City of

Bellevue

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TO: Bellevue Transportation Commission

FROM: Kevin McDonald, AICP, Senior Transportation Planner, 452-4558
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SUBJECT: Downtown Transportation Plan Update: Preliminary Recommendations
http://www.bellevuewa.gov/downtown-transportation-plan-update.htm

INTRODUCTION

To prepare for a City Council Study Session presentation and discussion scheduled for September 23, 2013, the Transportation Commission agenda for September 12, 2013 will include a final review of the preliminary recommendations for each mobility mode and the overall Downtown Transportation Plan Update outcomes. Previously, on August 8, 2013, the Commission reviewed preliminary recommendations and requested minor changes. These changes are all incorporated in this memo and in the presentation materials for September 12. In addition, the "handoffs" from the Downtown Transportation Plan to the Downtown Livability Initiative work are summarized in this memo and will be part of the Council briefing. Finally, the role of the both the Downtown Transportation Plan and the Downtown Livability Initiative is highlighted as the station area planning process for the light rail stations that serve Downtown Bellevue.

Downtown Mobility Outcomes

Transportation investments for travel options to, from and within Downtown Bellevue will support new office, retail and residential growth. Significant additions to roadway capacity for vehicles also improve corridors for transit, bicycles and pedestrians. The Downtown Transportation Plan anticipates regional investments in transit, and substantial improvements to facilities for pedestrian and bicyclists.

For the past 20 years, the opportunities have improved for people to get around in Downtown with options that include transit, walking and bicycling. These mobility options have resulted in overall traffic volume that has not increased during this period of substantial growth. The intricate and intentional combination of a mixed land use pattern and strategic investments in all modes of transportation infrastructure and technology have reduced the need to drive to work or from place to place within Downtown and have enabled easier walking, bicycling and transit use. The Downtown Transportation Plan perpetuates this success by enhancing mobility options to serve the growing diverse needs of a vibrant Downtown.

Improving Mobility

The outcome of this work is a general plan to improve Downtown mobility and specific strategies to enhance each mode. Everyone who wants to get around safely and comfortably in Downtown Bellevue will find value in this plan, whether they choose to get around in a car, on a bus, on a bicycle or other wheels, or on their own feet. Through public and private investments in a wide range of transportation infrastructure, the plan enhances Downtown vitality and economic development, improves sustainability, and supports livability and public health.

Downtown Light Rail Station Area Planning

Two light rail stations are planned to serve Downtown residents, employees and visitors; the East Main Station will serve the southeast quadrant of Downtown and the Transit Center Station will serve the core. While the East Main Station area outside of Downtown and other three light rail stations in Bellevue will have targeted station area planning, the station areas within Downtown are being planned in the context of the Downtown Transportation Plan and the Downtown Livability Initiative. Station access components such as sidewalks, crosswalks, and mid-block crossings, Transit Center enhancements and station facilities such as bicycle parking are included in the Downtown Transportation Plan recommendations.

Looking to 2030

Through the Bellevue-Kirkland-Redmond travel demand model, the City forecasts that by 2030 there will be approximately 650,000 daily person trips that have at least one "trip end" in Downtown Bellevue. Due to the way transportation analysis zones are established for Downtown Bellevue, a trip is counted when a person crosses a street. With more employees and residents, and diverse and dispersed land uses, people are more likely to walk between destinations because that is the easiest and fastest way to get around. While the number of daily person trips in 2030 is large compared to the 350,000 daily person trips in 2010, much of the increase can be attributed to people walking for short trips. For instance, if half of the anticipated 70,300 employees walk across a street and back once each day for coffee, lunch or shopping, that activity would account for over 70,000 person trips.

For many people, a private vehicle is the preferred choice for many types of trips. For these vehicle trips, on average it may take longer to get around in Downtown Bellevue during the afternoon rush hour in 2030 than it did in 2010 – the average PM peak hour vehicle delay at intersections is forecast to increase by about 20 to 30 seconds for Downtown as a whole. In terms of vehicle travel time, eastbound PM peak hour travel time on arterials is projected to increase, especially on roadway segments approaching I-405 due to freeway congestion. Westbound PM peak hour travel time, and north bound and south bound travel times are not significantly impacted by I-405 congestion. A trajectory of increasing PM peak hour congestion began in the early 1980s when the City determined that Downtown was the preferred location for growth and a focus for investments in all modes of travel. Vehicle congestion from time-to-

time and from place-to-place is an outcome and a reality of an increasingly dense and desirable urban center. Policy in the Transportation Element (TR-36) allows for a greater level of congestion in areas where there are mobility options and where the impact of wider streets is judged to be worse than the congestion. Strategic investments help to manage congestion within an efficient Downtown street grid and travel options provide choices. A multimodal strategy for 2030 is the foundation of the Downtown Transportation Plan recommendation and includes investments in all modes.

Multimodal Strategies

Improved mobility options for all modes will give people more choices in how they get around to/from and within Downtown Bellevue. The Downtown Transportation Plan envisions a future for Downtown where walking is easy, enjoyable and healthful; bicycling is comfortable for people of all ages and abilities; transit is a reliable way to get around; and driving a car is a viable option. A multimodal approach is a reasonable way to accommodate a changing Downtown landscape and a changing Downtown population. Specific mobility strategies are intended to achieve the following outcomes:

- **Roadway capacity** to serve Downtown increases and Downtown mobility options improve largely due to investments outside of Downtown on the City's arterial system and the regional freeway system. Traffic operations technology continually enhances the traffic signal system to get the most out of the efficient Downtown street grid.
- **Transit service** improves with the planned addition of light rail service that supplements buses for trips to and from Downtown. Frequent transit network recommendations align with the draft Transit Master Plan to provide transit coverage for nearly everyone who lives, works, or shops in Downtown Bellevue. Transit passenger comfort, access, and information are integrated into bus stops and transit stations, while speed and reliability improvements enhance transit service.
- **Pedestrian facilities** are upgraded in conjunction with the Downtown Livability Initiative by widening sidewalks, enhancing crosswalks, adding mid-block crossings, and implementing design improvements to the Pedestrian Corridor and through-block connections.
- **Bicycle access** is largely on shared roadways, with dedicated bicycle lanes and off-street paths that provide good access to local neighborhoods and regional facilities. End-of-ride facilities such as sidewalk bike racks, bike corrals, and secure bike parking in buildings and transit stations will support commuters and recreational riders alike.

Each of the above mobility strategies is outlined in detail in the following sections of this memo.

RECOMMENDED ROADWAY PROJECTS

Embedded in the travel demand modeling (BKR) and the traffic operational modeling (Dynameq) are assumed roadway projects that increase the capacity for general purpose traffic.

Projects planned within Downtown Bellevue enhance the internal grid system that is very efficient at moving vehicles, especially with the implementation of S.C.A.T.S. and its ongoing refinement. There are also projects outside of Downtown, as part of both the regional transportation system on freeways (SR-520 and I-405) and the Bellevue arterial system, that support Downtown travel demand.

The Downtown Transportation Plan proposes no new roadway capacity projects beyond those assumed in the 2030 "Build" scenario modeling. This is largely due to two basic factors: 1) Traffic modeling for 2030 indicates that adequate roadway capacity will exist to accommodate the expected volume of vehicles in the PM peak hour (5:00 -6:00 PM weekdays); and 2) Additional widening of roads in Downtown is impractical due to the presence of large buildings and incompatible with the Downtown Subarea Plan vision for improved pedestrian orientation.

Vehicle level of service (LOS) for the Downtown Transportation Plan is measured and forecasted in terms of the number of seconds of delay to vehicles at intersections in the PM peak hour. LOS is calculated for each intersection and is then averaged for all Downtown signalized intersections. The 2010 Downtown average level of service was LOS C, with an average intersection delay of 27 seconds. In 2030 the expected average Downtown intersection level of service ranges from about 49 seconds (LOS D) to 56 seconds (LOS E) depending on the suite of roadway capacity projects assumed. The distribution pattern of longer average delay on the east side of Downtown indicates that much of the increase in delay may be attributable to congestion on I-405.

New Project Ideas

Significant new projects to increase roadway capacity that have been mentioned in the course of the Downtown Transportation Plan community involvement process are described briefly as follows. Although these projects are not recommended for the 2030 "Baseline" or "Build" scenario project lists, they are noteworthy and should be included and described in the final report.

<u>NE 6th Street Sub-Surface Arterial</u>

This project concept would provide a grade-separated vehicular link under NE 6th Street and the Pedestrian Corridor between just west of I-405 and Bellevue Way that could potentially also accommodate transit and freight vehicles. This tunnel could provide vehicular access to parking garages along the way.

<u>Bellevue Way Grade Separation</u>

Another project concept discussed in community forums would lower and cap Bellevue Way at the major intersections of NE 4th Street and NE 8th Street, or along the entire corridor from south of NE 4th Street to north of NE 8th Street. In this scenario, pedestrians could be separated from through traffic and through traffic could be separated from the Bellevue Way surface

streetscape environment. Local traffic and pedestrian and bicycle access could be maintained at the surface on a narrow and calm local street.

2030 Baseline Scenario

In the 2030 Baseline Scenario are the roadway capacity projects that are advanced in terms of design and funding to the point that they are "reasonably foreseeable" for construction within the 2030 timeframe. Note that intersection projects are not included in the roadway capacity list because the BKR travel demand model considers only the number of through lanes in roadway segments; while Dynameq, the traffic operations model considers the configuration (# of right-turn, thru, and left-turn lanes) of each Downtown intersection in calculating level of service. For modeling purposes, Dynameq incorporates the intersection projects adopted in the Downtown Subarea Plan for the 2030 Baseline Scenario.

The following roadway capacity projects - along with their respective project numbers in the Capital Investment Plan (CIP) or Transportation Facilities Plan (TFP) - are included in the 2030 Baseline Scenario. Please refer to proposed roadway capacity projects maps for 2030 (Attachments 2a&c).

- Roadway Capacity Within Downtown
  - NE 12th Street Bridge over I-405 *(complete in 2013)*
  - NE 2nd Street Widening between Bellevue Way and 112th Avenue NE *(TFP-190)*
  - 110th Avenue NE Widening between NE 6th Street and NE 8th Street *(TFP-110)*
- Roadway Capacity that Serves Downtown
  - NE 4th Street Extension between 116th Avenue NE and 120th Avenue NE *(CIP-PW-R-160) Under construction*
  - NE 6th Street Extension between I-405 and 120th Avenue NE *(CIP-PW-R-162)*
  - NE 15th Street New Street between NE 12th Street and 124th Avenue NE *(CIP-PW-R-172, CIP-PW-R-173)*
  - NE 16th Street New Street between 130th Avenue NE and 132nd Avenue NE – spanning the blocks at the planned 130th Avenue NE light rail station *(CIP-PW-R-174)*
  - 120th Avenue NE Widening between NE 4th Street and Northup Way *(CIP-PW-R-161, CIP-PW-R-164, CIP- PW-R-168)*
  - 124th Avenue NE Widening between NE 8th Street and Northup Way/NE 20th Street *(CIP-PW-R-166, CIP-PW-R-169)*
  - Bellevue Way Southbound HOV Lane between 112th Avenue NE and I-90 *(TFP-242)*
  - I-405 HOT Lanes *(pending legislative approval)*

2030 "Build" Scenario

These roadway projects are outside of Downtown yet they provide new vehicle capacity and route options that improve Downtown mobility and average intersection level of service over

the 2030 Baseline. Please refer to proposed roadway capacity projects maps for 2030 (Attachments 2b&c).

