

CHAPTER VI- PURPOSE AND APPROACH

Implementing transit service enhancements in the City of Bellevue and creating a service network that supports existing and emerging travel patterns is a key stratagem for attracting and maintaining transit riders. However, other factors beside service availability influence “the decision to ride”. These factors include the speed and reliability of transit service, the convenience of facility and service access, and the overall attractiveness of transit services and facilities.

Collaborating with the region’s transit providers in investments in infrastructure that can improve transit travel time, reliability, and productivity as well as developing support facilities and amenities for passenger safety, comfort, and convenience is an objective of the City of Bellevue. This is reflected in City policies embodied in its Comprehensive Plan:

Policy TR-68f

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.

Policy TR-53

Work with the transit providers to create, maintain, and enhance a system of supportive facilities and systems such as transit centers, passenger shelters, park-and-ride lots, bus queue by-pass lanes, bus signal priorities, pedestrian and bicycle facilities, pricing, and incentive programs. [Amended Ord. 5058]

Also, the Bellevue City Council has provided additional policy direction in this regard when considering plans and policies of both King County Metro (Metro) and Sound Transit:

KCM-18¹

Support capital investments that increase the speed and reliability of transit service where appropriate and feasible (i.e., transit priority treatments).

REX-1²

Implement an integrated regional and local transit system successfully resulting in capital investments that are community assets by virtue of their attractive design, efficient operations, and their ability to serve as catalysts for future development

As reflected in Figure VI-1, an estimated \$330 million in HOV access ramps, transit centers, park-and-ride lots, and transit signal priority projects are underway in the Bellevue area at this time to support transit operations. These large-scale transit investments tend to focus on the regional transit network.

¹ See Table K-2 in Appendix K- Transit Policies and Directives.

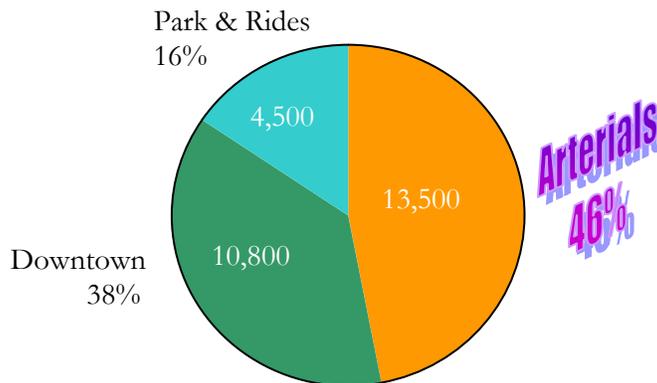
² Ibid.

Figure VI-1
Current Transit Capital Investments in Bellevue



Although the large-scale transit investments that are presently in play in Bellevue are essential for addressing regional mobility needs, there is need for more localized transit-supportive infrastructure investments that are supportive of the intra-Bellevue transit network outlined in the Service Element of the Bellevue Transit Plan. As reflected in Figure VI-2, almost 50 percent of the 30,000 average weekday transit riders (ons/off) in Bellevue occur on the city's arterial street system outside of downtown Bellevue and outside of the City's park-and-ride lots. The localized focus of the Capital Element aims to address the needs of the majority of the City's transit customers by improving access to and the operating environment of the City's arterial street network.

Figure VI-2
Daily Transit Facility Utilization in Bellevue



CAPITAL ELEMENT

Need for Capital Improvements

Enhancing transit speed and reliability, passenger amenities, and access to transit service maximizes the effectiveness of transit and contains operating costs. Increasing traffic congestion and the associated increases in transit travel time and reduced reliability have detrimental effects on transit ridership. In addition, additional congestion has an effect on operating costs. The more that buses are delayed, the greater the cost to the region's transit providers.

Metro spends tens of thousands of annual service hours (equating to millions of dollars) on maintaining existing service levels on routes that operate on highly congested roadways. For example, a route may need four buses to operate in the morning, midday, and evening, but congestion-related delays may require the addition of a fifth bus to maintain the same level of service in the afternoon peak. The capital cost of the fifth bus and the operating hours necessary to operate it are directly caused by congestion, and travel time delays that can potentially be addressed by capital projects. Speed and reliability-enhancing capital projects could allow more hours to be used for service expansion, and allow areas with transit needs to be served.

In addition to saving scarce operating dollars, capital speed and reliability projects will help attract additional ridership. As shown in Table III-8 in the Service Element, transit travel times are generally longer than auto travel times. Capital speed and reliability projects can help close this travel time gap, particularly on routes that operate through congested areas.

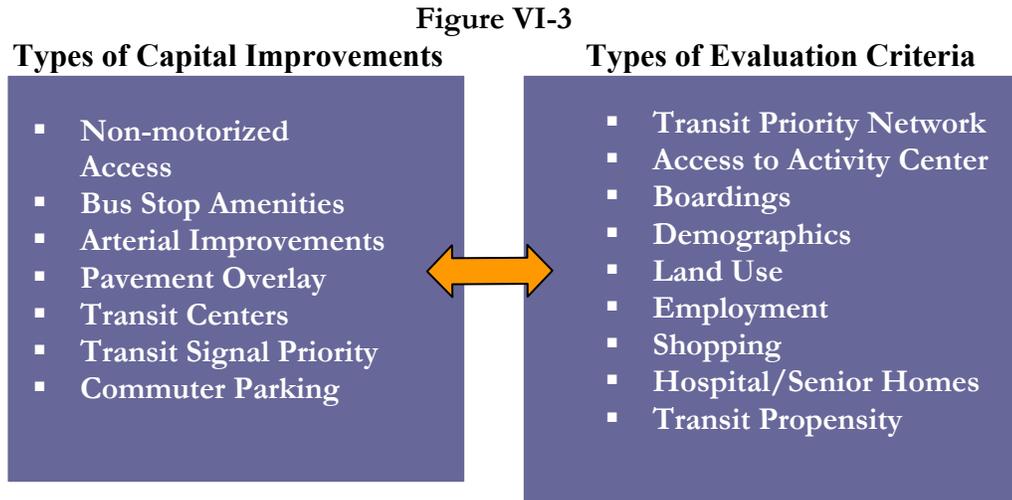
In addition to bus travel time, the ease of accessing transit service is a prime determinant of ridership. Throughout Bellevue, there are streets with high levels of bus service, yet the supporting infrastructure of sidewalks, curb cuts, or shelters make bus access difficult. Moreover, if you can access the bus stops, the waiting environment is unfriendly, and not conducive to extended waiting. For example, Northup Way has all-day and limited commuter bus service operating on it between 108th Avenue NE and 116th Avenue NE. Northup Way in this area has no sidewalks; bus patrons must walk on a grassy shoulder. There are no shelters, leaving passengers exposed to the elements. Finally, traffic levels on Northup Way are high. The overall experience of a person accessing transit is poor on this segment of Northup Way. Correspondingly, no matter how much service levels are improved on Northup Way, ridership response will likely be limited. Capital investments are necessary to improve ridership in this corridor. The characteristics of Northup Way are repeated on arterial streets elsewhere in Bellevue, and illustrates the need for a comprehensive look at both service *and* capital improvements to improve the attractiveness and reliability of transit throughout the City.

