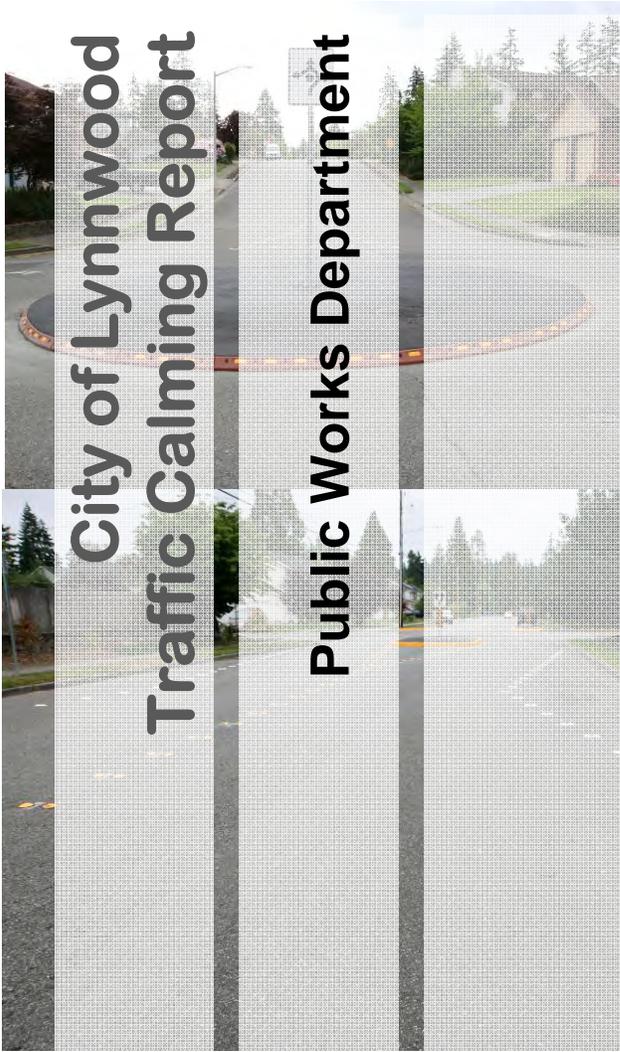


**City of Lynnwood
Traffic Calming Report**

Public Works Department



October, 2012



LYNNWOOD
WASHINGTON

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Background

In 2006 Lynnwood leadership established the Neighborhood Traffic Calming Program with a systematic approach for tracking complaints by citizens, gathering data, identifying appropriate measures, prioritizing projects, paying for appropriately justified traffic calming projects, and reporting effectiveness.

This program was designed as an “experiment”, whereby many different on-the-ground measures to calm neighborhood traffic were tried. Data from before and after installation was allotted to gauge effectiveness. Extensive public outreach was sought on several of the projects in order to measure perceived effectiveness and to collect comments. In a couple of cases modifications were made in response to comments. Public Works will learn from this experimental program and design future efforts with the benefit of lessons learned.

Purpose

Traffic calming projects focused primarily on reducing velocity of vehicles. Our measurement parameter was 85th percentile speed from a week of collected speed data. 85th percentile speed is commonly accepted as an indicator of the reasonable velocity chosen by drivers based on all of the input drivers receive and process. Input that drivers use to decide their velocity originates from permanent features and temporary conditions. Permanent feature input includes roadway geometry, paint markings, traffic signs, lane width, forward visibility, presence of curbs, presence of sidewalks, etc. Temporary conditions that can influence velocity include weather, shoulder activity, day/night, time of day, and vehicle congestion level. By collecting velocity data over an entire week, we were able to ignore effects of temporary conditions on the 85th percentile speed.

When a reasonable vehicle velocity (85th percentile) exceeds the posted speed limit beyond an enforcement threshold, which is generally the posted speed plus 5 to 6 miles per hour, there are two engineering options:

1. Raise the posted speed limit; or
2. Consider traffic calming measures to reduce the 85th percentile velocity.

None of the neighborhood traffic calming projects conducted up to the end of 2010 resulted in raising the posted speed limit.

In some cases, traffic volumes (or cut-through traffic) were also a concern to neighbors. The same design features that discourage speed on a street also serve, theoretically, to discourage cars to use the route in order to avoid, for instance, a busy adjacent intersection.

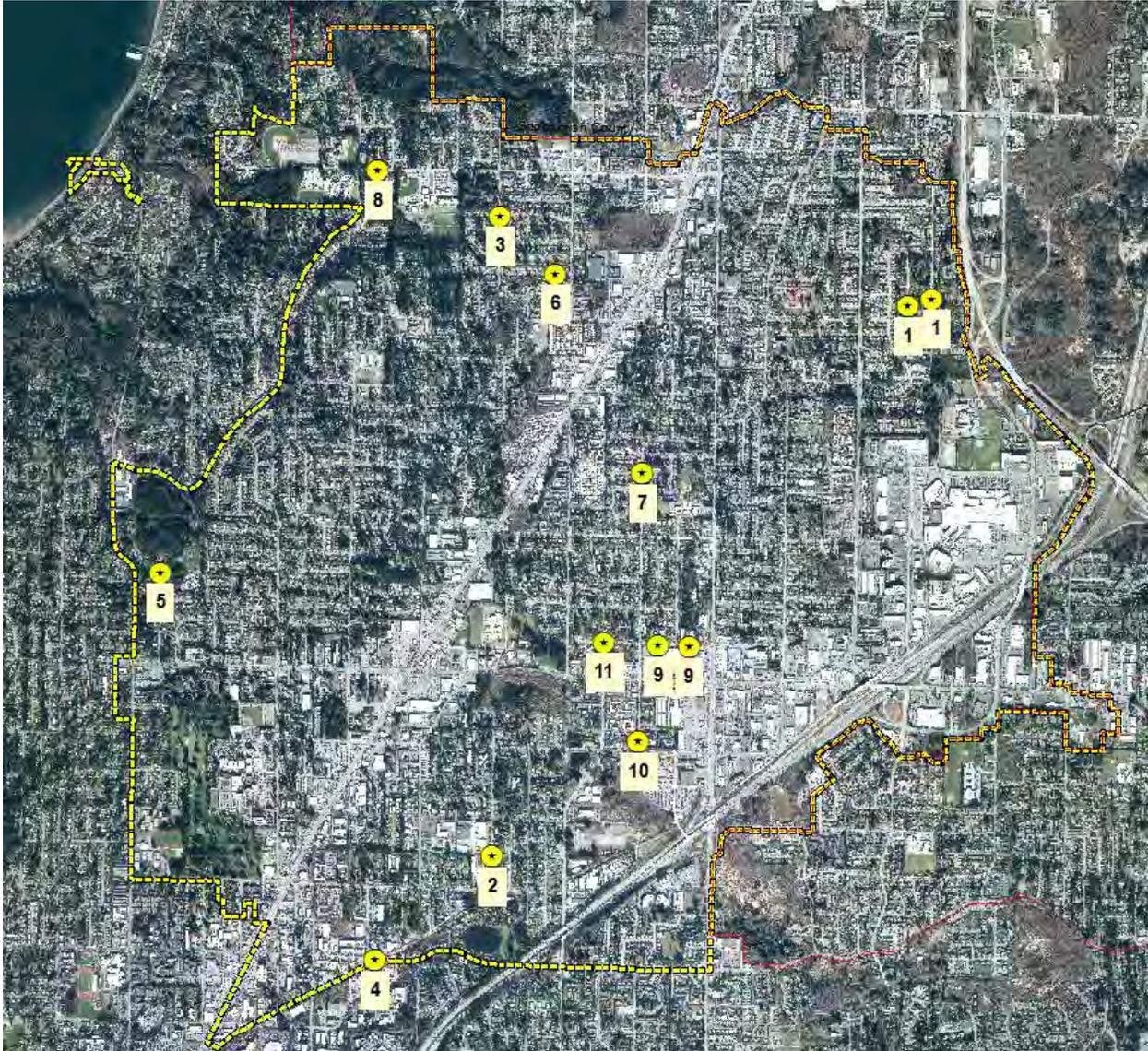
Data for reporting effectiveness includes comparing vehicle speeds and volumes before and after projects. It also includes survey information gathered from residents near four of the project locations.

The purpose of this document is to report effectiveness for traffic calming experimental projects accomplished up to the end of 2010.

Sites Listing and Map

In chronological order, projects treated in this report are:

1. Speed Humps 32nd and 33rd Avenue West at 17500 block (June 2007)
2. Choker and Median at 206th Street Southwest and 56th Avenue West (October 2008)
3. Traffic Circle 170th Street Southwest at 56th Avenue (April 2008)
4. Curb Bulbs, Island, and Pedestrian Actuated Flashing Lights at 212th Street Southwest and 61st Avenue for Interurban Trail Crossing (June 2008)
5. Traffic Circle at 191st Street Southwest and 74th Avenue West (July 2008)
6. Speed Hump on 173rd Place Southwest near 5300 block (September 2008)
7. Choker and Speed Display on 48th Avenue West between 183rd and 186th Street Southwest (July 2009)
8. “Watch for Pedestrian When Flashing” sign at 63rd Avenue West and 168th Street Southwest (September 2009)
9. Raised Crosswalks on 194th Street Southwest between 44th and 48th Avenue West (June 2010)
10. Pedestrian Activated Crosswalk Flashers and Curb Bulbs on 48th Avenue West near 19900 Block (September 2010)
11. Painted Parking Areas 194th Street Southwest from 48th Avenue West to 52nd Avenue West (June 2010)



The Process

Candidate Sites Identified: Sites appropriate for this program were identified based on several factors. Reports by residents of neighborhood concerns of excess speeds and volumes of traffic are routinely received by City staff. Those locations were considered. In addition, lists of previous reported speeding locations were also studied as candidates for the program and several were included. Emergency vehicle response routes were taken into account and the Fire Department was consulted for input on proposed locations and types of calming measures. Staff selected candidate sites that had legitimate concerns of speeding and volumes uncharacteristic of neighborhood streets and that appeared to be able to accommodate and have success from calming devices. As a general rule, no streets higher in classification than neighborhood streets were considered.

Initial Data Collection: Traffic counting devices were put out in the neighborhoods to measure speeds and volumes of traffic. Inconspicuous counters were put out for an entire week to get a real gauge of conditions. Results sometimes show that traffic conditions fall within acceptable ranges for neighborhood streets and that the problem reported is more “perceived” than real. These locations were not included in the study. Other times, however, the data shows that overall speeds are high, or that an unacceptable percentage of vehicles are travelling at too high speeds, or that volumes on the road are too high. Too high volumes are often the result of cut-through traffic trying to avoid a nearby traffic signal or other condition that is perceived to slow a motorist passing through an area. These locations were kept as potential candidates.

Determination by Traffic Engineer: Lynnwood’s Traffic Engineer then assessed the locations and data and made a determination that the proposed location had speed and/or volume conditions of concern and that there was a traffic calming solution(s) that could potentially be installed. Depending on available funding, projects were added to the program list.

Design of Proposed Solution: Public Works staff, using abundant recent literature along with speed and volume studies, selected and sized the most appropriate traffic calming device. Different types of solutions were identified in order that a range of solutions could be tested. A final design was proposed and approved by the Public Works Director for installation. Safety, overall cost, available budget, installation issues, on-street parking, and driveway locations are examples of things that were considered during the design process.

Notification to Neighborhood: A letter and/or flyer (see appendix B page 36 for example) was distributed in some cases to adjacent residents notifying them of the City’s intention to install a calming device in their neighborhood and inviting them to comment.

Installation: City of Lynnwood crews constructed all of the devices. Devices were viewed as temporary in nature, but could be permanent if they worked well. Asphalt humps, curbs, and islands were laid on top of existing roadway surfaces so they could be easily taken off if future modifications were needed. The same is true for paint striping and buttons. Costs for each installation ranged from \$500 to \$20,000 and installation took no more than 3 days, in most cases.

On-site Meeting with Neighbors and Ribbon Cutting: After installation in several locations, neighbors were invited by door hanger (see appendix C, page 38 for example) to an on-site neighborhood meeting and ribbon cutting. At the meeting City officials including Mayor Gough, Councilmembers, Public Works staff, and Police representatives explained the experimental program and asked for continued input from the neighbors. The installation was celebrated by a short ribbon cutting ceremony and refreshments. Turn-out at these meetings was consistently good, with an average attendance of about 11 residents demonstrating the importance of this issue to each neighborhood.

Post Data Collection: Ranging from two months after the installation of the devices to about one year later, speed and volume counts were taken where appropriate to determine effectiveness. This data is shown in tabular form in appendix E, page 42 and is also broken out site-by-site in the Site Description Section of this report. In addition, surveys were sent to the sites in the study that previously had public input into earlier stages of the process. This data is also shown in tabular form in appendix F, page 89 and is also broken out site by site in the Site Description Section of this report.

Modifications and Ongoing Maintenance: Depending on results from the post data collection, sites were modified in order to maximize effectiveness. Monitoring of installations continue to this day.

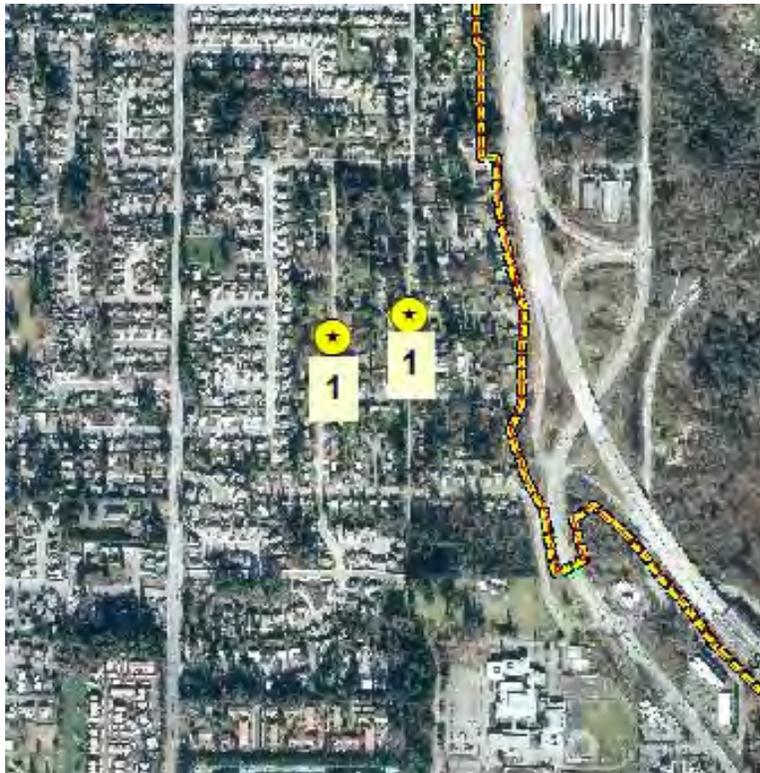


Public Works Crews install a neighborhood traffic control device

Site Descriptions

1. Speed Humps 32nd and 33rd Avenue West at 17500 block:

Installation: June 2007. Removable speed humps were assembled with modular blocks that bolt to the pavement. They were constructed with wheel paths for emergency vehicles and pylons to discourage non-emergency vehicles from using the wheel paths. After a few years, the pylons needed to be replaced as both emergency vehicles and the occasional car drive over and destroy their effectiveness.



Location Map:



Pictures:

Cost: \$15,000

Public Works Department

Description of need, etc.: Residents in this area complained about pass-through or non-local traffic and excessive speeds. Lanes are wide and straight inviting drivers to be comfortable at higher speeds compared to the posted speed limit of 25 miles per hour. Collected data showed an 85th percentile speed of 32 miles per hour.

Data Tables summary, before and after:

85 th percentile speed (mph)		Before	After
32 nd Avenue West	Northbound	31.10	30.32
	Southbound	32.75	30.04
33 rd Avenue West	Northbound	30.29	29.78
	Southbound	34.12	30.29

**See appendix E for full data report

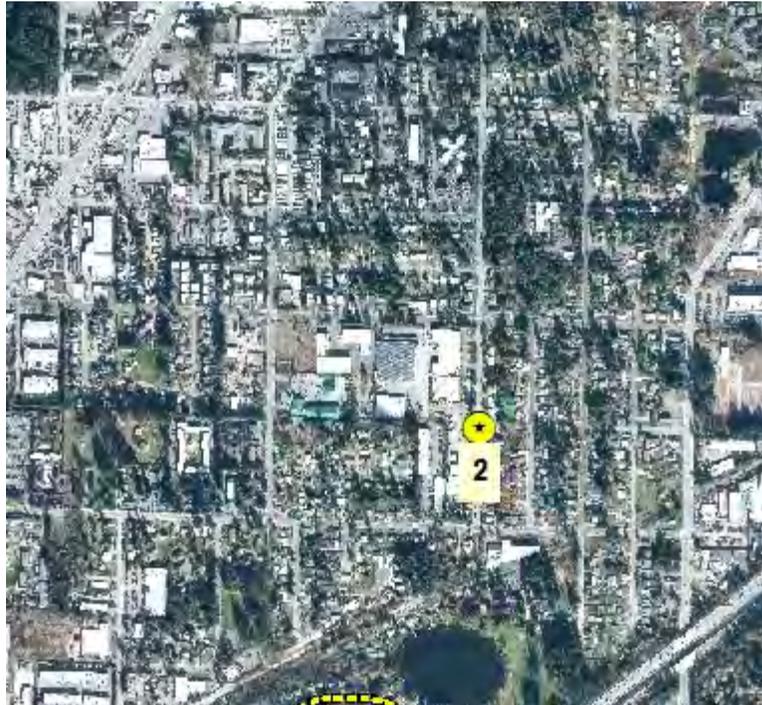
Public Participation and Comment summarized: Survey data from residents was collected for these speed hump projects (see appendix f for Survey data). Overall results indicated that residents saw a decrease in vehicle speeds, no change to the amount of traffic volumes, believe the devices are effective, and do not believe they have a harmful effect to neighborhood traffic. Some also reported that a different traffic calming device would have been a better choice.

