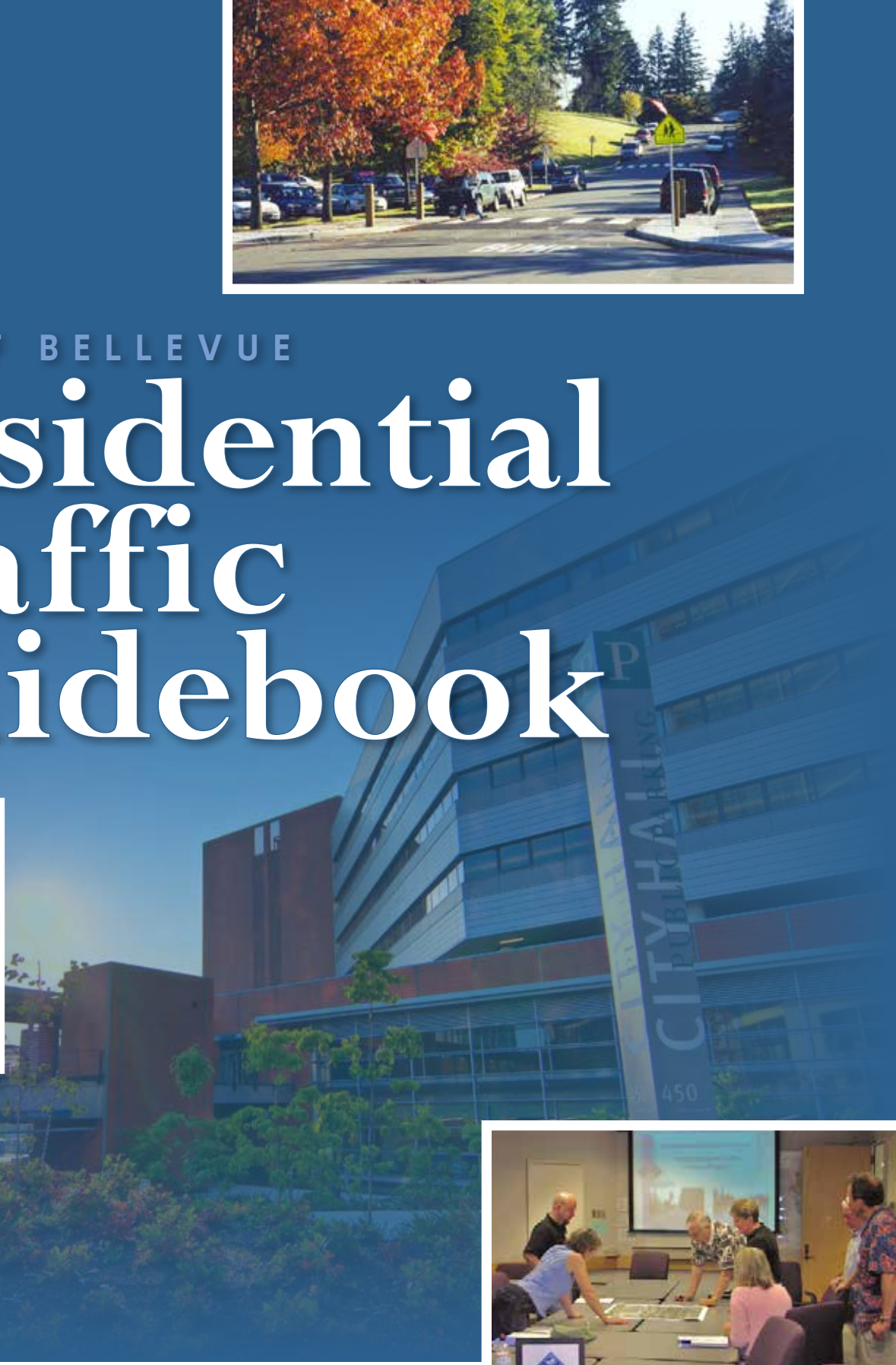




CITY OF BELLEVUE

Residential Traffic Guidebook



**BELLEVUE
NEIGHBORHOOD
TRAFFIC
SAFETY
SERVICES**

**TRANSPORTATION
DEPARTMENT**



CONTACT

City of Bellevue
Transportation Department
Neighborhood Traffic Safety Services

450 110th Ave NE
P.O. Box 90012
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Blog: bellevuentss.wordpress.com



Welcome!

Thank you for taking an interest in improving traffic safety in your neighborhood. Daily traffic and parking problems can compromise our sense of community and personal well-being, while safe and pleasant streets can enhance our quality of life. Bellevue's Neighborhood Traffic Safety Services staff is committed to working with residents to protect and preserve neighborhood livability. Through a variety of tools and efforts, together we can make a difference. This guide will provide you with the tools and information you and your neighbors need to work with the City on addressing traffic concerns.





Clockwise from top-left:

Pedbee educates children about traffic safety; colored pavement creates a buffer around a curve; 25 mph pavement marking; parking restrictions near downtown; entering a residential area; school zone flashing beacon.

LET'S GET STARTED!

Residents are often the first to know of traffic safety concerns in their neighborhood. As a resident, you are our eyes and ears on the street, providing information on traffic conditions.

With your help, we can...



Manage Traffic Volume

Reduce the number of cut-through vehicles on a residential street



Reduce Excessive Vehicle Speeds

Slow down motorists choosing to drive faster than the posted speed limit



Improve Pedestrian and Bicycle Safety

Create a more inviting and safer place to walk and bike



Enhance Neighborhood Identity

Heighten awareness of your neighborhood



Educate the Community

Create awareness around traffic safety through targeted education and outreach



Manage Neighborhood Parking

Address parking from businesses and schools that spillover into neighborhoods



Heighten School Zone Awareness

Heighten awareness and traffic safety in and around elementary schools zones



HOW THE TRAFFIC SAFETY PROCESS WORKS

You and your neighbors become an active part in helping to identify traffic concerns, develop recommendations, and implement solutions.

Step 1

Submit a **Request for Action** form describing your concerns in as much detail as possible including if there is a specific time of day or day of the week you notice the problem to be at its worst. The more information we have as we assess the situation, the better prepared we are to address your concern.

Step 2

Staff travel to the location and review traffic conditions. They may conduct speed and volume counts and/or look at previous traffic studies or reported accidents.

Step 3

A **Traffic Action Plan** is developed. This plan is specifically tailored to your concern based on the findings in step 2 and other citizen observations. The plan includes a list of tools selected from those available in this guidebook which are best suited to address your concerns.

Step 4

Together, citizens work with staff on implementing the **Traffic Action Plan**. This is your opportunity to become an active partner in helping to solve your neighborhood traffic concerns.

Step 5

The effectiveness of the plan is evaluated through additional follow-up studies and citizen input, if needed.

5 easy steps



WHAT TYPES OF TOOLS ARE AVAILABLE?

There are a number of tools that have been identified to address specific traffic conditions occurring in your neighborhood. These tools are categorized into three areas:



Education, Encouragement, and Enforcement

Educating the community on transportation issues is an important first step in addressing traffic concerns in neighborhoods. One of the most frequent comments made to the Transportation Department is the need to address speeding along residential streets. Our studies show that the majority of speeders on neighborhood streets in Bellevue are local residents. By educating the community and encouraging safe driving, we can begin to change driver behavior and reduce vehicle speeds. Enforcement, such as police citations, can also help to alleviate speeding concerns.

Modifying Streetscape

Physically changing how the road looks—whether with signing, curbing, or other traffic calming measures—works to alter the behavior of motorists, pedestrians, and bicyclists. These tools help to manage traffic volumes, reduce vehicle speeds, and improve sight distance. Engaging the community in developing the Traffic Action Plan and garnering support is key to the success of any project that modifies the streetscape.

Parking

Parking availability in neighborhoods is often affected by non-resident vehicles parked in areas adjacent to businesses, schools, and other public facilities. These tools reduce spillover parking by restricting the use of on-street parking.





Clockwise from top-left:

A speed hump in a neighborhood; Pedbee teaches school children about traffic safety; students walk to school; a median helps identify the entrance to a neighborhood; a school child helps families safely cross the street; a raised crosswalk is combined with a median to provide mid-street safety; curb extensions and a traffic circle narrow the roadway; a landscaped median brightens up the neighborhood



TRAFFIC SAFETY TOOLKIT



Education, Encouragement, and Enforcement		Manage Traffic Volume	Reduce Excessive Vehicle Speeds	Improve Pedestrian and Bicycle Safety	Enhance Neighborhood Identity	Educate the Community	Manage Neighborhood Parking	Heighten School Zone Awareness
Page								
13	Neighborhood Speed Watch Program		●			●		
13	Neighborhood Traffic Safety Newsletters	●	●	●	●			
14	Pedbee Education Program		●		●		●	
14	Portable Radar Dolly	●			●			
15	Radar Trailer	●			●			
15	Sign and Pledge Program	●		●	●			
16	Traffic Enforcement	●			●			
16	Trips to School		●		●			●

Modifying Streetscape		Manage Traffic Volume	Reduce Excessive Vehicle Speeds	Improve Pedestrian and Bicycle Safety	Enhance Neighborhood Identity	Educate the Community	Manage Neighborhood Parking	Heighten School Zone Awareness
Page								
17	Brush Trimming			●				
19	Chicanes/Slow Points	●	●					
21	Curb Extensions		●	●				●
23	Full Closure	●	●	●	●			
25	Lane Striping		●	●				
27	Medians		●	●	●			●
29	Neighborhood Entrances	●	●		●			●
31	Partial Closure	●	●	●	●			
33	Raised Crosswalk	●	●	●				●
35	“Residential Area” Signs			●	●			
37	School Zone Flashing Beacons		●					●
39	Speed Cushions	●	●					●
41	Speed Dots	●	●					●
43	Speed Humps	●	●					●
45	Speed Limit Pavement Markings		●					
47	Speed Mounds		●	●				●
49	Split Speed Humps		●					
51	Stationary Radar Sign		●					
53	Traffic Circles	●	●					●

Parking		Manage Traffic Volume	Reduce Excessive Vehicle Speeds	Improve Pedestrian and Bicycle Safety	Enhance Neighborhood Identity	Educate the Community	Manage Neighborhood Parking	Heighten School Zone Awareness
Page								
55	General Parking Restrictions	●					●	
56	Good Neighbor Parking Program				●		●	
57	Residential Parking Zone (RPZ)	●					●	

Traffic conditions are different for each location resulting in numerous tools that can address your specific neighborhood concern. In addition, some tools are only applied after guidelines have been met. The above chart lists the tools available to residents. The presence of a black dot (●) indicates which tools best address a specific area of concern. For each tool, specific information and guidelines for their use are defined on subsequent pages.



IMPLEMENTING TOOLS

For each tool, a set of guidelines has been established based on the level of public participation needed, requirements needed to approve the tool, and traffic considerations.

PUBLIC PARTICIPATION

REQUESTOR For most tools, there is an expectation that the person who submits a traffic safety concern will work alongside City staff to resolve the issue and serve as the conduit between the City and his/her neighbors.

TRAFFIC COMMITTEES are groups of resident volunteers who meet with City staff on an ongoing basis and help develop neighborhood-wide plans. Traffic Committee members attend Traffic Committee meetings, become knowledgeable about City policies and guidelines as they relate to traffic calming, and share information with their neighbors. In general, the time commitment for Traffic Committee members is approximately 20-30 hours.

COMMUNITY AND NEIGHBORHOOD ASSOCIATIONS are often asked to participate in the traffic safety process when tools affect the neighborhood as a whole. Board members help to share information with the neighborhood and/or may assign a member to the Traffic Committee.

SCHOOL ADMINISTRATION/PTSAs assist with implementation of traffic safety programs at the local school.



APPROVAL REQUIREMENTS

NOTIFICATION of a project is needed when tools minimally impact adjacent properties, such as the installation of signs.

ADJACENT PROPERTY support is needed whenever a tool, such as speed humps, directly impacts a property. This support is needed before a project moves to the next step.

MAJORITY NEIGHBORHOOD SUPPORT (65%) is needed when a tool will impact a community at large. Through a voting process, 65% of households must show support by returning their ballots.

SCHOOL DISTRICT support may be needed if a project is adjacent to or affects the traffic operations of a school.



TRAFFIC CONSIDERATIONS

VEHICLE SPEEDS listed in the tools are minimum 85th percentile speeds required for that tool to be effective; this means 85% of the vehicles are traveling at or below a specific speed.

AVERAGE DAILY TRAFFIC refers to the average number of vehicles passing a specific point during a 24-hour period. There are minimum traffic volumes and maximum volumes for when certain tools may be implemented.

EMERGENCY RESPONSE TIME is the time it takes for Fire/Police to respond in an emergency. Some tools that modify the streetscape will impact the response time of emergency vehicles from 1-9 seconds. Tools will be labeled as moderately or significantly impact emergency response depending on the delay caused.