- SR 520 @ 124th Avenue NE Interchange to complete the interchange with new ramps to and from the east *(TFP-217)*
- SR 520/I-405 Southbound Braid to NE 10th Street *(CIP-PW-R-149)*
- NE 15th Street New Street between 124th Ave NE and 130th Ave NE *(Bel-Red design concept)*

RECOMMENDED TRANSIT PROJECTS

Community input and transit demand forecast based on population and employment growth led to an understanding of the following essential components of Downtown transit service:

- **Coverage:** Provide frequent transit service routing and stops to serve employees and residents within short walking distances of transit stops
- **Capacity:** Accommodate transit passengers on buses and platforms, as well as buses on Downtown streets and at the Transit Center
- **Speed and Reliability:** Use technology and roadway travel lanes to expeditiously move bus passengers to and through Downtown
- **Passenger Access, Comfort and Information:** Support transit passengers before and after they ride the bus or train

Please refer to transit coverage and recommended transit priority corridors/intersections maps (Attachments 2a-c).

Transit Service Coverage

In the interest of improving Downtown geographic coverage, to serve anticipated population and employment, and in coordination with the Bellevue Transit Master Plan, the Downtown Transportation Plan recommends dispersing frequent transit network routes on the Downtown street grid. Doing so would provide coverage for an estimated 97% of Downtown residents and employees in 2030 (up from 86% in 2010), and would reduce congestion in and around the Bellevue Transit Center. Refer to Attachments 3a&b for maps that show 2010 conditions and proposed frequent transit network routes and the land use coverage in 2030. *Note: Per Commission direction, these maps have been modified from the versions viewed and discussed at the August 8, 2013 Transportation Commission meeting in order to portray regional transit connections between Downtown and I-405. Also, the Downtown destination icons have been removed to decrease map clutter.*

Transit Capacity Improvements

Transit capacity can be expressed in terms of the number of people served and the number of buses that can operate on the available infrastructure. Acknowledging that Bellevue does not

provide transit service, recommendations regarding transit service take the form of policy support and advocacy to the transit agencies for incremental enhancements to Downtown transit service that would accommodate up to a 50% increase in daily bus transit service by 2030. Service enhancements are needed to accommodate the anticipated 5-fold increase in transit ridership and would require new funding. The function and capacity of the passenger platform area of the Bellevue Transit Center could be improved with the removal and/or rearrangement of minor components such as benches, wind screens, wayfinding, telephone booths and kiosks. These enhancements are being advanced through station area planning for the Bellevue Transit Center light rail station. Operational changes for the bus platform staging and signalization at each end of the Transit Center are recommended to streamline bus movement.

Transit Speed and Reliability Improvements

While Bellevue does not directly provide transit service, the City does manage the right-of-way on which the buses operate and the signals that control traffic. Recommendations to improve speed and reliability identify the tools available to improve Downtown transit corridors and intersections that would benefit transit passengers and overall mobility. Refer to Attachment 3c for a map of transit priority corridors and intersections where speed and reliability enhancements could apply. *Note: Per Commission request, on Map 3c, the fade-out line for the NE 6th Street transit priority corridor has been extended further east to clearly show that the roadway will be extended across I-405 to provide a transit link between Downtown and the Wilburton area.*

- **Corridor Improvements**
  Along Downtown transit corridors, recommended tools to improve transit speed and reliability include transit priority lanes, peak hour transit-only lanes, bus/bicycle lanes, and business access and transit (BAT) lanes. Other tools may include improvements to the pedestrian environment, transit stop consolidation, and off-board fare payment. A transit corridor analysis would determine the thresholds of delay that would trigger the use of these tools individually or in combination, and in coordination with intersection operational improvements.
- **Intersection Operational Improvements**

  At signalized intersections, transit signal priority may be implemented in a manner that is coordinated with the demands of other modes to ensure the greatest efficiency of mobility. Transit signal priority allows buses to arrive and travel through select intersections with little or no delay – typically by extending the green light phase or shortening the red light phase. Intersection operational improvement tools may be used in combination with transit corridor improvement tools.

Transit Passenger Comfort, Access and Information

To ensure that the transit passenger has comfortable and convenient access to the transit system, the Downtown Transportation Plan recommends four types of transit stop based largely on ridership. Recommendations include context-appropriate components for each type of transit stop. Transit stop types are not mapped because ridership and land use patterns change over time, nor are specific components recommended for each stop, but typical components that are described below to match each type of transit stop. Transit stop improvements could be implemented by the City, the transit agencies, or incorporated into new development. The latter method is referred to the Downtown Livability Initiative as a component for consideration in the amenity incentive system.

- **Local Transit Stop:** Generally 30 boardings or less per weekday, with a pole-mounted bus stop sign, an ADA standard paved landing pad with access to the sidewalk, a bench, pedestrian scale lighting, and a shelter, with pedestrian and bicycle facilities that provide connections to the nearby neighborhood.
- **Primary Transit Stop:** Weekday boardings between 30 and 100 passengers. Bus routes may cross at nearby intersections and transfers between routes are common. A Primary Transit Stop would include the components of a Local Transit Stop plus features that support boardings and transfers, such as: passenger shelter; transit route map and transit transfer wayfinding; real time information displays; trash receptacle; and short-term bicycle parking. Pedestrian access is supported by Enhanced crosswalk components, nearby mid-block crossing(s), through-block connections and neighborhood wayfinding.
- **Frequent Transit Network/RapidRide Station:** Served primarily by RapidRide B, the station may also serve frequent transit network routes. Weekday boardings in the range of 100 to 1,000 passengers. Include Primary Transit Stop components, plus a sheltered or enclosed passenger waiting area; an Orca Card vending machine, and off-board fare payment. Pedestrian access could include Enhanced or Exceptional crosswalk components, and mid-block crossings.
- **Transit Center/Multi-Modal Hub:** Served by multiple transit routes and transit modes (bus, RapidRide, East Link light rail) with a constant flow of transit vehicles and passengers during the day. Weekday boardings exceed 1,000 passengers. Include Frequent Transit Network/RapidRide Station components; plus facilities such as a public rest room and “Bike Station” facilities with covered/secure, long-term (commuter) bicycle parking. Exceptional crosswalk components and generous sidewalks would provide pedestrian access. Roadways would accommodate bicycle access from neighborhoods and regional facilities. Wayfinding kiosks for pedestrians would provide information on transit and Downtown destinations.

RECOMMENDED BICYCLE FACILITIES

On-street and off-street bicycle facilities would serve Downtown commuters and recreational riders, and support non-motorized access to employment, parks, shopping, residences, and transit. Bicycle facility components would consist of lane markings, wayfinding, signal actuation, and end-of-ride facilities that would be implemented depending on the need and the context. The Downtown Transportation Plan identifies preferred bicycle facility types for certain roadways but does not propose the specific bicycle facility design for any roadway. Dedicated on-street bicycle facilities may include traditional bicycle lanes, buffered bicycle lanes, and cycle tracks. Shared roadway lanes may be wide outside lanes and are typically marked with "sharrow" lane markings and signage to indicate that bicycles and motor vehicles share the space. Off-street bicycle facilities are separated from motorized use and are typically shared with pedestrians. Wayfinding signage can accompany any bicycle facility type. Please refer to proposed bicycle facilities maps (Attachments 4a&b).

Bicycle Facilities Within Downtown

- **Dedicated On-street Bicycle Facilities - shown as Bicycle Lanes on the Map**
  - Main Street east of Bellevue Way on uphill sections, shared lane downhill
  - NE 12th Street (south side) between 102nd Avenue NE and 112th Avenue NE
  - 100th Avenue NE between Main Street and NE 12th Street
  - 112th Avenue NE (east side, uphill) between NE 6th Street and NE 12th Street
- **Shared Roadway Lanes**
  - Main Street west of Bellevue Way
  - NE 2nd Street and NE 10th Street between 100th Avenue NE and 112th Avenue NE
  - 106th Avenue NE and 110th Avenue NE between Main Street and NE 12th Street
  - 108th Avenue NE Transit Priority Corridor shared with bicycles between Main Street and NE 10th Street
  - 112th Avenue NE (west side) between NE 6th Street and NE 12th Street
- **Off-Street Path**
  - NE 6th Street Pedestrian Corridor including extension to 112th Avenue NE and across I-405. This segment will provide exceptional non-motorized access in the Downtown core and to the Transit Center light rail station. (Referred to the Downtown Livability Initiative for Pedestrian Corridor design components)
  - NE 12th Street (north side) between 100th Avenue NE and 112th Avenue NE
  - Bellevue Way between NE 6th Street and Downtown Park (west side). This is essentially a 20-foot wide sidewalk with consideration for bicyclist use and a segment of the planned "Art Walk". (Referred to the Downtown Livability Initiative)
  - Main Street between 110th Avenue NE and 112th Avenue NE (south side). This segment is intended to provide enhanced access to the "East Main Street" light rail station

- **Bicycle Parking (End of trip facilities not shown on the map)**
  - **Curbside:** Ongoing implementation of sidewalk bicycle parking program at high-bicycle traffic locations. Include bicycle corrals and bike-share docking stations as curbside options in high demand areas
  - **Transit Facilities:** Coordinate with King County Metro and Sound Transit to incorporate end-of-trip bicycle facilities at transit stops and stations
  - **On-Site:** Recommend a Land Use Code amendment to require secure on-site bicycle parking in new development. Consider lockers and showers in addition to secure bicycle parking. (Referred to Downtown Livability Initiative)

Connection to Neighborhoods and Regional Facilities

- **Dedicated On-street Bicycle Facilities – shown as Bicycle Lanes on the Map**
  - NE 4th Street extension, NE 8th Street (south side), Northup Way
  - 112th Avenue NE, 114th Avenue NE/SE, 116th Avenue NE, 120th Avenue NE
- **Shared Roadway Lanes**
  - 100th Avenue NE, Bellevue Way, 108th Avenue NE/SE
  - Lake Washington Boulevard, NE 8th Street (north side), NE 10th Street, NE 24th Street
- **Off-Street Path**
  - Main Street east from 110th Avenue NE to 114th Avenue NE, NE 6th Street east from 110th Avenue NE and across I-405, NE 15th Street extension east from NE 12th Street
  - 112th Avenue SE, Bellevue Way to the South Bellevue light rail station and the I-90 Trail
  - Eastside Rail Corridor (formerly the BNSF Corridor) north-south across the city

RECOMMENDED PEDESTRIAN FACILITIES

Walking is a significant portion of the daily activity of people in Downtown Bellevue, and will be an increasingly important element of economic vitality, Downtown livability and personal health. Pedestrians need safe and accessible, comfortable and convenient places to walk. The Downtown Transportation Plan will augment decades of public and private investments to recommend further improvements to the pedestrian environment.

There are four components of the Downtown pedestrian environment that the Downtown Transportation Plan addresses: sidewalks/curbside landscaping; crosswalks; mid-block crossings; and through-block connections. The Pedestrian Corridor is a separate and important component of Downtown pedestrian and bicycle mobility. Please refer to proposed pedestrian facilities maps (Attachments 5a-d).

Sidewalks

Sidewalks in Downtown Bellevue provide fundamental infrastructure for pedestrian mobility and incorporate urban design features that enhance livability. The Downtown Land Use Code

(20.25A.060 Walkways and sidewalks) prescribes the width of sidewalks and the landscaping treatment adjacent to the street – thus this topic is in the purview of the Downtown Livability Initiative Steering Committee.

