

Regulatory Analysis Form		This space for use by IRRC	
(1) Agency Transportation		2018 APR -9 PM 4:00 IRRC REVIEW COMMISSION	
(2) I.D. Number (Governor's Office Use) #18-373		IRRC Number: 2338	
(3) Short Title Official Traffic Control Devices			
(4) PA Code Cite 67 Pa. Code, Chapters 201, 203 & 211 [rescinded] 67 Pa. Code, Chapter 212 [new]		(5) Agency Contacts & Telephone Numbers Primary Contact: Arthur Breneman, P.E. 717-787-3620 Secondary Contact: Terry Garvie 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. The purpose of these regulations is to adopt the most recent edition of the national <i>Manual on Uniform Traffic Control Devices for Streets and Highways</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.			
(9) State the statutory authority for the regulation and any relevant state or federal court decisions. These regulations are promulgated under the authority contained in §§6103, 6105, 6121, and 6122 of the Vehicle Code, Act of June 17, 1976, P.L. 162, No. 81, as amended (Pa. C.S. §§6103, 6105, 6121, and 6122).			

(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.

Although these regulations are not mandated by any federal law or court order or federal regulation, they are mandated by §§3326, 3353, 3362, 3365, 6105, 6109, 6121, 6122, and 6127 of the Vehicle Code, Act of June 17, 1976, P. L. 162, No. 81 (Pa. C.S. §§3326, 3353, 3362, 3365, 6105, 6109, 6121, 6122 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 29Pa. 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. However, the Department has 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.

(17) Provide a specific estimate of the costs and/or savings to the regulated community associated with compliance, including any legal, accounting or 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 § 212.5(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) will need to purchase that publication. The Department's best estimate is that the combined cost of any required new publications will be about the same as 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. The Commonwealth will probably need to 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
SAVINGS:	\$	\$	\$	\$	\$	\$
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
COSTS:						
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
REVENUE LOSSES:	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 \$47m General Operations portion of the Department's Budget.

Program	FY-3	FY-2	FY-1	Current FY
General Operations	\$29.8m	\$31.7m	\$32.8m	\$47m

(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, and 211. 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, 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 5-year old survey of other states by the Texas Transportation Institute, 39 of the other states have adopted the national Manual on Uniform Traffic Control Devices (MUTCD), 16 of which have also adopted a state supplement similar to what the Department is proposing. Eight of the other ten states have a state "Manual on Uniform Traffic Control Devices" patterned after the national Manual on Uniform Traffic Control Devices (MUTCD). Other than Pennsylvania, only California and Connecticut have a non-MUTCD type manual, and California is proposing to adopt the national Manual on Uniform Traffic Control Devices (MUTCD) and issue a supplement similar to what is being 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), and Chapter 211 (Official Traffic Control Devices) will be rescinded.

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

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.

(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 early in 2002.

(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.

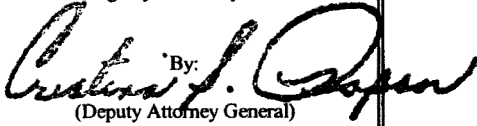
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2338

DO NOT WRITE IN THIS SPACE

Copy below is hereby approved as to form and legality. Attorney General

By: 
(Deputy Attorney General)

DEC 24 2002

Date of Approval

Check if applicable
Copy not approved. Objections
attached.

Copy of below is hereby certified to be true and correct copy of a document issued, prescribed or promulgated by:

Department
Of
Transportation
(AGENCY)

DOCUMENT/FISCAL NOTE NO. 18-373

DATE OF ADOPTION

BY: 

Deputy Secretary of Transportation

Copy below is hereby approved as to form and legality. Executive or Independent Agencies.

BY: 

NOV 26 2002

Date of Approval

(Deputy General Counsel)
(Chief Counsel, Independent
Agency)
(Strike Inapplicable Title)

Check if applicable. No Attorney
General Approval or objection
within 30 days after submission.

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 211. Official Traffic Control Devices
[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

Notice of Proposed Rulemaking

Preamble

The Department of Transportation, Bureau of Highway Safety and Traffic Engineering, under the authority contained in Sections 6103, 6105, 6121, and 6122 of the Vehicle Code, Act of June 17, 1976, P. L. 162, No. 81, *as amended*, (75 Pa. C. S. §§ 6103, 6105, 6121, and 6122), proposes to delete Chapters 201, 203, and 211 (relating to engineering and traffic studies, work zone traffic control, and official traffic control devices) 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 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.

