to transit priority treatment typologies along specific corridors of interest. The following sections summarize the topics addressed at the workshop, including the presentation given by City staff, the treatment options being studied by project consultants, and the feedback provided by those in attendance. It must be emphasized that this workshop was only one of multiple inputs that the plan will consider and should not be understood as the final declaration of policy intent.

BACKGROUND

Figure 2 Mayor Conrad Lee opens the workshop by emphasizing the important role of transit in Bellevue's future.

Figure 3 Bellevue's Transportation Department reviews the work done to date on the Transit Master Plan and the significance of transit priority investments.

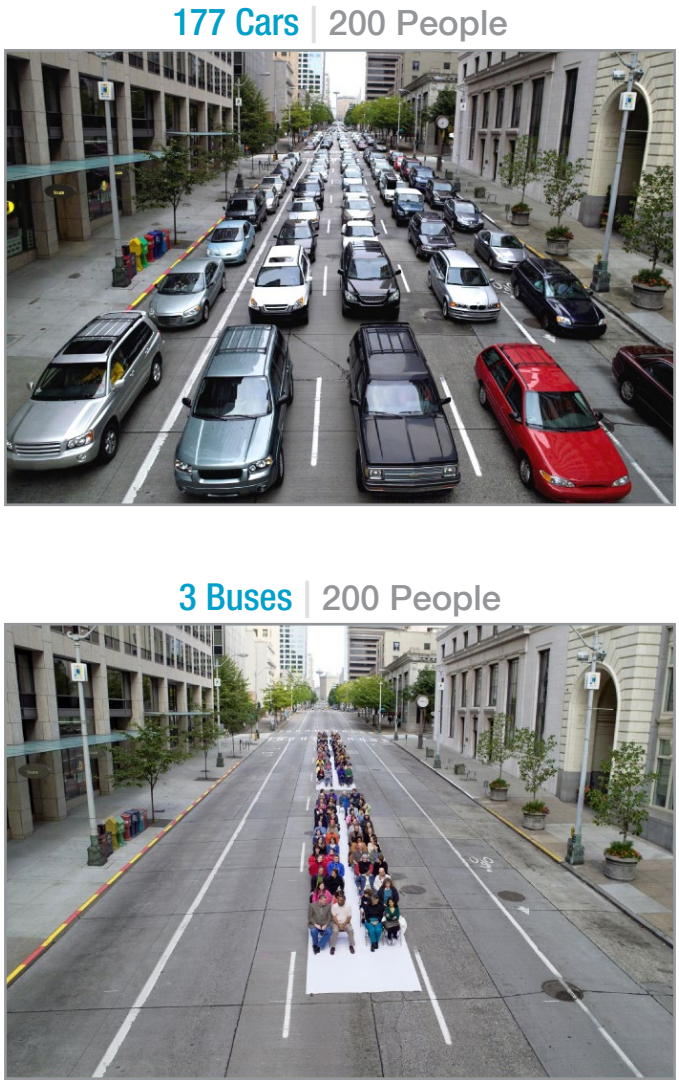
Figure 4 Jon Pascal and Adam Parast of project consultant Transpo Group review the Transit Priority Toolbox.

The event began with an introduction by Mayor Conrad Lee, who provided local context for the Transit Master Plan and emphasized the increasingly important role that transit will play as Bellevue continues to grow in the coming decades. This was followed by a presentation by Dave Berg and Franz Loewenherz of the Transportation Department that summarized the work completed to date on the Transit Master Plan and highlighted the reasons to consider capital investments to improve transit operating speed and reliability.

Staff noted that the street right-of-way is one factor affecting transit operations over which Bellevue has direct influence. How that space is allocated has significant implications not only for the speed and reliability of transit services that operate there, but for all road users in all modes of travel. For example, implementing curbside bus/HOV lanes on a four-lane arterial can markedly improve transit reliability; however, general traffic is then necessarily reduced to two lanes. Determining whether or not to pursue such a street configuration along a particular corridor involves both technical and political considerations, but the latter tend to be more complicated because of the difficult tradeoffs that must be made between modes.

From a technical standpoint, investments in transit priority infrastructure offer a variety of benefits. As demonstrated in Figure 5, well-used transit is a more efficient use of limited street right-of-way than single-occupant vehicles (SOVs). To accommodate the movement of 200 people, SOVs need five traffic lanes stretching over several blocks, while transit can move the same 200 people in one lane, on one block, in just three full buses. By improving the speed and reliability of transit services, conversion of a general purpose traffic lane to a bus/HOV lane has the potential to remove roughly 177 cars from congested streets for every 200 people that shift modes. Additionally, other

Figure 5 How can we best utilize limited street right-of-way?



Source: i-SUSTAIN www.i-sustain.com

cities have found that if transit priority investments can sufficiently improve transit travel time, the potential exists to remove a bus from service while maintaining the same service frequency, allowing those resources to be reinvested in other routes (see page A40).

According to respondents of Bellevue's 2012 Transit Improvement Survey, improving service speed and reliability by investing in roadway and traffic signal infrastructure is the highest priority for municipal investment in transit among current transit users in Bellevue (see Figure 6). Also, among non-riders, 36% (451/1,257 respondents) indicated that improvements in service speed would get them to consider riding the bus (*Bellevue Transit Improvement Survey Report*, p. 63). This suggests a willingness to consider transit priority improvements among members of the community.

Throughout the Capital and Policy Workshop, participants used keypad polling to gauge their level of acceptance to the potential transit priority treatments and policy language being considered. The results of these anonymous polling exercises are presented in the Discussion section beginning on page 9.

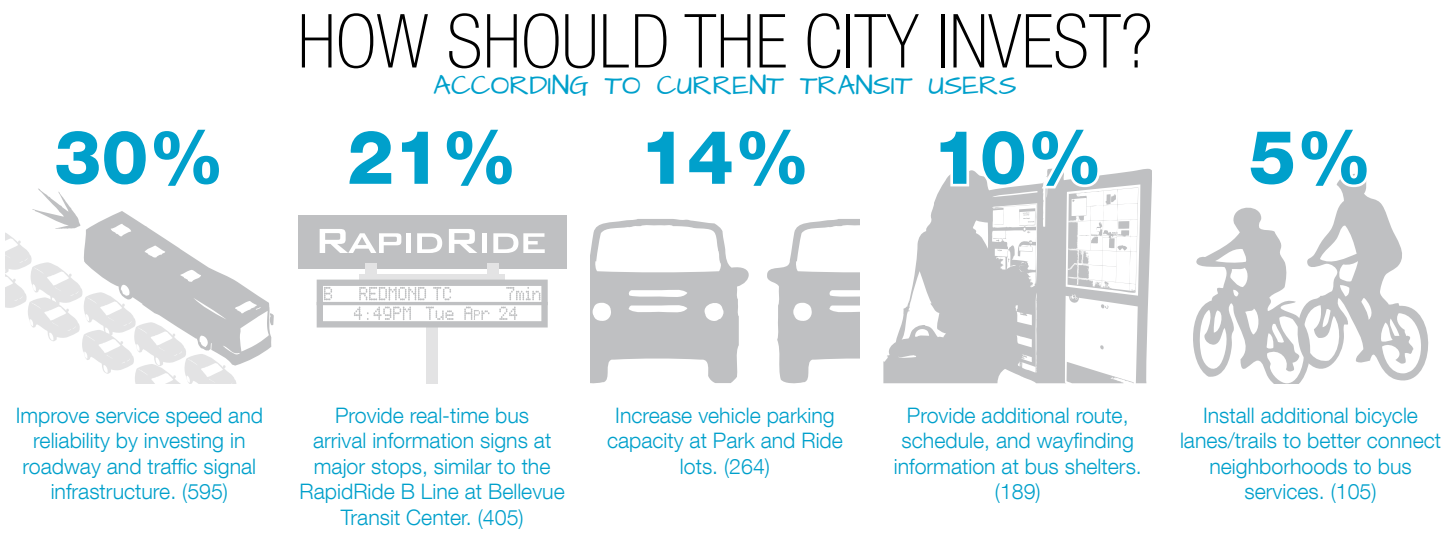


Figure 6 The most common way current transit users think the City should invest municipal resources to improve transit service in Bellevue is by "improving service speed and reliability by investing in roadway and traffic infrastructure" (30.3%; 595/1,962). The above are the five strategies most commonly selected by respondents to the 2012 Transit Improvement Survey. For full results, see the *Bellevue Transit Improvement Survey Report*.

Transit Signal Priority (TSP) – A traffic signal operation that adjusts signal timing to prioritize transit vehicle movement along a corridor. The most common types of TSP adjust the amount of green time to help an approaching bus pass through an intersection with less delay. Such treatments require no additional right-of-way and have minimal impacts on general traffic, but they are less effective on highly congested corridors.

Queue Jump Lane – These allow buses to bypass congested choke points through a combination of a short bus-only lane and a dedicated bus signal, which gives buses a green light several seconds before other vehicles. Queue jumps provide large benefits to transit at specific locations but can have a greater impact to general traffic than TSP.

In-Lane Bus Stop / Curb Extension – These stop configurations reduce transit delay compared to bus pullouts, which require the bus to re-enter the traffic stream after serving passengers. The degree of impact to general traffic depends on the utilization of the stop.

Business Access & Transit (BAT) Lanes – These restrict the curb lane of a multi-lane arterial to transit and right-turning vehicles only. At intersections, all vehicles except transit must turn right. This preserves access to businesses and side streets while reducing vehicle volumes in the curb lane to the benefit of transit.

Arterial High-Occupancy Vehicle (HOV) Lanes – These function similarly to BAT lanes, but they are used where right turns are infrequent, and curb lane traffic is limited to transit, motorcycles, and carpools. They are typically used where transit demand is not high enough to justify exclusive transit lanes.

Transit-Only Lanes – Reserves a lane for transit along a corridor or through a choke point. This provides the highest level of transit priority on normal streets and is often implemented along corridors with high bus volumes or with median bus rapid transit (BRT). By reducing capacity for general purpose traffic, transit-only lanes can increase non-transit congestion and often result in turn restrictions for other modes.

Transit Priority Toolbox

Following the above review by staff, Jon Pascal and Adam Parast of project consultant Transpo Group presented the Transit Priority Toolbox, developed for the Bellevue Transit Master Plan by Transpo Group. The toolbox includes a range of transit priority treatments being considered for implementation on one or more of Bellevue's transit corridors by 2030, which are generally divided into three categories:

1. **Intersection treatments**, including TSP, queue jump lanes, and left turn restrictions;
2. **Bus stop treatments**, including in-lane stops, curb extensions, and transit islands; and
3. **Running way treatments**, including BAT lanes, arterial HOV lanes, transit-only lanes or streets, contra-flow bus lanes, and busways.

Each category includes strategies with different levels of investment, degrees of benefit to transit, and impacts to other travel modes. Some improvements are intended for discrete locations, while others are meant to be coordinated along entire corridors. Figure 7 provides a basic graphical summary of the treatment types organized according to the degree of operational exclusivity they provide to transit.

While presenting these potential treatments, Transpo Group emphasized that there are pros and cons to each, and audience questions provided additional insight into some of the tradeoffs involved. For example, one participant asked whether bicycle lanes can be accommodated with five-lane spot priority treatments, and while Transpo Group indicated that it is possible, they noted that careful consideration of the design would be required to ensure it functions safely for all users. Another suggested that center bus lanes would require a specialized fleet to accommodate boarding on the left side of the vehicle, but consultants noted that cities like Eugene, Oregon have implemented creative solutions to address such complications.

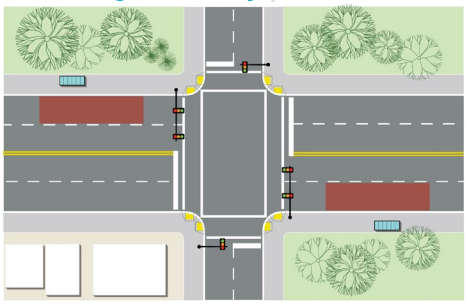
Figure 7 Transit Priority Toolbox.

Lower

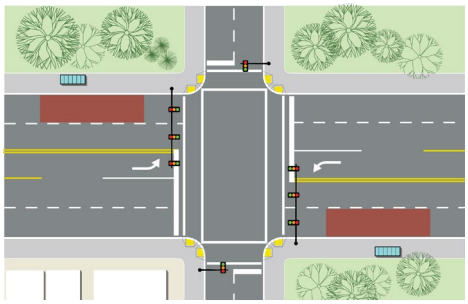
Operational Exclusivity

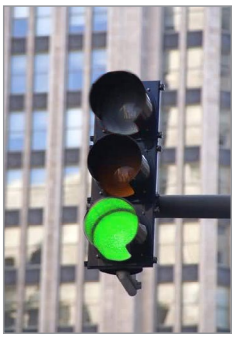
Higher

Signal Priority | 4-Lane

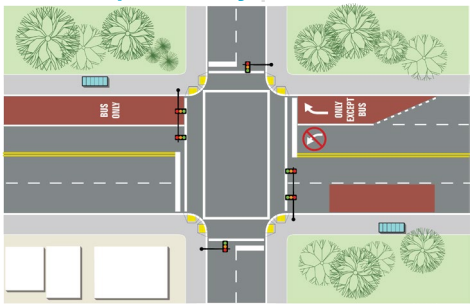


Signal Priority | 5-Lane

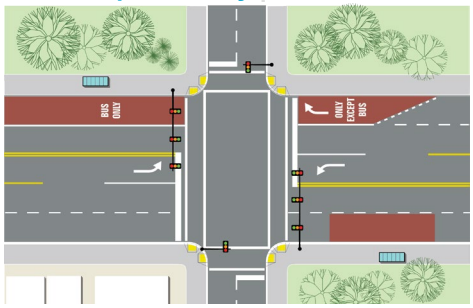




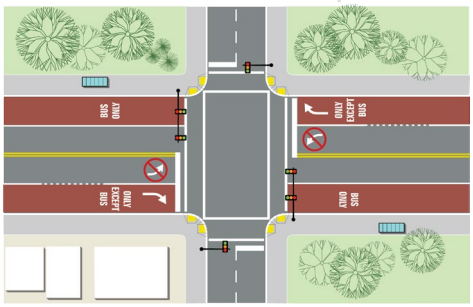
Spot Priority | 4-Lane



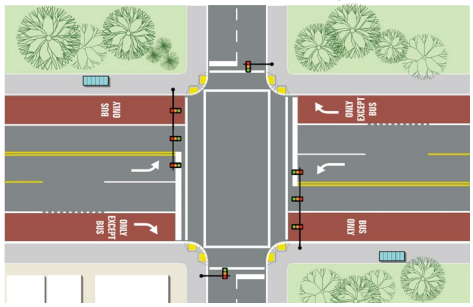
Spot Priority | 5-Lane

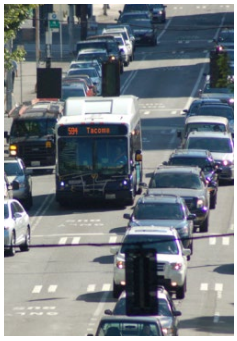


Curbside Bus/HOV Lanes | 4-Lane

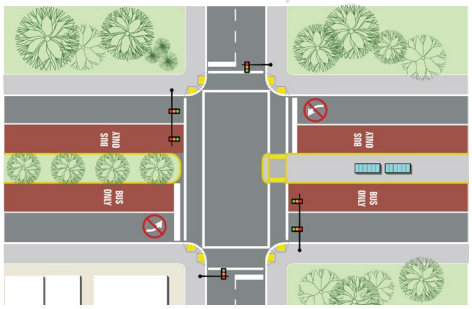


Curbside Bus/HOV Lanes | 5-Lane

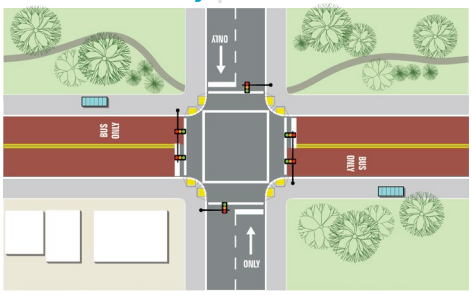




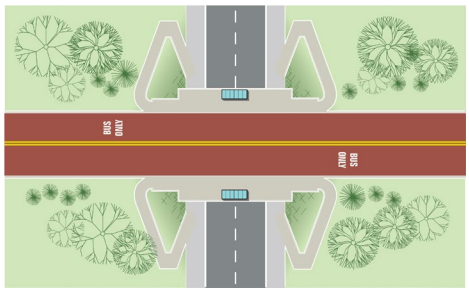
Center Bus Lane | 4-Lane



Busway | At-Grade



Busway | Grade-Separated



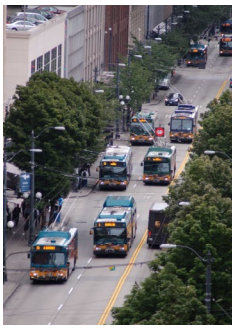


Figure 9 Peer Cities Studied.

Santa Monica, CA	Burnaby, BC
Pasadena, CA	District of North Vancouver, BC
Arlington, VA	Cities surrounding Chicago, IL
Montgomery County, MD	Eugene, OR
Mississauga, ON	Springfield, OR
Brampton, ON	Portland, OR
York Region, ON	Seattle, WA
Richmond, BC	

Figure 10 Peer City Policy Groupings.

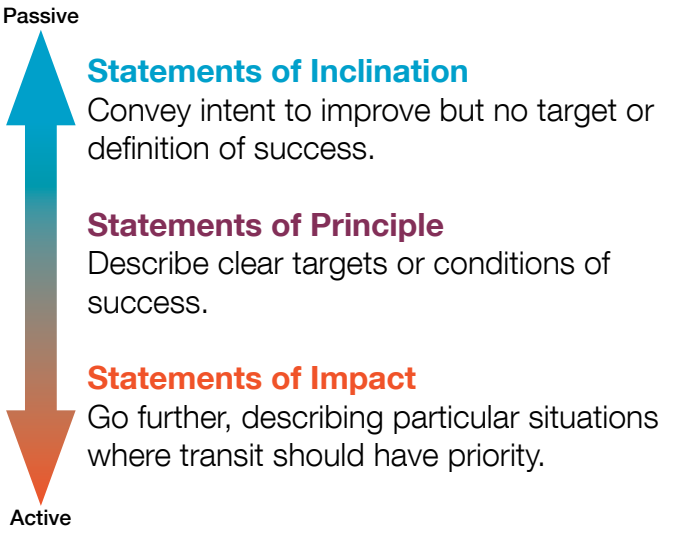


Figure 8 Project consultant Jarrett Walker leads the discussion on potential language being considered for transit priority policies.

Transit Priority Policy

Following a discussion of how various treatment options from the Transit Priority Toolbox might impact the corridors currently being analysed (see the Priority Analysis Corridors section on page 11), City staff and project consultant Jarrett Walker summarized the analysis undertaken to date of policies prioritizing transit in Bellevue's Comprehensive Plan and in fifteen broadly comparable peer cities (see Figure 9). Peer cities were defined as those with: (i) populations in the 100–500,000 range that typically are not the largest city in their metro area, (ii) generally strong employment bases—often with a major technology sector, and (iii) a mixture of dense employment and dense residential buildings. Two larger core cities—Seattle and Portland—were also considered because it is believed that Bellevue is likely influenced by them.

Staff explained that in the Bellevue Comprehensive Plan, there are forty-three policies that express some degree of support for transit, with topics ranging from design to funding, from park-and-ride development to light rail. However, only one policy (TR-54) explicitly mentions transit priority, and though it lists a few priority treatments that the City should "[w]ork with transit providers to create, maintain, and enhance," it offers no guidance about when such treatments should be pursued or how their successful implementation should be measured (see page A58).

Jarrett Walker then reviewed some of the most notable lessons learned from the policies of peer cities. He grouped policies into three broad categories based on how passively or actively they are phrased, as shown in Figure 10. Refer to pages A59-A61 for several examples of each policy type. Among the peer cities studied, only Seattle has adopted policies that classify as 'statements of impact'. Recognizing that Seattle has a stronger transit culture than Bellevue, Jarrett recommended that Bellevue pursue strong 'statements of principle'.

DISCUSSION

As previously noted, obtaining participant input was the central purpose of this workshop, which was accomplished through audience polling and follow-up discussions about poll results. Although this report has to this point primarily reviewed the information presented to participants, this is because prior documents detailing the progress of the TMP Capital Element have not yet been published, so more substantive context is necessary here than in previous TMP outreach reports. Indeed, most of the time during the workshop was spent listening to participants' comments and responding to the questions they posed.

The following three sections recount some of the more notable questions and comments exchanged during this dialog while also reviewing the polling results. Discussions were typically initiated by prompting those in the minority opinion to offer an explanation of their perspective, and those participants tended to do so quite openly. By contrast, those voting with the majority opinion were often less forthcoming with explanations. Therefore, it must be noted that although many of the comments expressed and recorded here were to varying degrees in opposition to granting transit priority, the polling results frequently indicated that a majority of participants favored greater support of transit priority than City staff anticipated.

This disconnect between the presentation of skepticism in audience commentary and support for transit priority through polling results should be considered given this context and not interpreted as an attempt by staff to promote any particular values or perspectives through this report. The Notable Themes highlighted on page 18s 18–21 seek to reconcile this tension, advancing the majority opinion while capturing opposing viewpoints in a manner that offers a preliminary strategy for continuing planning work while recognizing that additional conversations are necessary before actionable policies are finalized.

Figure 11 Parks and Community Services Board member Stuart Heath provides his perspective on language used in Bellevue's current Comprehensive Plan.

Figure 12 Jim Stanton of Microsoft points out the importance of considering investments strategically, coordinating investments between corridors instead of addressing each individually.

Figure 13 Transportation Commission member Francois Larrivee asks for clarification on the intent of the polling exercises.

Figure 15 "It is neither possible nor desirable to build enough roadway improvements to keep pace with ever accelerating demand for travel in single-occupant vehicles. Rather, the Plan focuses on reducing auto dependency by providing viable travel choices." – Bellevue Comprehensive Plan

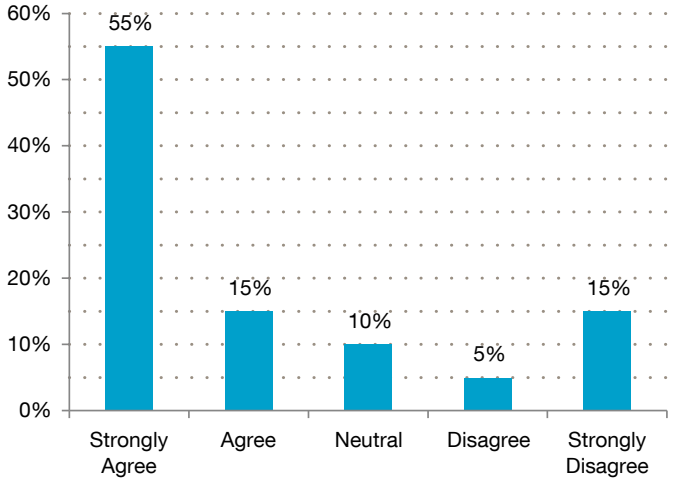
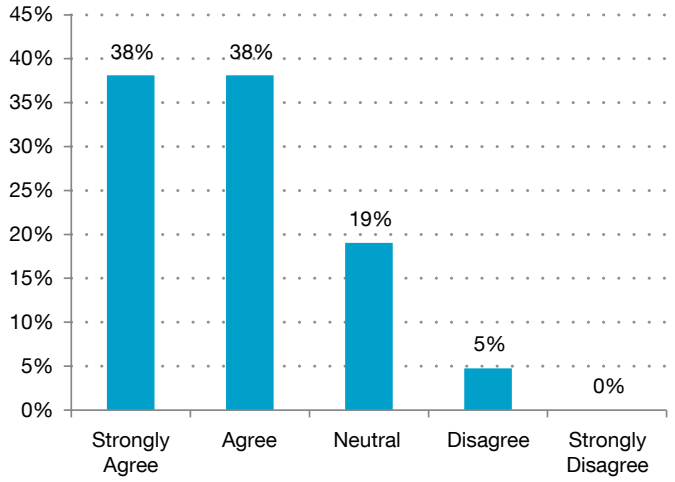


Figure 16 In principle, high-ridership frequent transit deserves a higher priority than low-occupant private vehicles in access to limited road capacity.