The Downtown Transportation Plan recommends for consideration to the Downtown Livability Initiative Steering Committee, an amendment to the Land Use Code to increase the required sidewalk width along certain heavily travelled sidewalk segments such as along 106th Avenue NE, where 20-foot wide sidewalks (including a 4-foot curbside landscape area) would accommodate pedestrians, window shoppers, and café seating on this designated "Entertainment" avenue.

Curbside Landscaping

Along some streets where pedestrians need a buffer from traffic, the Downtown Transportation Plan recommends installing a continuous landscape planter with street trees along the curbside edge of the sidewalk instead of the street trees in tree grates as currently required in the Land Use Code. This type of treatment is popular with pedestrians where it has been implemented along portions of Bellevue Way, NE 4th Street, 112th Avenue NE and other Downtown streets and it is a better growing environment for street trees than tree grates. A landscaped planter strip with street trees is recommended for 100th Avenue NE and 101st Avenue NE to provide a nice walking environment between the Downtown Park and Meydenbauer Park. Please refer to Attachments 5a&b.

Crosswalk Designations and Components

Several features of crosswalks significantly affect the pedestrian environment and the experience of crossing the street at an intersection: crossing time; crosswalk design; and intersection geometry. Crossing time is a function of traffic operations, and the traffic signal allocates time for pedestrians to cross when the button is pushed. With respect to design, three types of crosswalk treatments for Downtown are recommended, each intended to fit the needs of pedestrians and the urban context: Standard Crosswalks; Enhanced Crosswalks; and Exceptional Crosswalks – as described below and shown on Attachment 5c.

- **Standard Crosswalks:** In Downtown Bellevue the current standard crosswalk design consists of two parallel white bars that are spaced 8-feet apart. A standard crosswalk also has a pedestrian actuated signal at the corner that provides both audible and countdown indicators – these are being installed throughout the Downtown as the older signal heads are replaced. There is a comfortable consistency with the Standard Crosswalk , as both motorists and pedestrians know what to expect, but the standard design may not be desired at all intersections due to the high volume of pedestrians, the urban design character, or the traffic conditions. Therefore, at these locations the Downtown Transportation Plan recommends integrating the features of either Enhanced or Exceptional Crosswalks.

- **Enhanced Crosswalks:** Enhanced crosswalks would be located where there are high numbers of pedestrians or vehicles, or both, and where the urban design treatment along the street should be carried through the intersection. The design tools to create an Enhanced crosswalk include: wider than Standard crosswalks to accommodate a large number of pedestrians and a stop bar to provide a buffer from vehicles; neighborhood wayfinding at corners; weather protection at corners; special paving treatment; alternative striping; and curb bump outs or tighter radius to shorten crossing distance, calm traffic and provide pedestrian queuing areas.
- **Exceptional Crosswalks:** The Downtown Bellevue Streetscape Design Guidelines (December 2010) refers to "celebrated intersections" where the pedestrian is provided a very appealing place to walk across the street. The Downtown Transportation Plan embraces this concept and recommends crosswalks that merit "exceptional" treatment at crossings along the Pedestrian Corridor (NE 6th Street at 110th Ave NE, 108th Ave NE, 106th Ave NE and Bellevue Way) and in Old Bellevue at crossings along Main Street. Exceptional crosswalks would incorporate applicable design components of an Enhanced crosswalk, and may also include a pedestrian scramble signal phase, raised crossings, and significant/landmark wayfinding such as the popular kiosks that are located throughout Downtown. Design features incorporated in the crossing of 110th Avenue NE at NE 6th Street would create a near-seamless connection between the Transit Center and the light rail station.

Mid-Block Crossings

Mid-block street crossings help reduce the scale of Downtown Bellevue "superblocks" to be more manageable for pedestrians by reducing walk distances. The Downtown Subarea Plan considers the mid-point of most superblocks to be a candidate location for a mid-block crossing. Existing mid-block crossings exhibit a variety of treatments, including signalization, median islands, and grade-separated pedestrian bridges. The Downtown Transportation Plan proposes a number of higher priority mid-block crossing locations for near-term implementation subject to design and traffic analysis. While most mid-block crossings are recommended to be "at-grade", there are three existing grade-separated crossings (over Bellevue Way, NE 8th Street and NE 12th Street). In consideration of traffic volume and potential impacts to vehicle travel time of an at-grade mid-block pedestrian crossing, it is recommended that any new mid-block crossing on NE 4th Street and NE 8th Street between Bellevue Way and 112th Aveue NE be designed as a grade-separated facility.

Through-Block Connection Design Concepts

Similar in purpose to mid-block crossings, through-block connections help to break up the Downtown superblocks into more manageable sizes for pedestrians by providing walkways between or sometimes through buildings. The Land Use Code requires that through-block connections be incorporated in new development; design guidelines are provided and basic

wayfinding is required. In practice, the design of the existing through-block connections is so variable that people are uncertain as to whether they are welcome, and required public access wayfinding does not let a person know where the through-block connection will lead. To enhance pedestrian navigation, the Downtown Transportation Plan recommends that some design refinements be considered through the Downtown Livability Initiative. Recommended design would create standard public access wayfinding, utilize commonly recognizable paving material or inlays, and incorporate universal accessibility according to ADA standards.

NE 6th Street Pedestrian Corridor Design Concepts

The NE 6th Street Pedestrian Corridor is a high priority route for both walking and bicycling, yet the existing design doesn't meet the mobility needs of non-motorized travelers. Sections of the corridor are difficult for wheeled users to navigate due to narrow passages, steep sections, tight turns, and poor sightlines. Other issues include incremental implementation that leaves gaps and poor interface with adjacent buildings - these will be addressed through the Downtown Livability Initiative. The Pedestrian Corridor will be an increasingly important connection as new development occurs along the corridor and light rail becomes an anchor destination on the east end.

As a "handoff" recommendation to the Downtown Livability Initiative, the Downtown Transportation Plan developed a concept design that is intended to better accommodate wheeled users. Recommended design components consist of special paving treatments, wayfinding and widening.

DOWNTOWN ON-STREET PARKING

On Street Parking

On-street parking supports businesses and residents by providing a convenient opportunity for customers and visitors to park. This is particularly true in Downtown neighborhoods such as Ashwood, Northwest Bellevue, and Old Bellevue where handy off-street parking is limited. An evaluation of each block face in Downtown Bellevue using a set of criteria specified by the Transportation Commission determined that some parking spaces could be added to the existing supply of 300 on-street parking spaces. "High opportunity" locations could yield approximately 50 new stalls, while the moderate opportunity locations could yield between 50 and 100 parking stalls, depending on how aggressively the City pursues these opportunities. New high opportunity spaces would be permanent time-limited spaces that could be achieved through restriping and signing. In contrast, many of the moderate opportunity spaces would use the curbside for parking only in off-peak hours and would require extraordinary signage and enforcement. Parking spaces could be designated as loading zones or taxi stands, as needed. Restriping curb space for parking would meet minimum sight distance standards near driveways and corners. Please refer to the parking inventory and potential future parking supply map (Attachment 6a).

- **Recommendation:** Pursue additional permanent on-street parking at "highopportunity" locations, provided these meet current engineering standards, and analyze "moderate opportunity" locations to determine the value of additional parking to Downtown residents and visitors relative to the costs of adding these parking spaces.

Pay for Parking Program

A pay for parking program would introduce electronic pay stations where drivers would pay a fee for the short-term use of a designated on-street public parking space. Parking program revenue that exceeds what is needed for enforcement and maintenance would be invested in Downtown streetscape improvements.

- **Recommendation:** Propose, through the budget development process, a pay for parking program, governed by a set of program principles. One essential principle would be to use revenue generated from the program would be used to pay for parking management and enforcement as well as for Downtown streetscape improvements.

MISCELLANEOUS CURBSIDE USES

A vibrant urban center is host to activities within the street right-of-way that cannot always be predicted or planned for. Many of these miscellaneous curbside uses come and go in a flash, while others may require more time and space. It is the latter type that the Downtown Transportation Plan addresses with policy recommendations as follows:

Curbside Parcel/Freight Loading/Unloading

Within Downtown, large-scale loading activity typically occurs within on-site locations that are designed and designated for new projects through the process of development review and permit approval. Smaller deliveries may occur on-site, in designated on-street loading zones, and also randomly at the curb or in the center turn lane.

- **Recommendation:** Integrate on-site loading space and/or create designated curb loading space through the process of development review. Ensure that the on-site design and location of loading docks and circulation provide for expeditious loading to encourage this activity to occur on-site rather than on the street.

Curbside Passenger Pick-Up/Drop-Off

Part of the unscripted urbanism of a vibrant mixed-use urban center is the transfer of pedestrians between vehicles and the sidewalk. While there is no specific "best practice" guidance for managing this activity, active loading or unloading is typically accommodated in designated curbside areas. Bellevue has no policy that addresses the use of personal vehicles for passenger pick-up and drop-off activity. For hire vehicles are covered in **BCC 11.23.026**. On a case-by-case basis in the process of development review, pick-up/drop-off space may be designated in a curbside pullout.

- **Recommendation:** Integrate new time-limited curbside space for passenger pick-up and drop-off through the process of development review.

Taxi Stands

Typically, taxi queuing areas - taxi stands - are established where taxis wait to pick up passengers, particularly at major attractions such as hotels, convention venues, shopping/entertainment centers, and transit/light rail stations. Taxi stands generally work as a first-come, first-served queue, with the taxicab at the front of the line serving the first passenger to arrive, then each taxicab behind it moves ahead. Currently there are no designated on-street taxi stands in Downtown Bellevue, although there are some known locations where taxis congregate - on the east side on 108th Ave NE north of NE 6th Street for instance. Off-street taxi stands have been incorporated on-site at major hotels.

- **Recommendation:** Establish policy support for designating curbside taxi stands. Incorporate criteria to be considered in designating a taxi stand as follows:
    - Close to significant generators of pedestrian traffic, such as a hotel, convention facility, shopping destination, or light rail station
    - Where on-street parking would otherwise be a designated curbside use
    - Evening and weekend temporary taxi-stand use of the curbside to support nearby entertainment venues

Other Curbside Uses

Park(ing) Day

Parkingday.org describes PARK(ing) Day as an annual worldwide event where artists, designers and citizens transform a metered parking spot into a temporary public park. A number of creative temporary PARK(ing) Day installments have popped up in Seattle and Vancouver in recent years. In Bellevue there have been no Park(ing) Day installations. A Right-of-Way use permit is required for the temporary use of a curbside parking space.

- **Recommendation:** Provide policy support for temporary Park(ing) Day use of a permanent on-street parking space on a case-by-case basis, as requested by nearby businesses.

Bicycle Parking Corrals

On-street bicycle parking corrals - popular in Seattle, Portland, Tucson, and many other cities - can accommodate several bicycles in a consolidated location. Studies have noted that bicycle corrals may generate more economic activity than a single car parking space because of the greater number of customers on bicycles that can park in the space a single car would occupy.

Bicycle corrals, in the place of an on-street parking space, would be potential sites for future bike-share docking stations if the Puget Sound Bike Share program comes to Bellevue. Phase 1 of bike share will be implemented in Seattle in 2014.

- **Recommendation:** Allow for a bicycle parking corral to be installed in a permanent on-street parking space on a case-by-case basis as requested by nearby businesses, or as a bike share docking station sponsored by a regional bike-share program.