Figure VI-4 outlines the recommended service frequency connections for buses. The capital element in the following chapters will outline the recommended capital improvements that supplement and support the necessary service frequency improvements. The goal of the resulting mix of service and capital improvements is to maximize the overall return on transit investment and improve system wide transit ridership.

CAPITAL ELEMENT

Capital Element – Project Approach

The goal of the Capital Element is to examine a variety of improvement options and determine the optimal transit infrastructure investments for the City of Bellevue. Seven areas of potential investment are evaluated in this section, based on selected assessment criteria (Figure VI-3):



Each individual assessment of improvement types describes the envisioned development, presents its role in supporting Bellevue’s transit service plan, and makes an evaluation and recommendation regarding individual project options.

Methodology

As with the Service Element, the Capital Element was developed with staff from Bellevue, Metro, and Sound Transit. As envisioned, the Capital Element will not only help to inform the Bellevue CIP decision making process but will also be input for the King County and Sound Transit’s capital investment strategies.

This section describes the data sources for the Capital Element, the analytical approach used, and the tools developed specifically to help evaluate project priority.

Data Sources

Several concurrent planning efforts are underway or have been completed throughout the City of Bellevue. One goal of the Capital Element was to take the transit-related elements from each planning effort and summarize the relevant findings in one comprehensive document. The Capital Element sought not to duplicate existing or past efforts, but to draw upon them for their transit-related improvements. The data sources used in the Capital Element included:

CAPITAL ELEMENT

- *Eastgate/I-90 Corridor Study* – This study was conducted concurrently to the Capital Element. A design charrette and a list of transit-related improvements was produced as a result of the study. Pertinent recommendations were adopted for use in the Capital Element.
- *148th Avenue Mobility Improvement Package/Executive Summary* – This planning effort is ongoing. The Executive Summary outlined the recommended improvements. The transit-related recommendations were incorporated for use in the Capital Element.
- *Sound Transit Customer Comments* – Sound Transit customer comments for Bellevue stops were examined as a part of the Capital Element effort. None of the comments were incorporated into the Capital Element.
- *Metro Customer Comments* – Metro customer comments for Bellevue bus stops and service were examined as part of the Capital Element effort. Several requests, such as shelter requests and pedestrian access on Northup Way, were addressed in the Capital Element.
- *Downtown Implementation Plan (DIP) /Early Draft Copy* – This planning effort is ongoing. The DEIS was released in October 2002. A draft working copy of the DIP was examined, and several applicable projects were incorporated into for use in the Capital Element effort.
- *1999 Pedestrian and Bicycle Transportation Plan* – This Plan is an update of the 1993 Bicycle and Pedestrian Plan. The projects found in the Plan formed the backbone of the Non-Motorized Access recommendations.
- *Master List ETP Projects/Revision 3* – The Eastside Transportation Partnership created a list of transit projects that could potentially be funded by Sound Transit Unanticipated Revenues. This list of projects was examined to determine applicable capital projects in Bellevue were listed. Several of the specific capital projects from the list are carried forward in the Capital Element.
- *Metro Operators Meeting* – On April 10, 2002, a meeting was held with Metro staff at Bellevue Base to discuss ideas on capital improvements that would improve bus service within the City of Bellevue. The majority of projects identified by the Metro operators are carried forward in the Capital Element.

Analysis

As evidenced by the large number of sources, an extensive list of projects was examined for inclusion in the Capital Element. The next step in the process was to determine the transit applicability of each project. Which projects are more important for transit purposes than others? And why? Rather than depend on subjective judgments that could change depending on the evaluator, analytical tools were developed for each type of potential transit improvement.

CAPITAL ELEMENT

Geographic Information System (GIS) software was crucial for the analysis, as it automated the evaluation process. Several different efforts culminated in a series of tools that were used to evaluate the prioritization of capital projects. The GIS system allowed each individual project to be evaluated according to unique prioritization criteria. For each project, a proximity analysis was done to determine which of the criteria features were within ¼ mile of an examined project, and this information was used to provide a relative ranking for each project by criterion, as determined appropriate for that type of project. For instance, the evaluation criteria for bus stop amenities differed from those evaluating a pavement overlay priority. Each evaluation criterion is discussed below:

Transit Priority Corridors

For most cities, street classification systems tend to be limited to arterial designations governed by overall vehicular use. These general designations provide limited guidance to decision-makers and the public regarding the comprehensive functional and operational differences between street types. Further, these standard designations are ineffective as tools for prioritizing future improvements and informing overall street design and treatments.

In response to these limitations, some cities have developed a menu of street classification categories for individual mode use or function. Under this type of classification plan, individual streets can receive a combination of designations: one for each mode. Ultimately, the use of this comprehensive classification system better facilitates understanding of the functional and operational differences between street types. Additionally, this approach can better depict the “street network” for individual modes and clarify issues of compatibility between modes as well as land uses.

Bellevue Policy Guidance

The City of Bellevue recognizes the importance of a comprehensive street classification system for transportation network planning. Support for this process is maintained by policy within the City’s Comprehensive Plan:

Policy TR-39

Classify City streets according to their function, so that needed traffic capacity may be preserved, and planned street improvements will be consistent with those functions.

Moreover, in its policy guidance in reference to Metro (adopted May 8, 2000), the Bellevue City Council specifically calls out the role of transit corridor designation in optimizing transit usage of city streets and highways:

Policy KCM-25 Designation Of Key Transit Corridors

As part of the City’s Arterial Classification Review and Arterial System development, seek opportunities to:

- Optimize transit speeds and reliability on key local and state corridors that present the best chance for increased transit service and preservation of neighborhood quality; and
- Optimize transit services and treatments on key arterials in the City.

CAPITAL ELEMENT

Ultimately, transit classification categories for Bellevue streets can serve as an additional evaluative tool for assessing and prioritizing transit capital improvement options as well as aid in shaping policies designed to support the City's transit system goals.

Transit Street Classification Systems

In response to council policy guidance, city staff has developed a Transit Priority Corridor Classification System for Bellevue. To guide the development of this classification system, staff reviewed street classifications in other cities, including Portland, OR, and Seattle, WA.

