



Bellevue Transit Master Plan

DATE: October 17, 2013

TO: Members of the Transportation Commission

CC: Members of the Planning Commission
Members of the Human Services Commission
Members of the Parks and Community Services Board
Members of the Arts Commission

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SUBJECT: Transit Master Plan – Capital Oriented Strategies and Measures of Effectiveness

INTRODUCTION

The Transit Master Plan (TMP) is a comprehensive look ahead to the type of system that will be required to meet Bellevue's transit needs through 2030. Guided by a set of [Project Principles](#) (approved by the Bellevue City Council on July 9, 2012) the Transportation Commission is tasked with overseeing the TMP and providing a recommendation to Council.

On October 17 staff will provide Transportation Commission members - and members of other boards and commissions - a status report on the Transit Master Plan. Staff will invite Commissioners and Board members to review and amend a set of draft *capital-oriented* strategies that can be paired with the *service-oriented* strategies outlined in the [Market Driven Strategies Report](#) (approved by the Bellevue City Council on May 20, 2013) to support Council's "Abundant Access" vision statement.

To facilitate Commission/Board member deliberations at the October 17 meeting, staff produced the [Capital-Oriented Strategies Discussion Report](#). This document compiles: existing transit-oriented policies in the Bellevue Comprehensive Plan; Council approved Project Principles and Market Driven Strategies; and themes taken from the previous three board/commission workshops. Hard copies of this report will be available at the October 17 meeting.

The October 17 meeting is the first in a series of targeted Commission discussions aimed at supporting the Capital and Policy Element of the Transit Master Plan (TMP). Per Council direction, members of the Planning Commission, Human Services Commission, Arts, and Parks and Community Services Board are invited to attend all staff briefings on the TMP to the Transportation Commission. Any member from a board and commission is welcome to participate in these discussions.

STATUS REPORT

The Transit Master Plan (TMP) scope of work comprises three major elements (Service, Capital, and Policy). Although identified as a separate work product, the Policy Element is developed concurrently

with and used to inform the direction of the other two plan elements. By way of example, Service Element recommendations are founded on the *service-oriented* strategies outlined in the Market Driven Strategies Report that focus on the “supply-side” of transit operations (i.e., service availability and quality). The Capital Element builds on this foundation by proposing “demand-side” *capital-oriented* strategies that can influence the public’s decision to use transit (i.e., supportive land use environment, walkway/bikeway facilities, stop amenities, and running way priority measures). The final TMP report will incorporate service and capital-oriented strategies with short- and long-term projects that foster a transit system that is easier and more enjoyable to use by residents, employees, and visitors in Bellevue.

Since September 2012 the Transportation Commission has:

- considered the current state of transit service in Bellevue and the anticipated needs of the community in the years ahead;
- actively participated in multiple forums and workshops in an examination of the fundamental trade-offs concerning transit service allocation;
- arrived at a set of service-oriented strategies that will lead to "Abundant Access" for people who live, work, shop, and play in the City of Bellevue; and,
- formally transmitted these strategies informing the Service Element of the Transit Master Plan to the Bellevue City Council.

The [Transit Service Vision Report](#) details route-level recommendations that are responsive to three financial scenarios (reduced, stable, and growing resources) and attune to three time horizons (2015, 2022, and 2030). The Frequent Transit Network (FTN), derived from the 2030 Growing Resources scenario, increases service by approximately 47 percent from Spring 2012 levels to accommodate the projected near tripling of citywide transit demand by 2030. The 2030 FTN supports Downtown growth, Bel-Red corridor redevelopment, and Bellevue's other activity centers with well-connected bus routes that seamlessly interface with East Link light rail. People traveling along FTN corridors can expect convenient, reliable, easy-to-use services that are frequent enough that they never need to refer to a schedule. The Transit Service Vision Report concludes the Service Element of the TMP.

Having completed the Service Element, staff is working with members of the Transportation, Planning, Arts, and Human Services Commissions and the Parks and Community Services Board on the TMP Capital Element and supporting policy framework. This next phase of work recognizes that “encouraging long-term ridership growth” (Council Project Principles) in Bellevue necessitates transit service enhancements (noted in the Service Element) paired with the City’s commitment to a supportive land use environment, pedestrian and bicycle amenities, and transit speed and reliability infrastructure (that will be outlined in the Capital Element). The result of this partnership will be a more productive transit network for the benefit of transit agencies and City of Bellevue customers.

