

<b>Regulatory Analysis Form</b>		<b>This space for use by IIRC</b> RECEIVED 2004 AUG 17 AM 11:13 PENNSYLVANIA REVENUE COMMISSION	
(1) Agency Transportation		<b>IIRC Number: 2418</b>	
(2) I.D. Number (Governor's Office Use) #18-392			
(3) Short Title Official Traffic Control Devices			
(4) PA Code Cite 67 Pa. Code, Chapters 201, 203, 204, 211 & 217 [rescinded] 67 Pa. Code, Chapter 212 [new]		(5) Agency Contacts & Telephone Numbers Primary Contact: Arthur Breneman, P.E. 717-787-3620 Secondary Contact: Richard J. Sesny, P.E. 717-787-2806	
(6) Type of Rulemaking (Check One) <input checked="" type="checkbox"/> Proposed Rulemaking <input type="checkbox"/> Final Order Adopting Regulation <input type="checkbox"/> Final Order, Proposed Rulemaking Omitted		(7) Is a 120-Day Emergency Certification Attached? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes: By the Attorney General <input type="checkbox"/> Yes: By the Governor	
(8) Briefly explain the regulation in clear and non-technical language. <p>The purpose of these regulations is to adopt the most recent edition of the national <i>Manual on Uniform Traffic Control Devices</i> (MUTCD) published by the Federal Highway Administration. These regulations will also establish additional rules regarding study requirements, warrants, principles, and guidelines to insure uniformity for the design, location and operation of all official signs, signals, markings, and other traffic control devices within the Commonwealth.</p>			
(9) State the statutory authority for the regulation and any relevant state or federal court decisions. <p>These regulations are promulgated under the authority contained in §§ 3353, 3354, 6103, 6105, 6121, 6122, 6123 and 6123.1 of the Vehicle Code, Act of June 17, 1976, P.L. 162, No. 81, as amended (Pa. C.S. §§ 3353, 3354, 6103, 6105, 6121, 6122, 6123 and 6123.1).</p>			

(10) Is the regulation mandated by any federal or state law or court order, or federal regulations? If yes, cite the specific law, case or regulation, and any deadlines for action.

The U.S. Secretary of Transportation, under authority granted by the Highway Safety Act of 1966, decreed that traffic control devices on all streets and highways open to public travel in accordance with 23 U.S.C. 109(d) and 402(a) in each State shall be in substantial conformance with the Standards issued by the Federal Highway Administration (FHWA).

Moreover, these regulations are mandated by §§3326, 3353, 3354, 3362, 3365, 6105, 6109, 6121, 6122, 6123, 6123.1 and 6127 of the Vehicle Code, Act of June 17, 1976, P. L. 162, No. 81 (Pa. C.S. §§3326, 3353, 3354, 3362, 3365, 6105, 6109, 6121, 6122, 6123, 6123.1 and 6127).

(11) Explain the compelling public interest that justifies the regulation. What is the problem it addresses?

The compelling public interest that justifies these regulations is the Department's desire to achieve uniformity in the installation and placement of traffic control devices on streets and highways within the Commonwealth. Uniformity of traffic control devices simplifies driving because it aids in sign recognition and understanding. It also aids police officers and traffic courts by providing uniform sign interpretation. It aids public highway and traffic officials through economy in the manufacture, installation, maintenance, and administration of traffic control devices.

(12) State the public health, safety, and environmental or general welfare risks associated with non-regulation.

Non-regulation poses risk to the public health, safety and general welfare in that the failure to address uniformity in the use and application of traffic control devices results in the installation of traffic control devices in a haphazard manner, i.e. not treating similar situations in the same way. The use of uniform traffic control devices does not, in itself, constitute uniformity. A standard traffic control device, used where it is not appropriate, because of the failure of regulations to clearly delineate the proper use and purpose of the device, would be as objectionable as the use of a nonstandard device. Such misuse may result in disrespect at those locations where the device is needed. Consequently, safety and general welfare risks are associated with non-regulation.

(13) Describe who will benefit from the regulation. (Quantify the benefits as completely as possible and approximate the number of people who will benefit.)

These regulations will benefit all motorists on the public streets and highways of this Commonwealth. The approximately 8.5 million drivers licensed in Pennsylvania, as well as the countless other drivers who travel in and through the Commonwealth, will benefit from this regulation.

(14) Describe who will be adversely affected by the regulation. (Quantify the adverse effects as completely as possible and approximate the number of people who will be adversely affected.)

These regulations will not adversely affect the motoring public or any other persons.

(15) List the persons, groups or entities that will be required to comply with the regulation. (Approximate the number of people who will be required to comply.)

The Commonwealth of Pennsylvania, the Pennsylvania Turnpike Commission, all cities, boroughs, townships, towns, home-rule municipalities, contractors, consultants, utility companies, and traffic control device manufacturers and vendors will be required to comply with these regulations.

(16) Describe the communications with and input from the public in the development and drafting of the regulation. List the persons and/or groups who were involved, if applicable.

The Department, at 29 Pa. B. 726 (February 6, 1999), published a Notice of Intent to promulgate a regulation and solicit public participation in the development of these regulations. The Department received no comments from this Notice of Intent. The Department subsequently circulated draft copies of the proposed regulation to some of the larger municipalities, several consultants that represent dozens of smaller municipalities, the Local Technical Assistance Program (LTAP) that assists local authorities, the Pennsylvania Turnpike Commission, and the Federal Highway Administration. As a result of these comments, the proposed rulemaking was modified to reflect their concerns.

Much of the material in this chapter was previously published as a proposed rulemaking in the April 19, 2003 issue of the *Pennsylvania Bulletin*. Only one comment was received during the 30-day comment period and that comment related to material in an earlier published statement of Policy codified as 67 Pa. Code, Chapter 204. The previously published proposed rulemaking was withdrawn to make additional changes to the proposed Chapter 212 and to incorporate the provisions of Chapter 204 (at §212.419) into Department regulations.

(17) Provide a specific estimate of the costs and/or savings to the regulated community associated with compliance, including any legal, accounting of consulting procedures which may be required.

This regulation will only apply to new traffic restrictions, i.e., existing traffic restrictions do not need to be restudied in accordance with § 212.4(a). Although the proposed regulation imposes some costs on the regulated community, these costs will be similar to, and generally less than, the current costs imposed by Chapters 201, 203 and 211. In the past, the regulated community generally had to buy three Department publications (i.e., Publications 201, 203, and 68), whereas with the new proposal they will only have to buy one Department publication. However, members of the regulated community who do not have the national *Manual on Uniform Traffic Control Devices* (MUTCD) may either download it from the Internet or purchase it. The Department's best estimate is that the incurred cost of any required new publications will be similar to the cost of the three current publications.

(18) Provide a specific estimate of the costs and/or savings to local governments associated with compliance, including any legal, accounting or consulting procedures that may be required.

There are little or no potential costs or savings to local governments associated with these regulations.

(19) Provide a specific estimate of the costs and/or savings to state government associated with the implementation of the regulation, including any legal, accounting, or consulting procedures that may be required.

The Commonwealth does not anticipate any unusual legal, accounting, or consulting costs associated with implementing this regulation. The Department's printing costs should be substantially less than the cost of publishing the current publications, but the Commonwealth will purchase some additional copies of the national Manual on Uniform Traffic Control Devices (MUTCD).

(20) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

	Current FY	FY + 1	FY + 1	FY + 3	FY + 4	FY + 5
<b>SAVINGS:</b>	\$	\$	\$	\$	\$	\$
Regulated Community:	None	None	None	None	None	None
Local Government:	None	None	None	None	None	None
State Government:	None	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Total Savings	None	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
<b>COSTS:</b>						
Regulated Community	Not readily measurable	Not readily measurable	Not readily measurable	Not readily measurable	Not readily measurable	Not readily measurable
Local Government	None	None	None	None	None	None
State Government	Not readily measurable	Not readily measurable	Not readily measurable	Not readily measurable	Not readily measurable	Not readily measurable
Total Costs	Not readily measurable	Not readily measurable	Not readily measurable	Not readily measurable	Not readily measurable	Not readily measurable
<b>REVENUE LOSSES:</b>	None	None	None	None	None	None
Regulated Community	None	None	None	None	None	None
Local Government	None	None	None	None	None	None
State Government	None	None	None	None	None	None
Total Revenue Losses	None	None	None	None	None	None

(20a) Explain how the cost estimates listed above were derived.

There may be some savings in reduced regulatory requirements, especially in work zones. Additional costs to the regulated community would be the cost of the national *Manual on Uniform Traffic Control Devices* (MUTCD), but this would be offset by lower costs of Department publications.

(20b) Provide the three-year expenditure history for programs affected by the regulation. There is no specific program affected by this regulation. The savings noted will be realized in the \$48.7M General Operations portion of the Department's Budget.

Program	FY-3	FY-2	FY-1	Current FY
General Operations	\$32,221,000	\$46,258,000	\$47,021,000	\$48,657,000

(21) Using cost-benefit information provided above, explain how the benefits of the regulation outweigh the adverse effects and costs.

The monetary costs and benefits are minor. The most significant value of adopting the national *Manual on Uniform Traffic Control Devices* (MUTCD) is the ability to bring traffic control devices into better compliance with national standards. It will also allow the Commonwealth to stay abreast of changes on the national level without the need to go through the rulemaking process.

(22) Describe the non-regulatory alternatives considered and the costs associated with those alternatives. Provide the reasons for their dismissal.

There were no non-regulatory alternative schemes considered.

(23) Describe alternative regulatory schemes and the costs associated with those schemes. Provide the reasons for their dismissal.

The only alternate regulatory scheme considered was to retain the current regulations contained in 67 Pa. Code, Chapters 201, 203, 204, 211, and 217. However, these regulations are quite lengthy, are overly regulatory, and unnecessarily duplicate the content of the national *Manual on Uniform Traffic Control Devices* (MUTCD).

(24) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulation.

While most of the regulations are not more stringent than the federal standards, there are some instances where the regulation will be more stringent in order to accommodate specific provisions in the Vehicle Code, (75 Pa. C.S.). For example, this regulation will require the posting of speed limit signs at intervals of not greater than one-half mile apart for all speed limits less than 55 mph, pursuant to §3362(b)(1) of the Vehicle Code (75 Pa. C.S. §3362(b)(1)). Moreover, §4902(e) requires that signs designating size or weight restrictions be posted within 25 feet of each end of a bridge or portion of highway restricted. Also, the Department has elected to “restrict” the application of specific motorist service signing (i.e., logo signs) to only freeways, even though the national *Manual on Uniform Traffic Control Devices* (MUTCD) would allow them on any roadway.

(25) How does this regulation compare with those of other states? Will the regulation put Pennsylvania at a competitive disadvantage with other states?

According to a recent survey of all states by the Federal Highway Administration, 40 states have adopted the national *Manual on Uniform Traffic Control Devices* (MUTCD), and six more states (including Pennsylvania) are in the process of adopting it. Of the 46 states that either have adopted or anticipate adopting the MUTCD by 2004, 18 states will have a state supplement similar to the one proposed in Pennsylvania.

(26) Will the regulation affect existing or proposed regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

Yes, these regulations will promulgate a new Chapter 212, Traffic Control Devices. Existing Chapter 201 (Engineering and Traffic Studies), Chapter 203 (Work Zone Traffic Control), Chapter 204 (Guidelines to Implement Act 229 of 2002), Chapter 211 (Official Traffic Control Devices) will be rescinded, and Chapter 217 (Posting of Private Parking Lots).

(27) Will any public hearings or informal meetings be scheduled? Please provide the dates, times and locations, if available.

Prior to publishing the “proposed rulemaking,” the Department circulated a draft copy of the proposed rulemaking to representatives of the regulated community. In addition to receiving written comments, the Department invited interested parties to attend a meeting on December 22, 1999 to obtain verbal input. The written responses and the meeting were both very helpful in refining the proposed regulation which began the regulatory process shortly thereafter.

On April 19, 2003 the proposed rulemaking was published at 33 Pa.B. 1930. Only one letter from outside of the Department was received, and it essentially addressed issues in Chapter 204 of this Title (guidelines to implement Act 229 of 2002).

(28) Will the regulation change existing reporting, record keeping, or other paperwork requirements? Describe the changes and attach copies of forms or reports which will be required as a result of implementation, if available.

These regulations will not change existing reporting, record keeping or other paperwork requirements.

(29) Please list any special provisions that have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, the elderly, small businesses, and farmers.

No special provisions have been developed to meet the needs of particular groups or persons.

(30) What is the anticipated effective date of the regulation; the date by which compliance with the regulation will be required; and the date by which any required permits, licenses or other approvals must be obtained?

The Department anticipates publication of the notice of final rulemaking prior to December 23, 2004, which is the date that Act 229 of 2004 requires a regulation.

(31) Provide the schedule for continual review of the regulation.

The Department is not establishing a sunset date for these regulations, since these regulation are needed to administer provisions required by the Vehicle Code (75 Pa. C.S. §101, et seq.). The Department will continue to closely monitor these regulations for their effectiveness.



**FACE SHEET  
FOR FILING DOCUMENTS  
WITH THE  
LEGISLATIVE REFERENCE BUREAU**

(Pursuant to Commonwealth Documents Law)

# 2418

<p>Copy below is hereby approved as to form and legality. Attorney General</p> <p style="text-align: center;"><i>Amy W. Elliott</i> (Deputy Attorney General)</p> <p style="text-align: center;">AUG 12 2004 Date of Approval</p> <p><input type="checkbox"/> Check if applicable Copy not approved. Objections attached.</p>	<p>Copy of below is hereby certified to be true and correct copy of a document issued, prescribed or promulgated by:</p> <p style="text-align: center;"><u>Department Of Transportation</u> (AGENCY)</p> <p>DOCUMENT/FISCAL NOTE NO. <u>18-392</u></p> <p>DATE OF ADOPTION _____</p> <p>BY <i>Allen D. Bisher</i> Secretary of Transportation</p>	<p>Copy below is hereby approved as to form and legality. Executive or Independent Agencies.</p> <p style="text-align: center;"><i>Tanya C. Gable</i> 5/17/04 Date of Approval</p> <p style="text-align: center;">(Deputy General Counsel) (Chief Counsel, Independent Agency) (Strike Inapplicable Title)</p> <p><input type="checkbox"/> Check if applicable. No Attorney General Approval or objection within 30 days after submission.</p>
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**NOTICE OF PROPOSED RULEMAKING**

**DEPARTMENT OF TRANSPORTATION  
Bureau of Highway Safety and Traffic Engineering**

- Title 67. Transportation**  
**Part I. Department of Transportation**  
**Subpart A. Vehicle Code Provisions**  
**Article VIII. Administration and Enforcement**  
  
**Chapter 201. Engineering and Traffic Studies**  
**Chapter 203. Work Zone Traffic Control**  
**Chapter 204. Guidelines to Implement Act 229 of 2002**  
**Additional Traffic Control Devices in Highway Work Zones**  
**Chapter 211. Official Traffic Control Devices**  
**Chapter 217. Posting of Private Parking Lots**  
 [rescinded]  
  
**Chapter 212. Official Traffic Control Devices**  
 [new]

**Title 67 Transportation**

**Part I. Department of Transportation**

**Subpart A. Vehicle Code Provisions**

**Article VIII. Administration and Enforcement**

**Chapter 212 — Official Traffic-control Devices**

**Proposed Rulemaking**

**Preamble**

The Department of Transportation, Bureau of Highway Safety and Traffic Engineering, under the authority contained in Sections 3353, 3354, 6103, 6105, 6121, 6122, 6123 and 6123.1 of the Vehicle Code, Act of June 17, 1976, P. L. 162, No. 81, as amended, (75 Pa. C. S. §§ 3353, 3354, 6103, 6105, 6121, 6122, 6123 and 6123.1), proposes to delete Chapters 201, 203, 204, 211, and 217 (relating to parking prohibitions and regulations, engineering and traffic studies, work zone traffic-control, guidelines to implement Act 229 of 2002, official traffic-control devices, and posting of private parking lots) of Title 67 (Transportation) of the Pennsylvania Code, and to promulgate a new, condensed Chapter 212, Official Traffic-control Devices, as set forth in Annex A to this Notice. Included as part of the new Chapter 212, the Department of Transportation will adopt the national Manual on Uniform Traffic-control Devices (MUTCD) as published by the Federal Highway Administration.