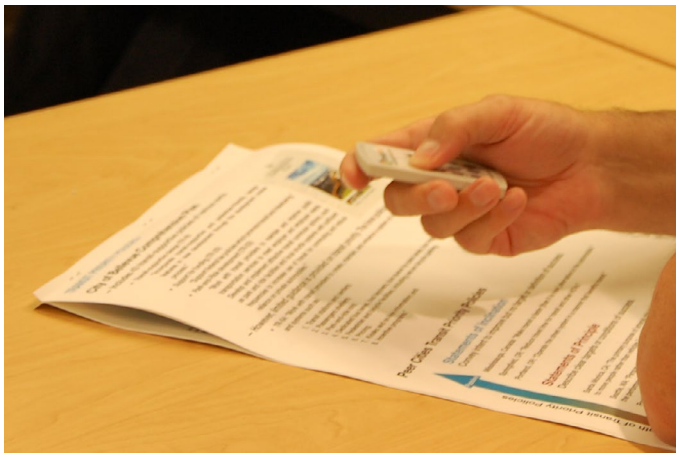


Figure 14 Participants cast votes using keypad polling devices. City officials, staff, and project consultants did not cast votes during audience polling exercises.

Priority Principles

A short round of audience polling immediately followed the planning review by City staff, prior to consultants' presentations on the Transit Priority Toolbox and priority policies. These questions were meant to determine the degree to which participants are accepting of the principles underlying the pursuit of transit priority in Bellevue.

The first poll asked participants to react to an excerpt from Bellevue's Comprehensive Plan that recognizes the limitations of designing transportation systems solely for SOVs, instead putting Bellevue on a course that promotes viable alternative travel modes. As shown in Figure 15, a large majority (70%) of participants agreed or strongly agreed with this directive, yet 20% disagreed. When asked why they disagreed, three participants offered their rationale. The first claimed that it was "all about choices", and that Bellevue "made choices to not build more roads. It is possible; it is desirable; we have simply chosen not to do it." Staff welcomed this opinion, recognizing that there are likely others in the community who share this perspective.

A second participant was less fundamentally opposed to the notion of encouraging travel by non-automobile modes, instead taking issue with the language and mixed content of the Plan excerpt. He noted that the exerpt includes both empirical and value statements, and as a self-identified empiricist, he believes this is problematic because he is disinclined to weigh in on the value statements but has insufficient information to corroborate the empirical statements. A third participant noted that he did not like the either-or nature of the statement, suggesting that as technology improves, it may be possible to reduce all types of traffic through such measures as incentivizing telecommuting. No participants in favor of the Plan statement provided comments.

The second question more directly asked participants to weigh in on the merits of granting priority to high-ridership transit at the expense of low-occupancy

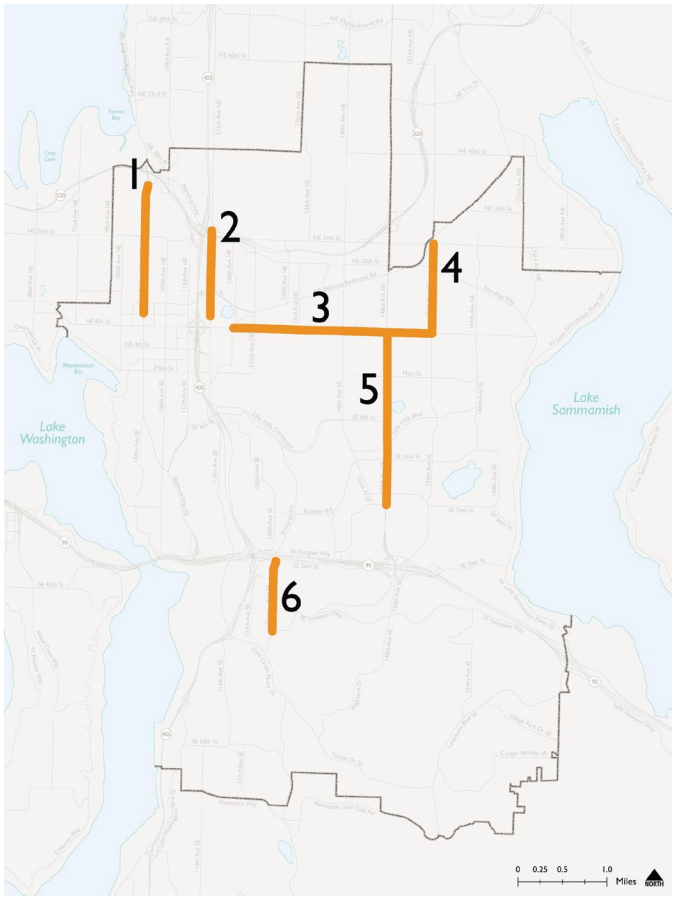
private vehicles. As shown in Figure 16, the audience reached a clear consensus: 76% agreed or strongly agreed, and only 5% (a single participant) disagreed. No additional comments were provided, so consultants began their presentation of the Transit Priority Toolbox.

Priority Analysis Corridors

Following review of the Transit Priority Toolbox, Jarrett Walker examined how the various treatment options might impact the corridors currently being analysed (see Figure 17). Refer to Appendix pages A28-A29 for transporation, land use, and socioeconomic characteristics of each of the six priority analysis corridors being studied. Additional information and photos of each individual corridor can be found on Appendix pages A60-A68. A more formal review of each corridor and its recommended transit priority treatment(s)—which input from this workshop will help to inform—will be provided in the coming months in the *Capital Vision Report*.

Participants were asked the same question after each individual corridor had been examined: 'What is the most extensive change that might be contemplated for the corridor?' Table 1 on page 12 summarizes the results for all six corridors. It is important to note—as was done at the workshop—that the polling results are by no means the final word on what will be pursued along each corridor. With that said, this input is meant to help gain an understanding of what might be considered reasonable among local stakeholders. Polling results suggest a willingness to reimagine how the rights-of-way along several corridors are allocated to transit and SOVs; however, some participants expressed reservations about such prospects. A wide variety of questions and comments were offered, ranging from questions about specific treatments along particular corridors to high-level conceptual comments and alternative strategies.

Figure 17 Priority Analysis Corridors.



1	Bellevue Way NE | NE 10th St to NE 32nd Pl
2	116th Ave NE | NE 12th St to Newport Way
3	NE 8th St | 120th Ave to 156th Ave NE
4	156th Ave NE | NE 8th St to Bel-Red Road
5	148th Ave NE | NE 8th St to SE 24th St
6	Factoria Blvd | SE 36th St to SE Newport Way

Figure 18 Jarrett Walker reviews the NE 8th St corridor and considers what impacts different transit priority treatments might have on various road users.

Table 1 What are the most extensive changes that workshop participants might consider for each transit priority analysis corridor?

	Transit Priority Analysis Corridors					
	1 Bellevue Way NE	2 116th Ave NE	3 NE 8th St	4 156th Ave NE	5 148th Ave NE	6 Factoria Blvd
Transit Priority Treatment						
Signal Priority	21%	33%	15%	24%	47%	37%
Spot Priority	16%	—	15%	12%	11%	5%
Curbside Bus/ HOV Lanes	37%	56%	20%	24%	26%	42%
Center Bus Lanes	26%	—	45%	41%	11%	16%
Other	0%	11%	5%	0%	5%	0%

Note: City officials, staff, and project consultants did not cast votes during audience polling exercises.

Clarifications

A few questions posed by participants simply sought clarification on how a given treatment might be deployed, or how workshop organizers intended participants to approach the voting process. Several of these are worth reviewing for the benefit of anyone not in attendance who may have similar questions. One of the most fundamental was a question of whether transit signal priority (TSP) was assumed to be included as part of the more extensive treatments, such as spot priority or transit lanes. Jarrett replied that each treatment is meant to build on the last to the extent that it is logical to do so, so TSP is indeed intended to be part of the more extensive treatments.

Several other questions were related in some way to the center bus lane treatment typology. Most practically, one participant asked whether having bus lanes in the median would affect pedestrian access, given that they would always need to cross the street to reach their destinations. Jarrett responded that access is affected in some way, but he noted that in the course of a round trip, pedestrians would only cross the full width of the street once whether center or curbside bus lanes are used.

More conceptually, another participant asked whether support of the center bus lane treatment—which had previously been described as more aspirational and consistent with the Parisian model—could be justified by any models that describe a city more similar to Bellevue. More specifically, she wondered whether it was reasonable to anticipate a shift from suburban auto-oriented culture to a more transit-oriented culture. Another interjected, asking whether the expectation was that "if we build it, they will come?" Jarrett replied that it is appropriate to characterize the situation as such to some extent, noting that high-quality transit has been shown to help induce demand in transit in cities more similar to Bellevue than Paris. However, he added that whether such a cultural shift could resonably be anticipated in Bellevue is impossible

to know, and that anyone's prediction about whether that is possible given sufficient investment in transit is as good as anyone else's. He stressed that a transit priority treatment as aggressive as center bus lanes should only be applied where it is believed that sufficient demand can be shifted from SOVs to transit to justify the loss of general purpose traffic capacity.

Coordinating Investments

One of the first points made during the discussion suggested that Bellevue focus on making strategic, coordinated corridor-based investments rather than localized tactical improvements. The participant noted that the latter type of investments may or may not have significant positive impacts to transit, but the side effects tend to be perceptible and irritating to motorists. He later provided an example of how such an approach could be applied: instead of studying the Bellevue Way NE (Figure 19) and 116th Ave NE (Figure 20) corridors in isolation, why not consider them in parallel? He suggested that one could be emphasized as a transit corridor, while less aggressive transit priority treatments could be implemented on the other. Other participants considered this to be a reasonable approach.

One person remarked that between the two, the 116th Ave NE corridor was likely the more logical choice for aggressive transit priority treatments, in particular because the abundance of hospitals and health care facilities there provide a social justice argument for ensuring adequate access for those who do not own a personal vehicle. Another participant came to a similar conclusion when comparing the two corridors, but his rationale was different: he was concerned about negatively affecting vehicle level-of-service (LOS) on the Bellevue Way NE corridor, where LOS is generally good. Consultants noted that while that street's LOS may be good today, increased traffic will degrade it by 2030, and high-quality transit could actually help vehicle—and especially people—throughput in the future.

Figure 19 Photos of the Bellevue Way NE corridor.

Figure 20 Photos of the 116th Ave NE corridor.

Figure 21 Photos of the NE 8th St corridor.

Figure 22 Photos of the 156th Ave NE corridor.

Competing with Congestion

Consideration of potential transit priority treatments along NE 8th St elicited a substantial amount of discussion with widely varying perspectives (Figure 22). Several participants found that there were compromises to be made on this corridor that perhaps none were perfectly satisfied with, but that each could find some reason to support. One participant expressed concern about making any reductions to general purpose travel lanes on NE 8th St because of its high level of congestion, but he did want to find a way to implement some form of transit priority there. He suggested that perhaps bus pull-outs could be installed as a means to find a successful middle ground. Another participant noted that while this may be possible, the steep grades common along much of the corridor could make it very difficult for a bus to pull back into traffic at speed.

The latter participant agreed with the former about the significant traffic congestion—"when it's bad, it's very bad"—but he said that this lead him to support the center bus lane concept. Although such a treatment would remove a general purpose travel lane, it would help mode shift from SOV to transit, reducing general purpose traffic, and the center bus stop configuration would remove transit from the curbside lane. He noted that NE 8th St has an abundance both of driveways used by general traffic and numerous stops served by buses, each of which results in delay to the other mode; shifting transit to the center lanes eliminates these mutual interferences.

However, another participant was incredulous that any treatments that would reduce the number of general purpose travel lanes were being considered on NE 8th St. He noted that the four-lane arterial "breaks down everyday as it is", and he could not understand how some were considering reducing general traffic space by half. A second participant agreed that nothing should be done to NE 8th St, but for a nearly opposite reason: In an era of diminishing resources,

he did not believe that heavy investments should be made on a corridor with lesser problems than others in Bellevue.

Alternative Strategies

A few alternative strategies were proposed that are also worth recounting here. One participant mentioned that when considering the NE 8th St corridor, he envisioned the center transit lane option operating as a streetcar similar to Seattle's rather than a bus. Jarrett noted that implementing streetcars is entirely possible if Bellevue decides to invest in that mode of transit, but the mode would actually have little or no impact on whether or not the center transit lane concept could succeed. The key to successful high-quality transit along the corridor, he said, is not whether the transit vehicle runs on rail or rubber, but whether or not it is granted an exclusive right-of-way.

Another participant questioned why various treatment types were being considered in opposition to one another, instead suggesting a phased approach wherein less-dramatic treatments (e.g. transit signal priority, spot priority) would be implemented first, then expanded to include some form of transit lane as needed. Jarrett cautioned against such an incremental approach, noting that there are some locations like NE 8th St that are known to be sufficiently congested today that only a dedicated right-of-way for transit could help, and conditions would only become worse with time. Further, if small changes are made and fail to provide measurable improvement, it may make additional investments on that or other corridors less politically tenable on the grounds that initial efforts are proof of ineffective policy, when in fact the envisioned investments were never meant to be so limited.

Also, a couple of participants brought up the prospect of technology significantly influencing how transportation issues are addressed within the

Figure 23 Photos of the 148th Ave NE corridor.

Figure 24 Photos of the Factoria Blvd corridor.

Figure 25 Planning Commission member Jay Hamlin explains that center bus lanes can improve the flow of both transit and general purpose traffic by reducing the number of points of conflict between the two modes, such as stops and right turns.

Figure 26 Transportation Commission member Janice Zahn expresses her preference for the term 'mobility' when describing the movement rather than 'throughput' or 'travel time'.

twenty-year time horizon being considered by the TMP. For some, the technological shift envisioned was as simple as telecommuting becoming an increasingly accepted option for a larger share of the workforce, reducing transportation demand. Another participant expressed the belief that some "out-of-the-box, futuristic" technological solution would be invented that we could not yet conceive of today, and that this could fundamentally alter how or whether people travel with the same frequency that they do today. Jarrett acknowledged that, particularly in the latter case, we simply cannot know today whether such an innovation will come about. However, he noted that expectations of telecommuting supplanting physical travel have been prevalent for over a decade, yet despite the abundance of technology sector employment in the Puget Sound region—perhaps the sector most likely to be amenable to such a shift—telecommuting has not had any significant impact on travel patterns. Ultimately, Jarrett suggested that participants assume that the need for physical travel is likely to remain a reality, and the size and occupancy of the vehicles doing that travel will remain the fundamental question.

Data Considerations

Finally, a couple participants expressed an interest in reviewing additional data to help inform their perspectives. The first believed there was insufficient data for her to make informed treatment selections. She acknowledged that 'gut reactions' were being sought, but she believed that some data points beyond those that were provided (see pages A32–A33) are important when formulating an opinion, including the percent of the day that a corridor is congested and the anticipated mode shift resulting from transit priority implementation. The other participant noted that there are financial costs associated with every potential treatment, and if those are not considered, providing opinions is easy but unrealistic.

Policy Choices

The workshop concluded with a final round of audience polling, which asked participants to reflect on two versions of potential policy language that prioritizes people instead of vehicles—the first in terms of maximizing throughput capacity, the second in terms of minimizing travel time/delay. This represents a shift in values from Bellevue's current vehicle-based level-of-service policies, and both versions are consistent with policies enacted by peer cities. As shown in Figures 27 and 28, workshop participants were more comfortable with policy that manages arterial travel lanes in the context of throughput capacity—with a majority being comfortable or strongly comfortable (65%)—than in terms of travel time/delay, which was evenly split.

One participant said that he supports the idea of person throughput, but having considered the issue previously outside this workshop, he has come to think that the best measure may actually be economic throughput. He admitted that it would be difficult to measure because it would be an index of many factors—including social access for low-income and minority groups, access to employment, and movement of goods, among others—but if such a measure could be developed, he would favor it.

Two participants suggested that other factors also need to be considered: one noted the transport of goods and services, and the other stressed that level-of-service (LOS) is meant to ensure access for emergency vehicles, not necessarily to provide convenience to motorists. One participant expressed reservations about the 'maximize/minimize' language used, instead preferring the concept of 'optimizing mobility'. Another agreed with the intent of the policies but did believe the language matched the intent. Deric Gruen of Bellevue College provided a poignant final word in the discussion: "This seems to me to be self-evident—the purpose of transportation is to move *people*."

Figure 27 Manage arterial travel lanes to maximize the *throughput capacity* for people rather than vehicles.

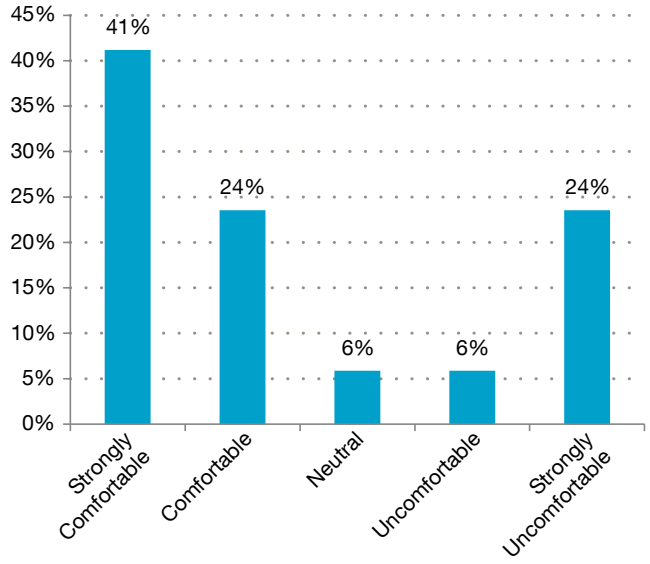
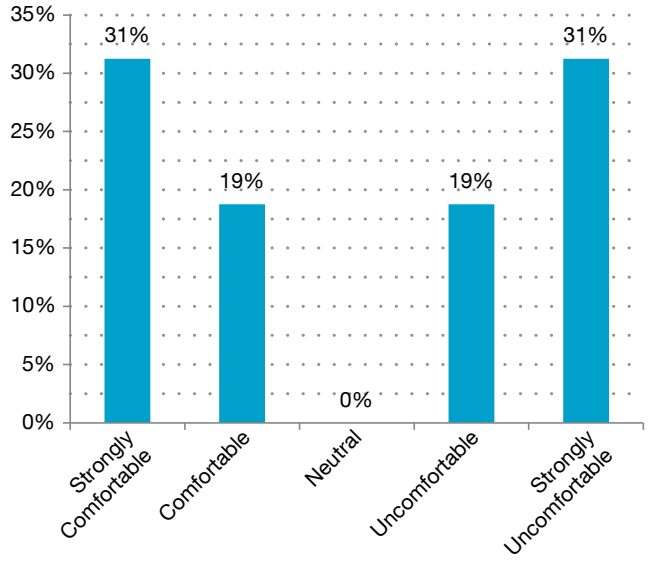


Figure 28 Manage arterial travel lanes to minimize the *travel time/delay* for people rather than vehicles.



Notable Themes

Several notable themes were identified in an effort to summarize workshop proceedings based on the results of participant polling and comments during discussion.

1

Bellevue faces difficult choices about the use of its limited street right-of-way.

Bellevue is growing rapidly. Because of this growth demand for street space will increase among all modes of travel. Prioritizing how to allocate limited street right-of-way requires trade-offs. For example, moving buses through congested business districts and transportation bottlenecks more quickly and reliably requires changes to right-of-way allocation that could impact other street users.

2

"It is neither possible nor desirable to build enough roadway improvements to keep pace with ever accelerating demand for travel in single-occupant vehicles. Rather, the Plan focuses on reducing auto dependency by providing viable travel choices."

- Bellevue Comprehensive Plan

When polled on their acceptance of this current Comprehensive Plan policy statement seventy (70) percent of forum participants agreed or strongly agreed, ten (10) percent were neutral, and twenty (20) percent disagree or strongly disagree with this perspective. Some forum participants regarded this policy statement as inaccurate or overly value laden. The majority of forum participants appear to believe the City should prioritize capital improvements that enhance transit service and promote a shift towards higher levels of transit usage.

In principle, high-ridership frequent transit deserves a higher priority than low-occupant private vehicles in access to limited road capacity.

3

When polled on their acceptance of this statement seventy-six (76) percent of forum participants agreed or strongly agreed with this perspective, nineteen (19) percent were neutral, and five (5) percent disagreed. The majority of forum participants appear to believe the City should consider moving toward a "person trip" approach for measuring travel, which categorizes the various modes using a street by the number of people served as well as the number of vehicles.

Bellevue should manage its arterial travel lanes to maximize the throughput capacity for *people* rather than *vehicles*.

4

When polled on their acceptance of this statement sixty-three (63) percent of forum participants were comfortable or strongly comfortable, six (6) percent were neutral, and thirty (30) percent were uncomfortable or strongly uncomfortable. In general, participants concurred that it is good policy to time traffic signals to prioritize moving a bus filled with 60 passengers through an intersection rather than prioritizing 15 single-occupant vehicles, but securing support from motorists and freight haulers will require difficult discussions. Although there were differences of opinion on the appropriate phrasing of a Comprehensive Plan statement, forum participants generally believe it would be beneficial to develop city policies that optimize the use of limited rights-of-way for personal mobility—the degree of freedom to move.

5 Transforming high-volume arterials into transit-supportive corridors requires careful and coordinated planning.

Several forum participants observed that Bellevue should take a balanced approach to the implementation of transit priority improvements. Although the City should not over-extend itself with a one-size-fits-all system-wide approach, it should strive to make strategic, coordinated investments that can realize significant, measurable improvements along corridors, rather than highly localized investments whose impact is less certain. It was suggested, for example, that it would be more appropriate to invest in transit priority treatments along the 116th Ave NE corridor as compared to the Bellevue Way NE corridor (both north-south arterials). Long-term, the level of transit priority investment should account for differences in levels of transit service, differences in the ability to support new uses and/or higher densities, surrounding land use characteristics, and the degree to which low-occupancy and service vehicles should continue to be accommodated.

6 Bellevue needs to package its transit speed and reliability improvements with supportive land use policies, pedestrian and bicycle amenities, stop/station design, and transportation demand management strategies.

Several forum participants spoke in favor of broadening the discussion beyond transit speed and reliability improvements to consider a number of complementary concepts including incentivizing private employers to reduce and even eliminate employee commutes (e.g., tax incentives to allow employees to work at home or be re-assigned to a work location closer to home).

Bellevue should make transit the logical choice for a wide range of people and situations, by ensuring reliable operations.

7

Forum participants were supportive of principles and speed and reliability strategies that make transit less expensive, more convenient, and more attractive to potential transit users. If Bellevue is to increase transit mode share it will need to make targeted transit speed and reliability investments where they are most likely to support future development and growth in ridership.

Bellevue should consider pursuing bold investments in transit priority on some high-demand corridors by 2030.

8

In considering what levels of transit priority might be appropriate on several arterial segments by 2030, pluralities and large minorities of workshop participants—as many as 45%—could envision supporting center bus lanes in some cases. Such interventions would substantially further the shift in mode share toward transit by delivering high transit reliability.

Bellevue should consider broadening the transit priority toolbox.

9

A comment card was submitted suggesting use of Freight Access + Transit (FAT) Lanes that would operate as follows: Pre-AM Peak: freight only and loading; Peak (AM/PM): bus only; Mid-day and Evening: shared use. The suggested advantages of this concept include: (i) freight/transit have similar vehicle profiles (size, weight, speed, width); (ii) removes freight from general purpose traffic, improving SOV speed; (iii) fully utilizes restricted lane (time/space); (iv) concentrates heavy vehicles to a single lane, saving road surface maintenance; (v) builds support from freight community; and, (vi) allows for narrower general traffic lanes, possibly allowing for bike lanes.