Conclusions: After speed humps were installed, 85th percentile speed was 30 miles per hour, or a decrease of 6.3%. The volume of traffic was virtually unchanged.



2. Choker and Median at 206th Street Southwest and 56th Avenue West:

Installation: October 2008. Raised choker islands and a raised median island were installed with curbing and asphalt.



Location Map:



Pictures:

Cost: \$8,000

Description of need, etc.: Speeding and disregarding stop signs inspired citizens to approach the City for help in their neighborhood. 85th percentile speed was found to be 30.04 miles per hour in a 25 miles per hour residential speed limit zone. Installing a choker and raised median helped bring speeds down by causing friction for drivers. The traffic median and choker were constructed as obstacles disrupting a straight driving path.

Public Works Department

Data Tables Summary, before and after:

85 th percentile speed (mph)		Before	After
206 th Street Southwest & 56 th Avenue West	Northbound	30.04	29.08
	Southbound	29.8	29.79

**See appendix E for full data report

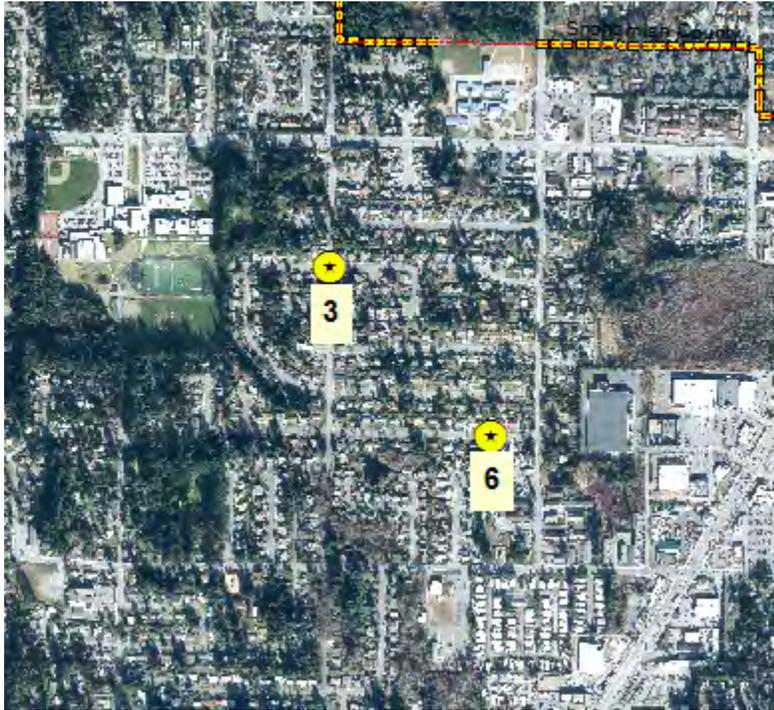
Public Participation and Comment summarized: Surveyed residents reported overall they noticed a decrease in speeding, no decrease of volumes, believe the device is working, do not feel the device has a harmful effect to neighborhood traffic. Some at this location also felt that a different traffic calming device would be a better choice.

Conclusions: 85th percentile speed after constructing the circle was 29 miles per hour, or a 3.2% decrease in overall speeds.



3. Traffic Circle 170th Street Southwest at 56th Avenue:

Installation: April 2008. A raised traffic circle island was installed using a rubberized curbing product and asphalt.



Location Map:



Pictures:

Cost: \$7,500

Description of need, etc.: Residents in this area experience a lot of traffic from students attending Meadowdale High School. Traffic is from pedestrians as well as vehicles, which contributes to the types of speeding and aggressive driving through the neighborhood. Measured 85th percentile speed was 31.94 miles per hour in the 25 miles per hour posted speed limit residential zone. Unfortunately, the traffic circle was not enough to slow drivers and actually contributed to aggressive driving.

Data Tables Summary, before and after:

85 th percentile speed (mph)		Before	After	After 2
170 th Street Southwest at 56 th Avenue West	Northbound	31.94	30.76	29.85
	Southbound	29.33	30.26	28.88

**See appendix E for full data report

Public Participation and Comment summarized: Survey results indicated residents did not notice vehicles traveling slower, did not see a decrease in traffic volumes, do not believe the device is working, do not believe it has a harmful effect on neighborhood traffic. At this location those polled do not believe that a different calming device would be a better choice.

Conclusions: Despite the input from residents resulting in an overall belief that a different device would not be a better choice, the City of Lynnwood installed a speed hump north of the traffic circle. Adding this device was successful in slowing traffic to a 29.85 miles per hour 85th percentile speed which was a reduction of 6.5%. One additional problem however began to manifest. Shortly after installing the speed hump, drivers began avoiding it by driving off the road between a power pole and the speed hump. This was resolved by placing four orange barricade barrels just off the shoulder of the roadway ahead of the speed hump. This location demonstrates the importance of the “experimental” concept and that sometimes it takes modifications in order to get results.



4. Curb Bulbs, Island, and Pedestrian Actuated Flashing Lights at 212th Street Southwest and 61st Avenue West for Interurban Trail Crossing:

Installation: June 2008. Concrete curbing and asphalt were utilized to create curb bulbs and island along with pedestrian activated crosswalk lights.



Location Map:



Pictures:

Cost: \$20,000

Description of need, etc.: The Interurban Trail crosses 212th Street Southwest at 61st Avenue West. Prior to the traffic calming project, users of the trail complained about:

- Excessive traffic volume; not finding gaps in traffic to cross the street,
- Drivers of vehicles not seeing trail users waiting to cross, and
- Vehicles appearing to travel beyond the posted speed limit.

Public Works Department

Original collected data representing a “before” condition showed that the 85th percentile speed of vehicles through the area was 35.78 miles per hour. This is appropriate and acceptable because the posted speed limit is 35 miles per hour. However, at a crossing area, it can be intimidating for trail users to negotiate crossing when vehicles travel at this velocity.

Data Tables Summary, before and after:

85 th percentile speed (mph)		Before	After
212 th Street Southwest & 61 st Avenue West	Westbound	35.3	34.78
	Eastbound	36.25	34.86

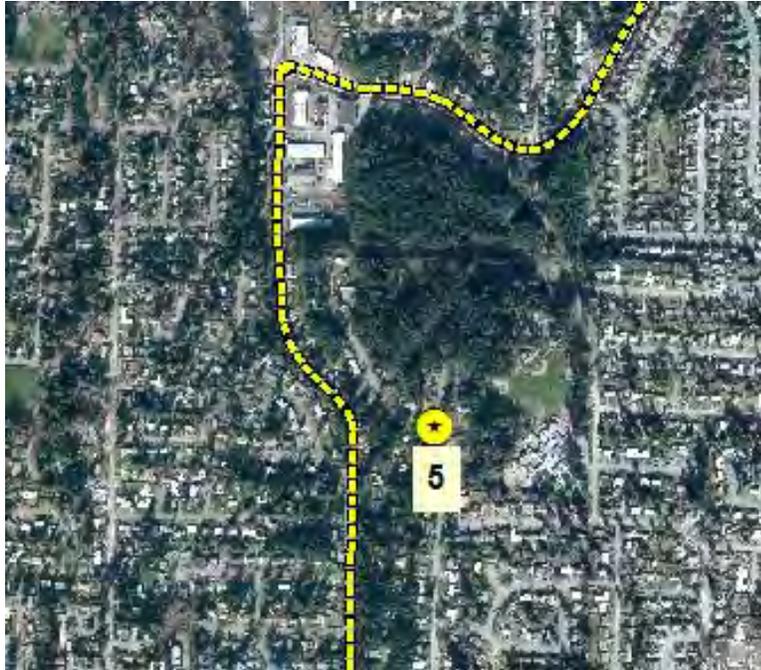
**See appendix E for full data report

Public Participation and Comment summarized: As this was a late added project to the list, residents in this project area were not surveyed.

Conclusions: Installing curb bulbs and an island to visually add friction to the crossing area on 212th Street Southwest slowed vehicles by about 1.5 miles per hour; “After” data resulted in an 85th percentile speed of 24.82 miles per hour or a decrease of 2.7%. Pedestrian actuated flashing lights at the crossing improve chances pedestrians have of being seen by drivers before and after they have entered the crosswalk. Since this project was finished and opened to the public in 2008, there have been no logged complaints.

5. Traffic Circle at 191st St Southwest and 74th Avenue West:

Installation: July 2008. Based on existing roadway geometry, it was decided to add friction in the form of a traffic circle and speed humps about a block apart. This treatment added an obstacle causing drivers to adjust their trajectory through the intersection. Because negotiating the speed humps and turning around the circle at higher speeds is uncomfortable, drivers slow down.



Location Map:



Pictures:

Cost: \$12,000

Description of need, etc.: Complaints at this location were of speeding vehicles and drivers ignoring stop signs.

Collected speed data verified the problem and justified mitigation. Measured 85th percentile speed was 26.83 miles per hour in a 25 mile per hour speed zone.

Public Works Department

Data Tables Summary, before and after:

85 th percentile speed (mph)		Before	After
191 st Street Southwest & 74 th Avenue West	Northbound	27.2	25.45
	Southbound	26.45	24.5

**See appendix E for full data report

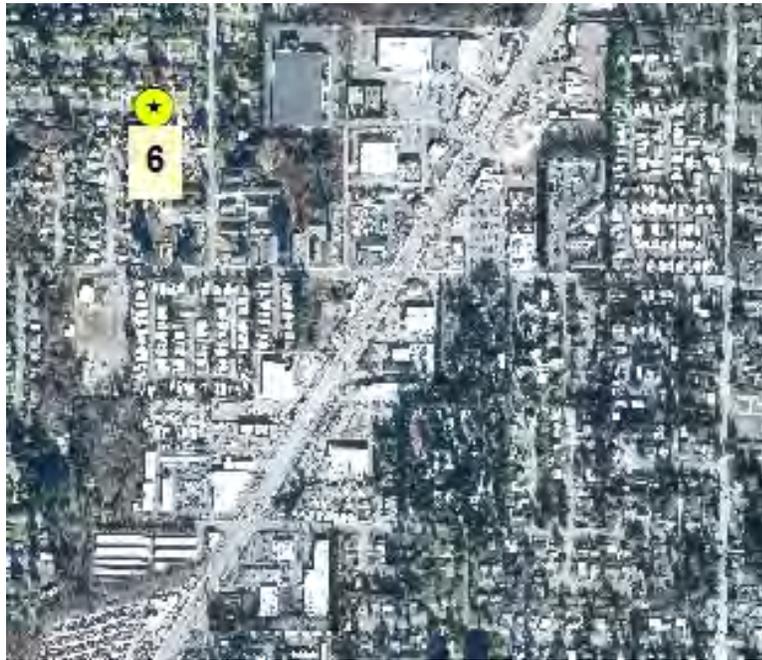
Public Participation and Comment summarized: Surveyed residents responded overall noticing a decrease in speeding, no decrease in volume, belief that the device is working, do not feel it has a harmful effect on neighborhood traffic, and that a different traffic calming device would have been a better choice. Shortly after constructing the traffic circle, Lynnwood Public Works received a call from school district 15. Larger school buses were unable to make left turns through the intersection due to the wider turning radius required by the circle. Adjusting location of a sign post mitigated this problem.

Conclusions: The 85th percentile speed after the project was measured at 24.98miles per hour, or a 6.9% overall decrease.



6. Speed Hump on 173rd Place Southwest near 5300 block:

Installation: September 2008. A treatment was selected to slow vehicles and render the route less attractive for those seeking a short-cut. Lynnwood engineers decided to install a “Speed Hump” with advanced warning signs, emergency vehicle wheel paths, and folding pylons.



Location Map:



Pictures:

Cost: \$7,500

Description of need, etc.: Residents living on 173rd Place Southwest in this area complained of higher speeds and higher volumes of traffic typical for their neighborhood. In other words, drivers were using this portion of a residential street as a cut-through or even a short-cut to shave off commute times. Roadway geometry is straight with wide lanes. This can be “inviting” for drivers to treat it like an arterial and increase their velocity; especially for those seeking to reduce their travel times. 85th percentile speed was measured at 35.86 miles per hour in a 25 mile per hour speed limit zone.

Data Tables Summary, before and after:

85 th percentile speed (mph)		Before	After
173 rd Place Southwest	Eastbound	35.87	33.13
	Westbound	35.85	34.03

**See appendix E for full data report

Public Participation and Comment summarized: Residents in this area were not surveyed.

Conclusions: The project was effective in slowing 85th percentile vehicles to 33.58 miles per hour, or a 6.4% decrease. Although speeds where data was collected were reduced, drivers are still exceeding the speed limit. No additional complaints have come in for this neighborhood so the slow down across the speed hump must be satisfactory despite speeds remaining 8 to 9 miles per hour above speed limit.



Close up of speed humps used in Lynnwood Traffic Calming

7. Choker and Speed Display on 48th Avenue West between 183rd and 186th Street Southwest:

Installation: July 2009. Informational and geometric changes were made by adding a radar speed sign and “Choker” utilizing concrete curbing and asphalt to narrow the lanes.



Location Map:



Pictures:

Cost: The radar speed sign was donated to the program by the Lynnwood Police Department. The curbing and island work cost \$5,000.

Description of need, etc.: Concerned citizens complained about speeding vehicles. 48th Avenue West at this location is wide and straight. Motorists not paying full attention to their velocity tended to drive faster than the posted speed of 25 miles per hour. 85th percentile speed during the collection period was 33.11 miles per hour indicating that mitigation was well justified.

Data Tables Summary, before and after:

85 th percentile speed (mph)		Before	After
48 th Avenue West	Northbound	33.22	32.82
	Southbound	32.99	30.34

**See appendix E for full data report

Public Participation and Comment summarized: Residents near this project were not formally surveyed. However, input and general support of the installations were received at the ribbon cutting ceremony.

Conclusions: This treatment resulted in an 85th percentile speed of 31.58 miles per hour, or a 4.6% decrease in speeds! Although 48th Avenue West is technically a collector Arterial it “feels” much like a residential street and so was added into this program.



8. “Watch for Pedestrian When Flashing” sign at 63rd Avenue West and 168th Street Southwest:

Installation: September 2009. Lynnwood engineers and technicians designed and built a flashing beacon with a sign that would warn motorists ahead of the intersection to “Watch for Pedestrians When Flashing”. The beacon activates during every pedestrian phase for this movement at the signal.



Location Map:



Pictures:

Cost: \$3,000

Public Works Department

Description of need, etc.: Residents in this immediate area, high school students, and middle school students complained about vehicles not seeing pedestrians in the crosswalk. Roadway geometry with a slight curve away from the crossing area contributed to this situation.

Data Tables Summary, before and after: Not Applicable. Although no written surveys were conducted, a neighborhood on-site meeting was held in 2009 and resident input received which led to the design of this feature.

Conclusions: We have received no complaints of “close calls” since the device was put into operation.

9. Raised Crosswalks on 194th Street Southwest between 44th and 48th Avenue West:

Installation: June 2010. Concrete curbing and asphalt raised islands, slight speed humps, signs and pedestrian activated lights were used to accentuate crossings and narrow the distance across the road for pedestrians.



Location Map:



Pictures:

Public Works Department

Cost: \$5,000

Description of need, etc.: Two pedestrian crossings on 194th Street Southwest have been capable of manually actuated flashing beacons for many years. Eventually, the in-pavement type flashers wore out and were replaced with overhead flashing beacons. Two problems persisted: Some pedestrians did not use the actuated flashers, and Some drivers would not see pedestrians and therefore not slow their vehicles for pedestrians to cross.

Data Tables, before and after: Not Applicable

Public Participation and Comment summarized: None

Conclusions: Raised crosswalks enhanced signs, and more visible lights helped mitigate persistent problems. Vehicles now regularly slow down as they approach the crosswalks.

10. Pedestrian Activated Crosswalk Flashers and Curb Bulbs on 48th Avenue West near 1900 Block:

Installation: September 2010. Concrete curbing and asphalt raised islands and signs were installed to accentuate the crosswalk and narrow the crossing distance for pedestrians.



Location Map:



Pictures:

Public Works Department

Cost: \$15,000

Description of need, etc.: Heavy commuter traffic travels through 48th Avenue West between the 196th Street Southwest and 200th Street Southwest. Many of these vehicle trips are to or from the transit center south of 200th Street. Drivers therefore tend to be on a schedule and less concerned about watching for pedestrians. Other observations leading to justification for mitigation measures were:

- High volumes of pedestrians throughout the day,
- Pedestrians crossing at random locations, and
- Children crossing without supervision.

Lane-width on 48th Avenue is sufficient for parking on both sides of the street. This helped to identify curb bulbs as a treatment to slow vehicles by narrowing the lanes. Combining curb bulbs with pedestrian actuated flashers and a marked crosswalk calmed traffic and improved pedestrian safety.

Data Tables, before and after: Before and after 85th percentile speed in this 25 mile per hour area was 34.41 and 32.41, respectively.

85 th percentile speed (mph)		Before	After
48 th Avenue West	Northbound	33.02	32.01
	Southbound	35.80	32.81

**See appendix E for full data report

Public Participation and Comment summarized: This project was a late addition to the program and formal input was not received.

Conclusions: This is a proven method to provide a shorter and more visible crossing of a busy street. Combined with the 5.9% reduction in 85th percentile speeds makes a safer street for cars and pedestrians alike.

