



MEMORANDUM

DATE: December 4, 2014

TO: Transportation Commission

FROM: Kristi Oosterveen, Capital Facilities Planning & Programming Administrator
Michael Ingram, Senior Transportation Planner

SUBJECT: 2016-2027 Transportation Facilities Plan (TFP) Update Process:
Project evaluation criteria and public involvement strategy

Purpose

At the Commission meeting on December 11, staff will address questions raised by Commissioners at the November 13 meeting regarding criteria and weighting percentages used for evaluating candidate projects for the TFP update. At this meeting, staff will also be proposing updates to two elements of the criteria scoring – Level of Service and Transit. It is the goal to agree on the Roadway/Intersection project criteria elements for the list of candidate projects, so as to allow staff time to develop a preliminary list of candidate projects for Commission review in February 2015. Criteria weighting will also be part of this discussion though a final decision on weight percentages does not need to be made until the January 8, 2015 meeting.

Finally, staff will discuss with the Commission additional detail regarding the planned public involvement strategy for the development of the 2013-2024 TFP.

Background

At the Commission meeting on November 13, staff outlined the proposed process to update the city's Transportation Facilities Plan, including a preliminary update timeline with indication of key process components, including Commission roles and decision points. The discussion included a review of the Roadway/Intersection project scoring criteria and weighting percentages used during the update of the current 2013-2024 TFP. Commissioners raised multiple questions regarding the Roadway/Intersection criteria. In response to the issues and concerns raised, staff has developed the following attachments to address the multiple questions raised regarding the criteria elements and weighting.

A. Comprehensive Plan Based Scoring Criteria Elements Attachment 1

Commissioners asked for the policy basis that is used as part of the prioritization criteria. Attachment 1 outlines the criteria elements used in the 2013-2024 TFP update and the applicable Comprehensive Plan policies that are attributable to each element.

B. Proposed Prioritization Criteria Scoring Update – Level of Service element Attachment 2

Attachment 2 includes new scoring matrices for calculating the level of service scores (refer to the November 13 packet for previous scoring matrices). For the initial scoring, all of the candidate projects will be modeled together in order to capture the synergy of the plan. This will allow staff to analyze the impact projects in the same area may have on each other. If further analysis is needed the project will be modeled as a stand-alone project in order to break down all of the elements of the V/C ratio.

C. Proposed Prioritization Criteria Scoring Update – Transit element Attachment 3

Attachment 3 describes the proposal for changing the Transit scoring element in order to better align it with the recently updated Bellevue Transit Master Plan. The proposed change will measure both current and future transit network needs versus daily bus trips both direct and indirect in nature.

D. Safety Effectiveness on Projects Attachment 4

Commissioners asked for additional information regarding the safety effectiveness of our projects compared to other cities. Staff was unable to find an accident reduction safety program that tracks project and results like Bellevue. Attachment 4 includes background on the Accident Safety Program, the effectiveness of the program and a list of projects implemented and the savings realized due to the implementation.

E. Historical Scoring Criteria Weighting Percentages Attachment 5

Commissioners asked for a historical look at the weighting percentages used during past TFP updates for the various scoring elements. Attachment 5 includes the weighting percentages used for the various scoring elements since the 2001-2012 TFP process. Fluctuations in the percentages may be attributable to what was happening with the state of the economy at the time of the Commission discussions.

F. Roadway/Intersection Scoring Examples Attachment 6

Commissioners asked for a sample project scoring. Attachment 6 shows two projects from the 2013-2024 TFP scoring process and the breakdown of their raw and adjusted scores by element type.

G. Evaluation of Candidate Capital Projects by other jurisdictions

Attachment 7

Commissioners asked for information regarding how other adjacent jurisdictions prioritized their candidate capital projects. Attachment 7 includes information on how the cities of Kirkland and Seattle evaluate and score their candidate projects and the criteria used in the process.

H. Proposed 2016-2027 TFP Public Involvement Strategy

Attachment 8

Staff will introduce a more detailed public involvement strategy for the Commission's input. Elements include public outreach, open house opportunities and an online survey and map.

Next Steps

The next steps in the TFP update process are to finalize the Roadway/Intersection project evaluation criteria elements and weighting percentages by January 2015. Staff will develop and share with the Commission in January and/or February the list of candidate Roadway/Intersection projects. Once Commissioners have reviewed the lists, staff will evaluate the projects according to the criteria.

If you have questions or need additional information prior to the meeting, please contact Mike at 425-452-4166/email: mingram@bellevuewa.gov , or Kristi at 425-452-4496/e-mail: koosterveen@bellevuewa.gov.

Attachments:

1. Comprehensive Plan Based Scoring Criteria Elements
2. Proposed Prioritization Criteria Scoring Update – Level of Service element
3. Proposed Prioritization Criteria Scoring Update – Transit element
4. Safety Effectiveness on Projects
5. Historical Scoring Criteria Weighting Percentages
6. Roadway/Intersection Scoring Examples
7. Evaluation of Candidate Capital Projects by other jurisdictions
8. Proposed 2016-2027 TFP Public Involvement Strategy

Roadway/Intersection Project Prioritization Criteria as used for 2013-2024 TFP Bellevue Transportation Department

Comprehensive Plan-based project prioritization links the vision of the citizen (as expressed in the Comprehensive Plan) to capital budget funding decisions. As applied to the Transportation Facilities Plan (TFP), criteria derived from the City's Comprehensive Plan policies are used to help prioritize transportation-focused capital projects.

Virtually all of the projects included in the TFP are drawn from the formal long-range transportation plans that have been adopted by the City Council. This ensures that the TFP is responsive to the stated direction of the City Council as contained in the [Comprehensive Plan](#) and supporting documents.

BELLEVUE'S COMPREHENSIVE PLAN – TRANSPORTATION ELEMENT

Goal of the Transportation Element

To maintain and enhance mobility for residents and businesses through the creation and maintenance of a balanced system of transportation alternatives that:

- *Provides a wide range of travel choices;*
- *Supports the land use vision of the city;*
- *Protects our neighborhoods from adverse transportation impacts;*
- *Reflects the regional role of the city in transportation issues; and*
- *Reduces the overall dependency on automobiles throughout the city.*

Overarching Policy Justification for Outcomes-Based Prioritization

POLICY TR-22. *Implement the level of service standards and other mobility targets for major transportation modes within each Mobility Management Area, as shown in Table TR.1, recognizing each area's needs as well as its relationship with other areas. Monitor the adopted mobility targets and adjust programs and resources as necessary to achieve scheduled progress on all modes.*

Policy Basis – Roadway/Intersection Prioritization Criteria

Roadway/Intersection prioritization criteria are reviewed for a policy basis.

