Automated Work Zone Speed Enforcement (AWZSE)

Doug Tomlinson, PE
Highway Safety and Traffic Operations
Pennsylvania Department of Transportation
dtomlinson@pa.gov

GHSA 2023 Annual Meeting
Why AWZSE?

PENNSYLVANIA WORK ZONE CRASH STATISTICS 2012-2018

- **Work Zone Crashes**
  - 2% annual increase since 2012
  - 2018 - 1804

- **Speeding Concerns**
  - 39% of all work zone crashes involve speeding
  - 2018 – 47%

- **Fatal Work Zone Crashes**
  - Remained stagnant since 2012
  - 2018 - 23

- **Work Zone Crash Location**
  - 57% occur within the activity area

- **Law Enforcement in Work Zones**
  - 82% of crashes occur when NOT present
History

- November 2012 – TAC Report
- June 2015 – First Bill Introduced (SB 840)
- October 2018 – Act 86 Authorizes Five-Year Pilot Program
Legislative Highlights

• PennDOT (Federal-Aid) and PTC Highways
• 11 MPH over Posted Speed Limit Threshold
• Civil Penalties – Fine-Carrying and Appealed Violations Reviewed by PSP
• Tiered Penalty Structure
• Defined Contest and Appeals Processes
Public Perception

Arguments Against ASE
- Revenue Generating Program
- Speed Limits Artificially Reduced
- Insufficient Warning
- Speed Measuring Devices Inaccurate
- ASE Vendors Operate With Little Oversight
- Violators Have No Opportunity To Appeal
- Violation Of Privacy: “Big Brother”

PA’s Program
- System Administrator Paid Flat Fee Per Deployment
- Statewide Work Zone Speed Limit Policy
- Two Advance Warning Signs and Locations Posted On Website
- Daily Equipment Testing/Annual Calibration
- PennDOT/PTC Oversee Program, PSP Reviews Fine Carrying Violations
- Two-step Appeal Process (Informal Hearing And Magisterial)
- Image Destruction Requirements
Program Goals

• Reduce Speeds in Work Zones
• Improve Driver Behavior
• Save Worker and Traveler Lives
• Complement Existing Enforcement by PA State Police
• Promote Work Zone Safety
AWZSE Deployment Location
General Information

17 Units per Day
- 10 for PennDOT
- 7 for Turnpike

8-Hour Deployment Shift
Up to Two Shifts Daily
- Day Shift
- Night Shift

Weekday and Weekend Work Zones

Workers MUST be Present
Two Advance Warning Signs
Notice at Location and on Website
Speed Limit Signs Appropriately Placed
End Road Work/Work Zone Signs
Agency Roles and Responsibilities

✓ Scheduling and Monitoring (State Highways)
✓ Fiscal Processes and Auditing
✓ Regulations and Standards Development
✓ Hearing Officers

✓ Scheduling and Monitoring (Commission Highways)
✓ Auditing and System Admin
✓ Contract Compliance
✓ Standards Development

✓ Violation Review and Affirmation
✓ Field Speed and Quality Control Testing
Contracted Services

PROGRAM ADMINISTRATOR
✓ Project Selection/Scheduling
✓ Field & Back Office QA/QC
✓ Operational Compliance and Process Updates
✓ Program Outreach
✓ Performance Monitoring and Reporting
✓ Technical /Admin Support

SYSTEM ADMINISTRATOR
✓ Field Unit Deployment
✓ Violation Review, Collection, Mailing and Disbursement
✓ Customer Service & Record Keeping
✓ Informal Hearing Support
✓ Annual Certifications
## Penalty Structure

<table>
<thead>
<tr>
<th>Element</th>
<th>Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Violation</td>
<td>No Monetary Fine</td>
</tr>
<tr>
<td>Second Violation</td>
<td>$75 fine</td>
</tr>
<tr>
<td>Third+ Violation</td>
<td>$150 Fine</td>
</tr>
<tr>
<td>Late Fees</td>
<td>Up to $75 if not paid within 90 days of mailing</td>
</tr>
<tr>
<td>Contest</td>
<td>Must be filed within 30 days of Mailing</td>
</tr>
<tr>
<td>Violation Type</td>
<td>Civil – no points, no merit rating change</td>
</tr>
</tbody>
</table>
### Deployments and Violations

- **8,800+ Deployments**
- **1,000,000+ Violations**
- **16.1% Repeat Rate**

<table>
<thead>
<tr>
<th></th>
<th>DEPLOYMENTS</th>
<th>FIRST VIOLATIONS ($0)</th>
<th>SECOND VIOLATIONS ($75)</th>
<th>THIRD/SUBSEQUENT VIOLATIONS ($150)</th>
<th>TOTAL VIOLATIONS ISSUED</th>
<th>REPEAT RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2020 TOTAL</strong></td>
<td>2,084</td>
<td>191,595</td>
<td>19,226</td>
<td>8,409</td>
<td>219,230</td>
<td>12.61%</td>
</tr>
<tr>
<td><strong>2021 TOTAL</strong></td>
<td>3,302</td>
<td>359,697</td>
<td>45,967</td>
<td>19,119</td>
<td>424,783</td>
<td>15.32%</td>
</tr>
<tr>
<td><strong>2022 TOTAL</strong></td>
<td>3,482</td>
<td>362,195</td>
<td>57,114</td>
<td>25,458</td>
<td>444,767</td>
<td>18.57%</td>
</tr>
<tr>
<td><strong>PROGRAM TOTAL</strong></td>
<td>8,868</td>
<td>913,487</td>
<td>122,307</td>
<td>52,986</td>
<td>1,088,780</td>
<td>16.10%</td>
</tr>
</tbody>
</table>
Speed Reduction

- Percent over the speed limit
- Percent excessively speeding (11+ MPH over speed limit)
- Speeds higher in barrier-protected work zones vs unprotected
  - % of traffic over speed limit and % excessively speeding is twice as high in barrier work zones
  - 75% of deployments are channelized work zones
Reduced Crashes

• Based on study of long-term barrier-protected work zones
• Increased enforcements resulted in fewer crashes
US-1 Work Zone

- RC1 was 45mph. RC2 was 55mph.
- RC2 incorrectly identified as 45mph for enforcement.
- All fines and warnings rescinded.
Looking to the Future

- Elimination of the sunset date
- Removal of “not active” requirement
- Withholding registration renewals for non-payment
- Allowance of enforcement in inactive work zones
Looking to the Future

- Financial penalty on first violation
- Improved advance signing
- Virtual informal hearings
- Transfer of responsibility for leased vehicles
PROGRAM RESOURCES

Program Website
https://workzonecameras.penndot.gov/

Legislative Annual Reports
https://workzonecameras.penndot.gov/about/

Purdue University Study
https://www.mdpi.com/1424-8220/22/8/2885/htm
Thank You

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