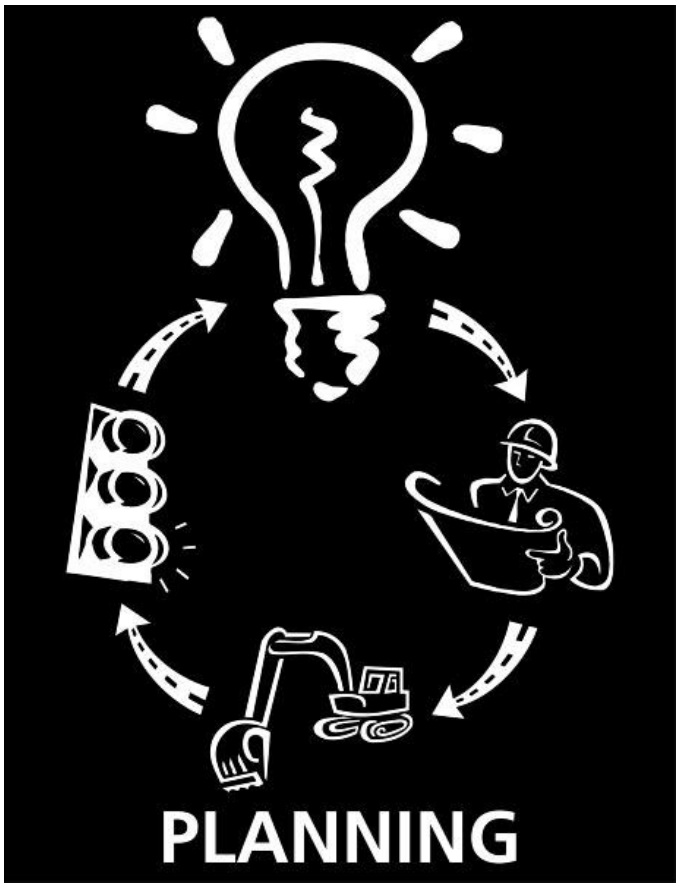


Figure 29 As a long-range transportation plan, the Bellevue Transit Master Plan represents the first step in the project development process. As reflected in this image, there are multiple steps in moving a project from planning through design, construction, and operation.

CONCLUSION

The purpose of this workshop was to determine how accepting boards and commission members, transit professionals, and other local stakeholders are of transit priority in concept, in policy, and in the various forms in which it might be applied to particular corridors in Bellevue. This workshop was an important first step in (i) stimulating discussion on congestion problems in Bellevue that compromise transit's efficiency; (ii) evaluating the trade-offs associated with different street design decisions on mode choice, traffic delay, person throughput, etc.; and (iii) assessing roadway, signal system, and other rights-of-way improvements that could be made to support the Service Vision outlined in the Service Element.

It has been stated at various points throughout this report and it bears reiterating: the results of this workshop should not be understood as the final word on how the City should proceed with transit priority capital investments and policy issues. Even after decisions are made about what transit strategies to pursue, investments will still have to compete against other infrastructure priorities identified in Bellevue's *Transportation Facilities Plan* before they are funded and implemented (see Figure 29).

Nevertheless, these insights will be considered by the City and its consultants when potential policy language is drafted and the viability and impacts of potential capital investments are assessed. The Transportation Department will continue to involve the Transportation Commission in these efforts to ensure that the strategies ultimately pursued are reflective of the community's values. Though staff and consultants can provide technically sound analysis, the decisions that must be made are fundamentally value-driven. What road users will be prioritized? Who will benefit from the models adopted? Thanks to the input of participants at this workshop, Bellevue is better positioned to begin formulating answers to these difficult questions.

APPENDICES

Appendix 1 Capital & Policy Workshop Agenda

Bellevue Transit Master Plan

AGENDA

TRANSIT CAPITAL & POLICY WORKSHOP

Friday, September 6 (from 1:00 to 4:00 PM)
City Hall Conference Room 1E-108

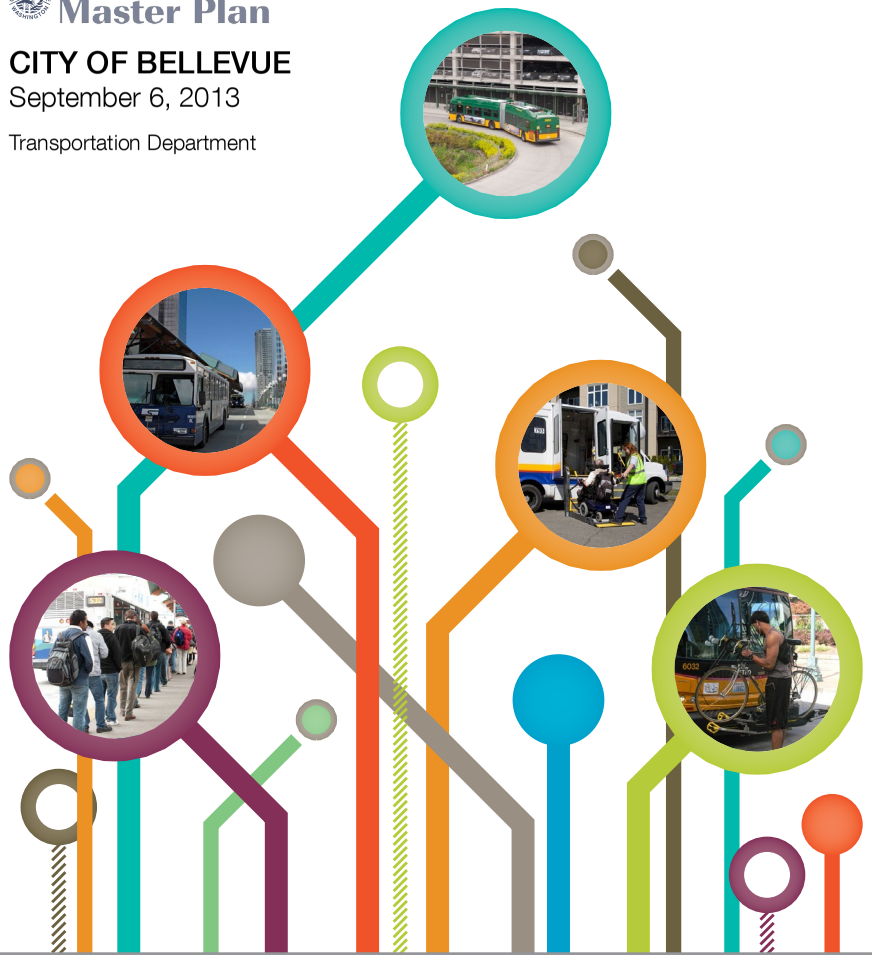
1.	**Welcome & Opening Remarks**	**1:00 – 1:10**
2.	**Project Overview**	**1:10 – 1:30**
3.	**Preliminary Opinions?**	**1:30 – 1:40**
4.	**Transit Priority Toolbox**	**1:40 – 2:00**
5.	**Break**	**2:00 – 2:10**
6.	**What Might Work?**	**2:10 – 3:20**
7.	**Policy Overview**	**3:20 – 3:40**
8.	**Policy Choices?**	**3:40 – 3:55**
9.	**Next Steps**	**3:55 – 4:00**

CAPITAL & POLICY WORKSHOP MATERIALS

Bellevue Transit Master Plan

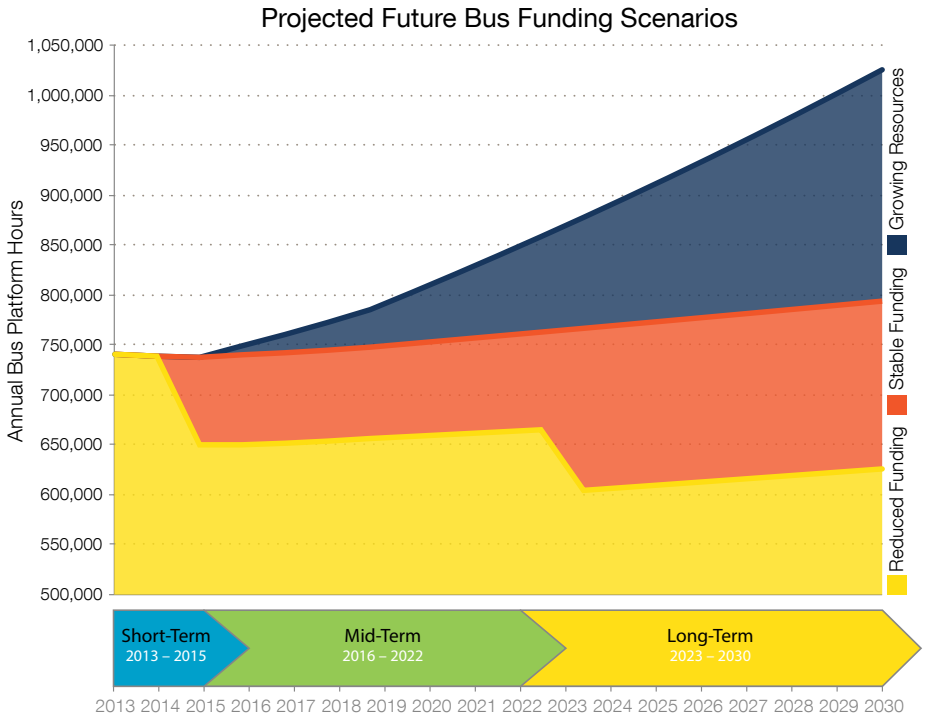
CITY OF BELLEVUE
September 6, 2013

Transportation Department



PACKET CONTENTS

Planning for uncertainty



BELLEVUE TRANSIT MASTER PLAN

The Service Element considers three time horizons and three funding scenarios to address the evolving infrastructure and development landscape in Bellevue and financial uncertainties resulting from unstable sources of transit funding. These variations result in nine distinct proposed networks, whose connection opporunities and associated service frequencies are depicted in the diagrams on the right.

TIME HORIZONS

Short-Term
Planning for the next two years, including both minor adjustments that enable incremental steps toward the long-term service vision and potentially significant service reductions beginning in 2014.

Mid-Term
Includes planning for the impacts on traffic circulation and transit operations of the construction of East Link, SR-520, I-405, potential I-90 tolling, and land use developments in Bellevue.

Long-Term
Focuses on Bellevue's transit needs in the context of considerable growth, the emergence of new activity centers (e.g. Bel-Red), the start of East Link light rail operations, and completion of major regional transportation investments.

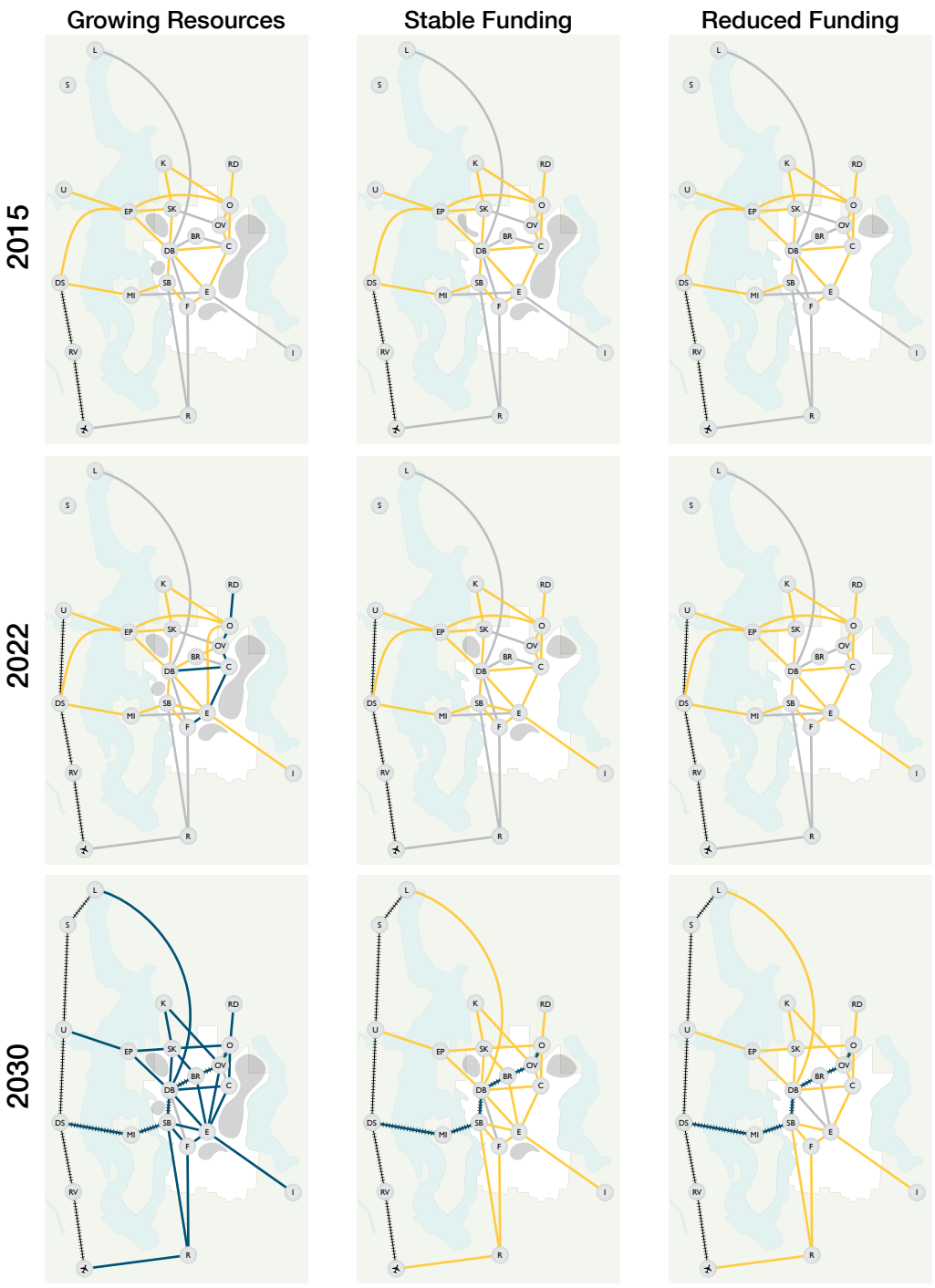
FUNDING SCENARIOS

Reduced Funding
A financially-constrained outlook for the future of bus service in Bellevue, this scenario includes two one-time reductions in annual service. The first is a 17% decrease in Metro platform hours in 2014, consistent with Metro's projected funding shortfall absent new funding, followed by a 29% reduction in ST Express service in 2024, reflecting reallocation of resources from bus to East Link light rail.

Stable Funding
A continuation of the status quo with no significant reductions or expansions of bus platform hours. Annual increases of 0.5% are applied to account for schedule maintenance, and ST Express bus service is retained, albeit reconfigured, following the introduction of East Link light rail in 2023.

Growing Resources
The most significant departure from current transit operations in Bellevue. An growth rate of 2.25 percent is applied, reflecting the annual increment needed to reach PSRC projections that suggest a near doubling of demand for transit (and the resources expended to meet this demand) by 2040.

Proposed future network connections



Legend

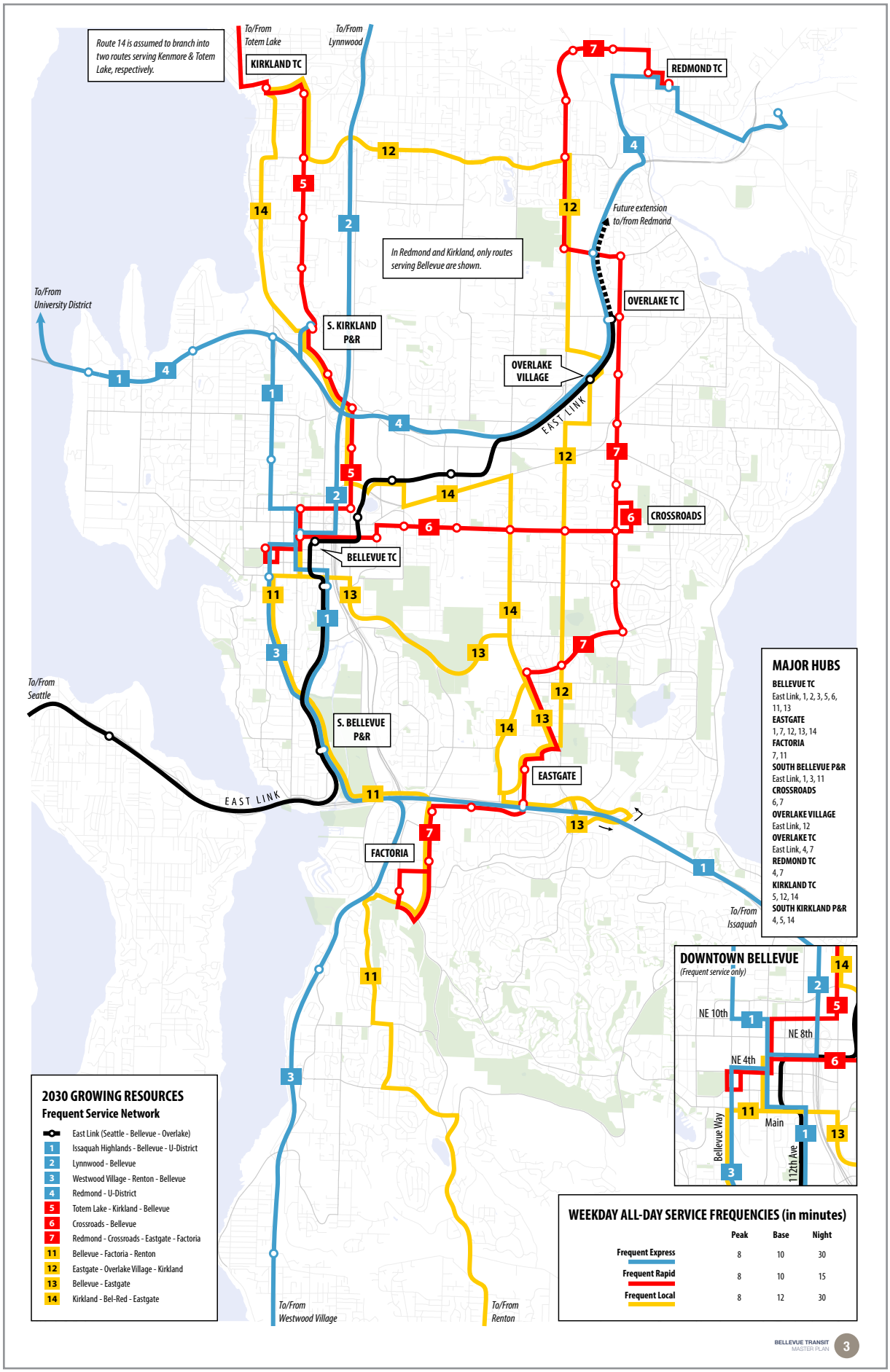
BELLEVUE
- **BR** Bel-Red
- **C** Crossroads
- **DB** Downtown Bellevue
- **E** Eastgate
- **F** Factoria
- **SB** South Bellevue Park & Ride

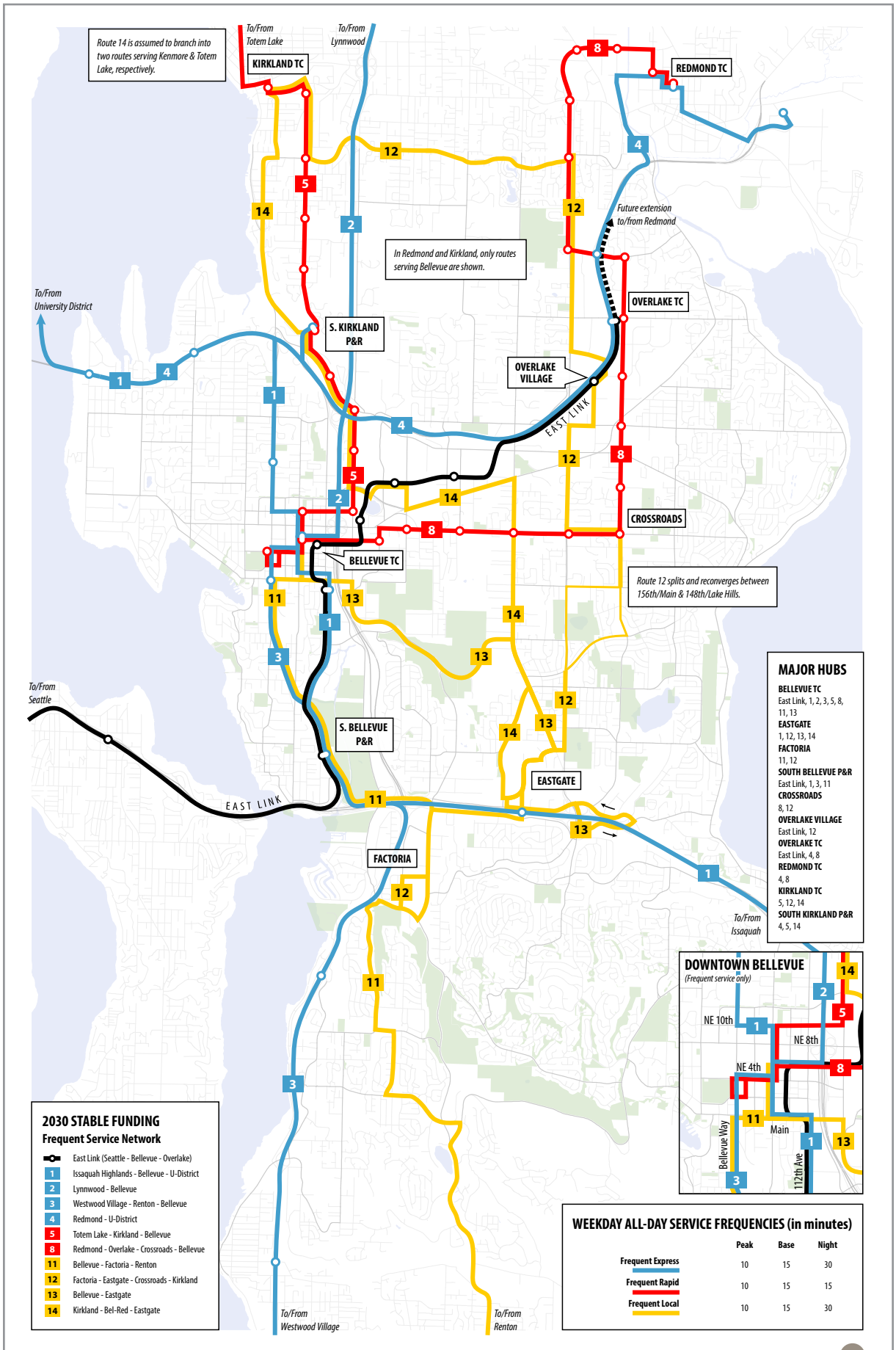
REGION
- **DS** Downtown Seattle
- **EP** Evergreen Point
- **I** Issaquah Transit Center
- **K** Kirkland Transit Center
- **L** Lynnwood
- **MI** Mercer Island
- **O** Overlake Transit Center
- **OV** Overlake Village
- **R** Renton
- **RD** Redmond Transit Center
- **RV** Rainier Valley
- **S** Shoreline
- **SK** South Kirkland Park & Ride
- **U** University District
- SeaTac

	Peak	Midday	Night
Very Frequent (every train connection)	≤8	≤12	15-30
Frequent	10-15	15	15-30
Infrequent	30	15-30	30-60

