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A quarterly review of news and information about Pennsylvania local roads.

When to Use Stop Signs in Alleys

A Guide to Understanding the State's Requirements Related to Traffic-Control Devices at Alley Intersections

by Patrick Wright, Pennoni Associates

When deciding whether to use stop signs and other traffic-control devices in alleys, municipalities should be familiar with two major issues. The first is whether traffic control is even required, and the second is how to properly place the signs especially within the space constraints found in most alleys.

Understanding Alleys and Intersections

Alleys are defined separately in both the Pennsylvania Vehicle Code (Title 75) and the Manual on Uniform Traffic Control Devices (MUTCD). According to the Vehicle Code (Title 75, Section 102) as well as the MUTCD, an alley is "a street or highway intended to provide access to the rear or side of lots or buildings in urban districts and not intended for the purpose of through vehicular traffic."

An alley is considered a "highway" in the Vehicle Code because it is a "roadway open to the use of the public." Following this logic, the junction of an alley with another highway (including another alley) is considered an "intersection" under the Vehicle Code, and thus crosswalks (whether marked or unmarked) exist.

What Traffic-Control Devices Are Required?

Now that the definitions of alleys and intersections have been clarified, the next step is to determine what traffic-control devices are required for alleys. As at any intersection, the Vehicle Code does not necessarily require stop signs or other traffic-control devices. Instead, the code has specific "rules of the road" that govern driving behavior and the right-of-way at intersections depending on the situation.

continued on page 4



Drivers on an alley are required by law to stop before entering the street—whether or not there is a stop sign present at the intersection.

ALSO IN THIS ISSUE

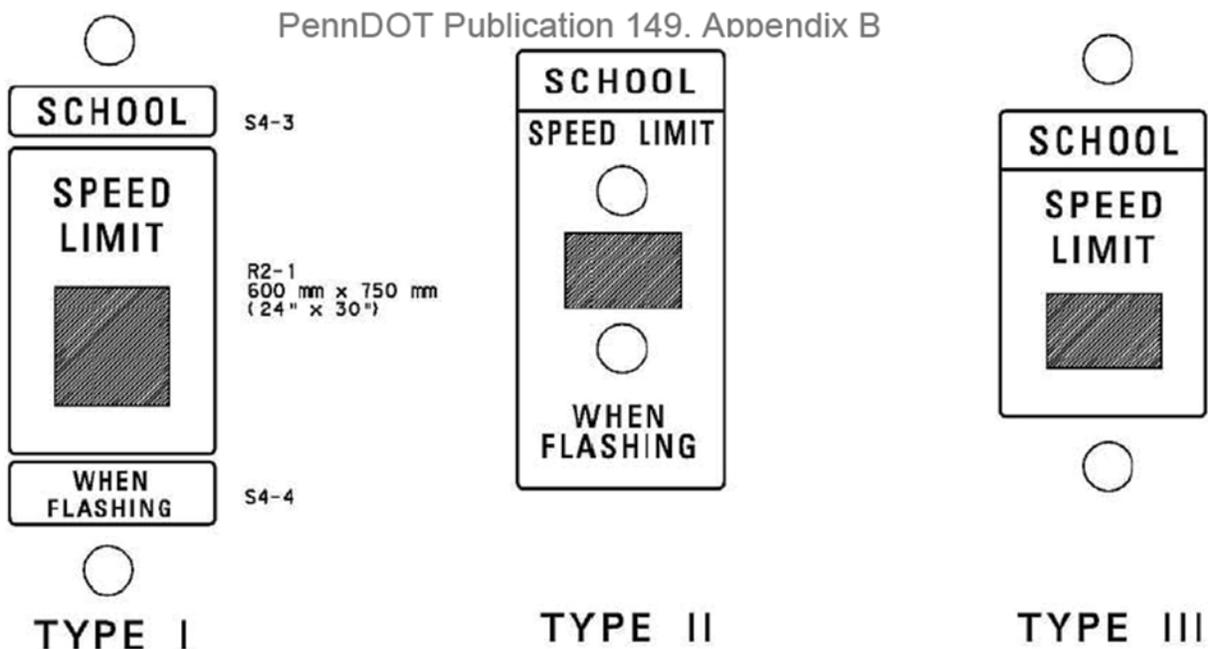
- Should Solar-Powered School Warning Signs be Considered in Your Municipality? 2
- Westmoreland County's Shared Vision for the Future 5

Should Solar-Powered School Warning Signs be Considered in Your Municipality?

