

## **MEMORANDUM**

Date:	April 18, 2025	TG:	1.23191.01
To:	Phillip Hill, City Administrator, City of Lake Forest Park		
From:	Bahar Azin, PhD and Jon Pascal, PE, Transpo Group		
Subject:	Evaluation of Additional Traffic Safety Cameras		

This memorandum evaluates potential new locations for additional traffic safety cameras in the City of Lake Forest Park. The analysis and information contained in the memorandum is meant to assist the City in determining whether new traffic safety cameras - both speed cameras and redlight cameras – should be installed and at what locations.

# **Purpose**

The City of Lake Forest Park is considering the installation of automated speed cameras along SR 522 and SR 104, another speed camera on NE 178th Street, and a red-light camera at the intersection of SR 104 and 35th Ave NE. The purpose of the cameras would be to enhance roadway safety by encouraging and enforcing compliance with existing traffic safety regulations. This memorandum evaluates potential locations for the cameras by evaluating available speed. safety, and citation data to determine if additional enforcement would improve compliance of existing posted speed limits and other traffic regulations such as stoplight violations. The analysis aligns with RCW 46.63.220, which governs the use of automated traffic safety cameras in Washington State.

# **Approach**

The memorandum is based on an evaluation of safety and traffic operations along the SR 522. SR 104, and NE 178th Street corridors. The analysis considers vehicle speeds, traffic volumes, crash data, and roadway context to assess current conditions. For the proposed red-light camera, red-light running violations are evaluated as well. The study examines the potential for traffic safety cameras to address the requirements of RCW 46.63.220.

# State Law on Automated Traffic Safety Cameras

State law RCW 46.63.220 allows the use of automated traffic safety cameras to monitor speed violations in specific locations, including school speed zones, school walk zones, hospital speed zones, public park speed zones, roadway work zones, and along state highways within city limits that are classified as city streets. Automated traffic safety cameras are also allowed to be utilized to detect stoplight violations. The City has already located cameras to monitor stoplight violations along SR 522, and speed violations along several city arterials.

Before implementing or relocating cameras, an analysis of proposed locations must be conducted and documented. RCW 46.63.220 requires that the analysis must demonstrate a need for the cameras based on factors such as evidence of speeding, collision rates, near-miss reports, travel by vulnerable road users, or the ineffectiveness of other mitigation measures.

The law also mandates public notice, signage indicating automated camera enforcement, and annual reporting on traffic safety outcomes for each location with a camera. Additionally, cameras may only capture vehicle information, preserving privacy by excluding driver or passenger identification.

# **Automated Speed Enforcement Cameras along State Highways**

As mentioned, State law RCW 46.63.220 allows the use of automated traffic safety cameras to monitor speed violations along state highways within city limits that are classified as city streets, such as SR 522 and SR 104.

## **Corridor Descriptions**

**SR 522** is a four-lane east-west state route with two travel lanes in each direction and a posted speed limit of 40 mph through most of Lake Forest Park, with a small segment signed at 35 mph near the border with the City of Seattle. The roadway, which is classified as a principal arterial, provides access to a variety of commercial and residential areas along its length. The speed limit on SR 522 changes to 35 mph in the City of Kenmore, located immediately to the east.

**SR 104** (Ballinger Way NE) is a two-lane north-south state route with a posted speed limit of 35 miles per hour (mph) from the northern city limits to 35th Avenue NE. The speed limit decreases to 30 mph between 35th Avenue NE and the intersection with SR 522. The roadway has a single lane in each direction and is classified as a principal arterial based on the City's Comprehensive Plan. The route passes through primarily residential areas, with notable landmarks including a school located south of 35th Avenue NE and the Town Center commercial area situated near the southernmost section of the corridor. A roundabout is planned on SR 104 at its intersection with 40th Place NE within the 30 mph speed zone.

The existing posted speed limits in and surrounding the City of Lake Forest Park are shown in Figure 1. The figure shows the posted speed limits along both state highways. Blue dots along each route indicate locations where speed data was collected using tube counters as part of this study effort.