It was found that there are no set rules on designation of transit street classifications. However, of the classification strategies employed, it was determined that the use of "functional purpose" based classifications would best serve the City's objectives. Unlike other classification options, such as those based only on transit trip levels, functional purpose based classification can fully articulate the City's goals for individual streets and corridors as well as its street network as a whole. Both Portland and Seattle employ a functional purpose based classification strategy.

Under a functional purpose based classification system, a street is given a designation based on the nature of the existing or envisioned transit service on the street. For instance, both Seattle and Portland use a classification of "regional transitway" within their menu of street designations. Ultimately, streets with the classification of "regional transitway" provide or are intended to support "interregional" transit trips that are frequent, high speed, and high capacity.

Clearly, this purpose-driven classification strategy provides guidance on street design and operating needs. For example, a street classified as a "regional transitway" needs to support high-speed regional service; therefore, this type of street should have high speed limits and direct access to other jurisdictions. Classification of a street by its functional purpose also provides clarity to planning and development issues such as the role transit may play in modifying predicted vehicle trips, related development conditions, and parking requirements.

Bellevue's Transit Priority Corridor Classification System

In the actual development of a Transit Priority Corridor Classification System for Bellevue, staff used Seattle and Portland's classification systems as models. However, the final designations and their definitions for the Bellevue classification system were built upon (1) consideration of existing transit service and frequencies in the City, and (2) consideration of improved connections that Bellevue would like implemented based on the Bellevue Transit Plan - Service Element.

Applying Transit Volume-Based Classifications

The first step in this process was to create definitions and apply designations to Bellevue streets based on existing volumes of transit trips. This use of volume-based transit classification definitions was a natural extension of the arterial definitions already employed by the City.

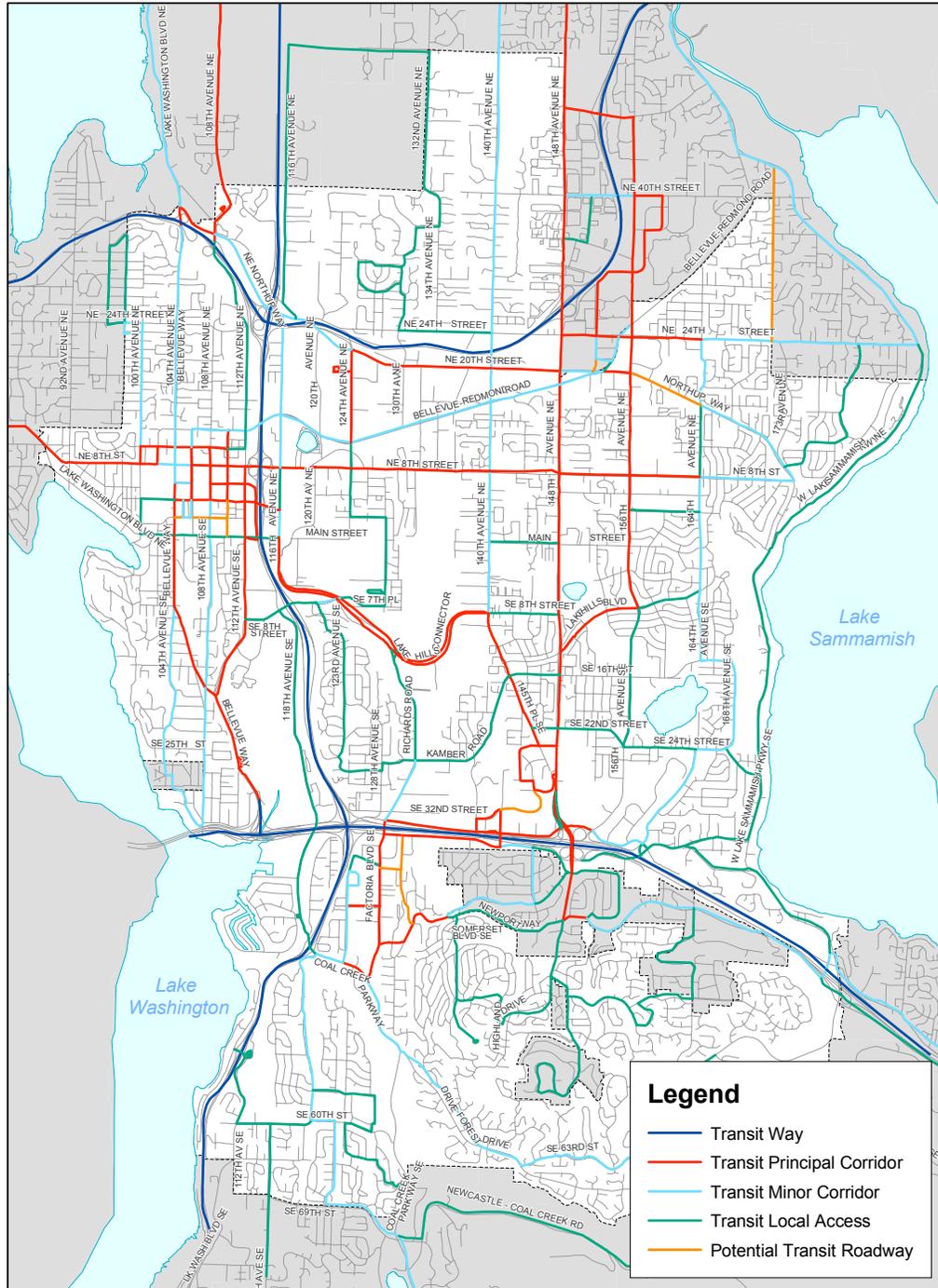
CAPITAL ELEMENT

The following is the menu of Transit Priority Corridor Classifications and their level of service definitions that evolved from this first step:

- **Transit Way:** State or Federal Highways with 51+ daily one-way trips and/or Sound Transit Routes
- **Transit Principal Corridor:** Non-highway facilities with 51+ transit trips a day and/or a Sound Transit route
- **Transit Minor Corridor:** 21 – 50 transit trips a day
- **Transit Local Access:** 1 – 20 transit trips a day
- **Potential Transit Roadway:** Roadways without existing transit service or service envisioned in the existing Bellevue Transit Plan but potentially useful in providing transit service to certain locations.

Figure VI-4 maps these classifications according to current service levels.