1. Safety Criterion

- **Policy Basis:**

POLICY TR-46. *Maintain and enhance safety for all users of the roadway network using measures such as the following:*

1. *Maintain an accident reduction program to identify high accident locations in the city, evaluate potential alternative solutions and implement recommended changes;*
2. *Increase enforcement of traffic laws, particularly speeding, and failing to make a full stop at red lights and stop signs;*
3. *Expand the use of traffic calming measures to slow vehicular travel speed along residential streets and to reduce cut-through traffic;*
4. *Improve the opportunities for pedestrians to safely cross streets at intersection and mid-block locations;*
5. *Increase street lighting where needed to improve visibility and safety while minimizing light/glare spillover onto adjacent parcels; and*
6. *Minimize the number of driveways on all arterials to reduce the potential for pedestrian and vehicle collisions.*

- **2012 Commission-approved criterion weighting percentage – 25%**
- **Project Need and Benefit:** Is there a vehicular and or non-motorized safety issue? To what extent will the project address the safety issue?

2. Level of Service Criterion

- **Policy Basis:**

POLICY TR-6. *Establish arterial level of service standards and other mobility targets in each area of the city in light of area-by-area development patterns and growth management objectives.*

POLICY TR-35. *Evaluate the adequacy of the arterial street system by calculating the level of service of those intersections within each Mobility Management Area that contribute to system function.*

- **2012 Commission-approved criterion weighting percentage – 25%**
- **Project Need and Benefit:** Is there an issue at a specific intersection that affects the area-wide average? How can it be improved?

3. Transit Criterion

- **Policy Basis:**

POLICY TR-50. *Work with transit providers to implement the Bellevue Transit Plan as an attractive travel option for local residents, employees, students, visitors, businesses and other users of regional facilities.*

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

4. *Dedicated bus lanes, bus layovers, bus queue by-pass lanes, bus signal priorities;*
5. *Pedestrian and bicycle facilities*

- **2012 Commission-approved criterion weighting percentage – 15%**
- **Project Need and Benefit:** Is the project on a major or minor transit route? A major or minor route is based on frequency of service. Does the project provide a direct (HOV lanes) vs. indirect (improved traffic flow, pedestrian access) benefit?

4. Non-Motorized Criterion

- **Policy Basis:**
POLICY TR-76. *Promote and facilitate the effective use of non-motorized transportation.*
POLICY TR-77. *Consider pedestrians and bicycles along with other travel modes in all aspects of developing the transportation system.*
POLICY TR-78. *Implement the Pedestrian and Bicycle Transportation Plan by designing and constructing a safe and connective non-motorized transportation system.*
- **2012 Commission-approved criterion weighting percentage – 20%**
- **Project Need and Benefit:** Need is not scored; it is assumed there is a uniform need for SOV reduction. Does the project construct/improve sidewalks and/or bicycle facilities?

5. Regional Partnership and Outside Funding Criterion

- **Policy Basis:**
POLICY TR-2. *Work actively and cooperatively with other Eastside jurisdictions and regional and state agencies to plan, design, fund and construct regional transportation projects that carry out the city's transportation and land use goals.*
POLICY TR-30. *Work with other Eastside Transportation Partnership (ETP) participants to identify and implement high priority transportation investments*
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.*
POLICY TR-105. *Aggressively seek state and federal funds for transportation capital, maintenance, operational, service, and demand-oriented improvements.*
- **2012 Commission-approved criterion weighting percentage – 15%**
- **Project Need and Benefit:** Based on a high, medium, low priority basis of whether or not the project is identified by a cooperative interjurisdictional transportation forum (e.g., ETP and BROTS plans) as well as on a high, medium, low priority basis of the likelihood of receiving outside funding (grants, etc.)

TFP Project Evaluation: Proposed LOS Scoring Matrices

SCORING:

Intersection Project V/C

BENEFITS magnitude of improvement	>0.10	High	25	75	100
	btw 0 & 0.10	Medium	10	50	75
	0.0	Low	0	25	50
Intersection V/C ratio			Low	Medium	High
			A,B,C < 0.80	D >=0.80, <0.90	E,F >=0.90
			NEEDS (Future severity without mitigation)		

Arterial Project v/c

BENEFITS magnitude of improvement	>=0.20	High	25	75	100
	btw 0.10 & 0.20	Medium	10	50	75
	< 0.10	Low	0	25	50
ARTERIAL v/c ratio			Low	Medium	High
			<0.60	btw 0.60 & 1.00	>1.00
			NEEDS (Future severity without mitigation)		

Projects will be modeled together to capture the synergy of the Plan.

Arterial projects will be scored using the arterial needs/benefit ranges (new), and intersections will be evaluated as before.

The final report will include arterial volume changes and System Intersection V/C ratios and LOS, and MMA areawide V/C

Note

V/C = intersection ratio

v/c = arterial ratio

PROPOSED LEVEL OF SERVICE MATRIX

(MAXIMUM POTENTIAL SCORE = 100)

NEEDS: Future Needs to be evaluated on a "No Action" Scenario e.g. 2027 Land Use on the 2014 Base year Network

BENEFITS: Benefits to be evaluated by the magnitude of the synergistic improvement in Arterial v/c ratio Level of Service defined by Long Range "Subarea" Transportation Facilities Plans

BENEFITS
Magnitude of Improvement

<p>Intersection V/C >0.10 Int. improvements w.r.t. crit. movement(s) Arterial v/c >0.20 Alternative routes & Profound Network Changes</p>	High	<p>25 Good Project, but little need</p>	75	<p>100 Excellent project</p>
<p>Intersection V/C btw 0 & 0.10 Int. improvements w.r.t. crit. movement(s) and/or phasing Arterial v/c btw 0.10 & 0.20</p>	Medium	10	50	75
<p>Intersection V/C no change No arterial Project v/c ratio improvement Arterial v/c btw < 0.10</p>	Low	0	25	<p>50 Project does not adequately address the needs but should be considered</p>

Key:
MMA = Mobility Management Area
AW = Area wide
Std = Standard
Int. = Intersection
LOS = Level of Service
V/C = Intersection volume to capacity
v/c = link volume to capacity
w.r.t. = with respect to
crit. = critical
Project = project
btw = between

Intersections
Criteria 1: "No Action" Intersection LOS ----->
Criteria 2: Compare "No Action" AW LOS to MMA AWStd ----->

Arterials
Arterial v/c ratio ----->

	Low	Medium	High	15%	5%	AWStd
Intersections	LOS A,B,C < 0.80	LOS D >=0.80 <0.90	LOS E,F >=0.90	0.81	0.90	0.95
Criteria 1: "No Action" Intersection LOS ----->	>15% better than MMA AWStd	Btw 5% & 15% below MMA AWStd	Within 5%, at or exceeds MMA AWStd	0.77	0.86	0.90
Criteria 2: Compare "No Action" AW LOS to MMA AWStd ----->	if both favorable conditions apply	either/or criteria apply	if both unfavorable conditions apply	0.72	0.81	0.85
Arterials	< 0.60	btw 0.60 & 1.00	>1.00	0.68	0.76	0.80
Arterial v/c ratio ----->						

NEEDS
Future severity without mitigation



MEMORANDUM

To: Members of the Transportation Commission
From: Franz Loewenherz, Senior Planner, Transportation Department
Andreas Piller, Assistant Planner, Transportation Department
Date: December 3, 2014
Subject: Transportation Facilities Plan (TFP) Transit Project Scoring Criteria

PURPOSE

This memo describes the Transportation Department's proposal for amending the project scoring criteria related to the Transit category in the forthcoming *2015–2027 Transportation Facilities Plan*. This revision is being recommended to conform with the Bellevue Transit Master Plan, adopted by the City Council in July 2014. Refer to Attachment A for the scoring matrix associated with this proposed update of the project scoring criteria for benefits afforded to transit.