***Purpose of This Chapter***

The purpose of this new Chapter 212 is to adopt the national Manual on Uniform Traffic-control Devices (MUTCD), to establish new rules regarding additional study requirements,

warrants, principles, and guidelines not included in the MUTCD; and to establish greater uniformity for the design, location, and operation of all official traffic signs, signals, markings, and other traffic-control devices within the Commonwealth.

***Purpose of These Regulations***

With the promulgation of these regulations, the most recent edition of the national MUTCD, published by the Federal Highway Administration, will become the standard for traffic-control in Pennsylvania. As provided in Sections 6103(c) and 6121 of the Vehicle Code (75 Pa. C.S., §§ 6103(c) and 6121), these regulations will also establish additional rules regarding study requirements, warrants, principles, and guidelines and insure uniformity for the design, location, and operation of all official signs, signals, markings, and other traffic-control devices within the Commonwealth, incorporating, revising and adding to provisions now found in the chapters proposed for rescission.

Traffic-control devices are defined as all signs, signals, markings, and devices placed on, over, or adjacent to a street or highway by authority of a public body or official having jurisdiction to regulate, warn, or guide traffic. The purpose of traffic-control devices and warrants is to safeguard highway safety by providing for the orderly and predictable movement of all traffic, motorized and non-motorized, throughout the national, state and local highway transportation systems. This chapter provides guidance and standards needed to insure the safe and uniform operation of individual elements in the traffic stream. Traffic-control devices are used to direct and assist vehicle operators in the guidance and navigation tasks required to safely traverse any facility open to public travel. Guide and information signs are solely for the purpose

of traffic-control; advertising media and attraction signs are not generally considered to be traffic-control devices.

The need for uniform standards for traffic-control devices was recognized many years ago. In 1927, the American Association of State Highway and Transportation Officials (AASHTO) published a manual for use on rural highways, and the National Conference on Street and Highway Safety followed with a manual for urban streets in 1929. Even at that early time, the need for unification of the standards applicable to the different classes of road and street systems was obvious. To meet this need, a joint committee of the AASHTO and the National Conference on Street and Highway Safety developed, and in 1935 published, the original edition of the MUTCD. That committee, though changed from time to time in organization and personnel, has been in continuous existence since its origin and has contributed to periodic revisions of the MUTCD. The committee's name has now been formally changed to the National Committee on Uniform Traffic-control Devices.

Federal directives and Commonwealth statutes dictate implementation of the standards contained in the MUTCD. The Department expects to obtain basic uniformity in the visible features and functioning of traffic-control devices on all highways through implementation of the MUTCD, which sets forth the basic principles that govern the design and use of traffic-control devices. These principles appear throughout the text of the proposed regulations in discussion of the devices to which they apply, and it is important that they be given primary consideration in the selection, application, and use of each device.

The MUTCD presents traffic-control device standards for all streets and highways open to

public travel, regardless of type or class or governmental agency having jurisdiction. Where a device is intended for limited application only, or for use on a specific system, the text of the MUTCD specifies the restrictions on its use.

The study procedures and warrants for the establishment, revision, and removal of traffic restrictions, as well as the basic principles and guidelines for the control of traffic within construction, maintenance, and utility/permit work zones are, with few exceptions, included in the MUTCD. All procedures, warrants, and standards, either in addition to or exclusive of those in the MUTCD, are also included in this Chapter. Where the MUTCD is silent regarding the establishment of certain traffic restrictions, work zone traffic-control standards, or in instances where the Department has additional study procedures, warrants, standards, or guidelines in addition to those in the MUTCD, those procedures, warrants, and standards are included in this Chapter. This new Chapter 212 also contains additional requirements for some official traffic-control devices used in the Commonwealth. The incorporation of these additional regulatory requirements in the Chapter may require slight departure from some of the text in certain parts of the MUTCD.

Five existing chapters of Title 67 are being repealed with the establishment of this new Chapter:

- Chapter 201 (relating to engineering and traffic studies) which contains required study procedures and warrants for the establishment, revision, and removal of all traffic restrictions on public highways within the Commonwealth;
- Chapter 203 (relating to work zone traffic-control), which defines the basic principles

and guidelines for the control of traffic within construction, maintenance, and utility/permit work zones on highways within the Commonwealth;

- Chapter 204 (relating to guidelines to implement Act 229 of 2002), which defines which projects are active work zones, and what additional actions are required in work zones to comply with the recent change in the law;
- Chapter 211 (relating to official traffic-control devices); and
- Chapter 217 (relating to posting of private parking lots), which defines the specific signs required in private parking lots to allow owners to have vehicles towed.

The subject matter in the repealed chapters is addressed in the MUTCD, in the provisions of this proposed rulemaking or in Department Publications referenced in this rulemaking

The significant provisions of these regulations include the following:

1. Section 212.3 (relating to Pennsylvania's Supplement to the Manual on Uniform Traffic-control Devices) provides for a supplement to the MUTCD. This supplement will include the requirements of this Chapter, and additional information designed to assist in doing engineering and traffic studies, including but not limited to resource materials, crash rates, and so forth.
2. Section 212.5 (relating to installation and maintenance responsibilities) is intended to clarify that local authorities are responsible to maintain Stop Signs and Yield Signs on local road approaches to State-designated highways, in accordance with usual practice. Codifying this responsibility is appropriate since employees of the Department do not normally traverse local roads and would not consequently be able

to easily verify whether the signs are in place and positioned at the appropriate location.

This section is also intended to relieve local authorities of the regulatory responsibility of installing and maintaining railroad grade crossing markings on State-designated highways as currently required in Section 211.6 of Chapter 211.

Other current Department manuals already identify the Department as having responsibility for maintaining railroad grade crossing markings, and the Department has been routinely maintaining them.

3. Section 212.8 (relating to use, test, approval, and sale of official traffic-control devices) will now require the following devices to be approved by the Department to ensure compliance with federal standards: barricades, citizen band traffic alert radios, speed display signs, stop/slow paddles, temporary pavement marking tapes, temporary traffic barriers, variable speed limit signs, and vertical panels.
4. Section 212.11 (relating to metric measurement) permits the use of hard metric dimensions as an alternative to those with English dimensions when designing and placing traffic-control devices. Current Federal law (the Omnibus Trade and Competitiveness Act of 1988) encourages the use of metric dimensions for the design and deployment of all traffic-control devices.
5. Section 212.116 (relating to the No Turn on Red Sign) includes a warrant for the No Turn on Red Signs that was previously included in Pennsylvania's Chapter 201 of Title 67 of the Pennsylvania Code, but which is not included in the MUTCD. The

warrant specifically addresses the operational needs to require no-turn-on-red (NTOR) movements when: (1) less than a specific minimum sight distance is available to safely make the turn; (2) more than four intersection legs exist, (3) more than one turn lanes for that movement are present; (4) it conflicts with a high number of at-risk pedestrian movements; and (5) when other unique situations exist.

6. Section 212.123 (relating to tourist-oriented directional signs) stipulates a slightly larger tourist oriented directional sign than is included in the MUTCD. The “Pennsylvania standard” is the same size used for the last 10 years and because it is slightly taller than the MUTCD size, it eliminates the crowding of the two lines of legend and improves the sign legibility.
7. Section 212.202 (relating to no-passing zones) contains additional situations where no-passing zones may be warranted, but are not currently included in the MUTCD. These additional warrants were previously included in Section 201.53 in Pennsylvania’s Chapter 201 of Title 67 of the Pennsylvania Code. Additional criteria defining where these no-passing zones should physically start is also included in this section.
8. Section 212.203 (relating to delineation) provides more flexibility in the height of delineation the MUTCD. It was determined that for practicality purposes, it is difficult to always comply with the 4-foot height specified in the MUTCD since the elevation of highway shoulders are not always uniform and it would be difficult to always install delineation at an elevation exactly 4 feet above the near edge of the



road surface.

9. Section 212.302(b) (relating to traffic-control signals) adopts the MUTCD's eight warrants for traffic-control signals. While Pennsylvania's warrants are generally similar to the warrants in the MUTCD, the warrant numbers were different. The adoption of the MUTCD numbers will bring Pennsylvania's warrants and warrant numbering into conformity with those in other states. The MUTCD does not have provisions that address traffic signal studies at intersections not yet constructed; i.e., future intersections. As such, the "ADT Volume Warrant" which is currently in Chapter 201 (relating to engineering and traffic studies), is proposed for inclusion in Chapter 212.
10. Sections 212.401 - 212.419 (relating to subchapter E, Temporary Traffic-control) bring Pennsylvania's requirements for traffic-control in work zones into general conformity with practices in other states, and adds the additional signs in work zones required to comply with the Act of December 23, 2002, P.L. 1982, No. 229.

***Persons and Entities Affected***

These regulations affect the Commonwealth, the Pennsylvania Turnpike Commission, local authorities, contractors, consultants, utility companies, vendors, and the motoring public.

***Fiscal Impact***

Elimination of current Department Publications, Nos. 68, 201, and 203, is projected to annually reduce publication costs by approximately \$30,000. Although these savings will be passed on to the consultants, contractors, local authorities and other end users, these savings will

be offset by the need of some users to purchase the MUTCD.

Contractors and highway agencies may have some modest savings since fewer traffic-control devices will be required in some construction and maintenance projects. In addition, consultants and suppliers of traffic-control devices should be able to be more efficient due to increased uniformity from state to state.

### ***Regulatory Review***

Under Section 5(a) of the Regulatory Review Act, the Act of June 25, 1982 (P.L. 633, No. 181), *as amended*, 71 P.S. § 745.5(a), the agency submitted a copy of these proposed regulations on August 17, 2004 to the Independent Regulatory Review Commission and to the Chairpersons of the House and Senate Transportation Committees. In addition to submitting the regulations, the agency has provided the Commission and the Committees with a copy of a detailed Regulatory Analysis Form. A copy of this material is available to the public upon request.

Under Section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed regulations within 30 days of the close of the public comment period. The comments, recommendations or objections shall specify the regulatory review criteria that have not been met. The Act specifies detailed procedures for review, prior to final publication of the regulation, by the Department, the General Assembly and the Governor of comments recommendation, or objections.

### ***Sunset Date***

The Department is not establishing a sunset date for these regulations, since these

regulations are needed to administer provisions required under the Vehicle Code (75 Pa. C.S. §101, et seq.). The Department, however, will continue to closely monitor these regulations for their effectiveness.

***Public Comments***

Interested persons are invited to submit written comments, suggestions or objections regarding the proposed rulemaking to Arthur H. Breneman, P.E., Chief, Traffic Engineering and Operations Division Commonwealth Keystone Building, 6th Floor 400 North Street, Harrisburg, Pennsylvania 17120-0064, within 30 days of publication of this notice in the *Pennsylvania Bulletin*.

***Contact Person***

The contact person is Arthur H. Breneman, P.E., Chief, Traffic Engineering and Operations Division Commonwealth Keystone Building, 6th Floor 400 North Street, Harrisburg, Pennsylvania 17120-0064, (717) 787-3620.

Allen D. Biehler, P.E.

Secretary of Transportation

**Annex A**

**TITLE 67. TRANSPORTATION**

**PART I. DEPARTMENT OF TRANSPORTATION**

**Subpart A. VEHICLE CODE PROVISIONS**

**ARTICLE VIII. ADMINISTRATION AND ENFORCEMENT**

**CHAPTER 201. (Reserved)**

**§§ 201.1--201.6. (Reserved).**

**§ 201.21. (Reserved).**

**§ 201.22. (Reserved).**

**§§ 201.31--201.33. (Reserved).**

**§ 201.35. (Reserved).**

**§ 201.51--201.55. (Reserved).**

**§ 201.61. (Reserved).**

**§ 201.62. (Reserved).**

**§ 201.71. (Reserved).**

**§ 201.72. (Reserved).**

**§§ 201.81--201.83. (Reserved).**

**§ 201.91. (Reserved).**

**CHAPTER 203. (Reserved)**

**§ 203.1. (Reserved).**

**§§ 203.3--203.9. (Reserved).**

**§§ 203.21--203.24. (Reserved).**

**§§ 203.41--203.44. (Reserved).**

§§ 203.51--203.61. (Reserved).

§ 203.71. (Reserved).

§ 203.72. (Reserved).

§§ 203.81--203.87. (Reserved).

§§ 203.101--203.106. (Reserved).

§§ 203.121--203.131. (Reserved).

Appendix A. (Reserved).

CHAPTER 204. (Reserved)

§§ 204.1--204.6. (Reserved).

CHAPTER 211. (Reserved)

§§ 211.1--211.12. (Reserved).

§§ 211.21--211.32. (Reserved).

§§ 211.41--211.43. (Reserved).

§§ 211.51--211.57. (Reserved).

§§ 211.71--211.81. (Reserved).

§§ 211.91--211.98. (Reserved).

§§ 211.111--211.133. (Reserved).

§ 211.141. (Reserved).

§§ 211.151--211.153. (Reserved).

§§ 211.155--211.167. (Reserved).

§§ 211.181--211.193. (Reserved).

§§ 211.201--211.206. (Reserved).