The Capital Element of the TMP has three primary objectives:

1. Stimulate discussion on congestion in Bellevue that compromises transit's efficiency.;
2. Evaluate the trade-offs associated with different street design decisions.
3. Assess roadway, signal system, and other right-of-way improvements that could be made to support the 2030 Frequent Transit Network outlined in the Service Vision Report.

As part of the ongoing outreach supporting the TMP, the Transportation Department held a joint Board/Commission [Capital and Policy Element Workshop](#) on September 6, 2013. Workshop participants engaged 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 treatments along 2030 Frequent Transit Network corridors. On October 17 staff will continue this information exchange with the Transportation Commission.

CAPITAL-ORIENTED STRATEGIES DISCUSSION

The October 17 Transportation Commission capital-oriented strategies discussion aims to support the Transit Master Plan vision statement of “Abundant Access” approved by the Bellevue City Council on May 20, 2013. The desired “end state”, or result, of “Abundant Access” is an:

“Efficient, useful, attractive service for most people, to most destinations, most of the time, serving maximum ridership and providing effective competition with the car.”

There are several important themes embedded in this vision statement. First, the idea that transit service should be “**efficient, useful, attractive**” suggests it is meant to be useful to people in a wide range of situations, not just people who lack options. “**To most destinations, most of the time**” means that taking transit is not a niche activity only for commuters but is part of the overall urban framework and will be used by a broad range of people throughout the city. “**Serving maximum ridership**” aligns Bellevue’s vision with King County Metro’s Service Guidelines focus on a transit system that results in high productivity (ridership per unit of cost). Finally, “**providing effective competition with the car**” emphasizes that Bellevue should plan, design, and build a community that increases transit’s appeal as the mode of choice for an increasing number of people who live, work, shop, and play in Bellevue.

The “Abundant Access” statement is supported by six main goals that articulate what the Transit Master Plan seeks to achieve over time in order to meet the vision.

1. **Convenient**, making it the logical choice for the largest possible share of trips.
2. **Frequent**, to minimize waiting times and improve connections.
3. **Efficient**, in terms of being designed for high ridership and cost-effective operations.
4. **Simple**, with the fewest possible discrete lines, so that each can have the best possible frequency, speed, and duration without complicated redundancy.
5. **Direct**, to major activity centers in Bellevue by minimizing the degree to which a route deviates from the shortest path between its start and end points.
6. **Regionally Connected**, with a complete network of regional links in all directions, with particular focus on abundant north-south service along I-405.

The Market Driven Strategies Report identifies six service-oriented strategies guiding the city’s actions toward realizing the goals of the plan.

1. **Focus on diversity of ridership and trip purpose.** Great transit networks arise from designing services that are useful to the broadest and most diverse possible spectrum of user groups and trip purposes.
2. **Create a civilized experience.** Transit should focus on creating an attractive product at an appropriate price point for the widest possible spectrum of the population.
3. **Make connections easy and attractive.** The only way to efficiently serve multi-centered cities like Bellevue is with routes that are frequent and that make it easy to connect from one route to another at attractive and safe connection facilities.

4. **Meet peak commute needs but encourage the growth of the all-day market.** In addition to moving peak commuters, transit has an important role to play in improving the mobility of people who want to access family and friends, recreation, education, entertainment, health care, and the many activities that contribute to individual and community well-being.
5. **Focus on high-ridership markets.** Transit needs to maximize the return on investment on existing and anticipated public transportation projects by providing transit service where high ridership is anticipated, typically where there is some mix of higher residential or commercial density, major activity centers, and measures that discourage driving, such as limited parking.
6. **Encourage walking and cycling.** As the transit network moves towards attracting more patrons who take transit by choice, it will be increasingly important to factor in the pedestrian and bicycle experience as part of a more holistic ridership strategy so that transit can run more efficiently.

On October 17 the Transportation Commission will consider four capital-oriented strategies that might be integrated into the existing “Abundant Access” policy framework. Staff formulated this draft language based on a review of the: (i) current transit-related policies found in the [Bellevue Comprehensive Plan](#); (ii) Project Principles approved by the Bellevue City Council on July 9, 2012; (iii) Market Driven Strategies approved by the Bellevue City Council on May 20, 2013; and, (iv) Board and Commission feedback received at the Capital and Policy Workshop held on September 6, 2013.

