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Traffic Speed Safety Camera Equity Impact Analysis

Citv of Lake Forest Park, WA

Prepared for: Tom French, Mayor of City of Lake Forest Park

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Table of Contents

1.	Equity Impact Snapshot	2
2.	Introduction	3
3.	Equity Impact Analysis	6
4.	Conclusion (Equity Score)	

EDUCATION

The neighborhood in which the speed safety camera (SSC) is being proposed has a slightly higher proportion of children than the rest of the City and County (See Table 1). Children's ability to get to school in a safe and timely manner is crucial to their educational attainment. An SSC on NE 178th St. can help ensure safer routes to school for students at Brookside Elementary

LIVABILITY

The SSC on NE 178th Street has the potential to provide a short-term solution aimed at incentivizing driver behavioral change to improve the longterm safety and well-being of individuals who live, work, and play in the neighborhood in which the camera is located. In time, however, if the rates of traffic crashes and/or speed violations do not decrease in that area, the City should consider other road

ECONOMICS

- It is important to ensure the equitable distribution of both the economic benefits and the burdens of speed safety cameras in the areas where they are located. It is the intent of the City of Lake Forest Park to reinvest revenues generated by the SSC into local street safety programs and improvements and ensure the equitable distribution of these economic benefits.
- Commuters, who are relatively more diverse and have lower incomes than the residents of the SSC's surrounding neighborhood, may experience a disproportionate financial burden from SSC placement and speed zone enforcement. This is due to their increased

ENVIRONMENTAL HEALTH

» Although it is a short-term solution, the proposed SSC has the potential to generate revenue for general funds, which can support street safety programs like road infrastructure improvements and preservation projects

ACCESSIBILITY

Two important accessibility considerations for the proposed SSC on NE 178th St include 1) the use of plain and clear signage and 2) the administration of traffic infractions in accessible ways

1 Equity Impact Snapshot

2. Introduction

Purpose

ECOnorthwest prepared this equity analysis report for the City of Lake Forest Park ("City") as required by the 2023 Revised Code of Washington (RCW) 46.63.170(1)(d)(ii).¹ The Equity Analysis will be used by City Council to analyze whether traffic safety cameras (SSCs) should be placed at the 3300 block of NE 178th Street in Lake Forest Park to detect speed violations in conjunction with the existing school zone speed SSC at this location. The City Council has previously identified this location as

RCW 46.63.170(1)(D)(II)

Equity Analysis

"A city locating an automated traffic safety camera under this subsection (1)(d) must complete an equity analysis that evaluates livability, accessibility, economics, education, and environmental

being in a zone subject to restrictions and penalties for racing in Ordinance No. 23-1284.²

Background

In 2022, Washington State passed Senate Bill (ESSB) 5974 to reform the state law permitting the use of automatic cameras as traffic enforcement tools. The reformed bill expanded the locations where cities can place automatic cameras to now include areas outside hospitals and parks, along routes where kids walk to and from school, and at intersections with higher-than-average rates of crashes.³ As a result of ESSB 5974, the City of Lake Forest Park adopted Ordinance No. 1251, adding the possibility of SSC for school walk areas and public park speed zones. Then, in 2023, also as allowed in ESSB 5974, LFP adopted Ordinance No. 23-1283, which authorized SSC

³ Washington State Legislature. <u>SB 5974 – 2021-22</u>. 2022.



¹ RCW 46.63.170(1)(d)(ii).

² Ordinance No. 23-1284. <u>An Ordinance of the City Council of The City of Lake Forest Park, Washington, Amending Title 9 of the Lake Forest Park Municipal Code ("LFPMC") Public Peace, Morals, and Welfare, Establishing A New Chapter, 9.35 LFMPC Street Racing. n.d.</u>

for speed violations in zones subject to restrictions and penalties on racing and race attendance.⁴ RCW 46.63.170(1)(d)(ii) requires that cities and counties conduct an equity assessment on the impact of the potential placement of the automated traffic SSC prior to its installation. This equity analysis must consider the impact of the camera's location on the immediate community's livability, accessibility, economic well-being, educational opportunities, and environmental health.⁵

