

TOWNSHIP OF LOWER MERION

Police Committee

Issue Briefing

Topic: Automated Red Light Enforcement (ARLE)

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I. Action To Be Considered By The Board:

Authorize advertisement of an Ordinance to amend the Code of the Township of Lower Merion, Chapter 145, Vehicles and Traffic, by the addition of a new Article XIII, Automated Red Light Enforcement, to provide for the adoption of an automated red light enforcement system at designated intersections in the Township, to provide a civil penalty and the use thereof for traffic signal violations at those intersections if recorded on a camera, to provide for limited use of camera recordings, to provide reporting obligations concerning violations and the collection of fines on the part of the Township, to provide for notice of violation to the vehicle owner, to provide defenses for violations and a procedure for a hearing and appeals therefrom.

Why This Issue Requires Board Consideration:

Amendments to the Code of the Township of Lower Merion require authorization by the Board of Commissioners

II. Current Policy Or Practice (If Applicable): N/A

III. Other Relevant Background Information:

Lower Merion Township and the ARLE Program

Pennsylvania law enables Lower Merion Township to qualify for the Automated Red Light Enforcement (ARLE) Program. This initiative allows approved municipalities to install red light cameras with the primary goal of improving traffic safety and reducing crashes. Importantly, the program is designed to eliminate financial incentives, ensuring its sole purpose is public safety. Violations are treated as civil offenses, without any points added to driving records. These cameras are strictly used for red light enforcement and cannot be employed for surveillance purposes.

The Pennsylvania Department of Transportation (PennDOT) oversees the ARLE program and is responsible for approving intersections for camera installation. PennDOT may also require municipalities to make safety improvements to intersections before granting approval. While approved vendors can install the cameras and handle administrative tasks, all violations must be reviewed and approved by a sworn municipal police officer. Administrative costs are covered through the ARLE program, and violation notices are sent to the registered owner of the vehicle. However, the program allows the owner to claim a defense if they were not operating the vehicle at the time of the violation. Additionally, municipalities cannot compel the owner to disclose the identity of the driver.

Fines and Program Administration

Fines for red light violations are capped at \$100, unless the municipality opts for a lower amount. For comparison, the current total in fines and court costs for citations issued by police officers for similar violations is \$173.75 and three points if found guilty of the violation. Municipalities must appoint a civilian hearing officer to manage appeals.

Revenue generated from this program first covers all administrative costs, including vendor fees and personnel salaries. Any surplus revenue is forwarded to the ARLE grant state fund, managed by PennDOT. This fund supports transportation enhancement projects across the state. Municipalities participating in the ARLE program receive priority status when applying for these grants, providing Lower Merion Township with additional opportunities to secure funding for infrastructure and safety improvements.

Success and Challenges of ARLE Programs

ARLE programs across the country have produced mixed results. Some studies highlight significant reductions in serious injury crashes, while others point to an increase in rear-end collisions. The financial outcomes of these programs also vary, with some generating substantial revenue and others ceasing operations due to negative revenue. Privacy concerns and the absence of direct interaction with police officers have further been raised. Moreover, as violations decrease over time in successful programs, revenue may fall below levels needed to sustain operations.

Despite these challenges, Pennsylvania has seen notable success with ARLE programs. For example, Philadelphia's program on Roosevelt Boulevard has dramatically reduced serious and fatal crashes. Similarly, Abington Township implemented cameras at high-crash intersections, achieving a 28% reduction in total crashes at three intersections.

Violation Analysis and Recommendations

Sensys Gatso Group conducted a survey of red light violations at four intersections in Lower Merion Township, producing the following data:

DIRECTION	STREET	STREET	LEFT TURN	RIGHT TURN	THRU	TOTAL
EB	Wynnewood, Lancaster Avenue*	Remington Road	4	13	24	41
WB	Wynnewood, Lancaster Avenue*	Remington Road	18	4	20	42
EB	Haverford, Lancaster Avenue	Haverford Station Road	15	16	109	140
WB	Haverford, Lancaster Avenue	Haverford Station Road	43	0	156	199
WB	Rosemont, Montgomery Avenue	Airdale Road	44	0	81	125
EB	Rosemont, Montgomery Avenue	Airdale Road	10	0	114	124
NB	Spring Mill Road*	Old Gulph Road	2	3	8	13
SB	Spring Mill Road*	Old Gulph Road	12	2	20	34
EB	Spring Mill Road*	Old Gulph Road	2	13	3	18
WB	Spring Mill Road*	Old Gulph Road	4	20	4	28
24 Hour Total All Approaches						764

*Designated "No Turn on Red"

Key Findings

1. Highest Violation Intersections:

- Lancaster Avenue and Haverford Station Road recorded 339 violations within 24 hours, making it the most problematic intersection.
- Montgomery Avenue and Airdale Road followed with 249 violations.
- Lancaster and Remington Road had 83 violations

These three intersections accounted for over 60% of the total 764 violations recorded. Spring Mill Road and Old Gulph Road should be excluded from consideration, as it does not appear to be viable a option—even when evaluating all four approaches

2. Thru Movements and Compliance Issues:

- A significant number of violations were related to thru movements, (running red lights by going straight through intersection) particularly at Lancaster Avenue and Haverford Station Road (156 westbound violations alone).
- "No Turn on Red" violations occurred across multiple intersections, indicating potential issues with signage visibility or driver compliance.

Operational Insights from Bensalem Police Department

During our evaluation period, we consulted with the Bensalem Police Department, an agency of comparable size, to gain insights into the implementation and management of the ARLE program. They reported similar initial numbers of violations during their program's launch phase. Over time, as driver compliance improved, daily violations decreased to approximately 250 per day after the first year.

