

City of Redmond

# SPEED CAMERA PROGRAM ANALYSIS & RECOMMENDATIONS

February 5, 2025



Brian Coats, Deputy Police Chief, Redmond Police Department and Michael Hintze, Transportation Planning Manager, City of Redmond

# **PURPOSE**

This Speed Safety Camera Program Analysis and Recommendations report aims to evaluate proposed locations for automated traffic safety cameras within the City of Redmond, as required by RCW 46.63.220(3). This analysis ensures that camera placement decisions are informed by a thorough examination of considerations, including their impact on equity, livability, accessibility, economics, education, and environmental health.

Automated traffic safety cameras have been shown to significantly reduce speeding and collisions, creating safer environments for all road users, particularly in school and park zones where vulnerable populations are most at risk. Unlike traditional enforcement methods that require a uniformed police presence at every location, traffic safety cameras provide a cost-effective and scalable solution to changing driver behavior.

Automated cameras eliminate the potential for bias in enforcement by objectively targeting vehicle speed rather than the individual operating the vehicle. This ensures that all drivers are treated consistently and fairly.

In addition, this report demonstrates the need for traffic cameras in each proposed location through data-driven evidence, such as:

- Travel by vulnerable road users
- Documented speeding incidents
- Rates of collisions
- Near-collision reports
- The ineffectiveness or lack of feasibility of other mitigation measures

The City of Redmond aims to enhance public safety, address community concerns, and ensure a fair, equitable, and transparent approach to implementing automated traffic safety cameras. This report provides an analysis of considerations for the proposed traffic camera locations and examines whether there is a demonstrated need for such cameras. The current proposal is to place automated speed enforcement cameras in school zones at the following locations:

- Redmond High School 17272 NE 104th Street
- Redmond Middle School 10055 166th Avenue NE
- Rose Hill Middle School 13505 NE 75th Street

After implementing automated speed safety cameras in school zones, the Police Department plans to propose expanding the program to include park zones. Speed surveys have been conducted at the following locations:

- Grass Lawn Park 7031 148th Avenue NE
- Idylwood Park 3650 West Lake Sammamish Parkway NE
- Anderson Park 7802 168th Avenue NE
- Marymoor Park 6046 West Lake Sammamish Parkway NE
- Sixty Acres Park 15200 NE 116th Street

• Esterra Park –2718 156th Avenue NE

# BACKGROUND

The City of Redmond adopted Chapter 10.25 of the Redmond Municipal Code in 2006, authorizing the use of automated traffic safety cameras to enforce traffic laws and enhance public safety. The ordinance specifically allowed the deployment of automated cameras in areas, such as school zones and intersections to address speeding and red-light violations.

In June 2024, Washington state enacted Senate Bill 2384, which revised the legal framework governing automated speed cameras for traffic enforcement. The updated legislation expanded the permissible locations for automated cameras to include school speed zones, school walk zones, public park speed zones, hospital speed zones, and roadway work zones. Additionally, the law introduced a requirement for cities to conduct an equity analysis before installing cameras. This analysis must evaluate the potential impact of camera placement on the community's livability, accessibility, economics, educational opportunities, and environmental health.

# **EQUITY CONSIDERATIONS**

Equity is a core guiding principle in the City of Redmond's Comprehensive Plan update (Redmond 2050). In the context of Redmond 2050 advancing equity means investing in travel modes that improve mobility for those who do not drive. People who do not drive in Redmond may include youth, persons with disabilities, older adults, and low-income populations. Cost-burdened households are households that spend more than 30 percent of their income on housing. These may be households that rely more on walking, biking and taking transit to reduce transportation costs. Creating safer streets using strategies, such as speed safety cameras aligns with the City's transportation equity goals. Table 1 shows that all locations where speed safety cameras are proposed have higher percentages of one or more populations that likely have more people that don't drive when compared to the City overall (with the exception of the Idylwood Park area).