Three 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; and Chapter 211 (relating to official traffic control devices).

The significant provisions of these regulations include the following:

1. Section 212.4 (relating to Pennsylvania Supplement to the Manual on Uniform Traffic Control Devices) will supplement the MUTCD. The Pennsylvania Supplement to the Manual on Uniform Traffic Control Devices (PSMUTCD), will include the

requirements of this Chapter. Any additional information or recommended practice included in the *PSMUTCD* that is not in this Chapter will be clearly labeled as information or guidance.

2. Section 212.6(a)(2) (relating to erection and maintenance responsibilities) is intended to relieve local authorities of the regulatory responsibility for maintaining railroad grade crossing markings on State-designated highways. 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 212.9 (relating to use, test, approval, and sale of traffic control devices) will require nonmetallic barricades, portable barriers, vertical panels, yield to pedestrian channeling devices, and citizen band radio traffic alert devices to be approved by the Department to insure their compliance with federal standards.
4. Section 212.12 (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 212.302(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 1988 edition of 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.

6. Sections 212.401 - 212.416 (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.

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. In addition, contractors and highway agencies may have some modest savings since fewer traffic control devices will be required in some construction and maintenance projects.

Regulatory Review

Under Section 5(a) of the Regulatory Review Act, the Act of June 30, 1989 (P.L. 73, No 19), *as amended*, (71 P.S. 745.1-745.15), the agency submitted, on April 9, 2003 , a copy of this proposed rulemaking to the Independent Regulatory Review Commission and to the Chairmen of the House and Senate Committees on Transportation. The agency has also provided the Commission and the Committees with a detailed Regulatory Analysis Form, prepared by the agency in compliance with Executive Order 1996-1, "Regulatory Review and Promulgation." A copy of this material is available to the public upon request.

If the Commission has any objections to any portions of the proposed regulations, it will notify the agency by June 18, 2003. Such notification shall specify the regulatory review criteria which has not been met by that portion. The act specifies detailed procedures for review, prior to final publication of the regulations, by the agency, the General Assembly and the Governor of objections raised.

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 these proposed regulations to Arthur Breneman, P.E., Chief, Traffic Engineering and Operations

Division, Bureau of Highway Safety and Traffic Engineering, Commonwealth Keystone Building,
400 North Street, 6th Floor, Harrisburg, Pennsylvania 17120-0064 (mailing address is P.O. Box
2047, Harrisburg, PA 17105-1724) within 30 days of publication of this Notice in the Pennsylvania
Bulletin.

Allen D. Biehler
Secretary of Transportation

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

Annex A

TITLE 67. TRANSPORTATION

PART I. Department of Transportation

SUBPART A. Vehicle Code Provisions

ARTICLE VIII. Administration and Enforcement

[CHAPTER 201 — ENGINEERING AND TRAFFIC STUDIES] (Reserved).

§ 201.1. [Purpose and authority.

*** * ***

§ 201.91. Removal of traffic hazards.] (Reserved).

*** * ***

[CHAPTER 203 — WORK ZONE TRAFFIC CONTROL] (Reserved).

§ 203.1. [Purpose.

*** * ***

**Appendix Figure 39b. Long-Term Operation – Any Highway – Detour of an unnumbered
Traffic Route] (Reserved).**

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[CHAPTER 211 — OFFICIAL TRAFFIC CONTROL DEVICES] (Reserved).

§ 211.1. [Definitions.

* * *

§ 211.1214. End of a roadway.] (Reserved).

CHAPTER 212 — OFFICIAL TRAFFIC CONTROL DEVICES

Subchapter A. GENERAL PROVISIONS

§ 212.1. Purpose and authority.

The provisions of this chapter are promulgated under the authority of Sections 6103, 6105, 6109(e), 6121, and 6122 of the Vehicle Code (75 Pa. C.S. §§ 6103, 6105, 6109(e), 6121, and 6122) (relating respectively to promulgation of rules and regulations, prescribing traffic and engineering and traffic investigations, required engineering and traffic investigations, uniform system of traffic-control devices, and authority to erect traffic-control devices).

§ 212.2. Definitions.