BACKGROUND

The Transportation Facilities Plan (TFP; [hyperlink](#)) is a financially constrained, 12-year transportation program—a listing of planned improvements balanced to projected revenues. This program is one phase in the City's multi-phased approach to planning for future transportation improvements. By prioritizing transportation improvements for the City over the next twelve years, the TFP serves three important purposes: (1) an intermediate range planning tool, (2) environmental review, and (3) a basis for the Transportation Impact Fee Program.

The TFP provides the first level of citywide prioritization of transportation improvement projects recommended by long-range transportation studies conducted for various subareas (e.g. Downtown, Eastgate) and functional needs (e.g. transit, pedestrians, bicycles) of the City. The priorities for addressing long-range needs are determined by many of the specific goals and policies in the Transportation Element of the Comprehensive Plan ([hyperlink](#)). Based on those goals and policies, criteria have been established for use in developing a preliminary ranking of candidate TFP projects. There are two sets of criteria—one set for Roadway and Intersection projects and a second for Walkway/Bikeway projects. For Roadway and Intersection projects, weighting percentages are allocated as follows:

- **Safety** (vehicular, pedestrian, bicycle) – 25%
- **Level of Service** (i.e., congestion management) – 25%
- **Transit** (improving service, facilities and/or access) – 15%
- **Non-Motorized** (serving key locations and populations, providing connected facilities) – 20%
- **Regional Partnerships & Outside Funding** (Integration with local and regional plans, likelihood of attracting non-local funds) – 15%

Refer to Attachment B for the existing transit scoring criteria in the 2013–2024 Transportation Facilities Plan.

PROPOSED TRANSIT PROJECT SCORING CRITERIA

The proposed TFP project scoring criteria for benefits afforded to transit uses a two-step process based on one measure and three additional considerations (see Attachment A). Projects are scored out of 100 possible points within this category, which account for 15 percent of the overall possible points.

Base Score: *Daily Transit Trips Operated*

The central measure determining the number of points awarded is the number of total daily transit trips operated along a street segment, as identified by the Transit Master Plan *Transit Capital Vision Report* ([hyperlink](#)). If a proposed project spans more than one street segment, the segment with the greatest number of trips should be used to determine the associated score.

The use of daily transit trips in this update of the TFP transit scoring criteria is consistent with use of the same measure in the current version of the criteria; however, the current version is based on transit trips operated in 2003, as shown on pages VI-8 and VI-9 of the 2003 Bellevue Transit Plan ([hyperlink](#)). The purpose for this update is to twofold: (1) to reflect the current network of transit services operated in Bellevue and (2) to incorporate the vision for transit services intended to operate in Bellevue in the future as identified by the Transit Master Plan ([hyperlink](#)), which was adopted by City Council in July 2014.

Weighting Criteria #1: *Current vs. Future Transit Networks*

Two separate weighting schemes are applied to the daily transit trips measure. The first is the consideration of two different service networks: (1) the current transit network, reflecting the TMP's 2012 Baseline conditions, and (2) the future transit network, reflecting the 2030 Growing Resources Network (see Figures 132 and 133 of the *Transit Capital Vision Report* on pages 128 and 129, respectively, reproduced in Attachment C of this memo). Projects that benefit the future transit network will be awarded more points than projects that benefit the current transit network both implicitly based on the number of daily trips operated in the two networks and explicitly through weighting, wherein the current network accounts for 25 percent of all possible points and the future network for 75 percent.

The implicit differential results from the future transit network envisioning greater service frequency along Frequent Transit Network (FTN) corridors—and by extension, a greater number of daily trips—than are operated by the current transit network. Because the scales of daily trips are identical for current and future networks (see the legends in Attachment C), a greater number of corridors fall into the higher level categories in the future network than in the current network.

The explicit weighting differential between the current and future networks is applied for two reasons:

1. First, this is believed to be conceptually appropriate because realizing the future network will require deliberate investment in projects that move the City in that direction. Although directing resources to address current transit needs is important, the typical timeline of TFP project implementation is such that improvements will likely not be complete until the City has already begun to shift the structure of the service network toward its 2030 vision, thus it is important to prioritize projects along those corridors that will provide lasting benefits to the future network.

2. Second, because so few street segments in the current transit network fall into the top two categories of daily trips operated—that is, few streets have more than 400 daily transit trips today—very few projects will obtain the full number of points available based on the current transit network. If the current and future networks were weighted equally, the result of this would be the artificial depression of the number of points allocated to projects from the perspective of benefits to transit, and thus a reduction in the level of competitiveness of transit projects relative to other kinds of projects evaluated by the TFP. This is not a desirable outcome—the relative balance between project types (e.g. roadway LOS, non-motorized, transit) should be determined by the weights applied to each category, and transit projects considered a high priority by the Transit Master Plan should not receive only half of the potential 15 overall TFP points available to them.

Weighting Criteria #2: *Direct vs. Indirect Benefit to Transit Operations*

The second weighting criteria applied to the trip-based base score is a consideration of whether the proposed project would provide direct or indirect benefits to transit operations. These two categories are defined as follows:

- Direct impacts to transit include any project that specifically targets improvement to the speed and reliability of transit operations, including BAT lanes, HOV lanes, queue jump lanes, and transit signal priority.
- Indirect impacts to transit include any project whose purpose is not to specifically improve transit operations, but whose implementation may result in improved mobility for transit vehicles as an auxiliary outcome (e.g. roadway capacity improvements, new non-motorized facilities).

The distinction between these two categories is believed to be appropriate because the 15 percent of overall possible points that are awarded for transit benefits are intended to prioritize projects with a specific benefit to transit operations. Although the existing TFP scoring criteria make reference to direct and indirect benefits, there is no difference in the number of points awarded for projects that fall in one category compared to the other.

The current system is problematic because it results in a situation in which non-transit projects (e.g. turn lane additions, sidewalks, bicycle lanes) that may have only a minimal or tangential relationship to transit will be awarded the same number of points as a transit-specific project that dramatically improves operations if the number of trips operated on the associated street segments are the same. In effect, non-transit projects can “double dip” in terms of the points they are awarded; they will earn points in their own respective categories (e.g. level-of-service, non-motorized) as well as in the transit category, whereas transit projects will earn points only in the transit category. This puts transit projects at an inherent disadvantage when competing against all other projects in the TFP.