With Pennsylvania focused on finding alternative energy sources to ensure reductions in energy costs and greenhouse gas emissions, many municipalities are exploring new technologies such as solar-powered traffic control devices. In addition, Pennsylvania's lifting of the energy rate caps has left many municipalities trying to discover alternative technologies which are not as energy dependent. With significant advances in solar-powered technologies advancing over the past 10 years, smaller traffic control devices including solar-powered school speed limit signs are an attractive alternative to consider when installing a new school zone or updating an existing school zone. Below are standard drawings in PennDOT Publication 149 "Traffic Signal Design Handbook", Appendix B.

PennDOT's Bureau of Highway Safety and Traffic Engineering (BHSTE), approves both hardwire and solar-powered school speed limit signs to ensure that each system will function properly. When PennDOT receives a manufacturer's request to be allowed to sell new solar-powered products within Pennsylvania, such as a solar-powered school speed limit signs, the Department reviews and evaluates each new solar-powered product as a system. By purchasing a Department approved system it ensures that the operation and functionality of the system will be to the municipality's satisfaction.

Existing systems can be retrofitted to solar-power, but there is no guarantee that the system will function properly after installation. The Department recommends that if considering solar-powered school



NOTES:

1. ANY OF THE ILLUSTRATED TYPES OF SIGNS MAY BE INSTALLED AT THE LOCATIONS INDICATED ON THE PERMIT DIAGRAM.
2. TYPE I IS COMPRISED OF STANDARD SIGNS HAVING THE PENNDOT DESIGNATION NUMBERS INDICATED. IT SHALL HAVE 200 MM (8") DIAMETER SIGNALS MOUNTED EXTERNALLY.
3. TYPE II MUST HAVE A PENNDOT CERTIFICATE OF APPROVAL. THE SIGN SHALL HAVE MINIMUM DIMENSIONS OF 750 MM (30") x 1350 MM (54") WITH 150 MM (6") OR 200 MM (8") DIAMETER SIGNALS MOUNTED INTERNALLY AND A BLANK-OUT SPEED MESSAGE.
4. TYPE III MUST HAVE A PENNDOT CERTIFICATE OF APPROVAL. THE SIGN SHALL BE THE CHANGEABLE MESSAGE TYPE WITH MINIMUM DIMENSIONS OF 600 MM (24") x 950 MM (38") AND 200 MM (8") DIAMETER SIGNALS MOUNTED EXTERNALLY.
5. WHEN THE SIGNALS ARE FLASHED IN TYPES II AND III, THE SPEED MESSAGE ___ SHALL BE VISIBLE.
6. TYPES I AND III SHALL BE INSTALLED WITH THE CLOSEST PART OF THE SIGNAL HOUSING 300 MM (12") FROM THE EDGE OF THE SIGN.

SCHOOL ZONE SPEED LIMIT SIGNS

speed limit signs use a Department approved solar-powered system. By selecting solar-powered school speed limit sign system it ensures that the proper functionality and compatibility with the unit is maintained.

