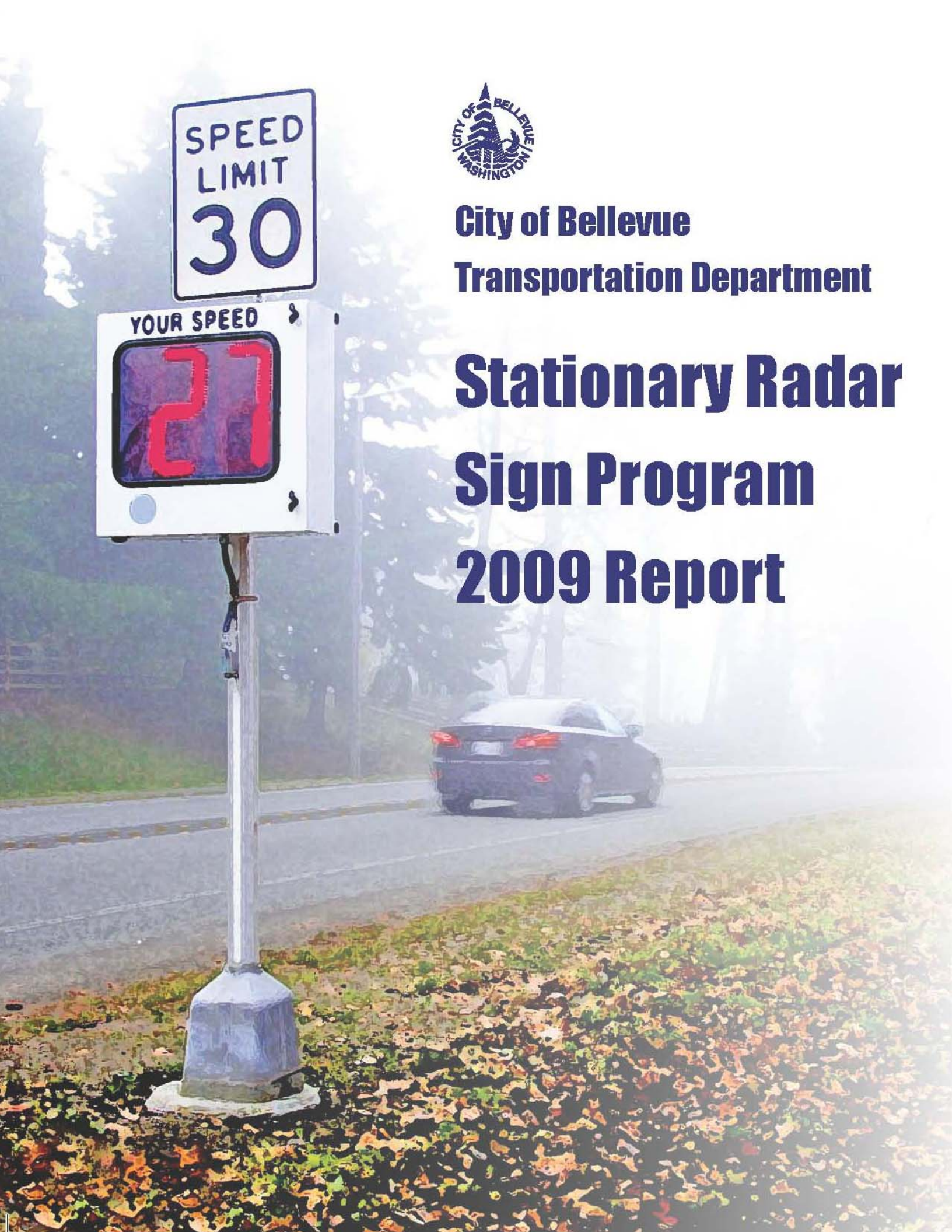

City of Bellevue
Transportation Department

Stationary Radar Sign Program 2009 Report

CITY OF BELLEVUE
Department of Transportation
450 110th Ave NE
Bellevue, WA 98004

www.bellevuewa.gov

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Abstract

To date, the City of Bellevue has installed 31 stationary radar signs. This report shares Bellevue's experience with radar signs, the challenges that have faced staff in the past and our recommendations on how the Stationary Radar Sign Program should operate in the future. In addition, the lessons learned from user experience and community response are detailed.

Introduction

Stationary radar signs are one of the many speed reduction techniques installed on streets in the City of Bellevue. These driver feedback signs use an internal radar unit that captures the speed of passing motorists and displays this speed onto a display board. Radar signs target excessive vehicle speeds by encouraging passing motorists to reduce their speed, if necessary.

As of January 2009, the City has installed 31 stationary radar signs (see Appendix pages 14 through 45 for site specific data for each sign). At the majority of radar sign locations, results show an overall reduction of vehicle speeds between 1 and 6 mph, even up to 8 years after the signs were installed. Due to this level of effectiveness, the City will continue to use stationary radar signs at select locations to address vehicle speeds and/or bring a motorist's attention to an upcoming situation, such as a curve or school zone.

Background

Bellevue's Transportation Department, Neighborhood Services Division, has a yearly budget of $50,000 to devote to new traffic safety technologies. These funds have been used for pilot projects throughout the City, as new opportunities become available. One such opportunity was the use of stationary radar signs.

Before 2000, the City relied on police enforcement to address severe speeding concerns on many streets that were unable to qualify for physical traffic calming measures. Primarily, these were arterial streets with posted speeds of 30 mph or volumes greater than 3,500 vehicles per day (the threshold for the use of physical measures such as speed humps and traffic circles). Stationary radar signs provided the City with another option to reduce vehicle speeds on these streets and address community concerns.

Although originally used only on streets where physical traffic calming measures could not be installed, stationary radar signs may now be installed on other streets, even those where speed humps and other physical measures are feasible. This change in policy is due to the popularity of the signs and their effectiveness. Some neighborhoods may prefer radar signs to traffic calming measures with a vertical or horizontal deflection (speed humps, traffic circles, etc.). The Bellevue Fire Department may also request the signs be used instead of other physical measures, depending on the level of emergency response service in the neighborhood and proximity to local fire stations.

With the increased demand for stationary radar signs, Bellevue developed an evaluation and prioritization process for all radar signs requested on a yearly basis. Each location is scored based on established guidelines and ranked according to the level of need. The guidelines were developed to limit radar signs where 85th percentile speeds are severe and where the signs will be most effective. The 85th percentile speed is the speed at which 85% of the recorded vehicles travel at or below on a given section of roadway.

This change in guidelines was due to the initial evaluations of radar signs installed at locations where pre-installation 85th percentile speeds were relatively close to the posted speed limit or where sight-distance for approaching motorists was limited. If a previously established speed advisory sign exists, the 85th percentile speed may be based off this advisory speed limit. The initial evaluations showed little to no speed reductions at these locations, prompting the guideline modifications. However, additional speed studies have shown an increase in the effectiveness of these radar signs.

SpeedCheck Radar Sign

Location Evaluations and Priorities

Citizens requesting radar speed signs contact Transportation Staff through an on-line request form, telephone, or electronic mail (see Appendix Page 46 for details on the process). Requests are received on a yearly basis. During the year the request is made, each location is reviewed, traffic patterns and speeds are analyzed, and the roadway is given a score based on program guidelines (Table 1). At the beginning of the following year, the location is prioritized against the other requests received and ranked according to the level of need. Exceptions to these guidelines include staff initiated locations that are related to operational decisions. Radar signs are not currently considered for roadways having two or more lanes in one direction. Due to advances in the technology, radar signs may be installed on multilane roadways as part of a future pilot project.

Radar Sign Evaluation Criteria	Points
Traffic Speeds (85th percentile)	
Less than 10 mph above posted speed limit/advisory	Does not qualify
10-12 mph above posted speed limit/advisory	2
13-15 mph above posted speed limit/advisory	4
More than 15 mph above posted speed limit/advisory	5
Average Daily Traffic (ADT)	
Less than 999 vehicles per day	Does not qualify
1000 – 3499	1
3500 – 5000	2
5001- 7500	3
7501+	4
Street Conditions	
Sidewalks both sides	0
Sidewalks one side	1
At grade pedestrian facility	2
Roadway Grades 8% or more	2
No pedestrian facility	3
Curves w/ advisory signing	3
Parks/Schools	
Greater than ½ mile	1
Between ¼ and ½ mile	2
Within ¼ mile	3
Correctable Accident History in last 3 years (as defined by Traffic Engineering)	
Yes	3
No	0

Table 1

Determining Community Support

Obtaining community support is critical in the placement of radar signs, as there may be objections to the size and brightness of the sign by adjacent property owners. Although most locations considered for radar sign installations begin as requests from neighborhood residents, support may be lacking from nearby households that believe they could be adversely impacted by the signs. Within available funding, the highest ranked locations are addressed with an extensive public process to assure support from adjacent property owners exists.

For the highest ranking locations, ballots are sent to households living within 500 feet of the proposed location (exact area to be determined by staff). Petitions are not accepted due to past concerns the City has had with overzealous petition gatherers. Instead, a ballot is created to share the advantages and disadvantages of living near a radar sign. This provides residents the opportunity to decide, in the privacy of their own home, whether or not they support the proposed installation (see Appendix pages 47 through 49 for sample ballot). At least 75% of responding households in the proposed area must support the sign before proceeding with the project. Although installed in the public right-of-way, radar signs are only placed in front of homes that support the installation.

Should a proposed location fail to garner the required level of support, ballots would be sent out to the next highest prioritized location. The original location may be reconsidered in the future if interest increases from area residents.

Choosing the Right Radar Sign and Features

High priority locations that have the required amount of demonstrated support from nearby households are then analyzed to determine which type of radar sign is best for that roadway. Although residents in the area and/or a Homeowners' Association may prefer the look of one radar sign over another, it is ultimately up to staff to determine what radar sign type will be most effective for each specific location. Sign features taken into consideration during this analysis include the look, the size, and the need for data collection.

Some of Bellevue's radar signs have the capability of recording and storing traffic speeds and volumes. This information can be downloaded from the radar sign and uploaded to a computer to determine speed percentile calculations, average traffic volumes, etc. This can be a valuable feature by saving staff time in conducting future traffic studies by traditional methods. It can also assist in determining the effectiveness of the sign. However, it is the City's experience that more complex sign features, such as data collection, may increase the number of technical issues that must be managed. Every additional sign feature also adds costs. Therefore, at some locations additional sign features, such as the capacity to collect data, are not necessary.