Bonus Points: *New Network Elements in the 2030 Frequent Transit Network*

Finally, the third consideration factored in to the trip-based base score provides 25 additional points to any potential project that is proposed along a street segment that is part of the 2030 Frequent Transit Network (FTN) but is not part of the current transit network. (See Attachment D for a map of the 2030 FTN.) The purpose of this bonus is to ensure that new corridors identified for FTN service in the future do not receive lower scores than other projects simply because transit service does not

currently operate there. In most cases, this would otherwise happen because these streets either do not exist yet or are not currently capable of accommodating transit service; however, they are considered vital to realizing the future transit network defined by the Transit Master Plan, and those projects should be prioritized accordingly.

One example of such a street and project is the NE 6th Street Extension. The 2030 FTN re-routes service that resembles the existing RapidRide B Line so that it operates along the proposed NE 6th Street Extension between Bellevue Transit Center and 120th Ave NE instead of along its existing routing on 112th Ave NE and NE 8th St across the I-405 interchange. Without a point bonus, the NE 6th Street Extension project would be awarded fewer points in the TFP prioritization process than some other projects derived from the Transit Master Plan, including projects that the plan's prioritization process identified as less valuable to transit than the extension project. This would not be a desirable outcome, so bonus points are applied in such cases to better approximate the prioritization process employed in the Transit Master Plan without requiring the use of the more robust analytical process developed by that planning effort in the TFP scoring process.

ATTACHMENT A – Proposed Transit Scoring Criteria, 2015–2027 Transportation Facilities Plan

Transit Matrix
(Maximum Potential Score = 100)

	Daily Bus Trips	Weight	Direct	Indirect
Current Transit Network (2012) Total Possible Points: 25	1–99	0.33	8	4
	100–399	0.67	17	8
	400–699	1.00	25	13
	700+	1.00	25	13
Future Transit Network (FTN 2030)** Total Possible Points: 75	1–99	0.33	25	13
	100–399	0.67	50	25
	400–699	1.00	75	38
	700+	1.00	75	38

Notes:
 1. Direct impacts to transit include any project that specifically targets improvement to the speed and reliability of transit operations, including BAT lanes, HOV lanes, queue jump lanes, transit signal priority, and any projects identified by the Bellevue Transit Master Plan.
 2. Indirect impacts to transit include any project whose purpose is not to specifically improve transit operations, but whose implementation may result in improved mobility for transit vehicles as an auxiliary outcome.
 ** Add 25 points (max not to exceed 100) for facility that builds out segments of FTN but that are not part of the current transit network.

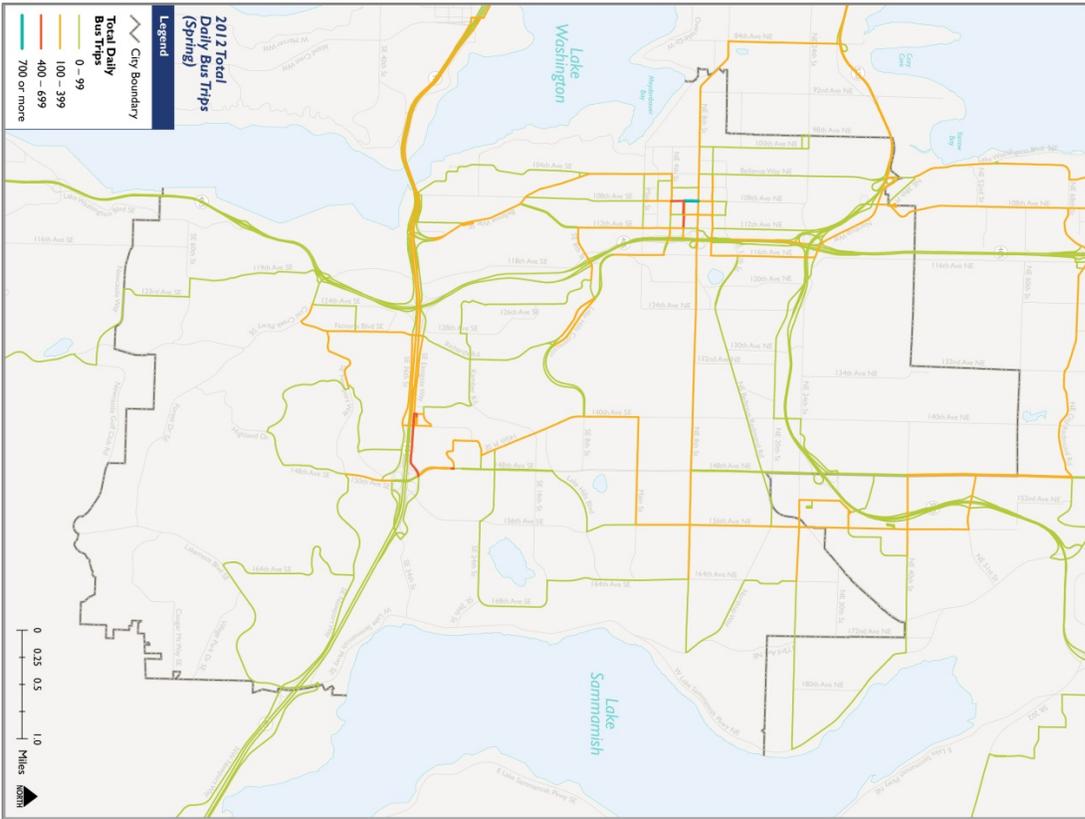
ATTACHMENT B – Existing Transit Scoring Criteria, 2013–2024 Transportation Facilities Plan

Transit Matrix
(Maximum Potential Score = 100)

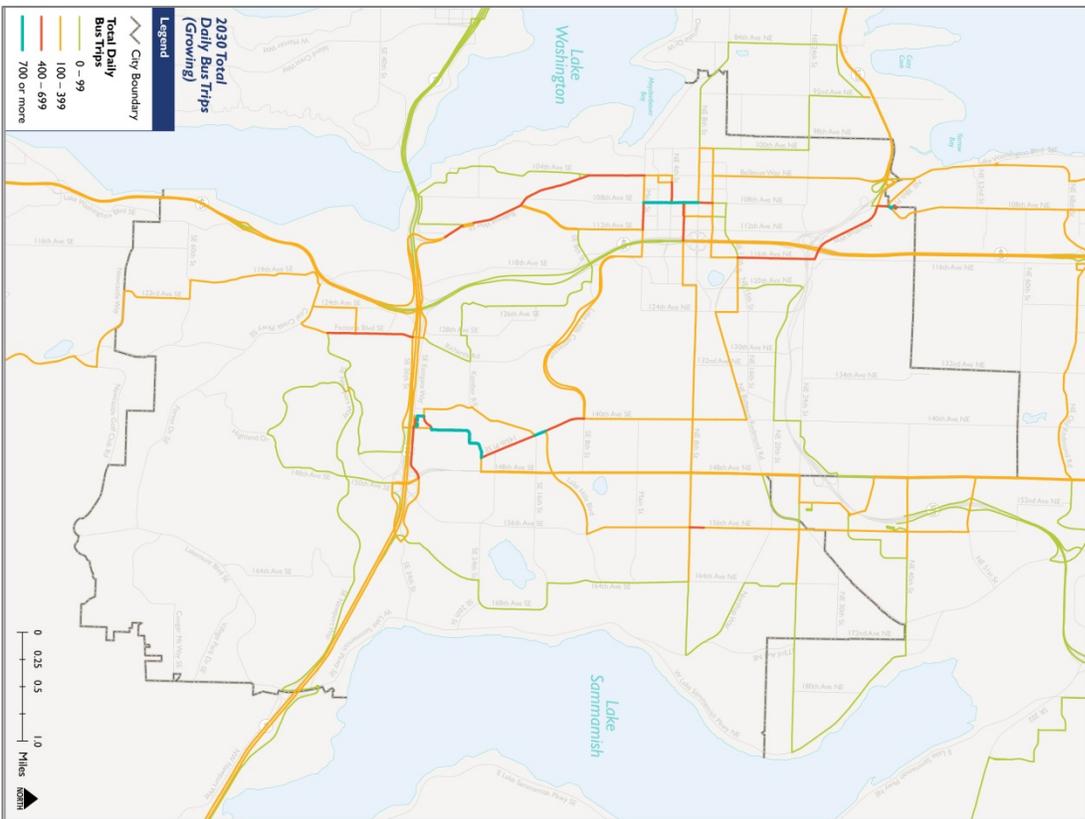
	LOCAL - 1 to 20 transit vehicle trips a day	MINOR - 21 to 50 transit vehicle trips a day	PRINCIPAL - non-highway facilities with 51+ transit vehicle trips a day and/or a Sound Transit route
NO BENEFIT	0	0	0
INDIRECT BENEFIT - Pavement overlay - Pedestrian access - Arterial improvements			
DIRECT BENEFIT - Transit Center - Transit Signal Priority - Commuter parking - HOV Arterial improvements - Passenger amenity improvements	33	67	100