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

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

Bureau of Highway Safety and Traffic Engineering — The office of the Pennsylvania Department of Transportation that is responsible for traffic regulations and statewide policies regarding the application of traffic control devices. The Bureau is located at

the Commonwealth Keystone Building, 400 North Street, 6th Floor, Harrisburg, Pennsylvania 17120-0064 (mailing address P.O. Box 2047, Harrisburg, Pennsylvania 17105-2047; telephone 717-787-3620).

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

Crash — A collision involving one or more vehicles. Unless the context clearly indicates otherwise, the term shall only include those accidents that require a police report, that is, the accident involves:

(i) injury to or death of any person; or

(ii) 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.

85th percentile speed — The speed that is exceeded by only 15 percent of the drivers during free-flowing conditions.

Engineering and traffic study — An orderly examination or analysis of physical features and traffic conditions conducted in accordance with regulations of the Department 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 — 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. 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 — 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. The term includes governing bodies of colleges, universities, public and private schools, public and historical parks, and airport authorities except where 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 for Streets and Highways*, published by the Federal Highway Administration, and available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Night, 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.

Official traffic control devices — Signs, signals, markings and devices not inconsistent 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.

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 such roadways collectively.

Safe-running speed — The official speed limit as posted by signs or, in the absence of a posted speed limit, average speed for a portion of a highway determined by making a minimum of five test runs in each direction and periodically recording the operating speed at different locations while driving at a speed which is reasonable and prudent, giving consideration to the available sight distance, spacing of intersections, roadside development, environment, and other conditions.

School — A facility for education wherein a resident of the Commonwealth can fulfill compulsory school requirements, including kindergarten through grade 12.

School zone — A portion of a highway that abuts a school property and is used by students to walk to or from school.

Secretary — The Secretary of Transportation of the Commonwealth.

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.

Through highway — 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 official traffic control device when the signs or devices are erected as provided in this title. The term includes all expressways and freeways.

Traffic calming — Traffic calming is 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 plan — A plan for maintaining traffic through or around a work area.

Warrant — A specific threshold condition, either visually observed or determined based on the results of data collection including traffic counts or physical measurements, used to authorize but not mandate, the installation of traffic signals, Stop Signs (R1-1), Multi-way Stop Signs, Yield Signs (R1-2), and other traffic control devices.

§ 212.3. Adoption of Federal standards.

(a) *General provisions.* Consistent with the authority contained in Sections 6103(c) and 6121 of the Vehicle Code (75 Pa.C.S. §§ 6103(c) and 6121) (relating to adoption of Federal statute or regulation, and a uniform system of traffic-control devices), the Department hereby adopts the most recent edition of the *Manual on Uniform Traffic Control Devices for Streets and Highways (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 Section 6103(d) of the Vehicle Code (75 Pa.C.S. § 6103(d)) (relating to modification of Federal statute or regulation), if the MUTCD is amended or modified by the Federal Highway Administration, the amendment shall take effect unless the Department publishes a notice in the Pennsylvania Bulletin stating that the amendment or modification shall not take effect.

§ 212.4. Pennsylvania's Supplement to the Manual on Uniform Traffic Control Devices.

The Department shall publish a supplement to the MUTCD. The supplement shall include additional requirements for official traffic control devices contained in this chapter, and include additional guidance information, which will be clearly marked as such.

§ 212.5. Application.

(a) General. The provisions of this chapter shall apply 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 the Commonwealth. All signs, signals, markings, and other traffic control devices erected shall conform to the requirements set forth in the provisions of this chapter. Traffic restrictions, which were previously posted or erected in accordance with the regulations in effect at that time, are not subject to these regulations, providing 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.* The establishment or revision of a traffic restriction may be warranted

if:

(1) one or more of the engineering and traffic study warrants covered in this chapter

justifies the traffic restriction; or

(2) sound engineering judgment based upon a combination of all data sources

substantiates the need for the restriction.

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:

(1) a study indicates that none of the engineering and traffic study elements covered in this chapter justify the existing traffic restriction; or

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

(d) *Traffic control during emergencies.* During national, state or local emergencies including, but not limited to, 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 enumeration of police powers). These temporary restrictions shall expire at the end of the emergency.

§ 212.6. Erection and maintenance responsibilities.