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

LRT


Route 14 is assumed to branch into two routes serving Kenmore & Totem Lake, respectively.
To/From Totem Lake
To/From Lynnwood
KIRKLAND TC
REDMOND TC
In Redmond and Kirkland, only routes serving Bellevue are shown.
Future extension to/from Redmond
To/From University District
S. KIRKLAND P&R
OVERLAKE TC
OVERLAKE VILLAGE
EAST LINK
CROSSROADS
BELLEVUE TC
To/From Seattle
S. BELLEVUE P&R
EASTGATE
FACTORIA
To/From Issaquah
To/From Westwood Village
To/From Renton
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
DOWNTOWN BELLEVUE
(Frequent service only)
NE 10th
NE 8th
NE 4th
Bellevue Way
Main
112th Ave
2030 GROWING RESOURCES
Frequent Service Network
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 ALL-DAY SERVICE FREQUENCIES (in minutes)
Peak Base Night
Frequent Express 8 10 30
Frequent Rapid 8 10 15
Frequent Local 8 12 30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FACTORIA
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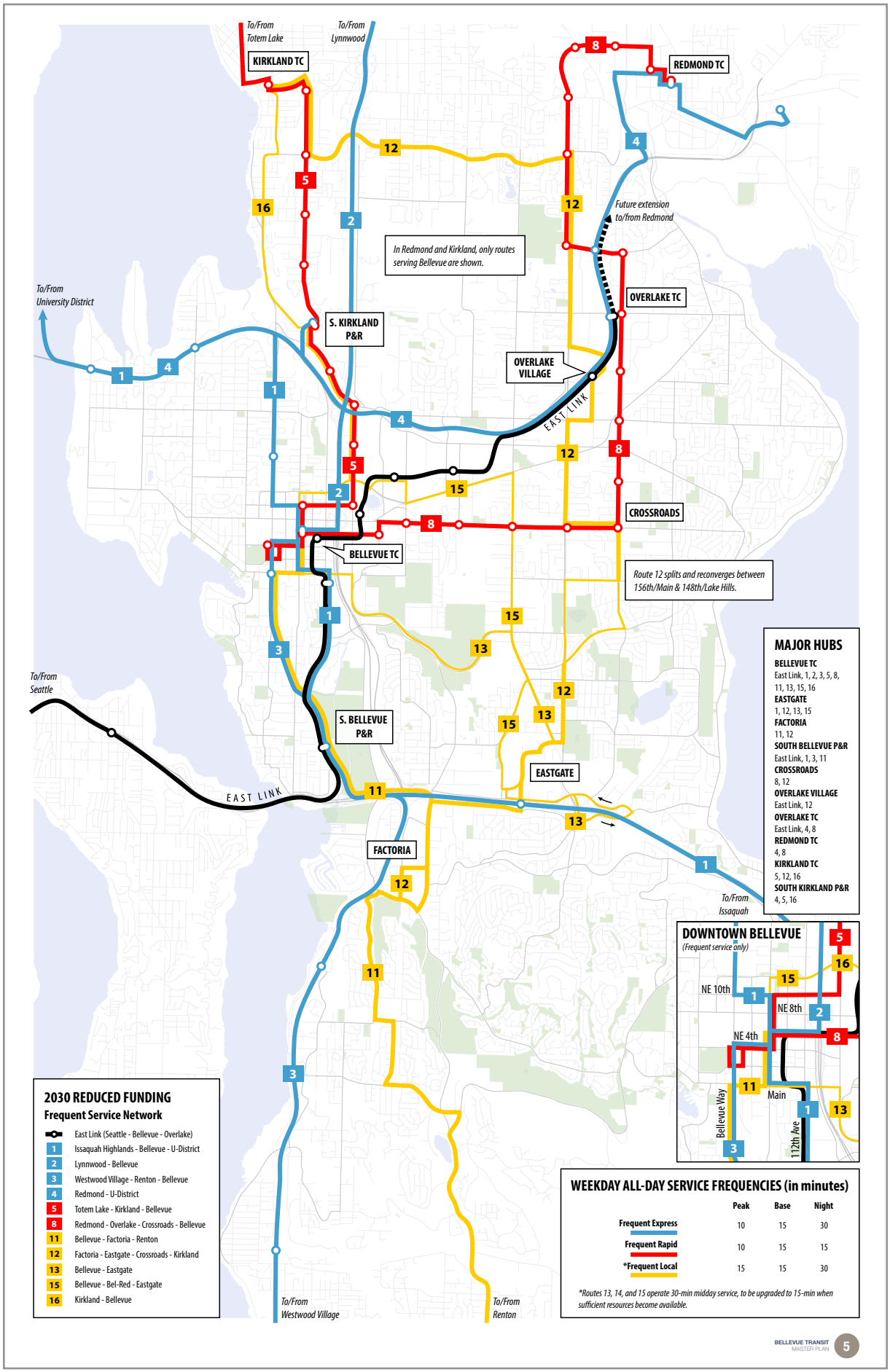
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15 Bellevue - Bel-Red - Eastgate
16 Kirkland - Bellevue
WEEKDAY ALL-DAY SERVICE FREQUENCIES (in minutes)
Peak Base Night
Frequent Express 10 15 30
Frequent Rapid 10 15 15
*Frequent Local 15 15 30
*Routes 13, 14, and 15 operate 30-min midday service, to be upgraded to 15-min when sufficient resources become available.

POTENTIAL ROADWAY TREATMENTS

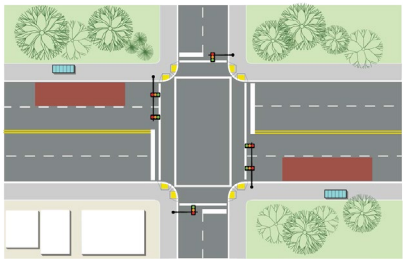
Lower

Operational Exclusivity

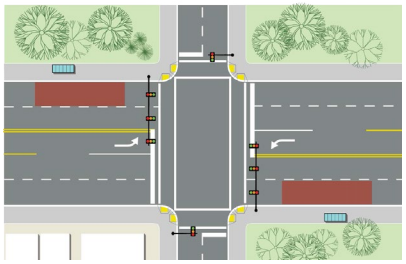
Higher

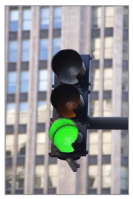
Signal Priority

SIGNAL PRIORITY: 4-LANE



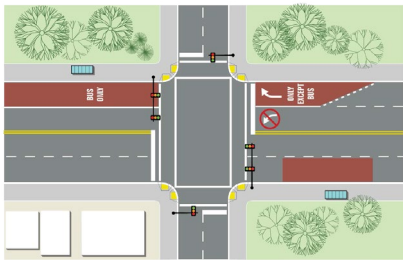
SIGNAL PRIORITY: 5-LANE



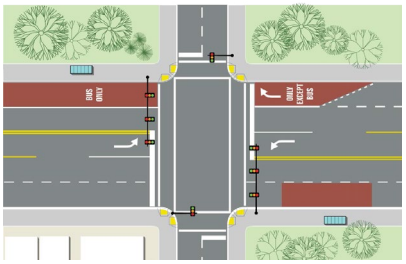


Spot Priority

SPOT PRIORITY: 4-LANE

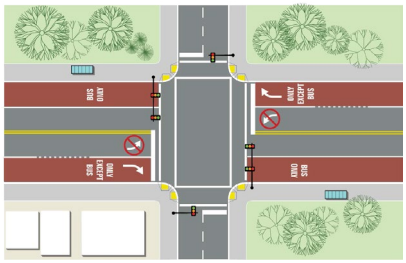


SPOT PRIORITY: 5-LANE

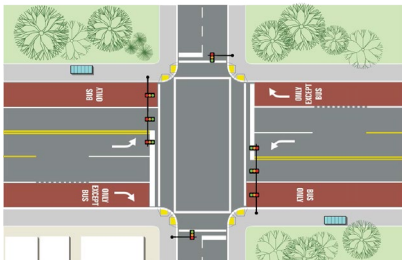


Bus-Only Lanes

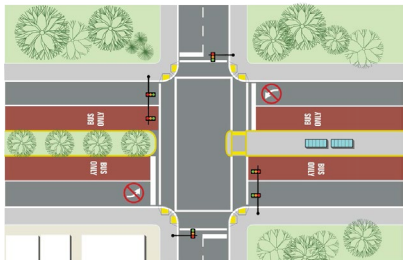
CURBSIDE BUS/HOV LANES: 4-LANE



CURBSIDE BUS/HOV LANES: 5-LANE

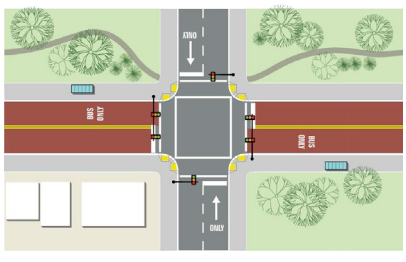


CENTER BUS LANE

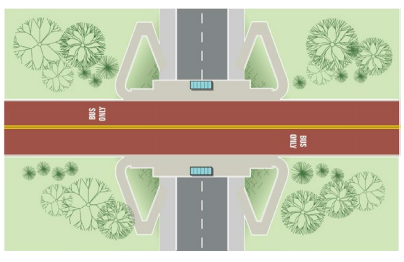


Busways

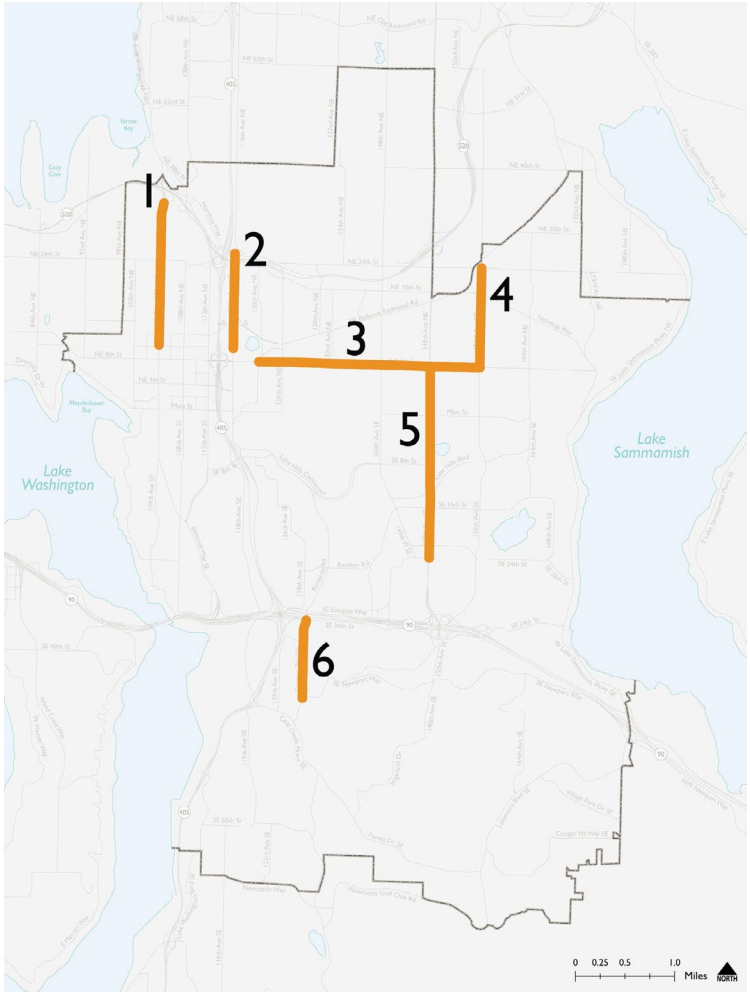
AT GRADE BUSWAY



GRADE SEPARATED BUSWAY



PRIORITY ANALYSIS CORRIDORS



	Corridor 1	2	3	4	5	6
	Bellevue Way NE btw NE 10th St & NE 32nd Pl	116th Ave NE btw NE 12th St & Northup Way	NE 8th St btw 120th Ave NE and 156th Ave NE	156th Ave NE btw NE 8th St and Bel-Red Rd	148th Ave NE btw NE 8th St and SE 24th St	Factoria Blvd btw SE 36th St and SE Newport Way
Mid-Block Cross Section (Lanes)	4 to 5	4	5	5	4 to 5	4 to 8
Signalized Intersections	5	4	7	8	8	7
Buses[1]	13	15	16	22	16	34
Total Vehicles[1]	2,040	1,978	2,946	2,798	3,196	3,596
Percent Transit[1]	0.6%	0.8%	0.5%	0.8%	0.5%	0.9%
Person Trips – Transit[1]	1,266	986	958	903	418	1,515
Person Trips – Total[1]	4,020	3,576	4,836	4,546	4,378	6,080
Percent Transit[1]	31%	28%	20%	20%	10%	25%

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

Corridor	1 Bellevue Way NE NE 10th St to NE 32nd Pl	2 116th Ave NE NE 12th St to Newport Way	3 NE 8th St 120th Ave to 156th Ave NE	4 156th Ave NE NE 8th St to Bel-Red Road	5 148th Ave NE NE 8th St to SE 24th St	6 Factoria Blvd SE 36th St to SE Newport Way
						
2010 population	6,379	132	8,201	6,763	6,046	2,465
2030 population forecast	11,000	500	8,200	9,000	6,200	2,900
Major Residential Developments	Washington Square, Avalon Towers, Lincoln Square Condos, Belcarra, the Ashton, Belletini	—	Hidden Creek, Woodland Commons, Foothill Commons, Madison at Bellevue, the Cascadian	Madison at Bellevue, the Cascadian, Piedmont, Pacific Village, Central Park East, Colonial Square, Kendall Ridge, Silver Glen, Emeritus, Crossroads Retirement, Mission Healthcare, Village at Overlake Station	Pinewood Village, Spiritwood Manor, The Carrington	Sterling Heights, Factoria Heights
Older Adults	903	26	943	1,178	767	219
Below Poverty	46	9	727	812	827	191
Minority	2,473	30	4,738	4,347	3,020	1,600
Non-English	1,759	18	3,654	3,430	2,253	1,204
Renters	3,323	21	5,109	4,730	3,291	1,349
Preliminary 2011 employment[1]	9,661	8,882	5,777	7,997	1,321	8,063
2030 employment forecast	13,200	12,400	6,700	9,400	2,100	9,500
Major Employers	Microsoft, Eddie Bauer, Paccar, and other large employers along SR 520	Overlake Hospital, Children's Clinic and Surgery Center	Safeway Headquarters, DSHS	DSHS, Unigard Insurance	Hopelink	T-Mobile, Newport High School
Major Attractions	The Bellevue Collection, the Hyatt, Silver Cloud Inn, the Westin, U.S. Post Office, QFC - Downtown and QFC - Northtowne	Lowes Hardware	Stevenson Elementary, Odle Middle School, Whole Foods, Uwajimaya, Best Buy, Glendale Golf Course and Country Club, Crossroads Mall, QFC, U.S. Post Office	Crossroads Mall (inc. Mini City Hall), Crossroads Park and Community Center, Trader Joe's, Eton School, U.S. Post Office	Phantom Lake Elementary, Odel Middle School, Lake Hills Greenbelt, Robinswood Community Park, Eastside Christian, Walmart	Nortwest Chinese School, Newport Children's School, Factoria Mall, Target, Safeway, Walmart

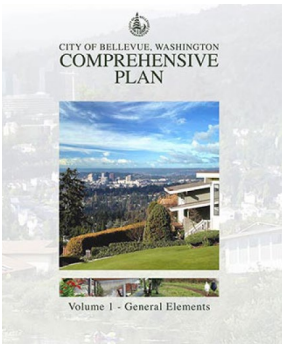
[1] Estimates are unscaled and rounded to the nearest hundred.

TRANSIT PRIORITY POLICIES

City of Bellevue Comprehensive Plan

— Includes 43 transit-supportive policies of various sorts:

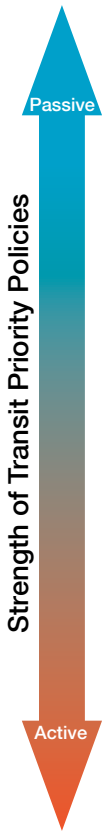
- Transit-supportive design (TR-8):
  "Incorporate transit-supportive and pedestrian-friendly design features in new development through the development review process."
- Support for funding (TR-20):
  "Support federal tax policies which promote transit and ridesharing."
- Park-and-Ride development (TR-53):
  "Work with transit providers to maintain and improve public transportation services to meet employer and employee needs. Develop and implement attractive transit commuter options, such as park and ride facilities and local shuttle systems with sufficient frequencies to increase use of transit for commuting and reduce reliance on private automobiles."



— However, limited guidance is provided on transit priority. The lone policy:

- TR-54: "Work with transit providers to create, maintain, and enhance a system of supportive facilities and systems such as:
  1. Transit stations and centers;
  2. Passengers shelters;
  3. Park-and-ride lots;
  4. Dedicated bus lanes, bus layovers, bus queue by-pass lanes, bus signal priorities;
  5. Pedestrian and bicycle facilities, including secure bicycle parking
  6. Pricing;
  7. Kiosks and on-line information; and
  8. Incentive programs."

Peer Cities Transit Priority Policies



Statements of Inclination

Convey intent to improve but no target or definition of success.

Mississauga, Canada: "Make transit a faster [than it is now] alternative to the automobile."

Springfield, OR: "Reduce travel time for transit and other HOVs."

Portland, OR: "Operate the street system in a manner that benefits transit."

Statements of Principle

Describe clear targets or conditions of success.

Santa Monica, CA: "The primary purpose of arterial streets that are also frequent transit streets is to move people rather than vehicles."

Seattle, WA: "Person-throughput, rather than vehicle throughput, shall be the primary measure of the performance of major arterials."

Portland, OR: "On Major Transit Priority Streets (major arterials with frequent transit) achieve transit travel times competitive with the automobile."

Statements of Impact

Go further, describing particular situations where transit should have priority.

Seattle, WA: "Ensure transit priority lane treatments take precedence over general purpose travel lanes and auto storage on priority transit corridors."

Seattle, WA: "Implement Transit Signal Priority (TSP) along transit corridors to provide transit vehicles with precedence at signalized intersections, while considering cross-street pedestrian and traffic demand."

Bellevue Transit Master Plan

Joint Board/Commission Workshop
September 6, 2013

1. *Project Overview*
2. *Preliminary Opinions?*
3. *Transit Priority Toolbox*
4. *What Might Work?*
5. *Policy Overview*
6. *Policy Choices?*
7. *Next Steps*

Bellevue Transit Master Plan

Agenda

2

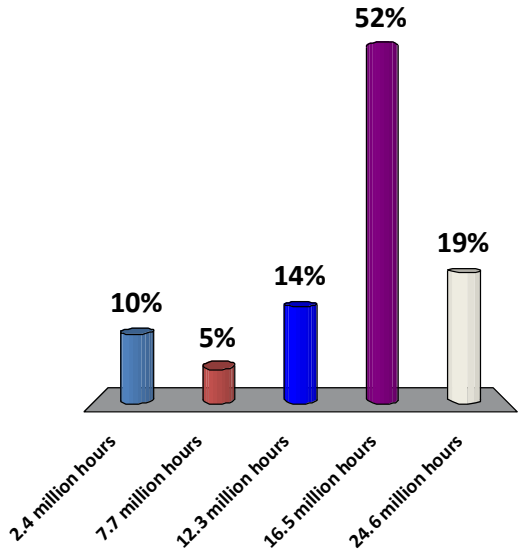
Bellevue Transit Master Plan

Keypad Polling

3

How many annual hours of delay does public transportation save on Seattle Urban Area roads?

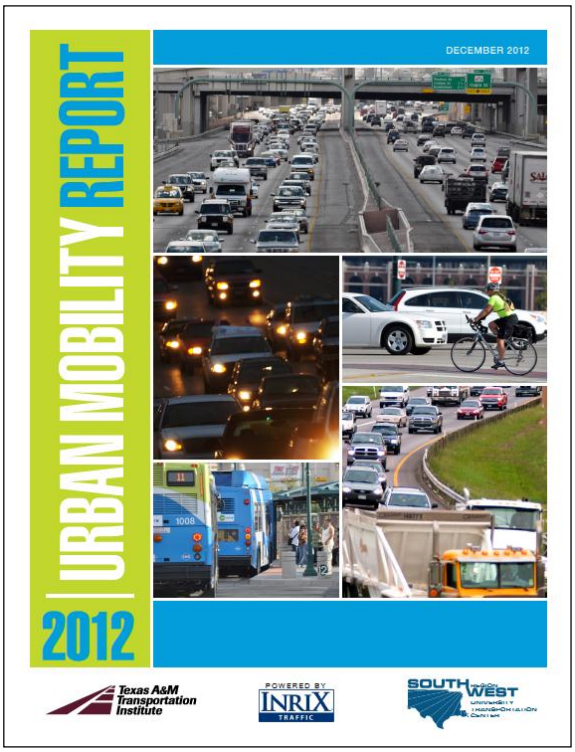
1. 2.4 million hours
2. 7.7 million hours
3. 12.3 million hours
4. 16.5 million hours
5. 24.6 million hours



Bellevue Transit Master Plan

Ice Breaker

4



Public Transit Saves ***16.5 Million Hours of Delay*** *on Our Roads in the Seattle Urban Area.*

Equals **$366.5M/year**.

Bellevue Transit Master Plan

Hours of Delay Saved

5

Project Overview

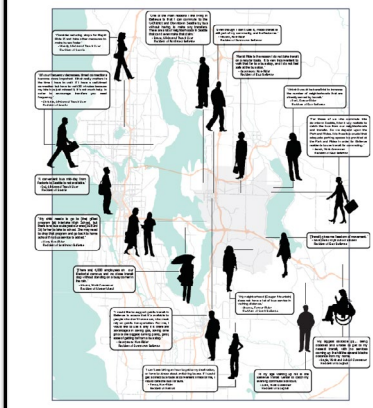
Bellevue Transit Master Plan

6

Corporations, Agencies, and Institutions

Riders, Former Riders, and Non-Riders

City of Bellevue Boards and Commissions



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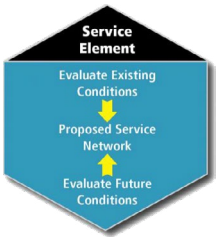


Identifies the City's transit service priorities that are responsive to different financial scenarios and attune to different time horizons.

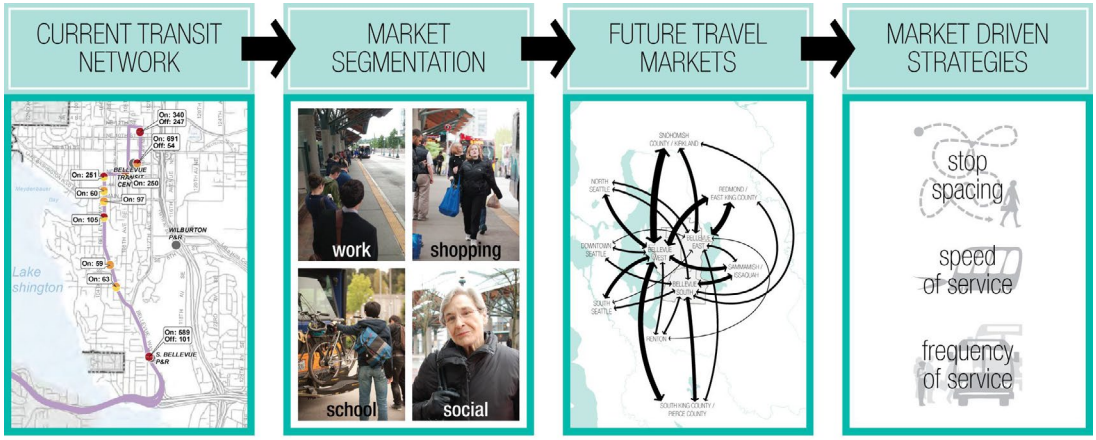
Assesses roadway, signal system, and other rights-of-way improvements that could be made to support the transit vision outlined in the Service Element.

Articulates Bellevue's interests as it responds to regional transit policy changes and financial uncertainties, and coordinates with partner agencies.