ATTACHMENT C – Daily Transit Trips Operated in 2012 and 2030

Total Daily Bus Trips – Spring 2012 Baseline Network



Total Daily Bus Trips – 2030 Growing Resources Network



ATTACHMENT D – 2030 Frequent Transit Network (Growing Resources Scenario)

FREQUENT TRANSIT NETWORK (FTN) 2030 Growing Resources Scenario

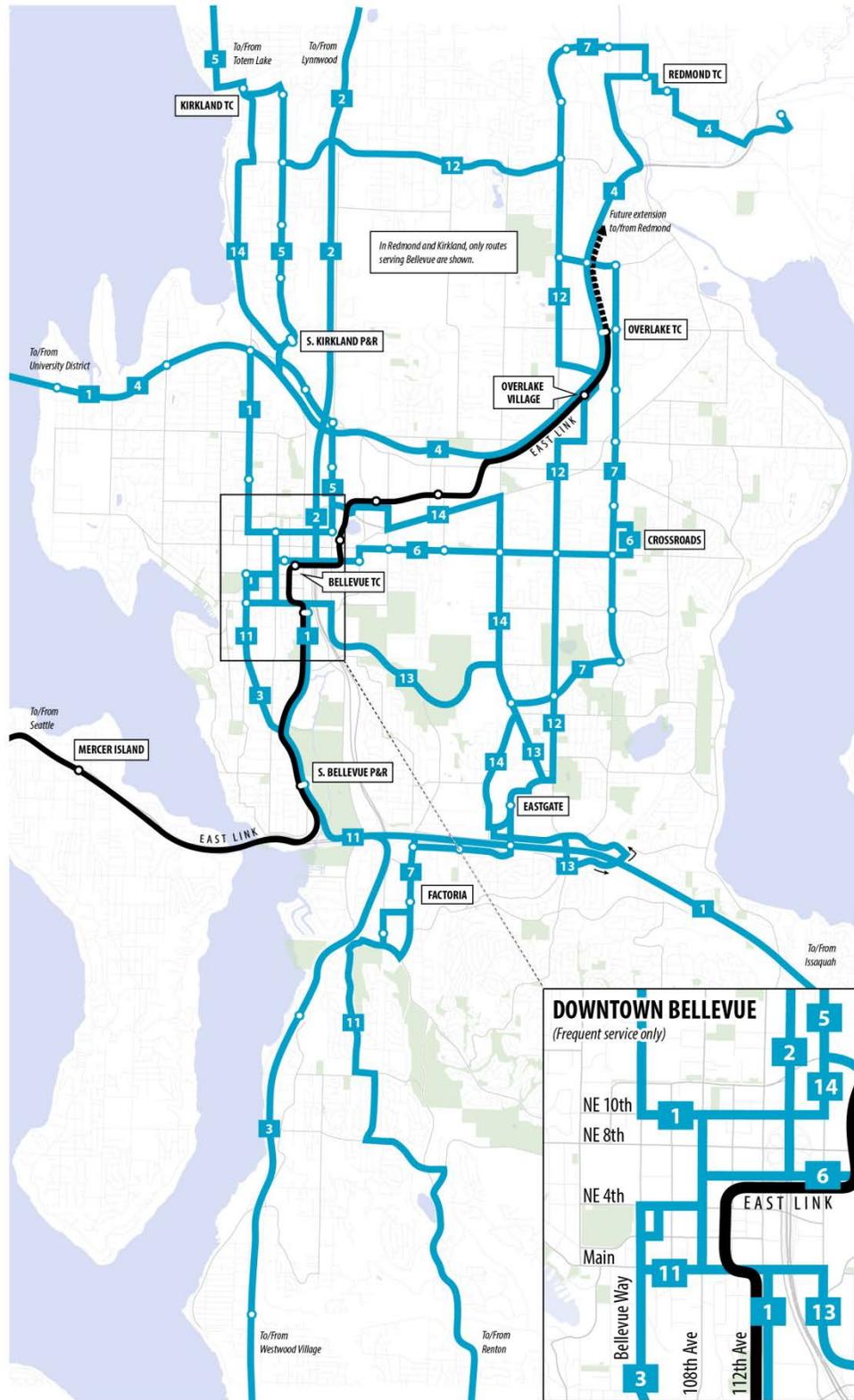
-  East Link (Seattle - Bellevue - Overlake)
- 1** Issaquah Highlands - Bellevue - U. District
- 2** Lynnwood - Bellevue
- 3** Westwood Village - Renton - Bellevue
- 4** Redmond - U. District
- 5** Totem Lake - Kirkland - Bellevue
- 6** Crossroads - Bellevue
- 7** Redmond - Crossroads - Eastgate - Factoria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

WEEKDAY SERVICE FREQUENCIES (in minutes):

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

MAJOR HUBS:

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



City of
Bellevue



MEMORANDUM

DATE: December 4, 2014
TO: Bellevue Transportation Commission
FROM: Kristi Oosterveen, Capital Facilities Planning & Programming Administrator
RE: Safety effectiveness on projects

At the November 13 meeting, Commissioners asked for additional information regarding the safety effectiveness on projects. Mark Poch, the Transportation Department's Traffic Engineering Manager, provided the following information.