§§ 211.221--211.223. (Reserved).

§§ 211.231--211.245. (Reserved).

§§ 211.251--211.256. (Reserved).

§ 211.271. (Reserved).

§ 211.272. (Reserved).

§ 211.274. (Reserved).

§ 211.275. (Reserved).

§§ 211.291--211.297. (Reserved).

§§ 211.301--211.307. (Reserved).

§§ 211.322--211.329. (Reserved).

§§ 211.341--211.345. (Reserved).

§§ 211.351--211.357. (Reserved).

§ 211.371. (Reserved).

§ 211.372. (Reserved).

§ 211.381. (Reserved).

§ 211.383. (Reserved).

§ 211.384. (Reserved).

§§ 211.391--211.395. (Reserved).

§§ 211.411--211.424. (Reserved).

§§ 211.431--211.440. (Reserved).

§§ 211.451--211.453. (Reserved).

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§ 211.458. (Reserved).

§ 211.471. (Reserved).

§ 211.613a--211.615. (Reserved).

§§ 211.631--211.633. (Reserved).

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§§ 211.642c--211.645. (Reserved).

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§§ 211.701--211.703. (Reserved).

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§§ 211.721--211.732. (Reserved).

§§ 211.741--211.744. (Reserved).

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§§ 211.781--211.797. (Reserved).

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§§ 211.821--211.824. (Reserved).

§ 211.831. (Reserved).

§ 211.832. (Reserved).

§§ 211.841--211.843. (Reserved).

§ 211.851. (Reserved).

§§ 211.861--211.864. (Reserved).

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§ 211.921. (Reserved).

§ 211.923. (Reserved).

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§§ 211.941--211.947. (Reserved).

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§§ 211.1031--211.1042. (Reserved).

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§§ 211.1097--211.1111. (Reserved).

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#### CHAPTER 217. (Reserved)

§§ 217.1--217.4. (Reserved).

### CHAPTER 212. OFFICIAL TRAFFIC-CONTROL DEVICES

#### Subchapter A. GENERAL PROVISIONS

##### § 212.1. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*Active work zone*--The portion of a work zone where construction, maintenance or utility workers are on the roadway or on the shoulder of the highway, and workers are adjacent to an active travel lane. Workers are not considered adjacent to an open travel lane if they are protected by a traffic barrier and no ingress or egress to the work zone exists through an opening in the traffic barrier.

*ADT, average daily traffic*-- The total volume of traffic during a number of whole days – more than 1 day and less than 1 year – divided by the number of days in that period.

Advisory speed--The recommended speed for all vehicles operating on a section of highway based on the highway design, operating characteristics, and conditions. When posted, the speed is displayed as a warning sign; that is, either a black-on-yellow or a black-on-orange sign.

Angle parking--Parking, other than parallel parking, which is designed and designated so that the longitudinal axis of the vehicle is not parallel with the edge of the roadway.

Assemblage--An organized gathering of people without vehicles, or with vehicles that are stationary, which encroaches onto a street or highway and interferes with the movement of pedestrian or vehicular traffic. The term includes street fairs, block parties and other recreational events.

Bureau--The Bureau of Highway Safety and Traffic Engineering, which is the office of the Department responsible for traffic regulations and statewide policies regarding traffic-control devices.

City of the first and second class--A city so classified in accordance with the provisions of section 1 the Act of June 25, 1895, P.L. 275, as amended, 53 P.S. §101.

Conventional highway--Any highway other than an expressway or a freeway.

Corner sight distance--

(i) Available corner sight distance--The maximum measured distance along a crossing highway which a driver stopped at a side road or driveway along that highway can continuously see another vehicle approaching. For the purpose of measuring the available sight distance, the height of both the driver's eye and the approaching vehicle should be assumed to be 3.5 feet above the road surface. In addition, the driver's eye

should be assumed to be 10 feet back from the near edge of the highway or the near edge of the closest travel lane if parking is permitted along the highway.

(ii) Minimum corner sight distance--The minimum required corner sight distance based on engineering and traffic studies, to ensure the safe operation of an intersection. The minimum value is a function of the speed of the approaching vehicles and the prevailing geometrics.

Crash--

(i) A collision involving one or more vehicles.

(ii) Unless the context clearly indicates otherwise, the term only includes those collisions that require a police report; that is, the collision involves one of the following:

(A) Injury to or death of any person.

(B) Damage to any vehicle involved to the extent that it cannot be driven under its own power in its customary manner without further damage or hazard to the vehicle, to other traffic elements, or to the roadway, and therefore requires towing.

Department--The Department of Transportation of the Commonwealth.

Delineator--A retroreflective device mounted on the road surface or at the side of the roadway in a series to indicate the alignment of the roadway, especially at night or in adverse weather.

85th percentile speed--The speed on a roadway at or below which 85 percent of the motor vehicles travel.

Engineering and traffic study--An orderly examination or analysis of physical features and traffic conditions, conducted in accordance with this chapter and conforming to generally

accepted engineering standards and practices, for the purpose of ascertaining the need or lack of need for a particular action by the Department or local authorities.

Expressway--A divided arterial highway for through traffic with partial control of access and generally with grade separations at major intersections.

Freeway--A limited access highway to which the only means of ingress and egress is by interchange ramps.

Grade--The up or down slope in the longitudinal direction of the highway, expressed in percent, which is the number of units of change in elevation per 100 units of horizontal distance. An upward slope is a positive grade; a downward slope is a negative grade.

Highway--

(i) The entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.

(ii) The term includes a roadway open to the use of the public for vehicular travel on grounds of a college or university, or public or private school, or public or historical park.

Local authorities--

(i) County, municipal, and other local boards or bodies, and State agencies, boards and commissions other than the Department, having authority to enact regulations relating to traffic.

(ii) The term includes governing bodies of colleges, universities, public and private schools, public and historical parks, and airport authorities except when those authorities are within counties of the first class or counties of the second class.

MUTCD--The current edition of the *Manual on Uniform Traffic Control Devices*, as adopted by the Federal Highway Administration (FHWA), and available on the FHWA website.

*Narrow bridge or underpass* -- A bridge, culvert or underpass with a two-way roadway clearance width of 16 to 18 feet, or any bridge, culvert or underpass having a roadway clearance less than the width of the approach travel lanes.

*Night or nighttime*--The time from one-half hour after sunset to one-half hour before sunrise.

*Numbered traffic route*--A highway that has been assigned an Interstate, United States or Pennsylvania route number, consisting of one, two, or three digits, sometimes with an additional designation such as business route, truck route, or other similar designation.

*Private parking lot*--Any privately owned parking lot open to the public for parking with or without restriction or charge.

*Procession*--An organized group of individuals, or individuals with vehicles, animals or objects, moving along a highway on the roadway, berm or shoulder in a manner that interferes with the normal movement of traffic. The term includes walks, runs, parades and marches.

*Roadway*--That portion of a highway improved, designed or ordinarily used for vehicular travel, exclusive of the sidewalk, berm or shoulder. In the event a highway includes two or more separate roadways, the term "roadway" refers to each roadway separately but not to all roadways collectively.

*Safe-running speed*--The average speed for a portion of highway determined by making a minimum of five test runs while periodically recording the speed at different locations while

driving at a speed which is reasonable and prudent, giving consideration to the available corner and stopping sight distance, spacing of intersections, roadside development, and other conditions.

Sales Store--The Department facility that sells maps and publications.

School--A public, private or parochial facility for the education of students in grades kindergarten through 12.

School zone--A portion of a highway that at least partially abuts a school property or extends beyond the school property line that is used by students to walk to or from school or to or from a school bus pick-up or drop-off location at a school.

Secretary--The Secretary of the Department.

Special activity--An organized vehicle race, speed competition or contest, drag race or acceleration contest, test of physical endurance, exhibition of speed or acceleration, or any other type of event conducted for the purpose of making a speed record. The term includes those races defined in 75 Pa.C.S. § 3367 (relating to racing on highways).

State-designated highway--A highway or bridge on the system of highways and bridges over which the Department has assumed or has been legislatively given jurisdiction.

Stopping sight distance-- The length of highway over which a 2-foot high object on the roadway is continuously visible to the driver, with the driver's eye height assumed to be 3.5 feet above the road surface.

Temporary traffic control (TTC)--An area of a highway where road user conditions are changed because of a work zone or incident by use of temporary traffic-control devices, flaggers, police officers, or other authorized personnel.

Temporary traffic-control (TTC) plan--A plan for maintaining traffic through or around a work zone.

Through highway--

(i) A highway or portion of a highway on which vehicular traffic is given preferential right-of-way, and at the entrances to which vehicular traffic from intersecting highways is required by law to yield the right-of-way in obedience to a Stop Sign (R1-1), Yield Sign (R1-2) or other traffic-control device when the signs or devices are erected as provided in this chapter.

(ii) The term includes all expressways and freeways.

Traffic calming--The combination of primarily physical measures taken to reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. The primary objectives of traffic calming measures are to reduce speeding and to reduce the volume of cut-through traffic on neighborhood streets.

Traffic-control devices--Signs, signals, markings and devices consistent with this chapter placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning or guiding traffic.

Traffic restriction--A restriction designated by a traffic-control device to regulate the speed, direction, movement, placement or kind of traffic using any highway.

Traffic signal--A power-operated traffic-control device other than a sign, warning light, flashing arrow panel or steady-burn electric lamp. The term includes traffic-control signals, pedestrian signals, beacons, in-roadway warning lights, lane-use-control signals, movable bridge signals, emergency traffic signals, firehouse warning devices, ramp and highway metering signals and weigh station signals.

Warrant--A description of the threshold conditions to be used in evaluating the potential safety and operational benefits of traffic-control devices based upon average or normal conditions.

Work zone--The area of a highway where construction, maintenance or utility work activities are being conducted, and in which traffic-control devices are required in accordance with this chapter.

**§ 212.2. Adoption of Federal standards.**

(a) General provisions. Consistent with the authority contained in 75 Pa.C.S. §§ 6103(c) and 6121 (relating to promulgation of rules and regulations by the Department; and a uniform system of traffic-control devices), the Department hereby adopts the *Manual on Uniform Traffic Control Devices* (MUTCD), as published by the Federal Highway Administration. The MUTCD is adopted in its totality except where this chapter clearly indicates that it is not being adopted, or that additional warrants or criteria are being provided.

(b) Modification of Federal statutes, regulations or provisions. As provided in 75 Pa.C.S. § 6103(d), if the MUTCD is amended or modified by the Federal Highway Administration, the amendment will take effect 60 days after the effective date specified by the Federal Highway Administration unless the Department publishes a notice in the *Pennsylvania Bulletin* stating that the amendment or modification does not take effect.

**§ 212.3. Pennsylvania's Supplement to the MUTCD.**

The Department will publish a supplement to the MUTCD. The supplement will include the requirements for official traffic-control devices contained in this chapter, and additional guidance information, including but not limited to: how to determine various elements associated with engineering and traffic studies, how to obtain crash rates for various types of roads, how to



measure the various types of sight distance, where national study data is located, and other guidance. The supplement will be called *Official Traffic-Control Devices* (Department Publication 212).

**§ 212.4. Application.**

(a) *General.* This chapter applies to the approval, location, installation, revision, operation, maintenance and removal of all traffic signs, signals, markings and other traffic-control devices on all streets and highways in this Commonwealth. All signs, signals, markings and other traffic-control devices erected shall conform to this chapter. Traffic restrictions which were previously posted or erected in accordance with the regulations in effect at that time are not subject to this chapter, provided the Department or local authorities have on file evidence that the traffic restrictions were so posted or erected in accordance with then-current regulations.

(b) *New restrictions.*

(1) The establishment or revision of a traffic restriction may be warranted if one of the following applies:

(i) One or more of the engineering and traffic study warrants covered in this chapter justifies the traffic restriction.

(ii) Sound engineering judgment based upon a combination of all data sources substantiates the need for the restriction.

(2) The fact that a warrant for a particular traffic-control device is met is not in itself conclusive justification for the installation of the device.

(c) *Removal of an existing restriction.* The removal of an existing traffic restriction may be warranted if one of the following applies:

(1) A study indicates that none of the engineering and traffic study warrants covered in this chapter justify the existing traffic restriction.

(2) The condition that originally justified the restriction no longer exists.

(d) Warrants no substitute for engineering judgment. Warrants established under this chapter provide the threshold for consideration of the installation of a traffic-control device, but are not a substitute for engineering judgment. The fact that a warrant for a particular traffic-control device is met is not conclusive justification for the installation of the device.

(e) Traffic-control during emergencies. During National, State or local emergencies including floods, fires, hurricanes, tornadoes, earthquakes, sink holes and bridge collapses, the Department on State-designated highways and local authorities on highways under their jurisdiction may suspend existing restrictions or effect temporary restrictions without an engineering and traffic study as provided in 75 Pa.C.S. §§ 6108 and 6109(a)(20) (relating to power of Governor during emergency; and specific powers of department and local authorities). These temporary restrictions shall expire at the end of the emergency.

**§ 212.5. Installation and maintenance responsibilities.**

(a) Authority to erect traffic-control devices. The delegation of responsibilities for the installation and maintenance of traffic-control devices is in accordance with 75 Pa.C.S. §§ 6122 and 6124 (relating to authority to erect traffic-control devices, and the erection of traffic-control devices at intersections).

(b) Traffic-control devices on State-designated highways.

(1) On conventional highways.

(i) Local authorities may not revise or remove any traffic-control device installed by the Department or by a contractor for the Department without written approval of the Department.

(ii) Cities of the first and second class are responsible for the installation, revision, removal, maintenance and operation of all traffic-control devices on the highways within their city boundaries. Department approval is not required, except:

(A) As may be required in an agreement between the city and the Department.

(B) Department approval is required for traffic signals if the city does not have municipal traffic engineering certification in accordance with Chapter 205 of this title (relating to municipal traffic engineering certification).

(iii) Local authorities other than cities of the first and second class shall obtain written Department approval before installing any new, or revising or removing any existing traffic-control device unless noted otherwise in this chapter or as provided in an agreement with the Department.

(iv) All local authorities are responsible for the installation, revision, maintenance, and removal of the following devices, and no Department approval is required:

(A) Stopping, standing or parking signs (R7 and R8 Series).

(B) Street name signs (D3 Series).

(C) Crosswalk markings.

(D) Parking stall markings, except written Department approval is required prior to creating new angle parking.

(E) Curb markings.

(F) Parking meters.

Vehicle Sign (W11-11), Left Turns and Cross Traffic Sign (W11-21), Left Turns Sign (W11-21-1) and Watch for Turns Sign (W11-21-2) will be the responsibility of the Department.

(L) Children group signs (W15 Series).

(M) Parking Area Sign (D4-1).