Most radar signs have the capability to be programmed by staff for a variety of traffic conditions. Threshold speed, or flashing speed, refers to a specific speed at which the radar sign is programmed to display an emphasized warning or maximum speed to the passing motorist. Depending on the sign, a clear emphasized message of "Slow Down" may flash for motorists traveling over the set threshold speed. With some sign types, an illuminated speed flashes until the motorists reduce their speed. One sign type has a flashing strobe that mimics a camera flash.

Setting the threshold speed is an important element of programming the radar sign. If the threshold speed is set too low, motorists may become accustom to the emphasized warning and begin to ignore it. Setting it too high would limit the sign's effectiveness by only targeting the most flagrant violators. A large number of motorists would not see the emphasized warning. Not setting the threshold speed may encourage some motorists to speed up in order to test the sign and register the highest speeds possible. Bellevue's thresholds for the four types of radar signs installed in the city as of January 2009 are found below in Table 2.

Radar Sign Features	Min. Display Speed	Max. Display Speed	Threshold Speed	Strobe	"Slow Down" Message
3M™	10 mph or less	*varies	6 mph over speed limit	No	No
MPH®	10 mph or less	**20 mph over threshold	6 mph over speed limit	No	No
VCalm™	10 mph or less	9 mph over speed limit	6 mph over speed limit	Yes	Yes 10 mph over speed limit
SpeedCheck™	10 mph or less	9 mph over speed limit	6 mph over speed limit	No	Yes 10 mph over speed limit

*Programming issues exist at some locations
**Set by Manufacturer

Table 2

Considerations for Radar Sign Placement

The City contracts the installation of radar signs, with typical installation costs ranging from $5,000 to $12,000 depending on the location of power. Radar signs cost $4,000 to $6,000 depending on the manufacturer and additional features chosen. These costs do not include the staff time needed to analyze locations, determine community support, and prepare plans and specifications for advertisement to hire a contractor. Additional staff time is needed to maintain the signs. As the radar signs age, they have needed more maintenance. A number of signs have had to be replaced. The time involved in managing the program by both Neighborhood Services and Traffic Signals staff has been so significant that no additional signs will be installed until additional maintenance staff are hired.

Due to the resources needed for each radar sign location, the City has found it important to install signs on qualifying roadways where they will have the greatest impact and be the most effective. Many of the factors considered when locating signs are found in Table 3.

Considerations For Radar Placement	Why Important
Existing Road Geometry, Topography and Roadside Vegetation	A minimum distance of 300 feet of clear sight distance should be maintained in order to maximize the speed display exposure between the motorist and the radar sign.
Power Availability	The proximity of available power and the amount of trenching needed to reach electrical connections can drive up installation costs.
Solar Powered	Where trenching to power is cost prohibitive, solar powered radar signs are considered as long as light levels at the sign location allow it. Bellevue has had mixed results with solar powered signs. Locations close to power are preferred to solar powered signs.
Light Intrusion	Light from the radar sign can intrude into nearby homes. Whenever concerns arise regarding light intrusion into homes, signs are turned or blinders are installed to minimize the impact. However, some residents object to the view of the radar sign itself.
Obstructions	Locations must not have metal objects, including parked cars, between the radar sign and oncoming traffic.

Table 3

Once the exact location has been determined, plans and specifications are developed and the project is sent out to bid. Once the contract has been awarded, a construction plan is developed. Installation is coordinated with the City's Traffic Signal Section, the local electrical utility (Puget Sound Energy) and the contractor awarded the bid. Construction inspection is conducted by the Signal Project Inspector. In general, signs are installed (Figure 1):

- facing oncoming traffic at an appropriate angle for the radar to be picked up by passing motorists (specified by the manufacturer),
- mounted with a concrete footing,
- installed at a minimum height of seven feet from the bottom edge of sign to grade level (can discourage vandalism),
- with a posted speed limit sign installed above the radar sign.

Figure 1

Bellevue's Experience with Radar Signs

Radar signs from four manufacturers have been installed in Bellevue. Two different sizes of 3M signs have also been used. This has given staff the opportunity to compare different sign types and manufactures. However, as the number of radar signs have increased, managing the variety of signs has become more complex. The following anecdotal information is limited to Bellevue's experience with the manufacturers and radar signs that have been used to date. Vendors continue to update their signs and sign features and Bellevue will continue to explore new technologies and possibly additional manufacturers in the future.

SpeedCheck*

SpeedCheck signs have been installed on local collector streets with posted speed limits of 30 mph and on residential streets with posted speed limits of 25 mph. The signs are 30" x 42". Two types of sign colors, black on white and black on yellow, have been installed in Bellevue. There are also two speed LED display colors, red and amber, in Bellevue. Before ordering any radar sign, as mentioned above, staff analyze what sign type, size, etc. would best address the needs of a location. For example, two SpeedCheck yellow signs with amber LED's were installed on a 30 mph local collector (SE Newport Way) in February of 2008, because the signs complement the 25 mph advisory signing. This was an attempt to make it clear to the motorists that the radar signs on SE Newport Way were for the curve advisory speed and not for the posted speed limit. Because SpeedCheck signs are component based, Bellevue staff have found them to be easily repaired by Signal crews if damaged by a power surge or vandals. Data upload and download through Bluetooth technology has been user friendly. The "Slow Down" message is clear to those motorists traveling over the programmed threshold. Initially the signs' software has had minor issues, but it has been corrected and is updated by the vendor with new versions regularly.

MPH*

MPH signs have been installed on local collector streets. The signs are 30" x 36" and are black on white with speeds displayed in red. With no software, these signs are programmable through the hardware. The older MPH signs will flash "HI" when a motorists travels over 20 mph above the threshold speed. This could be confusing for non-native English speakers. New MPH signs in Bellevue will not display speeds exceeding 20 mph over the threshold speed. The LED lights are bright for displaying motorists' speed. The 'workhorse' of the Bellevue fleet, MPH signs have few programmable features, but are reliable and durable. Past repair work has been associated with vandalism.

3M*

3M signs have been primarily installed on residential streets. This was due to the lower brightness level of the signs and the availability of a smaller sign size of 24" x 30". The larger 36" x 48" sign has been installed on collector arterials. In a residential setting these features can make the radar signs less intrusive to nearby homeowners. Bellevue's 3M

signs use flip-disk technology (fluorescent yellow-green) with illumination by LED at night and at the threshold speed warning. The 3M sign has the capability of recording and storing traffic data (speeds and volumes), as well as operating on specified schedules. However, programming and retrieving data from the signs has been problematic. Communication with the sign is available by serial port or wireless modem. Initially the City tried the wireless modem feature for programming and communication. After installation, communication via modem was intermittently achieved with only two of the signs. Eventually all six signs were modified for serial port communications. Since then, this wireless modem technology has not been used in Bellevue for any radar sign programming. In addition, some signs need to be reset regularly after power outages.

VCalm*

Fortel Traffic's VCalm radar signs were purchased for its variety of setting options, including a strobe. There have been minimal complaints concerning the strobe, and most concerning confusion over whether or not the strobe was from a police camera. The signs are programmed to display speeds up to 35 mph with yellow-orange LED lights against a black background. This combination seems to enhance sign visibility. However, the LEDs can become too bright at night despite the auto dim feature. Beyond the threshold speed the sign has been programmed to display a text message of "Slow Down", as well as to trigger the strobe. The signs have traffic recording and storage capability, although data can be difficult to retrieve or unreliable. Sign communication can be via wireless modem or via a SD card inserted into sign circuit board or a dropdown box. Bellevue now uses the dropdown box option, as the wireless modem did not work consistently.

*All information about the radar signs was gathered prior to January 2009, based on City of Bellevue's experience with existing signs. Check with the manufacturers for new sign features and fixes to software related problems.

VCalm Radar Sign

Effectiveness of the Radar Signs in Bellevue

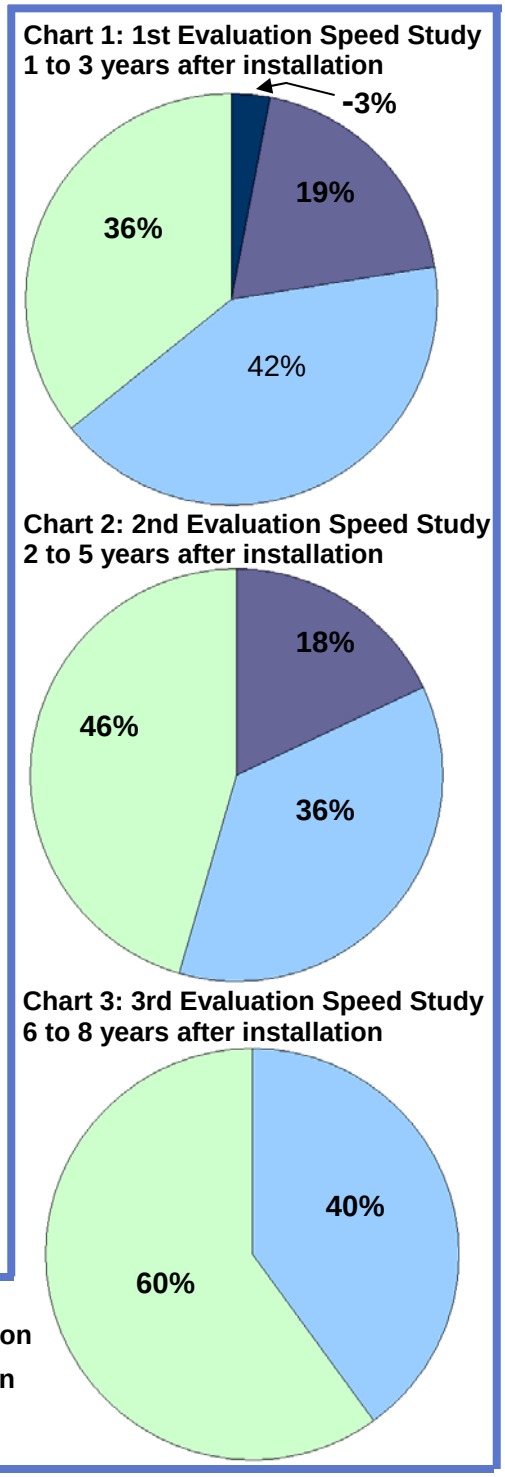
An evaluation of each sign takes place approximately one year after installation. This includes a review of accidents, speeds and volumes along with feedback from adjacent households. A report is finalized with details of the evaluation. To date, some radar signs have been installed long enough that three post-installation speed studies have been conducted at those locations. These speed studies are used to gauge the effectiveness of the signs (Figure 2).