11. Painted Parking Areas 194th Street Southwest from 48th Avenue West to 52nd Avenue West:

Installation: June 2010. Pain striping only was used to identify parking areas and provide a feeling of street width construction to slow traffic.



Location Map:



Pictures:

Cost: \$500

Description of need, etc.: Need came about as residents living on this section of 194th Street noticed pass through traffic often traveling beyond the posted speed limit of 25 miles per hour. Also, residents noticed that parking stripes on 194th Street SW between 44th and 48th Avenue was effective keeping speeds from going too high.

Data Tables Summary, before and after: Speed and volume data was not collected.

Public Participation and Comment summarized: Public participation and comment was not executed.

Conclusions: All complaints of speeding drivers ceased after parking stripes were installed.

Conclusions and Lessons Learned

Projects that were constructed through the Lynnwood Neighborhood Traffic Calming Program from 2007 to 2010 experienced varying degrees of success.

Each location had different criteria to understand before selecting the right type of traffic calming. Most projects produced immediate and noticeable results while a couple needed slight adjustments after being opened to traffic.

For this program, carefully selected treatments and descriptions are listed here:

- Raised traffic circles in stop-controlled intersections- Existing 4-way and 2-way stop intersections are fitted with short obstructions in a circle pattern to deflect motorists from traveling straight through. Deflected traffic tends to be slower compared to straight-through traffic. Raised traffic circles were installed at two locations in Lynnwood. They were effective in reducing speeds by 6.5 to 6.9 percent. Raised traffic circles are an appropriate treatment to reduce speeds in neighborhoods where speeding is unintentional.
- Speed Humps- Removable or permanent materials are placed full-width across all lanes of a street making it uncomfortable to drive fast over the top. Speed humps rise about the same vertical distance as speed bumps, but in comparison provide ramps up and down over a longer distance. Speed humps were installed at two locations and as a supplemental treatment in a third location in Lynnwood. They were effective in reducing speeds by 6.3 to 6.4 percent. Speed humps are an appropriate treatment to reduce speeds where speeding is both intentional and unintentional.
- Parking Stripes- Lanes are narrowed using white paint demarking where vehicles can park. This effectively slows traffic by causing drivers to be more aware of their speed. It is harder to stay within the lines of a narrow lane when driving fast. This treatment was appropriately applied in one location during the program. It will be used in the future on wide streets for reducing velocity when speeding is unintentional.
- Raised Crosswalks- Similar to speed humps but with a marked crosswalk on top. This treatment combines an obstacle with a visual warning that pedestrians may be near. Crosswalks can appear commonplace and therefore can be ignored. Raising a crosswalk helps bring it back into full focus. One crosswalk was raised during the program. Speed reduction is similar to speed humps and will therefore be used for future treatments where a speed hump is justified.
- Pedestrian-actuated flashers at mid-block crosswalks- Mid-block crosswalks often blend into the field of view for drivers creating dangerous circumstances for pedestrians. Pedestrians sometimes feel that a marked crosswalk is their “safe-zone” and choose not to look both ways before stepping off the curb. Actuated flashers can help with both of these drawbacks by capturing attention of drivers and causing pedestrians to take responsibility to push the button and wait for vehicles to slow down and stop. Two locations were treated with pedestrian-actuated flashers in combination with curb bulbs. They were effective in reducing speeds by 2.7

and 5.9 percent. Future installations will consider volume of pedestrians compared to volumes of vehicles.

- Curbs or bulb-outs to narrow lanes- Similar to parking stripes, curbs can be built to narrow lanes causing drivers to slow down. Bulb-outs are often used in conjunction with raised crosswalks and crosswalks with pedestrian-actuated flashers. They were installed at three locations and will continue to be used for traffic calming where crosswalks are installed and roadway geometry is accommodating.
- Permanently mounted speed radar sign- This is a sign with lighted numbers for live feedback to drivers of their speed. It reminds drivers that they may be inadvertently speeding. This treatment was installed at one location. In combination with curbs to narrow lanes at one location, it was effective reducing speeds by 4.6%. Future locations where speeding is unintentional may be treated with a speed radar sign.

After verifying a need for traffic calming, it is possible for an appropriate treatment to fail if all characteristics of the situation are not understood. For example, a traffic circle installed where more aggressive drivers are likely to simply travel over the top will be less effective compared to a speed hump, curb-bulbs, or a combination of treatments. We learned this at 170th Pl SW and 56th Ave W where a traffic circle was installed. Speeding in this location was often deliberate and aggressive instead of accidental or the result of not paying close attention. By itself the traffic circle failed to slow many vehicles down so a speed hump was installed north of the intersection. Some drivers continued to speed by steering off the roadway to avoid the speed hump so additional obstacles were installed.

Location along roadway segment, dimensions of calming device, and extent of treatment are also critical. This is because driver behavior is both objective and subjective. It can be measured and quantified, but it cannot always be predicted. Future projects will therefore draw from our experiences as we collect data, characterize the problem, and choose the right treatments or combination of treatments to calm traffic in neighborhoods of Lynnwood.



Appendices

a. **Proposed Neighborhood Traffic Pilot Program, October 2006**

 **CITY OF**
Lynnwood
Public Works Department
Memorandum

DATE: October 13, 2006

TO: Mayor Gough

FROM: Public Works Director Franz

RE: Neighborhood Traffic Calming Pilot Program

As you requested, attached are the following materials related to the Neighborhood Traffic Calming Program:

- Program Description Narrative: Includes description of problem, City response, physical solutions, and steps proposed.
- A rough listing of potential streets/intersections and traffic calming options identified by Traffic Engineer, Dick Adams. These include traffic circles, bulbouts, speed humps, c-curb channelization, chicanes, etc. We would suggest trying several different options in the pilot program so that data could be collected on each and comparisons made.

The costs for the most expensive option (traffic circle) has been estimated at \$15,000. Assuming a trial program of 6-8 sites, an initial budget of \$75,000 to \$100,000 should be sufficient.

We look forward to working with you to develop this program.

1 **City of Lynnwood – Public Works**
2 **Proposed Neighborhood Traffic Pilot Program**
3 **October, 2006**
4
5
6

7 *Problem Statement:*
8

9 Lynnwood residents often report speeding cars on their neighborhood streets,
10 where the speed limit is posted at 25 MPH. While few collisions are reported as
11 being a result of neighborhood speeding, the residents feel a threat to their
12 children who play in or near the streets, their animals, and themselves as they
13 enter and exit their driveways and walk their neighborhoods.
14

15 Often, these streets are being used to avoid a congested intersection on an arterial
16 street, but sometimes the only apparent basis for speeding is that the street is long,
17 straight, and wide.
18

19 *City Response:*
20

21 The first response to neighborhood speeding is usually by the Police Department,
22 and usually in the form of a radar speed trailer. The effect of the trailer, or even
23 active enforcement, is reported to be good as long as it is visible. After the Police
24 move on to another location, the speeding tends to return.
25

26 The next department to respond is Public Works. Unobtrusive traffic counters are
27 set out and used to collect traffic volume and speeds. Almost without fail, the
28 data shows that the vast majority of motorists are obeying the speed limit. The
29 gauge used by traffic engineers is the “85th percentile”, which is the speed that
30 85% of the recorded vehicles are operating at or below. The 85th percentile for
31 these type of streets tends to be between 19 and 28 MPH.
32

33 It is, however, the other 15% that causes the concern. From the data, Public
34 Works can discover what percentage of vehicles are traveling above 40 MPH.
35 The low level that is recorded often is 1-3%. Most are 3-5% over 40 MPH. The
36 high level appears to be 6-8%, although one street, 74th Ave W, was counted to
37 have 20% of its traffic over 40 MPH (the 85th percentile here was only 26 MPH).
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39 The volumes are low on these streets, and are typically under 500 vehicles per
40 day, in both directions. These low volumes make enforcement harder, as
41 violators are few and far between.
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Physical Solutions:

Installing more speed limit signs, or “Children At Play” signs, appears to have little or no effect. At some locations, where there is an intermediate intersection, stop signs can be installed to control speeds, but motorists tend to be frustrated by having to stop at an intersection where there is no cross traffic.

Many cities in the United States have turned to implementing neighborhood traffic control programs and installing physical devices in the roadway to limit speeding. The three most well known are speed humps, traffic circles, and chicanes (bulges from the side of the road that have to be driven around).

Lynnwood Proposed Trial Program:

Location Selection – Lists of previous reported speeding locations will be studied for 5-10 locations that offer the best chance of success. Fire Department response routes will be taken into account.

Solution Design – Public Works staff, using abundant recent literature along with speed and volume studies, will select and size the most appropriate device.

Solution Approval – Staff will then communicate the proposed solution to each neighborhood. All houses within two blocks of the proposed installation will be contacted, and at least one community meeting will be held to confirm neighborhood acceptance.

Construction – Contractors or City of Lynnwood crews will construct the devices.

Monitoring – Two months after the installation of the devices and then about one year later, speed and volume counts will be taken to determine effectiveness.

Funding – The devices in the Trial Program will be 100% City funded. Future installations may be partially or totally funded by neighborhoods to stretch City dollars available for this program.

b. Example Notice Letter to Residents of Upcoming Installation of Device

CITY OF
Lynnwood

Public Works

May 5, 2008

NE Neighborhood
Lynnwood, WA 98037

Subject: Traffic Calming on 32nd Ave W and 33rd Pl W

Dear Citizens:

Many of your neighbors attended a meeting with Mayor Don Gough on December 13, 2007, to discuss their visions for Lynnwood. At that meeting we discussed the City's new Neighborhood Traffic Calming experimental program. The Public Works Department routinely receives calls from residents complaining about speeding cars on their neighborhood streets. Even in the worst locations, however, these high speed vehicles are a very small percentage of the total traffic volume. Because of this, police enforcement is difficult. The most effective solution to this problem is to install "traffic calming devices". These devices are physical deterrents to speed that are placed in the roadway. The most common are speed humps for long straight streets, and traffic circles for intersections.

While most of these traffic calming solutions are not very expensive, doing them across the City at all locations requested would quickly use up all available funds. The Mayor and Council have made available \$100,000 to install a series of devices, at the most deserving locations. The City's Traffic Engineer has designed specific solutions for each of these locations, based on the nature of the neighborhood and the problem. One of the priority locations are the parallel streets of 32nd Ave W and 33rd Pl W from 176th St SW to 172nd St SW, where speeding and cut through traffic are problems. A pair of speed humps, as shown on the reverse side, have been determined to be the appropriate calming device for the two streets, placed approximately halfway between 176th St SW and 172nd St SW.

City crews will install the devices within then next two months. Before and after traffic data will be collected, and an evaluation will take place six months after installation. The evaluation will include feedback from the neighborhood. If the devices are effective and well received by the residents, they will be made permanent. If not, one or both of them will be removed.

If you have any questions or comments on the Lynnwood Neighborhood Traffic Calming Program, please contact me by phone or email.

Sincerely,



Lester O. Rubstello, P.E.
Deputy Public Works Director,
Operations & Maintenance
(425) 670-5231
lrubstello@ci.lynnwood.wa.us

City of Lynnwood • 19100 14th Ave. W. • PO Box 6008 • Lynnwood, WA 98046-0008 • 425.775.1971 • www.ci.lynnwood.wa.us

City Hall / Council Chambers
19100 14th Ave. W.
425.771.6144 Fax

Police / Municipal Court
19321 44th Ave. W.
425.672.8035 Police Fax
425.774.7038 Court Fax

Recreation Center
18900 44th Ave. W.
425.771.1363 Fax

North Admin. Bldg.
19000 14th Ave. W.
425.771.6285 Fax

Fire Dept. Headquarters
18800 44th Ave. W.
425.771.7077 Fax



City of Lynnwood
PO Box 5008
Lynnwood, WA 98046

PRST STD
US POSTAGE PAID
PERMIT #119
Lynnwood, WA

ECRWSS CR 3703
POSTAL CUSTOMER

C. Example Door Hanger of Neighborhood Meeting/Ribbon Cutting

City of Lynnwood Projects

Experimental Traffic Device Ribbon Cutting

Wednesday, September 3rd at 3 PM
32nd Avenue W & 175th Street SW

Opening of the New Speed Humps

Ribbon Cutting with Mayor Don Gough
Ask questions and give feedback
Enjoy coffee and cookies



CITY OF
Lynnwood

Traffic calming devices in your area.

Supports the City of Lynnwood's commitment to neighborhood safety.

Offers physical deterrents to speeding cars.

Addresses routinely received calls from residents with concerns about speeding cars.

Part of the city's experimental traffic calming program.

- Traffic data will be compared before and after installation.
- Your input will be carefully considered.
- Effectiveness of installed device will lead to next steps.

For more information contact the City of Lynnwood Public Works Department at 425.670.5200.

You're Invited!

TO COME CELEBRATE WITH US!
THE NEWLY INSTALLED TRAFFIC CIRCLE
Wednesday, September 3rd at 3:00 PM
32nd Avenue W & 175th Street SW

Also, Come and have your questions answered
or give the city feedback.
Your thoughts are important to us.
Coffee & Cookies to be served.

**RIBBON CUTTING
NEW
EXPERIMENTAL
Speed Humps**



Join Us

Wednesday, September 3rd
3:00 to 3:30 PM
32nd Avenue W & 175th Street SW

d. Example of Post Construction Resident Effectiveness Letter and Survey

PUBLIC WORKS DEPARTMENT

July 23, 2009

Experimental Traffic Calming Neighborhood
Lynnwood WA

City of Lynnwood Projects *Experimental Traffic Calming Device*

Dear Neighborhood Residents:

The City of Lynnwood installed an Experimental Traffic Devices in your neighborhood within the last year, or so. The device installed was a Traffic Circle at the location of 170th Street SW and 56th Avenue W. As part of this experimental program traffic data from before and after installation and neighborhood feedback will be taken into evaluation. If this device is effective, it will be made permanent. If not, it will be modified or removed.

On the back page is a questionnaire to gather your part of the neighborhood feedback. Please take a moment to fill this out, add any comments you would like the City to take into consideration or draw on the attached map of the devices. You can drop this completed form off at City Hall (19100 44th Avenue West) or mail it back in the enclosed self-addressed envelope.

For your information the traffic count results from before and after installation of the traffic calming device is posted on the City of Lynnwood website at www.ci.lynnwood.wa.us/trafficalming. Among other results, a significant decrease in cars driving over 40 mph is seen consistently in these courts.

Thank you for your time and input. If you have any questions or comments please feel free to contact me by phone at (425) 670-5231 or email at lrubstello@ci.lynnwood.wa.us.

Sincerely,
City of LynnwoodLes Rubstello, P.E.
Deputy Director Maintenance & Operations

P.O. Box 5008 Lynnwood, WA 98046
Tele: (425) 670-5200 Fax: (425) 670-5906 www.ci.lynnwood.wa.us

1. Have you noticed a decrease in speeding vehicles in the area of your traffic calming device? Yes No Not Sure

2. Have you noticed a decrease in traffic as a whole in the area of your traffic calming device? Yes No Not Sure

3. Do you believe your traffic calming device is working for your neighborhood? Yes No Not Sure

4. Do you think the device is having a harmful effect in any way to traffic or your neighborhood? Yes No Not Sure

5. Do you believe that a different traffic calming device would be a better choice? Yes No Not Sure

6. If you answered 4 as yes, what type of device would you recommend? _____

7. Can we contact you if we need more information or follow-up questions on your answers? If so please give us a phone number or e-mail to contact you at. Yes No Not Sure

Phone: _____

E-mail: _____

COMMENTS:

Please utilize the map for comments or drawings:



e. Data Tables

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: LYnnwood
Street: 32nd NB befor**

A study of vehicle traffic was conducted with HI-STAR unit number 1606. The study was done in the 1 lane on 32nd NB befor in LYnnwood, WA in county. The study began on 04/09/2007 at 09:00 AM and concluded on 04/13/2007 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 2,761 vehicles passed through the location with a peak volume of 25 on 04/10/2007 at 05:00 PM and a minimum volume of 0 on 04/10/2007 at 12:15 AM. The AADT Count for this study was 669.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0	6	11	16	21	26	31	36	41	46	51	56	61	66	71
to	to	to	to	to	to	to	to	to	to	to	to	to	to	>
5	10	15	20	25	30	35	40	45	50	55	60	65	70	
0	0	68	297	1084	884	271	122	11	7	3	4	0	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 26 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.25 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 31.10 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0	20	28	40	50	60	70	80
to	to	to	to	to	to	to	>
19	27	39	49	59	69	79	
2635	86	21	6	1	1	1	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 2,721 which represents 98.90 percent of the total classified vehicles. The number of Small Trucks in the study was 21 which represents 0.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 6 which represents 0.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 3 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 04/10/2007 at 05:00 PM the average headway between the vehicles was 34.62 seconds. The slowest traffic period was on 04/10/2007 at 12:15 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 48 and 78 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: LYnnwood
Street: 32nd SB Before**

A study of vehicle traffic was conducted with HI-STAR unit number 3425. The study was done in the 1 lane on 32nd SB Before in LYnnwood, WA in county. The study began on 04/09/2007 at 09:00 AM and concluded on 04/13/2007 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 2,619 vehicles passed through the location with a peak volume of 21 on 04/10/2007 at 06:00 PM and a minimum volume of 0 on 04/10/2007 at 12:15 AM. The AADT Count for this study was 635.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	24	193	796	1067	399	90	21	8	4	3	3	1	2