#### **Collision Records**

Crash records over the most recent complete five-year period were reviewed for the corridor. The crash records are summarized in Table 1. Historical crash data was provided by WSDOT for the period of July 1, 2020, to July 31, 2024.

Table 1. Annual Collision Summary – 2020 to July 2024

Roadway Segment	2020	2021	2022	2023	2024 <sup>1</sup>	Total	Annual Average
SR 104	5	8	6	7	3	29	6.3
SR 522	11	17	12	14	4	58	12.7

Source: WSDOT, 2024.

Note: Under 23 U.S. Code § 409 and 23 U.S. Code § 148, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

1. 2024 collision data shown is for the period between January and July.

As shown in Table 1, SR 104 has experienced an annual average of more than six collisions, while SR 522 has seen an annual average of more than 12 collisions over the past five years. During this period, 29 total collisions were recorded on SR 104, and 58 collisions occurred along SR 522. The majority of these collisions resulted in property damage only, with injury rates of 30 percent on SR 104 and 28 percent on SR 522. One fatality was recorded on SR 104 during the



five-year period, involving a pedestrian on a scooter who was struck due to a failure to yield the right-of-way to a motorist.

Of the total collisions on SR 104, more than half of the collisions involved improper vehicle movements (improper passing, improper backing, failure to yield right-of-way, disregarding traffic control signs, or exceeding safe speeds). Similarly, on SR 522, the majority of collisions were associated with improper vehicle movements and one involved a bicyclist with minor injury.

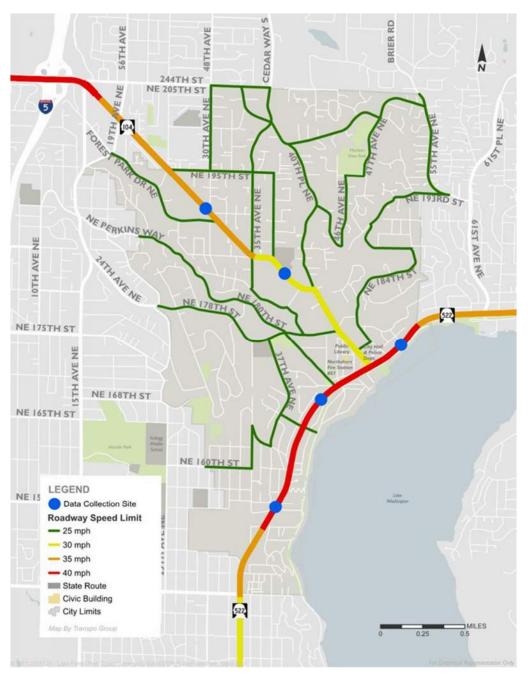


Figure 1. Lake Forest Park Posted Speed Limits



## Vehicle Speeds

Vehicle speeds were recorded at two locations on SR 104 and three locations on SR 522 using traffic counting tubes. For the two locations on SR 104 and two of the locations on SR 522, data was collected for one week in October 2024 and captured hourly speed measurements for both travel directions at each site. For the remaining location on SR 522 (between SR 104 and the city boundary with Kenmore), data was collected for one week in April 2025. During the data collection period, the posted speed limit was 40 mph at the three data collection sites on SR 522. For SR 104, the posted speed limit was 30 mph at the southern data collection site and 35 mph at the northern data collection site.

Key speed indicators include the median speed, 85th percentile speed, 10 mph pace, percent in pace, and percent of vehicles 5 mph over the speed limit. The key indicators are used to help identify if a speeding problem exists and to what extent. The definition and purpose of the speed indicators are described below. Table 2 summarizes the key speed indicators along the SR 522 corridor. Table 3 summarizes the key speed indicators along the SR 104 corridor.