In accordance with state statute, the City of Lake Forest Park hired ECOnorthwest to conduct this equity analysis for the installation of two hybrid cameras at pre-existing safety traffic camera locations on the 3300 block of NE 178th Street, identified in Lake Forest Park Municipal Code (LFPMC) 9.35.050(B)(3). The existing SSC sits in a school zone just up the road from Brookside Elementary School and Pepitas Bilingual Preschool. The school zone's 20 mph speed limit is currently enforced solely during school hours (120 minutes in the morning and afternoon). However, concerns regarding pedestrian safety, especially among young school-age children, continue to grow given 1) high rates of crashes nearby, 2) high rates of issued traffic tickets, and 3) an anticipated increase in through traffic with future light rail expansion.⁶ To address these concerns, the City plans to authorize the conversion of two existing SSCs to 24/7 hybrid cameras under RCW 46.63.170(1)(d)(ii). These new cameras will continue their school zone speed enforcement during school hours (26 mph will trigger the cameras during school zone hours of 20 mph) while also enforcing a slightly higher speed during non-school hours (31 mph will trigger the cameras during non-school zone hours of 25 mph). It is the City's hope that the enforcement of these 24/7 hybrid cameras will reduce rates of speeding on NE 178th St. and improve the safety and well-being of its surrounding neighborhood.

Why SSCs Require An Equity Impact Analysis

Speed safety cameras have been shown to reduce speed violations and crashes significantly.⁷ Consequently, when compared to traditional traffic enforcement (e.g., traffic stops), the

⁷ Washington Traffic Safety Commission. <u>Speed Safety Camera Readiness Guide</u>. 2023.



⁴ City of Lake Forest Park. <u>Ordinance No. 1283.</u> 2023.

⁵ RCW 46.63.170(1)(d)(ii).

⁶ Seattle Office of Planning and Community Development. <u>Light Rail Expansion in Seattle</u>. n.d.

literature suggests that SSCs have the potential to be more equitable by 1) reducing pedestrian fatalities from car crashes, especially Black, Indigenous, People of Color (BIPOC) who are overrepresented in traffic deaths, and 2) removing social bias (e.g., racial profiling) from traffic speed enforcement by solely capturing vehicles and vehicle license plates.⁸ However, while SSCs may appear equitable on the surface, their placement is a major factor in their overall in/equitable impact.

As speed enforcement tools, SSCs must be contextualized within histories of planning and transportation systems that have disproportionately impacted BIPOC, lower-income, and other marginalized communities.⁹ For instance, in various cities, transportation infrastructure in low-income and minority communities has historically been neglected, contrasting with better-designed roads in wealthier, predominantly white neighborhoods. Consequently, highways and main roads with higher speeds often intersect historically marginalized areas due to past environmental injustices and poor planning.¹⁰ Introducing SSCs in these communities might compound the problem by penalizing residents for the city's failure to invest in proper road engineering. In this way, without careful consideration of camera placement, SSCs can have inequitable consequences, particularly for the communities that speed safety cameras are intended to benefit.

¹⁰ Washington Traffic Safety Commission. <u>Speed Safety Camera Readiness Guide</u>. 2023.



⁸ Parsons, Susannah. 2021. "<u>Can Automated Speed Safety Systems Advance Racial and Economic Equity</u>." SPUR News., See also, Smart Growth America. <u>Dangerous By Design</u>. 2022.

⁹ Washington Traffic Safety Commission. <u>Speed Safety Camera Readiness Guide</u>. 2023., See also Hopkins, Emily, and Sanchez, Melissa. 2022. "<u>Chicago's 'Race-Neutral' Traffic Cameras Ticket Black and Latino Drivers the Most.</u>" ProPublica.