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 28 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.50 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 32.75 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 19	20 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
2520	77	12	2	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 2,597 which represents 99.50 percent of the total classified vehicles. The number of Small Trucks in the study was 12 which represents 0.50 percent of the total classified vehicles. The number of Trucks/Buses in the study was 2 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 04/10/2007 at 06:00 PM the average headway between the vehicles was 40.91 seconds. The slowest traffic period was on 04/10/2007 at 12:15 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 46 and 76 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: LYnnwood
Street: 32nd NB after**

A study of vehicle traffic was conducted with HI-STAR unit number 2002. The study was done in the 1 lane on 32nd NB after in LYnnwood, WA in county. The study began on 05/04/2009 at 09:00 AM and concluded on 05/08/2009 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 2,673 vehicles passed through the location with a peak volume of 21 on 05/05/2009 at 05:00 PM and a minimum volume of 0 on 05/05/2009 at 12:15 AM. The AADT Count for this study was 648.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0	6	11	16	21	26	31	36	41	46	51	56	61	66	71
to	to	to	to	to	to	to	to	to	to	to	to	to	to	>
5	10	15	20	25	30	35	40	45	50	55	60	65	70	
0	0	41	319	1030	1015	207	41	7	5	3	0	0	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 26 mph with 100 percent exceeding the posted speed of mph. The HI-STAR found 0.11 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 30.32 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0	20	28	40	50	60	70	80
to	to	to	to	to	to	to	>
19	27	39	49	59	69	79	
2566	61	36	5	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 2,627 which represents 98.50 percent of the total classified vehicles. The number of Small Trucks in the study was 36 which represents 1.30 percent of the total classified vehicles. The number of Trucks/Buses in the study was 5 which represents 0.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/05/2009 at 05:00 PM the average headway between the vehicles was 40.91 seconds. The slowest traffic period was on 05/05/2009 at 12:15 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 48 and 76 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

Date/Time/Volume/Average Headway Report

HI-Star ID: 2169	Begin: 05/04/2009 09:00 AM	End: 05/08/2009 12:00 PM
Street: 32nd SB AFTER	Lane: 1	Hours: 99.00
State: WA	Oper:	Period: 15
City: LYnnwood	Posted:	Raw Count: 2706
County:	AADT Factor: 1	AADT Count: 656

NC97	Volume	Avg Headway (Seconds)
05/04/2009		
[09:00 AM-09:15 AM]	13	64,290
[09:15 AM-09:30 AM]	14	80,000
[09:30 AM-09:45 AM]	4	180,000
[09:45 AM-10:00 AM]	10	81,820
[10:00 AM-10:15 AM]	8	100,000
[10:15 AM-10:30 AM]	9	90,000
[10:30 AM-10:45 AM]	9	90,000
[10:45 AM-11:00 AM]	13	64,290
[11:00 AM-11:15 AM]	4	180,000
[11:15 AM-11:30 AM]	7	112,500
[11:30 AM-11:45 AM]	12	69,230
[11:45 AM-12:00 PM]	6	128,570
[12:00 PM-12:15 PM]	1	450,000
[12:15 PM-12:30 PM]	7	112,500
[12:30 PM-12:45 PM]	8	100,000
[12:45 PM-01:00 PM]	7	112,500
[01:00 PM-01:15 PM]	12	69,230
[01:15 PM-01:30 PM]	5	150,000
[01:30 PM-01:45 PM]	10	81,820
[01:45 PM-02:00 PM]	8	100,000
[02:00 PM-02:15 PM]	7	112,500
[02:15 PM-02:30 PM]	5	150,000
[02:30 PM-02:45 PM]	9	90,000
[02:45 PM-03:00 PM]	10	81,820
[03:00 PM-03:15 PM]	8	100,000
[03:15 PM-03:30 PM]	11	75,000
[03:30 PM-03:45 PM]	7	112,500
[03:45 PM-04:00 PM]	9	90,000
[04:00 PM-04:15 PM]	7	112,500
[04:15 PM-04:30 PM]	14	60,000
[04:30 PM-04:45 PM]	12	69,230
[04:45 PM-05:00 PM]	11	75,000
[05:00 PM-05:15 PM]	13	64,290
[05:15 PM-05:30 PM]	13	64,290
[05:30 PM-05:45 PM]	10	81,820
[05:45 PM-06:00 PM]	11	75,000
[06:00 PM-06:15 PM]	13	64,290

NC97	Volume	Avg Headway (Seconds)
05/04/2009		
[06:15 PM-06:30 PM]	10	81.820
[06:30 PM-06:45 PM]	15	56.250
[06:45 PM-07:00 PM]	9	90.000
[07:00 PM-07:15 PM]	6	128.570
[07:15 PM-07:30 PM]	9	90.000
[07:30 PM-07:45 PM]	6	128.570
[07:45 PM-08:00 PM]	13	64.290
[08:00 PM-08:15 PM]	6	128.570
[08:15 PM-08:30 PM]	5	150.000
[08:30 PM-08:45 PM]	4	180.000
[08:45 PM-09:00 PM]	5	150.000
[09:00 PM-09:15 PM]	3	225.000
[09:15 PM-09:30 PM]	4	180.000
[09:30 PM-09:45 PM]	3	225.000
[09:45 PM-10:00 PM]	3	225.000
[10:00 PM-10:15 PM]	5	150.000
[10:15 PM-10:30 PM]	4	180.000
[10:30 PM-10:45 PM]	2	300.000
[10:45 PM-11:00 PM]	1	450.000
[11:00 PM-11:15 PM]	2	300.000
[11:15 PM-11:30 PM]	1	450.000
[11:30 PM-11:45 PM]	1	450.000
[11:45 PM-12:00 AM]	2	300.000
05/05/2009		
[12:00 AM-12:15 AM]	1	450.000
[12:15 AM-12:30 AM]	0	900.000
[12:30 AM-12:45 AM]	2	300.000
[12:45 AM-01:00 AM]	0	900.000
[01:00 AM-01:15 AM]	0	900.000
[01:15 AM-01:30 AM]	0	900.000
[01:30 AM-01:45 AM]	0	900.000
[01:45 AM-02:00 AM]	1	450.000
[02:00 AM-02:15 AM]	1	450.000
[02:15 AM-02:30 AM]	0	900.000
[02:30 AM-02:45 AM]	0	900.000
[02:45 AM-03:00 AM]	1	450.000
[03:00 AM-03:15 AM]	0	900.000
[03:15 AM-03:30 AM]	2	300.000
[03:30 AM-03:45 AM]	1	450.000
[03:45 AM-04:00 AM]	1	450.000
[04:00 AM-04:15 AM]	0	900.000
[04:15 AM-04:30 AM]	1	450.000
[04:30 AM-04:45 AM]	4	180.000
[04:45 AM-05:00 AM]	3	225.000
[05:00 AM-05:15 AM]	3	225.000

NC97	Volume	Avg Headway (Seconds)
05/05/2009		
[05:15 AM-05:30 AM]	6	128.570
[05:30 AM-05:45 AM]	6	128.570
[05:45 AM-06:00 AM]	12	69.230
[06:00 AM-06:15 AM]	10	81.820
[06:15 AM-06:30 AM]	7	112.500
[06:30 AM-06:45 AM]	4	180.000
[06:45 AM-07:00 AM]	17	50.000
[07:00 AM-07:15 AM]	18	47.370
[07:15 AM-07:30 AM]	13	64.290
[07:30 AM-07:45 AM]	14	60.000
[07:45 AM-08:00 AM]	18	47.370
[08:00 AM-08:15 AM]	9	90.000
[08:15 AM-08:30 AM]	10	81.820
[08:30 AM-08:45 AM]	10	81.820
[08:45 AM-09:00 AM]	9	90.000
[09:00 AM-09:15 AM]	12	69.230
[09:15 AM-09:30 AM]	7	112.500
[09:30 AM-09:45 AM]	9	90.000
[09:45 AM-10:00 AM]	13	64.290
[10:00 AM-10:15 AM]	6	128.570
[10:15 AM-10:30 AM]	11	75.000
[10:30 AM-10:45 AM]	4	180.000
[10:45 AM-11:00 AM]	8	100.000
[11:00 AM-11:15 AM]	8	100.000
[11:15 AM-11:30 AM]	13	64.290
[11:30 AM-11:45 AM]	11	75.000
[11:45 AM-12:00 PM]	5	150.000
[12:00 PM-12:15 PM]	6	128.570
[12:15 PM-12:30 PM]	7	112.500
[12:30 PM-12:45 PM]	8	100.000
[12:45 PM-01:00 PM]	4	180.000
[01:00 PM-01:15 PM]	11	75.000
[01:15 PM-01:30 PM]	6	128.570
[01:30 PM-01:45 PM]	9	90.000
[01:45 PM-02:00 PM]	7	112.500
[02:00 PM-02:15 PM]	9	90.000
[02:15 PM-02:30 PM]	6	128.570
[02:30 PM-02:45 PM]	7	112.500
[02:45 PM-03:00 PM]	12	69.230
[03:00 PM-03:15 PM]	10	81.820
[03:15 PM-03:30 PM]	7	112.500
[03:30 PM-03:45 PM]	10	81.820
[03:45 PM-04:00 PM]	8	100.000
[04:00 PM-04:15 PM]	8	100.000
[04:15 PM-04:30 PM]	9	90.000

NC97	Volume	Avg Headway (Seconds)
05/05/2009		
[04:30 PM-04:45 PM]	10	81.820
[04:45 PM-05:00 PM]	6	128.570
[05:00 PM-05:15 PM]	18	47.370
[05:15 PM-05:30 PM]	15	56.250
[05:30 PM-05:45 PM]	13	64.290
[05:45 PM-06:00 PM]	11	75.000
[06:00 PM-06:15 PM]	19	45.000
[06:15 PM-06:30 PM]	8	100.000
[06:30 PM-06:45 PM]	15	56.250
[06:45 PM-07:00 PM]	15	56.250
[07:00 PM-07:15 PM]	4	180.000
[07:15 PM-07:30 PM]	9	90.000
[07:30 PM-07:45 PM]	7	112.500
[07:45 PM-08:00 PM]	11	75.000
[08:00 PM-08:15 PM]	5	150.000
[08:15 PM-08:30 PM]	12	69.230
[08:30 PM-08:45 PM]	7	112.500
[08:45 PM-09:00 PM]	10	81.820
[09:00 PM-09:15 PM]	11	75.000
[09:15 PM-09:30 PM]	4	180.000
[09:30 PM-09:45 PM]	7	112.500
[09:45 PM-10:00 PM]	1	450.000
[10:00 PM-10:15 PM]	1	450.000
[10:15 PM-10:30 PM]	0	900.000
[10:30 PM-10:45 PM]	2	300.000
[10:45 PM-11:00 PM]	2	300.000
[11:00 PM-11:15 PM]	1	450.000
[11:15 PM-11:30 PM]	5	150.000
[11:30 PM-11:45 PM]	2	300.000
[11:45 PM-12:00 AM]	1	450.000
05/06/2009		
[12:00 AM-12:15 AM]	1	450.000
[12:15 AM-12:30 AM]	1	450.000
[12:30 AM-12:45 AM]	3	225.000
[12:45 AM-01:00 AM]	0	900.000
[01:00 AM-01:15 AM]	1	450.000
[01:15 AM-01:30 AM]	0	900.000
[01:30 AM-01:45 AM]	0	900.000
[01:45 AM-02:00 AM]	2	300.000
[02:00 AM-02:15 AM]	1	450.000
[02:15 AM-02:30 AM]	0	900.000
[02:30 AM-02:45 AM]	0	900.000
[02:45 AM-03:00 AM]	0	900.000
[03:00 AM-03:15 AM]	1	450.000
[03:15 AM-03:30 AM]	0	900.000

NC97	Volume	Avg Headway (Seconds)
05/06/2009		
[03:30 AM-03:45 AM]	0	900.000
[03:45 AM-04:00 AM]	1	450.000
[04:00 AM-04:15 AM]	2	300.000
[04:15 AM-04:30 AM]	3	225.000
[04:30 AM-04:45 AM]	3	225.000
[04:45 AM-05:00 AM]	5	150.000
[05:00 AM-05:15 AM]	5	150.000
[05:15 AM-05:30 AM]	3	225.000
[05:30 AM-05:45 AM]	5	150.000
[05:45 AM-06:00 AM]	14	60.000
[06:00 AM-06:15 AM]	12	69.230
[06:15 AM-06:30 AM]	8	100.000
[06:30 AM-06:45 AM]	12	69.230
[06:45 AM-07:00 AM]	16	52.940
[07:00 AM-07:15 AM]	19	45.000
[07:15 AM-07:30 AM]	12	69.230
[07:30 AM-07:45 AM]	14	60.000
[07:45 AM-08:00 AM]	19	45.000
[08:00 AM-08:15 AM]	6	128.570
[08:15 AM-08:30 AM]	10	81.820
[08:30 AM-08:45 AM]	8	100.000
[08:45 AM-09:00 AM]	10	81.820
[09:00 AM-09:15 AM]	5	150.000
[09:15 AM-09:30 AM]	12	69.230
[09:30 AM-09:45 AM]	9	90.000
[09:45 AM-10:00 AM]	9	90.000
[10:00 AM-10:15 AM]	7	112.500
[10:15 AM-10:30 AM]	7	112.500
[10:30 AM-10:45 AM]	4	180.000
[10:45 AM-11:00 AM]	3	225.000
[11:00 AM-11:15 AM]	5	150.000
[11:15 AM-11:30 AM]	10	81.820
[11:30 AM-11:45 AM]	13	64.290
[11:45 AM-12:00 PM]	2	300.000
[12:00 PM-12:15 PM]	5	150.000
[12:15 PM-12:30 PM]	3	225.000
[12:30 PM-12:45 PM]	14	60.000
[12:45 PM-01:00 PM]	4	180.000
[01:00 PM-01:15 PM]	8	100.000
[01:15 PM-01:30 PM]	8	100.000
[01:30 PM-01:45 PM]	13	64.290
[01:45 PM-02:00 PM]	8	100.000
[02:00 PM-02:15 PM]	8	100.000
[02:15 PM-02:30 PM]	12	69.230
[02:30 PM-02:45 PM]	11	75.000

NC97	Volume	Avg Headway (Seconds)
05/06/2009		
[02:45 PM-03:00 PM]	15	56,250
[03:00 PM-03:15 PM]	9	90,000
[03:15 PM-03:30 PM]	12	89,230
[03:30 PM-03:45 PM]	3	225,000
[03:45 PM-04:00 PM]	7	112,500
[04:00 PM-04:15 PM]	13	64,290
[04:15 PM-04:30 PM]	10	81,820
[04:30 PM-04:45 PM]	8	100,000
[04:45 PM-05:00 PM]	11	75,000
[05:00 PM-05:15 PM]	13	64,290
[05:15 PM-05:30 PM]	16	52,940
[05:30 PM-05:45 PM]	9	90,000
[05:45 PM-06:00 PM]	12	89,230
[06:00 PM-06:15 PM]	10	81,820
[06:15 PM-06:30 PM]	14	60,000
[06:30 PM-06:45 PM]	13	64,290
[06:45 PM-07:00 PM]	12	89,230
[07:00 PM-07:15 PM]	7	112,500
[07:15 PM-07:30 PM]	4	180,000
[07:30 PM-07:45 PM]	3	225,000
[07:45 PM-08:00 PM]	4	180,000
[08:00 PM-08:15 PM]	6	128,570
[08:15 PM-08:30 PM]	6	128,570
[08:30 PM-08:45 PM]	6	128,570
[08:45 PM-09:00 PM]	9	90,000
[09:00 PM-09:15 PM]	4	180,000
[09:15 PM-09:30 PM]	3	225,000
[09:30 PM-09:45 PM]	5	150,000
[09:45 PM-10:00 PM]	6	128,570
[10:00 PM-10:15 PM]	5	150,000
[10:15 PM-10:30 PM]	1	450,000
[10:30 PM-10:45 PM]	3	225,000
[10:45 PM-11:00 PM]	3	225,000
[11:00 PM-11:15 PM]	2	300,000
[11:15 PM-11:30 PM]	3	225,000
[11:30 PM-11:45 PM]	0	900,000
[11:45 PM-12:00 AM]	0	900,000
05/07/2009		
[12:00 AM-12:15 AM]	0	900,000
[12:15 AM-12:30 AM]	3	225,000
[12:30 AM-12:45 AM]	1	450,000
[12:45 AM-01:00 AM]	0	900,000
[01:00 AM-01:15 AM]	1	450,000
[01:15 AM-01:30 AM]	0	900,000
[01:30 AM-01:45 AM]	0	900,000

NC97	Volume	Avg Headway (Seconds)
05/07/2009		
[01:45 AM-02:00 AM]	0	900.000
[02:00 AM-02:15 AM]	1	450.000
[02:15 AM-02:30 AM]	0	900.000
[02:30 AM-02:45 AM]	0	900.000
[02:45 AM-03:00 AM]	0	900.000
[03:00 AM-03:15 AM]	0	900.000
[03:15 AM-03:30 AM]	2	300.000
[03:30 AM-03:45 AM]	0	900.000
[03:45 AM-04:00 AM]	1	450.000
[04:00 AM-04:15 AM]	1	450.000
[04:15 AM-04:30 AM]	2	300.000
[04:30 AM-04:45 AM]	3	225.000
[04:45 AM-05:00 AM]	2	300.000
[05:00 AM-05:15 AM]	0	900.000
[05:15 AM-05:30 AM]	6	128.570
[05:30 AM-05:45 AM]	5	150.000
[05:45 AM-06:00 AM]	14	60.000
[06:00 AM-06:15 AM]	6	128.570
[06:15 AM-06:30 AM]	10	81.820
[06:30 AM-06:45 AM]	11	75.000
[06:45 AM-07:00 AM]	13	64.290
[07:00 AM-07:15 AM]	18	47.370
[07:15 AM-07:30 AM]	14	60.000
[07:30 AM-07:45 AM]	9	90.000
[07:45 AM-08:00 AM]	16	52.940
[08:00 AM-08:15 AM]	15	56.250
[08:15 AM-08:30 AM]	6	128.570
[08:30 AM-08:45 AM]	19	45.000
[08:45 AM-09:00 AM]	15	56.250
[09:00 AM-09:15 AM]	10	81.820
[09:15 AM-09:30 AM]	11	75.000
[09:30 AM-09:45 AM]	8	100.000
[09:45 AM-10:00 AM]	8	100.000
[10:00 AM-10:15 AM]	9	90.000
[10:15 AM-10:30 AM]	8	100.000
[10:30 AM-10:45 AM]	7	112.500
[10:45 AM-11:00 AM]	7	112.500
[11:00 AM-11:15 AM]	12	69.230
[11:15 AM-11:30 AM]	4	180.000
[11:30 AM-11:45 AM]	7	112.500
[11:45 AM-12:00 PM]	10	81.820
[12:00 PM-12:15 PM]	7	112.500
[12:15 PM-12:30 PM]	9	90.000
[12:30 PM-12:45 PM]	5	150.000
[12:45 PM-01:00 PM]	8	100.000