Electric Vehicle Charging Stations

Transportation sources account for approximately 47% of the greenhouse gas (GHG) emissions in Bellevue. Hybrid and electric vehicle technology can reduce GHG emissions, especially when the electricity is derived from sustainable or renewable sources such as solar, wind, and hydro. Fortunately, the electricity provided by Puget Sound Energy is significantly "green" energy. Public curbside electric vehicle charging stations can support the use of electric vehicles and can be installed curbside in a manner similar to an electronic pay station.

- **Recommendation:** Allow for electric vehicle charging stations to be installed in permanent on-street parking spaces.

SUMMARY OF "HANDOFFS" TO THE DOWNTOWN LIVABILITY INITIATIVE

The Downtown Livability Initiative Steering Committee will make recommendations to the City Council on Downtown Subarea Plan and Land Use Code amendments that will address urban design and site development considerations. Some mobility facilities the Transportation Commission has considered are embedded in the Land Use Code, rather than the Downtown Subarea Plan, and are therefore under the umbrella of the Downtown Livability Initiative. These have been discussed previously in this memo and are summarized here:

- **Transit Passenger Comfort, Access and information**
  - Provide an incentive for developers to include and incorporate transit passenger enhancements in new projects that are located near existing or planned transit stops
- **Sidewalk Width**
  - Increase width from 12 to 16 feet and from 16 to 20 feet (including curbside landscaping) along specified street segments
- **Curbside Landscaping**
  - Require planter strip with street trees instead of street trees in tree grates along specified street segments
- **Through-Block Connections**
  - Refine design guidelines to enhance pedestrian navigation through "superblocks"
- **Pedestrian Corridor Design Components**
  - Refine design guidelines to better accommodate wheeled users and enhance access to transit

- **On-Site Bicycle Parking Facilities (End-of-Ride)**
  - Require secure, long-term, on-site bicycle parking as a component of new development. Provide lockers and showers in addition to secure bicycle parking to support bicycle commuting.
- **Curbside Parcel/Freight Loading/Unloading**
  - Integrate on-site loading space and/or create designated curb loading space through the process of development review. Ensure that the on-site design and location of loading docks and circulation provide for expeditious loading to encourage this activity to occur on-site rather than on the street.
- **Curbside Passenger Pick-Up/Drop-Off**
  - Integrate new time-limited curbside space for passenger pick-up and drop-off through the process of development review.

NEXT STEPS

At the City Council study session on September 23, 2013, staff, Vice Chair Lampe and members of the Transportation Commission will provide a comprehensive overview and discussion of preliminary recommendations for Downtown transportation.

ATTACHMENTS

1. Council Principles
2. Roadway Capacity Projects
   a. 2030 Baseline
   b. 2030 "Build" Scenario
   c. All 2030 Roadway Capacity Projects
3. Transit Access
   a. 2010 Transit Coverage
   b. 2030 Transit Coverage
   c. Transit Priority Corridors and Intersections
4. Bicycle Facilities
   a. Downtown Area
   b. North and South of Downtown
5. Pedestrian Facilities
   a. Sidewalk Width and Curbside Landscaping
   b. Land Use Code Changes for Sidewalk and Landscaping
   c. Crosswalk Designations
   d. Mid-Block Crossings
6. On-Street Parking
   a. On-street Parking Inventory and Opportunities

Planning Principles

1. Plan for multiple modes of travel within and to and from Downtown Bellevue

Develop an innovative multimodal transportation strategy for Downtown Bellevue that updates the existing Downtown Subarea Plan project list. The recommended strategy should consider and incorporate the emerging and anticipated mobility needs of motorists, pedestrians, bicyclists, transit riders, taxi patrons and carpool/vanpool riders, and support the transport, parking and loading needs of employers, residents and businesses.

2. Accommodate the anticipated travel demands from the 2030 land use forecast

Ensure that the planned transportation system will accommodate the 2030 forecast for Downtown residential and employment growth.

3. Advance the adopted vision for Downtown Bellevue

Ensure that the Downtown transportation system advances and supports the land use and urban design vision for Downtown Bellevue - articulated in the Downtown Subarea Plan as a vibrant, livable, accessible, and memorable mixed use Urban Center.

4. Recognize changes in the regional and local transportation and land use environment

Incorporate local and regional transportation projects and plans that have been approved and/or implemented since the Downtown Subarea Plan was adopted in 2004. Transportation system changes include East Link, SR 520 expansion and tolling, improvements to I-90 and I-405, and the Bellevue Mobility and Infrastructure Initiative. Planning changes include the updated Bel-Red Subarea Plan, the Wilburton Subarea Plan and the Eastgate/I-90 Corridor Study.

5. Integrate City Council direction

As potential Downtown transportation projects are identified, incorporate City Council direction on regional transportation facilities, such as the Downtown alignment for East Link and the I-405 Master Plan.

6. Provide for comprehensive public involvement

Ensure that the process to update the Downtown Transportation Plan invites broad and inclusive public involvement that engages the diverse Downtown commercial and residential communities, nearby residential neighborhoods, and other community stakeholders.

7. Minimize traffic impacts on neighborhoods

Consider measures as needed to protect Downtown residents and nearby residential neighborhoods from significant adverse impacts from traffic and commuter parking.

8. Involve regional transportation and planning partners

Coordinate planning for the Downtown Bellevue transportation system with regional transportation and planning partners, such as the Puget Sound Regional Council, Washington State Department of Transportation, Sound Transit, and King County Metro, and work to ensure Downtown projects and plans are compatible with each other and are consistent in support of mobility and economic development in Downtown Bellevue.

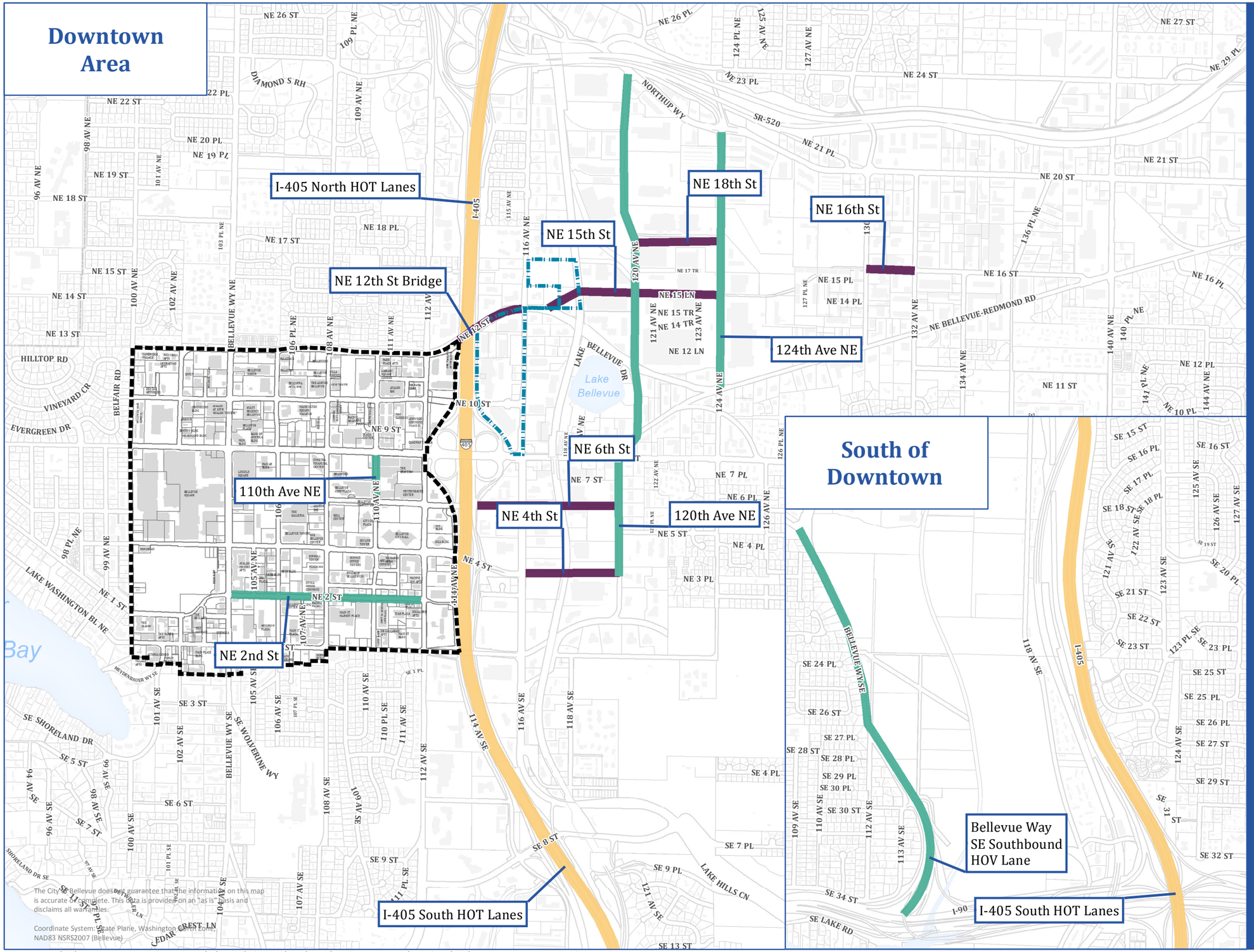
9. Leverage funding from outside sources to implement projects

Identify transportation system projects that effectively leverage grant funding opportunities. These types of projects will achieve multiple mobility objectives, support economic vitality and residential development, and will sustain Downtown Bellevue's regional status as a Metropolitan City and Urban Center.

10. Utilize measures of effectiveness to evaluate potential projects

Use both quantitative and qualitative measures of effectiveness to evaluate project ideas relative to each other and to community objectives. Consider the cost of a project relative to its benefit to mobility as an important metric, in addition to measures such as improved safety for pedestrians and bicyclists, management of traffic congestion, and the efficient use of the available right-of-way.