ADDITIONAL CONSIDERATIONS

In addition to the guidelines listed on the previous pages, the following are considerations that apply to every tool and help to determine the appropriateness of each tool:

- Is the street a school bus or transit route?
- Are there adjacent arterials to divert traffic?
- Is the roadway grade less than 8%?
- Are there horizontal or vertical curves?
- Where are driveways and intersections located?
- Are streetlights needed?
- Are larger vehicle's turning movements affected?
- Are there drainage and maintenance issues?
- Will parking be affected?
- How many reported accidents have occurred in the area?

We are always looking for ways to improve how we work with residents on traffic safety issues. As such, to ensure we are providing innovative and effective services, this document is subject to change based on the continual review of our processes. While we make every effort to keep the guidelines listed in this document current, there may be some instances where the guidelines are subject to change based on the specific context and location of the traffic safety concern, current regulations, or changes to engineering standards. Additionally, there may be opportunities for alternative tools not listed in this guidebook on a pilot basis.



NEIGHBORHOOD SPEED WATCH PROGRAM

Speed Watch is a public awareness program that provides citizens with partnership opportunities in solving speeding problems in their neighborhood. Residents monitor the speed of vehicles with radar equipment on loan from the Transportation Department. NTSS staff train residents how to use the radar unit to record license plate numbers of those motorists driving at least 5 mph above the posted speed limit. A letter is sent from both the Transportation and Police Departments to the registered owners of those vehicles informing them of the observed violation and encourages them or drivers of their vehicle to drive at or below the posted speed limit. Since this is a community awareness program, no formal citations or fines are issued.



NEIGHBORHOOD TRAFFIC SAFETY NEWSLETTERS

Neighborhood Traffic Safety Newsletters are published by the City and contain personalized information about your neighborhood's traffic safety concerns. This newsletter also explains the results of the Transportation Department's speed and volume studies and recommends actions that may alleviate the traffic concern. Additionally, traffic and pedestrian safety basics are covered. Although City staff develop this newsletter, the local neighborhood association is welcome to assist with newsletter content and distribution. Staff can also provide homeowner associations with traffic safety articles to include in their newsletters or on their website.



PUBLIC PARTICIPATION

A short 20 minute training session is provided to the requestor by city staff. The requestor collects motorist data and submits the results to City staff.

PUBLIC PARTICIPATION

The neighborhood association may provide content and help to distribute the newsletters to neighborhood residents.



PEDBEE EDUCATION PROGRAM

The Pedbee Education Program teaches children in grades K-5 about pedestrian and traffic safety.



The majority of child pedestrian injuries are a result of children crossing the street in an unsafe manner such as darting out into the roadway. Taking the time to educate students about traffic safety lessons is one way accidents can be prevented. The Pedbee mascot visits schools, leads pedestrian safety activities such as how to properly cross a street, and hands out fun, educational workbooks.

Pedbee materials are also available for community use on a first-come, first-served basis.

APPROVAL REQUIREMENTS

School administration approval is required for in-school events.



PORTABLE RADAR DOLLY

A radar dolly is a handcart equipped with a radar unit which detects and displays the speed of passing vehicles on a digital reader board.



The radar dolly may also record the speed and volume of passing vehicles for use in future analysis. Residents concerned about speeding in their neighborhood may borrow and place the dolly in their front yard for up to 2 weeks. By heightening motorists' awareness of the posted speed limit, as well as the speed at which they are driving, motorists are encouraged to modify their speed accordingly.

To borrow the radar dolly please visit www.bellevuewa.gov/radardolly.htm

PUBLIC PARTICIPATION

A short 20 minute training session is provided to the requestor by City staff. The requestor coordinates with the City to arrange pick-up and drop-off times for the equipment at the requestor's home.



RADAR TRAILER

The radar trailer is a portable trailer equipped with a radar unit which detects the speed of passing vehicles and displays the speed on a reader board. Like the radar dolly, the goal is to heighten drivers' awareness of both the speed at which they are traveling and the posted speed limit. This encourages drivers to adjust their speeds, if needed.



Tow companies voluntarily place the radar trailers at locations experiencing frequent speeding. An additional trailer is available by request. The Police Department may use the trailer as a "speed checkpoint" and have an officer present to issue citations to violators.

PUBLIC PARTICIPATION

To request a radar speed trailer be placed at a particular location, call (425)452-6940.



SIGN AND PLEDGE PROGRAM

This program involves lending communities portable signs that encourage motorists to respect the neighborhood, drive responsibly, and drive 25 mph.



The signs are moved by community volunteers from place to place throughout the neighborhood every few days. The second part of the program is a neighborhood pace car program. Residents who pledge to drive responsibly and drive the speed limit on all neighborhood streets receive magnetic bumper stickers or window clings to place on their vehicles. As these motorists drive 25 mph on residential streets, they set the pace for drivers behind them.

PUBLIC PARTICIPATION

The requestor and neighborhood volunteers are responsible for placement of signs around the community. In addition, the volunteers encourage their neighbors to sign the pace car pledge. There is a 20 minute training session provided by Transportation staff.

APPROVAL REQUIREMENTS

Written neighborhood association and volunteer support is required.



TRAFFIC ENFORCEMENT

The Transportation Department works closely with the Bellevue Police Department to enforce



speed limits and other traffic laws in neighborhoods. Using key traffic data provided by Transportation staff, officers focus their scheduled patrols on the times and places where speeding most often occurs. Typically, targeted enforcement occurs during a one-week timeframe.

Enforcement is also available by request.

PUBLIC PARTICIPATION

To request enforcement, go to www.bellevuewa.gov/traffic_service_request.htm or call (425)452-6940.



TRIPS TO SCHOOL

The Trips to School program encourages elementary school students to walk, bike, carpool, and



ride the bus to and from school. City staff coordinate with participating schools to develop a customized plan to enhance traffic safety for their school. The plan can include informational campaigns about school travel options, walking school buses, incentive-based programs, carpool coordination efforts, assemblies, opportunities for state and federal grants, and encouraging students to walk to school every week on a specific day.

PUBLIC PARTICIPATION

A school volunteer or faculty/staff member is needed to serve as a primary contact and be willing to work with the City to develop and implement the customized plan.

APPROVAL REQUIREMENTS

School administration approval is required.



BRUSH TRIMMING

Overgrown brush and trees at intersections, driveways, sidewalks, and along roadways limits motorists' ability to safely navigate neighborhood streets. Overgrown brush can block important signs and limit a driver's ability to see on-coming traffic at intersections. Brush trimming targets those trouble areas and increases the visibility of pedestrians, bicyclists, and motorists.

The City has guidelines for sight-lines based on posted speed limits. When brush trimming is required, City staff notify adjacent households of the concern, requesting they do the maintenance on their own within a specified period of time. If the landscaping does not get sufficiently trimmed back, City crews do the maintenance at the property owners' expense.



PUBLIC PARTICIPATION

The requestor alerts City staff to areas of concern in the neighborhood.



Manage
Traffic
Volume



Reduce
Vehicle
Speeds



**Improve
Pedestrian
& Bicycle
Safety**



Enhance
Neighborhood
Identity



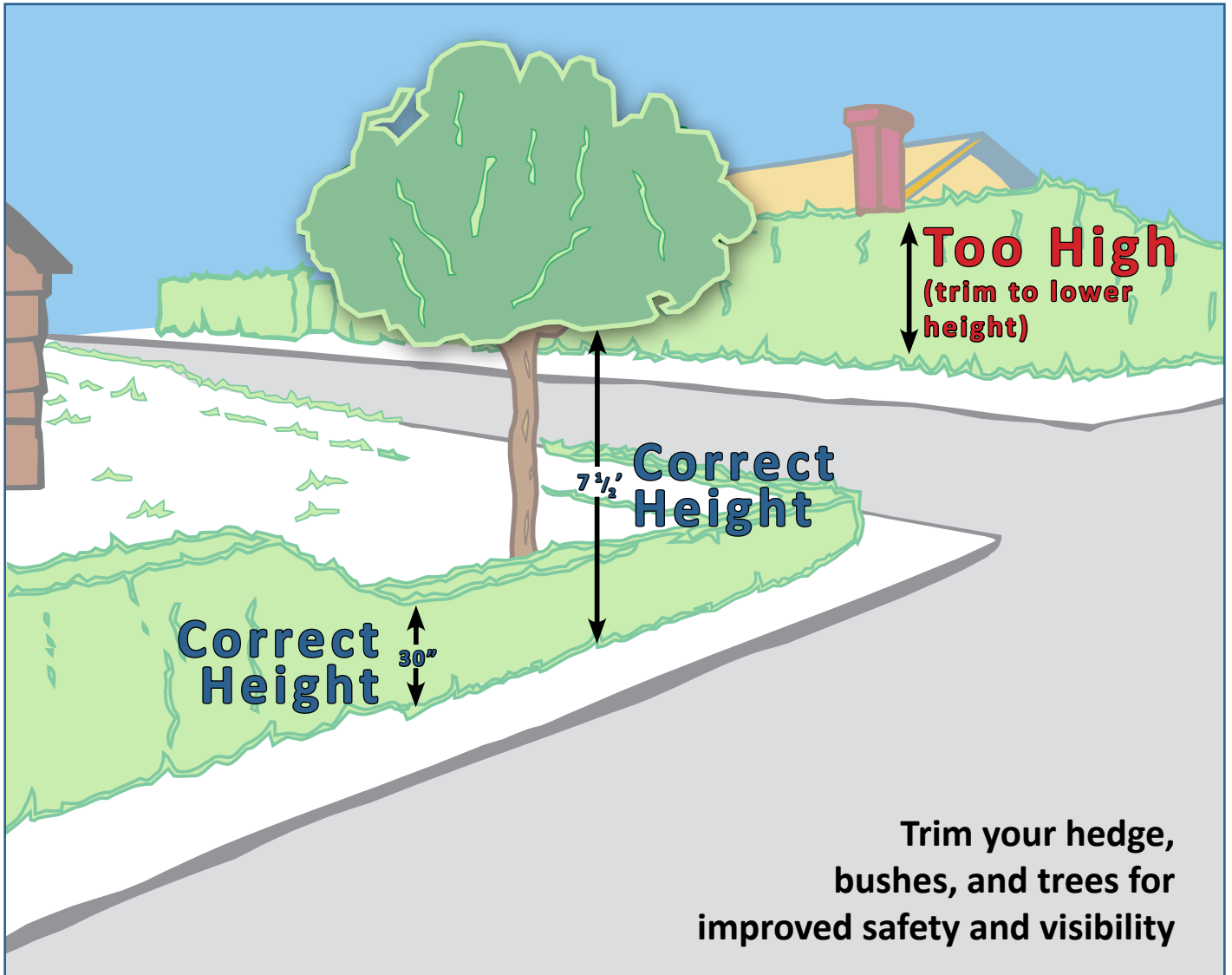
Educate the
Community



Manage
Neighborhood
Parking



Heighten
School Zone
Awareness



CHICANES/ SLOW POINTS

Chicanes are a series of two to three curb extensions that alternate from one side of the street to the other forming S-shaped curves on what would be an otherwise straight roadway. Slow points are curb extensions that narrow a roadway, sometimes allowing only one car at a time to pass. This treatment is used to reduce vehicle speeds.

In some cases, this tool can be designed as a one-lane zone which allows only one vehicle at a time to pass, requiring vehicles at both ends to stop or yield before proceeding through. This creates delay for motorists and can reduce cut-through traffic as a result.



PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Vehicle speeds of >35 mph (>30 mph if adjacent to neighborhood park/school)
- Average daily traffic of 300-3500 vehicles
- Moderate impact to emergency response



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Traffic
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CURB EXTENSIONS

Curb extensions narrow the roadway by extending the curb toward the center of the street helping to reduce vehicle speeds. Curb extensions can also be used at intersections or mid-block locations to increase sight-distance. They can also be installed in conjunction with speed humps to create planting areas or raised crosswalks to shorten pedestrian crossing distances.