Effectiveness Over Time
(percent reduction in 85th percentile speeds)

Chart 1: Post-installation speed studies have been conducted for all 31 existing radar signs. The majority of speed seen in the first post-installation studies showed a reduction in the 85th percentile speeds of at least five percent. However, several locations showed little speed reductions during this first post-installation speed study. At one location, speeds were slightly elevated in the first post-installation study.

Chart 2: Additional studies were conducted at the 22 locations where signs had been in place two or more years. These studies showed some increase in the effectiveness of the signs, even at those locations that were least effective initially. In a couple of cases where effectiveness levels increased dramatically, the radar signs were not working well at the beginning. These signs were either repaired or replaced before the second round of speed studies were conducted.

Chart 3: A third speed study was conducted at the ten locations where radar signs have been installed six or more years. In direct contrast to what residents and staff feared, these studies show additional increases in effectiveness. The radar signs have not lost effectiveness over time as motorists get used to driving past them.



Legend

- Negative Speed Reduction
- 0 to 4 % Reduction
- 5 to 9 % Reduction
- 10 + % Reduction

Figure 2

As Figure 2 shows on the previous page, data collected at those ten locations where radar signs have been installed six or more years indicates that not only do the radar signs maintain their level of speed reduction, in most cases, their effectiveness has appeared to increase (see Appendix pages 50 through 52 for additional speed study details). At some locations, the increase in effectiveness was dramatic (Figure 3). For example, at location #7, the first post-installation speed study showed that speeds had actually increased slightly. A modest speed reduction of 2% was seen in the second speed study. The latest speed study showed a 9% speed reduction at location #7. Before the third speed study, the radar sign was replaced. In addition, curb, gutter and sidewalk was installed on the roadway. It is difficult to say if one or both of these changes contributed to the increased speed reduction. In addition to location #7, signs at location #4, #5, and #6 were replaced. No known changes, which might account for the improvement in effectiveness, have occurred at the other locations. Future speed studies may shed light on the factors contributing to the increase in effectiveness, which has been seen at most locations.

Effectiveness Over Time
(85th percentile speed reduction in mph)

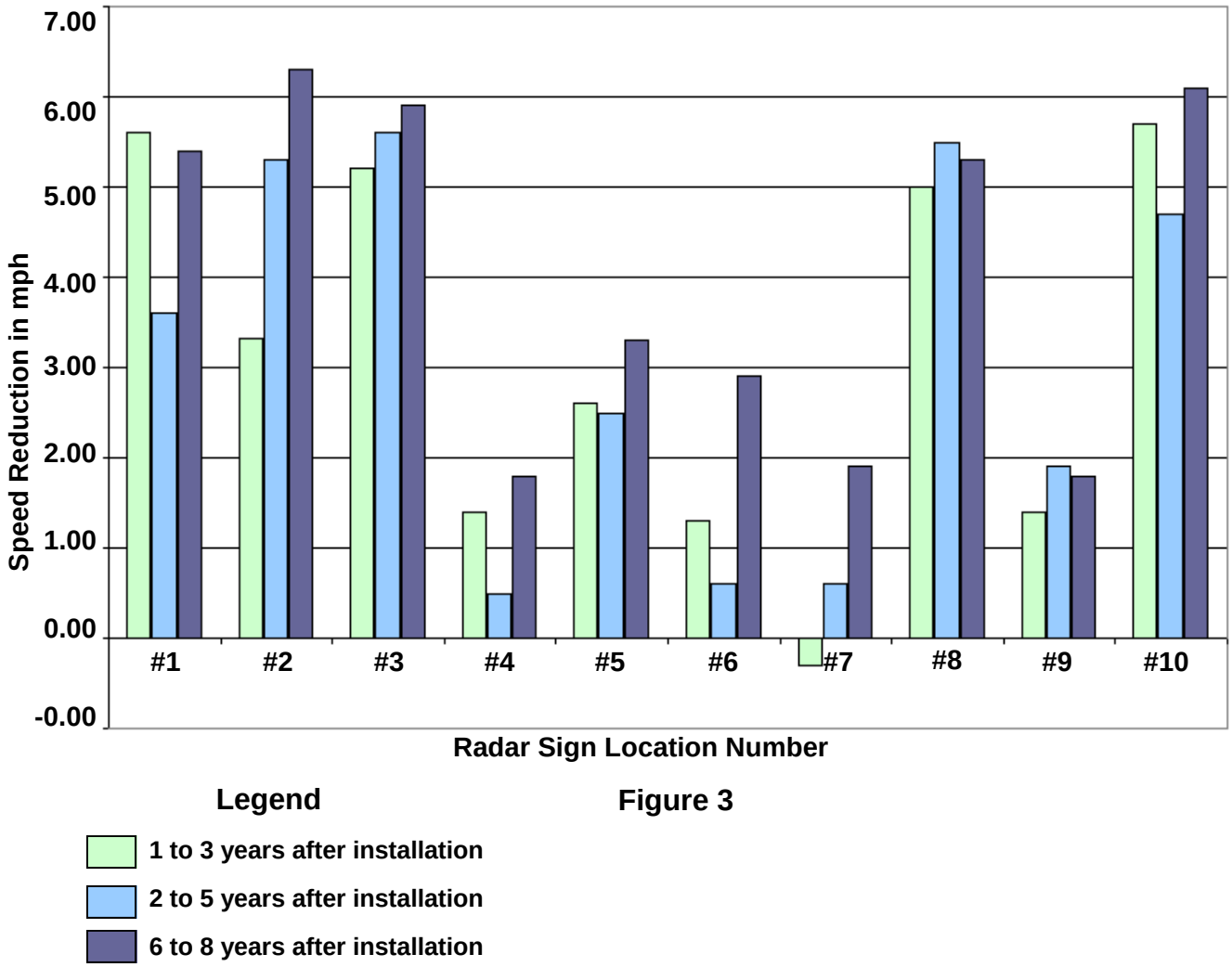


Figure 3

Best Practices from Lessons Learned

With each new installation, advance in technology and as the existing signs age, Bellevue continues to learn better practices and strengthen policies surrounding the Stationary Radar Sign program. Listed below are some of the lessons that staff have learned over the last eight years.

Keep it Simple

It is easy to get excited about new technologies and features that vendors are offering. Those signs purchased with extra features often come with extra problems caused by those accessories. More features does not necessarily mean it is the best radar sign for a project.

Solar Power has Mixed Results

Finding an appropriate power source close to proposed locations can be costly if extensive trenching is required. In 2001, Bellevue installed a solar-powered radar sign, which failed to work and had to be replaced by a hard-wired sign. This became our most costly installation to date. However, two solar powered signs installed in 2007 have been working well so far. Both of these locations have large-sized solar panels and are in relatively sunny locations, at least for the Pacific Northwest. Additional solar-powered radar signs will be considered in the future, although staff continue to have concerns regarding the lifespan of the sign and the aesthetics surrounding the very large panels needed.

Have a Service Agreement with the Manufacturer

Approximately two percent of radar signs purchased have had on-going issues with power and the signs' programming. These are resolved by rebooting the programming and when necessary, working with the manufacturer on the signs' repairs or replacement. Upfront written service agreements with the vendor facilitate the process of addressing problems that occur with the sign.

Vandalism Happens

Vandalism has been a problem at several radar sign sites. The most common types of vandalism that occurs are objects (paintballs, watermelons, pumpkins, eggs, milkshakes, bricks, rocks, etc.) being thrown at the display. At the extreme end, vandalism by firearms has also occurred. Many radar manufacturers also recognize vandalism as a recurrent problem for radar signs and have started producing signs with shatter proof Plexiglas fronts, clear sticker protectors that can be replaced and water tight seals. There are also many cleaning agents for graffiti. Vandalism can also occur if internal components are accessed. Interior electronics must be kept locked at all times.

Radar Sign with Bullet Hole

Check References

When considering the purchase of a radar sign, vendors will share information about the radar sign's features, pricing, and specifications. A more accurate picture of how the signs actually function over time, its ease of use and maintenance will come from speaking with different agencies that use the radar sign.

Develop Radar Programs Carefully

Installing one radar sign in a jurisdiction opens the door for more. Without guidelines, processes and procedures, the program can easily grow too quickly to manage or in a direction that is not according to the best judgment of the agency. Spend time upfront considering:

- how much staff time can be devoted to the radar signs' maintenance;
- whether signs should be purchased in bulk from one manufacturer at a discount, or from multiple sources to better compare signs and manufacturers;
- guidelines and procedures to ensure that staff time and agency resources are spent in locations where the signs are needed the most and will be the most effective.

Conclusion and Recommendations

Over the past eight years, the City of Bellevue has seen significant success using stationary radar signs to reduce vehicle speeds. Although educational in nature, these signs are effective at bringing motorists' attention to the speeds they are driving. Evaluations of the signs have shown that a significant number of motorists are choosing to correct their speed when necessary. This level of effectiveness has remained or even increased since the signs' installations. Public perception of the signs remains positive as the growing number of requests for new installations indicates. Based on these factors, the City will continue to use radar signs as a way to address vehicle speeds.

Resources to manage the aging radar signs already installed, as well as future installations, will continue to be a challenge. Guidelines adopted in 2007 for prioritizing locations should assist the City in managing funding resources more appropriately. Funding is now set aside each year in a replacement fund that allows the City to upgrade each radar sign every seven years. These replacement funds, along with the increased customer service by vendors received of late and the replacement of those chronically malfunctioning radar signs should also help decrease the number of maintenance issues occurring.