Approved by Bellevue City Council February 6, 2012



City of Bellevue
Transportation Department

Roadway Capacity: 2030 Baseline

Downtown Area

Downtown Transportation Plan Update

Roadway Projects

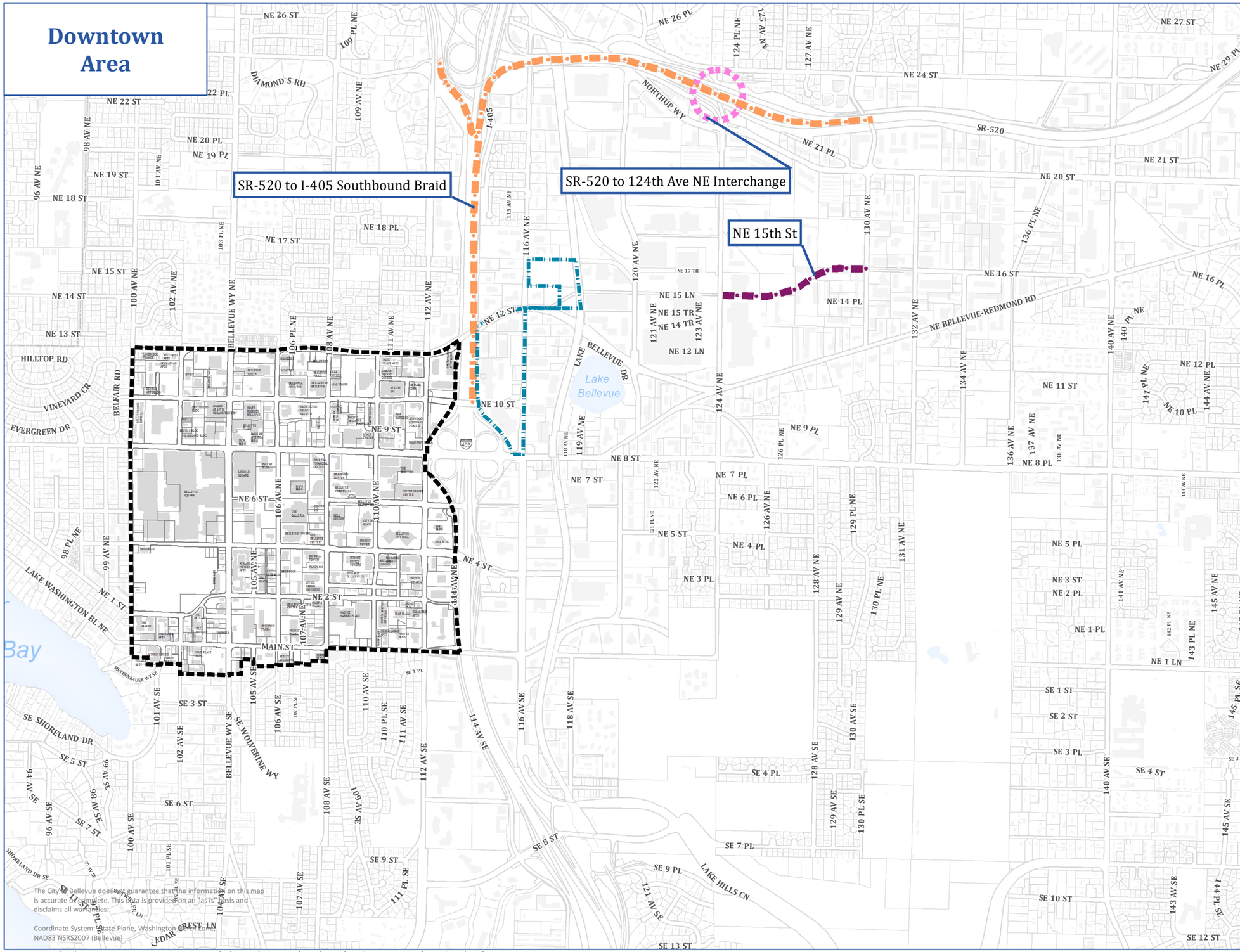
- Arterial Extension
- Arterial Widening
- Freeway

Area Boundaries

- Downtown Bellevue
- Medical Institution District

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009



City of Bellevue
Transportation Department

Roadway Capacity: 2030 "Build"

Downtown Area

Downtown Transportation Plan Update

Roadway Projects

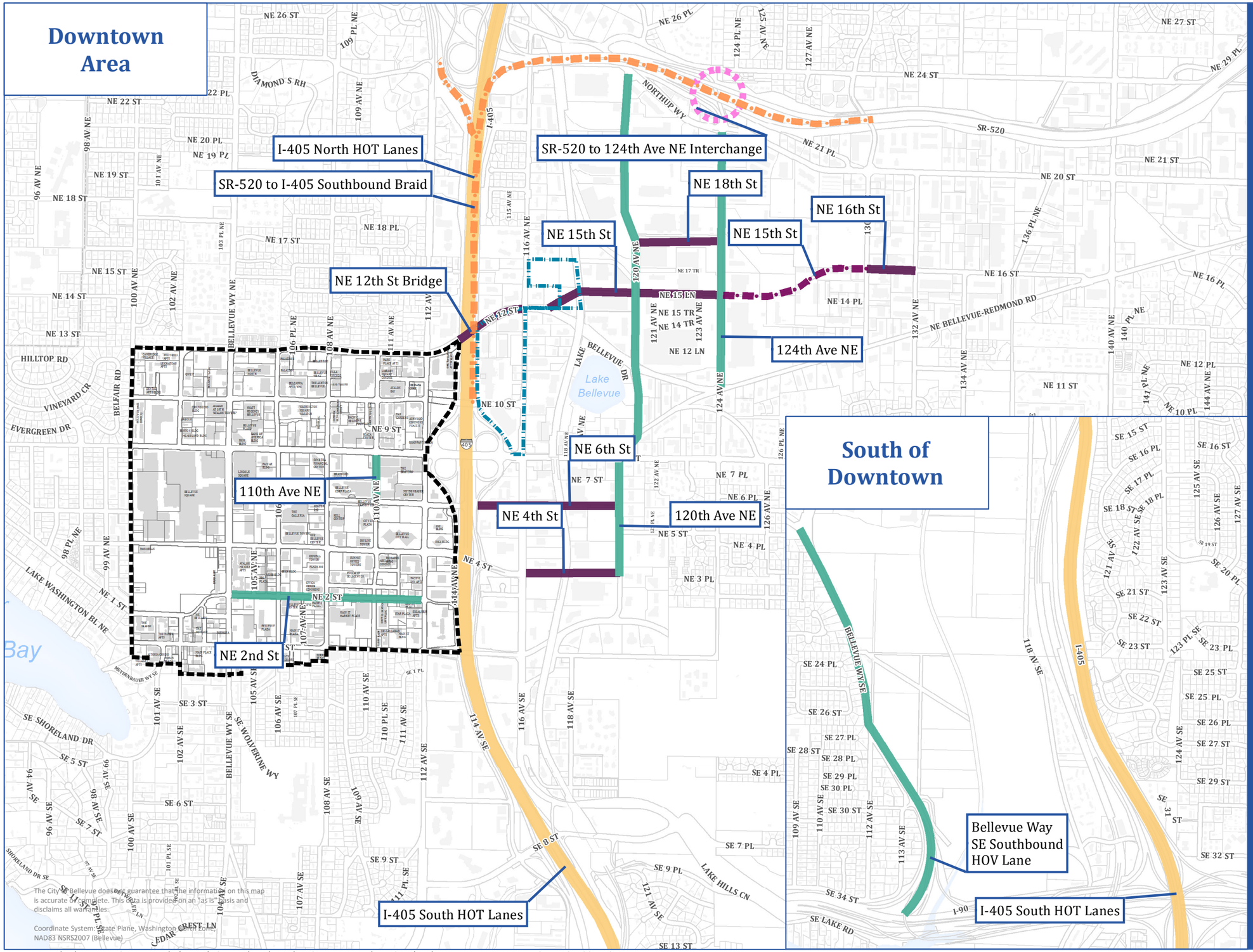
- Arterial Extension
- Freeway
- Interchange

Area Boundaries

- Downtown Bellevue
- Medical Institution District

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009



City of Bellevue
Transportation Department

Roadway Capacity: 2030 Baseline & "Build"

Downtown Area

Downtown Transportation Plan Update

Roadway Projects

Baseline

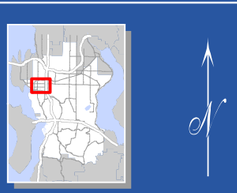
- Arterial Extension
- Arterial Widening
- Freeway

"Build"

- Arterial Extension
- Freeway
- Interchange

Area Boundaries

- Downtown Bellevue
- Medical Institution District



80,000
Feet

Sources:
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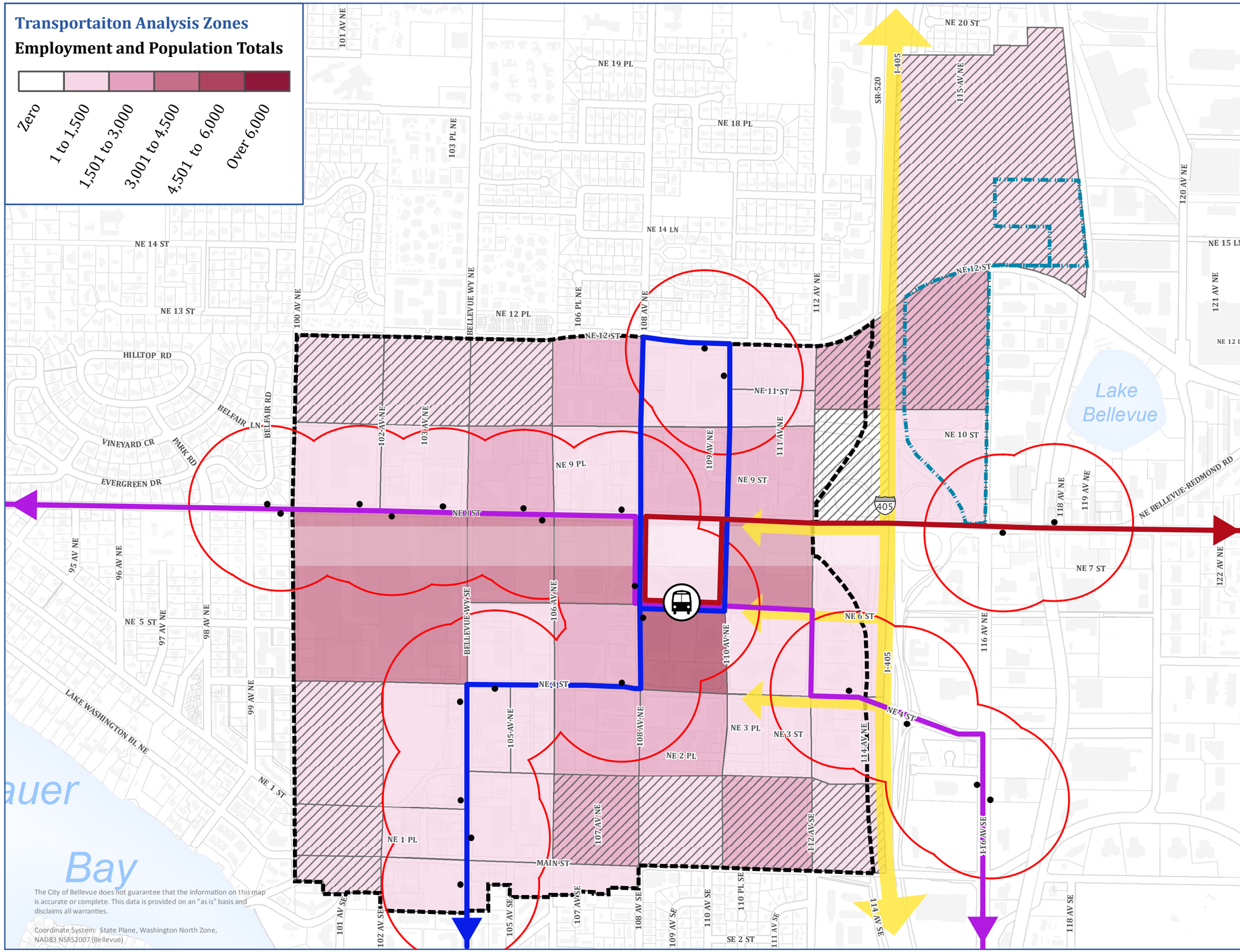
Building Footprints:
Spring 2009