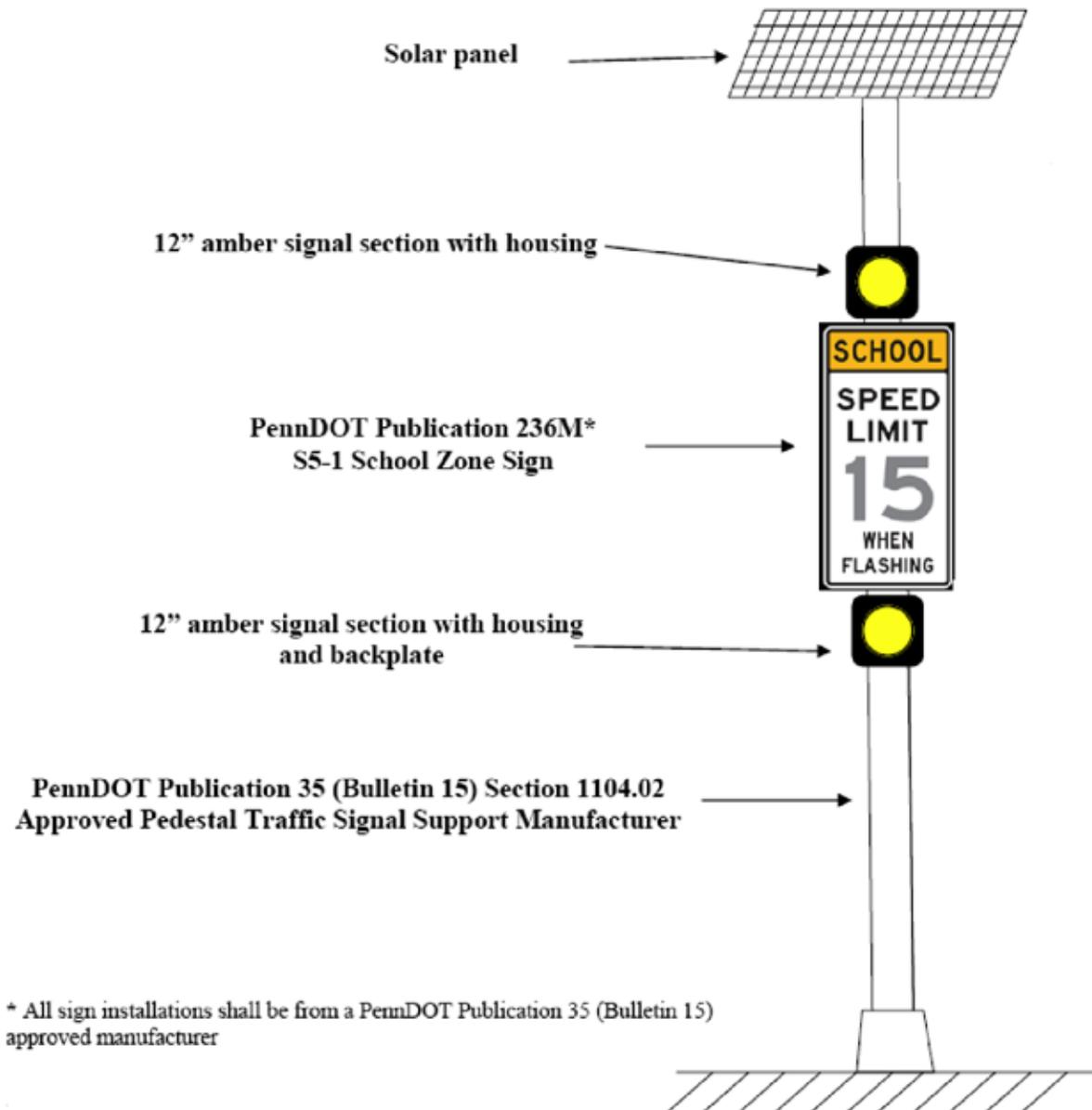
A proper engineering and traffic study should be conducted prior to purchasing a new or upgrading an existing system.

A proper engineering and traffic study should be conducted prior to purchasing a new or upgrading an existing system. Issues such as existing system compatibility, desired functionality, and proper amount of sunlight capable of powering the solar panel should be considered when conducting the engineering study. This engineering study can eliminate future construction problems with the systems due to the lack of functionality with the infrastructure. Another

design consideration is that while many of the newer solar-powered school zone speed limit sign systems allow for detailed programming capabilities, but this functionality would require a modification to the existing flashing warning device permit administered by PennDOT.

In summary, solar-powered school zone speed limit warning devices are a cost-efficient 'green' alternative to traditional school zone speed limit warning devices. If your municipality is considering updating or installing one of these solar-powered devices, PennDOT recommends that you contact your local Engineering District office prior to talking to a manufacturer, supplier, and/or contractor to discuss the required steps in the permit approval process and costs of the school limit speed sign systems.