In 1990, the Accident Reduction Program (PW-R-46) was created to fund projects that reduce public accident costs for those who travel in Bellevue, as well as reducing liability exposure to the city. The program also funds safety improvements at locations that exhibit high accident potential, liability exposure, risk or severity. Typical projects include road rechannelization, access revision, guardrail installation, roadside hazard removal, pedestrian crossing enhancements, improved roadway lighting, and other safety-related improvements.

Traffic accidents are the main safety concern with surface transportation, but surprisingly few agencies establish programs to target accident reduction and it is unknown as to whether or not any other jurisdictions have accident reduction programs that track the projects and results like Bellevue does. By accomplishing reduced traffic accidents to vehicles, pedestrians, and cyclists, this offer increases safety. Fewer accidents means less congestion associated with accident scenes (closures, detours, etc.), thus efficiency, travel time, and capacity all benefit.

Between the program's inception in 1990 and 2014, 71 individual projects have been implemented at intersections and within corridors, resulting in a public traffic accident cost savings of \$3.7 million annually, with a cumulative savings of \$56 million since program inception. Per the National Safety Council, the calculable costs of traffic accidents include property damage, medical expenses, wage and productivity losses, administrative expenses, and employer costs. The average cost of an injury accident is \$78,900, and \$8,900 for accidents involving only property damage. The City has been able to reduce overall citywide accident occurrence by approximately 10%.

Traffic accidents are able to be prevented by being proactive with the safe design and traffic safety inspection and management on projects. Increasing safety and reliability of the transportation system advances Bellevue as a safe community to live in. The safety criteria are used to help determine whether or not candidate projects will cause a vehicular and or non-motorized safety issue and to what extent the project will address the safety concern.

Traffic Operations Section								
Updated Accident Reduction Cost Summary					NOTE: Accident Cost based on 2012 NSC data			
Through December 31, 2013								
Date of Report: April 1, 2014								
Improvement #	Project Location	Cost of Project	Years Since Implementation	Entire Intersection / Corridor		Targeted Improvements		
				Annual Cost Savings	Cumulative Cost Savings	Annual Cost Savings	Cumulative Cost Savings	
REPORTED PROJECTS								
1	159th Pl. S.E. and Lake Hills Blvd.	\$2,000	23.49	\$27,671.67	\$649,952.77	\$31,699.25	\$744,552.77	
2	109th Ave. S.E. and S.E. 31st St.	\$1,000	23.40	\$20,569.63	\$481,281.58	\$20,569.63	\$481,281.58	
3	N.E. 20th St.- 136th Pl. N.E. to 140th Ave. N.E.	\$10,000	23.21	\$218,896.01	\$5,080,235.65	\$160,569.47	\$3,726,618.37	
4	124th Ave. N.E. and N.E. 10th Pl.	\$13,000	23.04	\$45,009.77	\$1,037,103.88	\$32,740.14	\$758,998.61	
5	124th Ave. N.E. and Bel-Red Rd.	\$11,000	23.04	\$47,240.32	\$1,088,499.72	\$41,533.24	\$956,998.61	
6	140th Ave. S.E. and Lake Hills Conn.	\$3,000	21.42	\$81,248.03	\$1,740,187.14	\$96,485.53	\$2,066,547.03	
7	100th Ave. N.E. and N.E. 8th St.	\$21,000	21.40	\$76,445.42	\$1,635,858.71	\$52,244.41	\$1,117,980.23	
8	156th Ave. N.E. and Bel-Red Rd.	\$2,000	21.19	\$146,090.70	\$3,095,802.93	\$90,400.05	\$1,915,664.39	
9	166th Ave. S.E. and S.E. 8th St.	\$500	20.56	\$21,128.24	\$434,481.17	\$22,266.16	\$457,881.17	
10	116th Ave. N.E.- N.E. 12th St. to N.E. 19th St.	\$5,000	20.50	\$79,342.48	\$1,626,819.53	\$57,827.83	\$1,185,688.23	
11	146th Ave. S.E. and S.E. 16th St.	\$1,000	20.50	\$30,513.37	\$625,555.31	\$29,426.23	\$603,267.96	
12	164th Ave. N.E. and N.E. 8th St.	\$20,000	20.40	\$83,027.31	\$1,693,961.63	\$55,741.85	\$1,137,271.10	
13	116th Ave. N.E.- Main St. to N.E. 8th St.	\$5,000	20.17	\$200,330.16	\$4,040,608.60	\$138,554.53	\$2,794,609.73	
14	Bellevue Way and N.E. 1st St.	\$3,500	19.77	\$19,122.28	\$377,995.45	\$28,251.53	\$558,456.06	
15	151st Ave. S.E. and S.E. 20th St.	\$1,000	19.67	\$9,916.66	\$195,102.32	\$8,700.98	\$171,184.82	
16	N.E. 8th St.- 110th Ave. N.E. to 112th Ave. N.E. (Retired Jan 1, 2010)	\$1,000	19.54		\$964,432.26		\$759,419.22	
17	N.E. 4th St. at JC Penney's Driveway	\$1,000	18.80	\$72,318.38	\$1,359,248.91	\$80,312.51	\$1,509,501.34	
18	148th Ave. S.E. south of SE 28th St	\$17,000	18.24	\$95,605.03	\$1,743,532.20	\$48,571.83	\$885,795.90	
19	152nd Ave S.E. and S.E. 18th St.	\$1,000	18.24	\$3,685.97	\$67,220.38	\$3,685.97	\$67,220.38	
20	Bel-Red Rd. and N.E. 30th St. (Retired Dec 6, 2006)	\$22,000	18.13		\$747,308.66		\$680,931.10	
21	92nd Ave. N.E. and N.E. 8th St.	\$1,000	17.85	\$20,330.22	\$362,966.10	\$22,197.78	\$396,308.63	
22	124th Ave. N.E. and Main St.	\$122,000	17.77	\$10,768.80	\$191,406.06	\$10,768.80	\$191,406.06	
23	116th Ave NE from 400 feet S/O NE 12th St to NE 12th St	\$4,000	17.66	\$154,420.23	\$2,727,350.87	\$84,677.58	\$1,495,564.86	
24	154th Ave. S.E. and Lake Hills Blvd.	\$4,000	17.66	\$39,385.54	\$695,514.66	\$43,341.94	\$765,381.23	
25	158th Ave. S.E. and S.E. Eastgate Way	\$1,000	17.62	\$13,478.79	\$237,470.22	\$13,913.16	\$245,123.07	
26	140th Ave. S.E. from S.E. 5th St. to north of S.E. 3rd Pl.	\$105,000	17.54	\$24,680.21	\$432,790.59	\$37,603.13	\$659,405.93	
27	150th Ave. S.E. and S.E. Eastgate Way	\$48,000	17.47	\$86,705.86	\$1,514,533.54	\$110,541.02	\$1,930,873.91	
28	140th Ave. S.E.- S.E. 1st St. and Main St. and at S.E. 1st St.	\$28,000	17.47	\$9,926.06	\$173,383.33	\$10,347.80	\$180,750.00	
29	112th Ave. N.E.- N.E. 12th St. to N.E. 24th St.	\$5,000	17.28	\$53,178.69	\$918,706.48	\$61,875.41	\$1,068,949.58	
30	Vineyard Crest and Park Rd.	\$1,000	16.63	\$5,991.82	\$99,658.64	\$5,991.82	\$99,658.64	
31	Bellevue Way and N.E. 30th Pl.	\$21,000	16.55	\$29,668.25	\$491,099.94	\$38,835.21	\$642,841.00	
32	100th Ave. N.E. and N.E. 4th St.	\$5,000	16.28	\$17,964.41	\$292,447.32	\$10,525.26	\$171,343.43	
33	N.E. 10th St.- 174th Ave. N.E. and 176th Ave. N.E.	\$5,000	16.03	\$12,314.55	\$197,403.71	\$11,197.08	\$179,490.51	
34	150th Ave. S.E. and S.E. 37th St.	\$1,000	16.02	\$74,956.09	\$1,200,733.97	\$93,102.76	\$1,491,428.51	
35	Coal Creek Parkway and 124th Ave. S.E.	\$1,000	15.94	\$38,312.58	\$610,588.73	\$32,778.90	\$522,398.37	
36	106th Ave. N.E. and N.E. 2nd St.	\$32,000	15.78	\$22,173.82	\$349,985.10	\$9,573.59	\$151,106.72	
37	120th Ave. N.E. and N.E. 6th St.	\$1,000	15.41	\$17,173.06	\$264,566.27	\$9,380.57	\$144,516.06	
38	120th Ave. N.E.- N.E. 6th St. and N.E. 8th St.	\$109,000	15.41	\$14,753.35	\$227,288.49	\$30,636.61	\$471,984.06	
39	118th Ave. N.E. and N.E. 8th St.	\$1,000	15.40	\$130,173.92	\$2,004,731.88	\$114,401.46	\$1,761,829.52	
40	N.E. 8th St.- 118th Ave. N.E. and 120th Ave. N.E.	\$1,000	15.40	\$164,150.13	\$2,527,979.46	\$110,875.24	\$1,707,524.27	
41	119th Ave. S.E.- Coal Creek Pkwy. and Lake Height St.	\$187,000	15.25	\$232,037.07	\$3,538,525.67	\$239,900.76	\$3,658,445.52	
42	120th Ave. N.E. and N.E. 12th St.	\$200,000	14.97	\$45,114.22	\$675,385.56	\$23,360.09	\$349,713.83	
43	NE 13th St.- 156th Ave NE	\$1,000	14.74	\$41,714.39	\$614,894.61	\$31,225.44	\$460,281.33	
44	121st Ave. S.E. - S.E. 10th St and S.E. 9th Pl	\$5,000	14.47	\$14,400.15	\$208,324.12	\$14,400.15	\$208,324.12	
45	Coal Creek Parkway and Forest Drive	\$15,000	14.43	\$121,061.23	\$1,746,728.78	\$73,575.94	\$1,061,588.54	
46	151 Ave SE and SE 18th Street	\$200	14.08	\$7,119.45	\$100,227.83	\$7,119.45	\$100,227.83	
47	NE 16th Place and 168 Ave NE	\$6,400	13.91	\$3,528.60	\$49,067.14	\$3,528.60	\$49,067.14	
48	NE 24th St. from 600ft w/o 148th Ave NE to 148th Ave NE	\$150,000	13.49	\$46,570.18	\$628,203.35	\$51,643.03	\$696,633.05	
49	156th Ave. N.E.- Northup Way and N.E. 24th St.	\$6,000	12.93	\$124,800.75	\$1,614,123.86	\$14,588.15	\$188,677.43	
50	116th Ave NE at NE 19th Street to Northup Way	\$30,000	12.59	\$34,614.93	\$435,600.06	\$29,601.80	\$372,565.34	
51	Bel-Red Rd. - 152nd Ave NE to NE 20th St	\$1,000	12.53	\$3,665.09	\$45,907.72	\$13,165.38	\$165,905.15	
52	NE 8th St and 108th Ave NE	\$2,000	12.42	\$92,311.54	\$1,146,406.99	\$32,417.55	\$402,678.81	
53	118th Ave S.E. and Newport Key	\$4,000	12.30	\$43,130.88	\$530,441.94	\$44,266.25	\$544,405.16	
54	Bel-Red Rd. and 134th Ave NE	\$384,000	12.25	\$25,557.30	\$312,985.08	\$29,390.63	\$359,929.57	
55	NE 10th Street at 110th Avenue NE	\$10,000	12.21	\$4,692.48	\$57,286.13	\$11,962.54	\$146,039.62	