(N) Telephone directional signs (D9-1 series), which shall be installed by the telephone company.

(O) Bicycle Route Sign (D11-1).

(P) Traffic Signal Speed Sign (I1-1).

(Q) Trail group signs (I4 Series).

(R) Snowmobile and all terrain vehicles group signs (I12 Series).

(S) School zone speed limits, and all school signs (S Series).

(T) Pavement markings for mid-block crosswalks.

(U) Pavement markings for bicycles such as the bicycle lane symbol.

(2) On expressways and freeways. Local authorities may not install, revise or remove any traffic-control device on expressways or freeways without written Department approval. This also applies to traffic-control devices at intersections with these highways unless noted otherwise in this chapter.

(c) Traffic-control devices on local highways. As provided in 75 Pa.C.S. § 6122 (relating to authority to erect traffic-control devices), local authorities are responsible for the installation, revision, maintenance, operation, and removal of any traffic-control device on highways under their jurisdictions, except local authorities shall obtain written Department approval for the following two items:

(1) Installing, revising or removing any school zone speed limit or traffic signal on local highways, except Department approval is not required for cities of the first and second class, and other local authorities that have municipal traffic engineering certification in accordance with Chapter 205 (relating to municipal traffic engineering certification).

(2) Revising or removing any traffic-control device installed in accordance with an agreement between the local authorities and the Department.

(d) Traffic-control devices on local highway approaches to intersections with State-designated highway.

(1) The Department is responsible to establish the traffic control at intersections of local highways and State-designated highways, including the local highway approaches, but local authorities are responsible to maintain all traffic-control devices required to control traffic on the local highway approaches. At new intersections, local authorities or developers are responsible for installing and maintaining these devices as required by a highway occupancy permit issued in accordance with 67 Pa. Code, Chapter 441 (relating to access to and occupancy of highways by driveways and local roads).. The traffic-control devices to be maintained on local roadways include, as applicable, but are not limited to the following:

(A) Stop Signs (R1-1) and Yield Signs (R1-2).

(B) Stop lines and yield lines.

(C) No Right Turn Signs (R3-1), No Left Turn Signs (R3-2), No Turns Signs (R3-3), Left Turn Signs (R3-5), Left Lane Must Turn Left Signs (R3-7L), Do Not Enter Signs (R5-1), One-Way Signs (R6 Series), and other similar type traffic restriction, prohibitions, or lane control signs.

(2) Local authorities are responsible to determine the need for any Stop Ahead Signs (W3-1) and Yield Ahead Signs (W3-2) on local highway approaches to State-designated highways, and for installing and maintaining any warranted signs.

(e) Police authority. Police officers may install temporary traffic-control devices on any highway without approval from the Department or the local authorities. These traffic-control devices may be used to close highways during emergencies, to weigh or inspect vehicles, to establish sobriety checkpoints, or to conduct other enforcement programs or activities.

#### **§ 212.6. Removal of traffic hazards.**

(a) Interfering signs, lights or markings. The Secretary and local authorities, under their respective jurisdictions, shall have the authority to cause the removal of all colored or flashing lighted signs or other lights, signs, or markings so located as to interfere with traffic or to be confused with or to obstruct the view or effectiveness of traffic-control devices.

(b) Trees, plants, shrubs, or other obstructions. The Department on State-designated highways, and local authorities on any highway within their boundaries, may require a property owner to remove or trim a tree, plant, shrub or other obstruction or part thereof which constitutes a traffic hazard. The following are examples of traffic hazards:

(1) The obstruction restricts the stopping sight distance for drivers of through vehicles or the available corner sight distance for drivers entering from side roads or driveways to distances less than the appropriate minimum stopping sight distance or minimum corner sight distance values.

(2) The obstruction critically restricts the sight distance to a traffic-control device.

(3) Vehicle crash records indicate that a crash has involved the obstruction or that the obstruction contributed to one or more of the vehicle crashes.

**§ 212.7. Signs and banners across or within the legal limits of a State-designated highway.**

(a) Prohibition. It is unlawful to place any sign, marking or banner containing advertising matter of any kind on, across, or within the right-of-way of any State-designated highway without the written consent of the Department.

(b) Abatement. A sign, marking or banner containing advertising matter placed without the written consent of the Department will be declared to be a public nuisance and may be removed by the Department with or without notice to the persons responsible for the placing of the sign, marking or banner containing advertising matter.

**§ 212.8. Use, test, approval and sale of traffic-control devices.**

(a) Statutory requirements. 75 Pa.C.S. § 6127 (relating to dealing in nonconforming traffic-control devices) makes it unlawful for a person to manufacture, sell, offer for sale, or lease for use on the highway, any traffic-control device unless it has been approved and is in accordance with this title.

(b) Devices requiring Department approval. Department approval is required prior to the sale or use of the following types of traffic-control devices on any highway:

(1) Delineation devices, including flexible delineator posts, guide rail and barrier-mounted delineators, and raised pavement markers.

(2) Pavement marking materials including but not limited to paint, epoxy, polyesters, methyl methacrylate, thermoplastic, preformed tapes and glass beads.

(3) Retroreflective sheeting materials used for traffic-control devices.

(4) Traffic signal equipment, including the following:

(i) Controller units.

(ii) Signal heads – lane-use traffic-control, pedestrian, and vehicle.

- (iii) Detectors – pedestrian and vehicle.
- (iv) Load switches.
- (v) Flasher units.
- (vi) Time clocks.
- (vii) Relays.
- (viii) Preemption and priority control equipment.
- (ix) Electrically-powered signs – variable speed limit signs, blank-out signs and internally illuminated signs, including School Speed Limit Signs.
- (x) Portable traffic-control signals.
- (xi) Local intersection coordinating units.
- (xii) Dimming devices.
- (xiii) In-roadway warning lights.
- (xiv) Auxiliary devices and systems.
- (5) Traffic signs and the associated breakaway sign supports.
- (6) Work zone traffic-control devices, including the following:
  - (i) Arrow panels.
  - (ii) Barricades.
  - (iii) Citizen band traffic alert radios.
  - (iv) Cones.
  - (v) Crash cushions.
  - (vi) Drums.
  - (vii) Portable changeable message signs.
  - (viii) Portable traffic sign supports.



(ix) Speed display signs, as used to inform motorists of the speed of their vehicles.

(x) Stop/slow paddles.

(xi) Temporary pavement marking tapes.

(xii) Temporary traffic barrier.

(xiii) Tubular markers.

(xiv) Variable speed limit signs.

(xv) Vertical panels.

(xvi) Warning lights.

(7) Yield to pedestrian channelizing devices, which are designed for placement between lanes of traffic to remind motorists to yield to pedestrians in crosswalks.

(c) Approval procedure. A manufacturer or person desiring approval for the sale, use or lease of one or more of the devices listed in subsection (b) shall contact the Bureau of Highway Safety and Traffic Engineering.

(d) Listing of approved traffic-control devices. Approved traffic-control devices will be listed in the Department's *Approved Construction Materials* (Department Publication 35), available from the Department's Sales Store or through the Department's website.

#### **§ 212.9. Traffic calming.**

(a) General policy. The Department on State-designated highways, and local authorities on any highway within their boundaries, may implement traffic calming measures in conformance with *Pennsylvania's Traffic Calming Handbook* (Department Publication 383).

(b) Department approval. Local authorities shall obtain approval of the Department prior to implementing a traffic calming measure on a State-designated highway, except when the

Department's handbook provides otherwise or when the Department has entered into an agreement with local authorities that provides otherwise.

**§ 212.10. Requests for changes, interpretations or permission to experiment.**

A municipality or other agency may submit a request to the Department for a change or an interpretation of the provisions of this chapter, or for approval to use an alternate device or to experiment with a device in a way not provided for in this chapter.

(1) The request shall be submitted in writing to the Bureau of Highway Safety and Traffic Engineering.

(2) The request shall include sufficient information to allow the Department to make a ruling, or to forward the request to the Federal Highway Administration as may be necessary, in accordance with Section 1A.10 of the MUTCD (relating to interpretations, experimentation, changes and interim approvals).

(3) The type of information to be compiled during any experiment shall be identified in the request, and the collection of any data and the development of any follow-up report shall be a conditional part of the request.

**§ 212.11. Metric measurements.**

(a) General policy. The following conversion factors may be used for the design and placement of traffic-control devices as included in this chapter:

(1) One inch equals 25 millimeters.

(2) One foot equals 0.30 meter.

(3) One mile equals 1.6 kilometers.

(b) Metric sign messages. Unless authorized in writing by the Secretary, sign messages on regulatory, warning and guide signs, except for auxiliary signs used for educational purposes, may not display metric units of measurement.

**§ 212.12. Department publications.**

The Department will publish or make available documents to assist those persons responsible for conducting engineering and traffic studies; manufacturing traffic signs and other traffic-control devices; erecting, maintaining and operating traffic-control devices; and maintaining traffic in work zones. The following documents will be available from the Department's Sales Store:

(1) *Approved Construction Materials* (Department Publication 35) which contains listings of approved suppliers of specific materials.

(2) *Official Traffic-Control Devices* (Department Publication 212) which contains this chapter, and an appendix containing additional guidance related to elements of appropriate engineering and traffic studies and the provisions of this chapter.

(3) *Pennsylvania Handbook of Approved Signs* (Department Publication 236M) which contains the design and application details of official traffic signs.

(4) *Signing and Marking Standards, TC-8700 Series* (Department Publication 111M) which contains the traffic standards that provide detailed guidance for sign legends, expressway and freeway signs, sign spacing and location criteria and sign posts. The publication also includes detailed drawings of pavement marking lines and symbols, and the placement of delineation devices at on-ramps, off-ramps, and lane drops.

(5) *Traffic Signal Design Handbook* (Department Publication 149M) which contains information for use in the design and operation of a traffic signal installation.

(6) Traffic Signal Standard Drawings, TC-8800 Series (Department Publication 148M)  
which contains detailed guidance for the construction of traffic signals, controller assemblies,  
traffic signal supports, electrical distribution, signal heads and detectors.

(7) Temporary Traffic-Control Guide (Department Publication 213) which provides  
additional guidance and suggested temporary traffic-control plans for maintaining traffic  
through highway construction, maintenance and utility work zones to supplement various  
situations not included in the MUTCD.

### **Subchapter B. SIGNS**

#### **§ 212.101. Official signs.**

(a) Approved signs. Official traffic signs are identified in the Pennsylvania Handbook of  
Approved Signs (Department Publication 236M) which includes sign standards that show the  
shape, color, dimensions, legends, application and placement of official signs. When sign  
messages are required other than those provided for in the Pennsylvania Handbook of Approved  
Signs, the Bureau of Highway Safety and Traffic Engineering may authorize new sign standards.  
When approved by the Secretary, through the Chief, Traffic Engineering and Operations  
Division, these signs shall also be regarded as official signs.

(b) Existing nonstandard signs. Official signs shall replace existing signs of nonstandard  
design or application as rapidly as is economically feasible.

(c) Unacceptable variations. Variations in the proportion of symbols, stroke width and  
height of letters, width of borders or layout of word or symbol messages will be sufficient cause  
for the Secretary to order the removal or replacement of a sign, but will not be a defense in  
prosecution for violation of any mandatory traffic control provided by the sign.

#### **§ 212.102. Sign manufacturers.**

Only signs manufactured by the Department or a Department-approved sign manufacturer shall be used on any highway. Commercial or municipal sign manufacturers who wish to obtain Department approval to manufacture signs shall request an application from the Bureau of Highway Safety and Traffic Engineering.

**§ 212.103. Sign size.**

Signs smaller than the minimum size or larger than the largest size specified on the sign standards in the *Pennsylvania Handbook of Approved Signs* (Department Publication 236M) are not permitted without written approval from the Department.

**§ 212.104. Retroreflectorization.**

Retroreflective sheeting or other approved retroreflective materials shall be used on all signs that do not have sign illumination, unless the sign standard as included in the *Pennsylvania Handbook of Approved Signs* (Department Publication 236M) indicates that the sign does not need to be retroreflective. Type III or higher type retroreflective sheeting is encouraged to improve nighttime visibility of signs, especially for older drivers.

**§ 212.105. Sign posts and mountings.**

Unless physically protected by guide rail or a barrier, or installed beyond the clear zone as defined in the Department's *Design Manual, Part 2* (Department Publication 13M), all sign posts shall be of a Department-approved breakaway design as listed in the *Approved Construction Materials* (Department Publication 35), and in accordance with the *Signing and Marking Standards, TC-8700 Series* (Department Publication 111M).

**§ 212.106. Additional warrants for Stop Signs (R1-1) and Yield Signs (R1-2).**

(a) Through highways. The Department and local authorities may designate highways as through highways to permit more continuous movement and less delay to the major flow of traffic.

(1) Stop Signs (R1-1) or Yield Signs (R1-2) may be installed at all approaches to the through highway to provide preferential right-of-way at intersections.

(2) The designation of a highway as a through highway does not prevent modification of the right-of-way assignment at intersections of the through highway.

(3) The justification for the modification at a particular intersection will be based on the warrants in the MUTCD and the additional warrants in subsection (b), (c), or (d).

(b) Stop Signs (R1-1) at intersections. In addition to the warrants for stop signs in the MUTCD (relating to stop sign applications), a Stop Sign (R1-1) may be installed on a channelized right-turn roadway at a signalized intersection where the traffic-control signals are not readily visible, and the right-turn roadway does not have separate signals, and a Yield Sign (R1-2) is not appropriate.

(c) Multiway stop applications. In addition to the criteria and options warranting multiway stop applications in the MUTCD, the following apply:

(1) The five or more reported crashes in a 12-month period for Warrant B may include both reportable crashes, and nonreportable crashes that are documented in the police files, that occurred during a 12-month period during the most recent 3 years of available crash data.

(2) Multiway stop applications may not be used because of limited available corner sight distance unless there is no practical method of improving the sight distance or reducing the speed limit to satisfy the minimum corner sight distance values.

(d) Stop and yield control at locations other than intersections.

(1) One-lane bridges and underpasses. Stop Signs (R1-1) are warranted in advance of a one-lane bridge or underpass when roadway geometry is such that drivers cannot see an approaching vehicle in sufficient time for both vehicles to stop prior to entering the bridge or underpass. If sight distance is not a problem, a Yield Sign (R1-2) with the supplemental To Oncoming Traffic Sign (R1-2a) may be installed at both ends of a one-lane bridge or underpass.

(2) Crossings. Stop Signs (R1-1) may be installed on highways on a temporary basis at officially designated crossings such as construction haul roads. These Stop Signs (R1-1) should only be visible and in effect during the time periods the crossing is being used and should be supplemented with a flashing red light for added visibility.