3. Equity Impact Analysis

The City of Lake Forest Park is required to assess many elements regarding the placement of two speed safety cameras on NE 178th Street to ensure the equitable distribution of benefits while also addressing any possible disproportionate distribution of burdens and negative impacts. To support this analysis, ECOnorthwest's team evaluates important questions, informed by best practice research and literature on the equitable decision-making, placement, deployment, and evaluation of speed safety cameras. Informed by both publicly available data and local insights shared by City staff, the rest of the report answers these top equity questions in the context of the proposed NE 178th Street SSC and considers their alignment with national best practices.



Before Speed Camera Placement

» Does the proposed SSC location align with ESSB 5974 and RCW 46.63.170(1)(d)(ii)?

The proposed 24/7 hybrid SSC on NE 178th St. aligns with Senate Bill 5974 and RCW 46.63.170(1)(d)(ii)under the City's local ordinance, LFPMC 9.35.050, which designates this location within a zone subject to specified restrictions and penalties on racing, permitting the instillation of the proposed SSC.¹¹

¹¹ Washington State Legislature. <u>SB 5974 – 2021-22</u>. 2022., See also, City of Lake Forest Park. <u>Ordinance No. 1283.</u> 2023.



The street where the traffic cameras have been proposed has had the highest number of crashes of any inner-city street in Lake Forest Park over the last seven years. While 70 percent of motor vehicle crashes between 2016 and 2023 happened on two-state highways, an analysis of crashes on inner-city streets reveals that 31 of the 276 (11%) inner-city crashes occurred on NE 178th Street. **Figure 1** shows the frequency of crashes on inner-city streets in the 7-year period. It should be noted that the vast majority of these crashes occurred between 2016 and 2019, and most did not result in injuries. Nonetheless, the high frequency of crashes over time does make a strong case for improved traffic safety measures in this area.

Traffic Safety Concerns in the City of Lake Forest Park

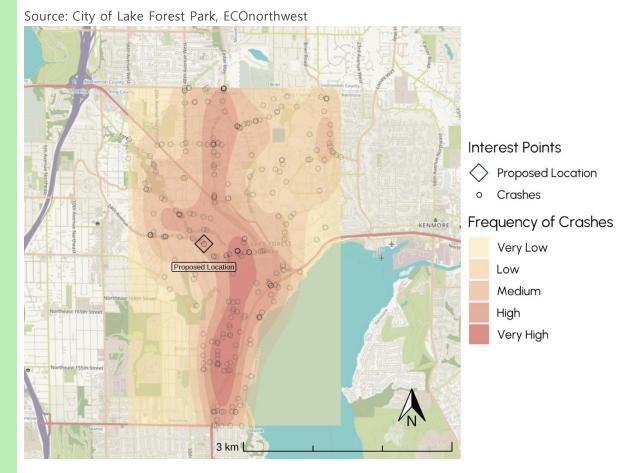


Figure 1: Crashes on Inner-City Streets from 2016-2023

Crash analysis on NE 178th Street shows both a demonstrated need for traffic cameras based on rates of collision and the ineffective deployment of the existing

school zone SSC in decreasing these rates of crashes. *In this way, the proposed SSC location aligns with RCW 43.63.170.*

- » Did community engagement inform the decision on the placement of these SSCs?

A key element to an equitable decision-making process is the involvement of community members most likely to be positively and negatively impacted by such a decision.¹² According to City staff, *the proposed location for these speed cameras build off past elevated local community concerns on pedestrian safety, particularly student safety.* Additionally, because there is already a pre-existing SSCs at the current locations of these proposed 24/7hybrid cameras, additional engagement for such a decision may prove unnecessary.