Transportation Facilities Plan
 Historical Scoring Criteria %

TFP period	Safety Adj Score %	LOS Adj Score %	Transit Adj Score %	Mode Split Adj Score %	Non-Motorized Adj Score %	Regional Funding Adj Score %	Regional Systems Adj Score %	Leveraging of Funds Adj Score %	Regional Partnership & Outside Funding Adj Score %	Plan Consistency & Outside Funding Adj Score %
2001-2012	25%	35%	15%	10%		10%		5%		
2004-2015	25%	20%	10%		10%		10%	25%		
2006-2017	25%	25%	10%		15%		10%	15%		
2009-2020	25%	25%	15%		20%				15%	
2013-2024	25%	25%	15%		20%					15%

The above information represents the historical weighting of the Roadway/Intersection scoring criteria elements. Over the years, the elements have changed names and/or been combined as reflected in the table above; but the overall scoring element concepts have stayed the same. Fluctuations in percentages may be attributable to what was happening with the state of the economy at the time of the Commission discussions.

2013-2024 TFP Roadway-Intersection Project Candidates--Score Examples

Rank #	Tracking # for 2013-2024 TFP process	2011-2017 CIP #	2009-2020 TFP#	Project Name, Location and Limits	Project Description	Total Proj Score (max 100)	Safety Raw Score (max 100)	Safety Adj Score (max 25)	LOS Raw Score (max 100)	LOS Adj Score (max 25)	Transit Raw Score (max 100)	Transit Adj Score (max 15)	Non-Motorizd Raw Score (max 100)	Non-Motorizd Adj Score (max 20)	Plan Consistency & Outside Funding Raw Score (max 100)	Plan Consistency & Outside Funding Adj Score (max 15)
1	RI-130	R-164	TFP-208	120th Avenue NE (stages 2, 3 and 4)/ NE 8th Street to Northup Way	Stage 2 will extend, realign and widen 120th Ave NE from south of NE 8th St to south of NE 12th St. Includes all intersection improvements at NE 8th St and Old Bel-Red Rd. Stage 3 includes intersection improvements at NE 12th St and extends to NE 18th St alignment and includes an enhanced intersection with the new NE 15th St to accommodate the alignment of Sound Transit East Link. The roadway cross section for stages 2 & 3 will consist of five lanes, with two travel lanes in each direction and center turn lane or turn pockets; and bike facility, curb, gutter and sidewalk both sides. Stage 4, from NE 18th to Northup Way will widen the roadway to four lanes with sidewalk and a separated multiuse path on the west side and includes a stream crossing of West Tributary. Project will follow Bel-Red urban design standards.	87	60	15	100	25	100	15	85	17	100	15
33	RI-116	R-141	TFP-078	West Lake Sammamish/north City limit to I-90	The ultimate project will provide a consistent 4' shoulder on the east side, a 10.5' northbound vehicle travel lane, a 10' southbound vehicle travel lane, a 10' wide multi-purpose trail (8' wide in approximately 2% of the corridor due to constricted space) on the west side separated by a 1.5' shy distance space and a 2' or 5' wide landscaped buffer where space is available, a signal at SE 34th Street, pedestrian crossings at SE 26th Street, Northup Way, NE 24th Street and at 5 other locations along the parkway. The project will also make storm drainage, water quality and fish passage improvements throughout the corridor.	41.95	70	17.5	0	0	33	4.95	60	12	50	7.5