Figure VI-4
Bellevue Transit Priority Corridor Designations



CAPITAL ELEMENT

It is of note that the definition of a transit trip in this application is all revenue trips and non-revenue trips (a.k.a. deadhead bus trips) in areas immediately adjacent to the Metro bus bases located on 124th Avenue NE. In those cases, deadhead bus trips are given the same weight as regular service in assessing priority corridors. This non-revenue traffic from the bases to the origin and terminus of Metro bus routes occurs primarily on:

- 124th Avenue NE between SR 520 and NE 12th St. (Bell-Red Road)
- NE 20th Street between 124th Avenue NE and 148th Avenue NE
- NE 12th Street (Bell-Red Road) between 124th Avenue NE and 112th Avenue NE

The decision to include non-revenue trips in the transit volume definitions in these cases was based on two principles:

- 1) The cost to operate a bus is constant and does not depend on whether the bus is in revenue service or not; and
- 2) Even though non-revenue buses do not carry passengers, trip times and the reliability of these trip times, have a direct effect on the ability to begin passenger service on time and on the total cost of passenger service.

Any incremental improvements to improve speed and reliability will benefit both revenue and non-revenue bus trips and improvements. On-time performance improvements for either type of trip aids in reducing overall operating costs.

Development of Purpose Driven Definitions

After this initial classification and mapping of Bellevue's "transit network"—both existing and proposed in service plans—staff then considered a number of planning and development questions related to transit service in the City:

- What type of land use should be adjacent to or supported by transit services in any given corridor? For instance, high-use non-highway corridors would probably best serve high-density residential land-use. In addition, major destinations may be best suited for development on existing high-use corridors rather than being placed in areas not well served.
- What type of design treatments and street improvements best support transit service in a given corridor? High volumes on corridors without dedicated transit lanes may be the best place to create transit priority measures, also non-highway transit corridors with poor LOS ratings may be ideal locations for signal priority treatments.
- What type of operating characteristics do the services in any given corridor have? Is the service frequent all-day service? Peak hour only? What service characteristics will best serve the land use in the corridor? Are those characteristics present?

CAPITAL ELEMENT

- What type of rider amenities should be present for the type of service on a given corridor?

The consideration of planning and development issues as they relate to Bellevue's transit network provided additional dimensions to the transit priority corridor classifications that are beyond transit volume. As these issues were better defined, staff expanded the definition of the classifications to include additional characteristics for the corridors:

- **Functional Purpose** – Primary purpose of the transit service being provided.
- **Typical Adjacent Land Use** – Land use that should be located adjacent to the street, types that should be discouraged due to impact by transit on land-use or vice versa.
- **Physical Design Features** – Design elements of the street itself that support the transit functional purpose including station and stop access and street connections.
- **Operational Characteristics** – More detail on type of operation (number of daily transit trips, speed, distance between stations or stops) that is envisioned to serve the functional purpose.

The full descriptions of each of these characteristics for Bellevue's transit priority corridor classifications are contained in Table VI-1.

Final Considerations

Although the classifications have defined characteristics, the classification system is not designed to create strict limits on location or volume of bus service in the city. Instead, ***the intent of the classification system is to be a flexible evaluation tool for decision making.***

In this vein, the use of transit priority corridor classifications enables the city to better articulate its goals for individual streets and corridors as well as its street network as a whole. Further, transit classification of Bellevue streets provides an additional evaluation tool to assess and prioritize transit capital improvement options as well as to aid in shaping policies designed to support the City's transit system goals. Finally, the use of classifications can better ensure continuity and compatibility between land use and street use.

CAPITAL ELEMENT

**Table VI-1
City of Bellevue Transit Corridor Classifications**

Classification	Functional Purpose	Typical Adjacent Land Use	Physical Design Features	Operational Characteristics
TRANSIT WAY	<p>Provides frequent, high speed, high capacity service</p> <p>Provides for interregional transit trips.</p>	<p>Major private and public developments of regional significance.</p> <p>Transit Ways should not be adjacent to residential areas; such land uses need to be buffered from impacts when adjacent locations cannot be avoided.</p> <p>Should not be sited in a manner that will bisect a community, neighborhood, shopping center or other homogenous area.</p>	<p>Pedestrian crossings should be grade separated.</p> <p>HOV facilities should be provided.</p> <p>Direct access ramps should be encouraged.</p> <p>Stops on Transit ways should be Flyer Stops.</p> <p>Park-and-ride facilities at or near stations and stop should be encouraged.</p> <p>Connections to other transit facilities are typically grade separated.</p>	<p>High transit volume. 51+ daily one-way trips and/or Sound Transit Route.</p> <p>Limited stop all day service. Usually includes multiple commute period only transit services.</p> <p>Transit speeds up to 55 mph.</p> <p>Extended distance between stations and stops.</p> <p>Stations should be located to provide service to regional and neighborhood commercial centers and major trip generators along the Transit Way.</p>
TRANSIT PRINCIPAL CORRIDOR	<p>Provides frequent, moderate speed, high capacity service</p> <p>Provides for connections between major activity centers and other locations, including some interregional trips.</p>	<p>Major private and public developments of regional or local significance.</p> <p>Transit Principal Corridors generally are located adjacent to commercial, industrial, and high-density residential land uses.</p>	<p>Streets should have sufficient capacity and adequate through and turning lane widths to allow separate express transit service and buses mixed with general traffic.</p> <p>Transit Signal Priority (TSP) and arterial HOV improvements should be provided.</p> <p>Pedestrian crossings should be at regular intervals with continuous sidewalks, and sidestreets should have connecting sidewalk facilities.</p> <p>Bicycle access and amenities at stations and stops should be encouraged.</p> <p>Shelters should be provided at all stops.</p> <p>Connections to other transit facilities are typically at grade.</p>	<p>High transit volume. 51+ daily one-way trips and/or Sound Transit Route.</p> <p>Limited and frequent stop all-day service. Often includes commute period only transit service.</p> <p>Speed limit 30 mph or higher.</p> <p>Stations or bus stops should be located to provide service to regional and neighborhood commercial centers and to major trip generators along the route.</p> <p>Stations or stops should be located for a walking distance of less than ¼ mile from high or medium density residential or commercial land uses and from major recreational or civic facilities, and overall average about ¼ mile apart.</p>