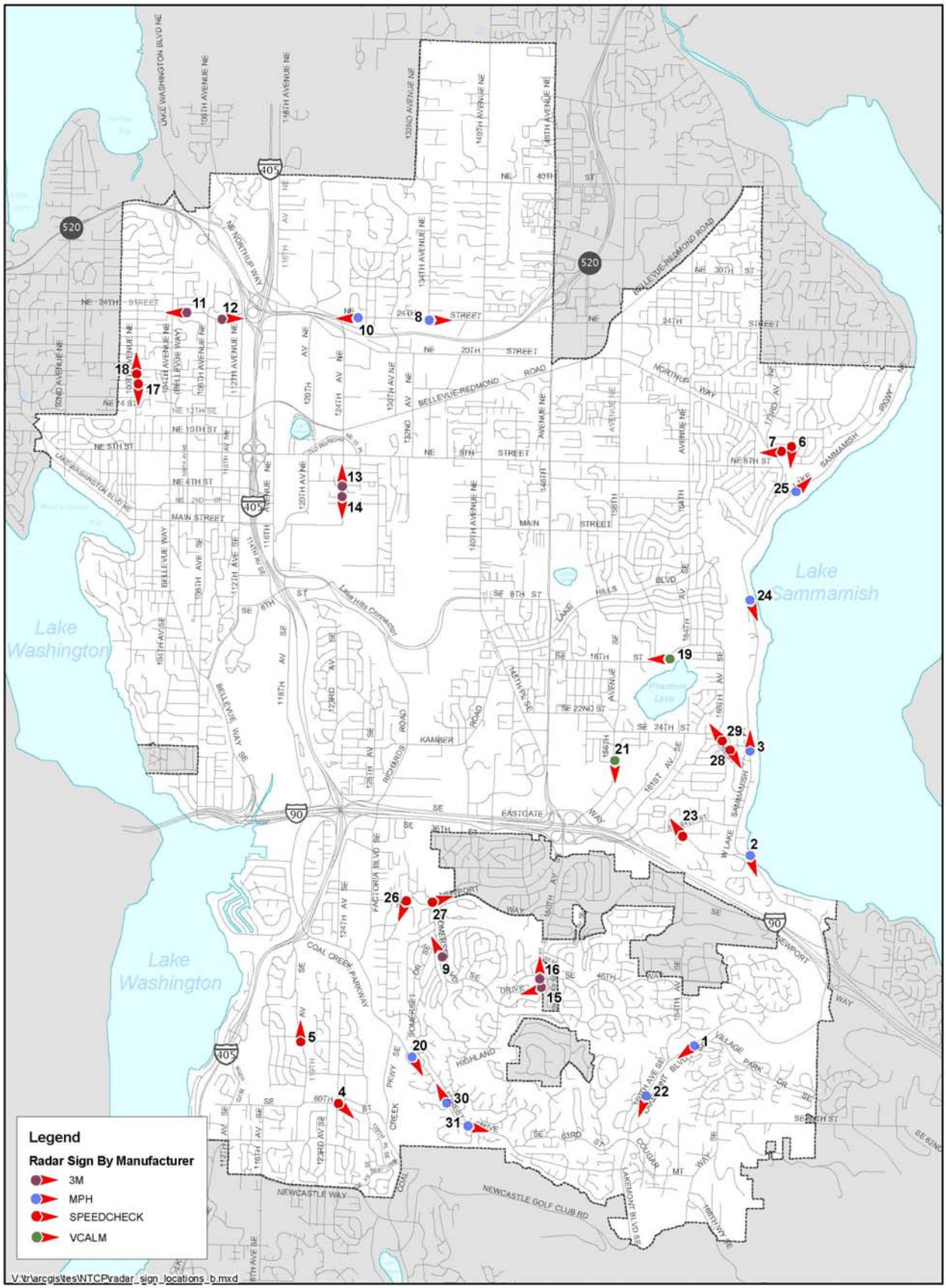
As with any program, the City will continue to look for new and innovative ways to address traffic concerns throughout Bellevue. Multi-lane roadways or other locations not currently included in our process and guidelines may be reviewed in the future for radar sign placement when traffic engineering reviews warrant their use.

Appendix

2009 Stationary Radar Sign Report

City of Bellevue

Radar Sign Locations by Type



NORTH

= 3,500 feet

City of Bellevue
IT Department
GIS Services
Plot Date: 2/12/2009

Location 1

Lakemont Blvd

West of Village Park Drive

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
08/2000	42.4 mph	N/A
Installed September 2000		
10/2001	36.8 mph	-5.6 mph
09/2004	38.8 mph	-3.6 mph
09/2008	37 mph	-5.4 mph

Facing West for Eastbound Motorists

Radar Sign Installation	
MPH Sign:	$ 5,700
Installation	$ 2,100
Total:	$7,800
MPH Sign Replacement*	$5,700
Installation	$500
Total:	$6,200*

*MPH radar sign was replaced with another MPH radar sign in July of 2006 after being hit by a vehicle. Replacement costs were covered by insurance of motorist involved.

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

West Lk Sammamish Pkwy

Location 2

South of Vasa Park

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
01/2001	41.3 mph	N/A
Installed June 2001		
10/2001	38.0 mph	-3.3 mph
09/2004	36.0 mph	-5.3 mph
08/2008	35.0 mph	-6.3 mph

Radar Sign Information	
MPH Sign:	$ 5,700
Installation	$ 4,700
Total:	$ 10,400

Facing South for Northbound Motorists

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
"SLOW DOWN" Message (Red or Amber)?	No
Speed for displaying "SLOW DOWN"	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

West Lk Sammamish Pkwy

Location 3

North of SE 26th Street

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
11/2000	42.9 mph	N/A
Installed June 2001		
10/2001	37.7 mph	-5.2 mph
09/2004	37.3 mph	-5.6 mph
08/2008	37.0 mph	-5.9 mph

Facing North for Southbound Motorists

Radar Sign Information	
MPH Sign:	$ 5,700
Installation	$ 4,700
Total:	$ 10,400

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 4

SE 60th Street

West of 126th Avenue SE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
02/2001	33.8 mph	N/A
3M Installed September 2001		
06/2002	32.4 mph	-1.4 mph
08/2004	33.3 mph	-0.5 mph
****Replaced with SpeedCheck April 2008***		
07/2008	32.0 mph	-1.8 mph

Radar Sign Information	
3M Sign:	$ 8,600
Installation:	$15,900
3M Total:	$ 24,500**
SpeedCheck Sign:	$4,800
Installation	$500***
SpeedCheck Total:	$5,300

Facing East for Westbound Motorists

*Replacement due to malfunctioning 3M sign.

**High sign and install costs due to several modifications from solar power to electrical service.

***Labor to remove 3M sign and hookup SpeedCheck sign.

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
"SLOW DOWN" Message (Red or Amber)?	Yes—Red
Speed for displaying "SLOW DOWN"	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 5

119th Avenue SE

South of SE 52nd Street

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
02/2001	33.3 mph	N/A
3M Installed Sign September 2001		
07/2002	30.7 mph	-2.6 mph
08/2004	30.8 mph	-2.5 mph
****Replaced with SpeedCheck April 2008***		
08/2008	30.0 mph	-3.3 mph

Radar Sign Information	
3M Sign:	$5,000
Installation:	$3,400
3M Total:	$8,400
SpeedCheck Sign:	$4,800
Installation	$500**
SpeedCheck Total:	$5,300

Facing North for Southbound Motorists

*Malfunctioning 3M radar sign was replaced by SpeedCheck sign in April of 2008

**Labor to remove 3M sign and hookup SpeedCheck sign.

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
"SLOW DOWN" Message (Red or Amber)?	Yes—Red
Speed for displaying "SLOW DOWN"	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 6

176th Avenue NE

South of NE 11th Street (for southbound motorists)

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
08/2001	31.9 mph	N/A
3M Installed September 2001		
07/2002	30.6 mph	-1.3 mph
08/2004	31.3 mph	-0.6 mph
****SpeedCheck Installed August 2008***		
01/2009	29.0 mph	-2.9 mph

Facing North for Southbound Motorists

Radar Sign Information	
3M Sign:	$5,000
Installation:	$3,100
3M Total:	$8,100
SpeedCheck Sign:	$4,800
Installation	$500**
SpeedCheck Total:	$5,300

*Malfunctioning 3M radar sign was replaced by SpeedCheck sign in August of 2008

**Labor to remove 3M sign and hookup SpeedCheck sign.

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
"SLOW DOWN" Message (Red or Amber)?	Yes—Red
Speed for displaying "SLOW DOWN"	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 7

NE 10th Street

East of Northup Way

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
05/1997	29.9 mph	N/A
Installed February 2002		
07/2002	30.2 mph	+0.3 mph
08/2004	29.3 mph	-0.6 mph
****SpeedCheck Installed August 2008***		
10/2008	28.0 mph	-1.9 mph

Facing West for Eastbound Motorists

Radar Sign Information	
3M Sign:	$5,000
Installation:	$2,600
3M Total:	$7,600
SpeedCheck Sign:	$4,800
Installation	$500**
SpeedCheck Total:	$5,300

*Malfunctioning 3M radar sign was replaced by SpeedCheck sign in August of 2008

**Labor to remove 3M sign and hookup SpeedCheck sign.

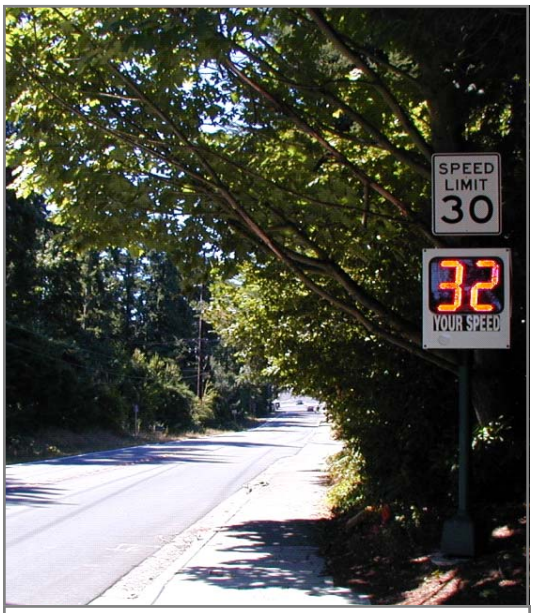
Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
"SLOW DOWN" Message (Red or Amber)?	Yes—Red
Speed for displaying "SLOW DOWN"	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 8