City of
Bellevue



MEMORANDUM

DATE: December 4, 2014
TO: Bellevue Transportation Commission
FROM: Michael Ingram, Senior Transportation Planner
RE: Evaluation of Candidate Capital Projects

To address a question raised by Commissioners at the meeting on November 13, staff contacted several adjacent jurisdictions to understand their criteria for evaluating and scoring candidate capital projects. Responses were received from Kirkland and from Seattle.

Kirkland developed criteria and weights for project evaluation with the help of a citizens committee in the 1996 and has used these criteria for evaluations since then. The criteria and weights used for scoring projects are:

- Fiscal (20 pts.)
- Plan Consistency (10 pts.)
- Neighborhood Integrity (15 pts.)
- Transportation Connections (15 pts.)
- Multimodal (Non-SOV) (20 pts.)
- Safety (20 pts.)

Total points possible = 100

More detail on the inputs that go into the individual scoring is posted on the Kirkland website at, http://www.kirklandwa.gov/depart/Public_Works/Transportation_and_Traffic/Transportation_Project_Evaluation.htm. The city does a separate scoring and ranking for non-capacity projects (sidewalks, bicycle facilities, trails) but uses the same overall criteria.

The current project list was developed in 2007 using the criteria; since then the city has done only adjustments to the list, based on new information, such as availability of grants for particular projects. The city has nearly completed a new Transportation Master Plan and anticipates doing another comprehensive evaluation of candidate projects in 2015. It is likely the city will review and revise the evaluation criteria, but it is not yet clear what the new criteria or weighing will be.

Seattle evaluates needs on a corridor level (there are more than 100 corridors to consider), then uses their final ranking to determine those to invest in actual project development beyond an initial <5% design level. The criteria used for scoring projects are:

- Safety and Risk (30 pts.)
 - Total Collision Rate (10 pts.)
 - Bike and Pedestrian Collisions (10 pts.)
 - Infrastructure Condition and Risk (10 pts.)
- Community Equity and Health (15 pts.)
- Environmental Stewardship (15 pts.)
- Support Priority Corridors (15 pts.)
- Support Areas of Future Growth (15 pts.)
- Advance Complete Street Implementation (10 pts.)

Total points possible = 100

In the first criterion, Safety, the Total Collision and Bike and Ped Collision elements are pretty straightforward. The third element, Infrastructure Collision and Risk, draws on the SDOT Status and Condition report as input for the condition (up to 5 points) and the extent to which asset loss would impact the network function (*level of use X severity of loss*) for the risk element (up to 5 points).

For the second criterion, Community Equity and Health, points are given for projects located in areas with concentrations of populations having enhanced access needs. Zero or 3 points are given for each category: high concentrations of poverty, obesity/diabetes, minority, age, low car ownership.

For the third criterion, Promote Environmental Stewardship, points are given for projects that have environmental benefit. Zero or 5 points are given for each category: Increase urban tree canopy, Improve water quality, Reduce VMT.

The fourth criterion, Support Priority Corridors, is aimed at giving weight to projects that are in the right places for investment in view of identified priority in modal plans. Candidate projects are evaluated to determine they are located in a Top, Middle, Low tier of the network across five modal networks (Bicycle, Pedestrian, Transit, Freight, Road) and a matrix shows the appropriate level of points based on the project location in this framework.

The fifth criterion, Support Areas of Future Growth, gives points based on the level of support a project provides to one or more Urban Center/Manufacturing Center (highest points), Hub Urban Village or Residential Village (lower points). Zero points are given to projects that do not support a Center or Village.

The final criterion, Advance Complete Streets Implementation, gives points to projects that implement one or more non-SOV modal plans.

Seattle is now working to develop its first 10-12 year strategic investment plan. The current Bridging the Gap levy will expire next year and it is likely a new levy will be proposed; the prioritization work now underway will inform this effort.

2016-2027 Transportation Facilities Plan Update Process Public Involvement Strategy - Draft

A. Transportation Commission Meetings

- 10 meetings between November 2014 and November 2015

B. Webpage

Location: On the Transportation Department internet page under Projects, Plans and Studies at, <http://www.bellevuewa.gov/transportation-facilities-plan.htm>

Currently active components include:

- TFP background information
- Link to current 2013-2024 TFP
- Link to current 2013-2024 TFP Final EIS
- Contact information for questions and comments

Additional components, to be posted as available, include:

- List of candidate projects
- Candidate project map
- Open House and Commission meeting information
- Link to survey (see item C below)
- Opportunity to request notification when new content posted.

C. Community Outreach Elements

- Survey. Primarily to be delivered online (Survey Monkey or similar), though a paper alternative will also be available. Will start in February and run through early March. Anticipated elements include opportunity to comment on:
 - Individual projects (favorable, neutral, unfavorable as well as specific comments)
 - Priority by project type (i.e., how to divide resources by percent among project types (capacity, ped-bike, etc.; specific categories TBD).
- Three Open House events, distributed around the city. Held in second half of February. Specific dates and locations TBD.
 - 2-hour duration, “drop-in” format
 - Candidate project list and maps of projects in the particular area in which an open house is held as well as projects citywide
 - Opportunity to indicate preferences for particular projects (arrow format: up, down, sideways or green/red dots)
 - Information about the TFP Survey and opportunity to participate in Survey via paper form.
 - Comment forms
 - Goal is to provide information on public input to Transportation Commission at same time as information on project scoring done by staff (planned for March 12 TC meeting). Community outreach will reflect and be informed by requirements of Title VI. (ID affected populations citywide; may also review for any additional affected populations in area in which an Open House is held.)

D. Other Public Involvement Plan Components

The following will support and augment the Community Outreach Elements described in Item C above.

- **City Council Outreach Report** – notification to Council members of Open House events
- **It's Your City**– article in February issue, with background information on TFP, notice of Open House events, link to webpage for info.
- **Neighborhood News** (E-newsletter, published by City on first workday of each month)
- **S.A.F.E. Blog post** (notice of Open House events, link to webpage for info & survey)
- **City Press Release**
- **Bellevue Reporter** – article (and/or advertisement)
- **Bellevue Patch** –press release
- **Fliers at City Hall Service First, libraries, community centers, mini-City Halls, community gathering places.**
- **E-Gov delivery email** (distribution to list of people interested in TFP process).