Initially, the department faced significant challenges with the volume of violations, stating that the workload was overwhelming. However, they adapted by assigning several officers to exclusively handle ARLE violations and the school bus violation program. These officers now manage these responsibilities efficiently as their primary focus.

Bensalem also provided information about their approach to hearings for contested violations. They hired a retired Pennsylvania State Police Officer to serve as the hearing officer, conducting hearings twice a month. Each session typically involves 20 hearings and lasts approximately 2 hours. The hearing officer is compensated \$200 per session, a cost that is covered by revenue generated from the program.

The Bensalem Police Department's experience highlights the importance of planning for administrative workloads, staffing needs, and public-facing processes such as hearings to ensure the program runs smoothly.

Estimated Revenue and Costs

The implementation of ARLE cameras at the selected intersections presents a financially sustainable model due to the program's cost-neutral design, which ensures all operational and administrative expenses are funded by the revenue generated from violations, eliminating any additional burden on municipal budgets or taxpayers.

1. Revenue Generation:

- Based on violation data from the survey, the three most viable intersections could collectively generate approximately \$67,100 in daily revenue. This scales to \$2.0 million per month and \$24.2 million annually during the program's initial phase.
- After the first year, as compliance improves and violations decrease to one-third of initial figures, monthly revenue is expected to adjust to \$669,000, or approximately \$8.0 million annually.

2. Cost Breakdown:

- Operational costs include \$4,800 per camera per approach, translating to \$9,600 per intersection per month and \$28,800 per month for all three intersections.
- Annual operational costs total approximately \$345,600 for all proposed intersections.
- Additional expenses, such as police officer time for reviewing violations and hearing officer compensation, are also covered entirely by program revenue. Hearing officers, for example, could be compensated \$200 per session, with two sessions held monthly.

3. Surplus Revenue Allocation:

- Any revenue exceeding operational costs is forwarded to the ARLE grant state fund, which supports transportation enhancement projects. Participating municipalities, such as Lower Merion Township, receive priority status when applying for these grants, providing opportunities for additional funding for infrastructure improvements.

Challenges and Considerations

1. Administrative Workload:

- Implementing the ARLE program at all three recommended intersections would generate a significant administrative burden. Based on projections from the survey data, the volume of violations could reach 20,130 per month, requiring approximately 671 hours of officer review time monthly, given the average of two minutes per violation.

- While programs like Bensalem’s have demonstrated that efficiency can be achieved by dedicating specific personnel to manage ARLE violations, Lower Merion Township’s current staffing levels would not support this workload without negatively impacting other essential law enforcement duties.
- Scaling back the program to start with one intersection would significantly reduce the workload, allowing the Township to focus its resources effectively while building the foundation for future expansion. Starting with one intersection also provides an opportunity to refine administrative processes, address unforeseen challenges, and gather additional data on the program's impact.

2. Hearing Process:

- Violation appeals represent another significant operational component of the program. With an expected high number of contested violations during the initial phase, the township will need to appoint a hearing officer and establish a clear process for managing these cases. Bensalem’s approach—hiring a retired officer to conduct hearings at \$200 per session—offers a cost-effective solution, though the additional administrative efforts associated with organizing these sessions must also be accounted for.

Final Recommendations

After careful analysis of the data and operational considerations, the following phased approach is recommended for the successful implementation of the ARLE program in Lower Merion Township:

1. Phase 1: Initial Implementation at One Intersection

- Begin with the Lancaster Avenue and Remington Road intersection, identified as a problematic intersection with 83 recorded violations in the study. We're starting at this location due to the higher number and severity of crashes recorded there. Focusing on a single intersection allows for:
 - Reduced administrative workload and officer time commitment.
 - Testing and refining processes for violation reviews, hearings, and public communication.
 - Gathering early data on the program's impact, which can inform future decisions.
- Deploy two cameras at this intersection—one for the eastbound and one for the westbound approaches—to ensure comprehensive monitoring.

2. Phase 2: Monitor, Evaluate, and Build Capacity

- After an initial trial period (e.g., 12–18 months), evaluate the program’s effectiveness at the first intersection. Key metrics include changes in violation rates, crash data, revenue generation, and administrative efficiency.

- Based on results, assess whether current staffing levels and resources can support expanding to additional intersections. If successful, prioritize implementation at Montgomery Avenue and Airdale Road and Lancaster Avenue and Haverford Station Road.

3. Capacity Building:

- Plan for additional staffing or reallocation of personnel to handle ARLE operations more efficiently. As demonstrated by Bensalem, assigning specific officers to ARLE duties can greatly enhance efficiency and program management.
- Develop public education campaigns to improve driver compliance and address concerns about privacy and enforcement fairness.

This phased approach ensures that the program begins in a controlled, manageable manner, allowing for careful evaluation and incremental scaling. Starting with one intersection reduces the risk of overwhelming existing resources while setting the stage for long-term success in enhancing traffic safety throughout Lower Merion Township.

IV. Impact On Township Finances:

The initial implementation of the Automated Red Light Enforcement (ARLE) Program will focus on Lancaster Avenue and Remington Road, with an estimated operational cost of \$9,600 per month and an annual cost of \$115,200 for this single intersection. All associated expenses, including police officer reviews and hearing officer compensation—set at \$200 per session with two sessions held monthly—will be fully covered by program revenue. In Phase 2, the program will expand to two additional intersections, increasing monthly operational costs by \$19,200 and bringing the total annual cost for all three intersections to \$345,600. This phased approach allows for a manageable rollout, ensuring effective monitoring and evaluation before broader implementation.

V. Staff Recommendation:

Staff recommends authorizing advertisement of the ordinance to implement an Automated Red Light Enforcement Camera System.