NE 24th Street

West of 134th Ave NE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
02/2002	41.3 mph	N/A
Installed April 2002		
07/2002	36.3 mph	-5.0 mph
08/2004	35.8 mph	-5.5 mph
07/2008	36 mph	-5.3 mph



Facing East for Westbound Motorists

Radar Sign Information	
MPH Sign:	$ 5,700
Installation	$ 5,000
Total:	$ 10,700

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Somerset Boulevard SE

Location 9

South of Somerset Drive (for northbound motorists)

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
01/2002	33.8 mph	N/A
Installed April 2002		
06/2002	32.4 mph	-1.4 mph
08/2004	31.9 mph	-1.9 mph
07/2008	32 mph	-1.8 mph

Facing South for Northbound Motorists

Radar Sign Information	
3M Sign:	$ 5,000
Installation	$ 2,400
Total:	$ 7,400

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	40 mph
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 10

NE 24th Street

East of 124th Ave NE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
02/2002	40.1 mph	N/A
Installed May 2002		
07/2002	34.4 mph	-5.7 mph
08/2004	35.4 mph	-4.7 mph
06/2008	34 mph	-6.1 mph

Facing West for Eastbound Motorists

Radar Sign Information	
MPH Sign:	$ 5,700
Installation	$ 5,000
Total:	$ 10,700

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 11

NE 24th Street

East of 105th Avenue NE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
06/2001	34.9 mph	N/A
Installed December 2002		
03/2005	31.2 mph	-3.7 mph
07/2008	31.0 mph	-3.9 mph

Facing West for Eastbound Motorists

Radar Sign Information	
3M Sign:	$ 4,600
Installation	$ 4,000
Total:	$ 8,600

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	N/A
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 12

NE 24th Street

West of 109th Avenue NE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
06/2001	34.9 mph	N/A
Installed December 2002		
03/2005	32.1 mph	-2.8 mph
07/2008	32.0 mph	-2.9 mph

Facing East for Westbound Motorists

Radar Sign Information	
3M Sign:	$ 4,600
Installation	$ 4,000
Total:	$ 8,600

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	N/A
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 13

124th Avenue NE

South of NE 5th Street

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
03/2003	35.7 mph	N/A
Installed July 2003		
09/2004	32.2 mph	-3.5 mph
06/2008	32.0 mph	-3.7 mph

Facing North for Southbound Motorists

Radar Sign Information	
3M Sign:	$ 6,000
Installation	$ 3,500
Total:	$ 9,500

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	35 mph
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 14

124th Avenue NE

South of NE 4th Pl

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
03/2003	34.2 mph	N/A
Installed July 2003		
09/2004	30.8 mph	-3.4 mph
06/2008	31.0 mph	-3.2 mph

Radar Sign Information	
3M Sign:	$ 6,000
Installation	$ 3,500
Total:	$ 9,500

Facing South for Northbound Motorists

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	N/A
"SLOW DOWN" Message (Red or Amber)?	No
Speed for displaying "SLOW DOWN"	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 15

Highland Drive

Northeast of 147th Pl SE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
03/2003	35.4 mph	N/A
Installed April 2004		
03/2005	33.0 mph	-2.4 mph
06/2008	30.0 mph	-5.4 mph

Facing West for Eastbound Motorists

Radar Sign Information	
3M Sign:	$ 6,000
Installation	$ 4,500
Total:	$ 10,500

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	40 mph
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 16

Highland Drive

South of 46th Pl SE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
03/2003	35.6 mph	N/A
Installed April 2004		
03/2005	32.5 mph	-3.1 mph
06/2008	30 mph	-5.6 mph

Radar Sign Information	
3M Sign:	$ 6,000
Installation	$ 4,500
Total:	$ 10,500

Facing North for Southbound Motorists

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	40 mph
"SLOW DOWN" Message (Red or Amber)?	No
Speed for displaying "SLOW DOWN"	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 17

100th Avenue NE

South of NE 17th St

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
08/2002	33.1 mph	N/A
3M Installed August 2004		
03/2005	31.9 mph	-1.2 mph
****SpeedCheck Installed May 2007***		
07/2008	32.0 mph	-1.1 mph

Radar Sign Information	
3M Sign:	$ 6,000
Installation:	$ 4,500
3M Total:	$ 10,500
SpeedCheck Sign:	$4,800
Installation	$500**
SpeedCheck Total:	$5,300

Facing South for Northbound Motorists

*Malfunctioning 3M radar sign was replaced by SpeedCheck sign in April of 2008

**Labor to remove 3M sign and hookup SpeedCheck sign.

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
"SLOW DOWN" Message (Red or Amber)?	Yes—Red
Speed for displaying "SLOW DOWN"	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 18

100th Avenue NE

North of NE 16th St (for southbound motorists)

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
08/2002	32.8 mph	N/A
3M Installed August 2004		
03/2005	31.7 mph	-1.1 mph
****SpeedCheck Installed April 2008***		
07/2008	31.0 mph	-1.8 mph

Radar Sign Information	
3M Sign:	$ 6,000
Installation:	$ 4,500
3M Total:	$ 10,500
SpeedCheck Sign:	$4,800
Installation	$500**
SpeedCheck Total:	$5,300

Facing North for Southbound Motorists

*Malfunctioning 3M radar sign was replaced by SpeedCheck sign in April of 2008

**Labor to remove 3M sign and hookup SpeedCheck sign.

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
"SLOW DOWN" Message (Red or Amber)?	Yes—Amber
Speed for displaying "SLOW DOWN"	35 mph
Strobe?	No.
Speed for Strobe to be Activated	N/A

Location 19

SE Phantom Way

East of 160th Avenue SE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
07/03	35.5 mph	N/A
Installed August 2004		
02/2005	31.0 mph	-4.5 mph
06/2008	31.0 mph	-4.5 mph

Radar Sign Information	
VCalm:	$ 7,600
Installation	$ 4,500
Total:	$ 12,100

Facing West for Eastbound Motorists

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
"SLOW DOWN" Message (Red or Amber)?	Yes—Amber
Speed for displaying "SLOW DOWN"	35 mph
Strobe?	Yes
Speed for Strobe to be Activated	37 mph

Location 20

Forest Drive

West of Somerset Dr. SE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
01/2005	42.7 mph	N/A
Installed February 2005		
03/2005	40.6 mph	-2.1 mph
07/2008	40.0 mph	-2.7 mph

Facing South for Northbound Motorists

Radar Sign Information	
MPH Sign:	$ 5,700
Installation	$ 4,700
Total:	$ 10,400

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	No
Speed for displaying “SLOW DOWN”	N/A
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 21

156th Ave SE

North of 30th Place

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
08/2005	36.8 mph	N/A
Installed February 2006		
06/2008	30.0 mph	-6.8 mph

Facing South for Northbound Motorists

Radar Sign Information	
VCalm Sign:	$ 7,500
Installation	$ 7,400
Total:	$ 14,900

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
“SLOW DOWN” Message (Red or Amber)?	Yes—Amber
Speed for displaying “SLOW DOWN”	35 mph
Strobe?	Yes
Speed for Strobe to be Activated	37 mph

Location 22

Lakemont Blvd

At Lewis Creek Park

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
07/2005	40.8 mph	N/A
Installed July 2006		
09/2008	38.0 mph	-2.8 mph

Facing South for Northbound Motorists

Radar Sign Information	
MPH Sign:	$ 6700
Installation	$9,600
Total:	$16,300

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	N/A
Speed for displaying “SLOW DOWN”	N/A
Strobe?	N/A
Speed for Strobe to be Activated	N/A

Location 23

164th Place SE

East of SE 35th Street

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
01/2005	35.7 mph	N/A
Installed July 2006		
02/2007	35.4 mph	- 0.3 mph
06/2008	32.0 mph	-3.7 mph

Radar Sign Information	
SpeedCheck Sign:	$4,600
Installation	$8,600
Total:	$13,200

Facing West for Eastbound Motorists

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
"SLOW DOWN" Message (Red or Amber)?	Yes—Amber
Speed for displaying "SLOW DOWN"	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

West Lk Sammamish Pkwy

Location 24

at 522, across from Weowna Park

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
12/05	43.4 mph	N/A
Installed October 2006		
11/06	41.0 mph	-2.4 mph
08/08	40.0 mph	-3.4 mph

Facing South for Northbound Motorists

Radar Sign Information	
MPH Sign:	$6,700
Installation	$7,500
Total:	$14,200

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	N/A
Speed for displaying “SLOW DOWN”	N/A
Strobe?	N/A
Speed for Strobe to be Activated	N/A

West Lk Sammamish Pkwy NE

Location 25

North of 177th Lane

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
12/05	43.0 mph	N/A
Installed 11/06		
08/08	40.0 mph	-3.0 mph

Facing North for Southbound Motorists

Radar Sign Information	
MPH Sign:	$6,700
Installation	$ 7,700
Total:	$14,400

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	N/A
Speed for displaying “SLOW DOWN”	N/A
Strobe?	N/A
Speed for Strobe to be Activated	N/A

Location 26

SE Newport Way

East of SE 42nd Place

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
10/2006	37.3 MPH	N/A
Installed February 2008		
07/2008	34.0 mph	-3.3 mph

Facing West for Eastbound Motorists

Radar Sign Information	
SpeedCheck Sign:	$ 7,000
Installation	$ 10,300
Total:	$ 17,300

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
“SLOW DOWN” Message (Red or Amber)?	Yes—Amber
Speed for displaying “SLOW DOWN”	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 27

SE Newport Way

West of SE Allen Road

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
10/2006	37.5 MPH	N/A
Installed February 2008		
07/2008	34.0 mph	-3.5 mph

Facing East for Westbound Motorists

Radar Sign Information	
SpeedCheck Sign:	$ 4,800
Installation	$ 10,300
Total:	$ 15,100

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
“SLOW DOWN” Message (Red or Amber)?	Yes—Amber
Speed for displaying “SLOW DOWN”	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 28

