



# *DVRPC Road Safety Audit Program*



Delaware Valley Regional  
Planning Commission



**October 30, 2007**

## **What is a RSA?**

- **A formal safety performance examination of an existing or future road or intersection**
- **Combination of field work, and data analysis conducted by an independent, and interdisciplinary audit team**
- **Provides a proactive approach to improving transportation safety**

# **Benefits**

- **Proactive**
- **Planning tool**
- **Interdisciplinary**
- **Adaptable**
- **Focused**
- **Improvements can be implemented gradually**

# **Audit Team**

- **PennDOT District 6**
- **PennDOT County Maintenance**
- **FHWA**
- **County Planning**
- **Township/Borough Representatives**
- **Local Police**
- **PA State Police**
- **Special Interest Groups**
- **DVRPC**

# **Audit Materials**

- **Location Maps/Aerials**
- **Crash Data**
- **AADT's**
- **Turning Movement Counts**
- **Checklist**
- **Field Notes Sheets**

# **Day 1 Activities**

- **Pre-Audit Meeting**
  - Project background
  - Introduce corridor to Audit Team
    - Roadway characteristics, crash history, crash cluster analysis, nighttime video, open discussion
- **Field View**
  - Audit materials are distributed
  - Conduct field view
    - On foot (where appropriate), identify current and potential safety hazards

## **Day 2 Activities**

- **Post Audit Meeting**
  - Debriefing from field view
  - Make recommendations
  - Next Steps

# **RSA Locations**

- ***Corridors identified in the PennDOT District 6 Safety Plan***
  - ***PA 896 in Chester Co. (11/06)***
  - ***Allegheny Ave. in Philadelphia (4/07)***
  - ***Conestoga Rd. in Delaware Co. (5/07)***
  - ***Aquetong Rd. in Bucks Co. (8/07)***
  - ***PA 412 in Bucks Co. (9/07)***
  - ***PA 663 in Montgomery Co. (10/07)***