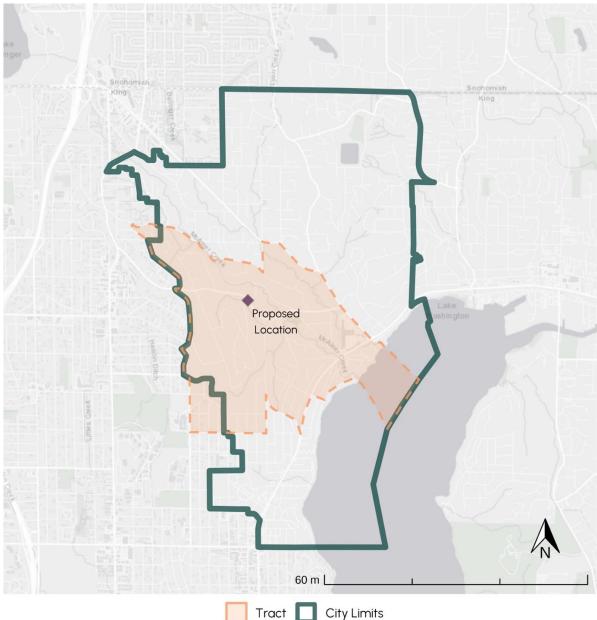
» How will the location of these speed safety cameras benefit or burden those who use NE 178th Street?

Current Residents: Introducing a speed safety camera in a neighborhood impacts the residents who live there. Understanding who lives in and/or travels through the neighborhood can help the city consider who may be most likely to benefit and/or be most burdened by the location of the speed safety camera. To understand who lives in the neighborhood surrounding NE 178th St., we used data from the US Census Bureau's American Community Survey. We selected the tract where the SSC is slated for installment and compared its demographic profile to that of the City of Lake Forest Park and King County (See **Figure 2**).

¹² Washington Traffic Safety Commission. <u>Speed Safety Camera Readiness Guide</u>. 2023.

Figure 2: Study Area





Our analysis found that residents within the neighborhood tract are more likely to be white, have higher incomes, have advanced educational degrees, and own their own homes as compared to the average resident in other parts of the City and County. The tract is less racially and ethnically diverse than its counterparts and has lower representation of impoverished households (See **Table 1**). *Because historically marginalized communities make up a smaller proportion of this neighborhood*

demographic composition, as compared both to the City and the County, the demographic characteristics of this neighborhood do not raise any equity-related concerns.

Table 1: SSC-Location Tract's Demographic Profile Compared to City and County¹³

Source: 2022 ACS 5-Year, ECOnorthwest

DEMOGRAPHIC	NEIGHBORHOOD	CITY OF LAKE	KING	
CHARACTERISTIC	TRACT	FOREST PARK	COUNTY	
Race and Ethnicity				
Percent White-Non Hispanic Residents	81.40%	76.30%	55.90%	
Percent BIPOC-Non Hispanic Residents	14.90%	20.50%	33.90%	
Percent Hispanic Residents	3.70%	3.20%	10.20%	
Households with Children				
Percent Children Under 18	21.8%	19.1%	19.8%	
Wealth and Income				
Poverty Rate	3.2%	3.2%	8.5%	
Median Household Income	\$ 165,385	\$ 152,010	\$ 116,340	
Per Capita Income	\$ 77,598	\$ 72,992	\$ 66,811	
Percent Household with Income under \$50,000*	7.10%	10.30%	20.70%	
Percent Household with Income over \$200,000*	34.60%	31.40%	25.80%	
Other Socioeconomic Indicators				
Percent Residents on Food Stamps	2.60%	5.80%	9.40%	
Percent Residents with a Bachelor's or Higher	69.40%	65.20%	54.90%	
Percent Household who Rent	18.30%	20.30%	43.80%	

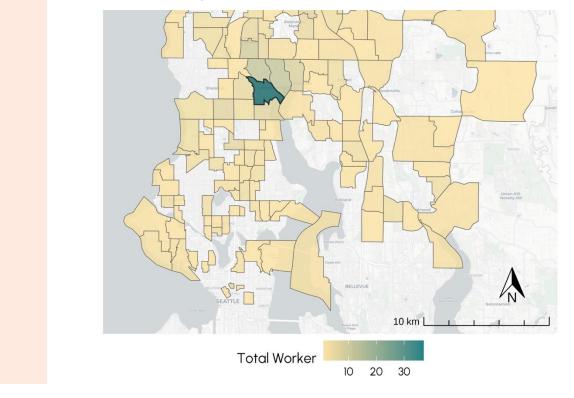
The objective of the SSC is to lower speeds on NE 178th St., which will directly benefit those who live in the surrounding area, especially families who may use this route to drive, walk, or bike their children to the two schools down the street from the proposed SSC. In this way, *the successful deployment of the SSC will most likely benefit those who live in the neighborhood.*

¹³ Data presented in Table 1 are based on a 5-year average estimate, from 2017-2022 as this helps improves data quality. All estimates have a margin of error. While this margin of error is not reported in Table 1, estimates for the tract that do not meaningfully differ from the city level estimate are flagged.