NC97	Volume	Avg Headway (Seconds)
05/07/2009		
[01:00 PM-01:15 PM]	7	112.500
[01:15 PM-01:30 PM]	6	128.570
[01:30 PM-01:45 PM]	7	112.500
[01:45 PM-02:00 PM]	6	128.570
[02:00 PM-02:15 PM]	7	112.500
[02:15 PM-02:30 PM]	10	81.820
[02:30 PM-02:45 PM]	8	100.000
[02:45 PM-03:00 PM]	6	128.570
[03:00 PM-03:15 PM]	8	100.000
[03:15 PM-03:30 PM]	10	81.820
[03:30 PM-03:45 PM]	10	81.820
[03:45 PM-04:00 PM]	8	100.000
[04:00 PM-04:15 PM]	12	89.230
[04:15 PM-04:30 PM]	13	64.290
[04:30 PM-04:45 PM]	15	56.250
[04:45 PM-05:00 PM]	9	90.000
[05:00 PM-05:15 PM]	14	60.000
[05:15 PM-05:30 PM]	15	56.250
[05:30 PM-05:45 PM]	9	90.000
[05:45 PM-06:00 PM]	16	52.940
[06:00 PM-06:15 PM]	14	60.000
[06:15 PM-06:30 PM]	8	100.000
[06:30 PM-06:45 PM]	12	89.230
[06:45 PM-07:00 PM]	13	64.290
[07:00 PM-07:15 PM]	10	81.820
[07:15 PM-07:30 PM]	9	90.000
[07:30 PM-07:45 PM]	8	100.000
[07:45 PM-08:00 PM]	5	150.000
[08:00 PM-08:15 PM]	7	112.500
[08:15 PM-08:30 PM]	9	90.000
[08:30 PM-08:45 PM]	8	100.000
[08:45 PM-09:00 PM]	8	100.000
[09:00 PM-09:15 PM]	6	128.570
[09:15 PM-09:30 PM]	4	180.000
[09:30 PM-09:45 PM]	3	225.000
[09:45 PM-10:00 PM]	3	225.000
[10:00 PM-10:15 PM]	3	225.000
[10:15 PM-10:30 PM]	3	225.000
[10:30 PM-10:45 PM]	1	450.000
[10:45 PM-11:00 PM]	1	450.000
[11:00 PM-11:15 PM]	2	300.000
[11:15 PM-11:30 PM]	3	225.000
[11:30 PM-11:45 PM]	0	900.000
[11:45 PM-12:00 AM]	3	225.000
05/08/2009		

NC97	Volume	Avg Headway (Seconds)
[12:00 AM-12:15 AM]	1	450.000
[12:15 AM-12:30 AM]	2	300.000
[12:30 AM-12:45 AM]	0	900.000
[12:45 AM-01:00 AM]	1	450.000
[01:00 AM-01:15 AM]	2	300.000
[01:15 AM-01:30 AM]	0	900.000
[01:30 AM-01:45 AM]	0	900.000
[01:45 AM-02:00 AM]	0	900.000
[02:00 AM-02:15 AM]	0	900.000
[02:15 AM-02:30 AM]	0	900.000
[02:30 AM-02:45 AM]	0	900.000
[02:45 AM-03:00 AM]	0	900.000
[03:00 AM-03:15 AM]	0	900.000
[03:15 AM-03:30 AM]	1	450.000
[03:30 AM-03:45 AM]	0	900.000
[03:45 AM-04:00 AM]	2	300.000
[04:00 AM-04:15 AM]	0	900.000
[04:15 AM-04:30 AM]	0	900.000
[04:30 AM-04:45 AM]	6	128.570
[04:45 AM-05:00 AM]	1	450.000
[05:00 AM-05:15 AM]	1	450.000
[05:15 AM-05:30 AM]	5	150.000
[05:30 AM-05:45 AM]	5	150.000
[05:45 AM-06:00 AM]	13	64.290
[06:00 AM-06:15 AM]	11	75.000
[06:15 AM-06:30 AM]	12	69.230
[06:30 AM-06:45 AM]	6	128.570
[06:45 AM-07:00 AM]	12	69.230
[07:00 AM-07:15 AM]	8	100.000
[07:15 AM-07:30 AM]	12	69.230
[07:30 AM-07:45 AM]	15	56.250
[07:45 AM-08:00 AM]	18	47.370
[08:00 AM-08:15 AM]	5	150.000
[08:15 AM-08:30 AM]	8	100.000
[08:30 AM-08:45 AM]	12	69.230
[08:45 AM-09:00 AM]	9	90.000
[09:00 AM-09:15 AM]	5	150.000
[09:15 AM-09:30 AM]	11	75.000
[09:30 AM-09:45 AM]	9	90.000
[09:45 AM-10:00 AM]	16	52.940
[10:00 AM-10:15 AM]	7	112.500
[10:15 AM-10:30 AM]	5	150.000
[10:30 AM-10:45 AM]	6	128.570
[10:45 AM-11:00 AM]	11	75.000
[11:00 AM-11:15 AM]	9	90.000
[11:15 AM-11:30 AM]	13	64.290

NC97	Volume	Avg Headway (Seconds)
05/08/2009		
[11:30 AM-11:45 AM]	7	112.500
[11:45 AM-12:00 PM]	9	90.000

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: LYnnwood
Street: 33rd NB Before**

A study of vehicle traffic was conducted with HI-STAR unit number 2442. The study was done in the 1 lane on 33rd NB Before in LYnnwood, WA in county. The study began on 04/09/2007 at 09:00 AM and concluded on 04/13/2007 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,181 vehicles passed through the location with a peak volume of 14 on 04/12/2007 at 05:30 PM and a minimum volume of 0 on 04/09/2007 at 10:45 AM. The AADT Count for this study was 286.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	26	152	516	360	93	23	6	2	0	0	0	1	1

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 25 mph with 100 percent exceeding the posted speed of mph. The HI-STAR found 0.17 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 30.29 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 19	20 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1140	26	11	2	1	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,166 which represents 98.80 percent of the total classified vehicles. The number of Small Trucks in the study was 11 which represents 0.90 percent of the total classified vehicles. The number of Trucks/Buses in the study was 2 which represents 0.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 04/12/2007 at 05:30 PM the average headway between the vehicles was 60.0 seconds. The slowest traffic period was on 04/09/2007 at 10:45 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 48 and 78 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: LYnnwood
Street: 33 SB Before**

A study of vehicle traffic was conducted with HI-STAR unit number 3436. The study was done in the 1 lane on 33 SB Before in LYnnwood, WA in county. The study began on 04/09/2007 at 09:00 AM and concluded on 04/13/2007 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,089 vehicles passed through the location with a peak volume of 11 on 04/12/2007 at 04:30 PM and a minimum volume of 0 on 04/09/2007 at 10:00 PM. The AADT Count for this study was 264.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0	6	11	16	21	26	31	36	41	46	51	56	61	66	71
to	to	to	to	to	to	to	to	to	to	to	to	to	to	>
5	10	15	20	25	30	35	40	45	50	55	60	65	70	
0	0	13	30	220	516	232	51	15	4	1	2	2	0	1

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 29 mph with 100 percent exceeding the posted speed of mph. The HI-STAR found 0.55 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 34.12 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0	20	28	40	50	60	70	80
to	to	to	to	to	to	to	>
19	27	39	49	59	69	79	
1011	50	18	8	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,061 which represents 97.60 percent of the total classified vehicles. The number of Small Trucks in the study was 18 which represents 1.70 percent of the total classified vehicles. The number of Trucks/Buses in the study was 8 which represents 0.70 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 04/12/2007 at 04:30 PM the average headway between the vehicles was 75.0 seconds. The slowest traffic period was on 04/09/2007 at 10:00 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 48 and 78 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: LYnnwood
Street: 33rd NB After**

A study of vehicle traffic was conducted with HI-STAR unit number 2440. The study was done in the 1 lane on 33rd NB After in LYnnwood, WA in county. The study began on 05/04/2009 at 09:00 AM and concluded on 05/08/2009 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,161 vehicles passed through the location with a peak volume of 13 on 05/04/2009 at 04:00 PM and a minimum volume of 0 on 05/04/2009 at 10:45 AM. The AADT Count for this study was 281.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0	6	11	16	21	26	31	36	41	46	51	56	61	66	71
to	to	to	to	to	to	to	to	to	to	to	to	to	to	>
5	10	15	20	25	30	35	40	45	50	55	60	65	70	
0	0	14	235	525	279	88	15	2	1	0	0	0	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 25 mph with 100.0 percent exceeding the posted speed of mph. The HI-STAR found 0.00 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 29.78 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0	20	28	40	50	60	70	80
to	to	to	to	to	to	to	>
19	27	39	49	59	69	79	
1121	29	9	0	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,150 which represents 99.20 percent of the total classified vehicles. The number of Small Trucks in the study was 9 which represents 0.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 0 which represents 0.00 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/04/2009 at 04:00 PM the average headway between the vehicles was 64.29 seconds. The slowest traffic period was on 05/04/2009 at 10:45 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 46 and 76 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: LYnnwood
Street: 33 SB After**

A study of vehicle traffic was conducted with HI-STAR unit number 2504. The study was done in the 1 lane on 33 SB After in LYnnwood, WA in county. The study began on 05/04/2009 at 09:00 AM and concluded on 05/08/2009 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,078 vehicles passed through the location with a peak volume of 12 on 05/06/2009 at 03:00 PM and a minimum volume of 0 on 05/04/2009 at 10:00 PM. The AADT Count for this study was 261.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0	6	11	16	21	26	31	36	41	46	51	56	61	66	71
to	to	to	to	to	to	to	to	to	to	to	to	to	to	>
5	10	15	20	25	30	35	40	45	50	55	60	65	70	
0	0	15	126	470	355	68	19	11	7	2	1	1	2	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 26 mph with 100.00 percent exceeding the posted speed of mph. The HI-STAR found 0.56 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 30.29 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0	20	28	40	50	60	70	80
to	to	to	to	to	to	to	>
19	27	39	49	59	69	79	
988	57	22	5	4	1	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,045 which represents 97.00 percent of the total classified vehicles. The number of Small Trucks in the study was 22 which represents 2.00 percent of the total classified vehicles. The number of Trucks/Buses in the study was 5 which represents 0.50 percent of the total classified vehicles. The number of Tractor Trailers in the study was 5 which represents 0.50 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/06/2009 at 03:00 PM the average headway between the vehicles was 69.23 seconds. The slowest traffic period was on 05/04/2009 at 10:00 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 48 and 78 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 206th Street Southwest - Northbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 56th Ave W & 206st St SW**

A study of vehicle traffic was conducted with HI-STAR unit number 2169. The study was done in the NB lane on 56th Ave W & 206st St SW in Lynnwood, WA in Snohomish county. The study began on 05/26/2008 at 09:00 AM and concluded on 05/30/2008 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,602 vehicles passed through the location with a peak volume of 20 on 05/29/2008 at 04:30 PM and a minimum volume of 0 on 05/26/2008 at 09:45 PM. The AADT Count for this study was 388.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	179	327	595	343	127	28	8	6	4	1	3	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 24 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.49 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 30.04 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1406	152	49	7	4	3	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,558 which represents 96.10 percent of the total classified vehicles. The number of Small Trucks in the study was 49 which represents 3.00 percent of the total classified vehicles. The number of Trucks/Buses in the study was 7 which represents 0.40 percent of the total classified vehicles. The number of Tractor Trailers in the study was 7 which represents 0.40 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/29/2008 at 04:30 PM the average headway between the vehicles was 42.86 seconds. The slowest traffic period was on 05/26/2008 at 09:45 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 52 and 103 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 206th Street Southwest - Southbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 56th Ave W & 206st St SW**

A study of vehicle traffic was conducted with HI-STAR unit number 2442. The study was done in the SB lane on 56th Ave W & 206st St SW in Lynnwood, WA in Snohomish county. The study began on 05/26/2008 at 09:00 AM and concluded on 05/30/2008 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,833 vehicles passed through the location with a peak volume of 23 on 05/29/2008 at 06:15 AM and a minimum volume of 0 on 05/26/2008 at 11:00 PM. The AADT Count for this study was 444.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	78	307	811	462	122	35	6	2	2	2	2	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 25 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.33 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 29.88 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1570	122	126	9	2	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,692 which represents 92.50 percent of the total classified vehicles. The number of Small Trucks in the study was 126 which represents 6.90 percent of the total classified vehicles. The number of Trucks/Buses in the study was 9 which represents 0.50 percent of the total classified vehicles. The number of Tractor Trailers in the study was 2 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/29/2008 at 06:15 AM the average headway between the vehicles was 37.5 seconds. The slowest traffic period was on 05/26/2008 at 11:00 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 50 and 97 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 206th Street Southwest - Northbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 56th Ave W & 206st St SW**

A study of vehicle traffic was conducted with HI-STAR unit number 2169. The study was done in the NB lane on 56th Ave W & 206st St SW in Lynnwood, WA in Snohomish county. The study began on 05/11/2009 at 09:00 AM and concluded on 05/15/2009 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,752 vehicles passed through the location with a peak volume of 27 on 05/13/2009 at 07:30 AM and a minimum volume of 0 on 05/11/2009 at 09:45 PM. The AADT Count for this study was 425.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	177	326	791	321	105	15	6	6	4	1	3	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 24 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.46 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 29.08 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to >
1543	152	49	6	3	2	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,695 which represents 96.60 percent of the total classified vehicles. The number of Small Trucks in the study was 49 which represents 2.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 6 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 5 which represents 0.30 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/13/2009 at 07:30 AM the average headway between the vehicles was 32.14 seconds. The slowest traffic period was on 05/11/2009 at 09:45 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 52 and 103 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 206th Street Southwest - Southbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 56th Ave W & 206st St SW**

A study of vehicle traffic was conducted with HI-STAR unit number 2442. The study was done in the SB lane on 56th Ave W & 206st St SW in Lynnwood, WA in Snohomish county. The study began on 05/11/2009 at 09:00 AM and concluded on 05/15/2009 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,793 vehicles passed through the location with a peak volume of 23 on 05/14/2009 at 06:15 AM and a minimum volume of 0 on 05/11/2009 at 11:00 PM. The AADT Count for this study was 435.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	78	318	800	435	126	31	2	1	1	1	2	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 24 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.22 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 29.79 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1536	122	126	9	2	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,658 which represents 92.40 percent of the total classified vehicles. The number of Small Trucks in the study was 126 which represents 7.00 percent of the total classified vehicles. The number of Trucks/Buses in the study was 9 which represents 0.50 percent of the total classified vehicles. The number of Tractor Trailers in the study was 2 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/14/2009 at 06:15 AM the average headway between the vehicles was 37.5 seconds. The slowest traffic period was on 05/11/2009 at 11:00 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 50 and 97 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 170th Street Southwest - Northbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 56th @ 170th PI**

A study of vehicle traffic was conducted with HI-STAR unit number 1987. The study was done in the NB lane on 56th @ 170th PI in Lynnwood, WA in Snohomish county. The study began on 02/25/2008 at 09:00 AM and concluded on 02/29/2008 at 09:00 AM, lasting a total of 96 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 904 vehicles passed through the location with a peak volume of 18 on 02/29/2008 at 07:30 AM and a minimum volume of 0 on 02/25/2008 at 10:15 AM. The AADT Count for this study was 226.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	21	111	329	289	98	29	7	6	5	3	4	1	1

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 27 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 1.55 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 31.94 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
874	23	7	0	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 897 which represents 99.20 percent of the total classified vehicles. The number of Small Trucks in the study was 7 which represents 0.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 0 which represents 0.00 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/29/2008 at 07:30 AM the average headway between the vehicles was 47.37 seconds. The slowest traffic period was on 02/25/2008 at 10:15 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 42 and 76 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 170th Street Southwest - Southbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 56th @ 170th PI**

A study of vehicle traffic was conducted with HI-STAR unit number 2504. The study was done in the SB lane on 56th @ 170th PI in Lynnwood, WA in Snohomish county. The study began on 02/25/2008 at 09:00 AM and concluded on 02/29/2008 at 09:00 AM, lasting a total of 96 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,335 vehicles passed through the location with a peak volume of 24 on 02/26/2008 at 07:30 AM and a minimum volume of 0 on 02/25/2008 at 07:15 PM. The AADT Count for this study was 334.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	17	205	683	340	56	13	8	4	1	1	2	0	1