Can also be used with: partial closure, medians, neighborhood entrance, “residential area” signs, raised crosswalks, speed humps, traffic circles

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Average daily traffic of 300-6500 vehicles
- Moderate impact to emergency response
- On-street parking may need to be restricted



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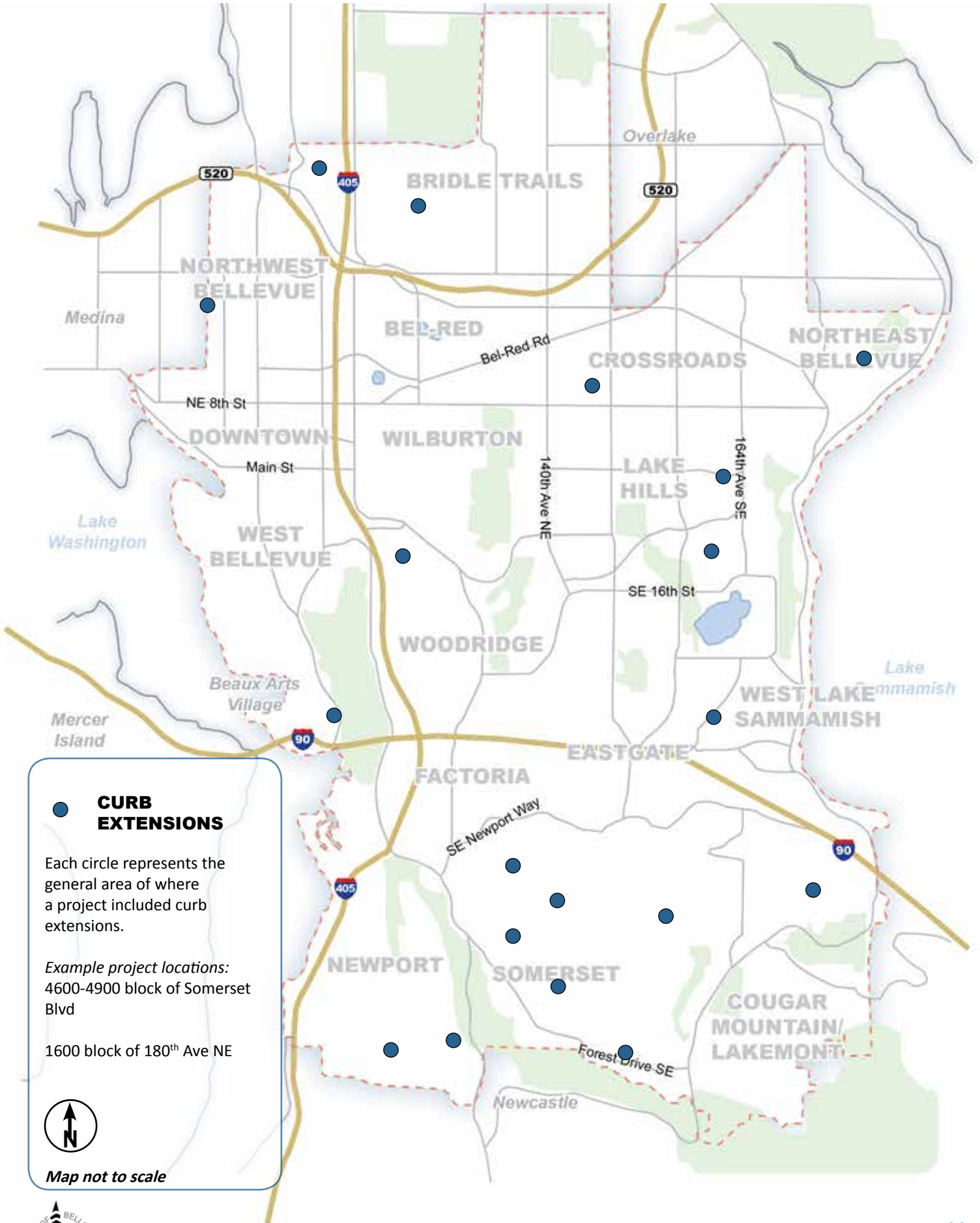


Manage
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FULL CLOSURE

A full closure physically closes a roadway in a neighborhood and is considered the most restrictive and severe form of traffic calming. These installations eliminate or reroute cut-through traffic but come with significant trade-offs for residents including increased travel time to and from their homes. Typically the City installs a temporary closure to provide an opportunity for residents to live with the restriction before determining if it becomes permanent.



A full closure can be designed to accommodate non-motorized travel such as pedestrians and bicyclists, as well as access for emergency response vehicles.

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. This tool significantly impacts driving patterns in a neighborhood by forcing residents to find alternative routes to and from their home. As a result, sixty-five percent (65%) of all households in the neighborhood need to support the restriction. The project may include an initial demonstration project before determining whether the closure is installed permanently.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Average daily traffic >300 vehicles
- During peak 2-hour period, 30% of one-direction peak-period volume should be cut-through with at least 30 total vehicles cutting through.
- Significant impact to emergency response



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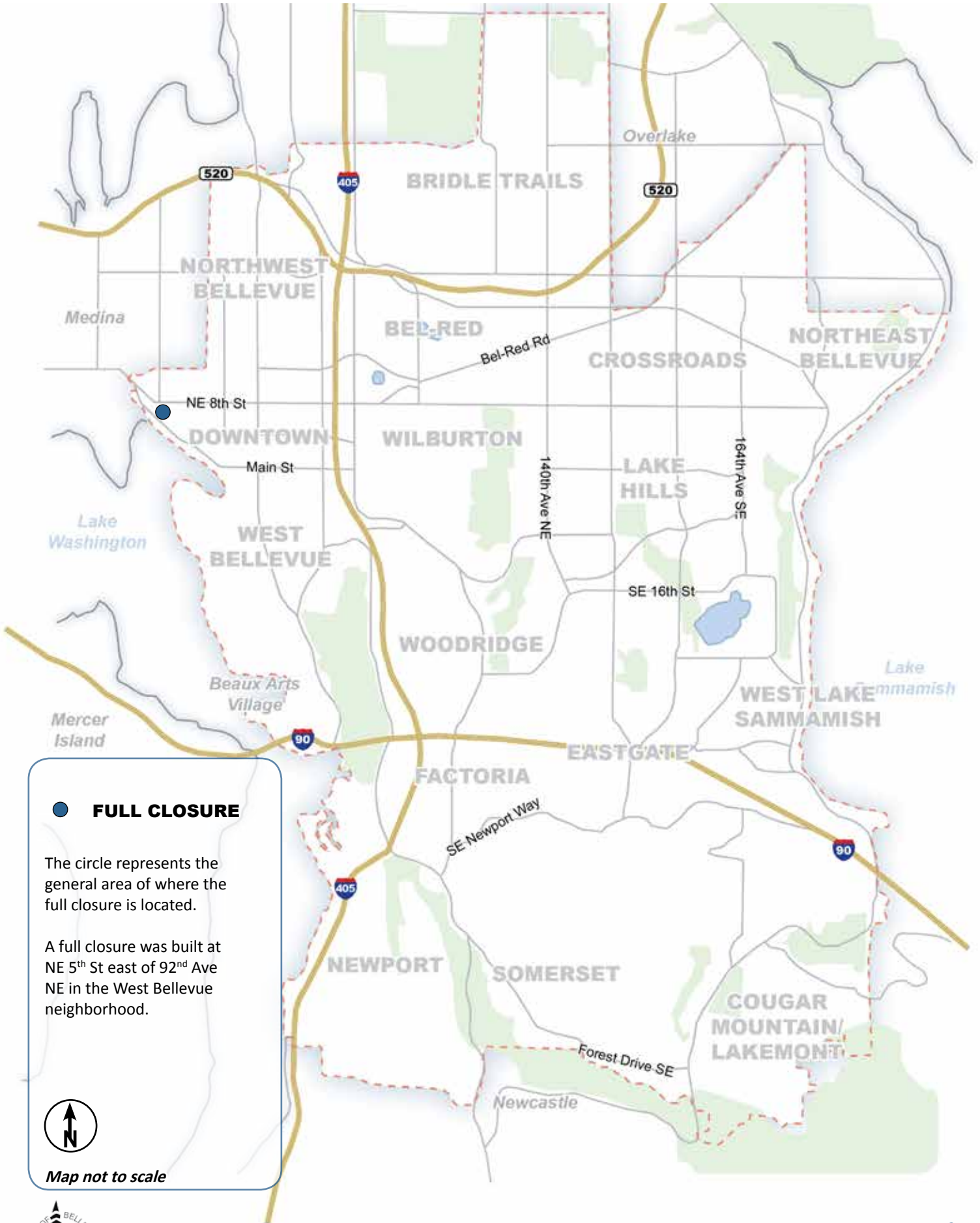


Manage
Neighborhood
Parking



Heighten
School Zone
Awareness





LANE STRIPING

Lane striping helps to define the roadway. Whether installed with paint or buttons, it can delineate parking areas, travel lanes, bike lanes, and even walking areas. It can be used to narrow travel lanes in an effort to reduce vehicle speeds.



PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Average daily traffic >300 vehicles
- Parking may be restricted



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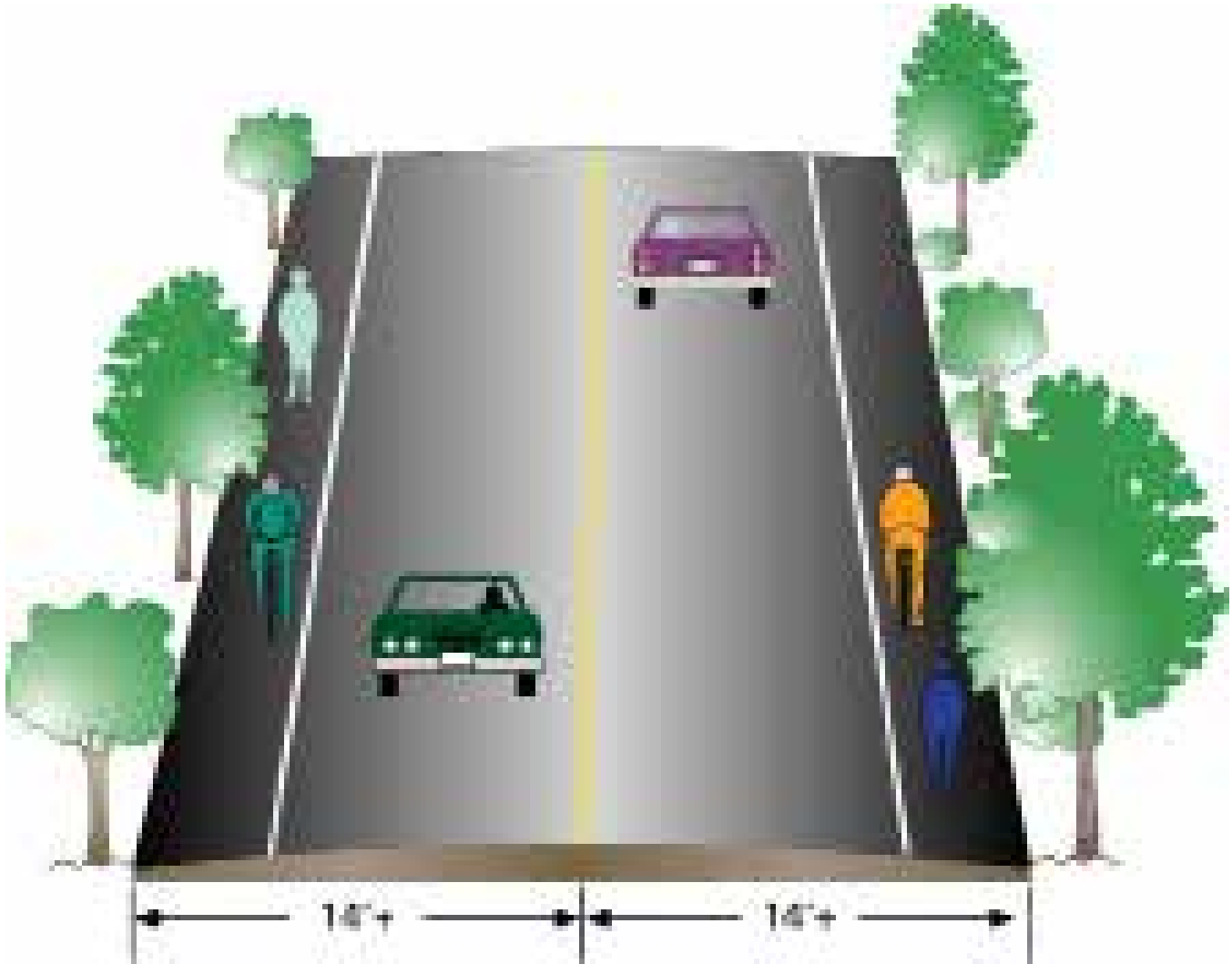
Educate the
Community



Manage
Neighborhood
Parking



Heighten
School Zone
Awareness



Lane striping can help define the roadway alerting drivers, cyclists, and pedestrians to the correct travel lanes.

MEDIANS

Medians are raised islands placed in the center of a roadway to separate opposing traffic. They can be placed mid-block or at entrances into neighborhoods. Medians are used to narrow the roadway and are often landscaped to provide a visual enhancement and create a perception of a narrower roadway.

They can be used in conjunction with a pedestrian crossing to provide a refuge area.