Bellevue Transit Master Plan

Bellevue TMP Project

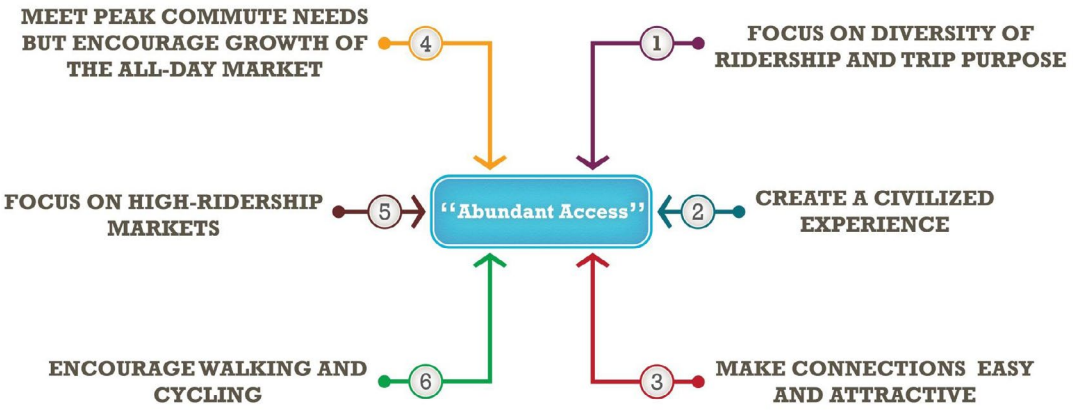
8



Bellevue Transit Master Plan

Service Element

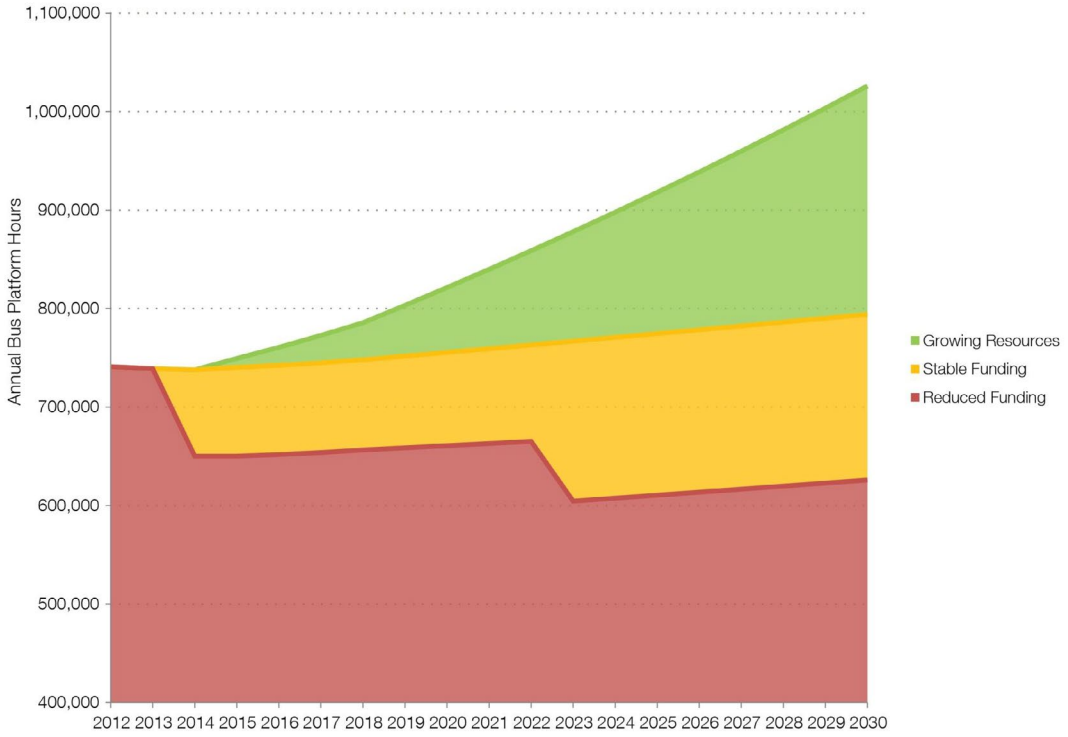
9



Bellevue Transit Master Plan

Market Driven Strategies

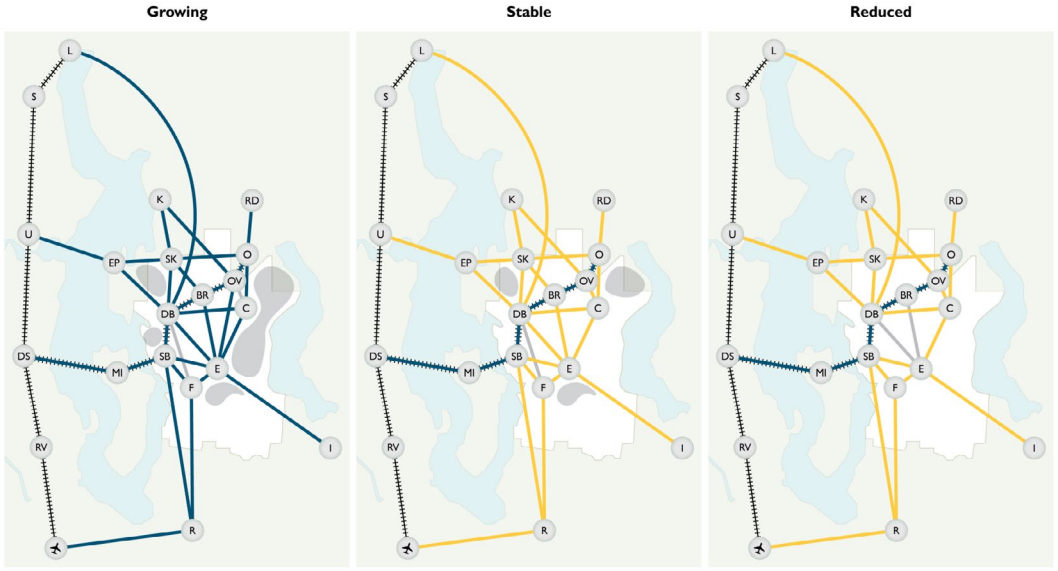
10



Bellevue Transit Master Plan

Funding Scenarios

11



2030

BELLEVUE
- **BR** Bel-Red
- **C** Crossroads
- **DB** Downtown Bellevue
- **E** Eastgate
- **F** Factoria
- **SB** South 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** South Kirkland Park & Ride
- **U** University District
- SeaTac

	Peak	Midday	Night
Very Frequent (every train connection)	≤8	≤12	15-30
Frequent	10-15	15	15-30
Infrequent	30	15-30	30-60

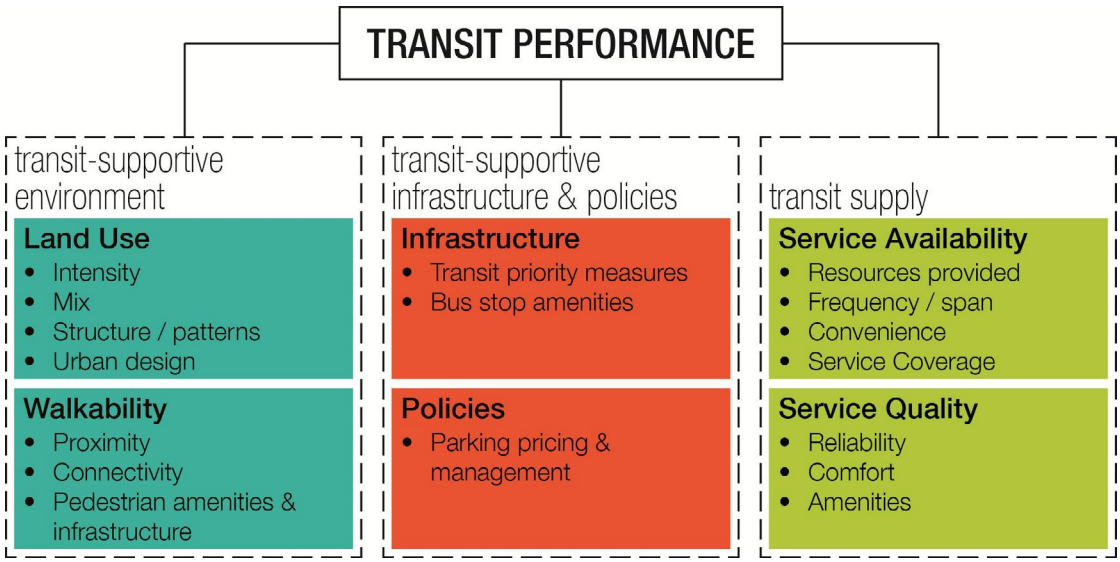
Note: numbers reflect approximate peak/midday/night frequencies.

LRT

Bellevue Transit Master Plan

2030 "Conceptual" Network

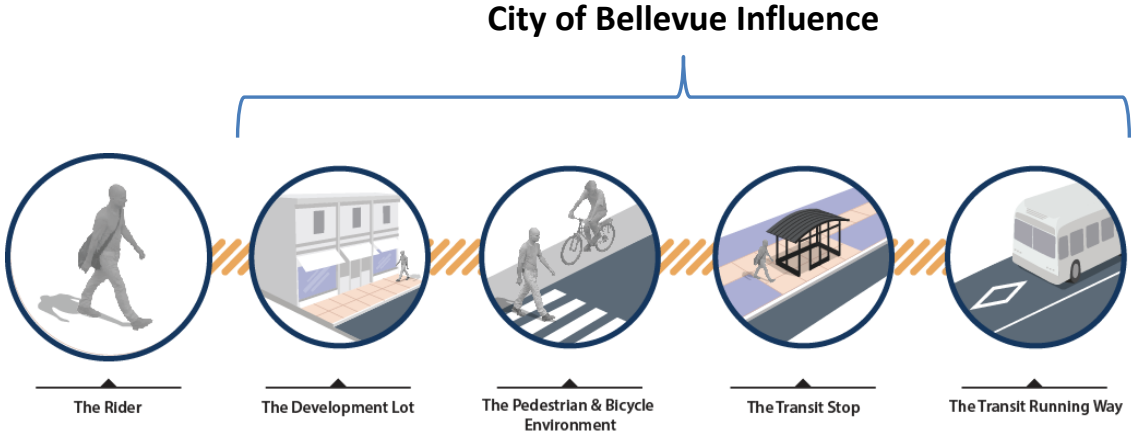
12



Bellevue Transit Master Plan

Factors Affecting Performance

13



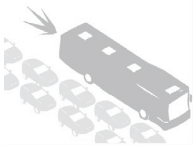
Bellevue Transit Master Plan

Components of the Transit Trip

14

What is the best way for the City to invest municipal resources to improve transit service in Bellevue?

30%

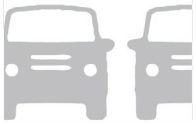


Improve service speed and reliability by investing in roadway and traffic signal infrastructure. (595)

21%

Provide real-time bus arrival information signs at major stops, similar to the RapidRide B Line at Bellevue Transit Center. (406)

14%



Increase vehicle parking capacity at Park and Ride lots. (268)

10%

Provide additional route, schedule, and wayfinding information at bus shelters. (189)

5%

Install additional bicycle lanes/trails to better connect neighborhoods to bus services. (107)

3%

Improve comfort at bus stops with improvements like additional seating and other street furniture. (60)

3%

Improve safety at bus stops by providing additional street lighting. (61)

2%

Improve sidewalk connectivity (install additional sidewalks) at and around bus stops. (48)

2%

Repair City-owned streets used as transit corridors to improve ride quality/comfort. (31)

<1%

Increase bicycle parking capacity at Park and Ride lots. (3)

N = 1,962 total respondents.

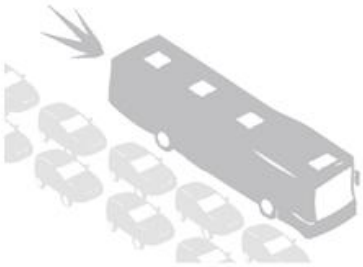
Bellevue Transit Master Plan

Priorities for Transit Users

15

What is the best way for the City to invest municipal resources to improve transit service in Bellevue?

30%



Improve service speed and reliability by investing in roadway and traffic signal infrastructure. (595)

N = 1,962 total respondents.

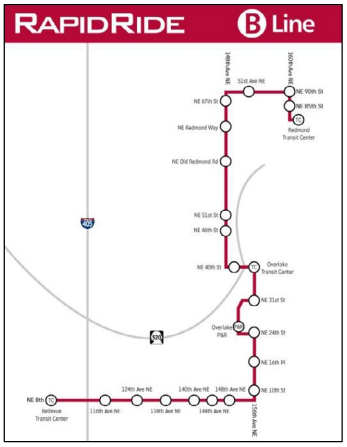
Bellevue Transit Master Plan

Priorities for Transit Users

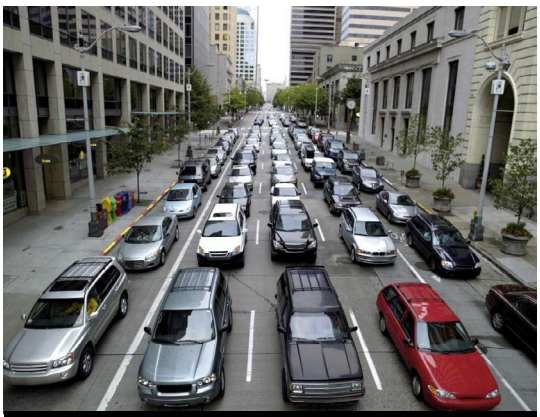
16

Increased Ridership

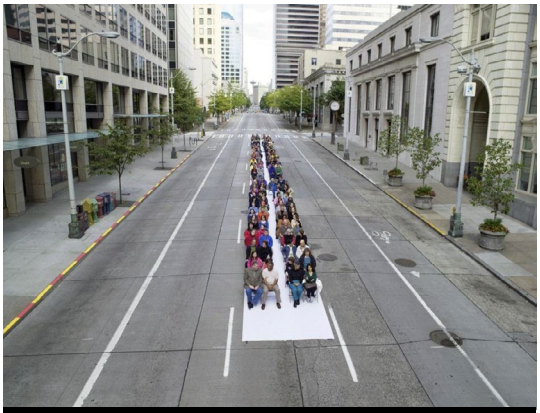
As of July 2013, RapidRide B year to date ridership is 19% over October 2011.



Capacity



200 People = 177 Cars

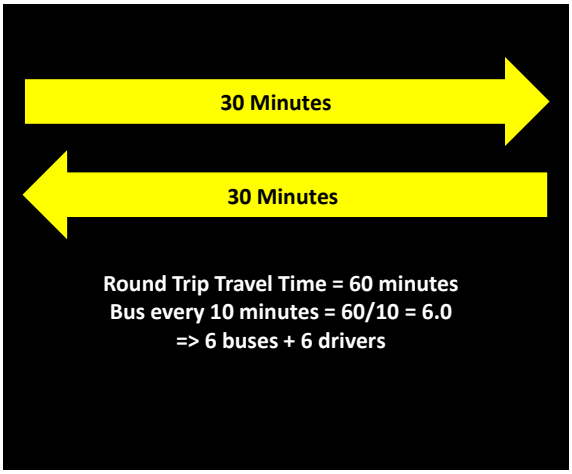


200 People = 3 Buses

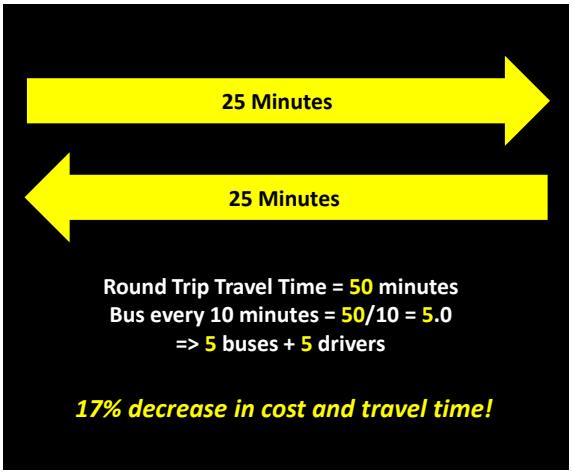
Source: i-SUSTAIN www.i-sustain.com

Cost Savings

Bus Route …. 60 Minutes Travel Time



Reduce Time = Reduce Resources



Bellevue Transit Master Plan

Why Implement Transit Priority?

19

	Approximate Task Completion Dates 2013											
	July		August		September		October		November		December	
	1 to 15	16 to 31	1 to 15	16 to 31	1 to 15	16 to 30	1 to 15	16 to 31	1 to 15	16 to 30	1 to 15	16 to 31
Timeline by Task												
Task 01— Project Kick-Off	■											
Task 02— Data Collection	■	■										
Task 03— Develop a Toolbox of Corridor Treatments		■	■									
Task 04— Evaluate Current and 2030 Congestion/Delay Locations		■	■									
Task 05— Field Investigation				■								
Task 06— Define Potential Improvements on Transit Emphasis Corridors					◆	■	■					
Task 07— Develop Transit Capital Vision								■	■	■		

◆ **Joint Board/Commission Workshop**
Friday, September 6, 2013 (1 - 4 PM)
Bellevue City Hall, Conference Room 1E-108

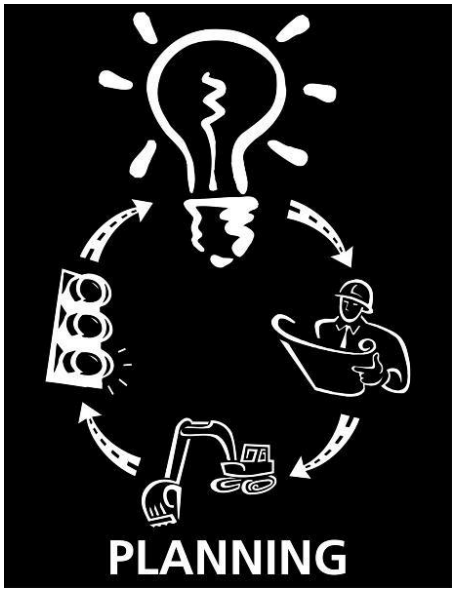
JARRETT WALKER + ASSOCIATES
Let's think about transit

transpoGROUP

Bellevue Transit Master Plan

Capital Element Timeline

20



- Planning Recommendations
- Competing Priorities
- Financing Challenges

Bellevue Transit Master Plan

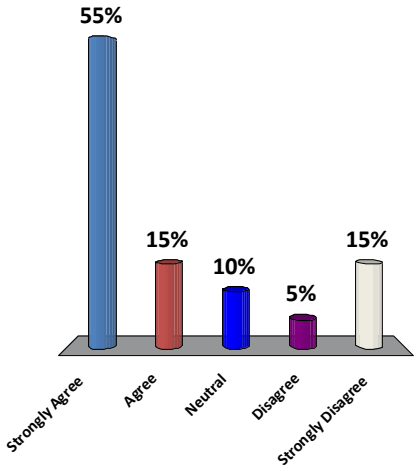
Capital Element Considerations

Preliminary Opinions

Bellevue Transit Master Plan

"It is neither possible nor desirable to build enough roadway improvements to keep pace with ever accelerating demand for travel in single-occupant vehicles. Rather, the Plan focuses on reducing auto dependency by providing viable travel choices." – Bellevue Comprehensive Plan

1. Strongly Agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree



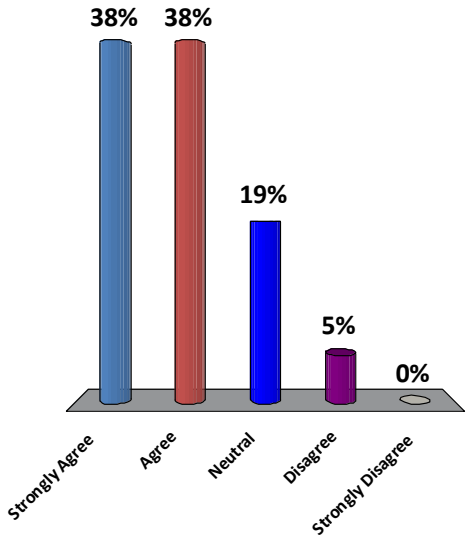
Bellevue Transit Master Plan

Polling Question

23

In principle, high-ridership frequent transit deserves a higher priority than low-occupant private vehicles in access to limited road capacity.

1. Strongly Agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree



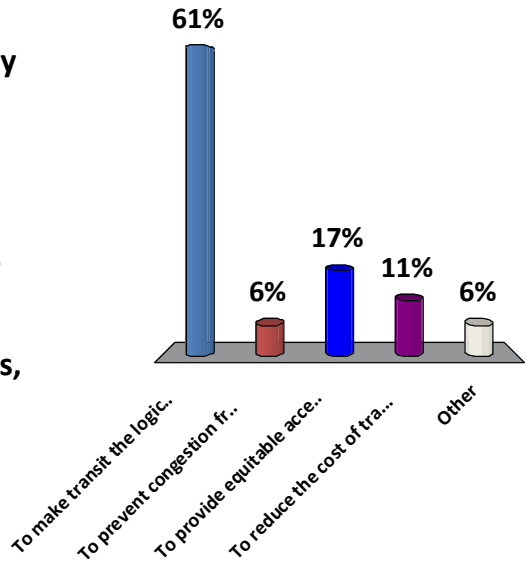
Bellevue Transit Master Plan

Polling Question

24

Of the many reasons to support transit priority, which do you think is most important to emphasize?