Table 2. SR 522 Speed Data Summary (2024-2025)

Indicator —	SR 522 (Eas	st of SR 104)	SR 522 (No	rth of 165th)	SR 522 (Sou	th of 165th)
indicator —	WB	EB	WB	EB	WB	EB
Posted Speed Limit (mph)	40	40	40	40	40	40
Average Daily Traffic (vehicles)	20,500	20,600	15,900	11,400	16,600	16,500
Median Speed (mph)	44	44	43	39	40	38
85th Percentile Speed (mph)	49	49	48	45	46	44
10 mph Pace (mph)	39-49	39-49	38-48	35-45	36-46	34-44
% in Pace	71%	68%	67%	53%	57%	55%
% of Vehicles 5 mph over Speed Limit <sup>1</sup>	42%	39%	38%	17%	20%	10%

<sup>1.</sup> Represents the vehicles exceeding the posted speed limit by at least 5 mph.

Table 3. SR 104 Speed Data Summary (2024)

lundin et eu	SR 104 (N	North of 35th)	SR 104 (South of 35th)		
Indicator -	NB	SB	NB	SB	
Posted Speed Limit (mph)	35	35	30	30	
Average Daily Traffic (vehicles)	6,900	7,200	7,200	7,700	
Median Speed (mph)	35	35	33	35	
85th Percentile Speed (mph)	40	40	37	39	
10 mph Pace (mph)	31-41	31-41	28-38	30-40	
% in Pace	72%	76%	79%	84%	
% of Vehicles 5 mph over Speed Limit <sup>1</sup>	13%	14%	28%	48%	

<sup>1.</sup> Represents the vehicles exceeding the posted speed limit by at least 5 mph.



### **Key Speed Indicators**

**Median Speed**. The speed in which 50 percent of all traffic is traveling at or below. The statistical median is used as a point of reference in understanding the prevailing conditions. Ideally, and in compliance with the City's traffic calming policy, the median speeds should be at or under the posted speed limit.

**85th Percentile Speed**. The speed in which 85 percent of the traffic is traveling at or below. Typically, and in compliance with the City's traffic calming policy, the 85th percentile speed should be within 0 to 5 mph of the posted speed. 85th percentile speeds of 5 to 10 mph over the posted speed are of concern, but still within typical ranges, and per the City's traffic calming policy, typically addressed with education and enforcement, such as speed feedback signs.

**10 mph Pace**. The 10 mph pace is a measure of the range in speeds and is defined as the consecutive 10 mph range containing the highest number of vehicles. Typically, the upper limit of the 10 mph pace should be near the posted speed limit.

**Percent in Pace**. The percent in pace represents the percentage of all vehicles traveling within the 10 mph pace. It is desirable to have a high percentage of the total number of vehicles in the 10 mph pace.

**Percent of Vehicles 5 mph over the Speed Limit**. A measure representing the number of vehicles traveling over the posted speed limit by at least 5 mph. This represents the percentage of vehicles that could be the target of automated traffic safety cameras since citations are usually given to vehicles exceeding the speed limit by more than 5 mph.

#### **SR 522 Vehicle Speeds**

As shown in Table 2, 42 percent of total daily westbound traffic and 39 percent of total daily eastbound traffic along SR 522 north of SR 104 travel more than 5 mph above the posted speed limit. Between SR 104 and 165th Street, 38 percent of total daily westbound traffic and 17 percent of total daily eastbound traffic exceed the speed limit by more than 5 mph. South of 165th Street on SR 522, 20 percent of westbound traffic and 10 percent of eastbound traffic exceed the speed limit by more than 5 mph.

The speed distribution along SR 522 indicates that most vehicles in the eastbound direction travel near the posted speed limit, except along the segment north of SR 104 where exceeding the posted speed limit occurs more frequently. The westbound traffic on SR 522 tends to exceed the posted speed limit more frequently along the entire corridor within the city.

#### **SR 104 Vehicle Speeds**

On the northern half of SR 104, where the posted speed limit is 35 mph, the percentage of vehicles exceeding the speed limit by more than 5 mph is 14 percent of total daily southbound traffic and 13 percent of total daily northbound traffic. However, 28 percent of total daily northbound traffic and 48 percent of total daily southbound traffic on the southern half of SR 104 travel more than 5 mph over the speed limit.