(3) Private roads and driveways. Stop Signs (R1-1) or Yield Signs (R1-2) may be installed to control traffic exiting from a private road or driveway onto a highway or to control traffic on the highway at a private road or driveway if the warrants applied at highway intersections are satisfied.

(4) Truck pulloffs on hazardous grades. A Stop Sign (R1-1) may be installed within an officially designated truck pull-off area in advance of a hazardous grade indicating the location that trucks are to stop within the pulloff.

(5) Temporary traffic control. Stop Signs (R1-1) may be installed at both ends of short one-lane construction, maintenance or utility operation to provide self-regulating traffic control providing the one-lane section excluding the tapers is less than 250 feet, the ADT is less than 1,500, and the sight distance is sufficient.

**§ 212.107. Except Right Turn Sign (R1-1-1).**

When a major traffic movement at an intersection is a right turn, the Except Right Turn Sign (R1-1-1) may be placed below the Stop Sign (R1-1) on that approach to minimize the total delay at the intersection. When this sign is used, Stop Signs (R1-1) are required on all other intersection approaches except for the approach with a corresponding left-turn movement.

**§ 212.108. Speed limits.**

(a) General. This section applies to maximum speed limits established according to 75 Pa.C.S. §§ 3362 and 3363 (relating to maximum speed limits; and alteration of maximum limits).

(b) Engineering and traffic studies. Speed limits established in accordance with 75 Pa.C.S. § 3363 may be established in multiples of 5 miles per hour up to the maximum lawful speed. The speed limit should be within 5 miles per hour of the average 85th percentile speed or the safe-running speed on the section of highway, except the speed limit may be reduced up to 10 miles per hour below either of these values if one or more of the following conditions are satisfied:

(1) A major portion of the highway has insufficient stopping sight distance if traveling at the 85th percentile speed or the safe-running speed.

(2) The available corner sight distance on a number of side roads is less than the necessary stopping sight distance values for through vehicles.

(3) The majority of crashes are related to excessive speed and the crash rate during a minimum 12-month period is greater than the applicable rate in the most recent high-crash rate or high-crash severity rate table included in the appendix of *Official Traffic-Control Devices* (Department Publication 212). Crashes related to excessive speed include but are not limited to, those crashes with causation factors of driving too fast for conditions, turning without clearance, failing to yield right-of-way.



(c) Variable speed limits. To improve safety, speed limits may be changed as a function of traffic speeds or densities, weather or roadway conditions, or other factors.

(d) Special speed limits.

(1) Within a rest area or welcome center, a 25 mile per hour speed limit may be established without the need for an engineering and traffic study if pedestrians walk across the access roadways between the parking lot and the rest facilities.

(2) Within a toll plaza or a truck weight station, an appropriate speed limit may be established without an engineering and traffic study by the authorities in charge to enforce the safety of the operations or to protect the scales.

(e) Posting of speed limits. A Speed Limit Sign (R2-1) or variable speed limit sign showing the maximum speed limit shall be placed on the right side of the highway at the beginning of each numerical change in the speed limit, but an additional sign may also be installed on the left side of the highway. If the new speed limit begins at an intersection, the first sign should be installed within 200 feet beyond the intersection. The placement of this sign shall satisfy both the requirement to post the beginning of the new speed limit and the requirement to post the end of the previous speed limit. Additional requirements for posting shall be as follows:

(1) All speed limits of 50 miles per hour or less shall be posted as follows:

(i) A Reduced Speed ( ) Ahead Sign (R2-5), or a Speed Reduction Sign (W3-5 or W3-5a), shall be placed on the right side of the highway 500 to 1,000 feet before the beginning of every speed reduction unless one of the following applies:

(A) The speed reduction is 10 miles per hour or less.

(B) The speed reduction begins at an intersection and all traffic entering the roadway with the speed reduction has to either stop at a Stop Sign (R1-1) or make a turn.

(C) The new speed limit is posted on variable speed limit signs.

(ii) Speed Limit Signs (R2-1) or a variable speed limit sign showing the maximum speed shall be placed on the right side of the highway at the beginning of the speed limit and at intervals not greater than one-half mile throughout the area with the speed limit.

(iii) The end of a speed limit is typically identified by the placement of a sign indicating a new speed limit, but the End Plaque (R2-10) may be placed above a Speed Limit Sign (R2-1) at the end of the zone if the appropriate speed limit is not known on the following section of roadway.

(2) On freeways, a Speed Limit Sign (R2-1) shall be installed after each interchange unless insufficient space exists for the signs.

**§ 212.109. Bridge speed limits.**

(a) Establishment. A bridge speed limit shall be established under 75 Pa.C.S. § 3365(a) (relating to special speed limitations) if an engineering investigation by a structural engineer establishes the need to reduce the vibration and impact of vehicles due to a structural condition of the bridge or elevated structure.

(b) Posting. An established bridge speed limit shall be posted similar to other speed limits in § 212.108(e) (relating to speed limits), except that a Bridge Sign (R12-1-2) shall be mounted directly above each Speed Limit Sign (R2-1) and Reduced Speed ( ) Ahead Sign (R2-5). The sign indicating the beginning of the bridge speed limit should be installed within 50 feet of the

beginning of the structure. The end of the bridge or elevated structure shall be the end of the bridge speed limit.

**§ 212.110. Hazardous grade speed limits.**

(a) Establishment. A hazardous grade speed limit may be established under 75 Pa.C.S. § 3365(c) (relating to special speed limitations) if an engineering and traffic study establishes the need for all vehicles or vehicles having a gross weight in excess of a designated weight to be limited to a maximum speed on a downgrade.

(1) The designated weight should be 26,000 pounds unless the engineering and traffic study determines that a different weight should be used.

(2) When a hazardous-grade speed limit is established, it should be consistent with the speed that similar vehicles can climb the hill or other Department-approved methodology, except that a hazardous-grade speed limit should not be greater than the lowest advisory speed or legal speed limit either on the hill or at the base of the hill.

(3) A hazardous-grade speed limit may be established when one or more of the following conditions exist:

(i) The length of grade exceeds the value set forth in the following table:

<u>Average Grade</u> <u>(percent)</u>	<u>Length of Grade</u> <u>(feet)</u>	
	<u>Condition A*</u>	<u>Condition B**</u>
<u>-3</u>	<u>20,000</u>	<u>=</u>
<u>-4</u>	<u>8,000</u>	<u>16,000</u>
<u>-5</u>	<u>5,000</u>	<u>10,000</u>

<u>-6</u>	<u>3,000</u>	<u>6,000</u>
<u>-7</u>	<u>2,000</u>	<u>4,000</u>
<u>-8</u>	<u>1,800</u>	<u>3,600</u>
<u>-10</u>	<u>1,500</u>	<u>3,000</u>
<u>-12</u>	<u>1,250</u>	<u>2,500</u>
<u>-15</u>	<u>1,000</u>	<u>2,000</u>

\* Condition A applies if vehicles are required to stop or reduce speed at or before the bottom of the hill or if there is an urbanized area at the base of the hill.

\*\* Condition B pertains to all other locations.

(ii) A crash has occurred on the downgrade that can be attributed to the speed of a vehicle having a gross weight in excess of the designated weight.

(iii) A verified report has been received during the past 3 years of an operator losing control of a vehicle on the grade, and the vehicle is a type having a gross weight in excess of the designated weight.

(b) Posting. A hazardous grade speed limit shall be posted with traffic-control devices as follows:

(1) A Reduced Speed ( ) Ahead Sign (R2-5), advising of the maximum hazardous grade speed limit, with a Truck Marker (M4-4), or other marker as applicable, mounted directly above the Reduced Speed ( ) Ahead Sign (R2-5), shall be placed on the right side of the highway at a distance of 500 to 1,000 feet before the hazardous grade speed limit,

except that this advance sign is not required if the hazardous grade speed limit begins at a vehicle pull-off where all applicable vehicles are required to stop.

(2) A Trucks Over ( ) Lbs. Speed Sign (R2-2-1), or other sign as applicable, shall be erected at the beginning of the hazardous grade speed zone and at intervals not greater than 1/4 mile throughout the zone.

(3) A Trucks Over ( ) Lbs. Speed Sign (R2-2-1), or other sign as applicable, with an End Sign (R2-10) mounted above the Trucks Over ( ) Lbs. Speed Sign (R2-2-1) or other sign, shall be installed at the end of the hazardous grade speed limit.

**§ 212.111. Turn restriction warrants.**

A straight-through or turning movement may be restricted if the movement can be made at an alternate location, and if one or more of the following conditions are present:

(1) A review of vehicle crashes shows that ten crashes have occurred during the previous 3 years, or five crashes have occurred during any 12-month period in the previous 3 years that can be attributed to vehicles making or attempting to make the movement.

(2) When a capacity analysis or field review of the intersection indicates that turning or crossing vehicles are causing unreasonable delays or creating a potential crash situation for through vehicles.

(3) When a field review of the intersection indicates that significant conflicts occur between vehicles making or attempting to make a particular movement and other vehicular or pedestrian movements.

(4) When a field review of the intersection indicates that a turn or straight-through movement delays the platoon of vehicles through a progressive signal system.

(5) When a field review of the intersection indicates that the geometric design or the available corner sight distance does not adequately provide for the movement or the movement frequently cannot be safely executed.

(6) A study shows that the turning movement is frequently being made by through traffic onto a residential street to avoid downstream congestion.

**§ 212.112. Signs to prohibit passing.**

The No Passing Zone Pennant (W14-3) is the primary sign to identify the beginning of a no-passing zone on a two-lane highway and shall be installed on the left side of the road. The Do Not Pass Sign (R4-1) may be installed on the right side of the roadway to supplement the No Passing Zone Pennant Sign (W14-3). The Pass With Care Sign (R4-2) may be installed at the end of the no-passing zone. Warrants for no-passing zones are included in § 212.202 (relating to no-passing zones).

**§ 212.113. One-way streets.**

A one-way street may be established if all of the following are satisfied:

(1) The traffic flow can be accommodated in both directions. Whenever possible, an adjacent parallel street should be used to form a one-way couplet.

(2) The street has a reasonable number of intersections for entrance to or exit from the one-way street or one-way system.

(3) The roadways at the terminal points of the one-way street provide satisfactory transitions to and from the two-way operation.

(4) There will be a reduction of intersection delays.

(5) Existing bus routes can be satisfactorily accommodated.

(6) Emergency vehicles can reasonably and expeditiously reach their destinations.

**§ 212.114. Stopping, standing and parking restrictions.**

(a) General. Stopping, standing or parking may be restricted along the curb or edge of a roadway when one or more of the following conditions exist:

(1) The distance between the center of the center line pavement markings (or the center of the roadway if center line pavement markings are not present) and the curb or edge of roadway is less than 19 feet on major arterial highways, or less than 18 feet on other roadways.

(2) The street width is such that, if vehicles are parked along one or both curb faces or edges of the roadway, two vehicles cannot move abreast of one another in the same or the opposite direction without one yielding to allow the other vehicle to pass.

(3) A capacity analysis indicates that parking should be removed at all times or during certain hours to accommodate the traffic volume.

(4) At an intersection, the available corner sight distance for a driver on the minor road is less than the necessary minimum stopping sight distance value for the driver on a through roadway.

(5) An analysis of vehicle crashes indicates that at least three crashes during the previous 3-year period have been directly or indirectly attributed to one of the following primary causes:

(i) Vehicles parking on the roadway.

(ii) Vehicles entering or leaving the parked position.

(iii) Drivers or passengers getting out of parked vehicles on the street side.

(iv) Reduced sight distance due to the parked vehicles.

(6) The area is designated as an official bus stop or as a loading and unloading zone.

(7) The area is adjacent to or opposite of a fire station driveway or any other type driveway or intersection where turning maneuvers would be restricted if parking were present.

(8) The width of the shoulder is not sufficient to allow a vehicle or its load to park completely off the roadway.

(9) Along roadways having three or more lanes and speed limits of 40 miles per hour or above, parking may be restricted to allow vehicles to use the berm or shoulder as a clear recovery area.

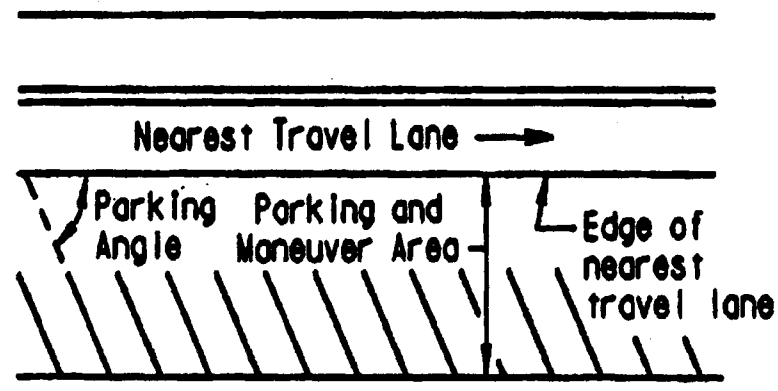
(b) Angle parking. As defined in § 212.1 (relating to definitions), angle parking shall only be authorized as follows:

(1) New angle parking may be established only along streets where the following criteria are satisfied:

(i) The parking and maneuver area, as shown in the diagram below, adjacent to the near edge of the nearest travel lane equals or exceeds the distance indicated in the following table:

<u>Parking Angle</u> <u>(degrees)</u>	<u>Parking and Maneuver</u> <u>Area</u> <u>(feet)</u>
<u>30</u>	<u>26</u>
<u>45</u>	<u>30</u>
<u>60</u>	<u>37</u>
<u>90</u>	<u>43</u>





(ii) Parked vehicles do not adversely affect the available corner sight distance.

(iii) Additional travel lanes are not required for the existing traffic volumes to achieve a satisfactory level of operation.

(iv) Parking stalls will be adequately marked and spaced.

(v) Pedestrian activity is minimal within the parking maneuver area.

(2) It is recommended that existing angle parking be eliminated if an analysis of vehicle crashes indicates that the parking-related crash rate within the area of existing angle parking is greater than the rate on similar portions of the same street or other streets within the same municipality which have parallel parking.

(c) Parking meters. When parking is permitted, local authorities may install parking meters and appropriate pavement markings to designate parking stalls. The hours of effectiveness of parking meters shall be indicated either on the meter or within the dome of the meter, but official traffic signs shall be erected to indicate hours when parking is prohibited.

(d) Prohibition of kinds and classes. When parking is permitted, local authorities or the Department may prohibit certain kinds and classes of vehicles from parking for safety, capacity or environmental reasons. Official signs shall indicate the prohibitions.

(e) Parking reserved for persons with disabilities. The Reserved Parking Penalties Sign (R7-8f) shall be installed below all Reserved Parking Signs (R7-8), as provided in 75 Pa.C.S. § 3354(d) (relating to handicapped persons and disabled veterans).