1. To make transit the logical choice for a wide range of people and situations, by ensuring reliable operations
2. To prevent congestion from limiting economic growth.
3. To provide equitable access for people with limited transport choices.
4. To reduce the cost of transit operations, which are based on travel time.
5. Other



Bellevue Transit Master Plan

Polling Question

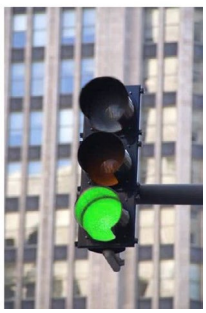
Priority Toolbox

Bellevue Transit Master Plan

Bellevue Transit Master Plan

Potential Improvements

27



Transit Signal Priority

Queue Jump

Turn Restriction

Bellevue Transit Master Plan

Intersection Treatments

28

In Lane Bus Stop

Curb Extension

Transit Island

Bellevue Transit Master Plan

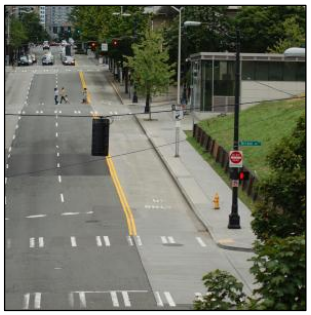
Bus Stop Treatments

29

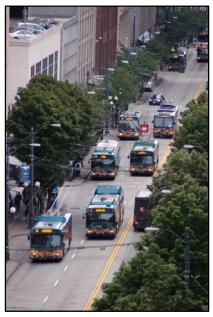
Business Access Transit (BAT) Lane

Arterial HOV Lane

Transit Only Lane



Contraflow Bus Lane



Transit Only Street

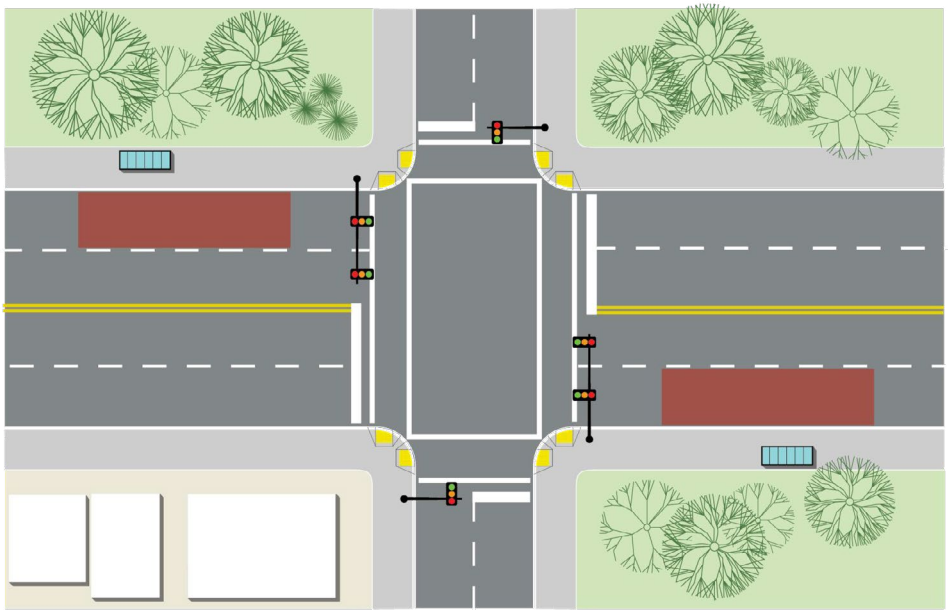
Busway

Bellevue Transit Master Plan

Running-Way Treatments

30

SIGNAL PRIORITY: 4-LANE

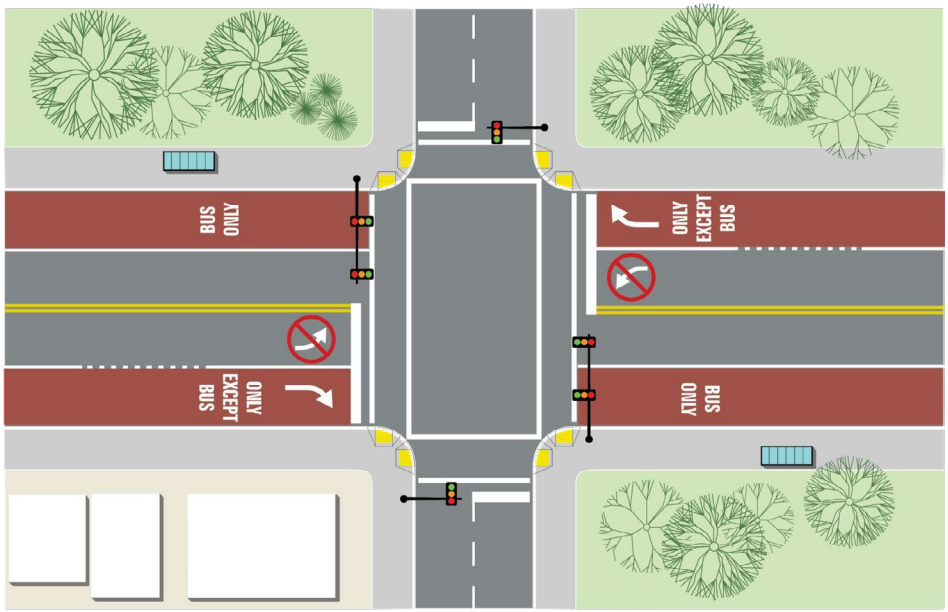


Bellevue Transit Master Plan

Signal Priority: 4-Lane

31

CURBSIDE BUS/HOV LANES: 4-LANE

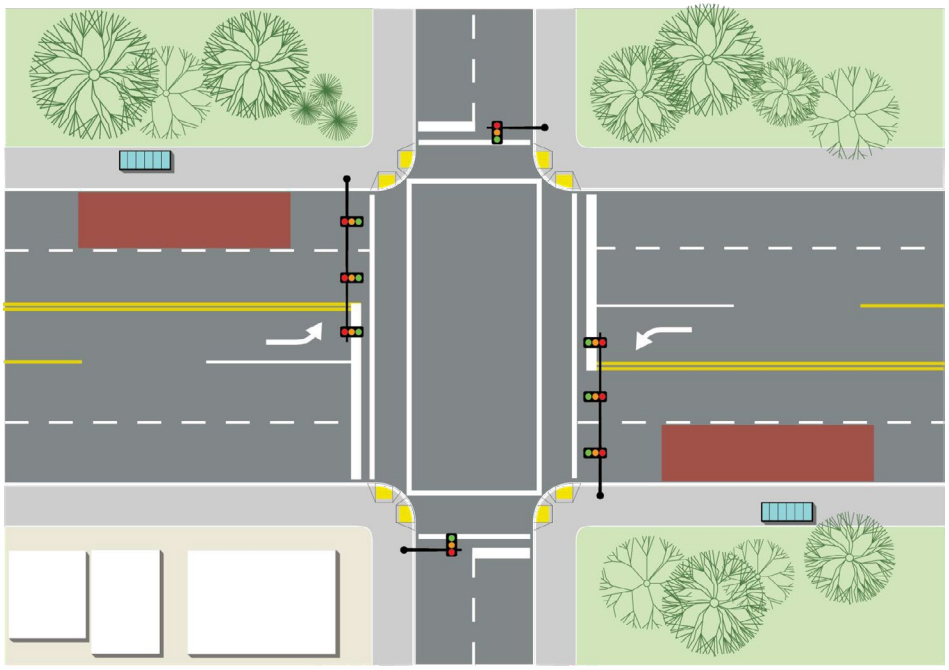


Bellevue Transit Master Plan

Curbside Bus/HOV Lanes: 4-Lane

32

SIGNAL PRIORITY: 5-LANE

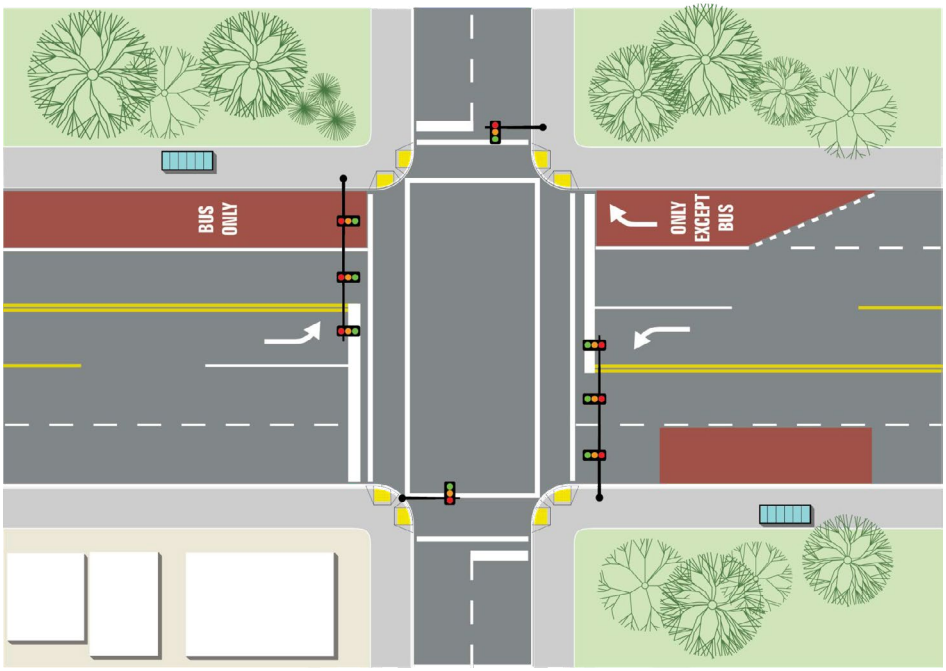


Bellevue Transit Master Plan

Signal Priority: 5-Lane

33

SPOT PRIORITY: 5-LANE

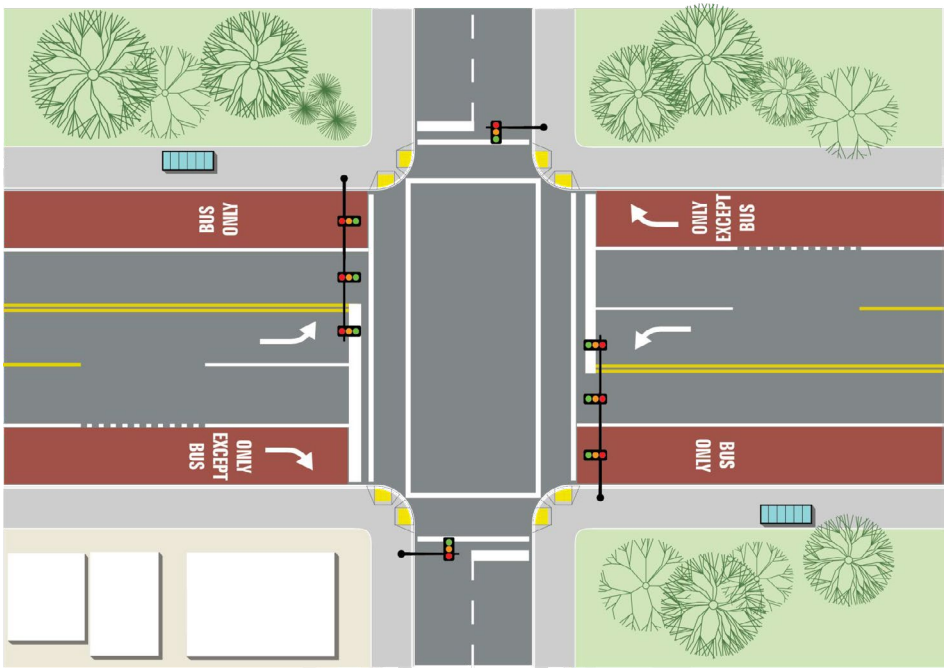


Bellevue Transit Master Plan

Spot Priority: 5-Lane

34

CURBSIDE BUS/HOV LANES: 5-LANE

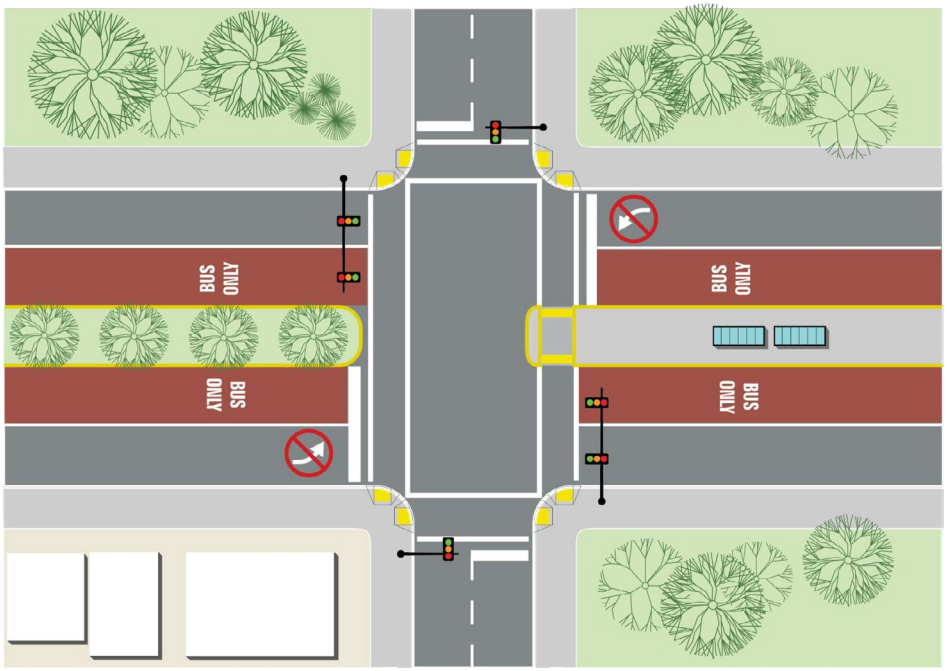


Bellevue Transit Master Plan

Curbside Bus/HOV Lanes: 5-Lane

35

CENTER BUS LANE

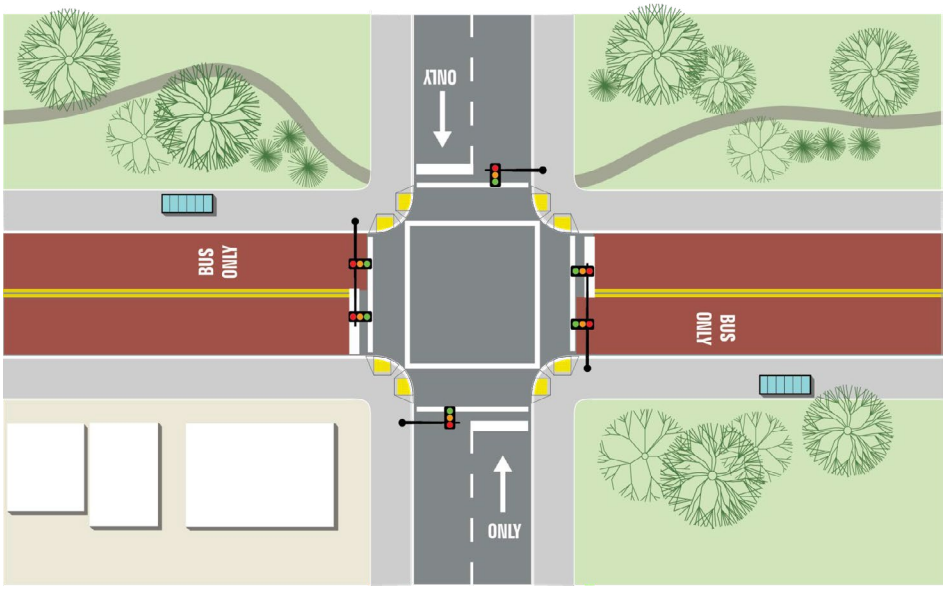


Bellevue Transit Master Plan

Center Bus Lane

36

AT GRADE BUSWAY

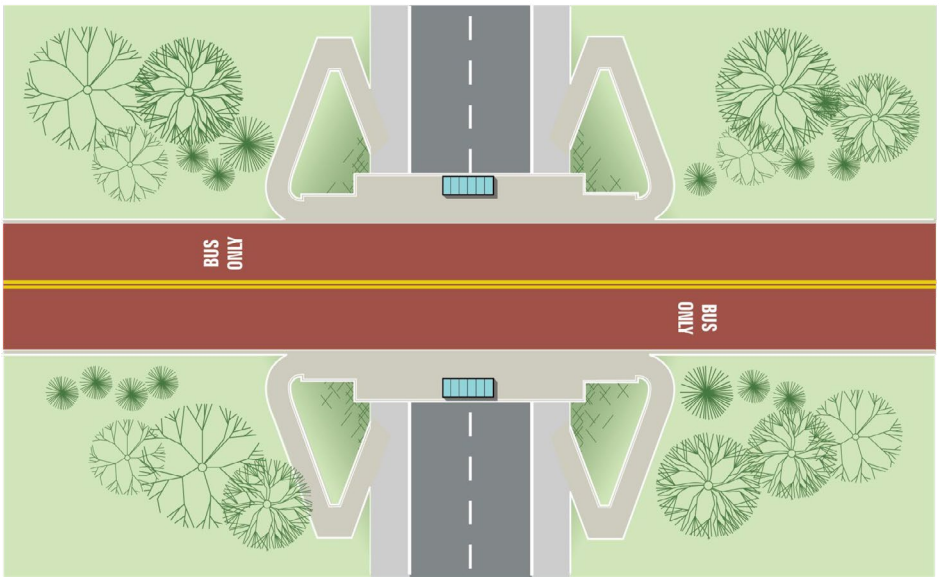


Bellevue Transit Master Plan

At Grade Busway

37

GRADE SEPARATED BUSWAY



Bellevue Transit Master Plan

Grade Separated Busway

38

What Might Work?

Bellevue Transit Master Plan

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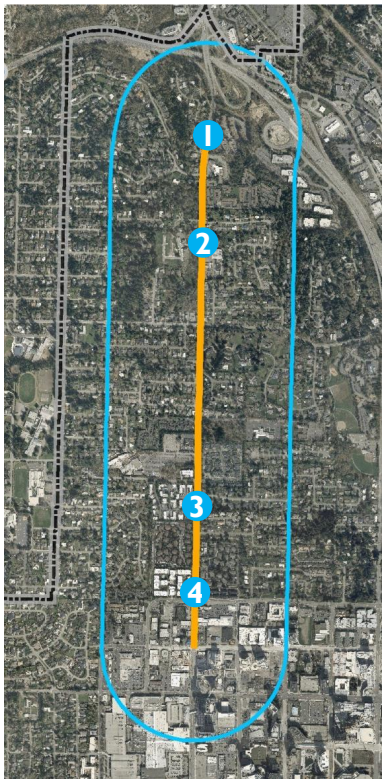

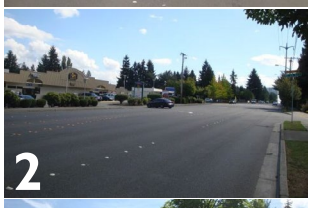

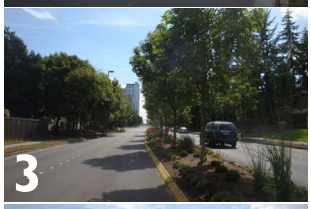

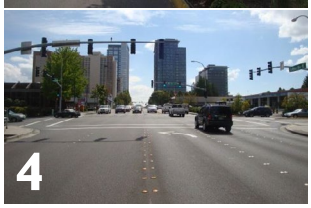

Bellevue Way NE btw NE 10th St & NE 32nd Pl

2030 population projection	11,000
Major Residential Developments	Washington Square, Avalon Towers, Lincoln Square Condos, Belcarra, the Ashton, Belletini
2030 employment forecast	13,200
Major Employers	Microsoft, Eddie Bauer, Paccar, and other large employers along SR 520
Additional Major Attractions	The Bellevue Collection, the Hyatt, Silver Cloud Inn, the Westin, U.S. Post Office, QFC Downtown, and QFC Northtowne

Bellevue Transit Master Plan

Bellevue Way NE

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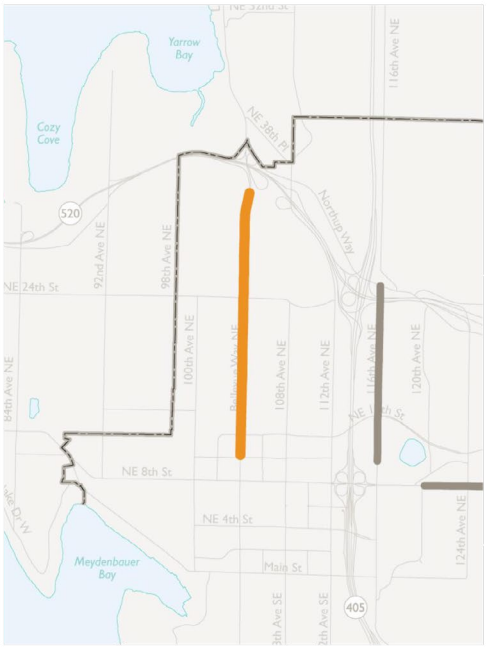


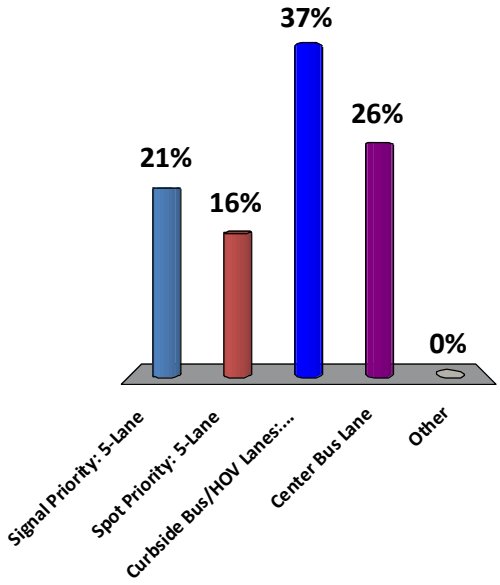
Bellevue Way NE btw NE 10th St & NE 32nd Pl

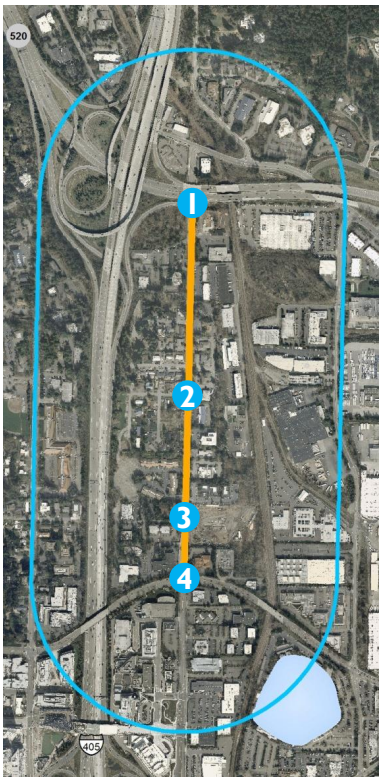
Mid-Block Cross Section (Lanes)	4 to 5
Signalized Intersections	5
Buses[1]	13
Total Vehicles[1]	2,040
Percent Transit[1]	0.6%
Person Trips – Transit[1]	1,266
Person Trips – Total[1]	4,020
Percent Transit[1]	31%

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

What is the most extensive change that might be contemplated for Bellevue Way NE?

1. Signal Priority: 5-Lane
2. Spot Priority: 5-Lane
3. Curbside Bus/HOV Lanes: 5-Lane
4. Center Bus Lane
5. Other



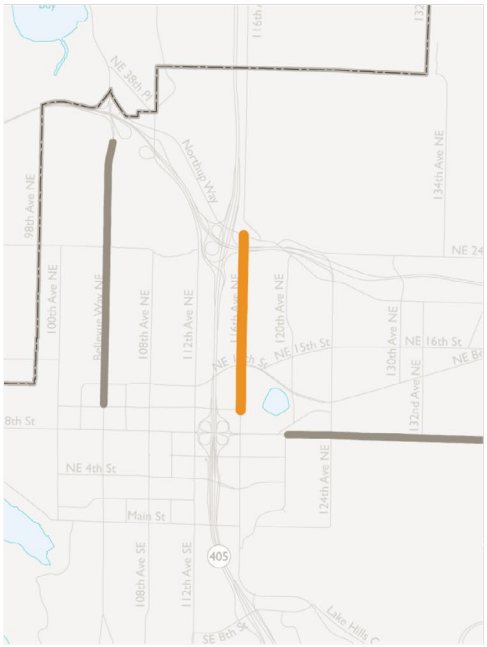


116th Ave NE btw NE 12th St & Northup Way

2030 population projection	500
Major Residential Developments	—
2030 employment forecast	12,400
Major Employers	Overlake Hospital, Children's Clinic and Surgery Center
Additional Major Attractions	Lowes Hardware

Bellevue Transit Master Plan

116th Avenue NE



2 116th Ave NE btw NE 12th St & Northup Way

Mid-Block Cross Section (Lanes)	4
Signalized Intersections	4
Buses[1]	15
Total Vehicles[1]	1,978
Percent Transit[1]	0.8%
Person Trips – Transit[1]	986
Person Trips – Total[1]	3,576
Percent Transit[1]	28%

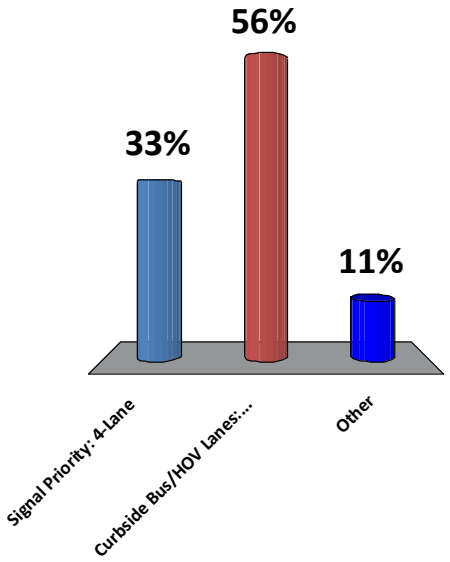
[1] Based on City of Bellevue 2030 PM Peak Hour BKR Model (MP30R6.2).

Bellevue Transit Master Plan

116th Avenue NE

What is the most extensive change that might be contemplated for 116th Ave NE?