City of Bellevue
Transportation Department

2010 Population and Employment Transit Coverage

Downtown Transportation Plan Update

Transit Coverage

Frequent Transit Network

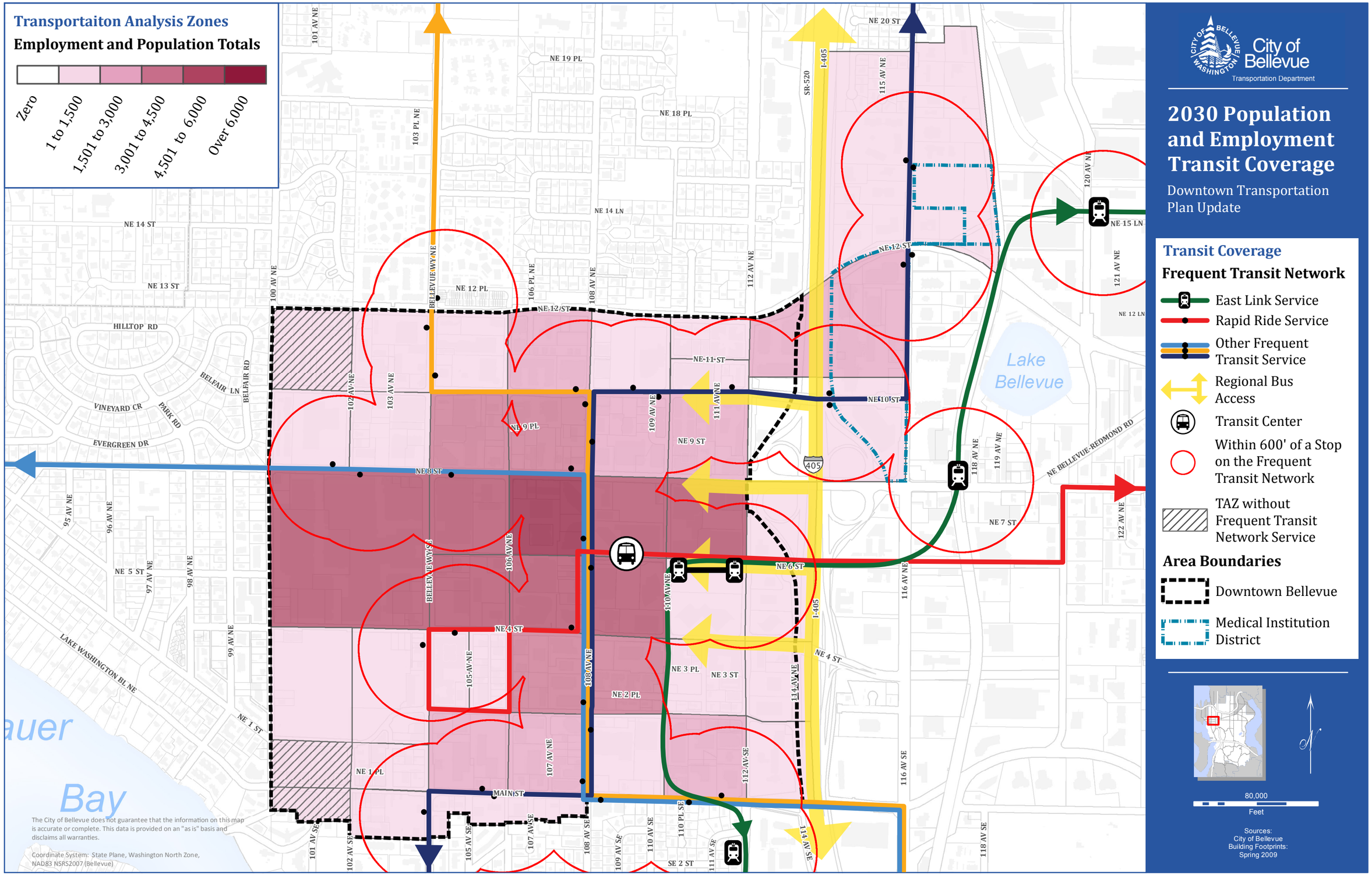
- 550
- 271
- 253
- Regional Bus Access
- Transit Center
- Within 600' of a Stop on the Frequent Transit Network
- TAZ without Frequent Transit Network Service

Area Boundaries

- Downtown Bellevue
- Medical Institution District

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009


Transportaiton Analysis Zones
Employment and Population Totals
Zero
1 to 1,500
1,501 to 3,000
3,001 to 4,500
4,501 to 6,000
Over 6,000
City of Bellevue
Transportation Department
2030 Population and Employment Transit Coverage
Downtown Transportation Plan Update
Transit Coverage
Frequent Transit Network
East Link Service
Rapid Ride Service
Other Frequent Transit Service
Regional Bus Access
Transit Center
Within 600' of a Stop on the Frequent Transit Network
TAZ without Frequent Transit Network Service
Area Boundaries
Downtown Bellevue
Medical Institution District
80,000
Feet
Sources:
City of Bellevue
Building Footprints:
Spring 2009
Lake Bellevue
Bay
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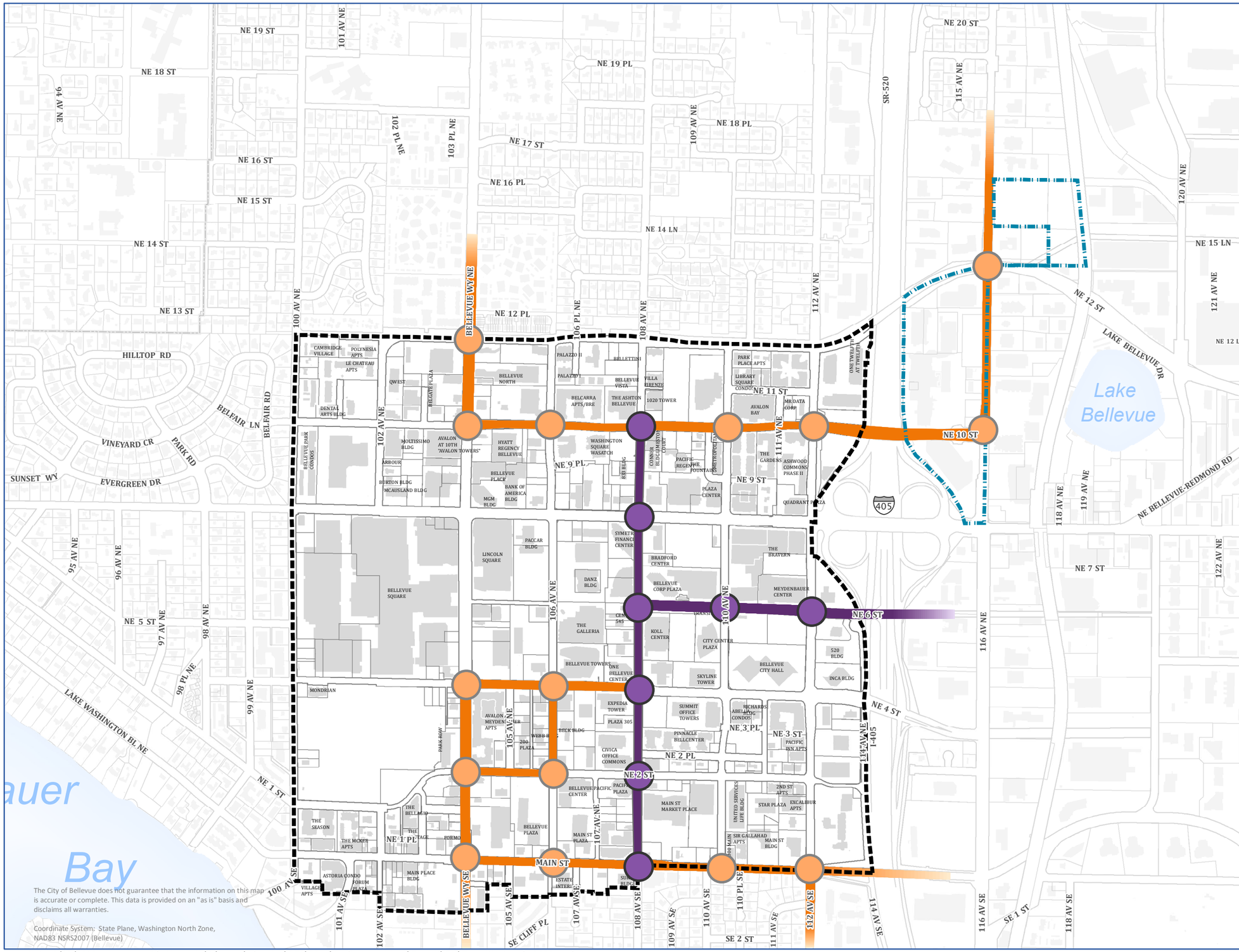
Coordinate System: State Plane, Washington North Zone, NAD83 NSRS2007 (Bellevue)

City of Bellevue
Transportation Department

2030 Transit Priority Network

Downtown Transportation Plan Update



Transit Priority Network

Corridors

- Priority I
- Priority II

Intersections

- Priority I
- Priority II

Area Boundaries

- Downtown Bellevue
- Medical Institution District

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009

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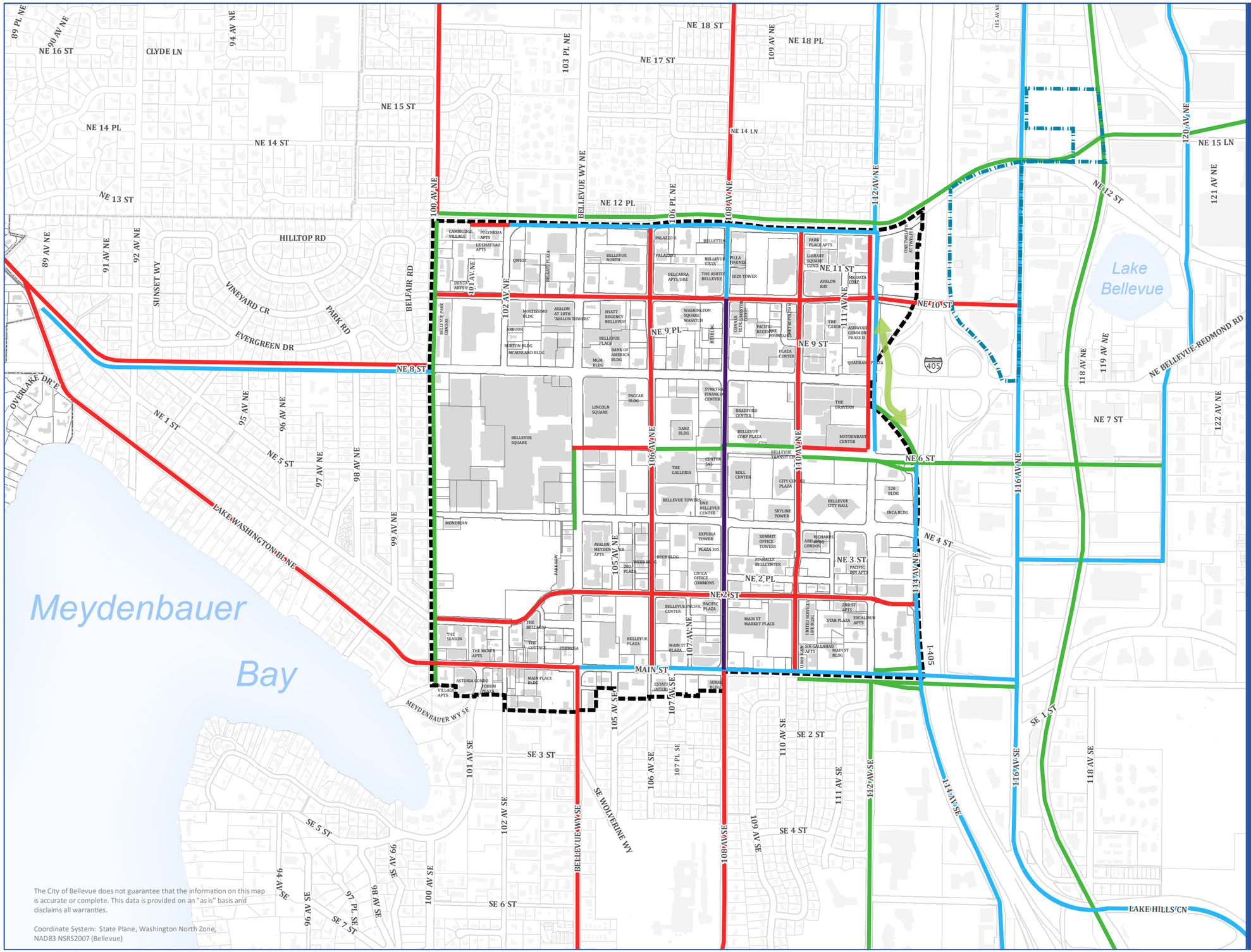