(f) Miscellaneous restrictions. Local authorities or the Department may restrict or regulate parking without an engineering and traffic study, to facilitate construction, maintenance or utility operations; to eliminate long-term parking or parking in excess of a specified time limit; to provide for reserved parking spaces; to provide for snow emergency routes; or to provide for mail delivery or pickup. Restrictions for the elimination of long-term parking shall apply only during short periods of time such as early morning hours when it will not seriously inconvenience local residents.

(g) Double parking. When parking is permitted, local authorities may, by local ordinance without an engineering and traffic study, authorize double parking (standing or parking on the roadway side of a vehicle stopped or parked at the edge or curb of a roadway) for the purpose of loading or unloading persons or property. On State-designated highways, double parking is not permitted without written approval of the Department.

(h) Authority. Local authorities may establish, revise or remove stopping, standing or parking restrictions on State-designated highways within their physical boundaries, except Department approval is required prior to revising or removing any of the following:

- (1) Established in conjunction with a State or Federal aid project.
- (2) Requested or posted by the Department for safety or capacity reasons.

(3) Included as a condition on a traffic signal permit.

**§ 212.115. Posting of private parking lots.**

(a) General. Posting of private property, including parking lots, giving notice to the public of parking restrictions as required by 75 Pa.C.S. §§ 3353(b)(2) and 3354(d)(3) (relating to prohibition in specified places; and additional parking regulations) shall be in accordance with this section.

(b) Public notice signs.

(1) The legend on public notice signs at private parking lots shall indicate the restrictions which apply. In addition to a primary restriction such as those contained in subparagraph (i), the sign may contain one or more supplemental restrictions or messages of the type included in subparagraph (ii).

(i) Primary restrictions include, but are not limited to, messages such as PRIVATE PARKING, PARKING BY PERMIT ONLY, AUTHORIZED PARKING ONLY, PRIVATE PARKING FOR ( ) APARTMENT, and PARKING ONLY FOR PATRONS OF ( ).

(ii) Secondary restrictions or messages may include applicable hours of the day, applicable days of the week, applicable charges and warnings that unauthorized vehicles may be towed.

(iii) The name and telephone number of the owner or other person in control or possession of the property should also be included on the legend.

(2) Public notice signs should generally be erected at each entrance to the private parking lot and positioned so as to face traffic entering the lot. If there are no designated entrances – such as when a lot has one or more sides continuously open to a roadway – one or more signs should be erected so as to be readily visible to an ordinarily observant driver. Minimum message size shall be as follows:

(i) A primary restriction as defined in paragraph (1)(i) shall have a minimum height of 3 inches; except signs erected at a distance of more than 75 feet from an entrance point shall have legend which is at least one additional inch in height for each 25-foot interval in the distance. The stroke width of the legend shall be a minimum of 1/8 of the required height of the legend.

(ii) A secondary restriction as defined in paragraph (1)(ii) shall have minimum dimensions equal to one-half of the minimum dimensions required for the primary restriction, except the height of the message may not be less than 2 inches.

(3) Signs which have application during hours of darkness shall have a retroreflectorized sign message or background and be positioned so as to be illuminated by the headlight beams of entering vehicles, or the sign may be illuminated during applicable hours of darkness so as to be readily visible to an ordinarily observant driver.

(4) Under 75 Pa.C.S. § 3353(b) (relating to prohibition in specified areas), the prosecution of an owner or towing a vehicle from a private parking lot is prohibited unless restrictions are posted in accordance with this subsection.

(c) Reserved Parking signs or markings.

(1) Special signs may be used to reserve designated parking stalls for named persons or classes of people, for particular vehicles, or for persons with special placards or assigned permit numbers. When used, these signs may be erected at the front of each parking stall or, in the case of parallel parking, at intervals not exceeding 100 feet along the side of the stalls. The minimum size sign shall be 12 inches by 12 inches, and the minimum size message shall be 2 inches in height.

(2) In lieu of signs to designate parking stalls as noted in subsection (a), pavement markings may be used on the pavement or an applicable curb for this purpose if:

(i) The public notice sign indicates that a permit is required.

(ii) The markings are readily visible to an ordinarily observant driver.

(3) The Reserved Parking Sign (R7-8) shall be used to designate reserved parking stalls for handicapped persons or severely disabled veterans. The Reserved Parking Penalties Sign (R7-8f), which indicates the minimum and maximum fine for violators and that violators may be towed, shall be installed below the Reserved Parking Sign (R7-8).

(4) Parking stalls designated under paragraph (3) for handicapped persons or severely disabled veterans may only be used by vehicles bearing a handicapped person or severely disabled veteran registration plate or displaying a handicapped person or severely disabled veteran parking placard issued by the Commonwealth or another state.

(5) Whenever signs required to implement the provisions of paragraph (3) become either obsolete or missing, they shall be replaced with new official signs as rapidly as is feasible.

The costs associated with the installation and replacement of the required signs for a particular location shall be borne by the owner or person in control or possession of the property on which the signs are to be erected.

**§ 212.116. No Turn on Red Sign (R10-11 sign series).**

(a) Warrants for no-turn-on-red restrictions. The following warrants may be used in addition to the warrants for no-turn on red restrictions in the MUTCD-(relating to traffic signal signs).

(1) A right turn on red, or left turn on red from a one-way highway to another one-way highway, may be prohibited from an intersection approach where an engineering and traffic study indicates that one or more of the following conditions exist:

(i) The available corner sight distance between a driver desiring to turn on red and an approaching vehicle on the cross street is less than the minimum shown on the following table:

<b><u>Cross Street Speed Limit</u></b>	<b><u>Minimum Sight Distance*</u></b>
<b><u>(mph)</u></b>	<b><u>(feet)</u></b>
<u>20</u>	<u>120</u>
<u>25</u>	<u>150</u>
<u>30</u>	<u>190</u>
<u>35</u>	<u>220</u>
<u>40</u>	<u>270</u>
<u>45</u>	<u>320</u>

<u>50</u>	<u>360</u>
<u>55</u>	<u>410</u>

\* Sight distance is measured from a location 10 feet before a marked pedestrian cross walk, or, if none, 10 feet from the edge of the cross street roadway or curb line.

(ii) The intersection has more than four approaches or has restrictive geometry that is likely to cause vehicular conflicts which are not easily recognized by drivers.

(iii) The turning movement is allowed from more than one lane on a specific approach.

(iv) The vehicular turning movement would result in significant vehicular and pedestrian conflicts, such as locations where the crosswalk is designated as a school crossing or is used by large numbers of children, senior citizens or persons with physical disabilities. A no-turn-on-red restriction at these locations shall only apply during the time periods that significant vehicular-pedestrian conflicts would occur, in accordance with paragraph (3).

(v) Opposing traffic has unusual movements, such as double left turns, which would not be expected by drivers turning on a red signal.

(vi) An analysis of vehicle crash data indicates that the turn-on-red movement has created an unsafe condition.

(2) Part-time or intermittent prohibition of the turn-on-red movement shall be used at locations where a potential safety concern exists for only a portion of the day. These restrictions shall be implemented by the use of one or more of the following:

(i) A Restricted Hours Panel (R3-20) under the No Turn On Red Sign.

(ii) A supplemental message incorporated directly into the No Turn On Red Sign.

(iii) A sign designating the hours the restriction is effective.

(iv) A blank-out No-Turn-On-Red Sign.

(3) A part-time or intermittent prohibition of the turn-on-red movement may be used at an intersection approach where vehicles turning on red would cross an at-grade railroad crossing within 200 feet and the traffic signal controller is preempted during train movements during the time the signal controller is preempted in accordance with paragraph (2).

(b) Application. This section applies to all signalized roadway and driveway intersections along all highways.

(c) Engineering and traffic studies. Engineering and traffic studies required by paragraph (a)(1) shall be conducted by local authorities, except the Department will be responsible for conducting the study at the following locations:

(1) At intersections where the traffic signal controller is preempted during train movements for a nearby crossing.

(2) At new or revised traffic signal installations when the traffic signal is designed by the Department.

(d) Department approval. Written approval of the Department's District Executive shall be obtained prior to installation of a No Turn on Red Sign (R10-11 Series) at any intersection where the Department has issued the traffic signal permit.

**§ 212.117. Weight, size and load restrictions.**

(a) Weight restriction based on condition of bridge. Traffic on a bridge may be prohibited or restricted by weight of vehicle, number of vehicles, or kinds or classes of vehicles when



warranted by an engineering evaluation. Engineering evaluation of a bridge or bridge component may be based on structural analysis and rating computations, testing, engineering judgment or a combination thereof. Restriction is warranted when one or more of the following conditions are present:

(1) The safe load capacity of the bridge, as determined in accordance with Department standards, is exceeded by the load effect of any of the legal load configurations.

(2) Engineering judgment indicates that the condition or material of construction of one or more portions or components of a bridge is such that further use by heavy vehicles may damage the bridge because of severe impact, fatigue or other reasons.

(3) The bridge is damaged due to fire, a vehicle crash or environmental deterioration, and engineering judgment indicates that a vehicle weight restriction is necessary to ensure an adequate level of safety.

(b) *Weight restriction based on condition of highway.* Traffic on a highway may be prohibited or restricted by weight of vehicle, or kinds or classes of vehicles when warranted by an engineering evaluation. Engineering evaluation may be based on structural analysis, testing, engineering judgment or a combination thereof. Restriction is warranted when one or more of the following conditions are present:

(1) The highway pavement or shoulders have inadequate structural capacity or have been weakened due to deterioration, high traffic volumes or climatic condition, and may be seriously damaged unless a restriction is imposed.

(2) An engineering evaluation of previous similar climatic conditions on the highway or on similar highways indicates that vehicles over a certain weight should have been prohibited.

(c) Size restriction based on condition of bridge or highway. Traffic on a bridge or highway may be restricted by size of vehicle or kinds or classes of vehicles when, after an engineering evaluation, one or more of the following conditions are found to be present:

(1) A bridge has poor alignment, inferior bridge rails or guide rails, substandard horizontal or vertical clearance, or creates problems for vehicles with low ground clearance, or the restriction is otherwise necessary to protect the bridge from vehicle crashes or damage.

(2) A highway has inadequate turning radii, horizontal width or creates concerns for vehicles with low ground clearance at one or more locations.

(d) Weight and size restrictions based on traffic conditions. Traffic on a highway or bridge may be prohibited or restricted by weight or size of vehicle, or kinds or classes of vehicles when, an engineering evaluation of the horizontal and vertical alignment, prevailing traffic speeds, compatibility of the various types of traffic, history of vehicle crashes or vehicular characteristics, indicates that the movement of certain vehicles constitutes a safety hazard. Restrictions may include weight; height, width or length of vehicles or their loads; types of cargo; speed or gearing; stopping requirements; specified travel lanes; and hours of operation.

(e) Erection of signs. Appropriate signs shall be erected within 25 feet of each end of a restricted portion of a highway or bridge whenever vehicles are prohibited under subsection (a), (b), (c) or (d). In the case of a restriction on a highway or bridge which does not begin or end at an intersection with an unrestricted highway, an advance information sign shall also be erected at the intersection nearest each end of the restricted highway or bridge to allow drivers to avoid the restricted highway or bridge.

(f) Alternate routes. An alternate route shall be established whenever vehicles are prohibited under subsection (a) or (b) on either a numbered traffic route or a State-designated highway on

the National Highway System, as established by the Federal Highway Administration, when the following apply:

(1) A reasonable alternate route exists which is not readily perceived by drivers.

(2) The alternate route can legally, safely, structurally and physically accommodate the weight and size of vehicles and their loads that are being detoured.

(3) Five or more vehicles per day are estimated to be prohibited from using the original route.

**§ 212.118. Street name signs.**

For street name signs, white lettering on a green background is recommended, but local authorities may use other contrasting colors provided the same colors are used systematically throughout the municipality. To improve sign legibility, upper and lower case lettering is recommended.

**§ 212.119. Signing of named highways.**

Signs carrying the name of the highway will be permitted at intervals of at least every 15 miles on conventional highways.

**§ 212.120. General motorist service signs.**

The application of general motorist service signs shall be in accordance with the Department's Statewide policy, and will generally be limited to expressways and freeways, except trailblazers from expressways and freeways will be permitted on conventional highways, and hospital symbol signs are permitted on all highways. Symbols shall be as specified in the *Signing and Marking Standards, TC-8700 Series* (Department Publication 111M).

**§ 212.121. Specific service signs.**

(a) The Department may enter into an agreement with a private agency to administer a program for specific service signs for gas, food, lodging, camping and attractions. Specific service signs shall only be installed in accordance with Department policy and only on expressways and freeways, except trailblazers will be authorized on conventional highways as necessary. If a trailblazer is required on a local roadway to direct motorists to a specific business, and the local authority refuses to install or allow others to install the trailblazer on their local highway, specific service signs may not be provided for that business on the expressway, freeway or conventional highway.

(b) Airports may be signed on either major guide signs or on specific service signs at freeway-to-freeway interchanges.

**§ 212.122. Recreational and cultural interest area signs.**

Recreational and Cultural Interest Area Signs, as described in Chapter 2H of the MUTCD, that is, relating to the RG, RM, RA, RL, RW and RS Series signs, shall be authorized for use within any State park, State forest picnic area, Federal recreation area, National forest or public park.

**§ 212.123. Tourist-oriented directional signs.**

Tourist-Oriented Directional Signs (D7-4) shall be of the size and type specified in the Department's *Handbook of Official Signs* (PennDOT Publication 236M) or as specified in an agreement with the Department, instead of the design included in Chapter 2G of the MUTCD relating to tourist-oriented directional signs). The Department may enter into an agreement with an outside entity to administer a program for tourist-oriented directional signs.

**Subchapter C. MARKINGS**

**§ 212.201. Pavement marking standards.**

The Signing and Marking Standards, TC-8700 Series (Department Publication 111M)

contains additional design details for pavement markings. All pavement markings for lane drops, expressways, freeways, on-ramps and off-ramps, and all pavement marking words and symbols shall conform to the Signing and Marking Standards.

**§ 212.202 No-passing zones.**

(a) Additional warrants on two-lane, two-way highways. In addition to the sight distance warrant in Section 3B.02 of the MUTCD (relating to no-passing zone pavement marking and warrants), no-passing zones may be established at the following locations on two-lane, two-way highways with center line pavement markings:

(1) In advance of a divided highway or an obstruction such as a bridge support pillar, a channelizing island or a safety zone, which separates the two lanes of traffic.

(2) On or within, and in advance of any bridge, tunnel or underpass designated as a narrow bridge or underpass in accordance with § 212.1 (relating to definitions).