(a) State-designated highways. Local authorities shall not install, revise, or remove any traffic control device on a State-designated highway that is an expressway or a freeway or on any approach to an expressway or a freeway, or within the limits of any Department construction project without the Department's written approval. On other highways, local authorities shall obtain Department approval before installing, revising, or removing any official traffic control device on a State-designated highway or on a local highway at its intersection with a State-designated highway, except as follows:

(1) First and second class cities are responsible for the installation, revision, and removal of all official traffic control devices, unless an agreement between the city and the Department requires Department approval.

(2) All local authorities are responsible for the installation, revision, removal, maintenance and operation of any of the following official traffic control devices without Department approval:

(i) Stop Signs (R1-1) on local roadways intersecting State-designated highways.

(ii) Do Not Enter signs (R5-1), One-Way signs (R6 Series), and other prohibitions on intersecting local roadways.

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

(iv) Parking meters and parking meter plaques or signs.

(v) Street name signs and advance street name signs (D3 Series).

(vi) School signs (S series).

(vii) Crosswalk markings.

(viii) Stop lines at approved Stop Signs (R1-1).

(ix) Curb markings.

(x) Parking stall markings, except angle parking.

(3) Local authorities other than first and second class cities, or other agencies as indicated, shall be responsible for installing and maintaining the following types of signs after approval to erect the signs has been obtained from the Department:

(i) Speed Limit Signs (R2-1) for all speed limits of 35 miles per hour or less except on freeways, in Department rest areas and welcome centers, within Department weigh stations, and for hazardous grade and bridge speed limits.

(ii) Pedestrian group signs (R9 Series).

(iii) Traffic signal group signs (R10 Series).

(iv) Street Closed () to () Sign (R11-10).

(v) Snowmobile Road () Closed to All Other Vehicles Sign (R11-11).

(vi) All Trucks Must Enter Weigh Station Sign (R13-1), except Department owned and operated weigh stations.

(vii) Railroad Crossbuck Sign (R15-1) and Track Sign (R15-2), which shall be installed by the railroad company.

(viii) Signal Ahead Sign (W3-3).

(ix) Children group signs (W15 Series).

(x) Entrance and crossing signs (W11 Series), except W11-3, W11-3A, W11-11,

W11-21, W11-21-1, and W11-21-2 signs.

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

(xii) Weigh Station signs (D8 Series), except Department owned and operated weigh stations.

(xiii) Telephone With Arrow Sign (D9-1A) and Telephone () Mile Sign (D9-1B), which shall be installed by the telephone company.

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

(xv) Trail group signs (I4 Series).

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

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

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

(4) Local authorities shall be responsible for installing and maintaining such signs as may be provided in an agreement between the local authority and the Department.

(5) Traffic control devices installed by the Department or by a contractor for the Department shall not be removed without the Department's written approval.

(6) Police officers may install temporary signs without Department approval to close highways in emergencies or to weigh vehicles, perform sobriety checkpoints, or conduct other enforcement programs.

(b) Local highways. As provided in 75 Pa.C.S. § 6122, local authorities are responsible for the installation, revision, removal, operation and maintenance of any official traffic control device on highways under their jurisdictions, except that local authorities shall obtain Department approval:

(1) Before installing, revising or removing any school zone speed limit or traffic signal on local highways, except in first and second class cities or by local authorities that have municipal traffic engineering certification in accordance with Chapter 205 (relating to municipal traffic engineering certification).

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

§ 212.7. Removal of interfering lights.

The Secretary and local authorities, in their respective jurisdictions, shall have the authority to cause the removal of all colored or flashing light 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 official traffic control devices.

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

(a) Prohibition. It shall be 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. Any such sign, marking, or banner containing advertising matter placed without the written consent of the Department shall 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 such sign, marking, or banner containing advertising matter.

§ 212.9. Use, test, approval and sale of traffic control devices.

(a) Legislative requirements. Section 6127 of the Vehicle Code (75 Pa.C.S. § 6127) (relating to dealing in nonconforming traffic control devices) makes it unlawful for any person to manufacture, sell, offer for sale, or to lease for use on the highway any traffic control device unless it has been approved and is in accordance with Department rules and regulations.

(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) Retroreflective sheeting materials used for all traffic control devices.

(2) Traffic signs and associated supports.

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

(4) Delineation devices, including flexible delineator posts, guide rail and barrier-mounted delineators, retroreflective pavement markers, and center-mount delineators.

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

(6) Traffic signal equipment, including:

(i) controllers and flasher units.

(ii) vehicle and pedestrian detector units.