The City recently coordinated with WSDOT to reduce the speed limit on SR 104 north of 35th Avenue NE from 40 mph to 35 mph. As shown in Table 3, the median speed for this segment aligns with the adjusted speed limit and the 85th percentile speed is only 5 mph higher than the adjusted speed limit in both directions of SR 104. This speed data indicates a high level of speed limit compliance along this segment of SR 104. Since the City and WSDOT recently reduced the speed limit on this segment and there is a high compliance rate, the data does not suggest that the segment would be a good candidate for automated speed enforcement cameras.



### Findings/Recommendations

The key findings and recommendations of the speed and safety analysis along SR 522 and SR 104 are the following:

#### SR 522 Corridor

- Vehicle Speeds: Existing speed data shows a persistent trend of vehicles traveling over the speed limit, particularly in the westbound direction between NE 165th Street and SR 104 and north of SR 104 in both directions. For the segment north of SR 104, records show that approximately 42 percent of vehicles travel 5 mph or greater above the speed limit in the westbound direction and 39 percent in the eastbound direction. Between NE 165th Street and SR 104, 38 percent of vehicles travel 5 mph or greater above the speed limit in the westbound direction and 17 percent in the eastbound direction.
- Collision Records: Over the past five years, the SR 522 corridor has experienced an average of more than 12 collisions annually. Most collisions resulted in property damage only, with 28 percent of these collisions involving injuries. Exceeding the safe speed was a contributing factor in two of the collisions.

**Recommendation for SR 522:** Given the analysis findings, the City could consider the use of automated speed enforcement cameras based on state law RCW 46.63.220, which allows such cameras to be used in locations experiencing consistent speeding or safety concerns along state highways. The potential locations where speeding is most prevalent along SR 522 are east of SR 104 and north of NE 165th Street. Either location could be a candidate for automated speed enforcement cameras.

### **SR 104 Corridor**

- Vehicle Speeds: Existing speed data shows differences in vehicle speeds between the
  northern and southern segments of SR 104. The more significant number of vehicles
  exceeding the speed limit is observed along the southern segment of SR 104, south of
  35th Avenue NE, where the speed limit is 30 mph. Records show that approximately 48
  percent of daily vehicles travel over 5 mph above the speed limit in the southbound
  direction and 28 percent in the northbound direction.
- Collision Records: Over the past five years, the SR 104 corridor has experienced an
  average of more than 6 collisions annually. Approximately 30 percent of the collisions
  resulted in injuries including one fatal collision involving a pedestrian during this period.
  Studies have shown that vehicle speeds are directly linked to the severity of collisions.

Recommendation for SR 104: Based on the analysis, the City could consider the use of automated speed enforcement cameras based on state law RCW 46.63.220, which allows such cameras to be used in locations experiencing consistent speeding or safety concerns along state highways. The roadway segment adjacent to Lake Forest Park Elementary School, where speeding is most prevalent, is a potential location for this intervention. One criteria for placement of automated enforcement cameras is whether the location serves vulnerable users. This location on SR 104 is next to an elementary school, and young children would be consistent with the definition of vulnerable users.



# Red-light Camera at SR 104 / 35th Avenue NE Intersection

State law RCW 46.63.220 and 46.63.230 allow municipalities to use automated traffic safety cameras to detect stoplight violations at intersections of two or more arterials controlled with a traffic signal. The City requested that the intersection of SR 104 and 35th Avenue NE be analyzed for an automated enforcement camera to detect stop light violations. These cameras are otherwise referred to as "red-light cameras." The City has been utilizing similar cameras along SR 522 for several years.

### Intersection Description

SR 104 (Ballinger Way NE) is a two-lane north-south state route with a posted speed limit of 35 miles per hour (mph) from the northern city limits to 35th Avenue NE, and 30 mph between 35th Avenue NE and SR 522. The roadway has a single lane in each direction and is classified as a principal arterial based on the City's Comprehensive Plan.