Can also be used with: curb extensions, neighborhood entrances, speed cushions, split speed humps

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Vehicle speeds >35 mph (>30 mph if adjacent to neighborhood park/school)
- Average daily traffic >300 vehicles
- Limited impact to emergency response vehicles, depending on location
- Should not be located where they affect driveway access
- Parking may be restricted



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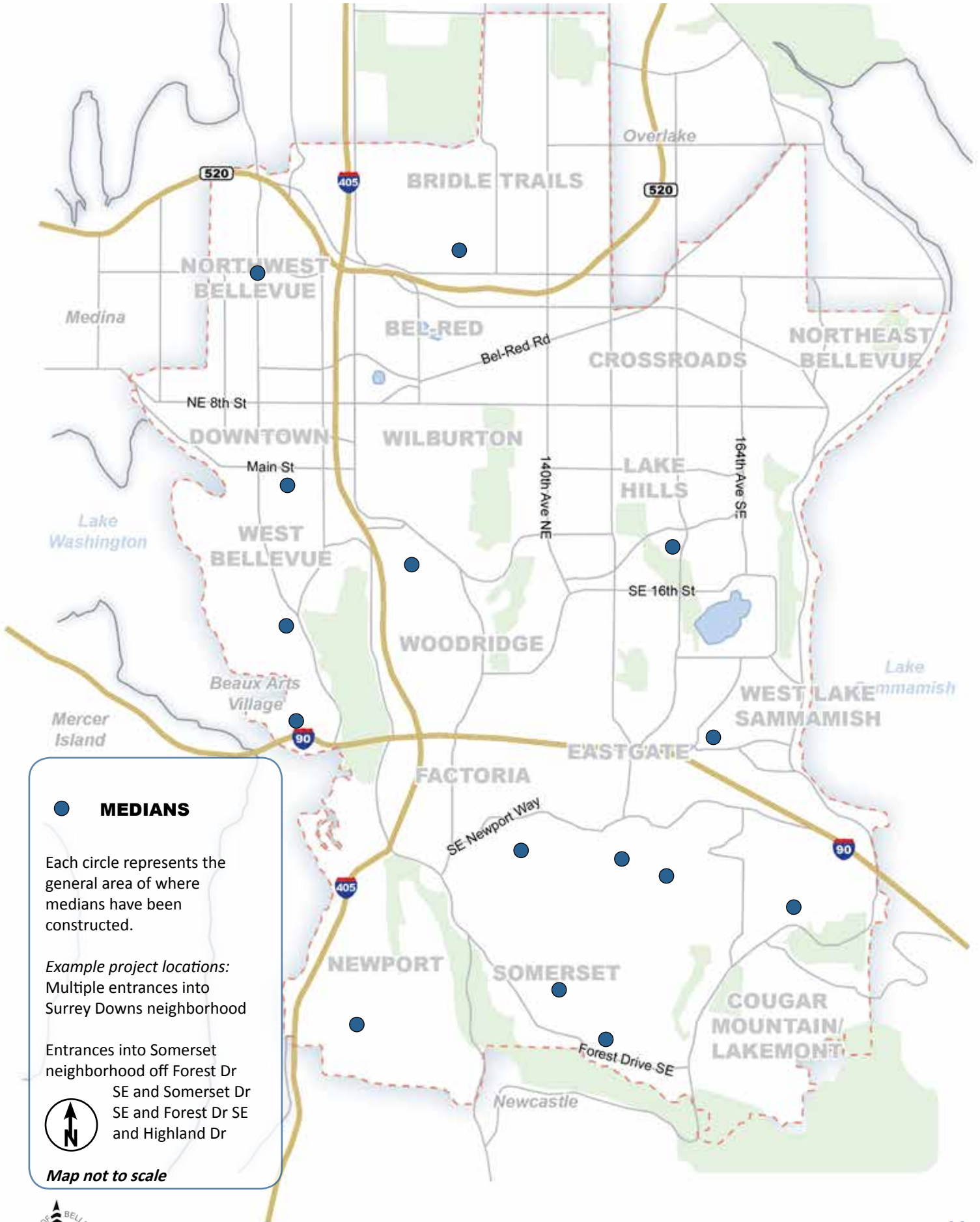
Educate the
Community



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Heighten
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NEIGHBORHOOD ENTRANCES

A neighborhood entrance is a raised island in the center of a roadway and/or a raised pavement treatment, such as a patterned brick pavement, that identifies the entrance into a neighborhood.

Neighborhood entrances notify drivers that they are entering a neighborhood or residential area and thus encourage slower vehicle speeds. They may also discourage cut-through traffic. In addition, opportunities may exist for additional enhancement by adding landscaped medians and/or “residential area” signs.



Can also be used with: curb extensions, medians, “residential area” signs, speed mounds

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Average daily traffic >300 vehicles
- Parking may be restricted



**Manage
Traffic
Volume**



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Vehicle
Speeds**



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Pedestrian
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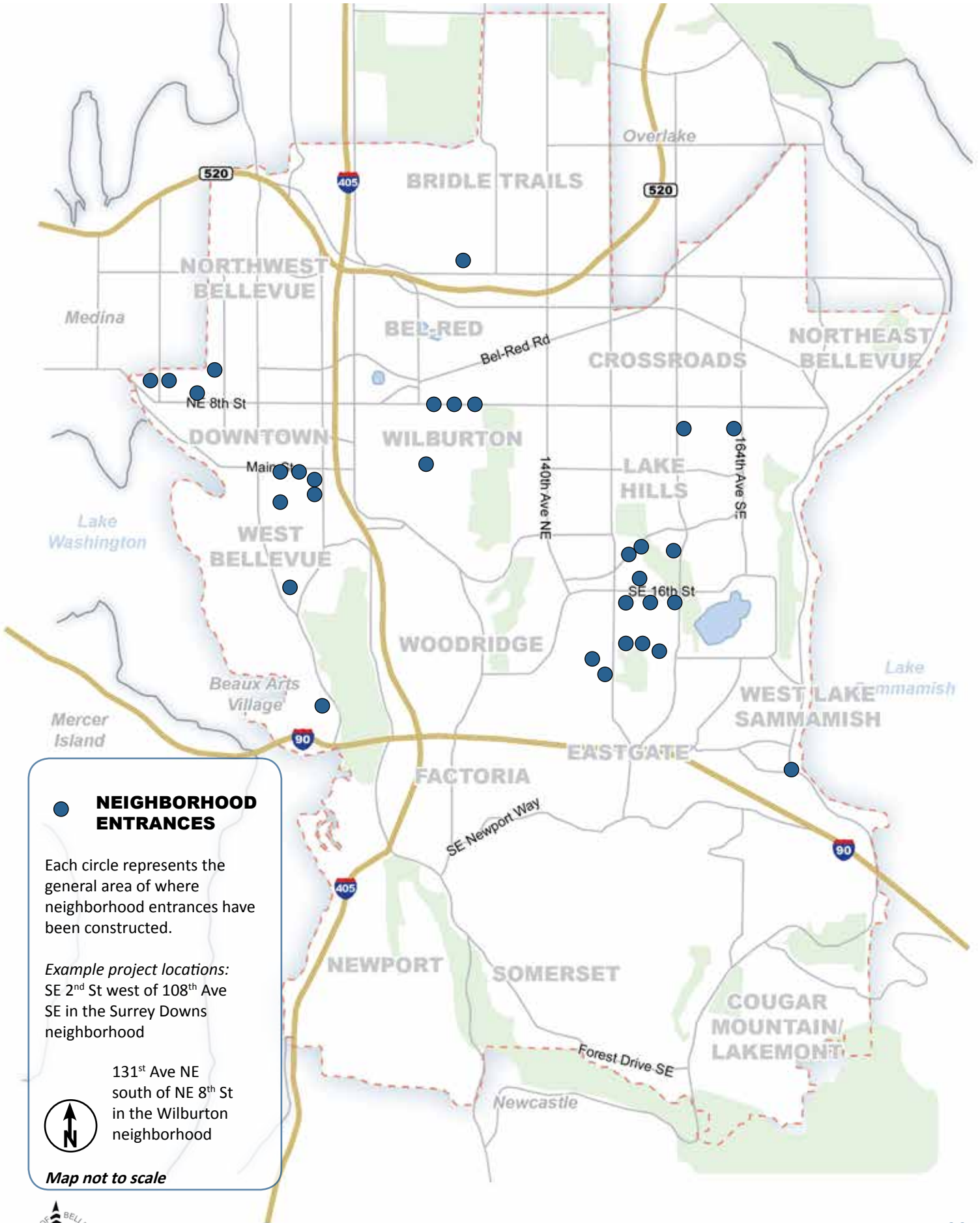


Manage
Neighborhood
Parking



**Heighten
School Zone
Awareness**





PARTIAL CLOSURE

Partial closures restrict the roadway to one direction of travel. They limit vehicular access into neighborhoods while still providing residents with either an exit or entrance depending on the restriction.

Partial closures permanently change traffic patterns for residents within a neighborhood sometimes resulting in longer travel times and traffic shifts within the residential area. Design features can include landscaping.



Can also be used with: curb extensions

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. This tool significantly impacts driving patterns in a neighborhood by forcing residents to find alternative routes to and from their home. As a result, sixty-five percent (65%) of all households in the neighborhood need to support the restriction. The project may include an initial demonstration project before determining whether the closure is installed permanently.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Average daily traffic >300 vehicles
- During peak 2-hour period, 30% of one-direction peak-period volume should be cut-through with at least 30 total vehicles cutting through.
- Significant impact to emergency response
- May restrict parking



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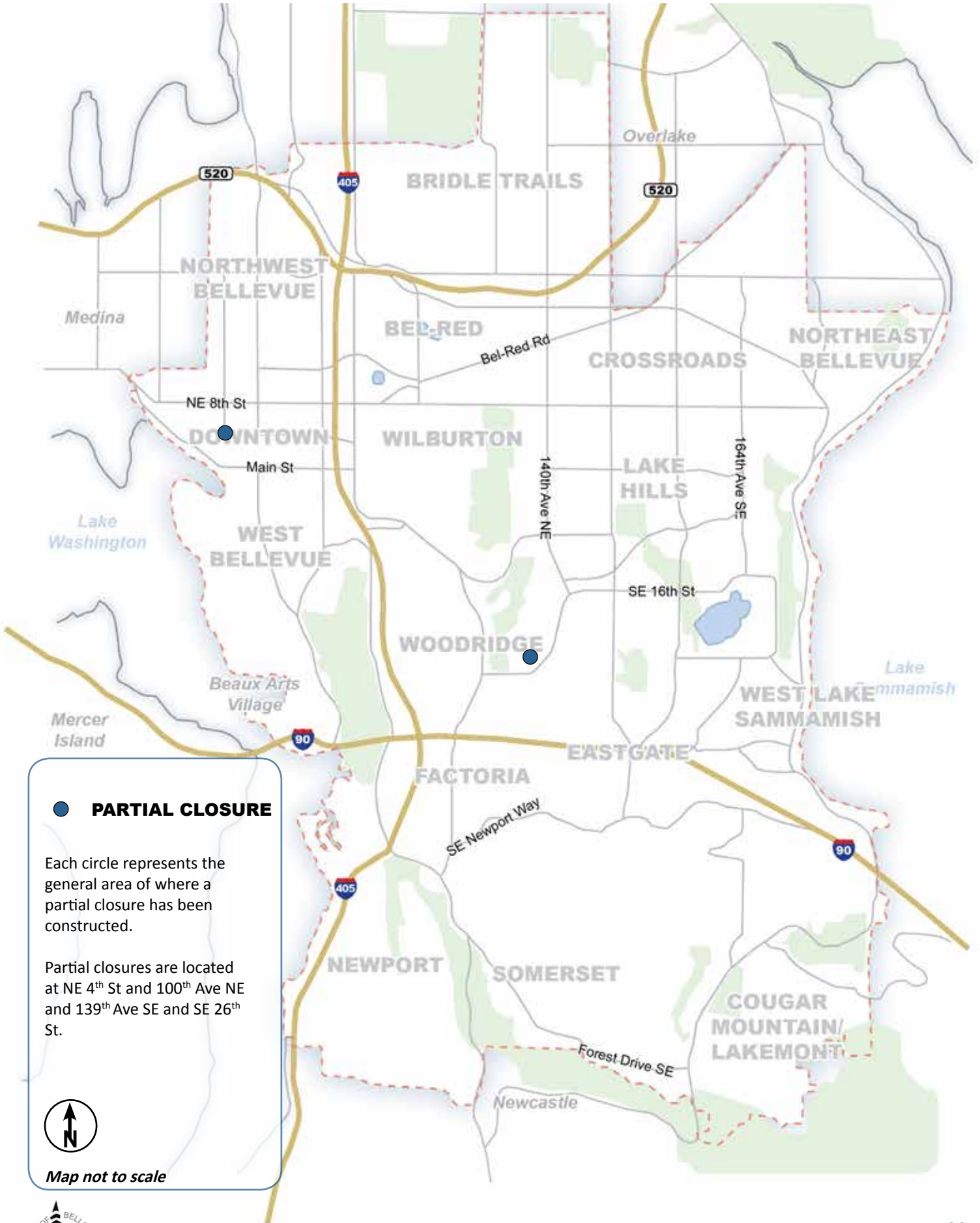


Manage
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Heighten
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RAISED CROSSWALK

A raised crosswalk is an area of roadway pavement that has been raised approximately 3" and includes a crosswalk marked on top.