Below is a sample drawing of a typical solar-powered school zone device. ♦



When to Use Stop Signs in Alleys

continued from page 1

The Vehicle Code does have a specific law that governs driver behavior at the intersection of an alley with a street. Section 3344 of the code states, “. . . the driver of a vehicle emerging from an alley, building, private road or driveway within an urban district shall stop the vehicle. . . .” Thus, even if no traffic control is present, drivers are required to stop before exiting an alley onto a street.

So why place stop signs or other traffic control at an intersection of an alley and a street if drivers are required to stop anyway? Stop signs and other traffic control can be used if a need is shown and the need meets the warrants (criteria) posted in the MUTCD. Section 2B.04 of the MUTCD has the following warrants for stop sign usage:

YIELD or STOP signs should be used at an intersection if one or more of the following conditions exist:

- A. An intersection of a less important road with a main road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law;
- B. A street entering a designated through highway or street; and/or
- C. An unsignalized intersection in a signalized area.

In addition, the use of YIELD or STOP signs should be considered at the intersection of two minor streets or local roads where the intersection has more than three approaches and where one or more of the following conditions exist:

- A. The combined vehicular, bicycle, and pedestrian volume entering the intersection from all approaches averages more than 2,000 units per day.
 - B. The ability to see conflicting traffic on an approach is not sufficient to allow a road user to stop or yield in compliance with the normal right-of-way rule if such stopping or yielding is necessary; and/or
 - C. Crash records indicate that five or more crashes that involve the failure to yield the right-of-way at the intersection under the normal right-of-way rule have been reported within a 3-year period, or that three or more such crashes have been reported within a 2-year period.
- YIELD or STOP signs should not be used for speed control.*



The most common stop sign usage warrant is the first one listed above, where a stop sign is placed to remind drivers of the law that requires them to stop when emerging from an alley.

In considering whether to place a stop or yield sign, a municipality should conduct a traffic study following the guidelines of the MUTCD and PennDOT. If the warrants are met, then placement of the sign can proceed. As with the installation of all regulatory signs, the Vehicle Code requires a documented study and an ordinance before a sign can be posted.

Criteria for Placing Signs

The MUTCD and PennDOT have specific guidance on the placement of signs. The following provisions provide the main guidance to municipalities:

- **Height**—Since an alley is in an urban area, used by pedestrians and for parked vehicles, the bottom of the sign must be 7 feet above the sidewalk or travel way (Section 2A.18).
- **Lateral Offset**—The minimum lateral offset (the distance from the edge of the sign to the edge of the travel way) is 2 feet. However, the MUTCD allows this offset to be reduced to 1 foot in urban areas with limitations (Section 2A.19).
- **Longitudinal Placement**—The stop sign should be placed a minimum of 4 feet before a crosswalk in an urban area (see Figure 1).

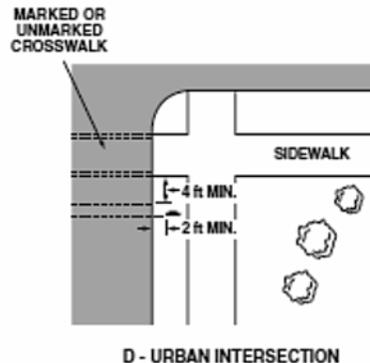


Figure 1. Placement of a sign should be at least 4 feet before a crosswalk. (Section 2A.3, D-Urban Intersection, MUTCD)

In most cases, a stop sign can be placed appropriately using the above criteria. Other instances, however, make it difficult to determine the best placement for a sign. Narrow sidewalks, buildings, poles, underground utilities, and other constraints limit where a sign can be placed.

Stop signs that are placed along alleys next to parking areas and signs that float in a sea of asphalt often become a hazard to drivers, who may unintentionally hit the signs with their vehicles. If a stop sign or another sign is required in these circumstances, the municipality should alert motorists by incorporating pavement markings that define the alley from the parking area. Flexible post delineators can also provide additional visual guidance to motorists.