Commuters: Non-residents are also likely to use NE 178th Street for commuting purposes. There are myriad reasons why an average city street may be used by commuters; however, commuters can be condensed into three main categories: 1) residents of the area traveling to and from their homes, 2) local workers traveling to and from their place of employment, and 3) commuters passing through the area en route to their destinations. Commuters passing through NE 178th Street are the hardest to evaluate as there are no datasets on commuter frequency, origin, and destination for this category of motorists. Therefore, for the purposes of this analysis, we focus on workers of the surrounding area traveling to and from their place of employment.





Source: 2020 LODES Origin-Destination Data, ECOnorthwest

¹⁴ The U.S. Census Bureau's LEHD Origin-Destination Employment Statistics ("LODES") shows that the study area provided employment for 639 people in 2020. This same data source reports the demographic profile of workers by tract, which reveals the asymmetry between workers and residents, as reported above. The total number of workers in this tract is low, which can affect the accuracy of these data points.

The U.S. Census Bureau's LEHD Origin-Destination Employment Statistics ("LODES") data suggests that while many employees reside in tracts in the immediate vicinity of the study area, a large portion of the workforce travels into the tract from across the Seattle Metropolitan Area (**Figure 3**). These workers who commute to the study area are racially similar to the residents; however, a larger share of these workers are Hispanic (7%) as compared to the share of Hispanic residents (3.7%). Additionally, 60 percent of workers from these surrounding tracts earn less than \$40,000 annually, a significantly lower wage than that of the average resident.

Concurrent to our analysis, City staff identified the class of commuters as increasingly prevalent on this road, especially due to the construction and anticipated inauguration of new light rail stops in the region, as well as motorists using this route to bypass a toll on Washington State Highway 520, a thoroughfare that connects Interstate 5 via State Route 405 to Washington State Highway 522. *Given 1) the anticipated increase in usage of NE 178th Street by commuters and 2) the greater share of Hispanic and lower-income residents in these surrounding areas who are likely to commute through Lake Forest Park, there is a potential for a greater share of Hispanic and lower-income commuters to be disproportionately impacted by the SSC placement and speed zone enforcement. A better understanding of demographic data on commuting patterns can help the City understand who is commuting through the neighborhood, beyond who works and lives there.*

During the Deployment of Speed Camara

» Will the City of Lake Forest Park *deploy* the speed cameras on NE 178th Street in an equitable manner?

Signage: Washington state law requires the provisions for public notice and signage, including the clear marking of the SSC's location at least 30 days prior to the activation of the traffic camera. *The two proposed hybrid speed safety cameras, by being in accordance with law, align with best practices encouraging safe speeds*



by providing clear signage that informs drivers of 1) the placement of the camera and 2) the required speed limit for the specific zone they are entering.

Issued Warnings: In addition to notifying drivers of the installation of a camera, *a best practice is to consider establishing a period after activation of the SSC (typically 30 days) when all non-accident violators receive a simple warning instead of being issued a speeding ticket.*¹⁵ Alternatively, some SSC programs issue warnings to all first-time speed limit violators.