(iii) vehicle, pedestrian, and lane direction control signals, including audible traffic pedestrian signals.

(iv) electrically-powered signs, except for guide and information type signs included in

Department construction contracts and covered by detailed specifications.

(v) signal preemption equipment controlled from emergency or authorized vehicles.

(vi) dimming devices.

(vii) local intersection coordinating units.

(viii) auxiliary or minor phase traffic signal controllers.

(ix) external traffic signal controller timers.

(7) The following work zone traffic control devices:

(i) attenuators.

(ii) barricades.

(iii) citizen band traffic alert radios.

(iv) drums.

(v) flashing arrow panels.

(vi) portable barriers.

(vii) portable traffic control signals.

(viii) portable traffic sign supports.

(ix) portable variable message signs.

(x) traffic cones.

(xi) tubular markers.

(xii) vertical panels.

(xiii) warning lights.

(c) Approval procedure. Any manufacturer or person desiring approval for the sale, use or

lease of one or more of the devices listed in subsection (b) should contact the Bureau of Highway Safety and Traffic Engineering, Commonwealth Keystone Building, 400 North Street, 6th Floor, Harrisburg, Pennsylvania 17120-0064 (mailing address P.O. Box 2047, Harrisburg, Pennsylvania 17105-2047, telephone 717-787-3620).

(d) Listing of approved traffic control devices. All approved traffic control devices will be listed in the Department's *Approved Construction Materials* (Department Publication 35); available from the Pennsylvania Department of Transportation Sales Store, P.O. Box 2028, Harrisburg, Pennsylvania 17105-2028 (or at the Department's web site <http://www.dot.state.pa.us>). The Sales Store may also be contacted by telephone at 717-787-6746, or visited at the Commonwealth Keystone Building, 5th Floor, 400 North Street, Harrisburg, Pennsylvania 17120-0041.

§ 212.10. Traffic calming.

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

(b) Local authorities shall obtain approval of the Department prior to implementing a traffic calming measure on a State-designated highway, except where the Department's handbook provides otherwise or where the Department has entered into an agreement with local authorities that provides otherwise.

§ 212.11. Requests for changes, interpretations, or permission to experiment.

Any person 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, P.O. Box 2047, Harrisburg, Pennsylvania 17105-2047.

(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.

(3) The type of information to be compiled during any experiment shall be stated as a part of the request, and the collection of data shall be a conditional part of the approval.

§ 212.12. Metric measurements.

(a) General policy. The Omnibus Trade and Competitiveness Act of 1988 (P.L. 100-418) encourages the use of metric dimensions for the design and deployment of all traffic control devices. The following hard conversion factors may be used for the design and placement of traffic control devices as included herein:

(1) 1 inch equals 25 millimeters.

(2) 1 foot equals 0.30 meter.

(3) 1 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, shall not display metric units of measurement.

§ 212.13. 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 Pennsylvania Department of Transportation Sales Store, P.O. Box 2028, Harrisburg, Pennsylvania 17105-2028. The Sales Store may also be contacted by telephone at 717-787-6746, or visited at the Commonwealth Keystone Building, 5th Floor, 400 North Street, Harrisburg, Pennsylvania 17120-0041:

(1) *Approved Construction Materials* (Department Publication 35) which shall contain the list of approved suppliers and specific materials.

(2) *Traffic Control Devices* (Department Publication ###) which shall contain this chapter, a cross-reference between this chapter and the MUTCD, and an appendix containing additional guidance on the elements of engineering and traffic studies.

(3) *Pavement Marking and Delineation Standards* (Department Publication ###) which shall contain the drawings designed for use by contractors, local authorities, the Department and its consultants to assist in the application of pavement markings and delineation devices. The publication shall include, but not be limited to, detailed drawings of pavement marking lines and symbols, and the placement of delineation devices at on-ramps, off-ramps, and lane

drops.

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

(5) *Traffic Control Signing Standards, TC-8700 Series* (Department Publication 111M) which shall contain the traffic standards which include, but shall not be limited to, detailed guidance for sign legends, expressway and freeway signs, sign spacing and location criteria, and sign posts.