1. Signal Priority: 4-Lane
2. Curbside Bus/HOV Lanes: 4-Lane
3. Other



Bellevue Transit Master Plan

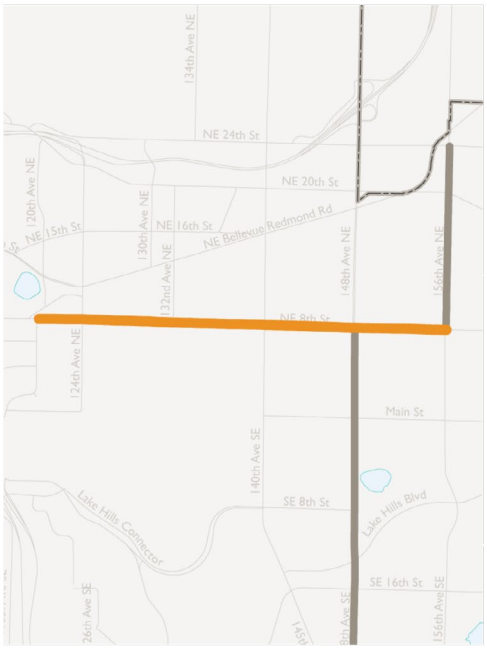
116th Avenue NE

NE 8th St btw 120th Ave NE and 156th Ave NE

2030 population projection	8,200
Major Residential Developments	Hidden Creek, Woodland Commons, Foothill Commons, Madison at Bellevue, the Cascadian
2030 employment forecast	6,700
Major Employers	Safeway Headquarters, DSHS
Additional Major Attractions	Stevenson Elementary, Odle Middle School, Whole Foods, Uwajimaya, Best Buy, Glendale Golf Course and Country Club, Crossroads Mall, QFC, U.S. Post Office

Bellevue Transit Master Plan

NE 8th Street



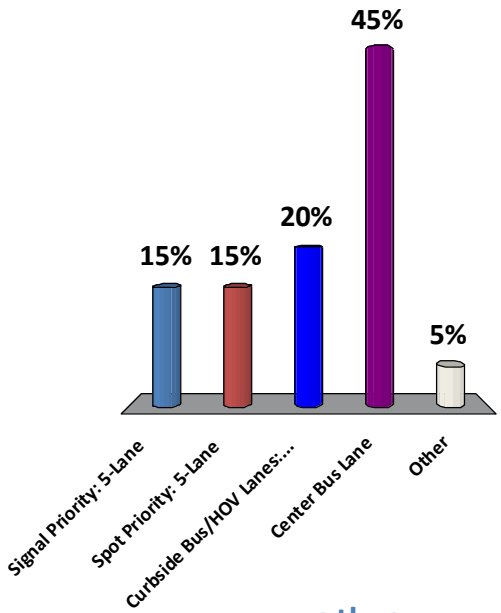
3 NE 8th St btw 120th Ave NE and 156th Ave NE

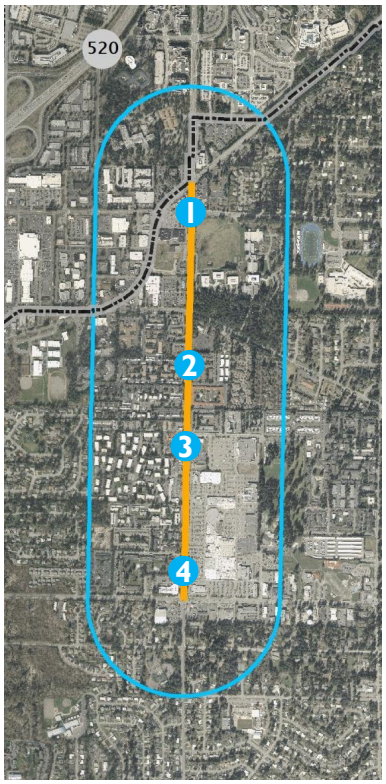
Mid-Block Cross Section (Lanes)	5
Signalized Intersections	7
Buses[1]	16
Total Vehicles[1]	2,946
Percent Transit[1]	0.5%
Person Trips – Transit[1]	958
Person Trips – Total[1]	4,836
Percent Transit[1]	20%

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

What is the most extensive change that might be contemplated for NE 8th Street?

1. Signal Priority: 5-Lane
2. Spot Priority: 5-Lane
3. Curbside Bus/HOV Lanes: 5-Lane
4. Center Bus Lane
5. Other



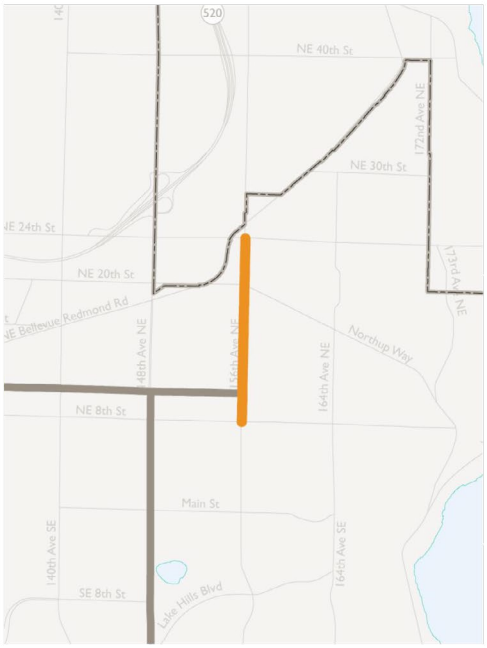


156th Ave NE btw NE 8th St and Bel-Red Rd

2030 population projection	9,000
Major Residential Developments	Madison at Bellevue, the Cascadian, Piedmont, Pacific Village, Central Park East, Colonial Square, Kendall Ridge, Silver Glen, Emeritus, Crossroads Retirement, Mission Healthcare, Village at Overlake Station
2030 employment forecast	9,400
Major Employers	DSHS, Unigard Insurance
Additional Major Attractions	Crossroads Mall, Mini City Hall, Crossroads Park and Community Center, Trader Joe's, Eton School, U.S. Post Office

Bellevue Transit Master Plan

156th Avenue NE



4 156th Ave NE btw NE 8th St and Bel-Red Rd

Mid-Block Cross Section (Lanes)	5
Signalized Intersections	8
Buses[1]	22
Total Vehicles[1]	2,798
Percent Transit[1]	0.8%
Person Trips – Transit[1]	903
Person Trips – Total[1]	4,546
Percent Transit[1]	20%

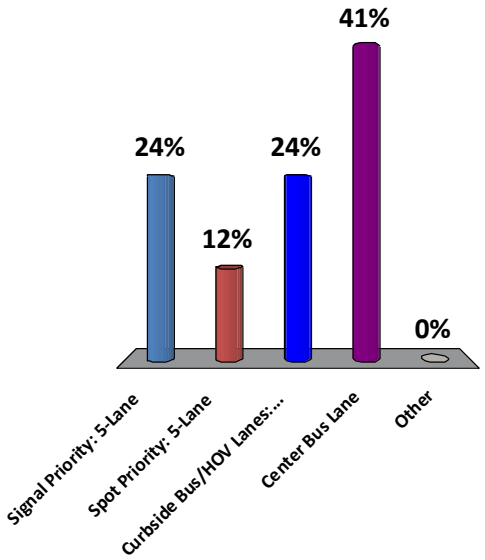
[1] Based on City of Bellevue 2030 PM Peak Hour BKR Model (MP30R6.2).

Bellevue Transit Master Plan

156th Avenue NE

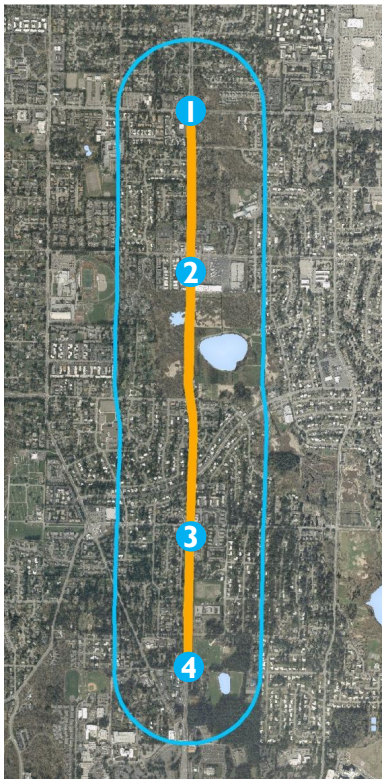
What is the most extensive change that might be contemplated for 156th Avenue NE?

1. Signal Priority: 5-Lane
2. Spot Priority: 5-Lane
3. Curbside Bus/HOV Lanes: 5-Lane
4. Center Bus Lane
5. Other



Bellevue Transit Master Plan

156th Avenue NE

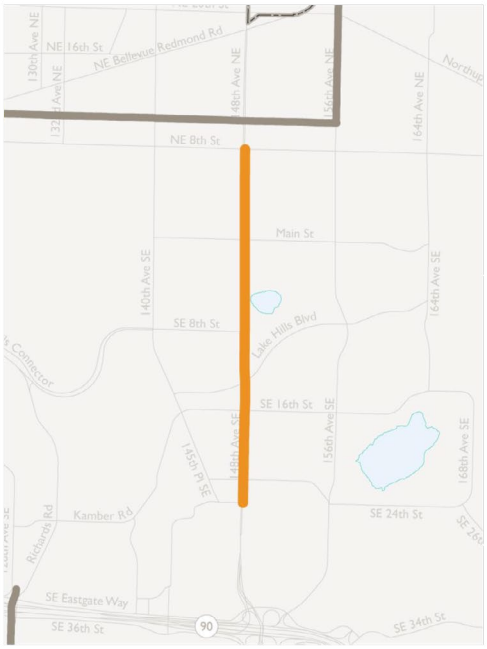


148th Ave NE btw NE 8th St and SE 24th St

2030 population projection	6,200
Major Residential Developments	Pinewood Village, Spiritwood Manor, The Carrington
2030 employment forecast	2,100
Major Employers	Hopelink
Additional Major Attractions	Phantom Lake Elementary, Odel Middle School, Lake Hills Greenbelt, Robinswood Community Park, Eastside Christian, Walmart

Bellevue Transit Master Plan

148th Avenue NE



5 148th Ave NE btw NE 8th St and SE 24th St

Mid-Block Cross Section (Lanes)	4 to 5
Signalized Intersections	8
Buses[1]	16
Total Vehicles[1]	3,196
Percent Transit[1]	0.5%
Person Trips – Transit[1]	418
Person Trips – Total[1]	4,378
Percent Transit[1]	10%

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

Bellevue Transit Master Plan

148th Avenue NE

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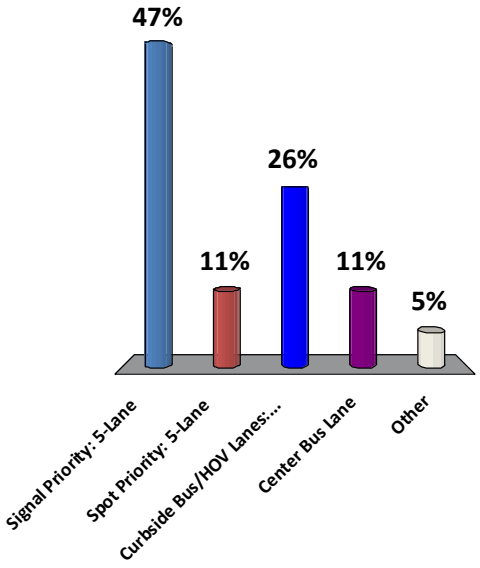
What is the most extensive change that might be contemplated for 148th Avenue NE?

1. Signal Priority: 5-Lane
2. Spot Priority: 5-Lane
3. Curbside Bus/HOV Lanes: 5-Lane
4. Center Bus Lane
5. Other



Bellevue Transit Master Plan

148th Avenue NE

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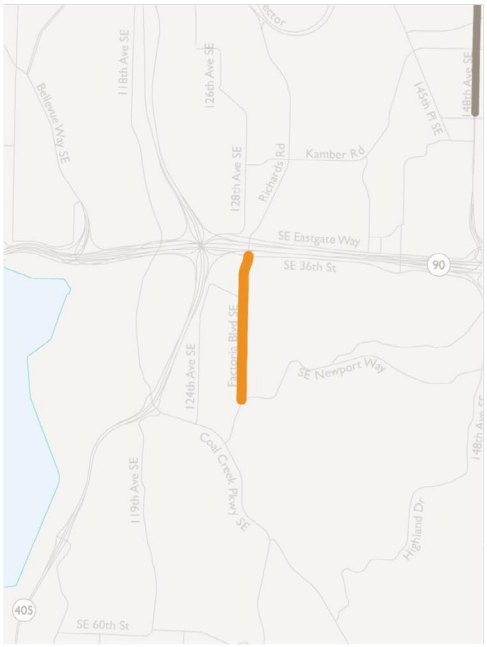
Factoria Blvd btw SE 36th St and SE Newport Way

2030 population projection	2,900
Major Residential Developments	Sterling Heights, Factoria Heights
2030 employment forecast	9,500
Major Employers	T-Mobile, Newport High School
Additional Major Attractions	Nortwest Chinese School, Newport Children's School, Factoria Mall, Target, Safeway, Walmart

Bellevue Transit Master Plan

Factoria Boulevard



6 Factoria Blvd btw SE 36th St and SE Newport Way

Mid-Block Cross Section (Lanes)	4 to 8
Signalized Intersections	7
Buses[1]	34
Total Vehicles[1]	3,596
Percent Transit[1]	0.9%
Person Trips – Transit[1]	1,515
Person Trips – Total[1]	6,080
Percent Transit[1]	25%

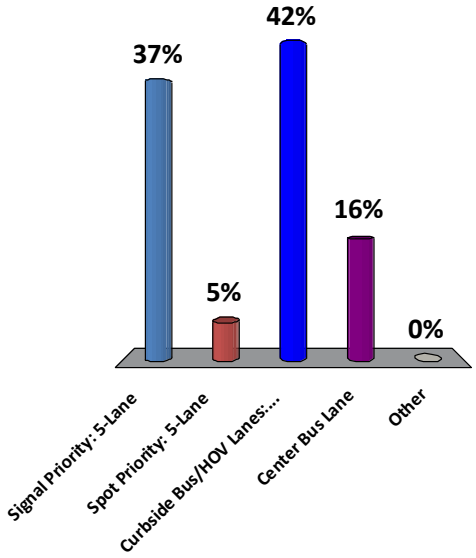
[1] Based on City of Bellevue 2030 PM Peak Hour BKR Model (MP30R6.2).

Bellevue Transit Master Plan

Factoria Boulevard

What is the most extensive change that might be contemplated for Factoria Boulevard?

1. Signal Priority: 5-Lane
2. Spot Priority: 5-Lane
3. Curbside Bus/HOV Lanes: 5-Lane
4. Center Bus Lane
5. Other

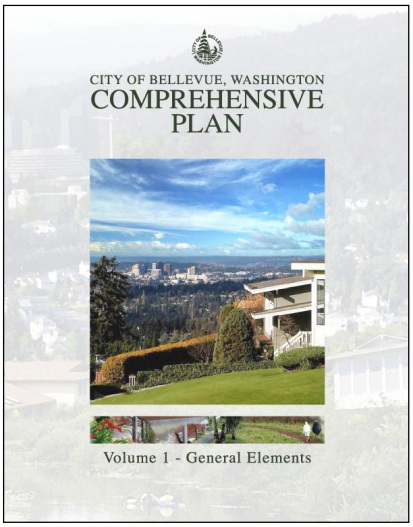


Bellevue Transit Master Plan

Factoria Boulevard

Policy Overview

Bellevue Transit Master Plan



- 43 transit-supportive policies (Transportation, Land Use, and Urban Design Elements)
- Topics include: supportive design (TR-8), support for funding (TR-20), and P&R development (TR-53).
- Transportation Element: Transit, Regional Transit, High Capacity Transit, Light Rail Transit sections.
- Limited guidance on transit priority (TR-54).

POLICY TR-54. Work with transit providers to create, maintain, and enhance a system of supportive facilities and systems such as:

1. Transit stations and centers;
2. Passenger shelters;
3. Park and ride lots;
4. Dedicated bus lanes, bus layovers, bus queue by-pass lanes, bus signal priorities;
5. Pedestrian and bicycle facilities, including secure bicycle parking;
6. Pricing;
7. Kiosks and on-line information; and
8. Incentive programs.

- We spoke to over 20 cities.
- Apart from Seattle and Portland, these are edge cities similar to Bellevue.
- Found a wide range of policy approaches.
- Policy groupings: statements of inclination, statements of principle; and, statements of impact.

Bellevue Transit Master Plan

Overview of Peer Cities

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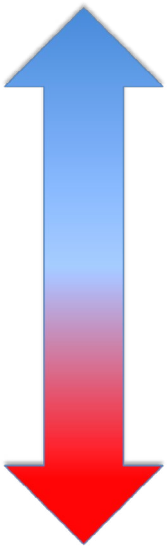
Peer city policies come in 3 degrees of strength …



- Statements of INCLINATION. Convey intent to improve but no target or definition of success.
- Statements of PRINCIPLE. Describe clear targets or conditions of success.
- Statements of IMPACT. Go further, describing particular situations where transit should have priority.

Bellevue Transit Master Plan

Policy Groupings

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Statements of Inclination

Mississauga, Canada: "Make transit a faster [than it is now] alternative to the automobile."

Springfield, OR: "Reduce travel time for transit and other HOVs."

Portland, OR: "Operate the street system in a manner that benefits transit."

Statements of Principle

Santa Monica, CA: "The primary purpose of arterial streets that are also frequent transit streets is to move people rather than vehicles."

Seattle, WA: "Person-throughput, rather than vehicle throughput, shall be the primary measure of the performance of major arterials."

Portland, OR: "On Major Transit Priority Streets (major arterials with frequent transit) achieve transit travel times competitive with the automobile."

Statements of Impact

Seattle, WA: "Ensure transit priority lane treatments take precedence over general purpose travel lanes and auto storage on priority transit corridors."

Seattle, WA: "Implement Transit Signal Priority (TSP) along transit corridors to provide transit vehicles with precedence at signalized intersections, while considering cross-street pedestrian and traffic demand."

Bellevue Transit Master Plan

Peer City Policies

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Policy Choices?

Bellevue Transit Master Plan

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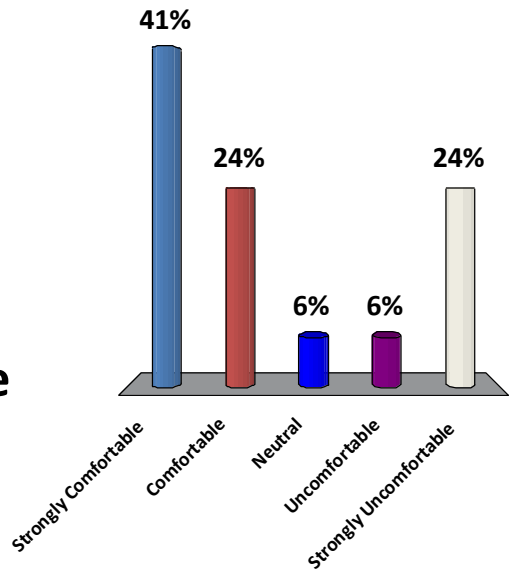
Manage arterial travel lanes to maximize the throughput capacity for people rather than vehicles.

1. Strongly Comfortable
2. Comfortable
3. Neutral
4. Uncomfortable
5. Strongly Uncomfortable



Bellevue Transit Master Plan

Potential Policy Statement

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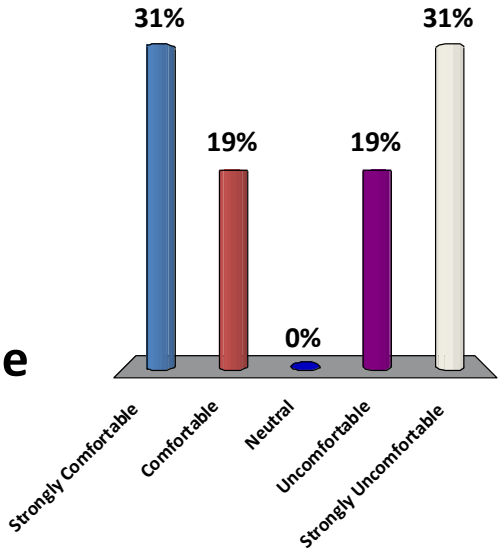
Manage arterial travel lanes to minimize the travel time/delay for people rather than vehicles.

1. Strongly Comfortable
2. Comfortable
3. Neutral
4. Uncomfortable
5. Strongly Uncomfortable



Bellevue Transit Master Plan

Potential Policy Statement

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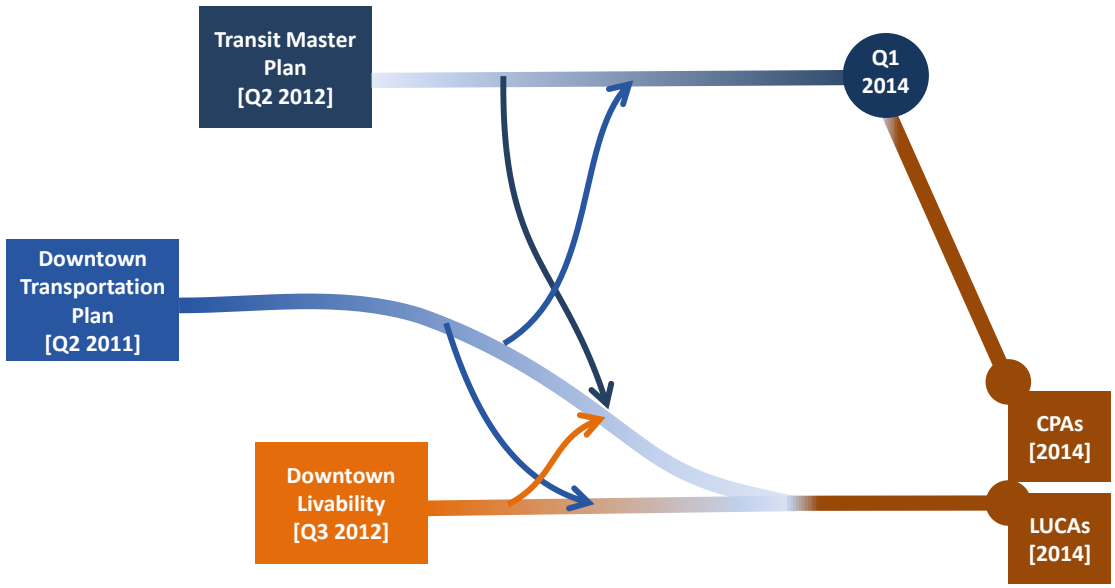

Bellevue Transit Master Plan

Next Steps

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

Franz Loewenherz
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425-452-4077

Bellevue Transit Master Plan

Additional Information

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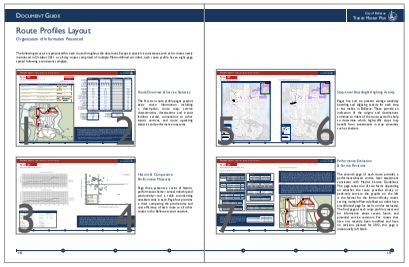
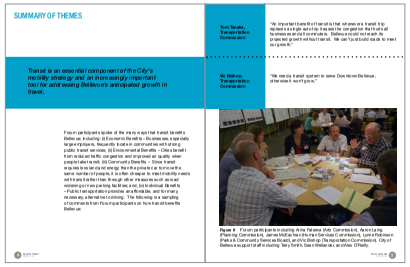
Reports Informing the Service Vision



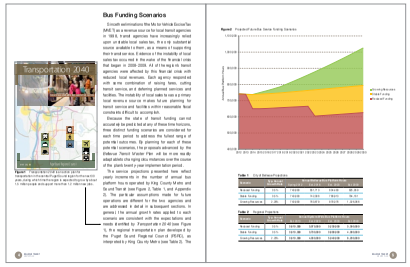
Bellevue Transit Network Profile

This volume comprehensively documents all bus routes that served Bellevue between Fall 2010 and Fall 2011, which are examined both individually and in relation to the overall network operated. An update was later published to assess how performance changed between Fall 2011 and Spring 2012. Together these serve as the baseline for considering transit performance in Bellevue.



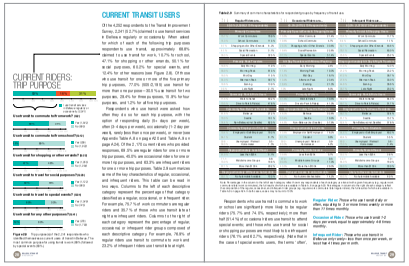
Transit Master Plan Forum Report

The Transit Master Plan Forum was an outreach event held on September 18, 2012. This document summarizes the major themes expressed by Mayor Lee, Councilmember Wallace, and the twenty-four boards and commissions members who were in attendance. The event was held to broaden the TMP's outreach and refine Council's adopted Project Principles into actionable priorities to guide development of the Transit Service Vision.