CAPITAL ELEMENT

**Table VI-1 (continued)
City of Bellevue Transit Corridor Classifications**

Classification	Functional Purpose	Typical Adjacent Land Use	Physical Design Features	Operational Characteristics
TRANSIT MINOR CORRIDOR	<p>Provides connections between local transit destinations and adequate levels of service.</p> <p>Provides concentrated transit service to connect and reinforce major activity centers and residential areas.</p>	<p>Major private and public developments.</p> <p>Transit Minor Corridors generally are located adjacent to high and medium-density residential areas as well as commercial areas.</p>	<p>Streets should have adequate lane width of through and turn lanes to allow for mixed transit and general-purpose traffic.</p> <p>Transit improvements should be supportive of general traffic access; however, there may be some access management and priority flow for transit at most intersections if compatible with adjacent land use.</p> <p>Full-time transit priority improvements may be provided if compatible with adjacent land uses.</p> <p>Pedestrian crossings should be at regular intervals with continuous sidewalks.</p> <p>Shelters should be provided at high usage stops.</p> <p>Connections to other transit facilities typically at grade.</p>	<p>Medium transit volume. 21-50 daily one-way trips per day.</p> <p>Frequent stop service. Usually all day service but may only have peak period service.</p> <p>Speed limit of 25 mph or higher.</p> <p>Stations or stops should be located for a walking distance of less than ¼ mile from high or medium density residential or commercial land uses and from major recreational or civic facilities, and overall average about ¼ mile apart.</p>
TRANSIT LOCAL ACCESS STREET	<p>Provides connections between neighborhoods and area attractions.</p> <p>Provides transit service coverage by connecting local streets and minor transit corridors.</p>	<p>Neighborhood activity centers such as schools, neighborhood businesses, and recreational facilities.</p> <p>Transit Local Access Streets are primarily adjacent to single-family neighborhood uses and any land use compatible with the street's traffic classification.</p>	<p>Streets should have adequate lane width for through and turn lanes to allow for mixed transit and general-purpose traffic.</p> <p>Transit improvements should be supportive of general traffic access and on-street parking needs, and TSP improvements should be limited to specific locations where needed to provide for transit stops and safety.</p> <p>Continuous sidewalks should be available along those streets with transit stops.</p> <p>Shelters should be provided at any high-usage stops.</p> <p>Connections to other transit facilities at grade.</p>	<p>Low transit volume. Bus volumes of 1 to 20 one-way transit trips per day.</p> <p>Frequent stop service. All day service may not be provided or only provided on certain days. Weekday commute period service is primary service provided.</p> <p>Speed limit of 25 mph or higher.</p> <p>Distance between stations and stops should reflect walking distance of less than ¼ mile from any major residential, commercial, recreational or civic land use. Stops may be provided for low-density residential or other uses where desired, but typically should be no closer than ¼ to ½ mile to each other.</p>
POTENTIAL TRANSIT ROADWAY	<p>Roadways without existing transit service or service envisioned in the existing Bellevue Transit Plan, but are potential future transit roadway.</p>	<p>Depends on location.</p>	<p>Depends on location.</p>	<p>Depends on location.</p>

CAPITAL ELEMENT

Transit Propensity

Demographic patterns have traditionally been used in transit planning to determine where populations that use transit reside, as well as identifying those areas where ridership potential is higher than others. A transit propensity analysis was completed for the City of Bellevue using 2000 census data. GIS was used to determine the auto ownership, the income levels, the elderly population density, and the overall population density. Each of these four factors has been shown to correlate to transit ridership. Transit usage tends to be better in high-density areas rather than low-density areas. Likewise, the elderly are much more likely to use transit than any other age group. Persons not owning automobiles are more likely to use transit than those owning an automobile. Low-income residents are more likely to use transit than high-income residents. The GIS system rated the four demographic factors and produced a map (Figure VI-5) showing the overall transit propensity in Bellevue. The map shows areas where transit usage should be expected to be higher. Transit propensity maps also show areas of latent demand, where areas are potentially underserved by existing service levels.

Transit Attractors

Nationwide experience has shown that certain destinations attract transit riders more than others. For instance, high pedestrian generators are generally considered a good potential transit market. In Bellevue, the transit attractors include commute trip reduction employment sites, shopping and governmental facilities, libraries, and hospitals (Figure VI-6). The GIS system determined the number of transit attractors within $\frac{1}{4}$ or $\frac{1}{2}$ mile of any identified project (the distance riders are typically willing to walk to transit). For passenger amenities, this is particularly important, because it helps measure latent passenger demand.

Proximity to Transit Services

The data sources used to create the initial Capital Element project list included many projects that were unrelated to transit. One of the tools used to screen whether a project was indeed beneficial to transit was the proximity to transit services (using GIS). If a proposed project was not within $\frac{1}{4}$ mile of an existing bus route, it was screened out (Figure VI-7).

Bus Stop Ridership/Passenger Loads

Capital investments for transit are most beneficial when use of the existing transit system is high. The GIS system assigned Fall 2001 ridership figures on a bus-stop level to every bus stop in Bellevue (Figure VI-8). Likewise, the GIS system summarized Fall 2000 passenger loads on every street segment that currently has bus service. The ridership analysis allows an exact accounting for the number of persons benefited by any proposed capital project.