In all cases, municipalities should be sure to install the signs properly using PennDOT-approved breakaway posts and to not place any devices or structures along the travel way and/or within the clear zone that are not crashworthy. ♦

Westmoreland County's Shared Vision for the Future

U.S. Route 30 Master Plan focuses on smart growth to reduce traffic congestion

U.S. Route 30, known as the Lincoln Highway, spans 40 miles in Westmoreland County and serves as the county's primary highway, connecting the growing suburbs of Pittsburgh in the west to the scenic Laurel Highlands in the east. Since the French and Indian War, this route has played a significant role in both the nation's and region's economic growth and westward expansion. But more recently, local officials have become concerned about preserving the area's rural landscape and directing growth along this corridor.

Beginning in 2005, the Smart Growth Partnership of Westmoreland County has brought together business and municipal officials, local planners, and community stakeholders to develop a strategic blueprint that strives to link smart land use and transportation policies to enhanced economic opportunities along Route 30. Residents and business owners understand that current and future growth in the region is tied to the safe and efficient flow of traffic along the corridor, and the resulting Route 30 Master Plan was developed in hopes of preserving the area's rural areas, revitalizing its communities, building better suburbs and ensuring safe and efficient transportation.

After building coalitions, obtaining funding, and developing the master plan over the past five years, the Smart Growth Partnership has now progressed to the master plan's implementation stage in which municipalities are encouraged to use the plan to make effective land use and smart transportation decisions in their own communities.

"This is where the real work begins," Alexander Graziani, executive director of the Smart Growth Partnership, says in reference to selling municipal officials on the need to amend their regulations and ordinances governing development.

The master plan's suggested local land use policies include a model corridor overlay zoning ordinance that can be adopted into a municipality's codes, comprehensive plan policies, and design

guidelines. By adopting the smart growth codes and principles suggested in the master plan, municipalities will ensure that the future of U.S. Route 30 takes on the following characterizations:

- A consistent approach to land use regulation that enhances economic activities and balances the historic character and rural beauty of the highway yet respects individual property rights
- The use of the latest technology to intelligently and safely move people and goods
- An appropriate mix of commercial, industrial, residential, agriculture, open space, and other vital land uses
- A multi-modal approach, including transit, air, and rail freight, to accommodate the efficient movement of people and goods
- A network of parallel road systems to reduce congestion and provide other travel choices in the area along the corridor
- Well-maintained surface, landscaping, and traffic-control systems, which work together to enhance the motoring experience

As western Pennsylvania's signature project linking land use and transportation, the Route 30 Master Plan uses a collaborative, community-centered planning and design approach that should serve as a model for the entire state, says Graziani. In fact, the Route 30 Master Plan effort is the only example in the commonwealth where all of the vested parties (PennDOT, Southwestern Pennsylvania Commission, Westmoreland County, and Route 30 municipalities, developers and landowners) are working together to address corridor safety, efficiency and mobility.

The Smart Growth Partnership of Westmoreland County, established in 2001, is a project of the Penn State Cooperative Extension. For more information about the U.S. Route 30 Master Plan, visit www.route30plan.com. ♦

LTAP Advisory Board

The PennDOT LTAP Advisory Committee is comprised of the following group of municipal government (elected and/or appointed) officials who serve a critical role as program advocates and assist PennDOT by attending training courses, reviewing course materials and content, and functioning in an advisory role on a variety of LTAP issues.

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Daily and weekly time limits for driving commercial motor vehicles

Pennsylvania regulations at *67 Pa. Code Chapter 231.7* incorporate by reference the federal regulations at *49 CFR Part 395* governing hours-of-service for CMV drivers. Municipal employees who drive commercial motor vehicles (CMVs) in Pennsylvania must abide by these driving time limits.

PennDOT regulations at *67 Pa. Code Chapter 231.8* define a CMV as any motor vehicle or combination used on a highway in intrastate commerce to transport passengers or property when the vehicle meets one of the following conditions:

1. Has a gross vehicle weight rating or gross combination weight rating, or gross vehicle weight or gross combination weight, of 17,001 pounds or more, whichever is greater.
2. Is designed or used to transport more than 8 passengers (including the driver) for compensation.
3. Is designed or used to transport more than 15 passengers, including the driver, and is not used to transport passengers for compensation.
4. Is a school bus.
5. Is transporting hazardous materials requiring a placard in accordance with Department regulations.

