

School Zone Traffic Safety Camera System Upgrades

City of Federal Way
September 18, 2012

The City's three school zone traffic safety camera installations represent state-of-the-art technology that is precise and unbiased in its ability to identify vehicles speeding through school zones. The City's philosophy and practice is to verify the validity of citations by Federal Way police officers and take prompt action on behalf of citizens if a problem is identified with the equipment or procedures.

System changes have been made over time to ensure the accuracy and integrity of the school zone camera at each location. Changes and upgrades have been made to enhance public confidence in this safety program and to address identified limitations and complaints.

The following describes the history of the program and changes that have been made at each school zone traffic safety camera installation.

History of the Traffic Safety Camera Enforcement Program

In September, 2008, the City approved a pilot Traffic Safety Camera program, installing the first four red light photo enforcement cameras at two intersections, S. 348th/Enchanted Parkway and S. 320th and Pacific Highway South.

In December 2009, the City addressed ongoing school zone safety concerns at Saghalie Middle School and Twin Lakes Elementary by installing four fixed-speed school zone cameras at the schools (FD06, FD07 & FD10, FD11). In December 2010, we added the third school zone (Panther Lake) to the program. These schools were selected for fixed speed camera installations based on the volume of vehicular traffic, (4-lanes of roadway or more), and number of violations occurring at these sites.

Time-Clock and Hard-Wired Systems

The Twin Lakes and Saghalie school zones were originally designed and built to utilize a 'time-clock' system module which provided electronic timing communication between the camera system and the yellow warning flashers.

The Panther Lake system was designed and built differently. At Panther Lake, the yellow flashers were hard-wired directly to the camera systems to prevent them from operating independently; the cameras cannot operate without the flashers being on and the flashers cannot work without the cameras being operational. This alternative design at Panther Lake was possible due to a pre-existing road work project that was occurring at that location.

Over time, the Twin Lakes and Saghalie school zone systems began to experience minor 'time-clock' synchronization issues. Because of the 'time-clock' problems, we upgraded both locations to receive hard-wired linkage, connecting the yellow flashers with the camera systems. This upgrade prevents these camera systems from operating without the yellow warning lights.

History of System Upgrades

All three School Zone camera systems were shut down for upgrades beginning September 2011. Panther Lake was the last to come back on-line in December, 2011. Additionally, Panther Lake received additional flashing signals and signage, and lens repositioning in the summer of 2012.

- **Twin Lakes (FD06 & FD07)** cameras taken off-line early September, 2011 and back on-line September 23, 2011.
- **Saghalie (FD10 & FD11)** cameras taken off-line October 6, 2011, brought back on-line December 7, 2011.
- **Panther Lake (FD08 & FD09)** cameras taken off-line early September, 2011 and back on-line October 4, 2011.
- **Panther Lake (FD08 & FD09)** cameras taken off-line early August, 2012 (for additional signage and warning lights) and back on-line September 4, 2012.

Upgrade Costs: \$19,096.26

Steps taken to address 'time-clock' issues:

Twin Lakes Elementary and Saghalie Middle School cameras systems were converted to the hard-wired system so that the camera and flashers operate together and cannot operate independently.

Flashing Signal Confirmation

In response to citizen comments, the City upgraded all three school zone systems to capture confirmation of the yellow warning lights in the camera image. At Twin Lakes Elementary and Saghalie Middle School, additional flashers were added to the system so that the flashing signals are seen on the camera. At Panther Lake Elementary School, the lens angle was widened to capture the yellow flashers on the video clip.

Excessive Panther Lake Violations

The Panther Lake Elementary school zone has historically had a high level of school zone speeding violations. In response to continued speeding problems there, the City installed six new flashing warning beacons and additional school zone signage during the summer of 2012 to increase driver awareness of the school zone and camera enforcement.

Panther Lake Traffic Signal Delay

Early in 2012, the Police Department became aware of the traffic signal delay possibility at the Panther Lake school zone. This is the only school zone location with a traffic signal located between the two approaches. Potentially, if a driver were to enter this zone moments before the start of a reduced speed window (flasher time) and got delayed by the traffic signal, they could proceed through the zone unaware that the speed limit was reduced.

We resolved this issue at Panther Lake, by first directing reviewing officers to allow at least 3 minutes into each scheduled flasher time before any violations were approved. This was intended to give drivers enough time to see and become aware of the yellow warning lights, even if they were to stop for a full cycle of the traffic signal. During the summer of 2012, additional flashers were added to warn drivers of school zone operation at the traffic signal.

Statistics:

Camera #	Locations	Inception Date	Total Cites Issued*
FD06 –	E/B SW 320 th @ Twin Lakes Elementary	(Dec./2009)	2,079
FD07 –	W/B SW 320 th @ Twin Lakes Elementary	(Dec./2009)	4,131
FD08 –	N/B 1 st Ave S.@ Panther Lake Elem.	(Dec./2010)	2,668
FD09 –	S/B 1 st Ave S.@ Panther Lake Elem.	(Dec./2010)	7,194
FD10 –	N/B 21 st Ave S @ Saghalie Elementary	(Dec./2009)	3,454
FD11 –	S/B 21 st Ave S @ Saghalie Elementary	(Dec./2009)	2,446

* Total citations issued from Inception Date, to 09/'12.

School Zone Traffic Safety Camera Essentials

- Federal Way has school zone traffic safety camera installations at three of the 23 public and private schools in the City limits of Federal Way. Most of the other 20 schools are equipped with yellow flashing warning lights and signs, to alert drivers that they are entering a school zone.
- Every traffic safety camera violation event is reviewed and approved by a Federal Way police officer. Not all violation events are cited and the benefit of the doubt is given to citizens such as rolling across a stop bar or a school zone speeding violation under 6 mph.
- As with any traffic citation, citizens have the right to contest the citation, either in court or in writing. Those cited may also request mitigation, either in person or in writing, without contesting the charge.
- The City is committed to address system problems that are identified and implement upgrades to ensure system accuracy and accountability.