# PA 896 RSA



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**JANUARY 2007**

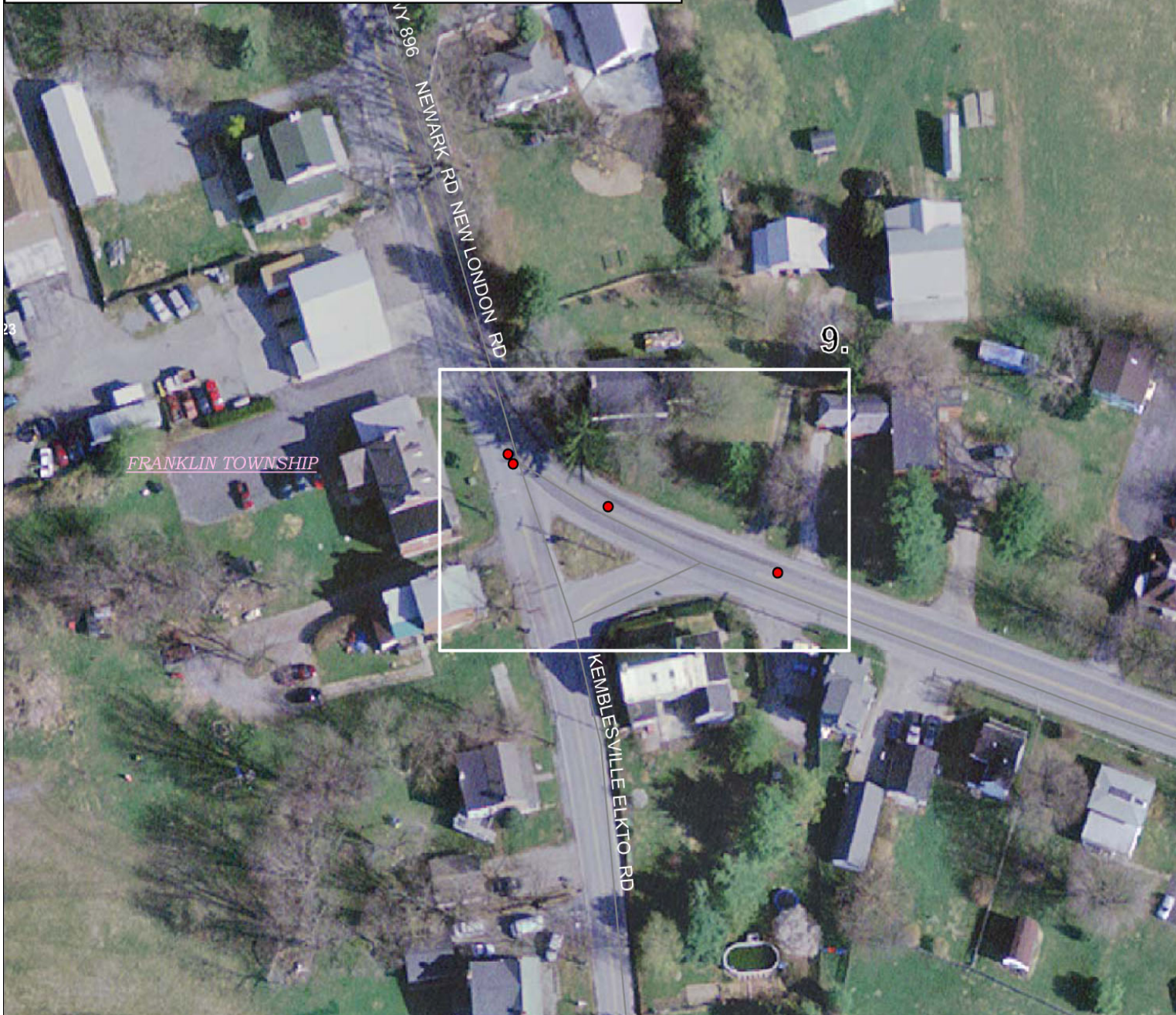
**PA 896**

Road Safety Audit

# **PA 896 Audit Highlights**

- **Rural area**
- **3 Townships**
  - Franklin, New London, London Britain
- **Approximately 5 miles (2003 – 2005)**
- **Considered high risk rural road**
- **132 reportable crashes**
  - 2 fatalities
  - 14 crash clusters
- **Field view performed under wet conditions**

**9. 896: at Appleton Rd.**  
Segment 60, Offset 0



<b>TOTAL CRASHES 16</b>	
<b>COLLISION TYPE</b>	
<i>Angle</i>	7
<i>Hit Fixed Obj</i>	4
<i>Head On</i>	3
<i>Opposite Dir Sideswipe</i>	1
<i>Rear End</i>	1
<b>ILLUMINATION</b>	
<i>Daylight</i>	9
<i>Street Lights</i>	5
<i>Dark</i>	1
<i>Dawn</i>	1
<b>WEATHER</b>	
<i>Rain</i>	9
<i>Clear</i>	4
<i>Snow</i>	3
<b>SEVERITY COUNT</b>	
<i>Fatalities</i>	0
<i>Injuries</i>	12