35th Avenue NE is a two-lane north-south route with a posted speed limit of 25 mph and is classified as a minor arterial. The intersection of the two roadways is controlled by a traffic signal. At the intersection, there are left-turn lanes provided along SR 104, but not along 35th Avenue NE.

#### **Collision Records**

Crash records over the most recent complete five-year period were reviewed for the intersection. The crash records are summarized in Table 4. Historical crash data was provided by WSDOT for the period of July 1, 2020, to July 31, 2024.

Table 4. Annual Collision Summary – 2020 to July 2024

Intersection	2020	2021	2022	2023	2024 <sup>1</sup>	Total	Annual Average
SR 104/35th Ave NE	2	2	0	1	2	7	1.5

Source: WSDOT, 2024.

Note: Under 23 Ú.S. Code § 409 and 23 U.S. Code § 148, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

1. 2024 collision data shown is for the period between January and July.

As shown in Table 4, the intersection of SR 104 and 35th Avenue NE has experienced an annual average of more than one collision. During this period, a total of seven collisions were recorded near the intersection of SR 104 and 35th Avenue NE. Of these, four resulted in injuries.

## Vehicle Counts and Speeds

Vehicle speeds were recorded at two locations on SR 104 using traffic counting tubes. Data was collected for one week in October 2024 and captured hourly speed measurements for both travel directions at each site. The posted speed limit was 30 mph at the southern data collection site and 35 mph at the northern data collection site which are shown in Figure 1. Vehicle turning movement counts were collected at the intersection of SR 104 and 35th Avenue NE during a weekday PM peak hour and were found to be approximately 1,455 per hour.

Key speed indicators include the median speed, 85th percentile speed, 10 mph pace, percent in pace, and percent of vehicles 5 mph over the speed limit. The definition and purpose of the speed indicators were described is the evaluation of speed enforcement cameras in the previous section. Table 5 summarizes the key speed indicators along SR 104 in the vicinity of the intersection.



Table 5. Speed Data Summary (2024)

la dia stan	SR 104 (North	of 35th Ave)	SR 104 (South	South of 35th Ave)	
Indicator	NB	SB	NB	SB	
Posted Speed Limit (mph)	35	35	30	30	
Average Daily Traffic (vehicles)	6,900	7,200	7,200	7,700	
Median Speed (mph)	35	35	33	35	
85th Percentile Speed (mph)	40	40	37	39	
10 mph Pace (mph)	30.5-40.5	30.8-40.8	27.8-37.8	29.9-39.9	
% in Pace	72.3	75.5	79%	84%	
% of Vehicles 5 mph over Speed Limit <sup>1</sup>	13%	14%	28%	48%	

<sup>1.</sup> Represents the vehicles exceeding the posted speed limit by at least 5 mph.

As shown in Table 5, there are differences in vehicle speeds east and west of 35th Avenue NE given the intersection is where the posted speed limit transitions between 35 and 30 mph on SR 104. On the northern half of SR 104, where the posted speed limit is 35 mph, the percentage of vehicles exceeding the speed limit by more than 5 mph is 14 percent of total daily southbound traffic and 13 percent of total daily northbound traffic. However, 28 percent of total daily northbound traffic and 48 percent of total daily southbound traffic on the southern half of SR 104 travel more than 5 mph over the speed limit.

It is possible the changes in the posted speed limit in the vicinity of the intersection may influence travel behavior and safety at the intersection.

### Red-Light Running Citations and Public Complaints

Red-light running citation data for the intersection of SR 104 and 35th Avenue NE was acquired from the Lake Forest Park Police Department. According to the information received, no stoplight violation citations have been recorded at this intersection over the past five years.

However, anecdotal feedback from conversations with the police department and the city indicates two documented complaints in this area since 2017 regarding speeding. Traffic safety complaints in the City are typically forwarded to a traffic calming group comprised of the police, public works, and a traffic engineering consultant. The two documented complaints near the intersection, which both occurred in 2020, have resulted in the implementation of a speed feedback sign, and a reduction of the posted speed limit in the northern part of SR 104 to 35 mph in August of 2024. Additionally, there have been incidents involving crashes with a fence located just east of the intersection, which was most recently struck by a vehicle in 2019.