Speed Enforcement Threshold: According to City staff, the 24/7 hybrid speed safety cameras on NE 178th St will continue its school zone speed enforcement during school hours (26 mph will trigger cameras for during school zone hours of 20 mph), while also enforcing a slightly higher speed during non-school hours (31 mph will trigger cameras during non-school zone hours of 25 mph). *This enforcement threshold of 6 mph aligns with the National Highway Traffic Safety Administration (NHTSA) recommendation of a threshold of a maximum of 11 mph on most roads, and a minimum of six mph in school zones or other roads with lower speed limits or where pedestrians and children are likely to be*

Due Process: Washington state law also requires that a notice of speed infraction be mailed to the registered owner within 14 days of the violation. SSC violation fines are treated like a parking ticket and do not go on a driver's record. The current monetary fine is \$136; however, the Administration will recommend to City Council a base fine of \$145 with the fine increasing \$290 for recidivism and speeds exceeding 31mph for school zone violations. According to City staff, the option for doubling the monetary penalty for school speed zone infractions will apply after 6/6/2024 when ESHB 2384 goes into effect.¹⁷ *While the City of Lake Forest Park court system has*

¹⁵ Washington Traffic Safety Commission. <u>Speed Safety Camera Readiness Guide</u>. 2023.

¹⁶ Ibid.

¹⁷ Washington State. Final Bill Report ESHB 2384. 2024.

a history of considering equitable approaches to reducing monetary penalties, beginning June 6th, 2024 the City will also comply with HB 2384, allowing recipients of state public assistance to request 50% reduced penalties.¹⁸

Restorative Justice Practices: Restorative justice transportation practices aim to focus on people, relationships, and closure where possible. These practices offer alternative restorative justice programs as an alternative to conventional punitive tools (e.g., fines or jail time), to elevate healing practices that afford offenders the opportunity to learn from their mistakes and avoid repeating them.¹⁹ *One alternative approach Lake Forest Park SSC program may consider is issuing facilitated discussions in lieu of speed traffic infractions, where drivers participate in a 90-minute facilitated discussion and often watch a victim recounting their experiences with traffic violence to encourage behavioral changes and minimize repeated speed violations. However, given the City's limited administrative capacity, offering the option for attending pre-existing anti-speeding online trainings may be a more feasible opportunity.²⁰*

Administrative Capacity: It is important for the City to have sufficient staff capacity to deploy, monitor, and evaluate the SSC program.²¹ Lake Forest Park city staff informed our team of the challenge of handling the pre-existing SSC on NE 178th Street with current staff capacity. Staff indicated the likely need for the City to hire additional administrative staff to handle the potential increase in traffic infractions with the new installation of a hybrid 24/7 SSC. *While the goal is for violations to go down over time, there is a possibility of an initial heavy lift and burden on the City's small administrative team in ensuring equitable enforcement of violations and assessing the program's ongoing impact and progress.*

¹⁸ ADD

²¹ Packer, Ryan. 2022. "<u>Seattle's Traffic Camera Funds Earmarked for Statewide 'Capacity Building' Efforts.</u>" The Urbanist.



¹⁹ Transportation Alternatives. "<u>A Restorative Justice Approach to Traffic Violence</u>." n.d.

²⁰ Ibid.

Protect Data Privacy: As a response to concerns about surveillance and the protection of driver privacy, there are emerging best practices related to SSC around intentionally moving these programs out of the purview of police departments. *RCW 46.63.170(2) already requires that automated enforcement systems be designed to photograph only license plates and that the photos and electronic images captured by a camera 1) may not be publicly available, 2), can only be used for the enforcement of traffic infractions, and 3) may not be part of the registered owner's driving record.*²²

After Speed Camera Placement

» Will the evaluation of outcomes of the speed cameras be equitable?

Program Evaluation: Washington state law requires all cities who deploy an SSC program to provide annual reports on the number of traffic collisions and notices of infraction issued at the traffic camera locations, in addition to the revenue received from fines and the distribution of such revenue. *This required reporting aligns with best practices of providing public-facing updates on the impact of SSC program, including; 1) analysis of vehicle speeds, 2) crash statistics in SSC locations and jurisdiction-wide, 3) changes in public awareness and acceptance, and 4) demographic data (e.g., race/ethnicity, income, etc.) on drivers receiving citations and patterns regarding times and days when citations are issued.²³*

Require Community Feedback: Ensuring the community is kept informed on the impact of these speed cameras in decreasing fatalities and increasing safety is considered best practice and is required by Washington state law (See Program Evaluation). *Alongside this best practice of keeping community informed, it is*

²³ Washington Traffic Safety Commission. <u>Speed Safety Camera Readiness Guide</u>. 2023.