(3) In advance of a Stop Sign (R1-1), Yield Sign (R1-2) or traffic signal.

(4) On the approach to an intersection where passing may be undesirable due to the high number of crossing or turning movements.

(5) Within a school zone.

(6) In areas where an analysis of vehicle crashes shows an unusually high number of passing-related crashes.

(7) In areas where the roadside development includes many driveways and intersections where passing would create frequent potential conflicts.

(8) At locations where the roadway width is very restrictive, shoulders are nonexistent or in poor condition, the roadway cross-section has an excessive crown, or obstacles are close to the roadway.

(9) In areas where a capacity analysis indicates Level of Service D.

(10) At locations where a passing zone would otherwise be less than 600 feet in length.

(11) At locations where engineering judgment indicates that allowing passing is undesirable because a better passing area exists farther ahead.

(b) Minimum advance distance. No passing zones established according to subsection (a)(1)-(5) shall precede the location by the minimum distance noted in the following table:

<u>Speed Limit or 85<sup>th</sup> Percentile Speed (mph)</u>	<u>Distance (feet)</u>
<u>35 or less</u>	<u>300</u>
<u>40</u>	<u>350</u>
<u>45</u>	<u>400</u>
<u>50</u>	<u>450</u>
<u>55</u>	<u>500</u>

**§ 212.203. Delineation.**

The 4-foot mounting height for delineators specified in the MUTCD (relating to delineator placement and spacing) is not applicable for guide rail and barrier-mounted delineators. In

addition, post-mounted delineators may be 4 feet above the ground instead of 4 feet above the near edge of pavement as specified in the MUTCD.

#### **Subchapter D. HIGHWAY TRAFFIC SIGNALS**

##### **§ 212.301. Purpose.**

This subchapter sets forth additional guidance and criteria relating to the design, application and operation of traffic signals within this Commonwealth. The *Traffic Standards--Signals TC-8800 Series* (Department Publication 148M) and the *Traffic Signal Design Handbook* (Department Publication 149M) contain additional design details, specifications, checklists and forms.

##### **§ 212.302. Traffic-control signals.**

(a) *Flashing Operation of traffic-control signals.* During flashing operation, a minimum of two vehicular signal heads on each approach shall be flashed for the through movement. Any other signal heads may be blanked out.

(b) *Warrants.* In addition to the criteria in the MUTCD, the following applies:

(1) *Traffic volumes.* The traffic volume for channelized right-turn movements may not be included in any warrant analysis.

(2) *Vehicle crashes.* The five or more reported crashes within a 12-month period for Warrant 7 in the MUTCD (relating to Warrant 7, crash experience) may include both reportable crashes, and nonreportable crashes that are documented in the police files, that occurred within a 12-month period during the most recent 3 years of available crash data.

(3) *ADT volume warrant.* An "ADT volume warrant" is added as "Warrant 9" and may be used in addition to the eight warrants contained Sections 4C.02 through 4C.09 of the

MUTCD (relating to Warrants 1 through 8). This warrant shall apply at a proposed intersection, an intersection revised by a highway construction project, or at the driveway of a proposed commercial or residential development where vehicle counts cannot be taken. If a traffic signal is installed under this warrant, a traffic count shall be taken within 6 months of the opening of a development or within 2 years of the opening of a highway. If the traffic volumes do not satisfy this warrant, or one or more of the other eight warrants, the traffic signal shall be removed. This warrant is satisfied when:

(i) The projected ADT volumes on the major street and on the higher volume minor street or driveway approach to the intersection, when estimated using an accepted procedure such as put forth in the Trip Generation Manual published by the Institute of Transportation Engineers, shall equal or exceed the values in the following table:

<u>Lanes for Moving Traffic on Each Approach</u>		<u>Estimated ADT*</u>	
<u>Major Street</u>	<u>Minor Street</u>	<u>Major Street (both approaches)</u>	<u>Minor Street (one approach)</u>
<u>1</u>	<u>1</u>	<u>10,000</u>	<u>3,000</u>
<u>2 or more</u>	<u>1</u>	<u>12,000</u>	<u>3,000</u>
<u>2 or more</u>	<u>2 or more</u>	<u>12,000</u>	<u>4,000</u>
<u>1</u>	<u>2 or more</u>	<u>10,000</u>	<u>4,000</u>
<u>1</u>	<u>1</u>	<u>15,000</u>	<u>1,500</u>
<u>2 or more</u>	<u>1</u>	<u>18,000</u>	<u>1,500</u>



<u>2 or more</u>	<u>2 or more</u>	<u>18,000</u>	<u>2,000</u>
<u>1</u>	<u>2 or more</u>	<u>15,000</u>	<u>2,000</u>

\* Based on the volume projected to be present within 6 months of the opening of the development or within 2 years of the opening of the highway.

(ii) If the 85th percentile speed of the major street traffic exceeds 40 miles per hour or the intersection lies within the built-up area of an isolated community having a population of less than 10,000, this warrant may be met with 70% of the volume requirements of subparagraph (i).

**§ 212.303. Pedestrian-control signals.**

Pedestrian-control signals provide special types of traffic signal indications for the exclusive purpose of controlling pedestrian traffic. These indications consist of the illuminated symbols of a walking person (symbolizing WALK) and an upraised hand (symbolizing DON'T WALK) or the illuminated words WALK and DON'T WALK.

(1) New pedestrian-control signals shall use symbolized messages.

(2) Signals using word messages may be retained for their useful service life and new replacement signal indications with word messages may be used for maintenance of existing installations with word messages.

## **Subchapter E. TEMPORARY TRAFFIC CONTROL**

### **§ 212.401. General.**

This subchapter supplements the criteria in the MUTCD, and shall apply to highway construction, maintenance operations and utility work, or incident management, either on a highway or so close to a highway that workers, equipment, or materials encroach on the highway. Compliance with this subchapter does not relieve the contractor or others of their general responsibility for the protection of the public and the employees in work zones.

### **§ 212.402. Exempt work.**

(a) General. The following types of work shall be exempt from the requirements contained in this chapter and in the MUTCD:

- (1) Snow plowing and other snow or ice control operations.
- (2) Refuse collection, trash collection, leaf pick-up, street cleaning, municipal street sweeping and residential lawn care.
- (3) Operations which do not involve construction, maintenance operations, or utility work, such as mail, newspaper, home fuel or other local deliveries.
- (4) Studies or inspections of highway or utility features which may be completed without blocking any part of a travel lane.
- (5) Construction, maintenance operations or utility work in areas outside the highway right-of-way; except when the work is so close to the highway that workers, equipment or materials encroach on the highway.
- (6) Construction, maintenance operations, or utility work where all workers, equipment, or materials are behind a guide rail, more than 2 feet behind a curb or 15 feet or more from the edge of a roadway.

(7) Mowing operations on roads with less than 10,000 vehicles per day and where equipment does not encroach on the roadway.

(8) Traffic data collection.

(b) Safety considerations. While the types of work in subsection (a) are exempt from the specific traffic-control guidelines of this subchapter, they shall be accomplished in a manner that will provide an adequate degree of safety for the workers and the public.

**§ 212.403. Temporary traffic-control plans.**

Plans for construction projects shall either reference or include a temporary traffic-control (TTC) plan, which shall consist of one of the following:

(1) A reference to a specific figure either in the MUTCD or in the *Temporary Traffic-Control Guide* (Department Publication 213) that properly depicts actual site conditions.

(2) A copy of a specific figure either in the MUTCD or the *Temporary Traffic-Control Guide* (Department Publication 213) which has been modified to depict actual site conditions and the necessary traffic-control requirements for the specific project.

(3) One or more detailed plan sheets or drawings showing the actual site conditions and the TTC requirements for the specific project.

**§ 212.404. Sign supports.**

(a) Post-mounted signs. Post-mounted signs or signs on fixed supports shall be installed in accordance with the *Signing and Marking Standards, TC-8700 Series* (Department Publication 111M).

(1) Post-mounted sign installations shall be of a breakaway or yielding design unless they are adequately placed behind guide rail or median barrier.

(2) Signs may not be mounted on existing utility poles or other structures unless the owner grants written permission and the signs can be properly positioned to convey their messages effectively.

(b) Portable sign supports. Portable sign supports shall be of a type approved by the Department.

**§ 212.405. Regulatory speed limits.**

(a) General. Regulatory speed limits in temporary traffic-control zones and in the area in advance of a work zone where traffic queues are anticipated may be established as follows:

. (1) A regulatory speed limit up to 10 miles per hour below the normal speed limit may be established without an engineering and traffic study, provided the reduced regulatory speed limit is at least 25 miles per hour. Regulatory speed limits less than 25 miles per hour or more than 10 miles per hour below the normal speed limit require an engineering and traffic study and the prior approval of the Department for State-designated highways and approval of local authorities for local highways. To qualify for an additional speed limit reduction, the engineering and traffic study shall indicate that traffic queues, erratic maneuvers, high vehicle crash rates or undesirable working conditions exist on the project or have existed on similar projects.

(2) Regulatory speed limits for temporary traffic control shall be signed with either Speed Limit Signs (R2-1), Work Area Speed Limit Signs (R2-2-2), or variable speed limit signs. For speed limits that are 50 miles per hour or less, the signs shall be spaced not greater than 1/2 mile apart throughout the limits of the reduced speed limit zone. Conflicting regulatory or warning signs shall be removed, covered, folded or turned so that they are not readable by oncoming traffic whenever the reduced regulatory speed limit is in effect.

(3) A Speed Limit Sign (R2-1) showing the speed limit on the section of highway immediately after the work zone shall be positioned at the end of the reduced regulatory speed limit, except an R2-1 sign is not necessary if a Work Area Speed Limit Sign (R2-2-2) is used and an End Road Work Sign (G20-2) or End Work Area Sign (G20-3) is in place at the end of the regulatory speed limit.

(b) Variable speed limits. In an effort to avoid unnecessary speed restrictions, variable speed limits are encouraged in lieu of static signs. These speed limits may be remotely controlled, either manually or by a computer using hardware and software to monitor functions such as traffic speeds, volumes, densities and queues.

**§ 212.406. Channelizing devices.**

(a) Device consistency. Channelizing devices used to form a particular taper or a particular longitudinal line of devices shall all be of a single type. For example, cones, drums, barricades and vertical panels may not be intermixed within the same taper or line, but the type of device being used in a taper may differ from the type of device being used in a longitudinal section.

(b) Cones. Cones may only be used as a channelizing device for operations where work is in active progress. Cones that are 18 inches high may only be used to protect new pavement markings.

**§ 212.407. Markings.**

When lane line and center line pavement markings on more than 250 linear feet of highway are covered or destroyed by construction, maintenance, utility, permit or other work, they shall be replaced, before ending work each day, with standard pavement markings, or with temporary pavement markings as included in the MUTCD (relating to temporary pavement markings), unless one of the following conditions is present:

(1) The roadway surface has loose aggregate or a surface texture that will not retain pavement markings including raised pavement markers authorized to be used alone in work zones.

(2) The roadway or portion of a roadway will not be opened to traffic until a later date and pavement marking patterns will be installed on the roadway or portion of a roadway before reopening the roadway.

(3) The work is on a two-lane, two-way highway that has an ADT of 5,000 or less, and Do Not Pass Signs (R4-1) and No Pavement Marking Signs (W21-16) are installed at the beginning of the work zone and alternating at intervals not greater than 1/4 mile within the work zone in both directions.

(4) For a period of approximately 2 weeks during which time both of the following occur:

(i) A strip of white temporary pavement marking tape with minimum dimensions of 4 inches wide and 24 inches long, is placed at 40-foot intervals for all lane lines.

(ii) Two strips of yellow temporary pavement marking tape with minimum dimensions of 4 inches wide and 24 inches long, are placed side by side at 40-foot intervals for all center line markings on two-lane, two-way roadways, and Do Not Pass Signs (R4-1) are installed at the beginning of the work zone and at intervals not greater than 1/2 mile throughout the work zone where the interim markings are used.

**§ 212.408. Impact attenuators.**

The design and application of temporary impact attenuators shall comply with the *Roadway Construction Standards* (Department Publication 72M) for concrete median barrier and other obstructions.

**§ 212.409. Rumble strips.**

Temporary bituminous rumble strips may be used to provide an audible warning to alert drivers of a potentially dangerous situation including a median crossover, lane reduction and congested area. Recommended rumble strip designs are available from the Bureau of Highway Safety and Traffic Engineering. When rumble strips are used, it is desirable to extend the rumble strip patterns onto the shoulder whenever possible to discourage drivers from making erratic maneuvers in an attempt to bypass or avoid the rumble patterns.

**§ 212.410. Delineators.**

The application of delineators shall comply with the *Signing and Marking Standards TC-8700 Series* (Department Publication 111M).

**§ 212.411. Flaggers.**

(a) *Helmet.* In addition to the requirements of the MUTCD, flaggers shall wear a protective helmet.

(b) *Mechanical flaggers.* Mechanical flaggers or mannequins, which look and act somewhat like flaggers, may not be used to alert, slow, or stop traffic.

**§ 212.412. Flagger signaling devices.**

A red flag shall only be used to control traffic in emergencies when a Stop/Slow Paddle (R21-10) is not available or at intersections where a single flagger is used within an intersection.

**§ 212.413. Portable traffic-control signals.**

Portable traffic-control signals may be used to control one-lane, two-way traffic. They may also be used for other special applications such as a highway or street intersection with a temporary haul road or equipment crossing. The design and application of portable traffic-control signals shall conform with the applicable requirements of the Department's certificate of

approval issued to the manufacturer for portable traffic-control signals, and with any special requirements defined in the TTC Plan. For these applications, it may be desirable to use traffic-actuated or manual control to compensate for unbalanced traffic flows.

**§ 212.414. Emergency work.**

(a) *General.* Emergency work may be initiated without prior compliance with the traffic-control provisions specified by this subchapter, provided the foreman or lead worker implements all available safety measures, and the traffic control is brought into compliance with this subchapter as soon as possible. The foreman or lead worker may use flares as attention-getting and warning devices.

(b) *Utility work.* Emergency repair for utility work may be initiated under this section or repair to a utility facility undertaken under Chapter 459 (relating to occupancy of highways by utilities) to repair damage resulting from a vehicle crash or collision with the facility, a failed component or storm damage. Utility service connections or disconnections unrelated to a vehicle crash, a failed component, or storm damage shall otherwise comply with this subchapter.

(c) *Expediting emergency work.* Emergency work may be completed without installation of work zone traffic-control devices required by this subchapter, if one of the following exists:

(1) Review of the condition indicates that the emergency work can be completed in less time than it would take to install the temporary traffic-control devices, and the work or condition would not create a significant potential hazard.