On October 17 Bellevue staff will engage the Commission in a discussion on the draft capital-oriented strategies below that conform stylistically with the Council approved service-oriented strategies. After considering this draft language, Commission members may want to amend the draft capital-oriented strategies (to include targets of success, trade-off considerations) or offer additional strategies.

Draft Strategy #1. Use urban design and development regulations in Bellevue’s major activity centers to support transit use.

Discussion. While the transit system is designed to serve the City’s land use vision it is also important that land use development provide for and encourage transit access and use. This strategy supports expanding transit-supportive urban design and development regulations beyond Downtown and the Bel-Red areas (where these tools are in place) to other major activity centers in Bellevue. This expansion should be coordinated internally with the Department of Planning and Community Development work and regional efforts being led by the Puget Sound Regional Council to develop model transit overlay ordinance language.

The draft capital-oriented strategy is similar to Bellevue Comprehensive Plan policy TR-8: “Incorporate transit-supportive and pedestrian-friendly design features in new development through the development review process...4. Cluster major buildings within developments to improve pedestrian and transit access” and policy TR-70: “Promote transit use and achieve land use objectives through transit system planning that includes consideration of: 1. Land uses that support transit, including mixed use and night-time activities...” Both of these Comprehensive Plan policies, along with TR-61, LU-24, and UD-48, highlight the importance of leveraging urban design and development decisions (i.e., setbacks, building orientation, location of parking) to enhance transit performance. The draft capital-oriented strategy language establishes a more concise statement than those found in the existing Comprehensive Plan where this idea is somewhat diluted when packaged with a number of other unrelated topics. Participants at the joint Board/Commission Workshop (September 6, 2013) were supportive of packaging transit speed and reliability improvements with supportive land use policies.

Draft Strategy #2. Design transit facilities to enhance accessibility, connectivity, and user comfort.

Discussion. The location and design of transit stops, centers, and park & ride facilities is an important factor in determining how far pedestrians, cyclists, and drivers must travel to reach transit services and the quality of the wait once they get there. These facilities are the most consistently visible image of a city's transit system.

When stops, centers, and park & ride facilities are poorly designed, difficult to reach, or uncomfortable for users, it can negatively affect the image of a transit system and reduce opportunities for capturing choice ridership. When local governments partner with transit agencies – as is the case with work underway at the South Kirkland Park & Ride, a transit oriented development project that integrates housing within a transit hub – the transit facility environment will enhance connectivity between different modes of transportation and contribute to a positive community identity.

The draft capital-oriented strategy is similar to Bellevue Comprehensive Plan policy TR-8: “Incorporate transit-supportive and pedestrian-friendly design features in new development through the development review process...5. Provide weather protection such as covered walkways or arcades connecting buildings in major developments, and covered waiting areas for transit and ridesharing...” and policy TR-14: “Require new development to incorporate physical features designed to promote use of alternatives to single-occupant vehicles, such as...3. Transit facilities, including comfortable bus stops and waiting areas, adequate turning room, and where appropriate, signal preemption and queue-jump lanes.” Both of these Bellevue Comprehensive Plan policies highlight the importance of providing attractive transit facilities (i.e., transit access points that are enjoyable and comfortable for users) to enhance transit performance. The draft capital-oriented strategy language establishes a more concise statement than those found in the existing Comprehensive Plan where this idea is somewhat diluted when packaged with a number of other unrelated topics.

Draft Strategy #3. Invest in transit priority measures along Frequent Transit Network corridors.

Discussion. The development of transit and the creation of transit-supportive communities require investment. The draft capital-oriented strategy language prioritizes funding for long-term capital projects that improve transit speed, reliability, and capacity in Frequent Transit Network corridors. This approach focuses investments where they maximize efficiency.

Since the adoption of the 2003 Bellevue Transit Plan, hundreds of millions of dollars in HOV access ramps, transit centers, Park & Ride lots, and speed and reliability projects were completed in Bellevue in support of transit. The Bellevue Transit Master Plan (TMP) builds on the successes of the 2003 Transit Plan by positioning the City to leverage additional partnerships with regional transit agencies. To secure additional funding, the City may want to: (i) renew and seek new local funding sources to implement Transit Master Plan capital priorities; (ii) work with partners to lobby for new transit funding mechanisms such as tax increment financing, dedication of tolling revenues, and other locally- or regionally-based transit funding sources; (iii) create partnerships and leverage private investment to help fund priority capital investments; and, (iv) seek federal and state grants with other agencies.