**Crash Location – PA 896 at Appleton Rd**



**Audit team observing conditions at PA 896 and Appleton Road**

# Allegheny Ave. RSA



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**ALLEGHENY AVE**

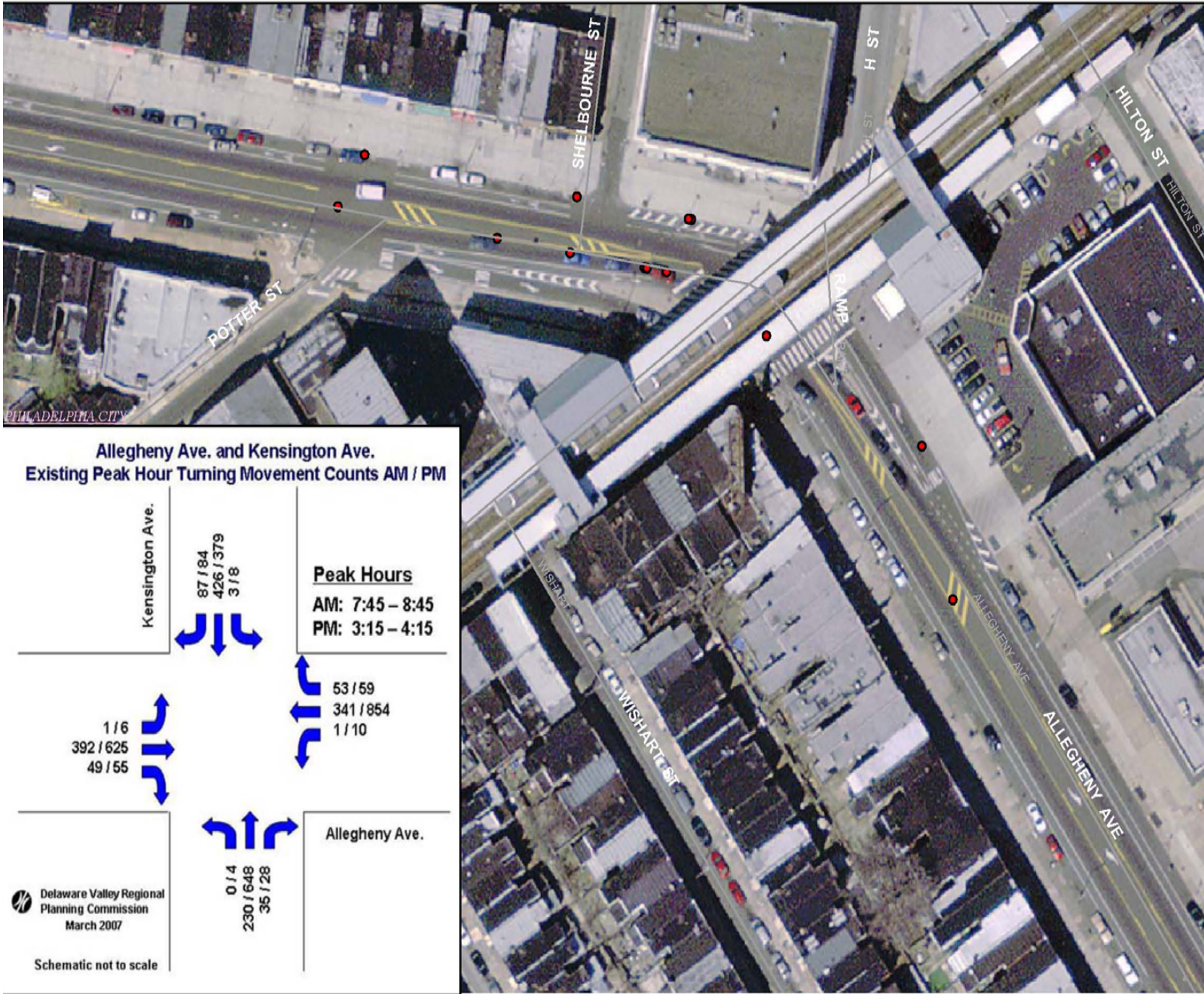
Road Safety Audit

# **Allegheny Ave. RSA Highlights**

- **Urban area**
- **City of Philadelphia**
- **Approximately 5 miles**
- **376 reportable crashes (2003-2005)**
  - **86 pedestrian crashes**
  - **19 crash clusters**
- **Special group involvement**
  - **SEPTA, neighborhood association, Greater Phila. Bicycle Coalition, School District**

# 17. Allegheny Ave. from Potter St. to Kensington Ave.

Segment 90, Offset 355 to Segment 90, Offset 852



COLLISION TYPE	
Rear-end	6
Head-on	2
Rear-to-rear (backing)	1
Angle	2
Sideswipe (same dir)	4
Sideswipe (opposite dir)	1
Hit pedestrian	8
<b>Total</b>	<b>24</b>
ILLUMINATION	
Daylight	12
Dark – no street lights	1
Dark – street lights	9
Dusk	2
<b>Total</b>	<b>24</b>
WEATHER	
No adverse conditions	18
Rain	3
Snow	1
Other	1
Unknown	1
<b>Total</b>	<b>24</b>
SEVERITY COUNT	
Fatalities	0
Injuries	26
UNK Severity	9
UNK If Injured	3



**Crash Location – Allegheny Ave. at Kensington Ave./Kensington Station**

# Conestoga Rd. RSA



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**CONESTOGA ROAD**

Road Safety Audit

# **Conestoga Rd. RSA Highlights**

- **Suburban area**
- **Radnor Township**
- **Approximately 5 miles**
- **144 reportable crashes (2003-2005)**
  - **12 crash clusters**
- **Frequently used as bypass for Rte. 30**
- **Capacity constraints**

## 6. Conestoga Rd. at Brookside Ave.

Segment 70, Offset 9 to Segment 70, Offset 501



COLLISION TYPE	
Hit fixed object	4
Rear-end	2
Head-on	1
Non-collision	1
<b>Total</b>	<b>8</b>
ILLUMINATION	
Daylight	4
Dark – street lights	3
Other	1
<b>Total</b>	<b>8</b>
WEATHER	
Clear	6
Rain	2
<b>Total</b>	<b>8</b>
SEVERITY COUNT	
Fatalities	2
Major	1
Minor	1
UNK Severity	1



**Crash Location – Conestoga Rd. at Brookside Ave.**

# **Outcome of Audits**

- **Corridor wide and site specific issues identified with recommendations**
  - Upgrade signage, install RPMs, upgrade pavement markings, drainage, sidewalks, conduct inventories or studies, etc.
- **Recommendations are forwarded on to PennDOT for further implementation**

# **Outcome of Audits**

- **PA 896 RSA Implementations**
  - ***Implemented as Low Cost Safety improvements under the Surface Treatment Program (maintenance contract)***
    - **Shoulder rumble strips – Den Rd. to Good Hope – 4 miles (all of Franklin Twp.)**
    - **RPMs on centerline (all Franklin Twp.)**
    - **Some sign upgrades, and paint maintenance**
  - ***Other works in process***
    - **Work order for “cross roads” signs for PA 896 and PA 841**
    - **Request to re-do edge line painting at Appleton Rd.**
    - **Transverse rumble strips**

# **Outcome of Audits**

- **Conestoga Rd.**
  - *Low Cost Safety under Surface Treatment Program (maintenance contract)*
  - Dotted edge lines will be painted at all unsignalized intersections
  - 2.1 miles of RPMs are programmed from US 30 to RR overpass, Calahan Ave. to US 30 (west end)
- **PA 412**
  - Speed Study completed to justify a speed limit reduction from 45 to 40 mph (PA 611 to eastern end of 212)

# **Future Audits**

- **Corridor RSA**
  - 2 scheduled in Spring 2008
    - 1 Urban
    - 1 Rural
- **Intersection RSA**
  - Conducted in New Jersey Counties

# Nighttime Video