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 25 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.36 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 29.33 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to >
1271	36	19	4	1	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,307 which represents 98.20 percent of the total classified vehicles. The number of Small Trucks in the study was 19 which represents 1.40 percent of the total classified vehicles. The number of Trucks/Buses in the study was 4 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/26/2008 at 07:30 AM the average headway between the vehicles was 36.0 seconds. The slowest traffic period was on 02/25/2008 at 07:15 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 42 and 76 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 170th Street Southwest - Northbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 170th PI & 56th**

A study of vehicle traffic was conducted with HI-STAR unit number 3386. The study was done in the NB lane on 170th PI & 56th in Lynnwood, Wa in Snohomish county. The study began on 11/17/2008 at 09:00 AM and concluded on 11/21/2008 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,575 vehicles passed through the location with a peak volume of 35 on 11/20/2008 at 07:30 AM and a minimum volume of 0 on 11/17/2008 at 06:45 PM. The AADT Count for this study was 382.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	36	158	590	576	149	35	10	4	4	2	2	1	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 26 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.57 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 30.76 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1533	24	8	2	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,557 which represents 99.40 percent of the total classified vehicles. The number of Small Trucks in the study was 8 which represents 0.50 percent of the total classified vehicles. The number of Trucks/Buses in the study was 2 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 11/20/2008 at 07:30 AM the average headway between the vehicles was 25.0 seconds. The slowest traffic period was on 11/17/2008 at 06:45 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 39 and 70 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 170th Street Southwest - Southbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 170th PI & 56th**

A study of vehicle traffic was conducted with HI-STAR unit number 2169. The study was done in the SB lane on 170th PI & 56th in Lynnwood, Wa in Snohomish county. The study began on 11/17/2008 at 09:00 AM and concluded on 11/21/2008 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 2,350 vehicles passed through the location with a peak volume of 44 on 11/21/2008 at 07:45 AM and a minimum volume of 0 on 11/17/2008 at 11:00 PM. The AADT Count for this study was 570.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	43	289	1085	681	191	39	11	6	2	2	0	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 25 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.17 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 30.26 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
2281	53	11	4	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 2,334 which represents 99.40 percent of the total classified vehicles. The number of Small Trucks in the study was 11 which represents 0.50 percent of the total classified vehicles. The number of Trucks/Buses in the study was 4 which represents 0.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 11/21/2008 at 07:45 AM the average headway between the vehicles was 20.0 seconds. The slowest traffic period was on 11/17/2008 at 11:00 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 42 and 70 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 170th Street Southwest - Northbound After 2

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 56th Ave W & 170th St SW**

A study of vehicle traffic was conducted with HI-STAR unit number 2504. The study was done in the NB lane on 56th Ave W & 170th St SW in Lynnwood, WA in Snohomish county. The study began on 05/11/2009 at 09:00 AM and concluded on 05/15/2009 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,168 vehicles passed through the location with a peak volume of 19 on 05/12/2009 at 07:30 AM and a minimum volume of 0 on 05/11/2009 at 09:15 PM. The AADT Count for this study was 283.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	15	100	454	416	126	27	9	5	3	1	4	3	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 27 mph with 100 percent exceeding the posted speed of mph. The HI-STAR found 0.95 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 31.14 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to >
1107	42	8	5	1	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,149 which represents 98.80 percent of the total classified vehicles. The number of Small Trucks in the study was 8 which represents 0.70 percent of the total classified vehicles. The number of Trucks/Buses in the study was 5 which represents 0.40 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/12/2009 at 07:30 AM the average headway between the vehicles was 45.0 seconds. The slowest traffic period was on 05/11/2009 at 09:15 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 50 and 101 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

56th Avenue West & 170th Street Southwest - Southbound After 2

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 56th Ave W & 170th St SW**

A study of vehicle traffic was conducted with HI-STAR unit number 2440. The study was done in the SB lane on 56th Ave W & 170th St SW in Lynnwood, WA in Snohomish county. The study began on 05/11/2009 at 09:00 AM and concluded on 05/15/2009 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,726 vehicles passed through the location with a peak volume of 41 on 05/13/2009 at 02:00 PM and a minimum volume of 0 on 05/11/2009 at 12:45 PM. The AADT Count for this study was 418.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	43	289	774	444	126	25	9	5	5	0	3	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 25 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.46 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 30.04 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1669	36	14	4	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,705 which represents 99.00 percent of the total classified vehicles. The number of Small Trucks in the study was 14 which represents 0.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 4 which represents 0.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/13/2009 at 02:00 PM the average headway between the vehicles was 21.43 seconds. The slowest traffic period was on 05/11/2009 at 12:45 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 50 and 103 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 99.49 percent of the time.

212th Street Southwest - Eastbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 212th St. SW @ 61st**

A study of vehicle traffic was conducted with HI-STAR unit number 2442. The study was done in the EB lane on 212th St. SW @ 61st in Lynnwood, WA in Snohomish county. The study began on 05/12/2008 at 09:00 AM and concluded on 05/16/2008 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 20,078 vehicles passed through the location with a peak volume of 165 on 05/15/2008 at 05:15 PM and a minimum volume of 0 on 05/13/2008 at 01:15 AM. The AADT Count for this study was 4,867.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	283	1594	3440	6119	5506	2241	591	176	79	36	1	0	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 30 mph with 43.0 percent exceeding the posted speed of 35 mph. The HI-STAR found 0.58 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 36.25 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 23	24 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
18694	581	683	65	32	5	4	2

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 19,275 which represents 96.10 percent of the total classified vehicles. The number of Small Trucks in the study was 683 which represents 3.40 percent of the total classified vehicles. The number of Trucks/Buses in the study was 65 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 43 which represents 0.20 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/15/2008 at 05:15 PM the average headway between the vehicles was 5.42 seconds. The slowest traffic period was on 05/13/2008 at 01:15 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 39 and 78 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

212th Street Southwest - Westbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 212th St. SW @ 61st**

A study of vehicle traffic was conducted with HI-STAR unit number 2436. The study was done in the WB lane on 212th St. SW @ 61st in Lynnwood, WA in Snohomish county. The study began on 05/12/2008 at 09:00 AM and concluded on 05/16/2008 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 20,063 vehicles passed through the location with a peak volume of 173 on 05/13/2008 at 07:45 AM and a minimum volume of 0 on 05/13/2008 at 03:00 AM. The AADT Count for this study was 4,864

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	302	836	3107	7675	5882	1702	331	111	42	27	14	0	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 30 mph with 40.4 percent exceeding the posted speed of 35 mph. The HI-STAR found 0.41 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 35.34 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 23	24 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
18998	435	492	72	21	8	1	2

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 19,433 which represents 97.00 percent of the total classified vehicles. The number of Small Trucks in the study was 492 which represents 2.50 percent of the total classified vehicles. The number of Trucks/Buses in the study was 72 which represents 0.40 percent of the total classified vehicles. The number of Tractor Trailers in the study was 32 which represents 0.20 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/13/2008 at 07:45 AM the average headway between the vehicles was 5.17 seconds. The slowest traffic period was on 05/13/2008 at 03:00 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 39 and 82 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

212th Street Southwest - Eastbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 212th St. SW @ 61st**

A study of vehicle traffic was conducted with HI-STAR unit number 2442. The study was done in the EB lane on 212th St. SW @ 61st in Lynnwood, WA in Snohomish county. The study began on 03/21/2011 at 09:00 AM and concluded on 03/25/2011 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 18,617 vehicles passed through the location with a peak volume of 165 on 03/24/2011 at 05:15 PM and a minimum volume of 0 on 03/21/2011 at 01:30 PM. The AADT Count for this study was 4,513.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	230	1919	4018	6050	4830	1039	446	119	62	32	9	6	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 29 mph with 34.8 percent exceeding the posted speed of 35 mph. The HI-STAR found 0.58 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 34.86 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 23	24 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
17395	576	681	65	32	5	4	2

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 17,971 which represents 95.80 percent of the total classified vehicles. The number of Small Trucks in the study was 681 which represents 3.60 percent of the total classified vehicles. The number of Trucks/Buses in the study was 65 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 43 which represents 0.20 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 03/24/2011 at 05:15 PM the average headway between the vehicles was 5.42 seconds. The slowest traffic period was on 03/21/2011 at 01:30 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 39 and 78 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

212th Street Southwest - Westbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 212th St. SW @ 61st**

A study of vehicle traffic was conducted with HI-STAR unit number 2436. The study was done in the WB lane on 212th St. SW @ 61st in Lynnwood, WA in Snohomish county. The study began on 03/21/2011 at 09:00 AM and concluded on 03/25/2011 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 19,508 vehicles passed through the location with a peak volume of 148 on 03/23/2011 at 07:45 AM and a minimum volume of 0 on 03/22/2011 at 03:00 AM. The AADT Count for this study was 4,729

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	297	1538	3057	7780	5137	1360	160	88	32	13	6	7	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 29 mph with 34.9 percent exceeding the posted speed of 35 mph. The HI-STAR found 0.30 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 34.78 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 23	24 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
18448	434	491	71	20	8	1	2

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 18,882 which represents 97.00 percent of the total classified vehicles. The number of Small Trucks in the study was 491 which represents 2.50 percent of the total classified vehicles. The number of Trucks/Buses in the study was 71 which represents 0.40 percent of the total classified vehicles. The number of Tractor Trailers in the study was 31 which represents 0.20 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 03/23/2011 at 07:45 AM the average headway between the vehicles was 6.04 seconds. The slowest traffic period was on 03/22/2011 at 03:00 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 39 and 82 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

74th Avenue West & 191st Street Southwest - Northbound Before

Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 74th Ave W & 191st St SW

A study of vehicle traffic was conducted with HI-STAR unit number 2442. The study was done in the NB Lane on 74th Ave W & 191st St SW in Lynnwood, WA in Snohomish County. The study began on 03/17/2008 at 9:00 AM and concluded on 03/21/2008 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1325 vehicles passed through the location with a peak volume of 18 on 03/18/2008 at 6:00 PM and a minimum volume of 0 on 03/19/2008 at 9:00 PM. The AADT Count of this study was 323.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	121	626	419	105	15	19	5	2	3	4	4	2	0

At least half of the vehicles were traveling in the 21-25 mph range or a lower speed. The average speed for all classified vehicles was 18 mph with 100. Percent exceeding the posted speed of mph. The HI-STAR found 0.98 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 17 mph and the 85th percentile was 27.2 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1237	55	22	4	3	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,292 which represent 97.80 percent of the total classified vehicles. The number of Small Trucks in the study was 22 which represent 1.67 percent of the total classified vehicles. The number of Trucks/Buses in the study was 4 which represent 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 3 which represent 0.23 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 03/18/2008 at 06:00 PM the average headway between the vehicles was 58.0 seconds. The slowest traffic period was on 03/19/2008 at 09:00 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 48 and 100 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

74th Avenue West & 191st Street Southwest - Southbound Before

Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 74th Ave W & 191st St SW

A study of vehicle traffic was conducted with HI-STAR unit number 2436. The study was done in the SB Lane on 74th Ave W & 191st St SW in Lynnwood, WA in Snohomish County. The study began on 03/17/2008 at 9:00 AM and concluded on 03/21/2008 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1222 vehicles passed through the location with a peak volume of 19 on 03/20/2008 at 5:30 PM and a minimum volume of 0 on 03/20/2008 at 9:00 PM. The AADT Count of this study was 298.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	189	617	324	58	13	7	2	4	2	0	2	2	2

At least half of the vehicles were traveling in the 21-25 mph range or a lower speed. The average speed for all classified vehicles was 21 mph with 100. Percent exceeding the posted speed of mph. The HI-STAR found .65 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 17 mph and the 85th percentile was 26.45 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1149	47	14	4	3	0	2	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,196 which represent 98.11 percent of the total classified vehicles. The number of Small Trucks in the study was 14 which represent 1.15 percent of the total classified vehicles. The number of Trucks/Buses in the study was 4 which represent 0.33 percent of the total classified vehicles. The number of Tractor Trailers in the study was 3 which represent 0.25 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 03/20/2008 at 06:00 PM the average headway between the vehicles was 56.0 seconds. The slowest traffic period was on 03/20/2008 at 09:00 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 48 and 101 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

74th Avenue West & 191st Street Southwest - Northbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 74th Ave W & 191st St SW**

A study of vehicle traffic was conducted with HI-STAR unit number 3448. The study was done in the NB lane on 74th Ave W & 191st St SW in Lynnwood, WA in Snohomish county. The study began on 05/11/2009 at 09:00 AM and concluded on 05/15/2009 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,275 vehicles passed through the location with a peak volume of 14 on 05/12/2009 at 05:45 PM and a minimum volume of 0 on 05/11/2009 at 08:15 PM. The AADT Count for this study was 309.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	116	602	404	101	14	18	4	0	2	3	3	1	0

At least half of the vehicles were traveling in the 16 - 20 mph range or a lower speed. The average speed for all classified vehicles was 21 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.71 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 16 mph and the 85th percentile was 25.45 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1190	52	21	3	2	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,242 which represents 97.90 percent of the total classified vehicles. The number of Small Trucks in the study was 21 which represents 1.70 percent of the total classified vehicles. The number of Trucks/Buses in the study was 3 which represents 0.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 2 which represents 0.20 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/12/2009 at 05:45 PM the average headway between the vehicles was 60.0 seconds. The slowest traffic period was on 05/11/2009 at 08:15 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 52 and 103 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

74th Avenue West & 191st Street Southwest - Southbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 74th Ave W & 191st St SW**

A study of vehicle traffic was conducted with HI-STAR unit number 2436. The study was done in the SB lane on 74th Ave W & 191st St SW in Lynnwood, WA in Snohomish county. The study began on 05/11/2009 at 09:00 AM and concluded on 05/15/2009 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 1,164 vehicles passed through the location with a peak volume of 13 on 05/11/2009 at 04:15 PM and a minimum volume of 0 on 05/11/2009 at 09:15 PM. The AADT Count for this study was 282.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	180	589	309	55	12	6	1	3	1	0	1	1	1

At least half of the vehicles were traveling in the 16 - 20 mph range or a lower speed. The average speed for all classified vehicles was 20 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.35 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 16 mph and the 85th percentile was 24.50 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
1096	44	13	3	2	0	1	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 1,140 which represents 98.40 percent of the total classified vehicles. The number of Small Trucks in the study was 13 which represents 1.10 percent of the total classified vehicles. The number of Trucks/Buses in the study was 3 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 3 which represents 0.30 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 05/11/2009 at 04:15 PM the average headway between the vehicles was 64.29 seconds. The slowest traffic period was on 05/11/2009 at 09:15 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 52 and 105 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

173rd Street Southwest - Eastbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 5400 block of 173rd St.**

A study of vehicle traffic was conducted with HI-STAR unit number 3425. The study was done in the EB lane on 5400 block of 173rd St. in Lynnwood, WA in Snohomish county. The study began on 02/25/2008 at 09:00 AM and concluded on 02/29/2008 at 09:00 AM, lasting a total of 96 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 627 vehicles passed through the location with a peak volume of 9 on 02/28/2008 at 07:00 AM and a minimum volume of 0 on 02/25/2008 at 09:00 AM. The AADT Count for this study was 157.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	11	85	165	171	95	43	16	18	5	4	3	1	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 29 mph with 84.4 percent exceeding the posted speed of 25 mph. The HI-STAR found 2.11 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 35.87 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
584	18	12	2	1	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 602 which represents 97.60 percent of the total classified vehicles. The number of Small Trucks in the study was 12 which represents 1.90 percent of the total classified vehicles. The number of Trucks/Buses in the study was 2 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.20 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/28/2008 at 07:00 AM the average headway between the vehicles was 90.0 seconds. The slowest traffic period was on 02/25/2008 at 09:00 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 41 and 74 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

173rd Street Southwest - Westbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 5400 block of 173rd St.**

A study of vehicle traffic was conducted with HI-STAR unit number 3386. The study was done in the WB lane on 5400 block of 173rd St. in Lynnwood, WA in Snohomish county. The study began on 02/25/2008 at 09:00 AM and concluded on 02/29/2008 at 09:00 AM, lasting a total of 96 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 969 vehicles passed through the location with a peak volume of 15 on 02/25/2008 at 04:45 PM and a minimum volume of 0 on 02/25/2008 at 10:00 AM. The AADT Count for this study was 242.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	23	201	217	248	130	72	29	13	13	9	3	1	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 28 mph with 76.6 percent exceeding the posted speed of 25 mph. The HI-STAR found 2.71 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 35.85 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to >
917	24	12	5	1	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 941 which represents 98.10 percent of the total classified vehicles. The number of Small Trucks in the study was 12 which represents 1.30 percent of the total classified vehicles. The number of Trucks/Buses in the study was 5 which represents 0.50 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 02/25/2008 at 04:45 PM the average headway between the vehicles was 56.25 seconds. The slowest traffic period was on 02/25/2008 at 10:00 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 39 and 72 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

173rd Street Southwest - Eastbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 5400 at 173rd St.**

A study of vehicle traffic was conducted with HI-STAR unit number 1626. The study was done in the EB lane on 5400 at 173rd St. in Lynnwood, WA in Snohomish county. The study began on 10/12/2009 at 09:00 AM and concluded on 10/16/2009 at 09:00 AM, lasting a total of 96 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 645 vehicles passed through the location with a peak volume of 9 on 10/15/2009 at 07:00 AM and a minimum volume of 0 on 10/12/2009 at 09:00 AM. The AADT Count for this study was 161.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	16	122	213	156	71	29	12	6	4	2	1	0	0