Figure VI-5
Bellevue Transit Propensity

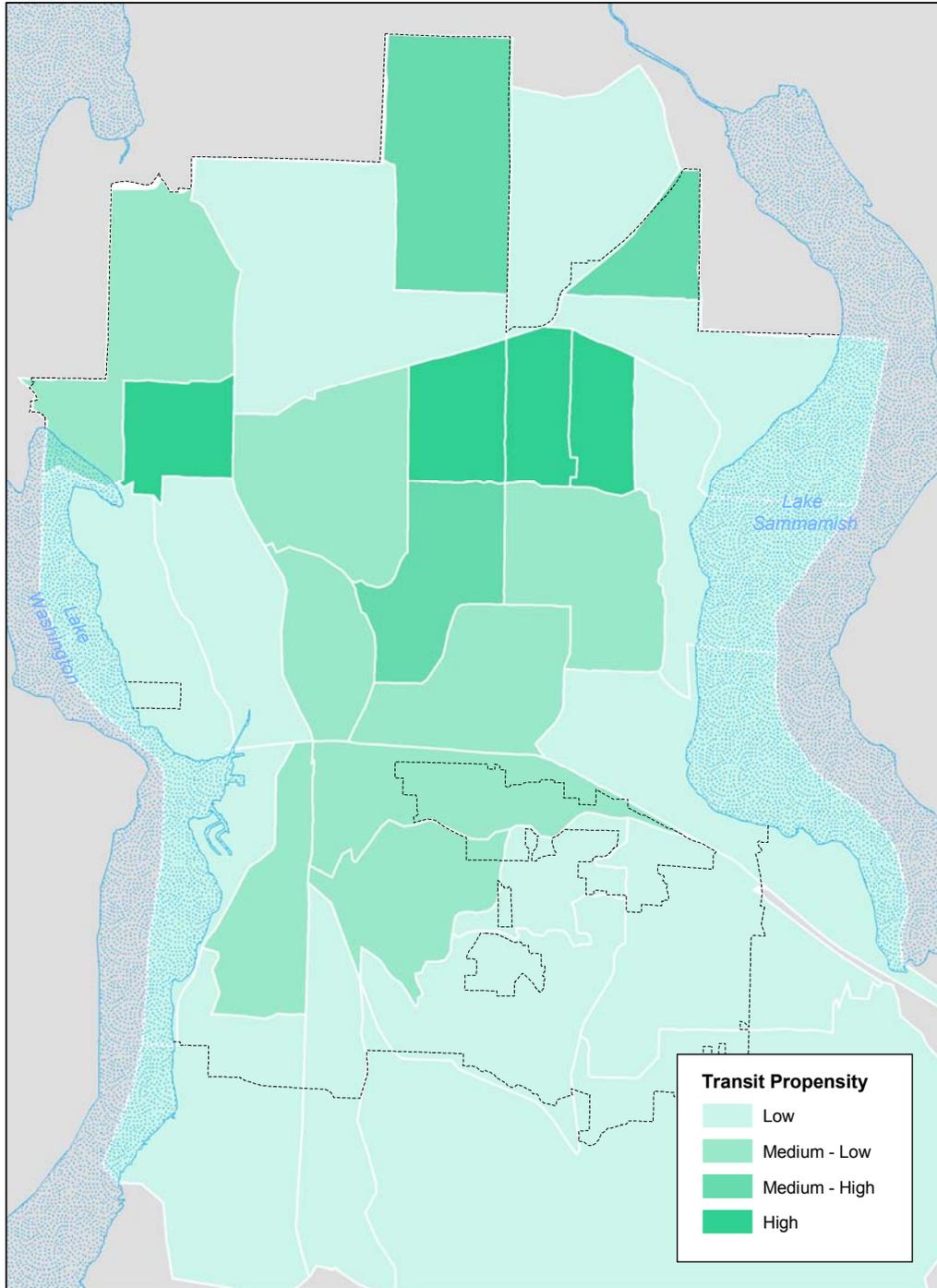


Figure VI-6