Raised crosswalks are typically implemented on streets where speed control at pedestrian crossings is desired, such as in school zones or adjacent to neighborhood parks. Raised crosswalks can be used in conjunction with other tools such as curb extensions, which narrow the crossing distance for pedestrians.



Can also be used with: curb extensions

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Average daily traffic of 300-3500 vehicles
- Significant impact to emergency response vehicles
- Should not be located where they affect driveway access
- Potential noise impacts from motorists traversing the raised crosswalk



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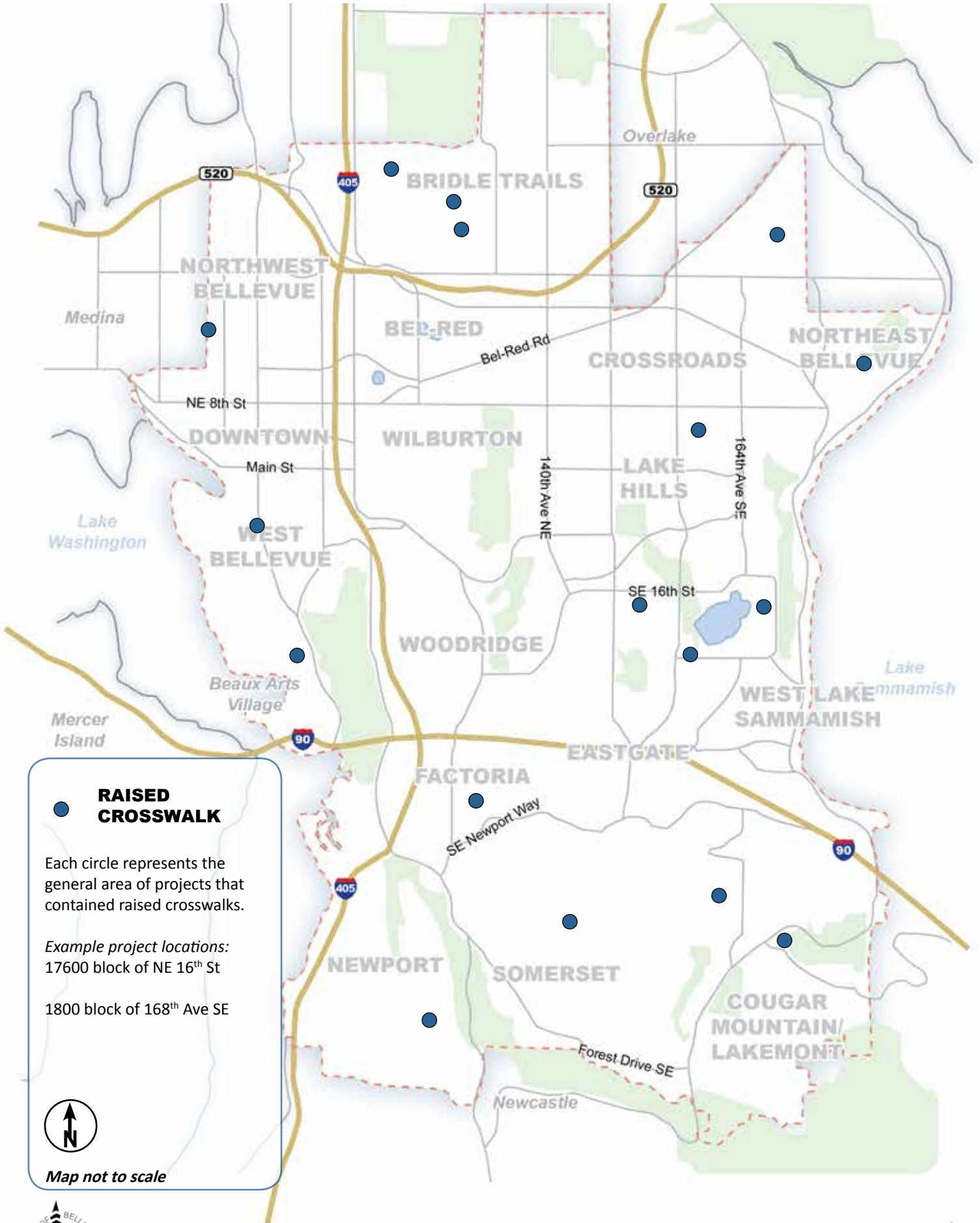
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“RESIDENTIAL AREA” SIGNS

Bellevue’s blue “Residential Area” signs note that one is entering a residential area. The sign is designed to promote a sense of community by showing pictures of homes, bicyclists, pedestrians, and vehicles. It has a supplemental plaque that states “Residential Area.”

These signs are placed in areas where traffic improvement have been implemented and/or where there needs to be a definition between a neighborhood and commercial or business area.



Can also be used with: neighborhood entrance

PUBLIC PARTICIPATION

Some signing may require adjacent household support. If so, the requestor should be proactive throughout the process of obtaining adjacent property owner support.

APPROVAL REQUIREMENTS

Adjacent property support may be needed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph



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Reduce
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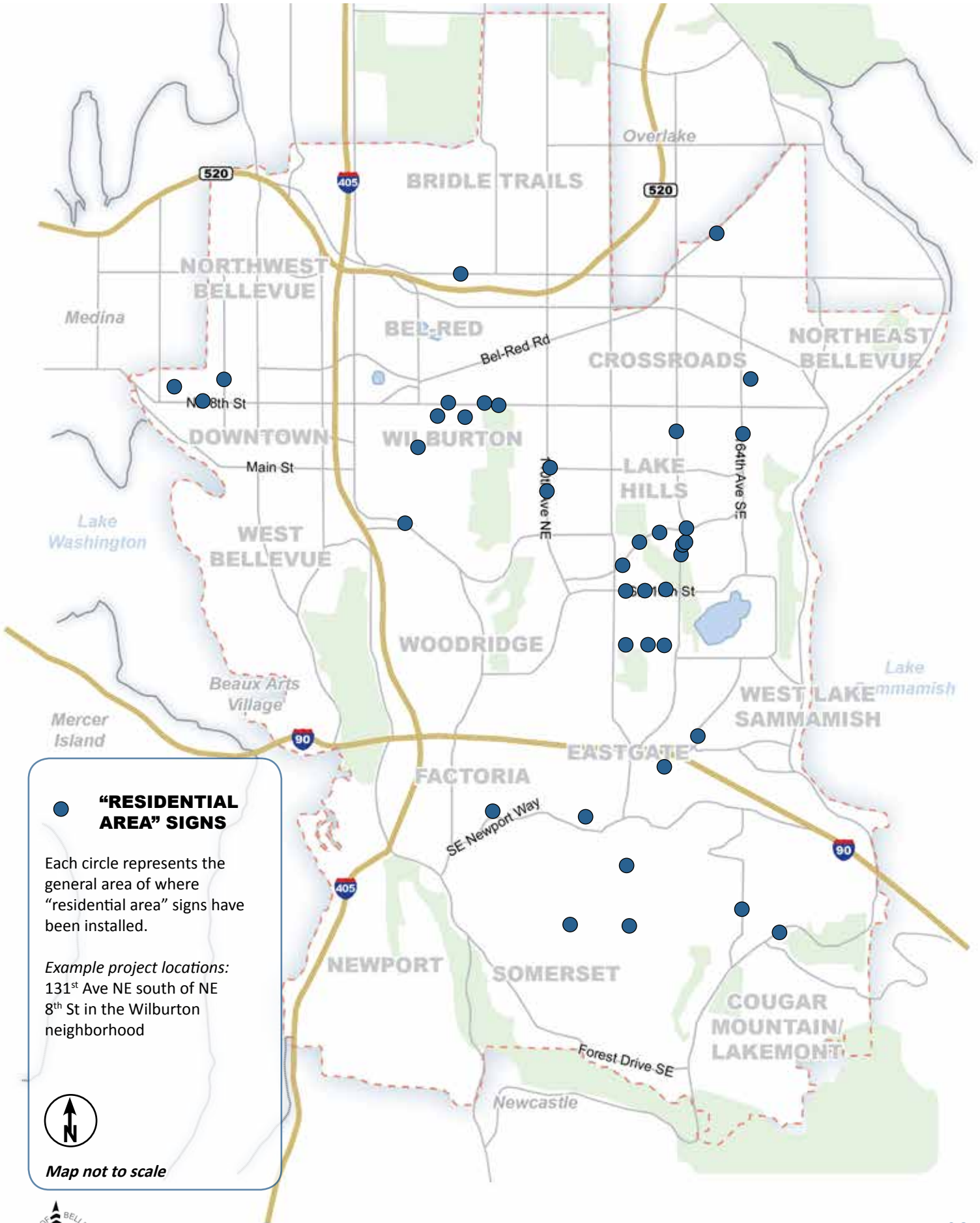


Manage
Neighborhood
Parking



Heighten
School Zone
Awareness





SCHOOL ZONE FLASHING BEACONS

To reinforce reduced speed limits near schools, Bellevue posts flashing yellow beacons near some elementary schools, as funding allows. These signs are installed in school zones alerting drivers to slow to 20 mph during school start and dismissal times. Typically, the signs are programmed to flash 30 minutes before start time and 10 minutes following. For dismissal, they begin to flash 10 minutes before dismissal time and 30 minutes following.



School zones are defined as 300 feet from school property or a marked school crosswalk. Traffic fines in school zones are double.

Can also be used with: stationary radar sign

PUBLIC PARTICIPATION

Schools or school districts can qualify for traffic safety grants when available.

APPROVAL REQUIREMENTS

Residents are notified when school zone flashing beacons are installed.



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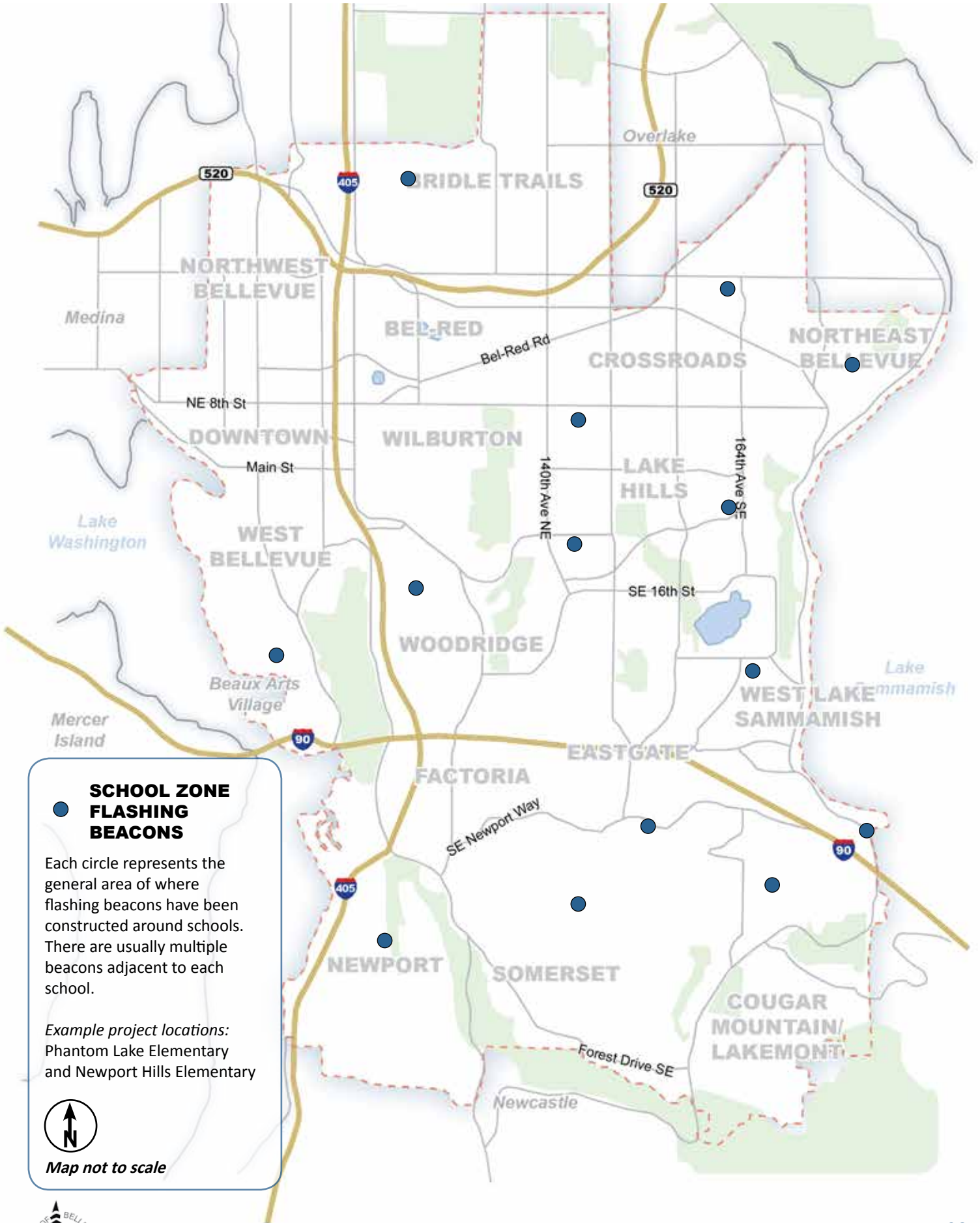
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SPEED CUSHIONS

Speed cushions are different from speed humps in that they have gaps to allow for the expedient passing of emergency vehicles. Typically speed cushions consist of two or more raised and rounded areas of pavement placed laterally across a road. There are gaps for emergency vehicles to pass through without significant jostling or displacement. Non-emergency vehicles are generally too narrow to travel through the gaps and must drive over the bump helping to reduce vehicle speeds.