Funding Scenarios Report

Developed through informal conversations with officials from King County Metro and Sound Transit and consultation of published reports by these agencies and the Puget Sound Regional Council's Transportation 2040, the *Funding Scenarios Report* describes three bus funding scenarios that are considered in the TMP and defines the assumptions that were made to arrive at these results.

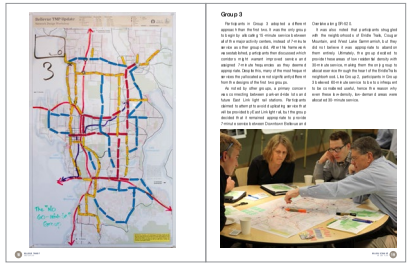


Transit Improvement Survey Summary Report

The Bellevue Transit Improvement Survey (TIS) was administered online between February and March of 2012, during which time it was completed by more than 4,200 respondents. The *TIS Summary Report* summarizes the results obtained, profiling Bellevue's current transit market, the perceptions of transit service in Bellevue by the public, and the priorities of the public for improving service and addressing potential future budget shortfalls.

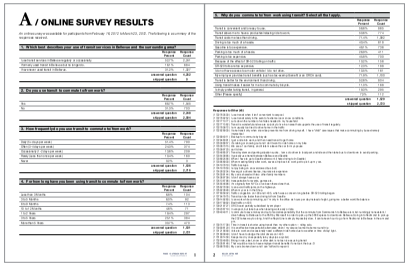
Bellevue Transit Status Report

This report details the service and infrastructure improvements completed since the adoption of the 2003 Bellevue Transit Plan and highlights transit usage levels and unmet needs in Bellevue that will be taken into account in the TMP process. The document serves as a brief precursor to the more comprehensive *Existing and Future Conditions Report*.



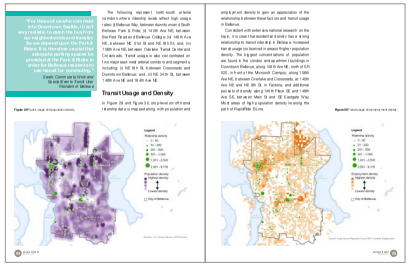
Transit Network Design Workshop Report

The Transit Network Design Workshop was an outreach event held on January 31, 2013 attended by various transit officials, board and commission members, and other local stakeholders. This report documents the six transit networks created by workshop participants, a summary of the common themes and notable differences identified by project consultant Jarrett Walker, and the service priorities identified by participants during audience polling.



Phase 1 Outreach Report: Technical Appendix

This document serves as the technical appendix to the *TIS Summary Report*, presenting the complete results of the Transit Improvement Survey exactly as submitted by survey respondents without analysis, categorization, or any potential source of bias.



Existing and Future Conditions Report

This report summarizes the major findings related to current transit operations and performance, priorities expressed by the public about this network, projected growth in population, employment, and ridership by 2030, and anticipated changes resulting from the introduction of East Link light rail and various planned and potential investments in local street and transit infrastructure.

Market Driven Strategies Report

This report identifies the framework within which the Transit Service Vision was ultimately developed, including six essential qualities embodied by the service vision—known as "Abundant Access"—and the six market-driven strategies endorsed by the TMP to achieve this vision. These strategies represent the course advocated when confronted with the various fundamental trade-offs inherent in the provision of transit service.

Transit Network Service Vision Report

The Transit Service Vision is the culmination of these earlier efforts. In addition to summarizing the process followed and guidance obtained from the City Council, the public, local transit service providers, and other stakeholders, this document presents route-level recommendations that are responsive to different financial scenarios (reduced, stable, and growing resources) and attune to different time horizons (short-, medium-, and long-term). The various proposals advanced herein will serve as the guiding vision that the forthcoming capital and policy elements of the TMP seek to help realize.

All of these reports are available to view and download at www.bellevuewa.gov/transit-plan-documents.htm

Current & Future Bellevue Transit Needs

How is transit used in Bellevue?

10 PERCENT
Of Bellevue residents use transit to travel to work (Source: U.S. Census Bureau, 2007-2011 American Community Survey)

57 PERCENT
Of regular riders (3+ times per week) in Bellevue use transit during the morning peak (Source: 2012 Bellevue Transit Improvement Survey)

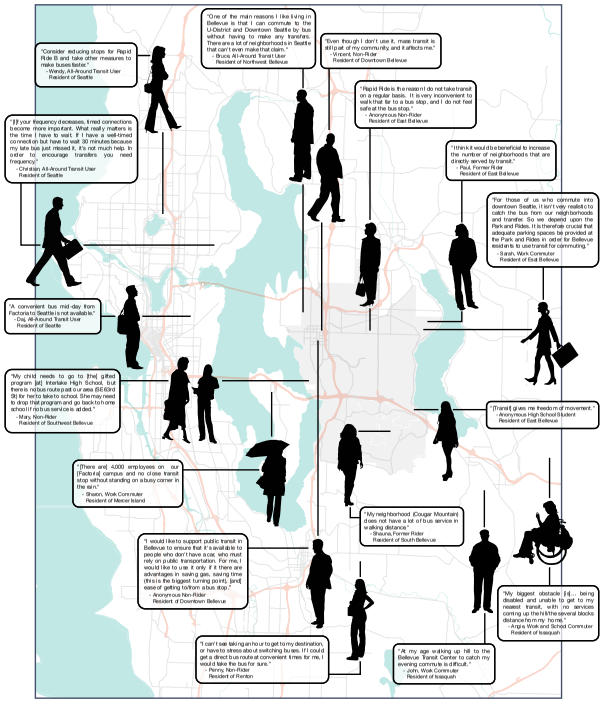
83 PERCENT
Of Bellevue residents agree that the city should work with regional transit agencies to improve local and regional public transportation serving Bellevue (Source: 2012 Bellevue Budget Survey Report)

17 PERCENT
Of commute trips to Downtown Bellevue occur via transit (Source: 2011 Bellevue Mode Share Survey)

72 PERCENT
Of Bellevue residents have a stop within a quarter-mile of their home with 30 minute bus service frequency during the morning peak (Source: U.S. Census Bureau, 2006-2010 American Community Survey)

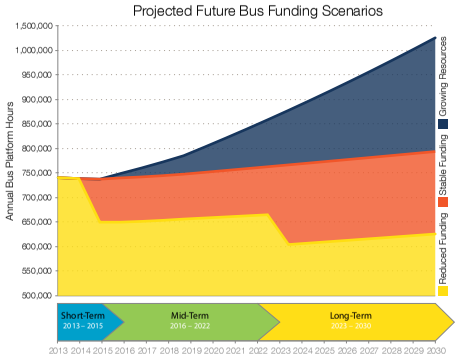
129 PERCENT
Increase in daily transit usage in Bellevue from 2003 to 2012 (Source: Fall 2003 and Fall 2012 King County Metro Ridership Data)

What have we heard from the community?



Source: Bellevue Transit Master Plan

Planning for uncertainty



BELLEVUE TRANSIT MASTER PLAN

The Service Element considers three time horizons and three funding scenarios to address the evolving infrastructure and development landscape in Bellevue and financial uncertainties resulting from unstable sources of transit funding. These variations result in nine distinct proposed networks, whose connection opportunities and associated service frequencies are depicted in the diagrams on the right.

TIME HORIZONS

Short-Term
Planning for the next two years, including both minor adjustments that enable incremental steps toward the long-term service vision and potentially significant service reductions beginning in 2014.

Mid-Term
Includes planning for the impacts on traffic circulation and transit operations of the construction of East Link, SR-520, I-405, potential I-90 tolling, and land use developments in Bellevue.

Long-Term
Focuses on Bellevue's transit needs in the context of considerable growth, the emergence of new activity centers (e.g. Bel-Red), the start of East Link light rail operations, and completion of major regional transportation investments.

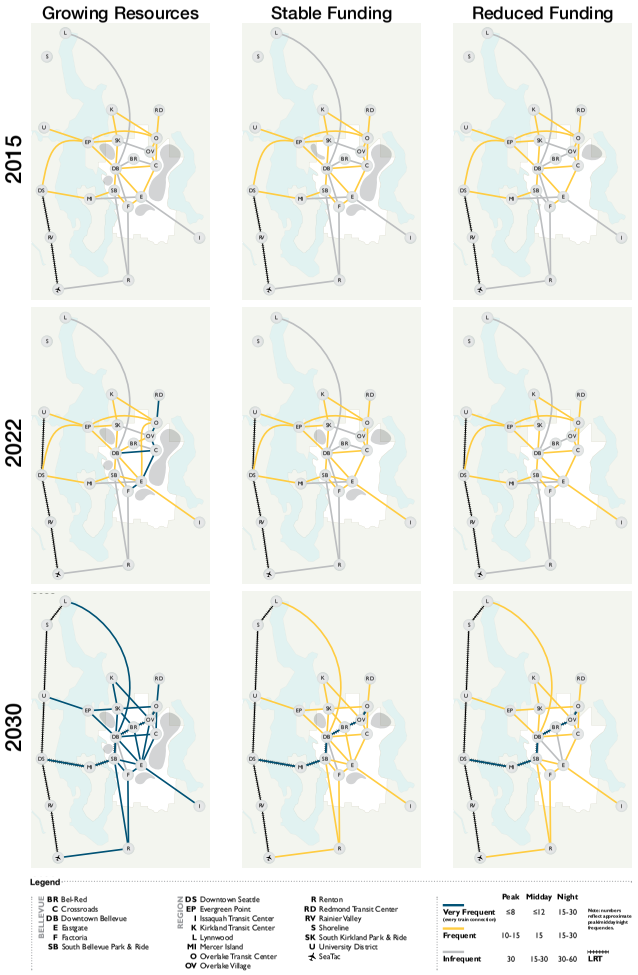
FUNDING SCENARIOS

Reduced Funding
A financially-constrained outlook for the future of bus service in Bellevue, this scenario includes two one-time reductions in annual service. The first is a 17% decrease in Metro platform hours in 2014, consistent with Metro's projected funding shortfall absent new funding, followed by a 29% reduction in ST Express service in 2024, reflecting reallocation of resources from bus to East Link light rail.

Stable Funding
A continuation of the status quo with no significant reductions or expansions of bus platform hours. Annual increases of 0.5% are applied to account for schedule maintenance, and ST Express bus service is retained, albeit reconfigured, following the introduction of East Link light rail in 2023.

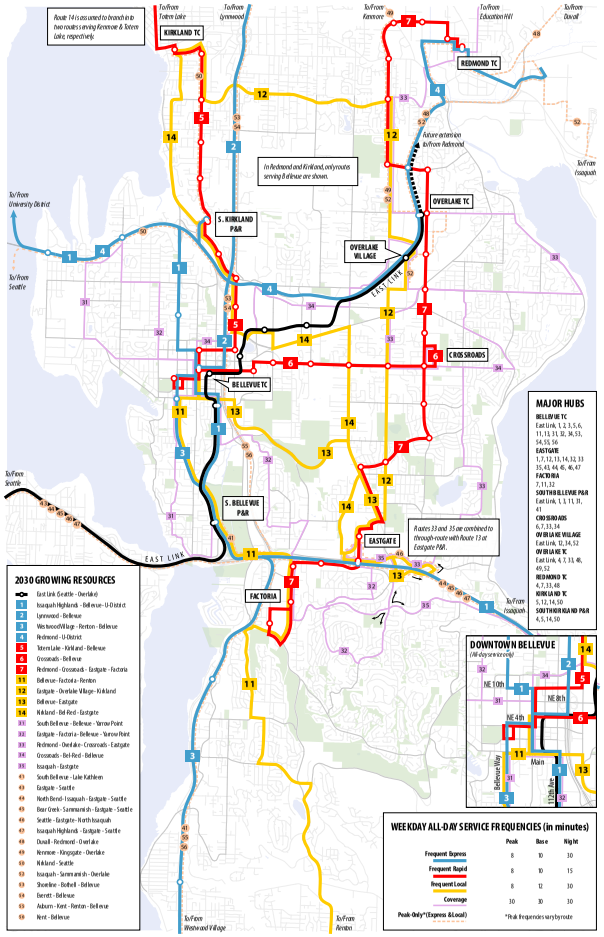
Growing Resources
The most significant departure from current transit operations in Bellevue. An growth rate of 2.25 percent is applied, reflecting the annual increment needed to reach PSRC projections that suggest a near doubling of demand for transit (and the resources expended to meet this demand) by 2040.

Proposed future network connections

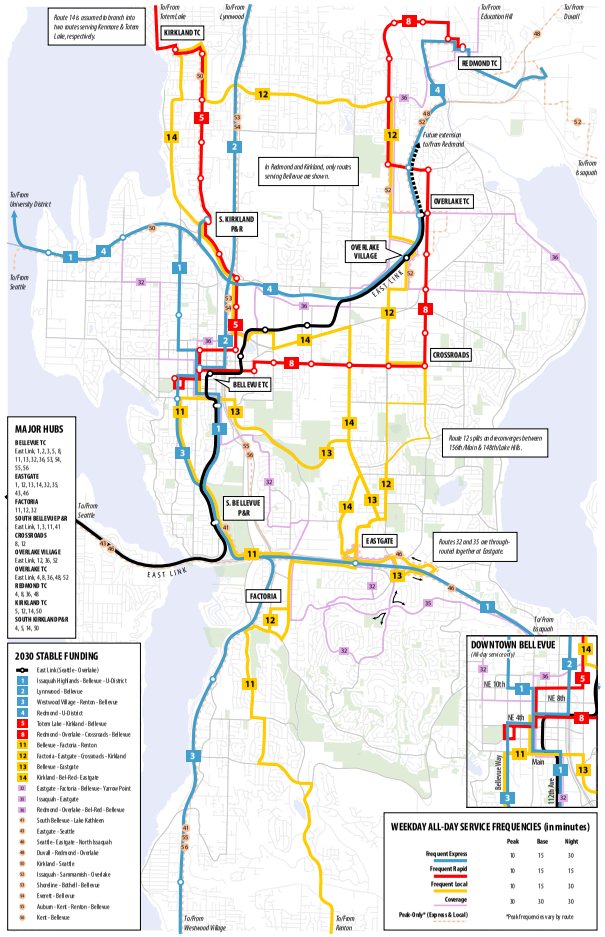


Long-Term Service Vision

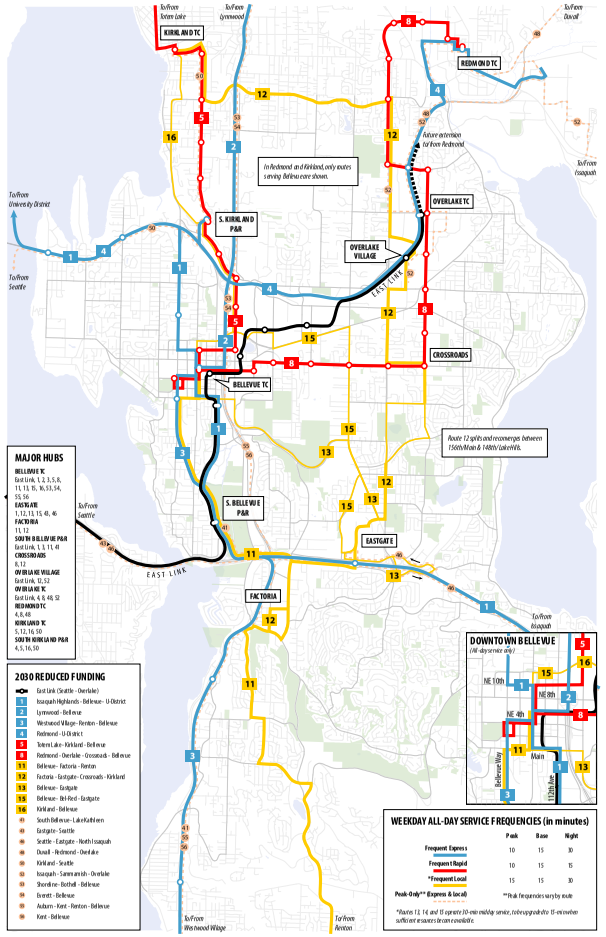
2030 | Growing Resources Network



2030 | Stable Funding Network

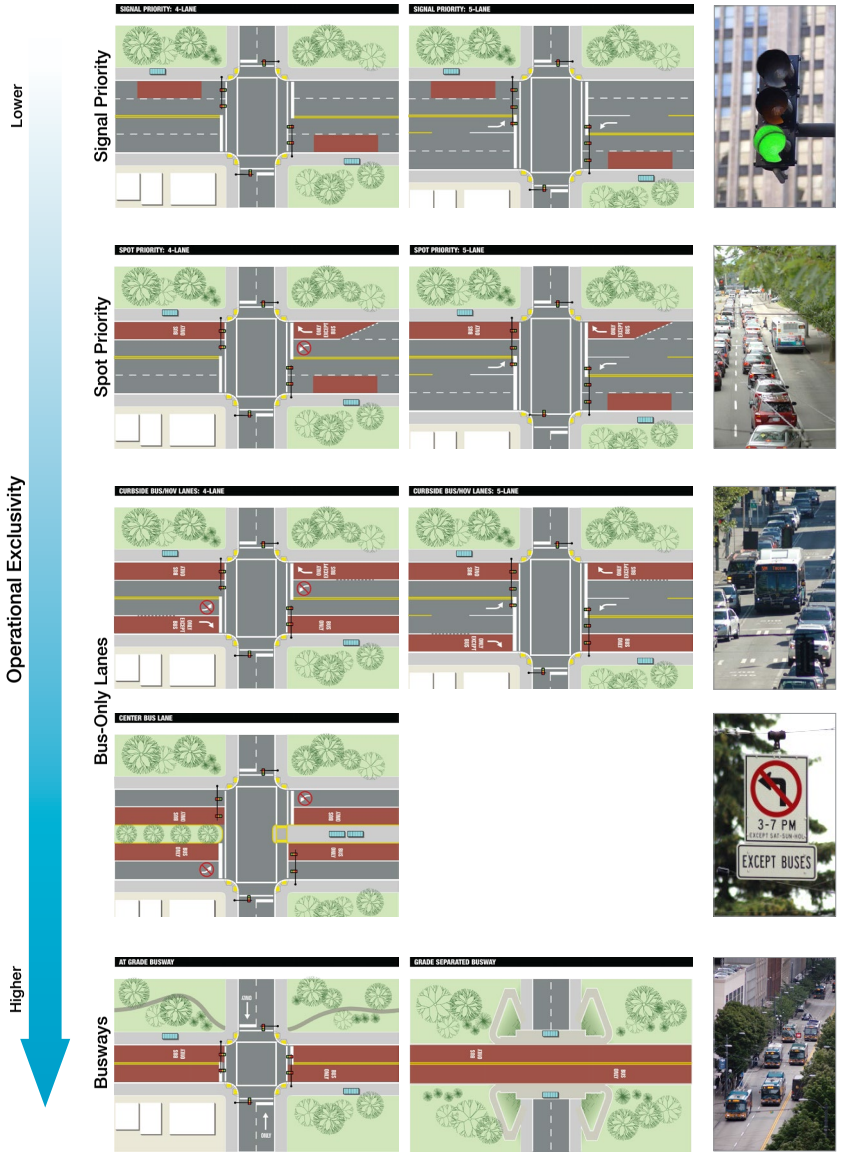


2030 | Reduced Funding Network

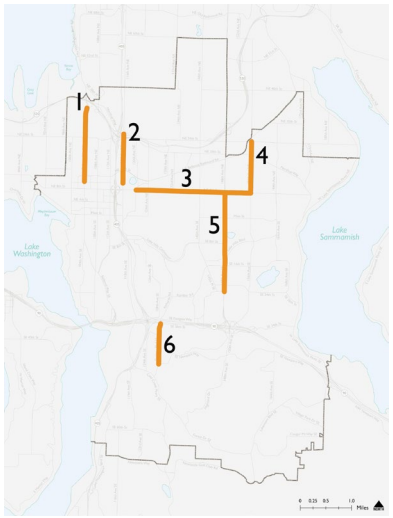


Potential Transit Priority Treatments

POTENTIAL ROADWAY TREATMENTS



PRIORITY ANALYSIS CORRIDORS



	Corridor 1	2	3	4	5	6
	Bellevue Way NE btw NE 10th St & NE 32nd Pl	116th Ave NE btw NE 12th St & Northup Way	NE 8th St btw 120th Ave NE and 156th Ave NE	156th Ave NE btw NE 8th St and Bel-Red Rd	148th Ave NE btw NE 8th St and SE 24th St	Factoria Blvd btw SE 36th St and SE Newport Way
Mid-Block Cross Section (Lanes)	4 to 5	4	5	5	4 to 5	4 to 8
Signalized Intersections	5	4	7	8	8	7
Buses[1]	13	15	16	22	16	34
Total Vehicles[1]	2,040	1,978	2,946	2,798	3,196	3,596
Percent Transit[1]	0.6%	0.8%	0.5%	0.8%	0.5%	0.9%
Person Trips – Transit[1]	1,266	986	958	903	418	1,515
Person Trips – Total[1]	4,020	3,576	4,836	4,546	4,378	6,080
Percent Transit[1]	31%	28%	20%	20%	10%	25%

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

	1 Bellevue Way NE NE 10th St to NE 32nd Pl	2 116th Ave NE NE 12th St to Newport Way	3 NE 8th St 120th Ave to 156th Ave NE	4 156th Ave NE NE 8th St to Bel-Red Road	5 148th Ave NE NE 8th St to SE 24th St	6 Factoria Blvd SE 36th St to SE Newport Way
2010 population	6,379	132	8,201	6,763	6,046	2,465
2030 population forecast	11,000	500	8,200	9,000	6,200	2,900
Major Residential Developments	Washington Square, Avalon Towers, Lincoln Square Condos, Belcarra, the Ashton, Bellevini	—	Hidden Creek, Woodland Commons, Foothill Commons, Madison at Bellevue, the Cascadian	Madison at Bellevue, the Cascadian, Piedmont, Pacific Village, Central Park East, Colonial Square, Kendall Ridge, Silver Glen, Emeritus, Crossroads Retirement, Mission Healthcare, Village at Overlake Station	Pinewood Village, Spiritwood Manor, The Carrington	Sterling Heights, Factoria Heights
Older Adults	903	26	943	1,178	767	219
Below Poverty	46	9	727	812	827	191
Minority	2,473	30	4,738	4,347	3,020	1,600
Non-English	1,759	18	3,654	3,430	2,253	1,204
Renters	3,323	21	5,109	4,730	3,291	1,349
Preliminary 2011 employment[1]	9,661	8,882	5,777	7,997	1,321	8,063
2030 employment forecast	13,200	12,400	6,700	9,400	2,100	9,500
Major Employers	Microsoft, Eddie Bauer, Paccar, and other large employers along SR 520	Overlake Hospital, Children's Clinic and Surgery Center	Safeway Headquarters, DSHS	DSHS, Unigard Insurance	Hopelink	T-Mobile, Newport High School
Major Attractions	The Bellevue Collection, the Hyatt, Silver Cloud Inn, the Westin, U.S. Post Office, QFC - Downtown and QFC - Northtowne	Lowes Hardware	Stevenson Elementary, Odle Middle School, Whole Foods, Uwajimaya, Best Buy, Glendale Golf Course and Country Club, Crossroads Mall, QFC, U.S. Post Office	Crossroads Mall (inc. Mini City Hall), Crossroads Park and Community Center, Trader Joe's, Eton School U.S. Post Office	Phantom Lake Elementary, Odel Middle School, Lake Hills Greenbelt, Robinswood Community Park, Eastside Christian, Walmart	Northwest Chinese School, Newport Children's School, Factoria Mall, Target, Safeway, Walmart

[1] Estimates are unscaled and rounded to the nearest hundred.