SE 26th Street

East of SE 25th Street

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
05/2006	34.5 MPH	N/A
Installed February 2008		
06/2008	31.0 MPH	-3.5 mph

Facing East for Westbound Motorists

Radar Sign Information	
SpeedCheck Sign:	$ 7,000
Installation	$ 10,300
Total:	$ 17,300

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
“SLOW DOWN” Message (Red or Amber)?	Yes—Red
Speed for displaying “SLOW DOWN”	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 29

SE 26th Street

West of 169th Ave SE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
06/2006	34.4 MPH	N/A
Installed February 2008		
06/2008	32.0 MPH	-2.4 mph

Facing West for Eastbound Motorists

Radar Sign Information	
SpeedCheck Sign:	$ 4,800
Installation	$ 10,300
Total:	$ 15,100

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	34 mph
“SLOW DOWN” Message (Red or Amber)?	Yes—Red
Speed for displaying “SLOW DOWN”	35 mph
Strobe?	No
Speed for Strobe to be Activated	N/A

Location 30

Forest Drive

West of SE 59th Street

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
2/08	37.0 mph	N/A
Installed July 2008		
1/09	35.0 mph	-2.0 mph

Facing West for Eastbound Motorists

Radar Sign Information	
MPH Sign:	$ 4,000
Installation	$ 11,000
Total:	$ 15,000

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	N/A
Speed for displaying “SLOW DOWN”	N/A
Strobe?	N/A
Speed for Strobe to be Activated	N/A

Location 31

Forest Drive

West of 141st Ave SE

Traffic Data Results		
Date	85th Percentile Speed (mph)	Difference (mph)
2/08	42.0 mph	N/A
Installed July 2008		
1/09	36.0 mph	-6.0 mph

Facing East for Westbound Motorists

Radar Sign Information	
MPH Sign:	$ 4,000
Installation	$ 14,000
Total:	$ 18,000

Radar Sign Thresholds	
Speed to Display Flashing Speed	31 mph
Maximum Speed Displayed	50 mph
“SLOW DOWN” Message (Red or Amber)?	N/A
Speed for displaying “SLOW DOWN”	N/A
Strobe?	N/A
Speed for Strobe to be Activated	N/A

Radar Sign Program Process

Updated: June 2007

Citizen Request

- Citizen request received.
- Staff provide request form to be filled out and returned.
- Once returned, staff begin review process.

If posted speed limit is over 35 mph → **Enforcement**

Staff Review

- Conduct speed and volume studies to determine if minimum guidelines are met:
  - ◊ 15% of vehicles must be traveling 10 mph over the posted speed limit or higher.
  - ◊ Volumes must be greater than 999 vehicles per day.
- Field review to determine location feasibility.
- Review of reported accident history (3 years).
- If location meets minimum guidelines and is deemed feasible by staff, community support is determined.

- If volume is below 999 vehicles per day, or
- 15% of vehicles are traveling less than 10 mph over the posted speed limit

→ **Other Alternatives**

- Neighborhood Traffic Calming Program (NTCP)
- Enforcement

Determine Community Support

- Staff mail ballot to residents within minimum of 500 feet from the proposed location (exact location to be determined by staff).
- 75% of responding households in the proposed area must support the sign before proceeding to list for prioritization.

Annual Prioritization

- Staff prioritize locations based on a score using data from the following: speed, traffic volume, number of accidents, street conditions, and proximity to schools/parks.
- Requests for each year (January 1st—December 31st) are prioritized for funding the following year.
- Within available funding, the highest ranked locations will be addressed first.

Newsletter

- A newsletter will be sent to all residents in the neighborhood of request (boundary set by staff) after locations have been prioritized for placement of the radar sign.

Design & Construction

- Staff prepare a design for each location and coordinate with Puget Sound Energy.
- A bid/quote package is prepared and awarded to a contractor.
- Construction begins and is inspected by the City until completion.

Evaluation to Determine Effectiveness

- After studies are conducted to determine effectiveness of the sign approximately one year from installation, any modifications that are needed will be implemented and another evaluation completed.

NEIGHBORHOOD TRAFFIC news

Working together to make your neighborhood a safer place to live!

BELLEVUE NEIGHBORHOOD TRAFFIC CALMING PROGRAM

Your Vote Counts!

Two Radar Signs Proposed for Forest Drive

City staff has been finding ways to improve traffic safety on Forest Drive through various physical and educational measures. Some of these measures have included a reduction in lane width with a wider shoulder stripe, new pavement materials to increase traction for vehicles, and a radar sign to alert motorists of their speeds. Since there has been success in reducing vehicle speeds with the radar sign, staff is proposing two more on Forest Drive. One sign is proposed for the northwest corner of the intersection with SE 59th Street for eastbound traffic and the other sign is proposed just west of 141st Avenue SE for westbound traffic.

In 2000, the Transportation Department began using radar signs. The signs direct a driver's attention to the posted speed limit and digitally displays the speed of the driver's vehicle on a large message board. The instant feedback results in a greater awareness of the speed limit and provides an opportunity for speed reduction which does not impact emergency response vehicles, unlike other physical devices, such as speed humps. An example of a radar sign can be seen on Forest Drive west of Somerset Drive (see back of this sheet for a photo).

Two locations for Forest Drive meet our guidelines for installing radar signs (see proposed locations on back). Ballots are being sent along with this newsletter to residents in the vicinity of the two proposed radar signs to determine if there is support for these installations.

Please let staff know if you support the proposed radar signs by filling out and returning the enclosed ballot. **Ballots must be returned by March 26, 2008** to be counted. Should 75% of returned ballots support the radar signs, staff will move forward with the installation.

Questions?

If you have any questions or comments on the proposed plan, please contact:

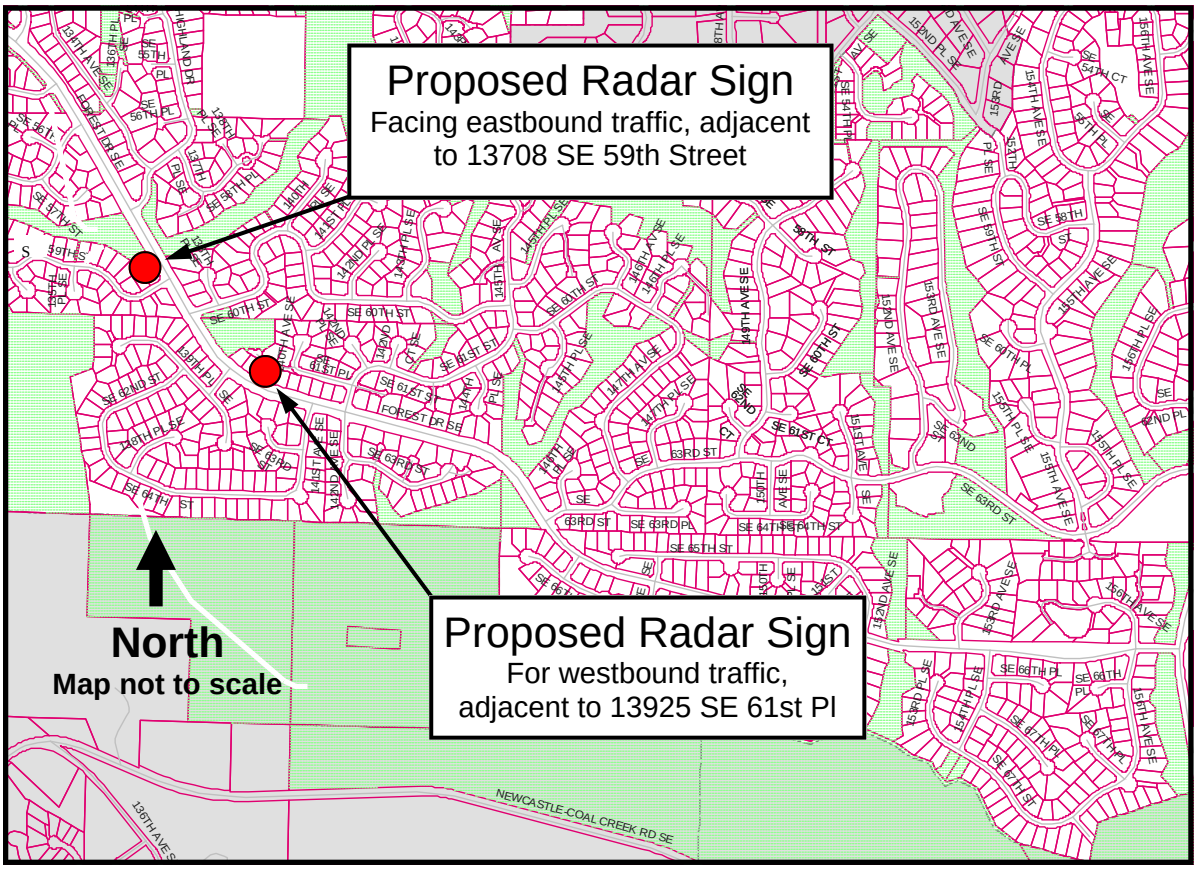
- Brian Casey, Project Manager, at bcasey@bellevuewa.gov or 425-452-6867

CITY OF BELLEVUE WASHINGTON

425-452-6856
City of Bellevue
Transportation Department

NEIGHBORHOOD TRAFFIC news

Two Radar Signs Proposed for Forest Drive



Example of Radar Sign

Radar Sign on Forest Drive
(west of Somerset Dr, facing southeast)

NEIGHBORHOOD TRAFFIC news

Ballot—Your Vote Counts!

Two Radar Signs Proposed for Forest Drive

Your opinion is important to the outcome of this proposed project. Please take the time to read over the information within this correspondence and discuss it with other members of your household, as only one ballot per household is accepted.

Photocopies of the ballot will be allowed; however, all ballots must contain an original signature, printed name and address to be valid and counted. Ballots will be accepted by mail in the postage-paid envelope provided or in person. **All ballots must be received by March 26, 2008** to be included in the final vote. If we do not receive a ballot from you by this time, we will assume you support the installation of these two signs.