Location	Household with Seniors (64+)	Youth Population (under 18)	Low-Income (200% of Federal Poverty Threshold)	Disabled Adult Population	Cost- Burden Household
Redmond High School	59%	16%	4%	8%	55%
Rosehill Middle School	31%	19%	8%	9%	19%
Redmond Middle School	36%	19%	11%	5%	20%

## Table 1: Percent Equity-Seeking Population Within Areas Proposed for Speed Safety Cameras

Redmond Elementary School	19%	32%	5%	5%	5%
Grass Lawn Park	28%	16%	6%	9%	39%
ldylwood Park	18%	20%	1%	7%	14%
Anderson Park	5%	5%	21%	5%	48%
Marymoor Park	31%	13%	18%	7%	41%
City-wide	22%	22%	11%	7%	25%

1

#### Livability

A livable community is one that is safe and secure, has affordable and appropriate housing and transportation options, and has supportive community features and services. Redmond's Speed Safety Camera Program supports livability as it is intended to slow vehicle traffic in school and park zones, making it safer for all community members, and reducing noise generated by vehicles traveling at higher speeds. Residents and visitors in the specific neighborhoods where cameras are being deployed will benefit most. The City will monitor for any unintended consequences, such as traffic diverting to avoid cameras through its annual traffic volume count program and Q-Alert system, which allows community members to submit requests and concerns. In addition, traffic collisions and speed data will continue to be collected and analyzed to ensure livability benefits are fully realized.

#### Accessibility

Accessibility, or the ability for a person to access their destinations directly and without barriers, will be enhanced by the deployment of speed safety cameras. Crossing the street can be a significant barrier to pedestrians, particularly children, and is often a major concern for parents and guardians who are considering allowing their children to walk, bike, or roll to school. Speed safety cameras will encourage slower vehicle speeds, which will improve drivers yielding to pedestrians and bicyclists who are crossing the street.

#### **Economics**

While the road users most likely to incur fines are drivers of personal vehicles, there is potential for speed safety cameras to impose a financial burden on low-income individuals. To minimize these harms on low-income individuals and comply with the RCW, the City of Redmond will coordinate with Northeast District Court to allow for options to enter into a payment plan, or for first time

<sup>&</sup>lt;sup>1</sup> Blue number represents that the average of the neighborhood is higher than the citywide average.

<sup>&</sup>lt;sup>2</sup> The analysis unit is Census block group.

offenders, seek automatic relief in the form of a 50% reduction in the fine if they meet established criteria.<sup>3</sup> A form for fine reduction would be included with the citation.

## Education

Transparency is critical for a Speed Safety Camera Program. The City of Redmond will ensure that the community is aware of speed safety camera installations, why they are being installed, when cameras will be active, how they work, fine amounts, and provide clear answers to frequently asked questions. The City of Redmond will use a variety of channels to educate the community such as, social media, earned media, and the City's website. When the program is fully operational, a warning period of approximately 30 days will commence to assess and refine the system before fines are issued.

## **Environmental Health**

Speed safety cameras are expected to contribute positively to environmental health by promoting safer and more efficient traffic flow. These cameras encourage compliance with speed limits and reduce instances of aggressive driving, which in turn minimizes sudden acceleration and braking, both of which contribute to increased fuel consumption and emissions. Additionally, speed safety cameras may positively impact environmental health by reducing vehicle speeds, leading to lower noise pollution and a decreased risk of traffic collisions, which can have environmental consequences.

# DEMONSTRATED NEED FOR AUTOMATED SPEED CAMERAS

## School Zone Speed Studies

Speed survey data collected at Redmond High School, Rose Hill Middle School, and Redmond Middle School in January 2025 highlights a consistent pattern of speeding in school zones during peak commute hours, posing significant safety risks to vulnerable road users on foot, bicycle, and other modes of transportation. As illustrated below, the data shows that every day about 20% of the total vehicles were traveling at least 6 mph over the posted limit at Redmond High School and Redmond Middle School, and over 50% of the total vehicles were traveling at least 6 mph over the limit at Rose Hill Middle School. See Table 2.

Table 2a: Redmond High School (NE 104th Street) – 20 MPH AM and PM School Zon	е
-------------------------------------------------------------------------------	---

	Wednesday, Jan. 22, 2025	Thursday, Jan. 23, 2025	Friday, Jan. 24, 2025
Total Vehicle Count	2,098	2,138	2,061
6+ Over the Limit	414	424	404
Percent	19.7%	19.8%	19.6%

<sup>&</sup>lt;sup>3</sup> This mechanism is not available to individuals who have had a similar citation within the previous three weeks.