At least half of the vehicles were traveling in the 21 - 25 mph range or a lower speed. The average speed for all classified vehicles was 26 mph with 78.1 percent exceeding the posted speed of 25 mph. The HI-STAR found 1.11 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 21 mph and the 85th percentile was 33.13 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
601	17	12	2	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 618 which represents 97.80 percent of the total classified vehicles. The number of Small Trucks in the study was 12 which represents 1.90 percent of the total classified vehicles. The number of Trucks/Buses in the study was 2 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 10/15/2009 at 07:00 AM the average headway between the vehicles was 90.0 seconds. The slowest traffic period was on 10/12/2009 at 09:00 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 41 and 74 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

173rd Street Southwest - Westbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 5400 at 173rd St.**

A study of vehicle traffic was conducted with HI-STAR unit number 2169. The study was done in the WB lane on 5400 at 173rd St in Lynnwood, WA in Snohomish county. The study began on 10/12/2009 at 09:00 AM and concluded on 10/16/2009 at 09:00 AM, lasting a total of 96 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 947 vehicles passed through the location with a peak volume of 15 on 10/12/2009 at 04:45 PM and a minimum volume of 0 on 10/12/2009 at 10:00 AM. The AADT Count for this study was 237.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	20	194	203	291	146	51	16	4	6	5	1	0	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 27 mph with 77.1 percent exceeding the posted speed of 25 mph. The HI-STAR found 1.26 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 34.03 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
895	24	12	5	1	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 919 which represents 98.10 percent of the total classified vehicles. The number of Small Trucks in the study was 12 which represents 1.30 percent of the total classified vehicles. The number of Trucks/Buses in the study was 5 which represents 0.50 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 10/12/2009 at 04:45 PM the average headway between the vehicles was 56.25 seconds. The slowest traffic period was on 10/12/2009 at 10:00 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 39 and 72 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

48th Avenue West - Northbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 183048**

A study of vehicle traffic was conducted with HI-STAR unit number 3425. The study was done in the NB lane on 183048 in Lynnwood, WA in county. The study began on 06/29/2009 at 09:00 AM and concluded on 07/02/2009 at 12:00 PM, lasting a total of 75 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 3,961 vehicles passed through the location with a peak volume of 43 on 06/29/2009 at 05:30 PM and a minimum volume of 0 on 06/29/2009 at 11:15 PM. The AADT Count for this study was 1,268.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	60	288	1090	1616	693	148	34	14	4	5	2	1	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 28 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.30 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 33.22 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
3923	17	11	2	1	1	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 3,940 which represents 99.60 percent of the total classified vehicles. The number of Small Trucks in the study was 11 which represents 0.30 percent of the total classified vehicles. The number of Trucks/Buses in the study was 2 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 2 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 06/29/2009 at 05:30 PM the average headway between the vehicles was 20.45 seconds. The slowest traffic period was on 06/29/2009 at 11:15 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 56 and 113 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

48th Avenue West - Southbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 183048**

A study of vehicle traffic was conducted with HI-STAR unit number 2436. The study was done in the SB lane on 183048 in Lynnwood, WA in county. The study began on 06/29/2009 at 09:00 AM and concluded on 07/02/2009 at 12:00 PM, lasting a total of 75 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 3,262 vehicles passed through the location with a peak volume of 29 on 07/01/2009 at 03:45 PM and a minimum volume of 0 on 06/30/2009 at 12:45 AM. The AADT Count for this study was 1,044.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	33	240	961	1314	556	118	21	8	4	3	0	0	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 28 mph with 100. percent exceeding the posted speed of mph. The HI-STAR found 0.21 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 32.99 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
3140	87	26	4	1	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 3,227 which represents 99.00 percent of the total classified vehicles. The number of Small Trucks in the study was 26 which represents 0.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 4 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 07/01/2009 at 03:45 PM the average headway between the vehicles was 30.0 seconds. The slowest traffic period was on 06/30/2009 at 12:45 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 58 and 117 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

48th Avenue West - Northbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 48th 183**

A study of vehicle traffic was conducted with HI-STAR unit number 2442. The study was done in the NB lane on 48th 183 in Lynnwood, wa in county. The study began on 01/11/2010 at 09:30 AM and concluded on 01/15/2010 at 12:00 PM, lasting a total of 98 hours, 30 minutes. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 5,136 vehicles passed through the location with a peak volume of 53 on 01/12/2010 at 04:45 PM and a minimum volume of 0 on 01/11/2010 at 11:30 PM. The AADT Count for this study was 1,251.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	69	313	1505	2177	828	174	41	15	8	3	2	1	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 28 mph with 92.5 percent exceeding the posted speed of 25 mph. The HI-STAR found 0.27 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 32.82 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
5000	89	42	4	1	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 5,089 which represents 99.10 percent of the total classified vehicles. The number of Small Trucks in the study was 42 which represents 0.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 4 which represents 0.10 percent of the total classified vehicles. The number of Tractor Trailers in the study was 1 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 01/12/2010 at 04:45 PM the average headway between the vehicles was 16.67 seconds. The slowest traffic period was on 01/11/2010 at 11:30 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 44 and 54 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

48th Avenue West - Southbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 48th 183**

A study of vehicle traffic was conducted with HI-STAR unit number 3386. The study was done in the SB lane on 48th 183 in Lynnwood, wa in county. The study began on 01/11/2010 at 09:30 AM and concluded on 01/15/2010 at 12:00 PM, lasting a total of 98 hours, 30 minutes. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 4,465 vehicles passed through the location with a peak volume of 36 on 01/13/2010 at 08:15 AM and a minimum volume of 0 on 01/11/2010 at 10:45 PM. The AADT Count for this study was 1,088.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 >
0	0	85	366	1743	1831	333	55	19	6	6	3	2	1	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 26 mph with 89.8 percent exceeding the posted speed of 25 mph. The HI-STAR found 0.27 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 30.34 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
4331	96	21	2	0	0	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 4,427 which represents 99.50 percent of the total classified vehicles. The number of Small Trucks in the study was 21 which represents 0.50 percent of the total classified vehicles. The number of Trucks/Buses in the study was 2 which represents 0.00 percent of the total classified vehicles. The number of Tractor Trailers in the study was 0 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 01/13/2010 at 08:15 AM the average headway between the vehicles was 24.32 seconds. The slowest traffic period was on 01/11/2010 at 10:45 PM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 42 and 54 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 100.00 percent of the time.

48th Avenue West - Northbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 19812 48 AVE W**

A study of vehicle traffic was conducted with HI-STAR unit number 1626. The study was done in the NB lane on 19812 48 AVE W in Lynnwood, WA in Snohomish county. The study began on 07/12/2010 at 09:00 AM and concluded on 07/16/2010 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 9,695 vehicles passed through the location with a peak volume of 30 on 07/14/2010 at 05:15 PM and a minimum volume of 0 on 07/13/2010 at 12:30 AM. The AADT Count for this study was 2,350.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 >			
0	0	280	877	2561	3858	1639	348	78	23	12	17	0	0	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 27 mph with 88.0 percent exceeding the posted speed of 25 mph. The HI-STAR found 0.30 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 33.02 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
9418	173	83	15	3	0	1	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 9,591 which represents 98.90 percent of the total classified vehicles. The number of Small Trucks in the study was 83 which represents 0.90 percent of the total classified vehicles. The number of Trucks/Buses in the study was 15 which represents 0.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 4 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 07/14/2010 at 05:15 PM the average headway between the vehicles was 9.89 seconds. The slowest traffic period was on 07/13/2010 at 12:30 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 43 and 72 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 99.49 percent of the time.

48th Avenue West - Southbound Before

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 19812 48 AVE W**

A study of vehicle traffic was conducted with HI-STAR unit number 3425. The study was done in the SB lane on 19812 48 AVE W in Lynnwood, WA in Snohomish county. The study began on 07/12/2010 at 09:00 AM and concluded on 07/16/2010 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 12,194 vehicles passed through the location with a peak volume of 55 on 07/14/2010 at 09:30 AM and a minimum volume of 0 on 07/14/2010 at 03:00 AM. The AADT Count for this study was 2,956.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 >			
0	0	160	657	2202	4212	3163	1109	327	123	56	70	0	0	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 30 mph with 93.2 percent exceeding the posted speed of 25 mph. The HI-STAR found 1.04 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 35.80 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
11287	531	213	34	11	3	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 11,818 which represents 97.80 percent of the total classified vehicles. The number of Small Trucks in the study was 213 which represents 1.80 percent of the total classified vehicles. The number of Trucks/Buses in the study was 34 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 14 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 07/14/2010 at 09:30 AM the average headway between the vehicles was 1.71 seconds. The slowest traffic period was on 07/14/2010 at 03:00 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 43 and 74 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 99.49 percent of the time.

48th Avenue West - Northbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 19812 48 AVE W**

A study of vehicle traffic was conducted with HI-STAR unit number 2440. The study was done in the NB lane on 19812 48 AVE W in Lynnwood, WA in Snohomish county. The study began on 10/10/2011 at 09:00 AM and concluded on 10/14/2011 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 8,792 vehicles passed through the location with a peak volume of 75 on 10/12/2011 at 05:15 PM and a minimum volume of 0 on 10/11/2011 at 12:30 AM. The AADT Count for this study was 2,131.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 >			
0	0	210	727	2411	3548	1489	298	53	18	17	12	0	0	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 27 mph with 89.3 percent exceeding the posted speed of 25 mph. The HI-STAR found 0.33 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 32.01 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
8513	169	82	15	3	0	1	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 8,682 which represents 98.90 percent of the total classified vehicles. The number of Small Trucks in the study was 82 which represents 0.90 percent of the total classified vehicles. The number of Trucks/Buses in the study was 15 which represents 0.20 percent of the total classified vehicles. The number of Tractor Trailers in the study was 4 which represents 0.00 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 10/12/2011 at 05:15 PM the average headway between the vehicles was 11.84 seconds. The slowest traffic period was on 10/11/2011 at 12:30 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 47 and 75 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 98.36 percent of the time.

48th Avenue West - Southbound After

**Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Lynnwood
Street: 19812 48 AVE W**

A study of vehicle traffic was conducted with HI-STAR unit number 3436. The study was done in the SB lane on 19812 48 AVE W in Lynnwood, WA in Snohomish county. The study began on 10/10/2011 at 09:00 AM and concluded on 10/14/2011 at 12:00 PM, lasting a total of 99 hours. Data was recorded in 15 minute time periods. The total recorded volume of traffic showed 10,688 vehicles passed through the location with a peak volume of 87 on 10/11/2011 at 07:45 AM and a minimum volume of 0 on 10/12/2011 at 03:00 AM. The AADT Count for this study was 2,591.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin.

Chart 1

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 >			
0	0	106	557	1892	3892	2638	905	295	118	48	122	0	0	0

At least half of the vehicles were traveling in the 26 - 30 mph range or a lower speed. The average speed for all classified vehicles was 30 mph with 93.7 percent exceeding the posted speed of 25 mph. The HI-STAR found 1.61 percent of the total vehicles were traveling in excess of 55 mph. The mode speed for this traffic study was 26 mph and the 85th percentile was 32.81 mph.

CLASSIFICATION

Chart 2 lists the values of the eight classification bins and the total traffic volume accumulated for each bin.

Chart 2

0 to 20	21 to 27	28 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 >
9767	534	221	36	11	4	0	0

Most of the vehicles classified during the study were Passenger Cars. The number of Passenger Cars in the study was 10,301 which represents 97.40 percent of the total classified vehicles. The number of Small Trucks in the study was 221 which represents 2.10 percent of the total classified vehicles. The number of Trucks/Buses in the study was 36 which represents 0.30 percent of the total classified vehicles. The number of Tractor Trailers in the study was 15 which represents 0.10 percent of the total classified vehicles.

HEADWAY

During the peak time period, on 10/11/2011 at 07:45 AM the average headway between the vehicles was 10.23 seconds. The slowest traffic period was on 10/12/2011 at 03:00 AM. During this slowest period, the average headway was 900.0 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 47 and 75 degrees Fahrenheit. The HI-STAR determined that the roadway surface was Dry 98.36 percent of the time.

F. Public Input Tables

Number of Letters Sent		607			
	175&32-33	168			
	56&206	93			
	56&170	216			
	191&74	130			
Number of Responses Received		123			
	175&32-33	30			
	56&206	10			
	56&170	46			
	191&74	37			
Response Percentage		20.88			
Number of Letters returned		18			
Overall Response		Positive			
Scoring:		Positive = 1	Negative = -1	Not Sure = 0	
Average overall	0.13	(0.33)	0.21	0.46	0.07
1. Have you noticed a decrease in speeding vehicles in the area of your traffic calming device?	2. Have you noticed a decrease in traffic as a whole in the area of your traffic calming device?	3. Do you believe your traffic calming device is working for your neighborhood?	4. Do you think the device is having a harmful effect in any way to traffic or your neighborhood?	5. Do you believe that a different traffic calming device would be a better choice?	
175&32-33	3.00	(14.00)	9.00	20.00	(2.00)
56&206	3.00	0.00	0.00	3.00	(1.00)
56&170	(6.00)	(21.00)	0.00	6.00	4.00
191&74	16.00	(5.00)	17.00	27.00	8.00

Traffic Calming Area		175th&32/33							
Number of Letters Sent		168							
Number of Responses Received		30							
Response Percentage		17.86							
Overall Response		Positive							
Scoring:		Positive = 1			Negative = -1		Not Sure = 0		
Average overall		0.10			(0.47)		0.30		
		0.30			0.67		(0.07)		
1. Have you noticed a decrease in speeding vehicles in the area of your traffic calming device?	2. Have you noticed a decrease in traffic as a whole in the area of your traffic calming device?	3. Do you believe your traffic calming device is working for your neighborhood?	4. Do you think the device is having a harmful effect in any way to traffic or your neighborhood?	5. Do you believe that a different traffic calming device would be a better choice?	6. If you answered 4 as yes, what type of device would you recommend?	7. Can we contact you if we need more information or follow-up questions on your answers?	8. Comments	9. Map Comments	
yes	not sure	yes	no	yes	permanent speed bumps	no	these traffic calming devices have helped than you so much. However cars slow down quickly for them and then speed back up immediately.	NA	
yes	yes	yes	no	no		yes	thank you for listening to our concerns and asking our input!	NA	
yes&no	not sure	yes	no	yes	little bump without the poles in the middle	no	the poles in the middle of the speed bumps are not effective. They do slow people's cars down but are a safety issue to those who don't and older people	NA	
yes	not sure	yes	no	not sure					
no	no	no	not sure	no					
no	no	no	yes	no	non - don't think one is needed because of the deistance of the street	yes			
not sure	not sure	yes	no	yes	I would like a full speed bump	yes			
yes	no	yes	no	yes		no	I need you to watch some reckless drivers who run over on the plastic sticks. I started to break and fall off whatch for this idiots	NA	
yes	yes	yes	no	yes		yes	The speed humps on these two locations was help on those 2 strees, but on 177th pl sw the cars still going fast down to maple road where people are going to the mall. Would be nice to have a speed humps on 177th pl sw please take a look thanks	NA	
yes	no	yes	no	no		yes	Thank you for the extra enforcement effort at the stop sign on 172nd and 33rd	NA	
no	no	no	no	not sure		yes	we are still a pretty busy street and maybe even busier now that people can't cut through to High School.	NA	
no	no	no	yes	yes	real speed bumps, raised black top speed bumps - larger - does not slow pick ups or larger vans	yes	These have not slowed traffic - still fly thru 4 way stop! Need police to patrol area more often, early am - early evenings worse - only a matter of time before a serious wreck - getting worse.	NA	
no	no	not sure	no	not sure		no			
not sure	no	not sure	no	not sure		yes	The speed humps are somewhat away from our house so it is difficult to judge the effect. However the stop sign on our corner for north - south traffic is often completely ignored. Some stop, some slow down a little before going through and some don't even attempt to slow down. I don't think the speed hump is affecting that at all.	NA	
yes	no	yes	no	yes		yes	I think sidewalks would help. Not just for cars. But for pedestrians. My wife thinks a speed sign and no littering sign wood work. Go with the sidewalk though.	NA	

Traffic Calming Area		175th&32/33							
Number of Letters Sent		168							
Number of Responses Received		30							
Response Percentage		17.86							
Overall Response		Positive							
Scoring:		Positive = 1	Negative = -1	Not Sure = 0					
Average overall		0.10	(0.47)	0.30	0.67	(0.07)			
1. Have you noticed a decrease in speeding vehicles in the area of your traffic calming device?	2. Have you noticed a decrease in traffic as a whole in the area of your traffic calming device?	3. Do you believe your traffic calming device is working for your neighborhood?	4. Do you think the device is having a harmful effect in any way to traffic or your neighborhood?	5. Do you believe that a different traffic calming device would be a better choice?	6. If you answered 4 as yes, what type of device would you recommend?	7. Can we contact you if we need more information or follow-up questions on your answers?	8. Comments	9. Map Comments	
no	no	no	yes	yes	same as everywhere else, nothing	yes	I want these harmful devices out of my neighborhood immediately. They have damaged the front suspension due to driving over them every day. Maybe the city can reimburse me for the \$1100 repair to my truck. Get them out now.	NA	
not sure	no	not sure	yes	yes	don't know	no			
yes	yes	yes	no	no	none other	yes	Thank you for looking into the safety of our neighborhood. It would be nice to have the speed bumps all the way across to slow them down all the way. Thank you Lonnie Thomas	NA	
no	no	no	yes	yes	speed humps create a circular traffic pattern around the neighborhood	yes	The speed bumps were installed in locations without supporting engineering esp. across & sidewalks this has created a very dangerous condition. Signs on 32nd have been knocked over and not repaired (see map) only low riders are slowing down all others use this as a ramp	on 32nd north of bump sign knocked down	
no	no	not sure	no	not sure		yes	does not stop people from running the stop sign at 176th		
yes	no	yes	no	not sure		no			
yes	yes	yes	no	not sure		yes	Lynnwood really needs sidewalks. It is very hard as a mom to try to walk around the neighborhood with 2 small kids and no sidewalks		
yes	no	yes	no	no		yes	These are very hard on your car they knock your car out of alignment		
no	no	no	no	yes	The thin speeding pump would really slow then down	yes	people are really still speeding worse the hump is not working at all it will be better the normal cement pump long thin one and can you please install more than one I don't let my child out to play it save us the speed is bad.	NA	
no	no	no	no	no		no			
yes	not sure	yes	no	no		yes	I think the traffic calming device is working		
no	no	not sure	no	no		no	It annoying to have the space between the hump sections. It would be better as one solid piece, or at least no spaces.		
yes	no	yes	no	not sure		yes			
yes	not sure	yes	no	not sure		no	you should install a traffic calming device on 172nd st sw between 32nd and 33rd		
not sure	yes	yes	no	not sure	the same you have	yes	We need one next to our house. 177 and 32nd pl west please!		