Bellevue Transit Attractors

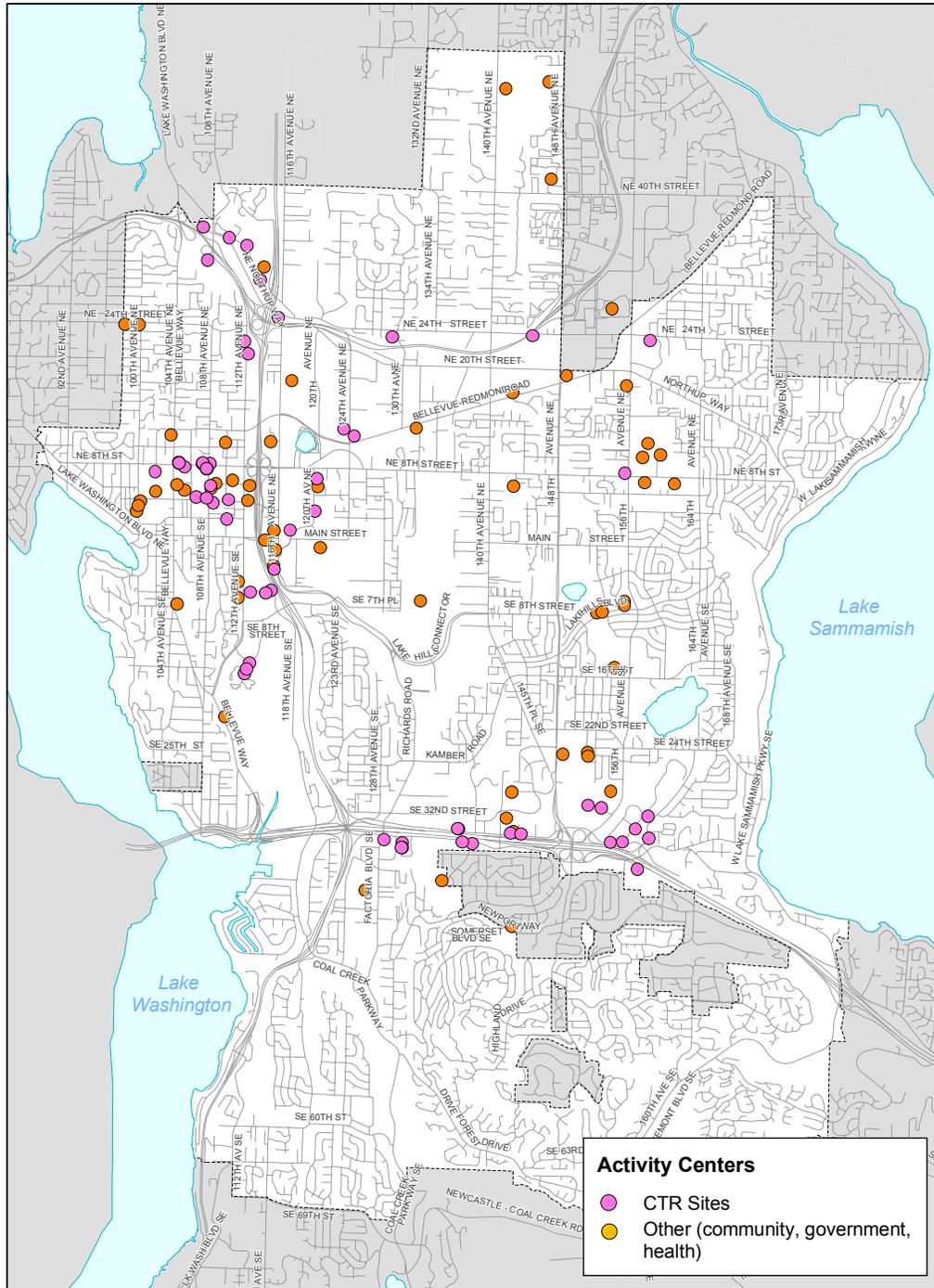
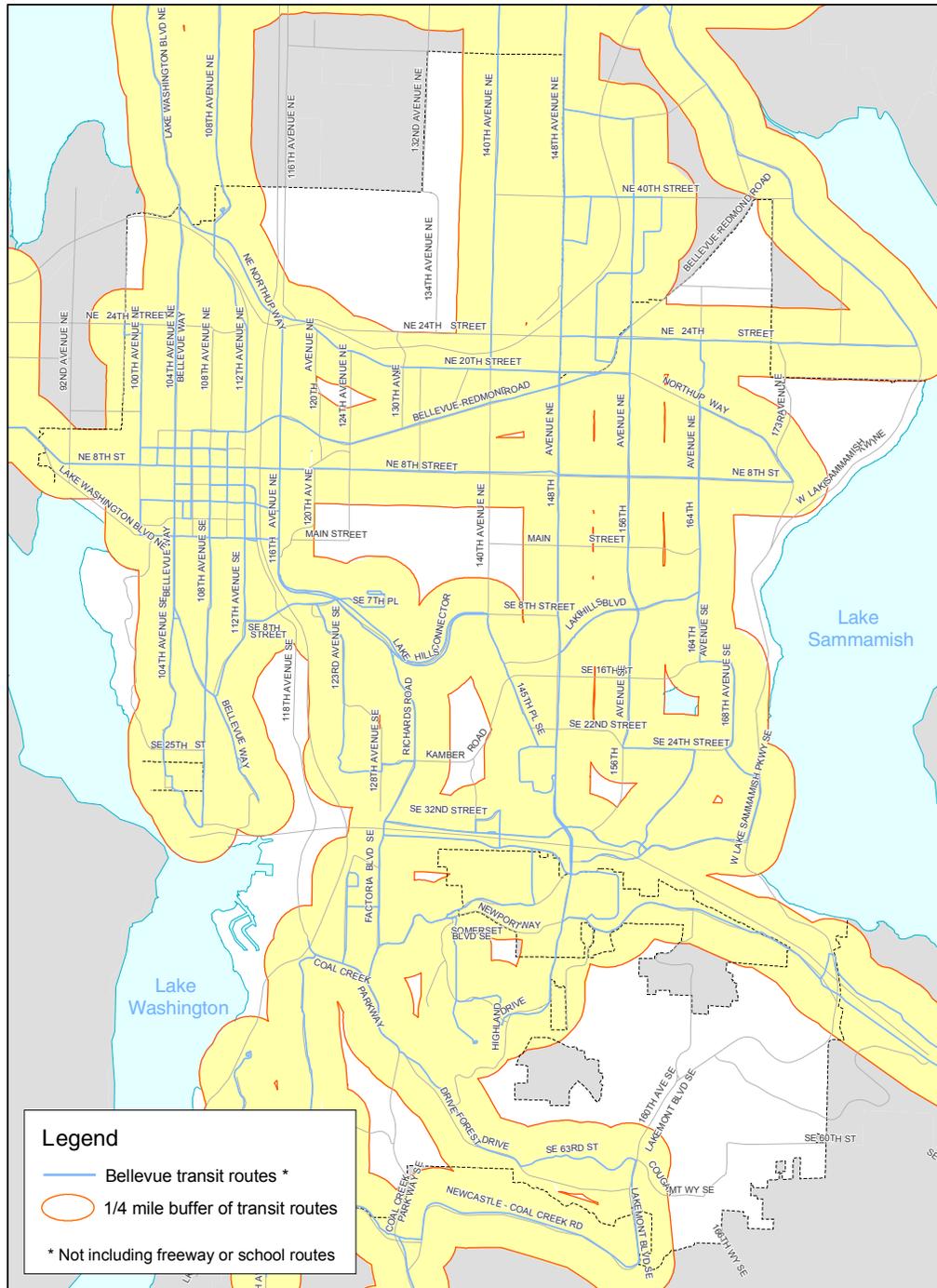