### **Key Findings**

The key findings of the analysis at the SR 104 and 35th Avenue NE intersection are the following:

- Red-light Camera Legislation: The intersection is controlled by a traffic signal and is at a
  junction of two arterials, thus making it eligible for potential automated traffic safety
  cameras to monitor and detect stop light violations.
- **Vehicle Speeds:** Existing speed data shows a persistent trend of vehicles traveling over the speed limit along SR 104 despite existing speed management tools in the vicinity of the intersection. No data exists to indicate whether vehicle speeds are resulting in a higher than usual number of unsafe maneuvers at the intersection.



- Collision Records: Over the past five years, the intersection has experienced an annual average of more than one collision. None of the collisions were found to correspond to red-light running.
- **Citations:** Based on data from the police, no stoplight violation citations have been recorded at this intersection over the past five years.

**Recommendation:** The absence of citations noting stoplight violations and limited evidence of violations directly related to signalized traffic movements reduce the justification for an automated red-light camera at this intersection. According to RCW 46.63.220, the installation of automated traffic safety cameras requires evidence of specific safety issues, such as a history of red-light violations, collisions, or near-miss incidents. Other mitigation measures, such as enhanced enforcement or additional speed feedback signs as described in the City's Neighborhood Traffic Calming Program, may be more appropriate to address concerns at this location.

# **Automated Speed Enforcement Cameras along NE 178th Street**

The NE 178th Street corridor within the City of Lake Forest Park currently has two existing automated speed enforcement cameras as shown in Figure 2. The City is interested in determining if another camera is necessary in the immediate vicinity of Brookside Elementary School.

## **Corridor Description**

NE 178th Street is a two-lane, east-west roadway with a posted speed limit of 25 miles per hour (mph), including a single lane in both eastbound and westbound directions. The roadway is classified as a Minor Arterial by the City based on the adopted Comprehensive Plan. There is a designated school zone located between 35th Avenue NE and 37th Avenue NE, with a reduced speed limit of 20 mph. Additionally, two speed feedback signs are positioned at the intersections of NE 178th Street and 28th Avenue NE, and NE 178th Street and 40th Avenue NE.

#### Speed Enforcement Camera Citations

There are two automated speed enforcement cameras positioned along the NE 178th Street corridor to monitor traffic in both directions in the vicinity of Brookside Elementary. The cameras initially monitored school zone speeds during designated school hours. Prior to September 2024, they enforced a 20 mph school zone speed limit from 7:30 to 9:30 am and 2:30 to 4:30 pm on school days. While the cameras recorded speeds continuously, citations were issued only during enforcement hours. The cameras also operated during early release periods, contributing to some midday citations.



Figure 2. Lake Forest Park Posted Speed Limits



In September 2024, the cameras transitioned to 24 hour, 7 days per week (24/7) enforcement and were moved to new locations along the corridor. One camera is positioned near NE 180th Street to enforce the speed limit in the westbound direction approaching the school. The second camera is located east of 33rd Avenue NE to enforce the speed limit in the eastbound direction approaching the school. Currently, the cameras enforce a 20 mph speed limit during school start and end times and a 25 mph speed limit for the remainder of the day and on non-school days.

Data for both directions of travel were collected from the speed enforcement cameras for October and November 2024, reflecting the new enforcement schedule. The analysis includes citation data and speed trends during the day, capturing the impact of the expanded operational schedule. A summary of citations issued by each hour of the day is shown in Table 6.