Traffic Calming Area		56th & 206th						
Number of Letters Sent		93						
Number of Responses Received		10						
Response Percentage		10.75						
Overall Response		Positive						
Scoring:		Positive = 1	Negative = -1	Not Sure = 0				
Average overall		0.30	0.00	0.00	0.30	(0.10)		
1. Have you noticed a decrease in speeding vehicles in the area of your traffic calming device?	2. Have you noticed a decrease in traffic as a whole in the area of your traffic calming device?	3. Do you believe your traffic calming device is working for your neighborhood?	4. Do you think the device is having a harmful effect in any way to traffic or your neighborhood?	5. Do you believe that a different traffic calming device would be a better choice?	6. If you answered 4 as yes, what type of device would you recommend?	7. Can we contact you if we need more information or follow-up questions on your answers?	8. Comments	9. Map Comments
yes	yes	yes	no	no		yes	I live on the corner of 55th & 204th st sw and we need something to control speeders on 204th. I have small grandchildren and neighbors have young children. People drive to fast on 204th st sw	NA
yes	yes	yes	no	no		no	NA	NA
no	no	no	no	yes	larger or bumps	yes	Busse still speed about 30-40 mph racers find it a challenge. This device does nothing	NA
yes	not sure	yes	no	not sure		yes	I live at 54th and 206th for 15 years. I would love to see a traffic circle or similar on this intersection. Drivers bypassing cedar valley rd (52nd) use this route and it has become busy, and cars and trucks drive very gast. Many children present. This intersection is a natural low point for 2 blocks each way and drivers run up their speed into and out of it as they travel 54th Ave W.	NA
yes	no	no	not sure	not sure		no	The traffic calming device appears to be effective on the streets where the device is implemented. However I notice an increase of speeding vehicles in nearby streets.	NA
not sure	not sure	not sure	not sure	not sure		yes	I live too far around the corner to know anything about this	NA
not sure	not sure	not sure	not sure	not sure		not sure	I don't live by this thing and see this survey as a big waste of tax dollars. If you used tax dollars to put it in, in the first place just leave it	NA
not sure	not sure	no	yes	not sure	Any device on all areas	yes	I think slowing traffic on 56th & 206th makes more traffic on 54th St.	NA
yes	no	yes	no	yes	speed bumps	yes	beaglebrothers@hotmail.com	
no	yes	no	yes	yes	speed bumps and patrols occasionally	no	This device averted traffic to 55th Ave W and since it is such a long street people speed through here. Also there needs to be a stop sign on 206th and 55th everyone believes they have the right of way. I have almost been hit numerous times	

Traffic Calming Area		56th & 170th									
Number of Letters Sent		216									
Number of Responses Received		46									
Response Percentage		21.30									
Overall Response		Negative									
Scoring:		Positive = 1			Negative = -1		Not Sure = 0				
Average overall		0.13			0.46		0.00			0.13	0.09
1. Have you noticed a decrease in speeding vehicles in the area of your traffic calming device?	2. Have you noticed a decrease in traffic as a whole in the area of your traffic calming device?	3. Do you believe your traffic calming device is working for your neighborhood?	4. Do you think the device is having a harmful effect in any way to traffic or your neighborhood?	5. Do you believe that a different traffic calming device would be a better choice?	6. If you answered 4 as yes, what type of device would you recommend?	7. Can we contact you if we need more information or follow-up questions on your answers?	8. Comments	9. Map Comments			
no	no	no	no	not sure		no	should have left stop signs in place				
no	no	no	yes	yes	4 way stop	yes	This traffic calming device has allowed north/south traffic on 56th Ave W to zip through this intersection without regard for which car is there first. These drivers seem to view it as though the cars on 56th have a stop sign.	From the north - Cars travel at a high speed and I have almost been hit several times when I come down 56th and arrive at the intersection 1st. From the south - Hischool drivers use this as a quick way to school in the morning which is a hazard for the kids at the elementary school bus stop on 56th and for those of us coming down 170th.			
no	no	no	yes	yes	keep the circle but make it a 4 way stop	yes	since there are no stop signs some drivers use the intersection as a slalom they have the right-of-way even when a driver on 170th is approaching from the right. Leave the circle and add a 4 way stop this will slow speeds down drivers who tend to roll through their stops will still have to dodge the circle. Also, the stop signs will help those idiots who can't figure out who has the right-of-way at an unmarked intersection				
yes	not sure	yes	no	no	NA	not sure	na				
not sure	no	no	yes	yes	bumps	yes	this intersection is not the issue. I live on 52nd and cannot see anyone using 56th or 170th as a "shortcut" the speeders most likely live in the neighborhood.				
yes	no	yes	no	no		no					
yes	yes	yes	no	no		yes	best ever				
yes	not sure	yes	no	not sure	east/west could be improved maybe	yes	The visibility coming west from 170th pl is a bit tricky before you enter the intersection(to me)				
no	no	not sure	not sure	not sure		yes	main problem is vehicles traveling on 56th Ave W				
no	no	no	yes	yes	add stop signs	yes					
yes	no	yes	no	no		no					
yes	no	yes	no	yes		yes					
no	yes	yes	no	no		yes					
no	no	not sure	no	no		no					
no	no	no	yes	no	none	no					
no	no	no	yes	not sure		yes	my name is mary deenan. Poor visibility getting into intersection plus the public does not seem to understand the device. When going west on 56th you can't see car driving south on 170th St SW				
yes	not sure	yes	no	not sure	stop signs back	no					
no	no	no	yes	yes	put back 4 way stops in addition to the traffic circle and/or speed bumps	yes	the circle allows traffic to pass through the intersection without even turning the steering wheel around the circle, especially when traveling n-s Pam Easman				
no	no	no	not sure	not sure	none		cars speed through the traffic circle with little pause to see if any cross traffic is coming. I travel the longer way home to avoid this circle.				
no	no	no	yes	yes	go back to the 4 way stop and leave the traffic circle in place	yes	cars go faster than ever without the stop signs. If the circle were bigger it would be better. When coming from 168th you can go past the circle without slowing down or turning your car. A bigger circle may be affective. It is confusing w/o stop or yield signs.				

Traffic Calming Area		56th & 170th						
Number of Letters Sent		216						
Number of Responses Received		46						
Response Percentage		21.30						
Overall Response		Negative						
Scoring:		Positive = 1	Negative = -1	Not Sure = 0				
Average overall		(0.13)	(0.46)	0.00	0.13	0.09		
1. Have you noticed a decrease in speeding vehicles in the area of your traffic calming device?	2. Have you noticed a decrease in traffic as a whole in the area of your traffic calming device?	3. Do you believe your traffic calming device is working for your neighborhood?	4. Do you think the device is having a harmful effect in any way to traffic or your neighborhood?	5. Do you believe that a different traffic calming device would be a better choice?	6. If you answered 4 as yes, what type of device would you recommend?	7. Can we contact you if we need more information or follow-up questions on your answers?	8. Comments	9. Map Comments
yes	no	yes	no	no		yes	we need another traffic circle!! I live on the corner of 169th and 56th and I have noticed that cars are flying down that hill and eventually slowing after they pass my corner as they approach the circle. Traffic would be better controlled if a 2nd circle was installed at 169th and 56th. I notice that high school age drivers and delivery trucks etc (UPS) are the worst offenders. There are many children who live on or near this corner 169th & 56th and as a mother of 3 I am afraid to let my kids out to play for fear that they will get hurt.	
no	no	no	no	not sure		yes	I live on the corner of 172nd pl sw & 56th. It seems that after they go thru the round about they speed even more my name is Al Pikeley call me if you want an honest opinion.	
no	no	no	yes	yes	speed humps	yes		
yes	yes	yes	no	no		yes	why did you 44cents for our comments	
yes	yes	yes	no	no		yes	We live on 172nd st and have noticed an increase in traffic on our street - perhaps cars avoiding the calming device. We have also witnessed on our walk near there that cars do not slow down.	
not sure	not sure	not sure		not sure				
yes	no	yes	no	no		no		
yes	yes	yes	no	no				
yes	yes	yes	yes	no	I don't think different, just larger - the circle is too small	yes	The circle is too small cars are speeding straight thru. This circle does not cause cars to slow down enough to go around - I have seen kids in danger because cars still aren't forced to slow down to go around	
yes	no	yes	no	not sure		yes	I wish you would put one on 169th Pl SW. So many small children and too many speeding.	
yes	no	yes	no	no		yes	I love this device I believe it is a win-win... good choice	
no	no	not alone	yes	yes	need to add speed bumps on 170th and 4 way stop		dangerous as people think that 56th has right of way.	
not sure	yes	yes	no	yes	speed bump	no		
no	no	no	yes	yes	stop signs back	yes	There has been an increase of vehicles speeding through the intersection, not paying attention to the other oncoming cars. This is also a bus stop for children and we feel this is very unsafe. Please remove this.	
no	no	no	yes	no	returning the stop signs	yes	stop signs work the best. The camera's that were install other places seem to work in getting people to obey the signals.	
no	no	no	not sure	not sure			enlarge the diameter of the calming device	
no	no	no	yes	yes	the four way stop signs should be reinstalled	yes	recently a car drive into my yard and broke off a sprinkler head. I have put an x on the spot.	
not sure	not sure	yes	no	no		no	it's better than the stop sign	
no	no	no	yes	no	put stop sign back	yes	Traffic circle does not work. All the kids do is speed around it and play chicken with whoever happens to be there at the same time. I ride a motorcycle thru area daily and have had more close calls there than anywhere else. Kids also write things in the middle and it doesn't go away until someone washes it off. It doesn't work	

Traffic Calming Area		56th & 170th							
Number of Letters Sent		216							
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Scoring:		Positive = 1	Negative = -1	Not Sure = 0					
Average overall									
	(0.13)	(0.46)	0.00	0.13	0.09				
1. Have you noticed a decrease in speeding vehicles in the area of your traffic calming device?	2. Have you noticed a decrease in traffic as a whole in the area of your traffic calming device?	3. Do you believe your traffic calming device is working for your neighborhood?	4. Do you think the device is having a harmful effect in any way to traffic or your neighborhood?	5. Do you believe that a different traffic calming device would be a better choice?	6. If you answered 4 as yes, what type of device would you recommend?	7. Can we contact you if we need more information or follow-up questions on your answers?	8. Comments	9. Map Comments	
no	no	no	yes	yes	stop signs back	yes	There use to be a 4way stop where the round about was installed. Traffic use to stop bu now people just speed by and whip around the round about Traffic speed is worse than ever.		
yes	not sure	yes	no	no			Barb Beaman 5221 172nd Pl SW I haven't seen this, but what keeps trucks or cars from driving over the edges - calming device depth could be greater.		
no	no	no	not sure	yes	need combination we need stop signs back also speed bumps on 56th may help too	yes	The circle is not wide enough on 56th so cars speed around it and drive over it. So a wider circle would help and going back to stop signs (4 way stop.)	oval circle	
yes	yes	yes	no	no		yes			
no	not sure	no	yes	yes	4 way stop or bigger circle	yes			
not sure	yes	yes	no	no		yes	this device works well. There was a 4 way stop system before, this is better.		
not sure	no	no	yes	yes	4 way stops and speed bumps	yes	with no stop signs now no one has a reason to slow down at the intersection. Dangerous.		

Traffic Calming Area		191st & 74th						
Number of Letters Sent		130						
Number of Responses Received		37						
Response Percentage		28.46						
Overall Response		Positive						
Scoring:		Positive = 1	Negative = -1	Not Sure = 0				
Average overall		0.43	0.14	0.46	0.73	0.22		
1. Have you noticed a decrease in speeding vehicles in the area of your traffic calming device?	2. Have you noticed a decrease in traffic as a whole in the area of your traffic calming device?	3. Do you believe your traffic calming device is working for your neighborhood?	4. Do you think the device is having a harmful effect in any way to traffic or your neighborhood?	5. Do you believe that a different traffic calming device would be a better choice?	6. If you answered 4 as yes, what type of device would you recommend?	7. Can we contact you if we need more information or follow-up questions on your answers?	8. Comments	9. Map Comments
yes	yes	yes	no	no		yes	we love our traffic circle - cut down traffic and mainly speed - we love it!! Thank you so much !! we have had people hit our gate / fence before so this is great. I hope to see more in Lynnwood --william, marilyn, rich and victoria caldwell.	ne corner is house
not sure	not sure	not sure	no	no			I live on 73rd pl w I use 74th to get to Perrinville. These devices are satisfactory for my use.	NA
yes	yes	yes	not sure	not sure		yes		NW corner house
yes	yes	no	yes	yes	The street needs to be widened a small amount. Having a pickup truck go through is bad ? On a straight section it works at an intersection not good	yes		
yes	not sure	yes	no	not sure		yes	maybe you should put speed bumps on 72nd and 192nd pl sw. Cars are speeding down my street very frequently.	NA
no	no	no	no	yes		yes	The speed humps were useless for cars as soon as everyone found out the faster you go over them the less noticeable. Also there are not enough devices. It is still a dragstrip from the speed humps to the circle!	Your map is wrong. Located down the strip
yes	not sure	yes	no	not sure		no	would like a traffic circle on 192nd pl & 72nd and a speed hump on 192nd pl sw	7214 192nd Pl SW
not sure	yes	yes	no	no		yes	I would like speed humps put on our streets 194th Pl SW and 72nd Pl SW	NA
yes	yes	yes	no	no		yes	we need more of these calming devices especially on 71st pl w and 193rd Lynnwood	NA
no	no	no	no	noth sure		no		
no	no	no	no	yes	more speed bumps	yes	people are still speeding between circle and speed hump	NA
yes	no	yes	no	no		no	Traffic Circle more effective than speed bump	
yes	no	yes	no	not sure			we need another one @ 192nd pl w between 68th 72nd	NA
yes	yes	yes	no	no		yes	What you installed has been great! Traffic speed still picks up between the round a bout and the speed bump. I still feel a 4way stop is needed at 192nd st sw. Would keep traffic slowed between these two improvements 3 way stop at 194th st would be good. during ball season many fail to completely stop at the bottom of the hill	NA
yes	not sure	yes	no			yes	would like to see a second speed bump between 76th and the traffic circle.	NA
not sure	yes	no	not sure	no		no		
not sure	no	not sure	no	yes	black top speed bump	yes	the young speed right over the speed bump.	
not sure	not sure	not sure	not sure	not			do not pass that direction to judge it's effectiveness	
yes	no	not sure	no	yes	speed bump further south	yes	people going south and north still speed up to these new calming devices	NA
some	not sure	some	no	yes	additional device further south on 194th St	yes	need additional calming device closer to 196th St on 74th	
no	no	no	yes	not sure		no	speed humps encourage traffic to accelerate towards 196th Faster than normal. Plus, it is in the most inconvenient spot next to the mail box.	NA
no	no	not sure	no	yes	bups			

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Average overall		0.43	(0.14)	0.46	0.73	0.22			
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no	not sure	not sure	not sure	not sure			since I live 2 blocks away this does not effect me much. However as a driver, I avoid inconvenience of the speed bumps and drive around on other roads 30% of the time. PS I found the website very difficult - found no info on traffic count results before and after traffic calming devices installed.	NA	
yes	yes	yes	no	no		yes	I would like to see some speed bumps on 193 @73rd pl to curtail the speeding here.		
yes	no	yes	no	yes		yes	It is working but more needs to be done - one speed bump isn't enough - people speed up/slow down then speed back up - plus some people drive right over the yellow bars - and if you take the bump fast people hardly feel it. Love the effort and the request for feedback	need more bumps, stop sign at 74th and 194th great traffic circle.	
not sure	not sure	not sure	no	not sure					
yes	no	yes	yes	not sure	see comments	yes	speed bumps separated by the posts lane dividers are located directly in front of mail boxes causes problems when cars stop to pick up mail. Love the speed bumps ! In the past cars would actually race down our street before the speed bumps.		
yes	no	yes	no	no		yes			
yes	no	yes	no	no		yes	we need one at 71st and 193rd due to speeders and fast traffic on 71st		
yes	no	yes	no	no		yes			
yes	not sure	yes	no	no		yes	speed bumps definitely slow traffic. They keep traffic from coming through		
yes	yes	yes	no	not sure	don't know what other options would be		Any calming device is better than none at all. Thank you for paying attention to the traffic issue on 74th ave W and 191st st sw. Please don't discontinue. Sidewalks would be beneficial for a safer neighborhood		
no	not sure	yes	no	no		yes			
yes	yes	yes	no	no		yes			
yes	no	yes	no	not sure		yes	The speed bump doesn't help for motorcycles because they can drive through the gap in the middle. Also people like to knock down the posts in the middle. A bump that goes all the way across the street may be more helpful.		