## Highest recorded speed: 43 MPH

## Table 2b: Redmond Middle School (166th Avenue NE) – 20 MPH School Zone

	Wednesday, Jan. 22, 2025	Thursday, Jan. 23, 2025	Friday, Jan. 24, 2025
Total Vehicle Count	2,697	2,928	2,784
6+ Over the Limit	504	595	601
Percent	18.7%	20.3%	21.6%

Highest recorded speed: 62 MPH

## 2c: Rose Hill Middle School (140th Avenue NE) – 20 MPH School Zone

	Wednesday, Jan. 22, 2025	Thursday, Jan. 23, 2025	Friday, Jan. 24, 2025
Total Vehicle Count	655	670	672
6+ Over the Limit	381	401	419
Percent	58%	59.9%	62.4%

Highest recorded speed: 54 MPH

# School Zone Safety Data

An analysis of five years of crash data (2019 - 2024) shows that there have been no fatal crashes and a total of four injury crashes among the three school zones with no crashes in the Rose Hill Middle School zone.

## Table 3: Crash Data for School Zones (2019 - 2024)

Location	Boundary	Number of Crashes	Fatal	Injury	Property Damage
Redmond High School	NE 104th St from 170th Ave NE to 179th Ave NE	5	0	1	4
Rose Hill Middle School	NE 75th St from 134th Ave NE to 140th Ave NE	0	0	0	0
Redmond Middle School	166th Ave NE from NE 98th St to NE 107th St; NE 104th St from 163rd Ave NE to 168th Ave NE	11	0	3	8

# PARK ZONES

## Park Zone Speed Data

Speed surveys conducted at Grass Lawn, Idylwood, Marymoor, Anderson, Sixty Acres, and Esterra parks highlight a consistent and significant issue with speeding during park hours, posing a danger to pedestrians, cyclists, and other park visitors. See Table 4:

## Table 4a: Grass Lawn Park (Old Redmond Road) 30 MPH Speed Limit

	Sunday, Dec. 31, 2023	Monday, Jan. 1, 2024	Tuesday, Jan. 2, 2024	Wednesday, Jan. 3, 2024	Thursday, Jan. 4, 2024
Total Vehicle Count	4,588	3,562	7,845	8,410	8,132
11+ Over	203	189	279	306	301
Percent	4.4%	5.2%	3.6%	3.6%	3.7%

## Table 4b: Idylwood Park (West Lake Sammamish Parkway NE) 35 MPH Speed Limit

	Sunday, Dec. 31, 2023	Monday, Jan. 1, 2024	Tuesday, Jan. 2, 2024	Wednesday, Jan. 3, 2024	Thursday, Jan. 4, 2024
Total Vehicle Count	2,990	2,586	5,053	5,504	5,481
11+ Over	72	74	86	124	101
Percent	2.4%	2.9%	1.7%	2.3%	1.8%

#### Table 4c: Marymoor Park (West Lake Sammamish Parkway NE) 35 MPH Speed Limit

	Sunday, Dec. 31, 2023	Monday, Jan. 1, 2024	Tuesday, Jan. 2, 2024	Wednesday, Jan. 3, 2024	Thursday, Jan. 4, 2024
Total					
Vehicle	6,056	4,555	8,068	8,727	8,625
Count					
11+ Over	663	586	823	895	825
Percent	10.9%	12.9%	10.2%	10.3%	9.6%

Table 4d:	Anderson	Park (NE	79th Street)	25 MPH 9	Speed Limit
	/				

	Wednesday, July 17, 2024	Thursday, July 18, 2024	Friday, July 19, 2024	Saturday, July 20, 2024	Sunday, July 21, 2024
Total Vehicle Count	7,366	7,236	6,514	5,424	4,951
11+ Over	83	92	88	70	57
Percent	1.1%	1.3%	1.4%	1.3%	1.2%

## Table 4e: Sixty Acres Park (NE 116th Street) 35 MPH Speed Limit

	Thursday, July 25, 2024	Friday, July 26, 2024	Saturday, July 27, 2024	Sunday, July 28, 2024	Monday, July 29, 2024
Total Vehicle Count	1,403	4,415	5,035	4,928	1,045
11+ Over	81	7	12	9	79
Percent	5.8%	.16%	.24%	.18%	7.6%

## Table 4f: Esterra Park (Turing Street) 25 MPH Speed Limit

	Thursday, July 25, 2024	Friday, July 26, 2024	Saturday, July 27, 2024	Sunday, July 28, 2024	Monday, July 29, 2024
Total Vehicle Count	4,918	4,346	3,319	2,939	4,208
11+ Over	142	110	82	82	126
Percent	2.9%	2.5%	2.5%	2.8%	3%

The speed survey data across all three schools and identified park zones demonstrates a consistent and significant need for enhanced speed enforcement. Excessive speeds in these areas create an unsafe environment for vulnerable road users, particularly during times when pedestrian, cyclist, and vehicle traffic are at their highest. School zones see high volumes of students walking, biking, or rolling to school, as well as families dropping off or picking up children, intensifying the risk of collisions and near-misses caused by speeding vehicles.