This draft capital-oriented strategy is similar to Bellevue Comprehensive Plan policy TR-105: “Aggressively seek state and federal funds for transportation capital, maintenance, operational, service, and demand-oriented improvements” and policy TR-110: “Support joint projects, including the contribution of city matching funds, with adjoining cities, unincorporated King County, the transit

providers, or the state, where such partnerships may help establish or accelerate a project beneficial to the city.” Both of these Bellevue Comprehensive Plan policies, along with policies TR-58 and TR-114, demonstrate a commitment to regional efforts to increase transit investments. The draft capital-oriented strategy language establishes an explicit statement of support for the Frequent Transit Network (FTN); this is not found in the existing Comprehensive Plan language. Considering the current state of transit funding and emphasis on maximizing the use of limited resources, it is prudent to guide investments to FTN corridors where transit demand is high and expected to increase in the future.

Draft Strategy #4. Employ best practices and context sensitivity when implementing transit priority measures along Frequent Transit Network corridors.

Discussion. This draft capital-oriented strategy directs the Bellevue Transportation Department to stay current on changes in transit infrastructure design, speed and reliability tools, and facility types as they evolve. This strategy is consistent with Comprehensive Plan policy TR-94: “Support multi-modal transportation solutions including general purpose lanes, High Capacity Transit, HOV lanes, transit and non-motorized improvements that use the best available technologies and innovative implementation tools and programs such as bike-sharing programs, that have been shown to be successful in other areas and are applicable to Bellevue.”

This draft capital-oriented strategy also recognizes that planning for transit cannot happen in a vacuum. The city’s arterial street system has many modal demands: general-purpose traffic capacity, transit, freight, pedestrians, bicyclists, and on-street parking. All of these compete for space within the city’s limited street right of way. As the city grows in the future, decisions about how to use the city’s streets in the most productive and efficient way possible will be an ongoing challenge. Participants at the joint Board/Commission Workshop on September 6, 2013 observed that Bellevue should: (i) take a balanced approach to the implementation of transit priority improvements; (ii) not over-extend itself with a one-size-fits-all system-wide approach; and, (iii) strive to make strategic, coordinated investments along corridors, rather than highly localized investments whose impact is less certain.

In response to this feedback, the theme of context sensitive design is integrated into this draft strategy. Context sensitive design is important to ensure that transit facilities are designed and built taking into consideration the overall characteristics of the street, the adjoining land use types, and other factors. This approach informs the project development process, from planning through design and finally construction. Using the Context Sensitive Design concept, a planning agency “asks questions first about the need and purpose of the transportation project, and then equally addresses safety, mobility, and the preservation of scenic, aesthetic, historic, environmental, and other community values. Context sensitive design involves a collaborative, interdisciplinary approach in which citizens are part of the design team.” (see Transportation Research Board [A Guide to Best Practices for Achieving Context Sensitive Solutions](#)).

MEASURES OF EFFECTIVENESS DISCUSSION

One of Council’s project principles for the Transit Master Plan is that staff should: “Develop measures of effectiveness to evaluate transit investments and to track plan progress.” This project principle includes the following additional information: “The Bellevue Comprehensive Plan presently includes the following metrics/benchmarks related to transit: (1) mode split targets within each of the City’s Mobility Management Areas [Table TR.1 – Area Mobility Targets]; (2) transit service frequency improvement targets between Downtown, Overlake, Crossroads, Eastgate, and Factoria [TR.8 – 10 Year Transit Vision];

and, (3) guidance found in 44 transit-supportive policies. The Transit Master Plan will revisit these metrics, and where necessary, propose modifications to better reflect present and future conditions.” The transit service frequency improvement targets developed in the 2003 Bellevue Transit Plan have been revised, improved, and replaced by the Frequent Transit Network in the Transit Master Plan (TMP). It is now time to evaluate how the City should monitor and measure transit system effectiveness, progress toward recommendations identified in the TMP, and weaknesses or gaps that require City or partner agency action.