Project Description

Two radar signs are being proposed for Forest Drive:

1) For westbound traffic, located west of 141st Ave SE, north side of the street adjacent to 13925 SE 61st Pl
2) For eastbound traffic, located on the northwest corner of the intersection with SE 59th Street

☐ **Yes, I support the installation of these radar signs**

☐ **No, I oppose the installation of these radar signs**

Comments: _____

_____

_____

Name (please print): _____

**Signature: _____

Address: _____

Phone #/Email (optional): _____

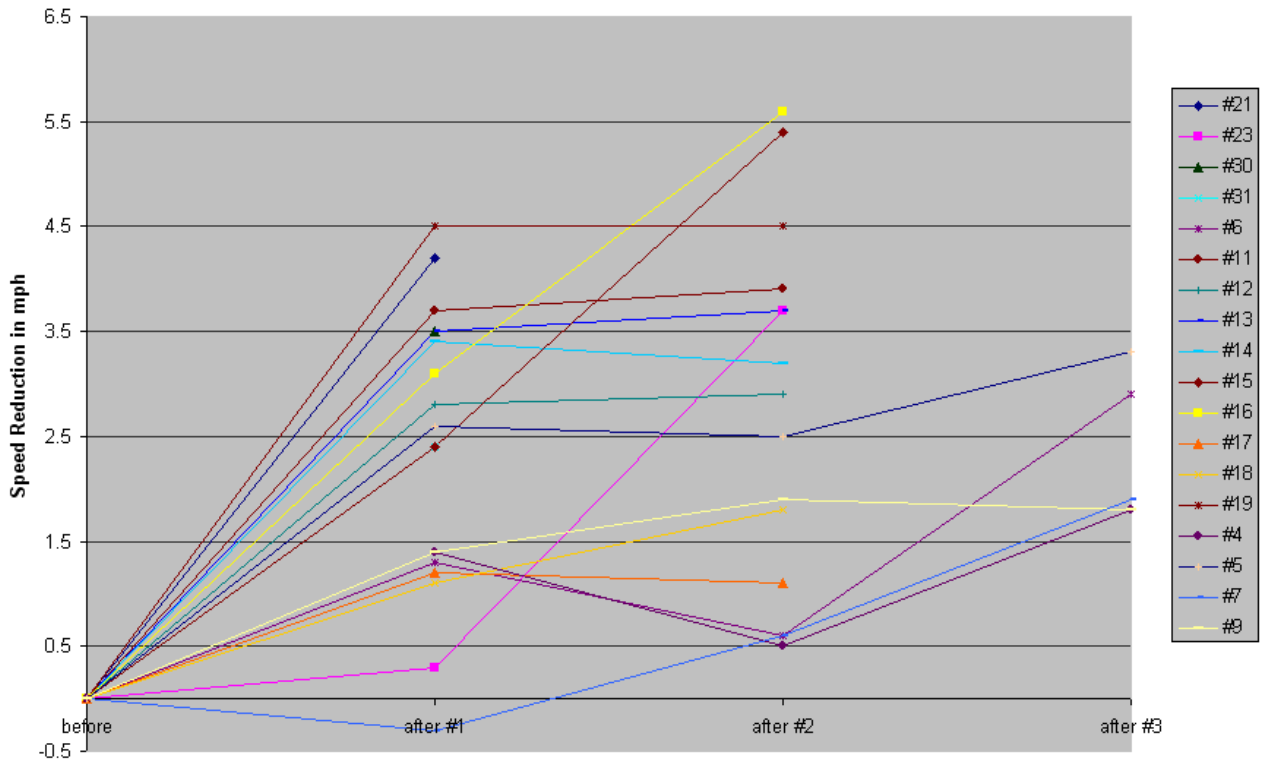
Your signature and address are required to validate the ballot.

**** "I declare under penalty of perjury under the laws of the State of Washington that I am the person identified on this ballot, that I am a resident living within the voting area as indicated on the ballot map (see back of ballot) and am therefore qualified to cast a vote on these proposed radar sign locations."**

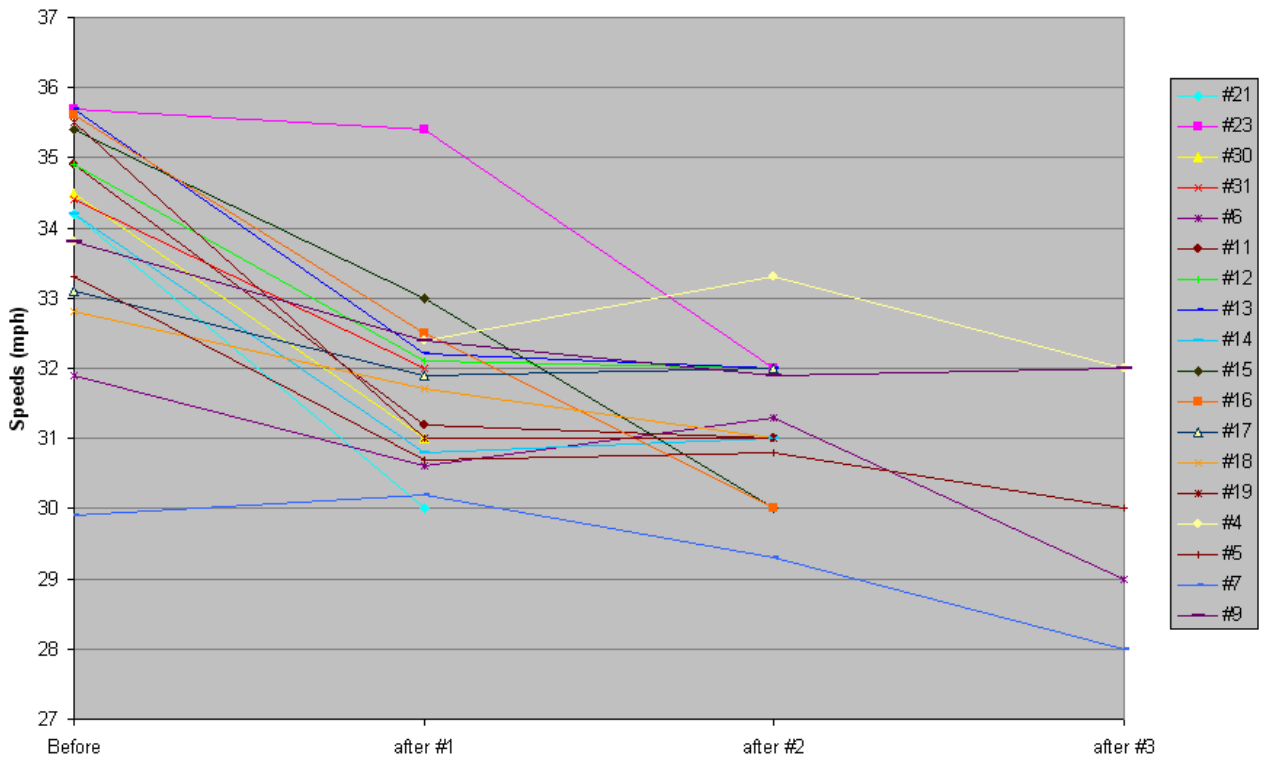
Signed this ____day of _____, 2008 at Bellevue, Washington

Ballots must be received no later than March 26, 2008.