Daily driving and on duty time limits:

1. Once a driver has driven a CMV for 11 hours, he must be off duty for at least 10 consecutive hours before being allowed to drive a CMV again; and
2. A driver may be on duty for more than 14 consecutive hours, but no driver shall drive a CMV after the 14th hour after coming on duty until he has been off duty for a minimum of 10 consecutive hours.

Weekly time limits: No employer shall permit or require a CMV employee to drive, nor shall any driver drive, regardless of the number of motor carriers using the driver's services, for any period after:

1. Having been on duty 60 hours in any seven consecutive days if the employer does not operate commercial motor vehicles every day of the week; or
2. Having been on duty 70 hours in any period of eight consecutive days if the employer operates commercial motor vehicles every day of the week.
3. However, a driver can "re-set" the weekly on duty time limit by being off duty for at least 34 consecutive hours.

Note on Emergency Exemption:

PennDOT recently changed its intrastate commercial motor vehicle safety regulations by replacing the state's previously provided exemption from daily driving time limits during emergencies with the federal emergency exemption.

This federal emergency exemption (*49 CFR Part 390.23*) states, in part, that driver hours of service do not apply to any motor carrier (i.e., municipality) or driver (i.e., municipal employee) operating a commercial motor vehicle (any vehicle



with a GVWR greater than 17,000 pounds) while providing emergency relief.

This exemption is only effective when an emergency has been declared by a federal, state, or local government official having authority to declare an emergency. Further, this "CMV-only" emergency shall not exceed the duration of the motor carrier's or driver's direct assistance in providing emergency relief or extend longer than five days from the date of the initial declaration of the emergency.

A municipality may determine who is authorized to declare a "CMV-only" emergency, which is not an emergency of the type requiring action by the governing body. A manager, road foreman, or other such employee can be given the power to determine when this type of emergency may be declared for the purpose of allowing the municipality's CMV drivers to legally exceed the otherwise-applicable driving time limits while responding to an emergency. The governing body should also consider taking action at a later date to officially ratify the decision to declare a "CMV-only" emergency.

Note on Federal Review of Current Hours-of-Service Criteria at 49 CFR Part 395:

As a result of a court-ordered settlement, the Federal Motor Carrier Safety Administration (FMCSA) entered into an agreement to review the current rule (above) regarding CMV drivers' hours of service. As part of this agreement, FMCSA held five public hearings across the nation seeking commentary on what should be included in any new hours-of-service regulation. The settlement agreement states that FMCSA will publish a final rule by summer 2011. Until then, the current hours of service will remain in effect during the rulemaking proceedings.



Upcoming Workshops

To Register:
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WEB SITE: www.ltap.state.pa.us

This represents some of our scheduled courses. Look for updates on the Web site.