Similarly, parks are frequented by families, children, and recreational users who rely on safe crossings and streets with traffic calming measures to access these community spaces. High volumes of pedestrians and cyclists in park zones further underscore the need for speed control measures to protect vulnerable road users from the dangers of speeding vehicles. Parks serve as vital hubs for recreation and community engagement, and ensuring safe access to these spaces is critical to the livability of the City of Redmond.

The installation of automated speed enforcement cameras in both school and park zones would serve as a critical deterrent to speeding, significantly improve compliance with posted speed limits, and enhance safety for all road users. By reducing vehicle speeds, these cameras would not only mitigate the

heightened risk of collisions, but also create a safer and more accessible environment for students, families, and community members navigating these high-risk areas.

## Park Zone Safety Data

Crash data from 2019 to 2024 underscores the ongoing traffic safety concerns in Redmond's park zones, where a total of 155 crashes have occurred, resulting in **one death and 36 injury-related incidents**. Anderson Park alone accounted for **122 crashes,** highlighting the risks in high-traffic recreational areas. Even in smaller park zones like Grass Lawn, Idylwood, and Marymoor, crashes continue to impact pedestrian and vehicle safety, with the majority resulting in property damage.

These numbers emphasize the need for enhanced traffic enforcement measures, such as automated safety cameras, to reduce speeding and improve overall safety in park zones. By addressing these concerns proactively, the City can better protect its residents, visitors, and vulnerable road users enjoying our parks.

Location	Boundary	Number of Crashes	Fatal	Injury	Property Damage
Grass Lawn Park	148th Ave NE from NE 68th St to NE 74th St; Old Redmond Way from 141st Ave NE to 149th Ave NE	19	1	4	14
Idylwood Park	West Lake Sammamish Pkwy NE from 180th Ave NE to NE 39th Ct	5	0	1	4
Anderson Park	Redmond Way from 166th Ave NE to 170th Ave NE; NE 79th St from 166th Ave NE to Avondale Way	122	0	27	95
Marymoor Park	East Lake Sammamish PKWY NE from NE 53rd Ct to NE 65th St	9	0	4	5

## Table 5: Crash Data for Park Zones (2019 - 2024)

# SPEED CAMERA DEPLOYMENT PLAN

The following steps are required or encouraged either by Washington state law, city ordinance, or best practices.

• **Signage:** As required by RCW 46.63.220(7), signs notifying drivers they are within an area where automated traffic safety cameras are authorized or entering an area where violations are enforced by an automated traffic safety camera must be placed **30 days prior** to the activation of cameras.

- School Zone Beacons: School zone speeding violations will only be issued during designated school hours when amber beacons are flashing. These designated hours typically include 30 minutes before the start of school and after school until 5 p.m. to account for extracurricular activities when children are present. Enforcement of school zone speeding violations will be closely aligned with the school's schedule to ensure accuracy and fairness.
- **Speeding Enforcement Threshold:** The National Highway Traffic Safety Association (NHTSA) recommends a threshold of no less than 6 mph above the speed limit in school zones and a threshold of up to 11 mph on most roads.<sup>4</sup>
- Fines: Per RCW 46.63.220(16), the amount of fine issued using an automated traffic safety camera may not exceed \$145\* on public roads and may be doubled to \$290\* in school zones.
- **Warnings:** When the program is fully operational, a warning period of approximately 30 days will commence to assess the system and correct problems before fines are issued. The program does not have a system for issuing warning notices for first-time violators.
- **Objective Enforcement:** Per RCW 46.63.220(8), automated traffic safety cameras are limited to recording images of the vehicle and its license plate, and only during the occurrence of a violation. These cameras are specifically designed to ensure privacy by not capturing images that reveal the faces of the driver or passengers. Additionally, data is not shared between automated traffic safety cameras and fixed automated license plate reading cameras.
- **Due Process:** A notice of infraction must be mailed to the registered owner of the vehicle within 14 days of the violation. The registered owner of the vehicle is responsible for an infraction, unless they state under oath the vehicle was stolen or in control by a person other than the registered owner. A person receiving an infraction notice based on evidence detected by an automated traffic safety camera may respond to the notice by mail. All notices are reviewed and approved by police staff.
- Vendor Services: The automated traffic safety camera vendor is compensated solely for the value of the equipment and administrative services. The vendor's fees may not be based on a portion of the fine revenue generated by the equipment.