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City of Bellevue
Transportation Department

2030 Bicycle Facilities Network

Downtown Area

Downtown Transportation Plan Update

Bicycle Facilities

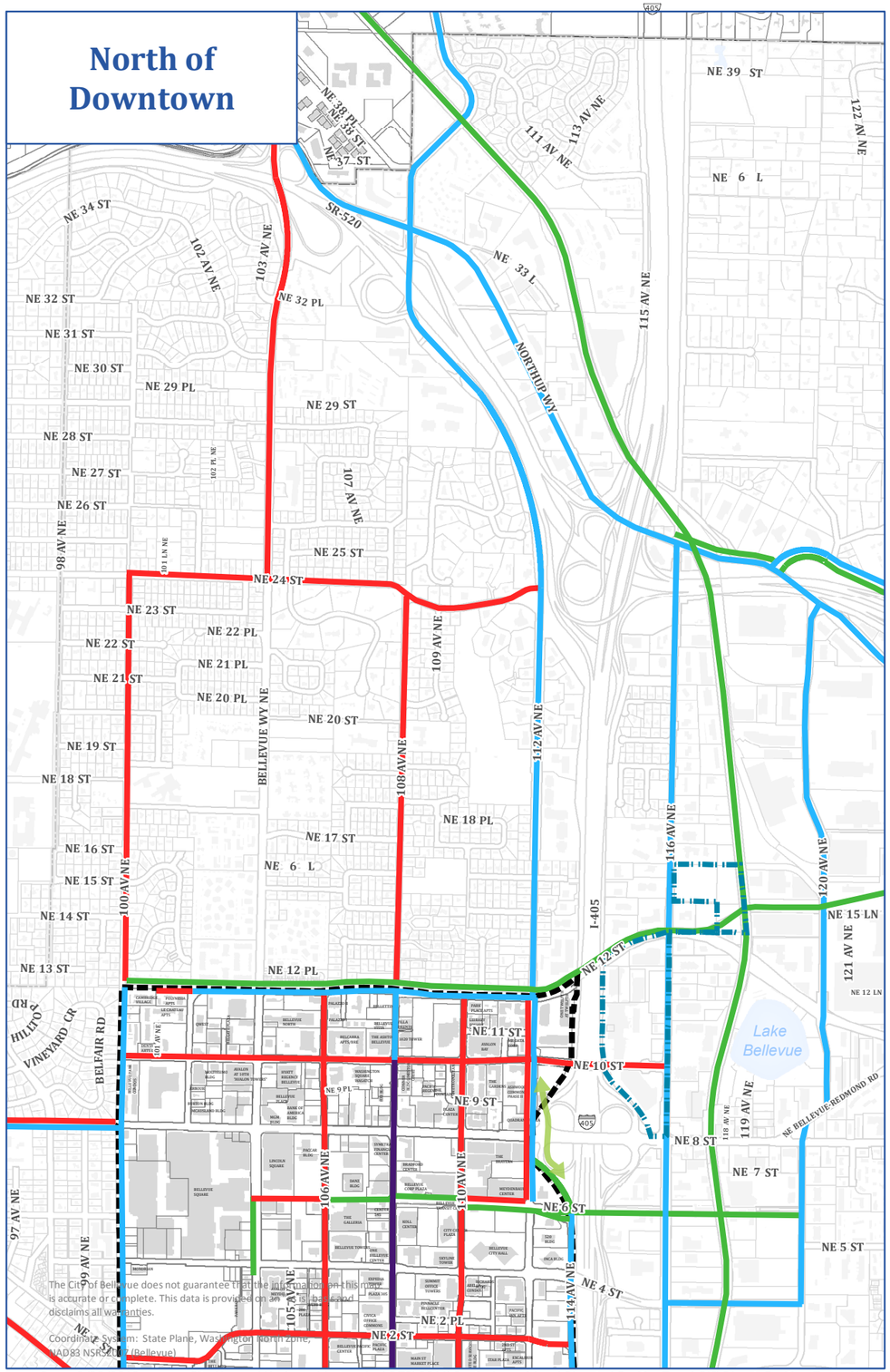
- Shared Roadway
- Bicycle Lane
- Off-Street Path
- Grade Seperated Off-Street Path
- Designated for Transit and Bicycle Priority

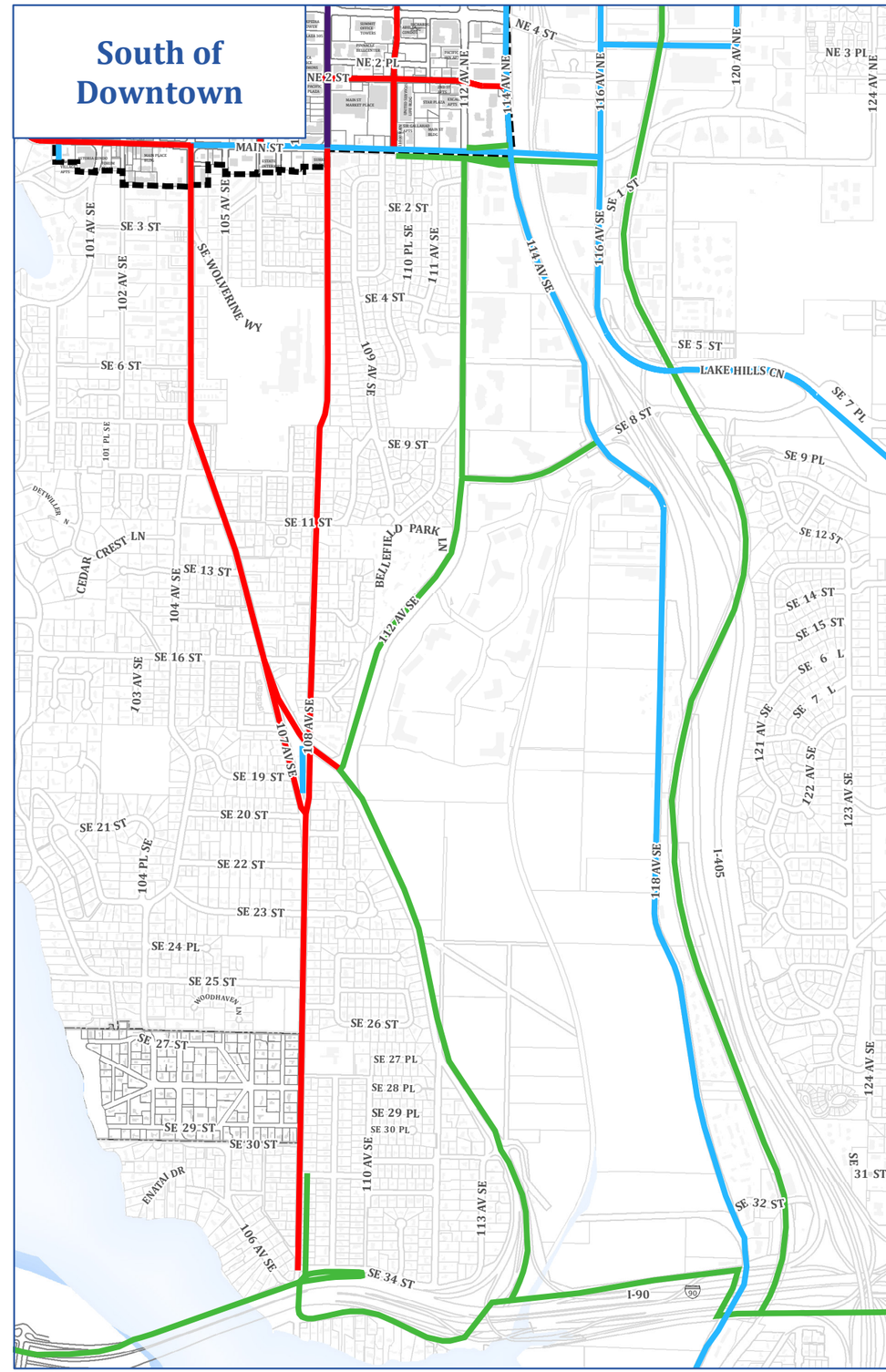
Area Boundaries

- Downtown Bellevue
- Medical Institution District

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009





City of Bellevue
Transportation Department

2030 Bicycle Facilities Network

North and South of Downtown

Downtown Transportation Plan Update

Bicycle Facilities

- Shared Roadway
- Bicycle Lane
- Off-Street Path
- Grade Seperated Off-Street Path
- Designated for Transit and Bicycle Priority

Area Boundaries

- Downtown Bellevue
- Medical Institution District

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009

City of Bellevue
Transportation Department

Recommended Requirements for Sidewalks

Downtown Transportation Plan Update

Downtown Sidewalks

Landscaping

- Planter Strip with Street Trees
- Street Trees in Tree Grates

Width

- 20' Width
- 16' Width
- 12' Width

Existing Facility

- Pedestrian Corridor

Area Boundaries

- Downtown Bellevue

The sidewalk width includes a 4-foot-wide landscaping strip at the curb, with either a planter or street tree.