Can also be used with: medians

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Vehicle speeds >35 mph (>30 mph if adjacent to neighborhood park/school)
- Average daily traffic of 300-3500 vehicles
- Moderate impact to emergency response vehicles
- Should not be located where they affect driveway access
- Potential noise impacts from motorists traversing the speed cushion



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SPEED DOTS

A speed dot is a small circular or oval island located in the center of the road at mid-block locations. It reduces vehicle speeds by narrowing the roadway and redirecting vehicles around the circle. The effect on vehicle speeds depends on the roadway width, in addition to the size and number of speed dots. They can be used in a series resulting in a raised median effect but includes better driveway access. They can also be landscaped.



PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Vehicle speeds >35 mph (>30 mph if adjacent to neighborhood park/school)
- Average daily traffic of 300-3500 vehicles
- Moderate impact to emergency response vehicles
- Should not be located where they affect driveway access
- May restrict parking
- May require removal of some landscaping in the right-of-way of adjacent yards



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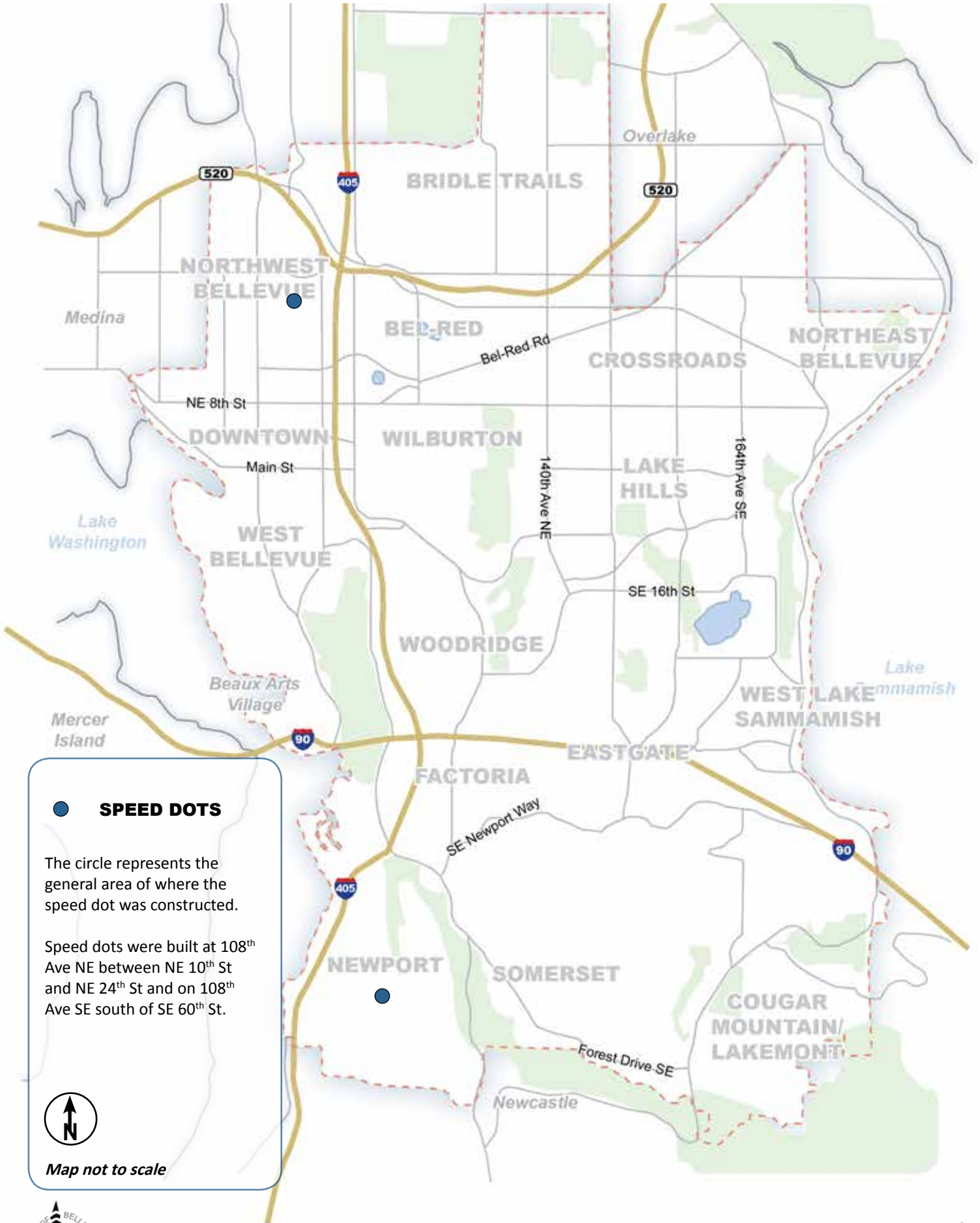
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SPEED HUMPS

Speed humps (also known as speed bumps) have been used in the City of Bellevue since 1985 as a technique to reduce vehicle speeds. A speed hump is a raised area of roadway pavement approximately 3 inches in height. They are different from the more severe speed humps you may find in a parking lot. A speed hump causes a vehicle to produce a rocking motion, creating an uncomfortable sensation for the occupants of speeding vehicles thus encouraging the driver to reduce their speed. The City uses two different designs



based on roadway characteristics. The first is a 12' long (in the direction of travel) with a gentle rise to 3 inches at the center and the other a 22' long design that is 3" in height, with a 10' flat top. The latter design is used for raised crosswalks and in areas with transit and higher traffic volumes.

Can also be used with: curb extensions

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Vehicle speeds >35 mph (>30 mph if adjacent to neighborhood park/school)
- Average daily traffic of 300-3500 vehicles
- Significant impact to emergency response vehicles
- School bus or transit route
- Potential noise impacts from motorists traversing the speed hump



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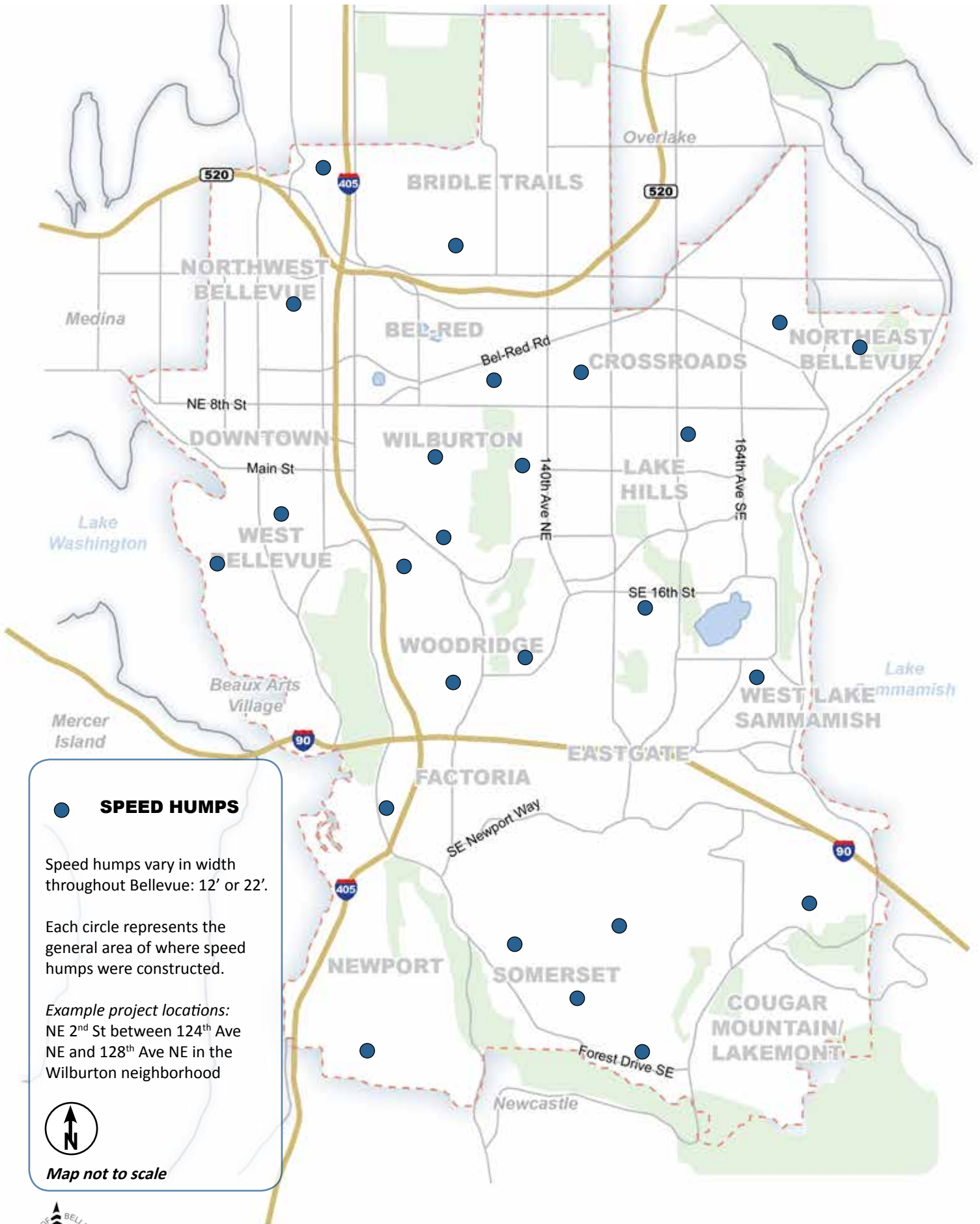
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● SPEED HUMPS

Speed humps vary in width throughout Bellevue: 12' or 22'.

Each circle represents the general area of where speed humps were constructed.

Example project locations:
NE 2nd St between 124th Ave NE and 128th Ave NE in the Wilburton neighborhood



Map not to scale



SPEED LIMIT PAVEMENT MARKINGS

The City uses pavement markings noting “25 MPH” at locations where drivers may need to be reminded of the posted speed limit. These pavement markings are typically eight feet long and are either painted onto the pavement or applied with a special tape. Locations are selected based on field review and speed study results.



PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support.

APPROVAL REQUIREMENTS

Residents are notified when speed limit pavement markings are installed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Vehicle speeds >30 mph



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**SPEED LIMIT
PAVEMENT MARKINGS**

The City of Bellevue has installed numerous 25 mph pavement markings throughout the city.

Shown are some examples of markings that are installed throughout the city.



Map not to scale

SPEED MOUNDS

Speed mounds are slightly raised areas of pavement that guides drivers through a designated area. Unlike traffic circles which force drivers around the device, speed mounds allow vehicles to pass over the raised pavement. They may be built with colored and/or textured pavement. Speed mounds are used as an alternative to curb extensions or medians and are successful when existing driveways and turning movements restrict physical curbed treatments, such as traffic circles.