Table 6. Average Speed Camera Citations Records by Time of the Day per Day

Time Period <sup>1</sup>	<b>Eastbound Direction</b>	<b>Westbound Direction</b>	
0:00-0:59 AM	1	1	
1:00-1:59 AM	1	1	
2:00-2:59 AM	0	0	
3:00-3:59 AM	0	0	
4:00-4:59 AM	0	0	
5:00-5:59 AM	1	1	
6:00-6:59 AM	1	1	
7:00-7:59 AM	1	1	
8:00-8:59 AM	1	1	
9:00-9:59 AM	2	2	
10:00-10:59 AM	4	3	
11:00-11:59 AM	4	4	
12:00-12:59 PM	4	4	
1:00-1:59 PM	5	4	
2:00-2:59 PM	4	4	
3:00-3:59 PM	2	3	
4:00-4:59 PM	4	4	
5:00-5:59 PM	5	7	
6:00-6:59 PM	6	7	
7:00-7:59 PM	5	5	
8:00-8:59 PM	3	3	
9:00-9:59 PM	3	3	
10:00-10:59 PM	2	2	
11:00-11:59 PM	2	1	
TOTAL	62	60	

NOTE: 2024 data from October 2024 to December 2024

The citation records indicate that 122 citations are recorded on an average day, which if were to stay consistent through an entire year, could be more than 44,000 citations. However it is expected the number of citations will decline over time, and be lower on average when school is not in session. The data also indicates that a higher number of citations are observed during the afternoon hours, when traffic volumes are greater. Additionally, the number of citations per direction are consistent, indicating that the downhill grade of NE 178th Street does not necessarily contribute to a higher number of vehicles exceeding the speed limit.



#### Vehicle Counts and Speeds

Vehicle speeds were collected along the study corridor at one location in front of Brookside Elementary School (shown in Figure 2) by using automated tube counters for one week in October 2024. Additionally, data from the two speed feedback signs was compiled for one week in late January/early February 2025. The posted speed limit on the corridor during the data collection period was 25 mph, and 20 mph during school start and end times. Table 7 summarizes the key speed indicators for the corridor.

Table 7. NE 178th Street Speed Data Summary (2024-2025)

Indicator	At Brooksid	e Elementary	At Speed Fee	edback Signs	
Indicator	Eastbound Westbound		Eastbound	Westbound	
Posted Speed Limit (mph)	25 mph	25 mph	25 mph	25 mph	
Average Daily Traffic	2,860 vehicles	2,740 vehicles	3,075 vehicles	2,210 vehicles	
Median Speed	22 mph	22 mph	22 mph	21 mph	
85th Percentile Speed	26 mph	27 mph	27 mph	26 mph	
10 mph Pace	17-27 mph	17-27 mph	18-28 mph	17-27 mph	
% in Pace	86%	79%	67%	70%	
% of Vehicles 5 mph over Speed Limit <sup>2</sup>	2%	6%	3%	3%	

<sup>1.</sup> Represents the vehicles exceeding the posted speed limit by at least 5 mph.

As shown in Table 7, the number of vehicles driving at 5 mph or more above the speed limit is about 2 to 3 percent in the eastbound direction and 3 to 6 percent in the westbound direction. In comparing the 2024 versus 2023 speed data when the cameras only monitored the school speed zone, there is improved compliance with speed limits throughout the day. Median and 85th percentile speeds have dropped, and the percentage of vehicles traveling more than 5 mph is lower.

#### **Key Findings**

The key findings and recommendation of the speed analysis along NE 178th Street are the following:

- **Vehicle Speeds:** Existing vehicle speed data shows much improved driver compliance with posted speed limits throughout the day with the new speed enforcement cameras in operation.
- **Citations:** The number of citations per day is much lower than previously predicted. The number of daily citations is averaging around 120 per day, and the prior study indicated that it could be as high as 350 to 470 citations per day.

**Recommendation:** The speed and citation data indicates that additional cameras along the corridor would not be necessary since very few vehicles are traveling 5 mph over the speed limit. There is a high level of driver compliance with the posted speed limits, and the existing cameras appear to be maintaining speeds in the vicinity of Brookside Elementary School. The downhill grade of NE 178th Street as it approaches the school from the west does not appear to result in higher vehicle speeds. Other potential camera locations along the corridor were not considered given the limited amount of available data.