²² Parsons, Susannah. 2021. "<u>Can Automated Speed Safety Systems Advance Racial and Economic Equity</u>." SPUR News.

also important to provide avenues for community members to share feedback on their own experience and evaluative perceptions on the effectiveness of the SSC program.²⁴

Program Duration: Speed safety cameras are considered a short-term solution to a specific traffic safety problem. Therefore, when speed cameras aren't achieving the goals of the program, slowed speeds, it is likely not the right tool in that situation and should be exchanged for alternative tools (e.g., in-person enforcement, signage, striping, design changes, etc.). *The City of Lake Forest Park should, therefore, consider establishing a timeframe (e.g., after a year or two of the installation of the hybrid 24/7 SSC), to evaluate the effectiveness of the program and determine a program duration that makes the most sense for the impacted neighborhood.²⁵*

» Will the generation and distribution of SSC revenue be done equitably?

Revenue Generation: To disincentivize the unnecessary lengthening of a SSC program duration as a means for revenue generation, particularly in the case of a third party/private party manufacturer or vendor, **RCW 46.63.170(1)(k) requires that** *the compensation paid to the manufacturer or vendor of the equipment be solely based upon the value of the equipment and services provided, and not a portion of the fine or civil penalty imposed or the revenue generated by the equipment.*²⁶

Revenue Distribution: In an effective SSC program, cities should anticipate that revenue in each camera location will decline as driver speeds decrease. However, regarding the revenue generated, there is an emerging best practice to divert revenue generated by SSC programs away from general and state funds and back into local street safety programs and road infrastructure improvement, preferably

²⁴ Ibid.

²⁵ Ibid.

²⁶ RCW 46.63.170(1)(k).



invested into the very community where the SSC program is located.²⁷ *It is the intent of the City of Lake Forest Park to reinvest revenues generated by the SSC into local street safety programs and improvements and ensure the equitable distribution of these economic benefits.*

²⁷ Buddupalli, Aravind and Muciolo, Livia. 2022. "<u>Public Safety or Speed Traps? The Conflicts of Interest Behind Fines</u> <u>and Fees.</u>" Tax Policy Center. Urban Institute & Brookings Institution., See also, Wilson, Kea. 2022. "<u>Analysis When</u> <u>Speed Cameras Are Racist</u>." Street Blog USA.

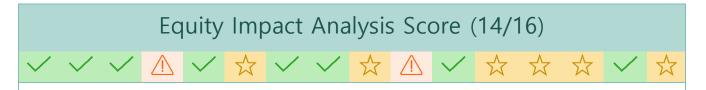


4. Conclusion (Equity Score)

Overall Takeaway

ECOnorthwest prepares this equity analysis report for the City of Lake Forest Park as required by the 2023 Revised Code of Washington RCW 46.63.170(1)(d)(ii).²⁸ ECOnorthwest's team analyzed the equity impact of the proposed SSC program for NE 178th Street by answering six high-level equity questions, informed by best practice research and literature, and considering 16 equity targets regarding the decision-making, placement, deployment, and evaluation of Lake Forest Park's proposed SSC. *Of these 16 equity targets, half were met, two targets elevated concerns, and another six are key opportunities for the city to expand its SSC's equitable impact.*





ECOnorthwest equity impact analysis finds the placement of the two hybrid 24/7 speed safety cameras by the City of Lake Forest Park on the 3300 block of NE 178th Street have the potential to bring forth equitable impacts on its surrounding community's livability, accessibility, economics, education, and environmental health. However, the City has important questions to consider and address regarding:

1) Ensuring community input and transparency.

²⁸ RCW 46.63.170(1)(k).

- 2) Resolving possible disproportionate impact on non-resident commuter drivers.
- 3) Addressing the possible increase in administrative burden on City staff.
- 4) Equitably distributing the generated revenue from traffic infractions and fees.
- 5) Tracking the impact of these speed safety cameras on reducing traffic crashes and/or speed violations in the area.