Figure VI-7
Proximity to Bellevue Transit Services



CAPITAL ELEMENT

Shelter Availability

Shelter availability can influence ridership by making the trip more attractive. The GIS analysis geocoded the location of every shelter in Bellevue. Combined with passenger activity data, the GIS data provides a powerful tool to show where shelter needs are.

Number of Routes

To determine the potential utilization of any given project, the number of bus routes is important to ascertain. The number of routes also provides a proxy to determine the number of potential transfers. GIS analysis created a count of the routes accessed by every project.

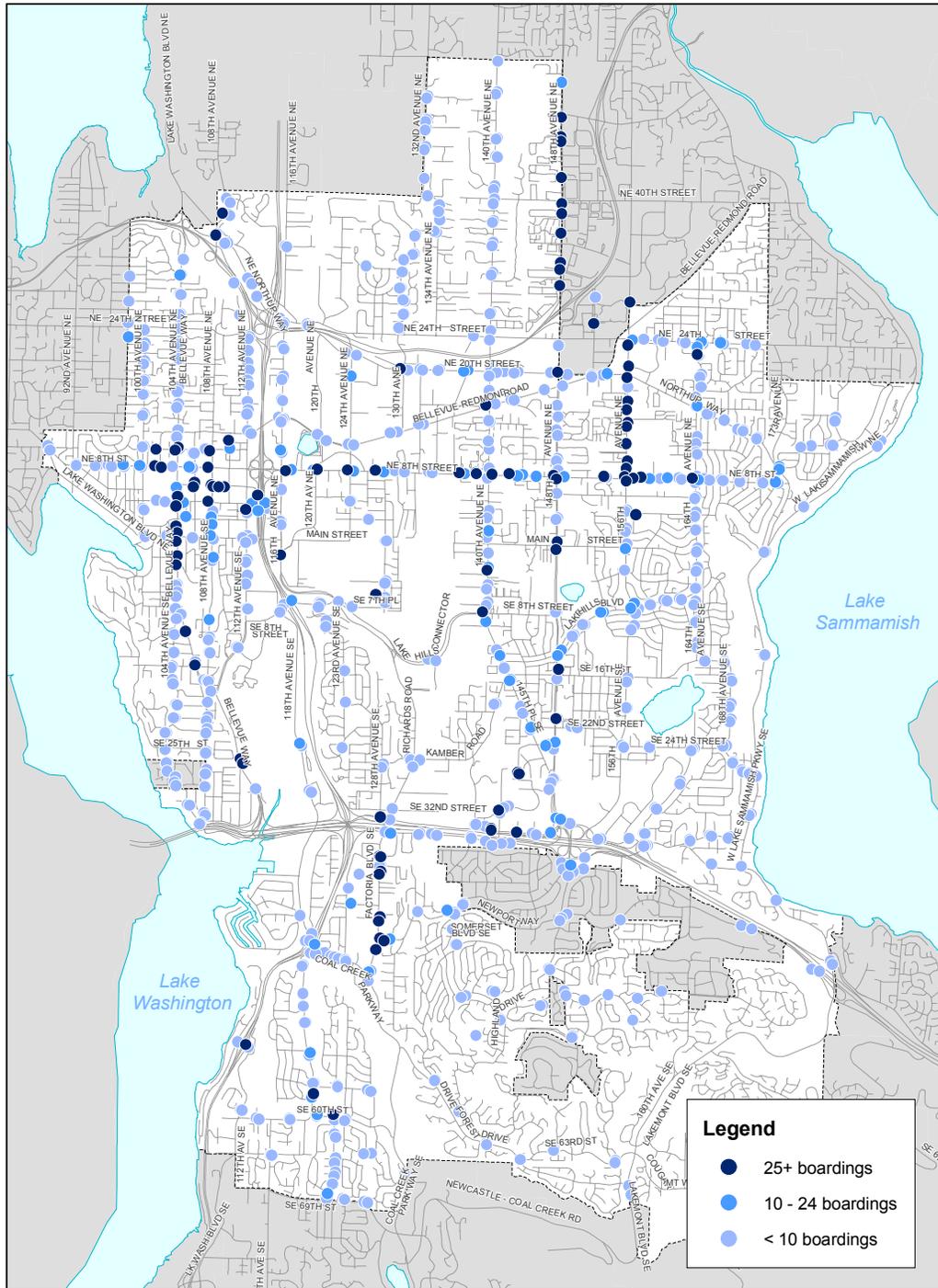
Bus Stop Accessibility

Documenting where non-accessible bus stops are is an important first step in addressing this need. According to the Americans with Disabilities Act (ADA), bus stop sites shall be chosen such that, to the maximum extent practicable, lifts or ramps may be deployed. In addition, where new bus stop pads are constructed at bus stops, bays, or other areas where a lift or ramp is to be deployed, bus stops shall have a firm, stable surface; a minimum clear length of 96 inches (measured from the curb or vehicle roadway edge) and a minimum clear width of 60 inches (measured parallel to the vehicle roadway) to the maximum extent allowed by legal or site constraints; and shall be connected to streets, sidewalks, or pedestrian paths by an accessible route. The GIS showed the location of each non-accessible bus stop and identified the highest use non-accessible locations to provide a prioritization method.

Intersection Level of Service (LOS)

Congestion is an excellent indicator of transit speed and reliability. The City of Bellevue maintains and regularly updates a computerized database that shows the delay levels and associated LOS at each signalized intersection. These data were imported into the GIS, which then assigned each signalized intersection its overall LOS and individual approach LOS. These data could then be used to determine the overall existing delays at potential Capital Element projects.

Figure VI-8
Bellevue Bus Stop Level Ridership



CAPITAL ELEMENT

Recommendations

Investments in the following arterial street characteristics are examined in this report: pedestrian accessibility, bus stop amenities, arterial improvements, pavement overlay, transit centers, transit signal priority, and commuter parking. The capital investment projects reviewed in this report are evaluated and prioritized within these seven individual project areas. In combination, the recommended projects have the potential to improve the circulation of transit services, provide enhanced access to transit services, and augment the attractiveness of transit as a travel option in Bellevue.

The report then groups each of the recommended projects into the priority transit corridors identified in Table VI-2 that link the City's key activity centers.

**Table VI-2
Transit Corridor Categories and Definitions**

Corridor Category	Location/Definition
Bellevue Transit Center to Crossroads	NE 8th Street between Downtown Bellevue and Crossroads Shopping Center
Bellevue Transit Center to Overlake	Bel-Red Road and Northup Way between Downtown Bellevue and Overlake
Bellevue Transit Center to Bellevue Community College	Lake Hills Connector/145th Place between Downtown Bellevue and Bellevue Community College
Bellevue Transit Center to Factoria	112th Avenue SE, Bellevue Way, 108th Avenue SE, and Beaux Arts between Downtown Bellevue and Factoria
Factoria to Renton	Factoria Boulevard, Coal Creek Parkway, and 119 th Avenue SE between Factoria and Renton
Factoria to Eastgate	Factoria Boulevard, SE 36th Street, Eastgate Way, and Newport Way between Factoria and Eastgate
Eastgate/Bellevue Community College to Issaquah	Eastgate Way and West Lake Sammamish between Eastgate/Bellevue Community College and Issaquah
Eastgate to Bellevue Community College	148th Avenue SE, Landerholm Circle, and Perimeter Road Between Eastgate and Bellevue Community College
Bellevue Community College to Crossroads	148th Avenue, 156th Avenue, and 164th Avenue between BCC and Crossroads Shopping Center
Crossroads to Overlake	156th Avenue NE and 148th Avenue between Crossroads Shopping Center and Overlake
Crossroads/Overlake to Redmond	West Lake Sammamish and NE 24th Street between Crossroads/Overlake and Redmond
Bellevue Transit Center to Kirkland	Bellevue Way and 112th Avenue NE between Downtown Bellevue and Kirkland
Downtown Bellevue Improvements	Improvements in Downtown Bellevue
All Other Corridor Improvements	All Other Corridor Improvements

CAPITAL ELEMENT

Focusing on only one or two project areas is not as effective as a comprehensive approach. As the City continues to prioritize its service and capital projects, it is beneficial to consider projects in terms of service corridors within Bellevue. This view provides some insight on how individual projects relate to each other and may work together to systemically improve transit within the City.

The Plan's emphasis on corridors coincides with a greater initiative across King County to optimize transportation investments through coordinated efforts. Across the region and the state, agencies and jurisdictions are re-thinking ways to make effective decisions regarding transportation investments and the corridor approach has been met with increasing support.

Conclusions

As the City pursues a multi-modal transportation strategy to address the transportation needs of Bellevue, it recognizes the need to prioritize transit capital investments to ensure that funds are programmed for the most compelling needs. Further, the City needs to be able to communicate to its transit partners in the region what investments are desired by the City and how to best serve the travel demand needs of Bellevue. As such, the Capital Element of the *Bellevue Transit Plan* details guidance for capital transit investments in the City and outlines the methodologies employed to determine and prioritize needs.

The City recognizes that the amount of service provided is critical in the phasing, sizing and costing of the capital improvements outlined in this report. The service investment represented by the service recommendations in Chapter V requires substantially more funds than are presently available to the King County Department of Transportation Transit Division (King County Metro) for service improvements through 2007.³ Many of the capital components recommended in the Bellevue Transit Plan may be deferred for quite some time until needed to support the City's aggressive service plan.

Implementing transportation improvements in the face of declining revenues and rapid growth has become an issue unifying King County. The Bellevue City Council and other decision-makers in King County are faced with the challenge of optimizing results from investments made with existing funding while developing methods for creating new funding. Strategies to focus limited funding and to determine where available dollars should be spent are essential.

The City of Bellevue's work to identify priority transit corridors is an important piece of a larger countywide initiative. Continued efforts by the City of Bellevue and other agencies and local jurisdictions to coordinate efforts and identify strategic investments will be critical to the region's success in optimizing available transportation dollars and securing more funds for transportation improvements within King County.

³ When it was originally adopted, in April 2001, the Service Element of the Bellevue Transit Plan, was based off a 400,000 service hour increase estimate through 2007. The Puget Sound Region is in the midst of an economic recession, with lowered sales tax revenue forecasts, that significantly reduces the amount of resources available to implement the transit service investments outlined in Chapter V of the Bellevue Transit Plan. Current King County Metro estimates reflect a 110,000 service hour increase through 2007 (however, these estimates are likely to continue to change).