\*Fine amounts are adjusted by inflation every 5 years

## **Reduced Penalties for Eligible Recipients**

Per RCW 46.63.210-260, registered vehicle owners who receive notices for infractions enforced by automated traffic safety cameras and are recipients of public assistance or participants in the

<sup>&</sup>lt;sup>4</sup> NHTSA Speed Enforcement Camera Systems Operational Guidelines <u>Microsoft Word - Job 4660 Speed Enforcement Camera</u> <u>Systems Operational Guidelines April 15 2008.doc</u>

Washington Women, Infants, and Children (WIC) Program are eligible for a 50% reduction in penalties upon request.

# **Mandatory Reporting**

The statute governing automated speed safety cameras requires cities to post an annual report on the City's website detailing the number of collisions that occurred at each location where an automated safety camera is located, as well as the number of infractions issued for each camera. Additionally, the Police Department will provide City Council with an update on this data at least twice annually.

## **Community Engagement**

The Fall 2024 Redmond Schools Parent/Guardian Transportation Questionnaire was open in October 2024 and was sent out to parents and guardians at the elementary and middle schools. Some of the questions asked pertained to safety around schools.

41/104 (39.4%) respondents said that slower vehicle speeds surrounding schools would make them feel more comfortable with their child walking or biking to school.

In a free response question asking if there are any specific improvements that would make them feel more comfortable with their children walking or biking to school, 10/42 (23.8%) respondents shared that drivers are ignoring speed limits, driving too fast, or otherwise speeding through school zones and it is making their children unsafe.

Another community questionnaire specific to speed safety cameras was conducted in March/April 2025. 144 respondents (36.7%) had strong concerns about traffic safety in areas near parks and schools in Redmond and 93 or 23.7% sometimes had concerns about traffic safety. Based on the questionnaire results, the top two traffic safety concerns were distracted driving and speeding. When asked how supportive they were of measures, such as speed safety cameras to reduce speeding and improve safety near schools, 201 respondents (52%) were not supportive. 147 or 37.5% were supportive along with 44 (11.2%) who were neutral. For the same question regarding parks, 215 (54.8%) were not supportive along with 126 (32.1%) supportive, and 51 (13.0%) neutral.

Police staff have engaged City Council in conversations about the automated traffic safety programs during committee meetings on Sept. 19, 2023, Sept. 17, 2024 and most recently discussed this topic during the Jan. 28, 2025 Council study session.

Automated traffic safety cameras were discussed with the Chief's Community Equity Action Team (CEAT) on Jan. 22, 2025. We received no comments, questions, or concerns from the team.

## **City and Court Staffing**

If the proposed implementation of an automated traffic safety program is approved by the City Council, it will significantly increase the volume of infractions and the time required for court staff to process and adjudicate them. Northeast District Court staff, who already manage infractions from automated

cameras in other jurisdictions within their purview, have expressed confidence that their current staffing levels are sufficient to handle the anticipated increase.

The City's Finance Department will need to establish a financial remittance process to ensure all revenue generated by automated safety cameras is allocated to cover the costs of additional traffic safety programs and traffic safety capital improvement projects.

# **SUMMARY**

The City of Redmond is planning to implement new traffic safety cameras to enhance public safety by reducing speeding in key areas. The placement and deployment of these cameras are guided by best practices in equitable traffic management, using both national research and local data. By taking these steps, we are addressing safety concerns, promoting fairness, and improving the overall quality of life for everyone in Redmond.

This report evaluates the placement of automated traffic safety cameras in Redmond, ensuring equitable and data-driven decision-making. Automated cameras are a cost-effective way to reduce speeding and collisions, particularly in school and park zones, protecting vulnerable road users such as children, seniors, and pedestrians. The report examines the impact on equity, including livability, accessibility, economic considerations, education, and environmental health.

Speed studies show significant speeding in school and park zones, with up to 62% of vehicles exceeding speed limits in school zones and 10 - 12% in certain park areas. Crash data (2019 - 2024) highlights traffic safety concerns, with school zones recording 47 crashes and park zones reporting 155 crashes, including one death and 36 injury-related incidents. Automated speed enforcement cameras in school zones will deter speeding and enhance safety for the City's vulnerable road users.