Can also be used with: curb extensions, neighborhood entrance

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Vehicle speeds >35 mph (>30 mph if adjacent to neighborhood park/school)
- Average daily traffic of 300-3500 vehicles
- Moderate impact to emergency response vehicles
- School bus or transit route



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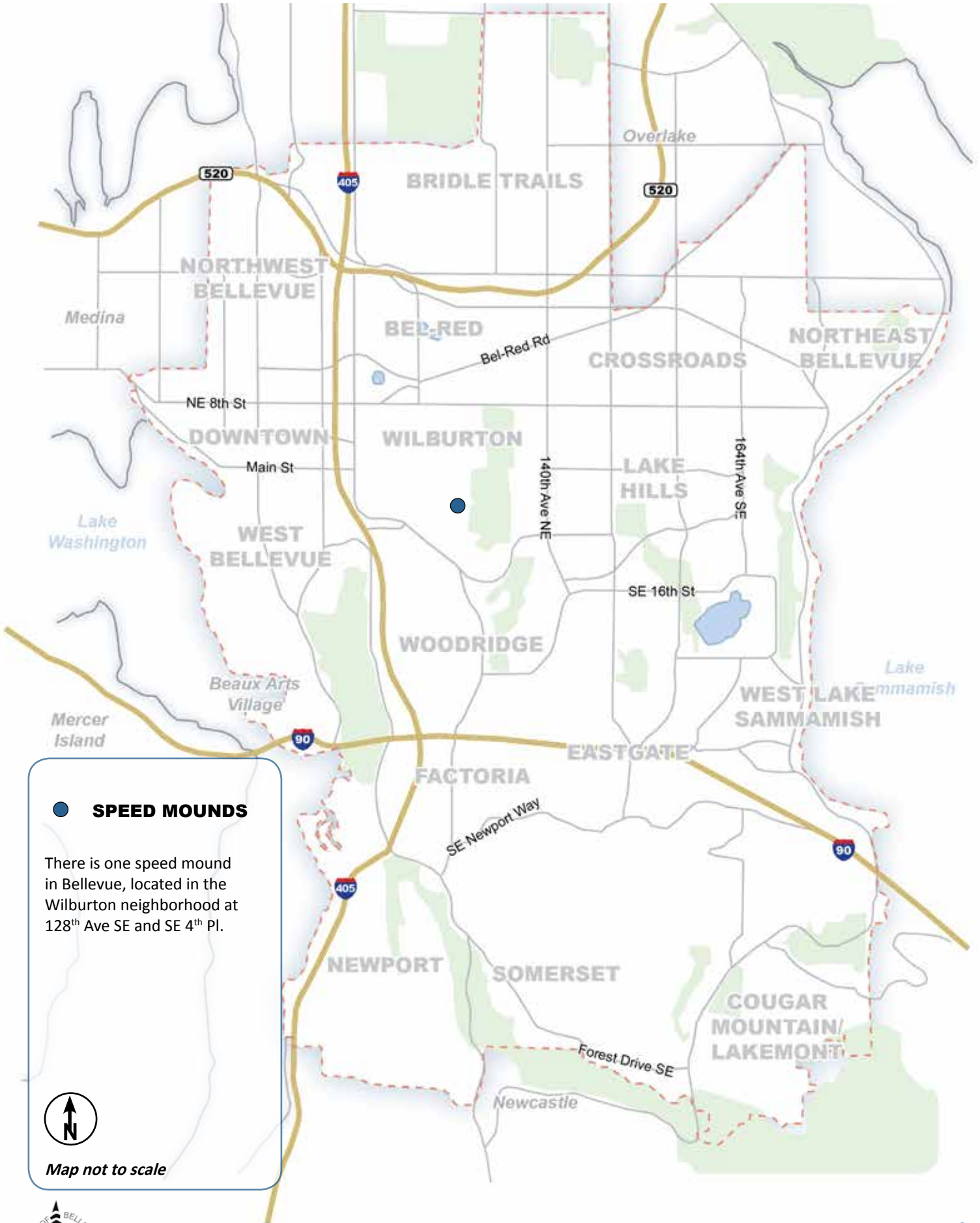
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● **SPEED MOUNDS**

There is one speed mound in Bellevue, located in the Wilburton neighborhood at 128th Ave SE and SE 4th Pl.



Map not to scale



SPLIT SPEED HUMPS

Split speed humps are modified speed humps that allow emergency vehicles to navigate around split speed humps without much delay. Motorists that are not associated with the Fire Department are directed to travel over the speed hump. Split speed humps are appropriate tools for streets that are a designated emergency response route or where many traffic calming measures, such as traditionally-designed speed humps, cannot be installed. As a result, a split speed hump does not unduly impact the Fire Department. Split speed humps contain landscaped medians as part of the project.



Can also be used with: medians

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Vehicle speeds >35 mph (>30 mph if adjacent to neighborhood park/school)
- Average daily traffic of 300-3500 vehicles
- Moderate impact to emergency response vehicles
- School bus or transit route
- Potential noise impacts from motorists traversing the split speed humps



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STATIONARY RADAR SIGN

Stationary radar signs direct a driver’s attention to the posted speed limit and digitally display the speed of the driver’s vehicle on a large message board. This instant feedback results in a greater awareness of the speed limit and encourages motorists to adjust their speed accordingly, if needed. Typically, these signs are installed where other physical traffic calming measures are not appropriate. These installations have been shown to reduce vehicle speeds by 6-8 mph.



Locations are selected based on prioritized scoring criteria and available funding. Scoring criteria considers vehicle speed, traffic volume, street conditions, proximity to parks and schools, and reported accident history.

After locations are determined, residents in the proposed locations for the sign must support the installation through a balloting process before proceeding to final design and construction.

Can also be used with: school zone flashing beacons

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed and 65% of responding households in the affected area must support installation of the sign.

TRAFFIC CONSIDERATIONS

- Score based on predetermined criteria
- Should be placed where on-street parking is minimal



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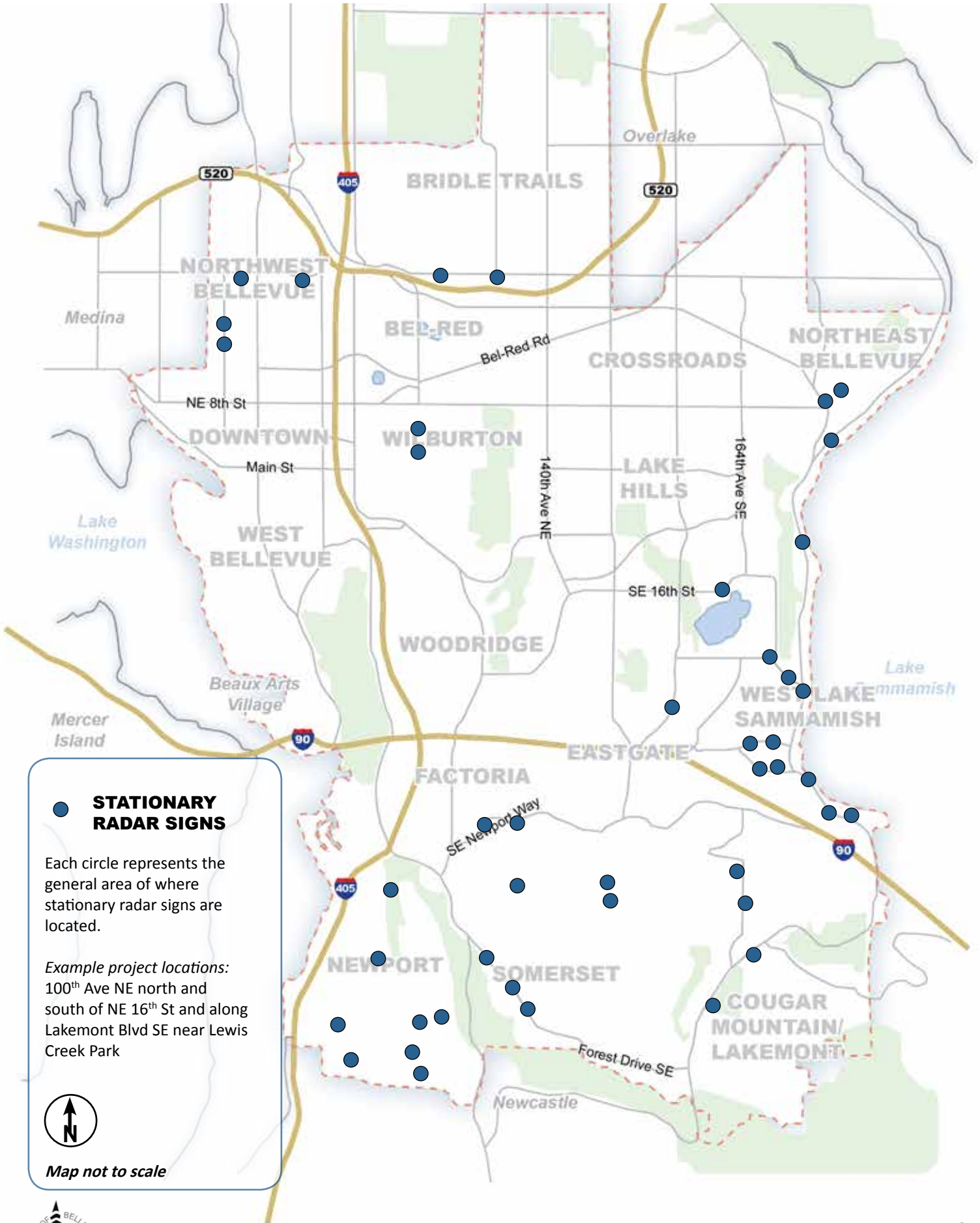
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TRAFFIC CIRCLES

A traffic circle is a raised circular island located in the center of an intersection. This design requires vehicles to keep right and travel through the intersection in a counter-clockwise direction around the island. The shape and size of the traffic circle is determined by the size of the intersection. Traffic circles can be placed at four-legged and three-legged intersections. Installations of traffic circles can be very effective at reducing the number of vehicle collisions at an intersection.



Can also be used with: curb extensions

PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support and should also serve as a member of the Traffic Committee, if one is formed.

APPROVAL REQUIREMENTS

Adjacent property support is needed. If this tool is part of a neighborhood-wide plan, the community will vote to determine level of support. Sixty-five percent (65%) of returned ballots must support the project for it to be designed and constructed.

TRAFFIC CONSIDERATIONS

- Posted speed limit of 25 mph
- Vehicle speeds >35 mph (>30 mph if adjacent to neighborhood park/school)
- Average daily traffic of 300-3500 vehicles
- Significant impact to emergency response vehicles
- School bus or transit route
- May require parking restrictions



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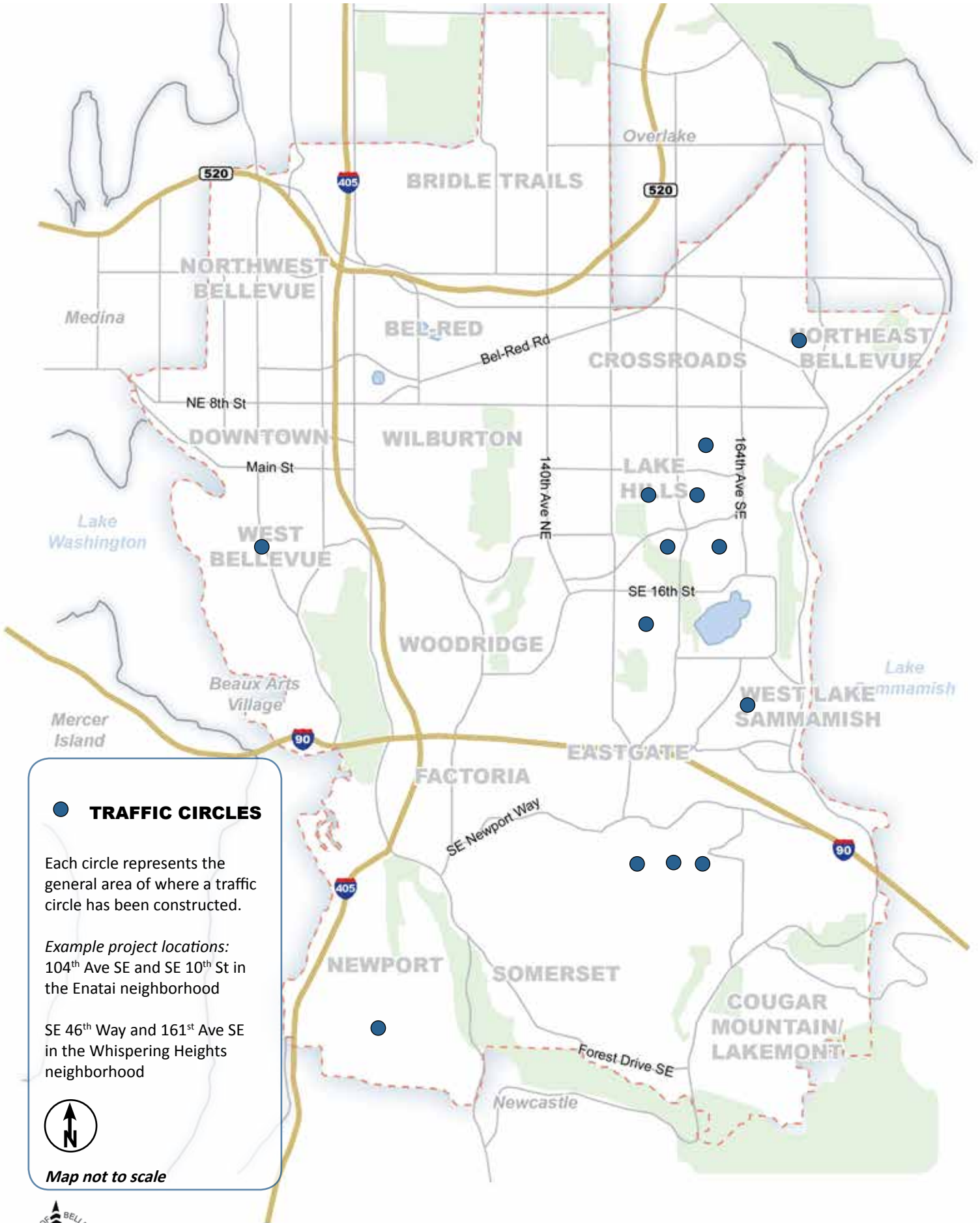
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GENERAL PARKING RESTRICTIONS

Parking restrictions are installed in neighborhoods for a variety of reasons, such as for sight-distance issues near an intersection, limited roadway widths, and spillover parking from businesses, schools, or parks. These restrictions do not allow any vehicles to park in these areas during the time indicated on the signs. Parking in these areas is also restricted to residents.