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009

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Coordinate System: State Plane, Washington North Zone, NAD83 NSRS2007 (Bellevue)

City of Bellevue
Transportation Department

Recommended Changes to Requirements

Downtown Transportation Plan Update

Downtown Sidewalks

Landscaping Changes

Planter Strip with Street Trees Instead of StreetTrees in Grates

Width Changes

Increase from 16' to 20' Width

Increase from 12' to 16' Width

Existing Facility

Pedestrian Corridor

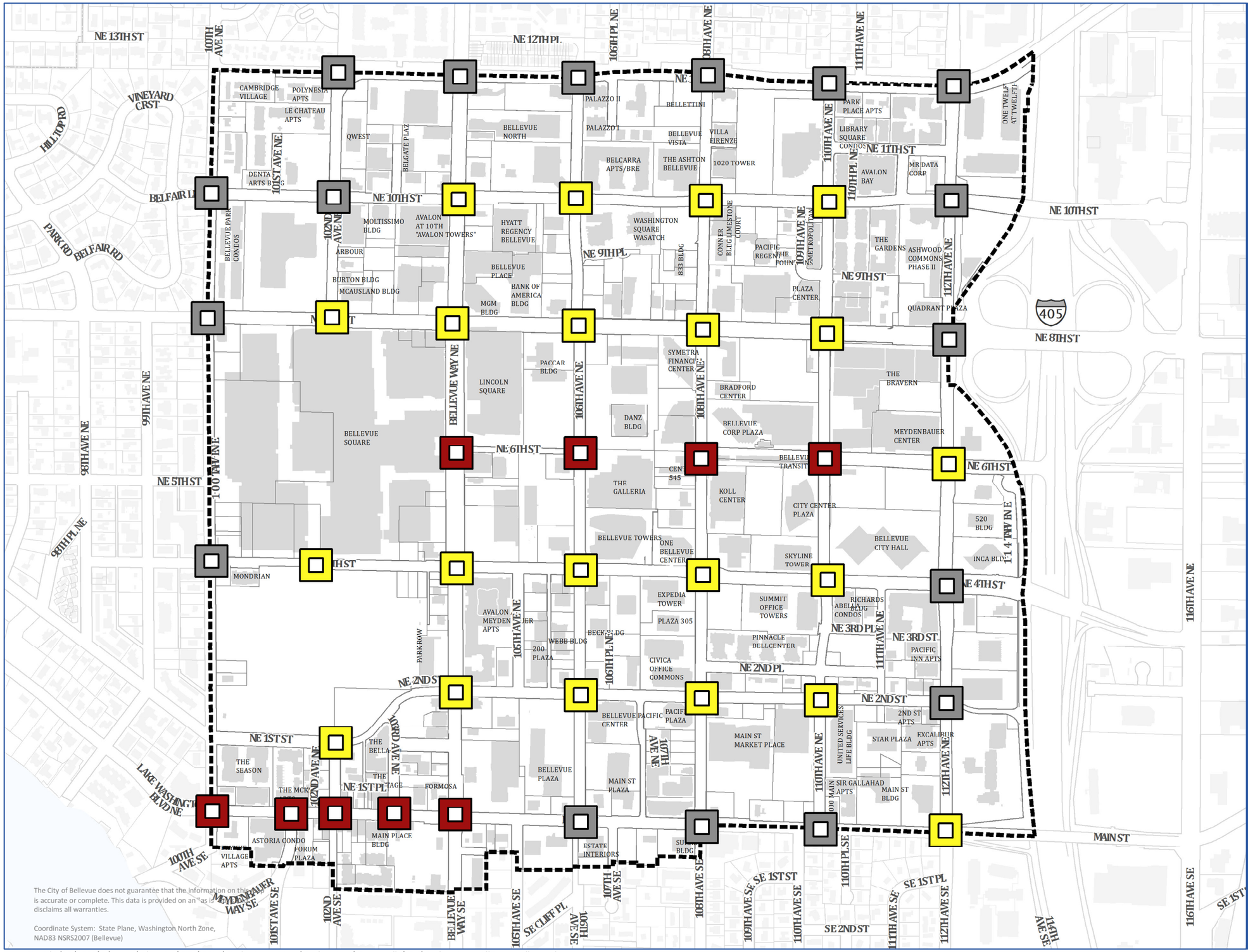
Area Boundaries

Downtown Bellevue

The sidewalk width includes a 4-foot-wide landscaping strip at the curb, with either a planter or street tree.

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009



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Coordinate System: State Plane, Washington North Zone, NAD83 NSRS2007 (Bellevue)

City of Bellevue
Transportation Department

Recommended Crosswalk Types

Downtown Transportation Plan Update

Crosswalk Types

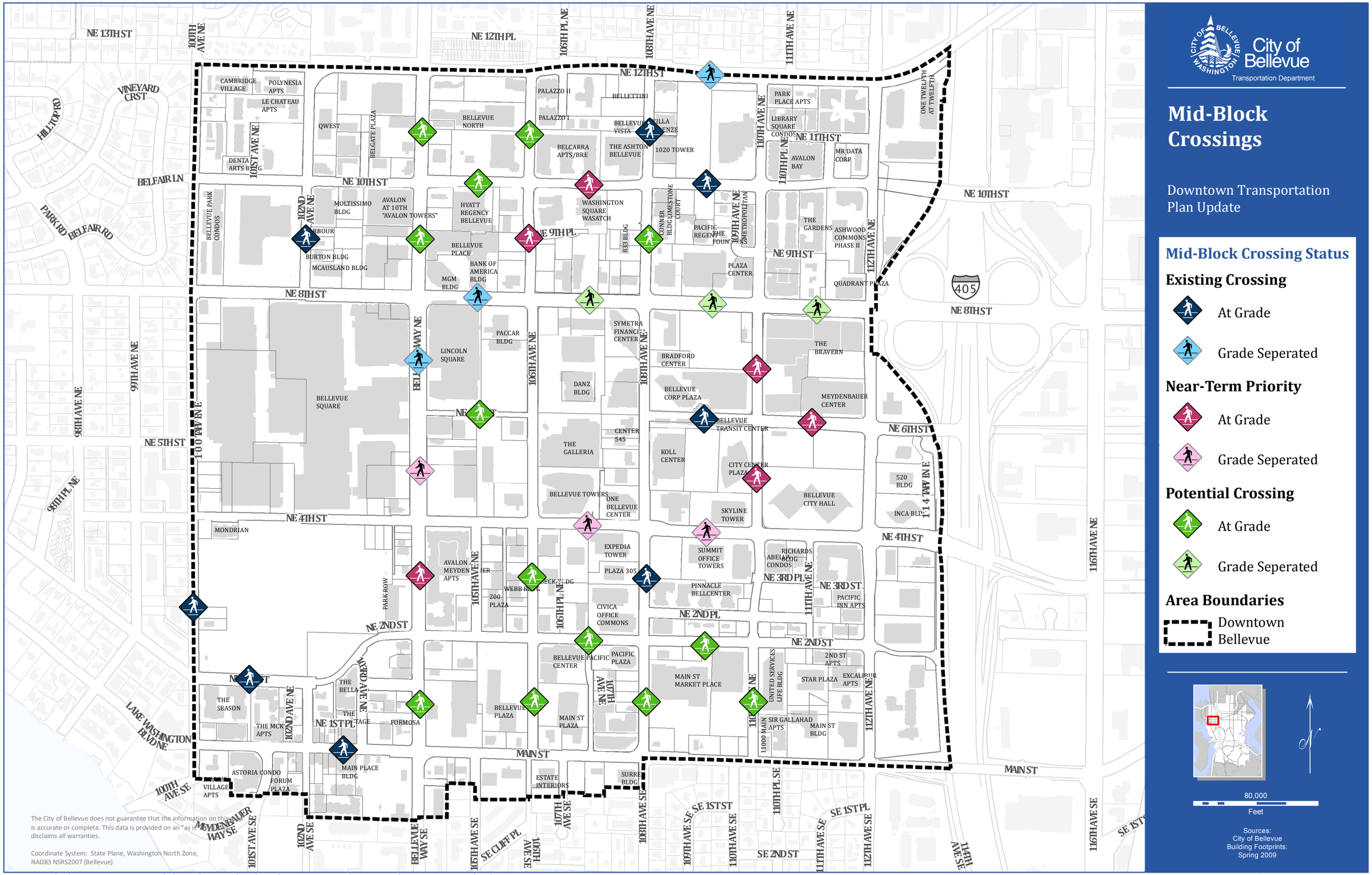
- Standard
- Enhanced
- Exceptional

Area Boundaries

- Downtown Bellevue

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009



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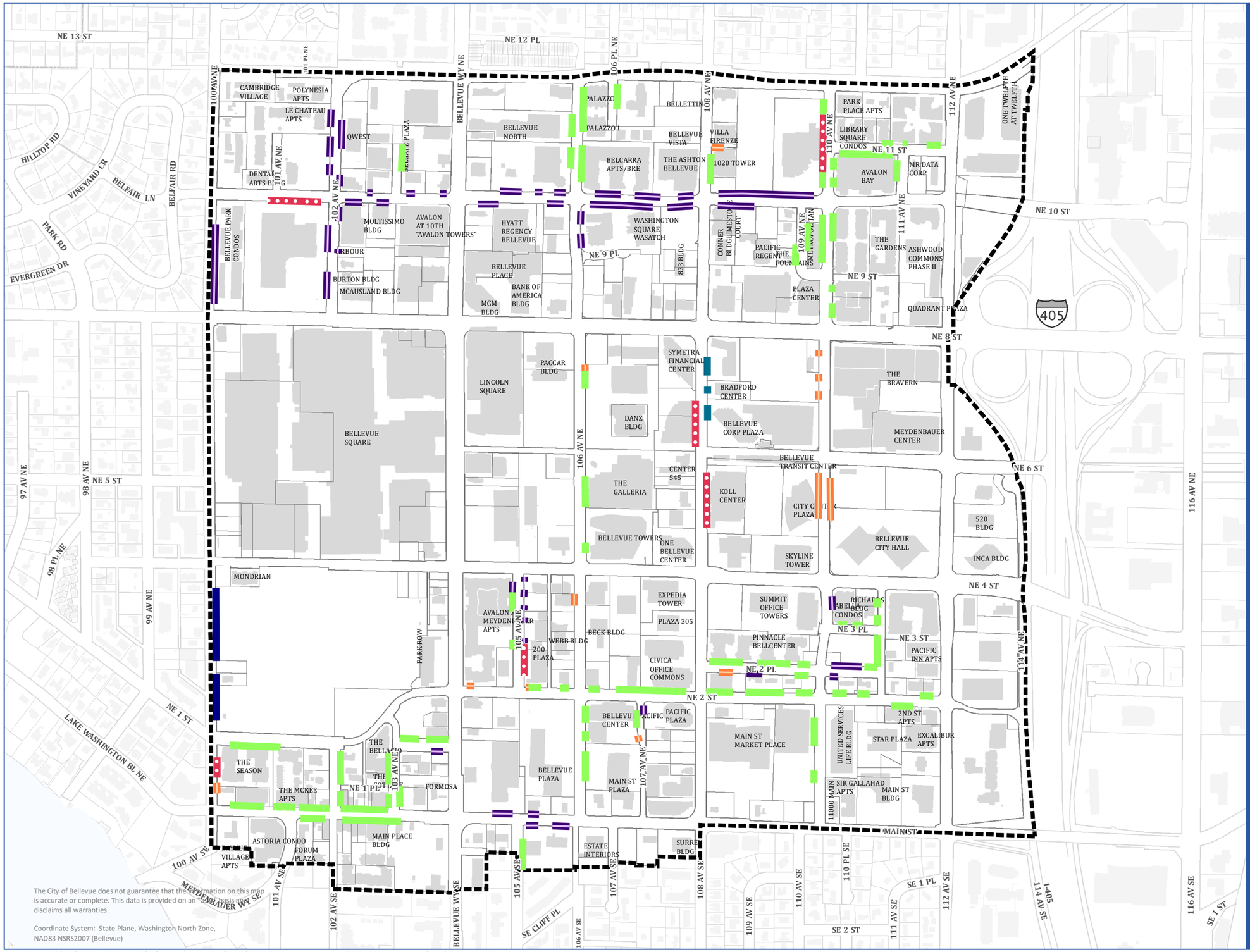

City of Bellevue
Transportation Department

On-Street Parking Supply

Downtown Transportation Plan Update

On-Street Parking

Opportunity for New Stalls

- High Opportunity
- Moderate Opportunity

Existing Parking Stalls

- 2 Hr Parking 7am-6pm Except SUN & HOL
- No Parking 7am-6pm Except SUN & HOL
- No Parking 7am-6pm Except SAT, SUN & HOL

Existing Curb Uses

- Transit Layover Area

Area Boundaries

- Downtown Bellevue

80,000
Feet

Sources:
City of Bellevue
Building Footprints:
Spring 2009