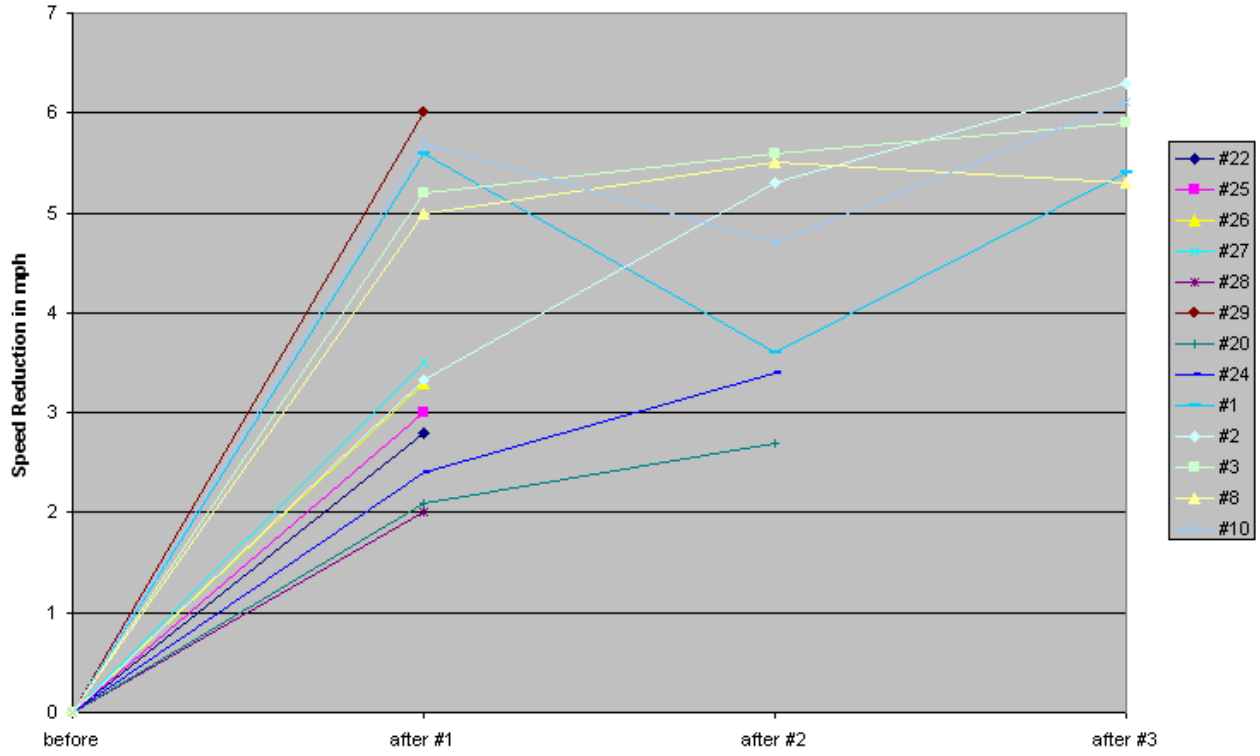
Speed Reductions on 25 mph Roadways



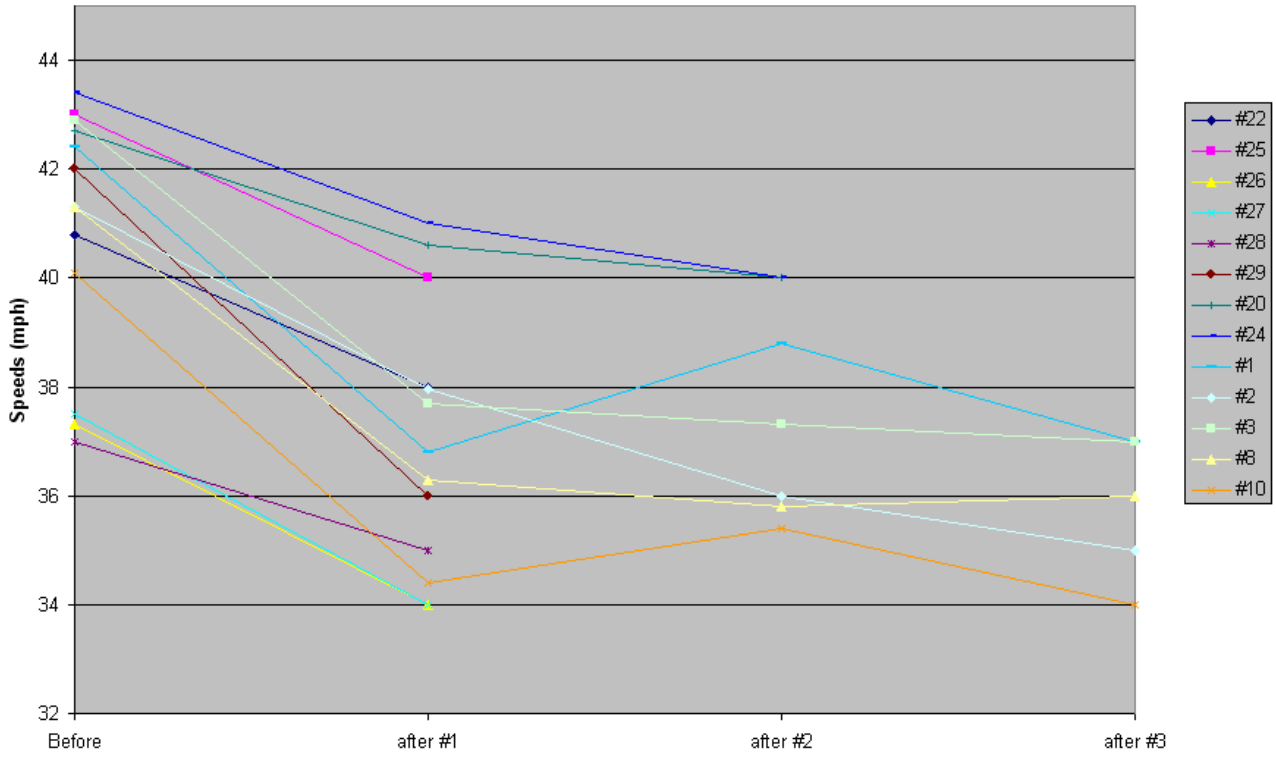
85th Percentile Speeds on 25 mph Roadways



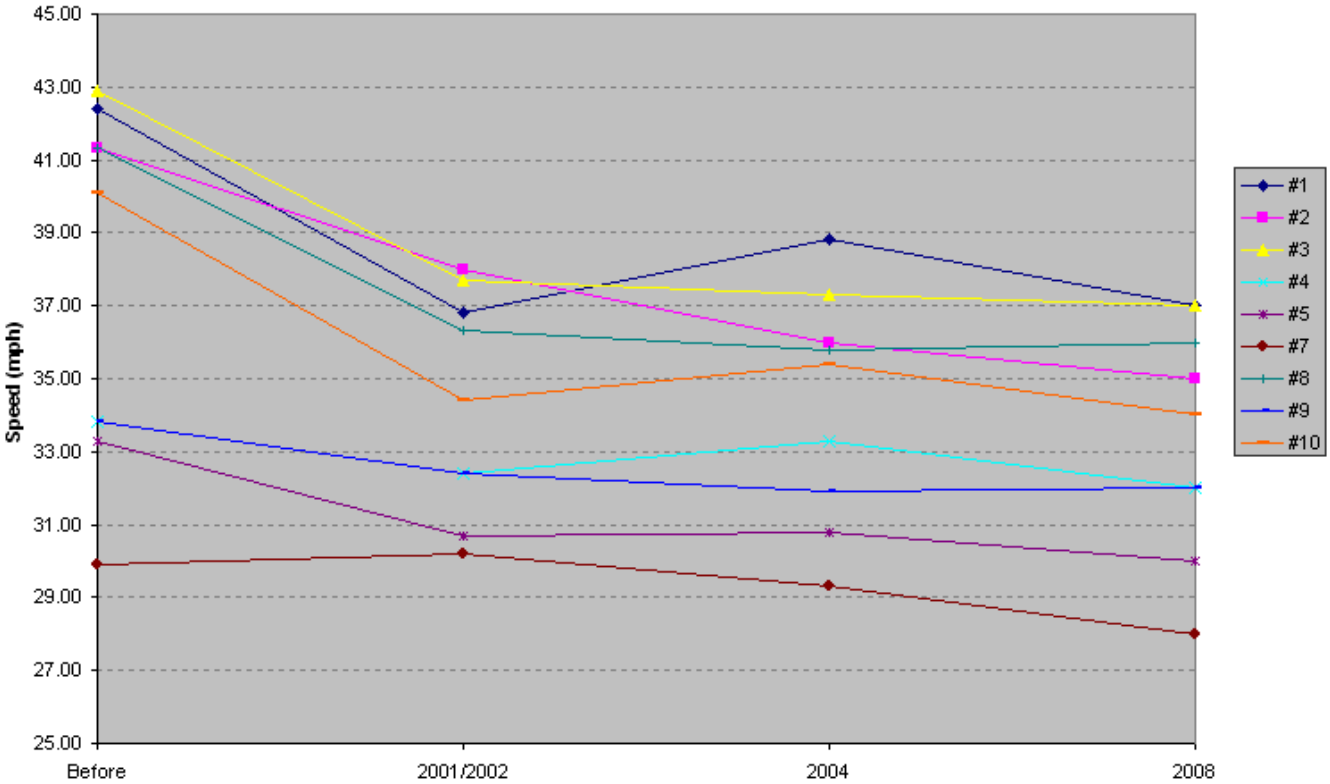
Speed Reductions on 30 mph and 35 mph Roadways



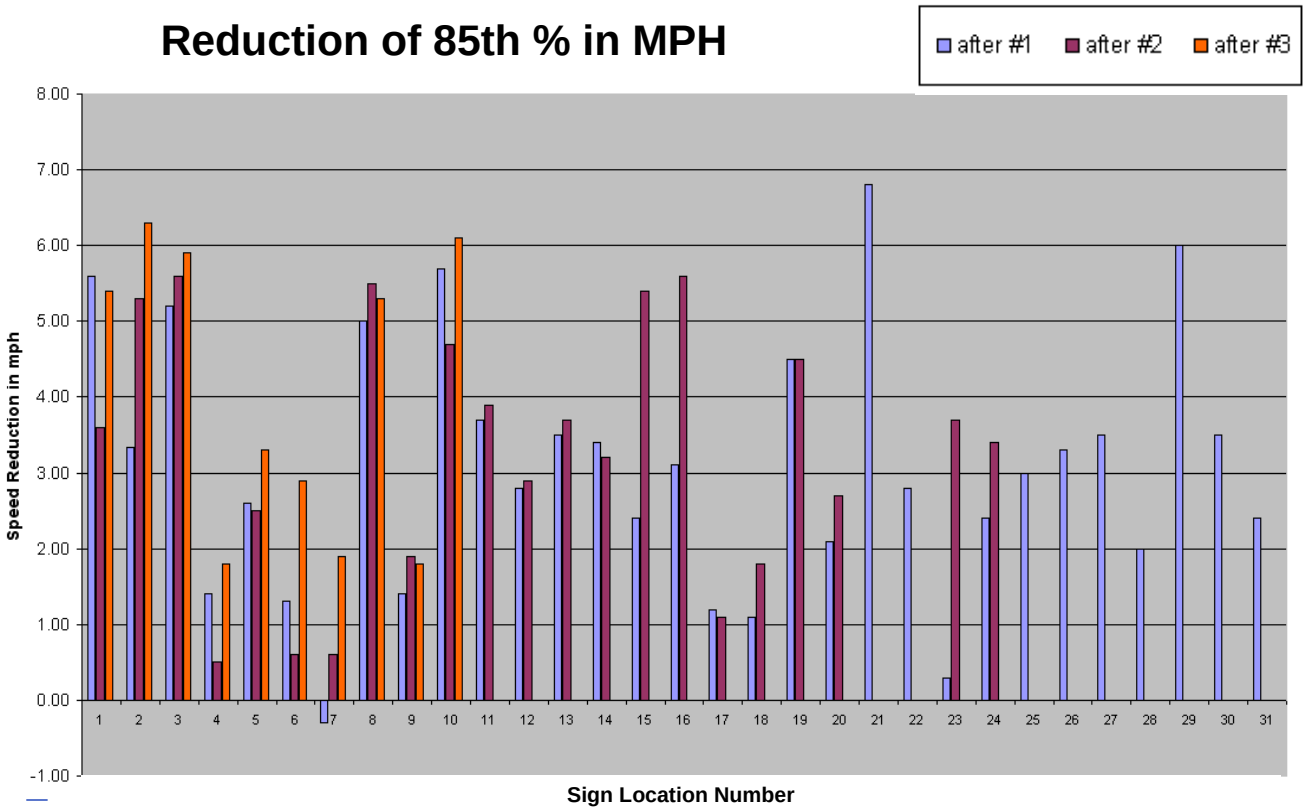
85th Percentile Speeds on 30 mph and 35 mph Roadways



85th% Speeds at Sign Locations Installed for 6 or More Years



Reduction of 85th % in MPH



CITY OF BELLEVUE
Department of Transportation
450 110th Ave NE
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