PUBLIC PARTICIPATION

The requestor should be proactive throughout the process in assisting the City in obtaining support.

APPROVAL REQUIREMENTS

If sign installation is based on safety, no adjacent property support is needed and City staff will proceed. If the restrictions are non-safety related, 100% of adjacent property support is needed through a ballot.

TRAFFIC CONSIDERATIONS

- Nature of parking concern



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GOOD NEIGHBOR PARKING PROGRAM

When parking issues in the neighborhood arise as a result of a single establishment, such as a church, school, or business, it helps when both sides are willing to work to find solutions. The Good Neighbor Parking Program seeks to manage parking demand and supply, decrease the number of auto trips generated, and to lessen spillover parking impacts on the neighborhood.



The City works with the establishment and suggests solutions that can be implemented such as better drop off/pick up routes, pursuing shared parking agreements with adjacent or nearby business, and incentives to promote alternatives to driving like carpooling and taking the bus.

PUBLIC PARTICIPATION

Cooperation is the key for the Good Neighbor Parking Program to work. The business generating the traffic must be willing to be a “good neighbor” and put forth the effort to enforce consequences if there are violations.

APPROVAL REQUIREMENTS

Good neighbor agreements work best when they are reciprocal. The establishment owner agrees to be responsive to neighborhood concerns, but it helps when the neighbors do what they can to help the business succeed. If parking restrictions are required, adjacent properties need to agree to have them in the neighborhood before the signs are installed.



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RESIDENTIAL PARKING ZONE

A Residential Permit Parking Zone (RPZ) is an area established by a city ordinance to restrict non-residential parking on neighborhood streets. Unlike general parking restrictions, residents and their guests are exempt from the RPZ restrictions if they are parking legally and displaying an RPZ permit.

RPZ restrictions are common for neighborhoods adjacent to commercial areas, including downtown Bellevue and around high schools.



PUBLIC PARTICIPATION

The requestor and/or the neighborhood association submits a written request describing the problem and its location. A ballot is circulated to determine if 65% of all households in the area support the restriction.

APPROVAL REQUIREMENTS

65% of the neighborhood must support the implementation of a residential parking zone. City Council must approve the ordinance before the RPZ can take effect.



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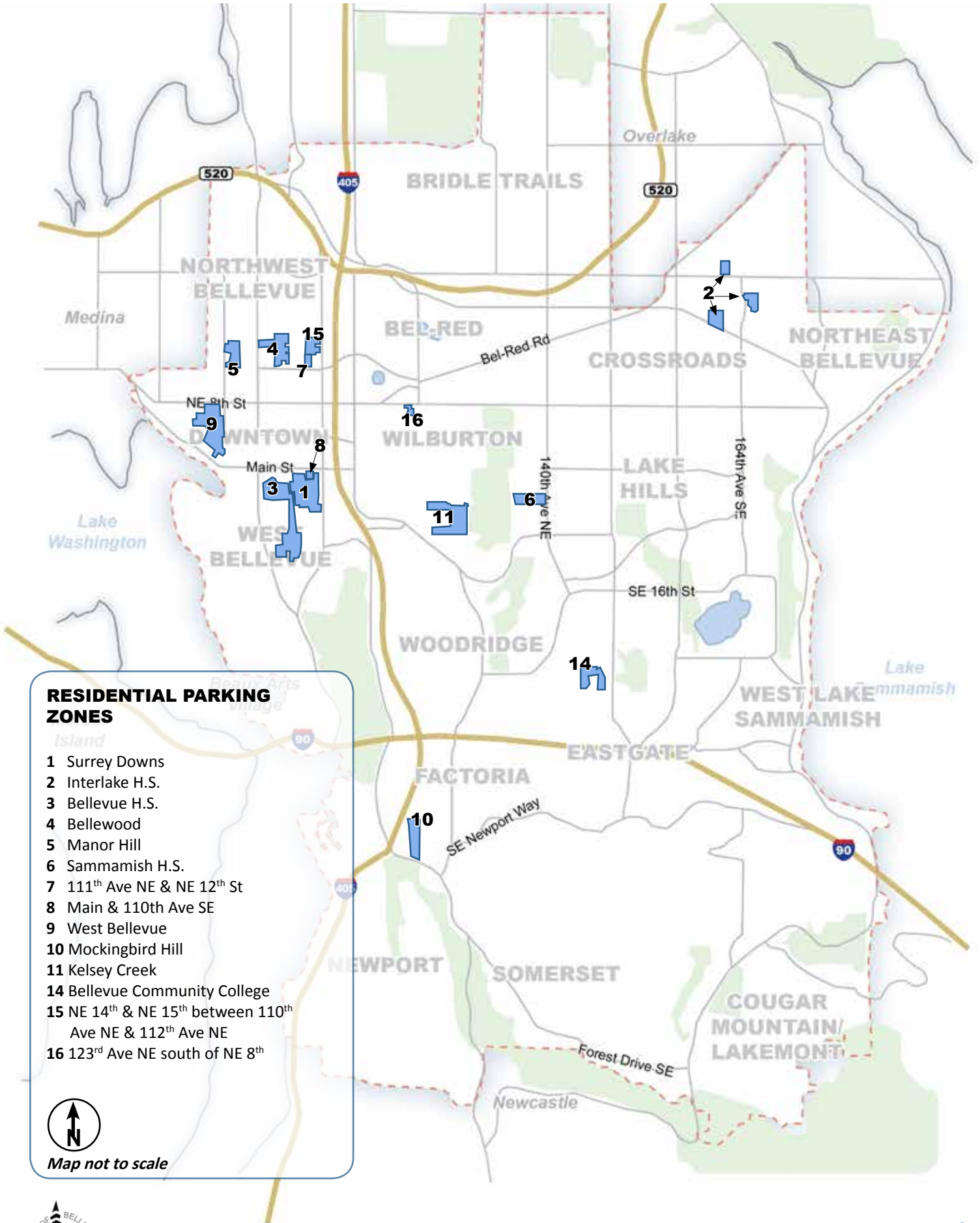


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WHAT'S NOT IN THE TOOLKIT?



Will lowering the speed limit alleviate speeding in my neighborhood?

Engineering studies show that speed limit signs are not the most significant factor influencing driver speeds. Research indicates that a reasonable and prudent driver will drive the speed suggested by roadway and traffic conditions, to the extent of disregarding the posted speed limit. A speed limit that is unrealistic invites the majority of drivers to disregard posted speeds.

How are speed limits established?

Washington State Law allows cities and counties to set speed limits that differ from the standards speed limits set under the Revised Code of Washington (RCW) 46.61.400 that state 25 mph on city streets unless otherwise posted. Higher or lower speed limits are determined through traffic review.

Speed studies, roadway geometry, sight distance, and accident history are considered in the review. If these factors are not limiting, the 85th percentile speed is used to set the speed limit. The 85th percentile speed is the speed at which 85% of vehicles are traveling at or under. It is generally accepted that this speed is considered reasonable for the roadway.

Lowering the posted speed limit does not significantly lower traffic speed and can lead to unreasonable ticketing for acceptable driving behavior.



Why are stop signs not used for speed control?

It seems like an obvious, inexpensive way to reduce vehicle speeds. However what seems to be a perfect solution can actually create a less desirable situation. When stop signs are used as “nuisances” or “speed breakers,” there is a high incidence of drivers intentionally violating the stop. When vehicles do stop, the speed reduction is effective only in the immediate area of the stop sign, since a large percentage of motorists then increase their speed to make up for lost time. This results in increased mid-block speeds. For these reasons, we do not use stop signs for speed control drivers. Instead, they are used to improve safety at intersections where traffic volumes or accidents require their installation.

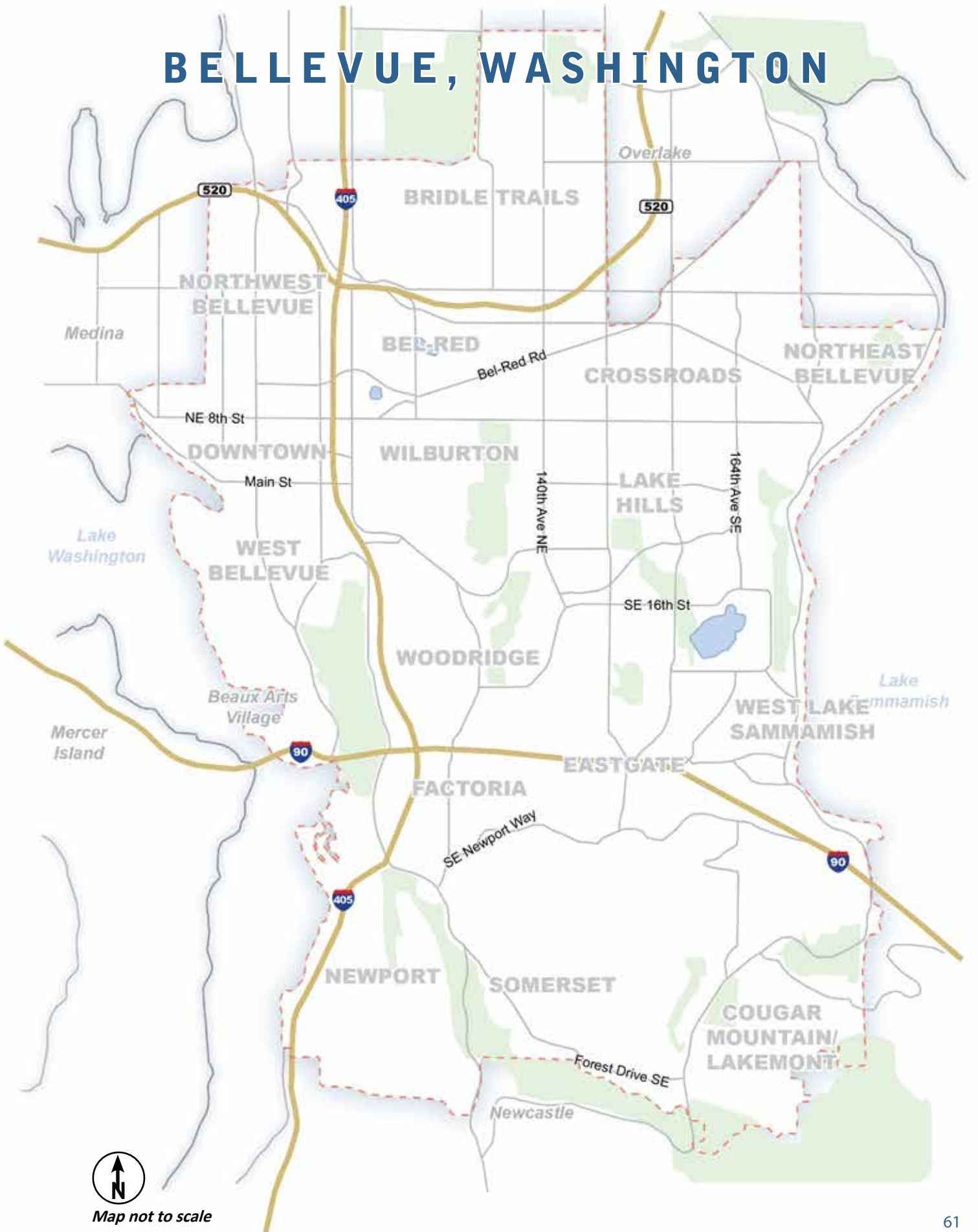


Can we get a Children at Play sign?

Some parents believe that the safety of their children playing in or near the street can be enhanced through the installation of “Slow Children” or “Children at Play” signs. Traffic studies have shown that “Children at Play” signs do not increase a driver’s attention to the point of reducing vehicles speeds or reducing pedestrian accidents. In fact, placement of these signs can increase the potential for accidents to conveying to children and parents a sense of a protected area, which does not exist and cannot be guaranteed. For these reasons, the City does not install these types of signs, and instead encourages parents to find alternative play areas for children, such as a backyard or local park.



BELLEVUE, WASHINGTON



CITY OF BELLEVUE

Residential Traffic Guidebook

Updated: October 2013



www.bellevuewa.gov/traffic_services.htm
bellevuentss.wordpress.com