(2) Temporary traffic control has been set up and it is found that additional traffic-control devices are desirable, but that it would take longer to obtain and install additional traffic-control devices than it would to complete the work.



**§ 212.415. Type D Arrow Panels.**

Type D Arrow Panels shall only be used on vehicles during short-term stationary, short duration or mobile operations.

**§ 212.416. Shadow vehicles.**

When used with a truck-mounted attenuator (TMA), the shadow vehicle shall be loaded to a weight recommended by the manufacturer of the TMA.

**§ 212.417. Flashing warning lights.**

If used, flashing warning lights are not permitted to be used in a series unless the spacing between successive flashing lights is at least 250 feet.

**§ 212.418. Good management principles.**

Agencies administering highway construction, utility work and maintenance operations shall mandate the application of the following good management principles:

- (1) Keep the temporary traffic-control zones as short as practical to avoid long stretches with no work activity.
- (2) Minimize lane restrictions.
- (3) Remove all traffic-control devices as soon as practical after the construction, maintenance or utility operation is complete.

**§ 212.419. Special controls in work zones.**

(a) General. Special signing required in 75 Pa. C.S. § 3326 (relating to duty of drivers in construction and maintenance areas or on highway safety corridors), § 3365 (relating to special speed limitations), § 4309 (relating to lighted headlamps in work areas), § 6123 (relating to erection of traffic-control devices while working) and 6123.1 (relating to mandatory traffic-

control devices in highway work zones) shall be in addition to the traffic-control devices required by the MUTCD and shall be installed in accordance with this section.

(b) Application. Signing under this section is discretionary in the following work zones:

(1) Short duration work, where the operation will be completed in less than 1 hour.

(2) Mobile operations, where the work moves intermittently or continuously.

(3) Stationary work where the daily duration of the construction, maintenance, or utility operation is less than 12 hours and all traffic-control devices are removed from the highway at the completion of the daily operation, including all advance warning signs.

(4) Work along highways where the speed limit is less than 40 miles per hour.

(5) Work in response to emergency work or conditions such as a major storm.

(c) Work Zone--Turn on Headlights Sign (R22-1). The Work Zone--Turn on Headlights Sign (R22-1) shall be erected as the first sign on each primary approach to the work zone, generally at a distance of 250 to 1,000 feet prior to the first warning sign. On high-speed roadways including all expressways and freeways, the larger advance distances should be used. If work begins at or near a border to the Commonwealth, the R22-1 signs should be installed within the Commonwealth.

(d) Active Work Zone When Flashing Sign (W21-19). The Active Work Zone When Flashing Sign (W21-19) shall be erected as close as practical to the beginning of the active work zone.

(1) The sign should not be erected within a transition or at a location where workers are put at risk when they may need to turn the light on and off.

(2) When a construction, maintenance or utility project has more than one active work zone and the active work zones are separated by a distance of more than 1 mile, signs for each active work zone shall be erected.

(3) The W21-19 signs shall be installed on temporary sign posts or on Type III barricades, and attach a white Type B high-intensity flashing light to the upper portion of each W21-19 sign. The light shall be activated only when workers are present, and deactivated when workers are not anticipated during the next 60 minutes.

(e) End Active Work Zone Sign (W21-20). The End Active Work Zone Sign (W21-20) shall be erected immediately at the end of each active work zone, except this sign is not necessary if either the End Road Work Sign (G20-2a) or the End Work Area Sign (G20-3) is installed at the end of the active work zone.

(f) Work zones on expressways or freeways. When the work zone is on an expressway or freeway, install appropriate signs and lights identified in subsections (c), (d) and (e) at on-ramp approaches to the work zone.

(g) Portable changeable message sign. A portable changeable message sign (PCMS) may be used in lieu of the R22-1, W21-19 or W21-20 signs.

(h) Speed display sign. In Interstate highway work zones with a project cost exceeding \$300,000, a speed display sign shall be installed on each mainline approach to the work zone to inform motorists of their speed.

(1) The speed display sign shall display the motorist's speed in numerals at least 18 inches in height.

(2) As an alternative, a portable changeable message sign (PCMS) may be equipped with radar and programmed to display vehicles speeds.

(3) PCMSs may also flash appropriate messages such as “YOU ARE SPEEDING” or “SLOW DOWN.” Place the signs one-half to one mile in advance of the physical work zone.

#### **Subchapter F. TRAFFIC CONTROLS FOR SCHOOL AREAS**

##### **§ 212.501. School zone speed limits.**

(a) Establishment. A 15 miles per hour school zone speed limit may be established in a school zone during the normal hours that students are arriving at or leaving school, under 75 Pa.C.S. § 3365(b) (relating to special speed limitations).

(1) To establish a school zone, local authorities shall be responsible to prepare and submit a drawing showing the locations where students walk along or across roadways that are adjacent to school property, the hours that students are going to or from school, and the proposed limits for the school zone to the Department for approval.

(2) The Department is responsible for approving the establishment of all school zones, including the locations and hours of operation, except local authorities will be responsible for approving school zones at the following locations:

(i) On local highways when the municipality has received municipal traffic engineering certification under Chapter 205 (relating to municipal traffic engineering certification).

(ii) On State-designated highways when the municipality has entered into an agreement with the Department thereby transferring to the local authorities the authority to install traffic-control devices without specific Department approval.

(iii) On highways in cities of the first and second class, except not on expressways.

(b) Posting. A school zone speed limit shall be posted on official traffic-control devices as follows:

(1) At the beginning of the school zone speed limit, one of the following signs or groups of signs shall be posted either on the right side of the roadway or over the roadway:

(i) A Speed Limit Sign (R2-1) with the appropriate school zone speed limit, with a School Panel (S4-3) mounted above the Speed Limit Sign (R2-1) and a When Flashing Sign (S4-4) mounted below the Speed Limit Sign (R2-1), with two flashing speed limit sign beacons.

(ii) A Speed Limit Sign (R2-1) with the appropriate school zone speed limit, with a School Panel (S4-3) mounted above the Speed Limit Sign (R2-1) and a Restricted Hours Panel (R3-20) mounted below the Speed Limit Sign (R2-1).

(iii) A School Speed Limit When Flashing Sign with a blank-out "15" and flashers as illustrated in the *Traffic Signal Design Handbook* (Department Publication 149M).

(2) An End School Zone Sign (S5-2) shall be posted on the right side of the roadway to define the end of the school zone speed limit.

(3) The limits of a school zone may extend beyond the school property lines to improve the sight distance or to encompass a school crosswalk, except that the length of the zone may not be greater than 1,600 feet.

#### **Subchapter G. TRAFFIC CONTROLS FOR BICYCLE FACILITIES**

##### **§ 212.601. Shared road facilities.**

Where there is a need to warn motorists to watch for bicyclists traveling along the highway, the Share the Road Sign (W15-3) sign may be used instead of the Bicycle Warning Sign (W11-1) and the Share the Road Plaque (W16-1) as provided in the MUTCD.

#### **Subchapter H. SPECIAL EVENTS**

##### **§ 212.701. Processions, assemblages and special activities.**

(a) Criteria. The closure or partial closure of a highway for a procession, assemblage or a special activity, may be permitted on local roadways by local authorities and on State-designated highways by the Department if the following criteria are satisfied:

(1) On conventional highways and expressways:

(i) An alternate route, which is not more than 5 miles longer or five times greater in length than the normal travel distance, is established to detour traffic around any closed routes, except an alternate route is not required if one of the following exists:

(A) The highway to be closed is not a numbered traffic route and is primarily used by local drivers who are familiar with the alternate route.

(B) The highway is only partially or periodically closed and police control can safely maintain traffic on the remainder of the highway.

(C) The highway closing is for less than 20 minutes and excessive traffic backup will not occur during the closing.

(ii) The local authorities will provide adequate detour signing or police controls for the rerouting of traffic along the alternate route if required.

(iii) The highway closure or partial closure will not adversely affect adjacent properties.

(iv) A review of previous, similar closures shows no substantial problems or citizen complaints.

(2) On freeways:

(i) The freeway has a minimum of two lanes to move traffic in each direction of flow.

(ii) If a procession, it will orderly and uniformly move along the highway and will be easy to control and regulate by police officers.

(iii) If a procession or assemblage, it will use a maximum of one lane of the highway and police officers can safely maintain traffic on the remainder of the highway.

(iv) Delays for traffic entering or leaving the highway at ramps will not be more than 5 minutes and uniformed police officers will control all delayed traffic.

(v) The Secretary and the Commissioner of the State Police have determined that the procession, assemblage or special activity is in the National, State or regional interest or has National, State or regional significance and can be conducted with greater safety for motorists and procession or special activity participants by using the freeway.

(b) Use of State-designated highways. The Department may issue a permit for a procession, assemblage or special activity on a State-designated highway if the criteria in subsection (a) and the following requirements are satisfied:

(1) On conventional highways and expressways, the district executive may issue a permit for processions, assemblages or special activities. The permit request shall be made in writing by the sponsor, and should be received by the district executive at least 3 weeks before the proposed event. The request shall include the following items as applicable, a copy of which the sponsor shall also submit to the Commissioner of the State Police:

(i) A map of the proposed routing showing all State Route (SR) numbers and the names of all highways, including terminal points for the special activity.

(ii) The known or anticipated number and type of vehicles or pedestrians that will be in the event.

(iii) The purpose, the proposed date and rain date, and the time and duration.

(iv) A statement that the sponsor will agree to reimburse the Commonwealth for all costs for police escort and traffic-control services.

(v) A copy of the letter sent from the sponsor of the event to each municipality in which the event is to occur, requesting permission to allow the event.

(vi) A copy of a letter from each municipality in which the event is to occur indicating the following:

(A) Approval of the municipality allowing the sponsor to conduct the event.

(B) That the municipality will agree to fully indemnify, save harmless and, if requested, defend the Commonwealth, Commonwealth departments, and their officers, agents and employees from and against claims, suits or actions for injury, death or property damage arising from or because of the acts or omissions of the sponsor, its officers, agents or employees.

(vii) A statement that the sponsor will fully indemnify, save harmless and, if requested, defend the Commonwealth, Commonwealth departments, and their officers, agents and employees from and against claims, suits or actions for injury, death or property damage arising from or because of the acts or omissions of the sponsor, its officers, agents or employees. The sponsor shall also name the Department as an additional insured on its liability policies. The liability insurance policies shall be occurrence based and the insurance certificate shall indicate that the insurance is occurrence based.

(2) On freeways, the Secretary may issue a permit for processions, assemblages or special activities. The permit request shall be made in writing by the sponsor, and should be received by the Secretary at least 3 weeks before the proposed partial highway closure. The



request shall include the following items as applicable, a copy of which the sponsor shall also submit to the Commissioner of the State Police:

(i) A map showing the location of the assemblage or the proposed routing of the procession or special activity.

(ii) The known or anticipated number and type of vehicles or pedestrians that will be in the event.

(iii) The estimated speed of travel of the procession or special activity.

(iv) The purpose, the proposed date and rain date, and the time and duration.

(v) The reasons the special event should use a freeway, including the safety aspects to both motorists and procession participants.

(vi) A statement that the sponsor of the procession will agree to reimburse the Commonwealth for all costs for police escort and traffic-control services.

(vii) A statement that the sponsor of the special event will fully indemnify, save harmless and, if requested, defend the Commonwealth, Commonwealth departments and their officers, agents and employees from and against claims, suits or actions for injury, death or property damage arising from or because of the acts or omissions of the sponsor, its officers, agents or employees. The sponsor shall also name the Department as an additional insured on its liability policies. The liability insurance policies shall be occurrence based and the insurance certificate shall indicate that the insurance is occurrence based.

(c) Use of local roadways. Requests to close a local roadway for a procession, assemblage or special activity shall be made in writing to the local authorities at least 3 weeks before the anticipated road closure, except that, if the procession, assemblage or special activity also

requires the closure of State-designated highways, the request shall be made in writing to the local authorities at least 2 months before the anticipated road closure.

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF TRANSPORTATION

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August 17, 2004

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**Re: Proposed Rulemaking  
Regulation #18-392: 67 Pa. Code, Chapter 212 —  
Official Traffic Control Devices**

Dear Mr. Nyce:

Enclosed please find a copy of the Face Sheet, Preamble, Annex A and Regulatory Analysis Form for the deletion of Chapters 201, 203, 204, 211 and 217 (relating to engineering and traffic studies, work zone traffic control, guidelines to implement Act 229 of 2002, official traffic control devices, and posting on private parking lots) of Title 67 (Transportation) of the Pennsylvania Code, and the promulgation of a new, condensed Chapter 212, Official Traffic Control Devices, which the Department of Transportation intends to adopt following proposed rulemaking in accordance with the provisions of Section 204 of the Commonwealth Documents Law, Act of July 31, 1968, P.L. 769, 45 P.S. § 1204.

Copies of these materials were also delivered today to the majority and minority chairpersons of the Pennsylvania House and Senate Transportation Committees and to the Legislative Reference Bureau for publication in the *Pennsylvania Bulletin*.

The Department of Transportation will provide you with any assistance you require to facilitate a thorough review of this regulation. Thank you for your attention.

Very truly yours,

A handwritten signature in black ink, appearing to read "S. F. J. Martin". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Stephen F. J. Martin  
Regulatory Counsel

**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO THE  
REGULATORY REVIEW ACT**

I.D. NUMBER: #18-392

SUBJECT: Official Traffic Control Devices, 67 Pa. Code, Chapter 212

AGENCY: Department of Transportation

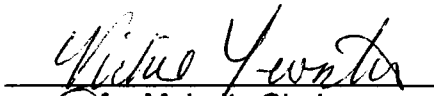
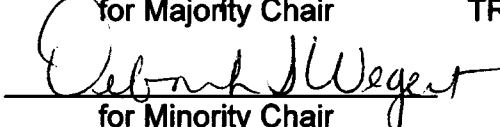

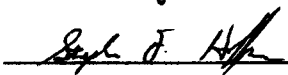
**TYPE OF REGULATION**

# 2418

- X Proposed Regulation
- Final Regulation
- Final Regulation with Notice of Proposed Rulemaking Omitted
- 120-day Emergency Certification of the Attorney General
- 120-day Emergency Certification of the Governor

RECEIVED  
 REGULATORY COMMISSION  
 2004 AUG 17 AM 11:13

**FILING OF REGULATION**

DATE	SIGNATURE	DESIGNATION
8/17	 for Majority Chair	HOUSE COMMITTEE ON TRANSPORTATION
8/17	 for Minority Chair	
8/17	 for Majority Chair	SENATE COMMITTEE ON TRANSPORTATION
8/17	 for Minority Chair	
8/17		INDEPENDENT REGULATORY REVIEW COMMISSION
8/17		LEGISLATIVE REFERENCE BUREAU
Date:	August 17, 2004	