COURSE	DATES HELD	TIMES HELD	FACILITY	COUNTY
Traffic Signs (RS-S02)	09/01/2010	08:00 AM - 03:00 PM	Penn Township Public Works Building (Hanover, Pa)	York
Traffic Calming (RS-S07)	09/09/2010	08:00 AM - 03:00 PM	Seda-Cog Office (Lewisburg, Pa)	Union
Stormwater Management (RS-M09)	09/14/2010	08:00 AM - 03:00 PM	Adams County Agricultural And Natural Resources Center (Gettysburg, Pa)	Adams
Winter Maintenance (RS-M06)	09/15/2010	08:00 AM - 03:00 PM	Heartland Hall (Bedford, Pa)	Bedford
Risk Management/Tort Liability (RS-S04)	09/16/2010	08:00 AM - 12:00 PM	Adams County Agricultural And Natural Resources Center (Gettysburg, Pa)	Adams
Work Zone Traffic Control (RS-S03)	09/17/2010	08:00 AM - 12:00 PM	Adams County Agricultural And Natural Resources Center (Gettysburg, Pa)	Adams
Stormwater Management (RS-M09)	09/21/2010	08:00 AM - 03:00 PM	Lehigh Valley Planning Commission (Allentown, Pa)	Lehigh
Winter Maintenance (RS-M06)	09/21/2010	08:00 AM - 03:00 PM	Marienville Area Civic Association (Marienville, Pa)	Forest
Winter Maintenance (RS-M06)	09/22/2010	08:00 AM - 03:00 PM	Borough Of Edinboro (Edinboro, Pa)	Erie
Road Surface Management (RS-M10)	09/23/2010	08:00 AM - 03:00 PM	Seda-Cog Office (Lewisburg, Pa)	Union
Posting & Bonding of Local Roads (RS-M02)	09/27/2010	08:00 AM - 12:00 PM	Penn Township Municipal Center (Butler, Pa)	Butler
Asphalt Roads Common Maintenance Problems (RS-M03)	09/29/2010	08:00 AM - 11:30 AM	Pequea Township (Willow Street, Pa)	Lancaster
Winter Maintenance (RS-M06)	09/30/2010	08:00 AM - 03:00 PM	Point Township Building (Northumberland, Pa)	Northumberland
Road Surface Management (RS-M10)	10/05/2010	08:00 AM - 03:00 PM	Ramada Inn, Altoona (Altoona, Pa)	Blair
Winter Maintenance (RS-M06)	10/07/2010	08:00 AM - 03:00 PM	Lehigh Valley Planning Commission (Allentown, Pa)	Lehigh
Winter Maintenance (RS-M06)	10/08/2010	08:00 AM - 03:00 PM	Adams County Agricultural And Natural Resources Center (Gettysburg, Pa)	Adams
Equipment & Worker Safety (RS-S01)	10/12/2010	08:30 AM - 12:30 PM	Carbon County Emergency Management Agency (Nesquehoning, Pa)	Carbon
Winter Maintenance (RS-M06)	10/12/2010	08:00 AM - 03:00 PM	City Of Sharon Municipal Building (Sharon, Pa)	Mercer
Traffic Signals: How to Study, Install and Maintain Them in Pennsylvania (RS-S10)	10/14/2010	08:00 AM - 03:00 PM	Millersville Borough Building (Millersville, Pa)	Lancaster
Traffic Signs (RS-S02)	10/14/2010	08:00 AM - 03:00 PM	Lehigh Valley Planning Commission (Allentown, Pa)	Lehigh
Asphalt Roads Common Maintenance Problems (RS-M03)	10/19/2010	08:00 AM - 11:30 AM	Two Mile Run Park (Brighton Township, Pa)	Beaver
Winter Maintenance (RS-M06)	10/26/2010	08:00 AM - 03:00 PM	Hutchison Center (New Castle, Pa)	Lawrence
Bridge Maintenance & Inspection (RS-M01)	10/27/2010	08:00 AM - 02:00 PM	Penndot District 10-0 Office (Indiana, Pa)	Indiana
Winter Maintenance (RS-M06)	10/28/2010	08:00 AM - 03:00 PM	Patton Township (Centre) Municipal Building (State College, Pa)	Centre
Winter Maintenance (RS-M06)	11/10/2010	08:30 AM - 04:30 PM	Wayne County Chamber Of Commerce (Honesdale, Pa)	Wayne
Principles of Paving (RS-M12)	11/17/2010	08:00 AM - 03:00 PM	Paradise Township Building (Paradise, Pa)	Lancaster
Engineering & Traffic Studies (RS-S06)	12/09/2010	08:30 AM - 04:30 PM	Monroe County Public Safety Center (Stroudsburg, Pa)	Monroe

PennDOT Notice

Publication 9. An out-of-date version of Publication 9, Policies and Procedures for the Administration of the County Liquid Fuels Tax Act of 1931 and the Liquid Fuels Tax Act 655, was inadvertently posted on the Department's Web site for a short period of time. Please ensure that the version of Pub 9 that you are using is the correct version. **If your current version of Pub 9 does not have an Appendix L, please discard it and download a new copy from the PennDOT Web site.** Go to www.dot.state.pa.us, then click on **Forms, Publications & Maps**.

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