The King County Metro Strategic Plan and Service Guidelines has established a network evaluation and operating performance standards system, which will be employed by Metro on a regular basis. The operating performance evaluation is based on a set of corridors, which correspond with the Frequent Transit Network corridors in the Bellevue Transit Master Plan. Metro performance standards relate to ridership, on-time performance, headway management, and productivity. A route-level report is published every quarter with about a one-quarter lag. In terms of network design and effectiveness, measures, such as percentage of population within reach of high frequency service, percentage of vulnerable populations within reach of high frequency service, and percentage of jobs within reach of high frequency service have been established. In addition, standards for “service families” that establish the span of service by time period and the frequency required in that time period have been adopted, as have evaluation tools that identify gaps between standards and actual service levels. The Metro network evaluation report will be published every two years.

The strength of Metro’s measurement tool should be used to evaluate the performance of the Bellevue Frequent Transit Network. However, as robust as this monitoring and evaluation tool is, it does not directly address Bellevue’s mobility goals. It is suggested, that, as with transit investment, the monitoring of Bellevue’s transit network take on a more supplemental approach rather than a global evaluation that would duplicate Metro’s performance monitoring system. What is missing from Metro’s evaluation is a measure of effectiveness (MOE) to assess transit’s competitiveness with other modes. The following MOE, brought forward for Commission consideration, aims to assess progress on the City’s overarching objective of improved mobility.

Draft Measure of Effectiveness. Measure person throughput by mode on Bellevue’s Frequent Transit Network corridors.

Discussion. Historically, arterial street performance has been based mostly on outcomes for vehicles rather than people. In classical highway engineering, the goal is “vehicle throughput,” which means that each vehicle is equally important regardless of how many people it carries. More recently, the principle of valuing people movement over vehicle movement has become well understood. This principle underlies all high-occupancy vehicle facilities, and all facilities specifically for the use of public transportation. Consistent with this widely accepted principle, it is important to measure and evaluate person throughput – the number of people who can move along a road segment in each hour – not just vehicle throughput.

The [Transit Cooperative Highway Research Program \(TCRP\) Report 165: Transit Capacity and Quality of Service Manual, Third Edition](#) defines person capacity as: “The maximum number of people that can be carried past a given location during a given time period under specified operating conditions; without unreasonable delay, hazard, or restriction; and with reasonable certainty.” This draft measure of effectiveness – a function of the mix of vehicles in the traffic stream, including the number and

occupancy of each type of vehicle – recognizes the difference between a single bus containing 40 people, and a pair of cars that occupy the same space, but contain only 2 people.

Measuring “person throughput” is consistent with [Vision 2040](#), the Puget Sound Regional Council’s adopted regional growth plan, policy MPP-DP-54: “Develop concurrency programs and methods that fully consider growth targets, service needs, and level-of-service standards. Focus level-of-service standards for transportation on the movement of people and goods instead of only on the movement of vehicles.” The draft measure of effectiveness language is also consistent with the [WSDOT HOV Policy](#), “the goals of this system are:

- To maximize the people-carrying capacity of the freeway system by providing incentives to use buses, vanpools, and carpools.
- To provide capacity for future travel growth.
- To help reduce transportation-related pollution and dependency on fossil fuels.

Through HOV programs and policies we strive to make the best use of existing facilities by increasing freeway efficiency and promoting programs to move more people in fewer vehicles.” WSDOT’s commitment to the person throughput metric is reflected in its annual monitoring of this indicator (see page 48 of the WSDOT [2012 Congestion Report](#)).

Policy support for this draft measure of effectiveness is also found in the context setting narrative of the Mobility Management section of the Bellevue Comprehensive Plan: “The primary modes of transportation in the city include private vehicles, carpools and vanpools, transit, walking, and bicycling. The city must provide services and facilities to support all modes, balancing resources to ensure that all are viable and provide reasonable travel choices. *This maximizes the people-carrying capacity of the system and encourages use of alternatives to the single-occupant vehicle.*” [*Italic added for emphasis*] Finally, this draft measure of effectiveness is one of a number of tools that may be contemplated as part of the Multimodal Concurrency Policy contract that was discussed with the Transportation Commission at its October 10 meeting.

NEXT STEPS

Bellevue staff will make refinements to the draft capital-oriented strategies and proposed measure of effectiveness based on feedback from the October 17 Transportation Commission meeting. An updated version of this language will be presented to the Transportation Commission for consideration and approval at its November meeting.