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

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

(8) *Work Zone Traffic Control Guide* (Department Publication ###) which shall provide additional suggested 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.* The Department will publish the *Pennsylvania Handbook of Approved Signs* (Department Publication 236M) which shall include sign standards that show the shape, color, dimensions, legends, application, and placement of official signs. Whenever possible, the handbook shall include the same sign design requirements and nomenclature used by the Federal Highway Administration in its "*Standard Highway Signs*" book. When sign messages are required other than those provided for in the *Pennsylvania Handbook of Approved Signs* (Department Publication 236M), the Bureau of Highway Safety and Traffic Engineering may authorize new sign standards. When approved by the Department, 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 shall be sufficient cause for the Secretary to order the removal or replacement of a sign, but shall 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, Commonwealth Keystone Building, 400 North Street, 6th Floor, Harrisburg, Pennsylvania 17120-0064 (mailing address is P.O. Box 2047, Harrisburg, Pennsylvania 17105-2047), telephone 717-787-3620.

§ 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) shall not be 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 236) 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 properly protected or beyond the clear zone as defined in the Department's Design Manual, Part 2, all sign posts shall be of a Department-approved breakaway design.

§ 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 subsections (b), (c), (d) or (e).

(b) Stop Signs (R1-1) at intersections. In addition to the warrants in Section 2B.05 of the MUTCD, 2000 edition (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) Multi-way stop applications. In addition to the criteria and options warranting multi-way stop applications in Section 2B.07 of the MUTCD, 2000 edition (relating to multi-way stop applications), the following shall apply:

(1) The five or more reported crashes in a 12-month period for Warrant B may include

both reportable crashes, and non-reportable crashes that are documented in the police files, that occurred during a 12-month period during the most recent three years of available crash data.

(2) Multi-way stop applications should not be used because of limited sight distance unless there is no practical method of improving the sight distance or reducing the speed limit to satisfy the minimum stopping 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 (R1-2-1) 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 beacon 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) Construction, maintenance or utility operations. 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 is not greater than approximately 250 feet in length, excluding tapers, the ADT is not greater 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, except those in work areas or school zones, or on bridges or hazardous grades.

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

(b) Engineering and traffic studies. Speed limits established in accordance with 75 Pa.C.S.

§3363 (relating to alteration of maximum speed limits) 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 appropriate minimum stopping sight distance values for through vehicles.

(3) An analysis of crashes indicates that the majority of crashes are related to excessive speed — those crashes with causation factors including driving too fast for conditions, turning without clearance, failing to yield right-of-way — and that 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 developed by the Department.

(c) *Special speed limits.*

(1) Within rest areas and welcome centers, 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 truck weight stations, 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.

(d) Posting of speed limits. A Speed Limit Sign (R2-1) 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. If the new speed limit begins at an intersection, the first Speed Limit Sign (R2-1) 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) shall be placed on the right side of the highway 500 to 1,000 feet before the beginning of every speed reduction unless the speed reduction is only 5 or 10 miles per hour, or 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.

(ii) Speed Limit Signs (R2-1) 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.

§ 212.109. Bridge speed limits.

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

(b) Posting. An established bridge speed limit shall be posted similar to other speed limits in § 212.108(d) (relating to posting of speed limits), except that a Bridge Sign (R12-1-2) shall be mounted directly above each Speed Limit Sign (R2-1) and, if applicable, a 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 shall be established under 75 Pa.C.S. § 3365(c) (relating to hazardous grades) if an engineering and traffic study establishes the need for all vehicles or vehicles having a gross weight over a designated weight to be limited to a maximum speed on a downgrade.

(1) The designated weight should be based on a review of any operational problems that vehicles have when either ascending or descending the grade.

(2) When a hazardous-grade speed limit is established, it should be consistent with the

speed that similar vehicles can climb the hill, 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:

Average Grade (Percent)	Length of Grade (feet)	
	Condition A*	Condition B**
-3	20,000	—
-4	8,000	16,000
-5	5,000	10,000
-6	3,000	6,000
-7	2,000	4,000
-8	1,800	3,600
-10	1,500	3,000
-12	1,250	2,500
-15	1,000	2,000

* Condition A shall apply if vehicles are required to stop or reduce speed at or before the bottom of the hill, or if there is an urban district situate at the base of the hill.

** Condition B shall pertain 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 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 official 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 shall not be 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 one-quarter 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 three years, or five crashes have occurred during any 12-month period in the previous three 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 problem 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 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 zone markings).

§ 212.113. One-way streets.

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

(1) The traffic volume demand 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 mass transit 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 appropriate 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 three 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

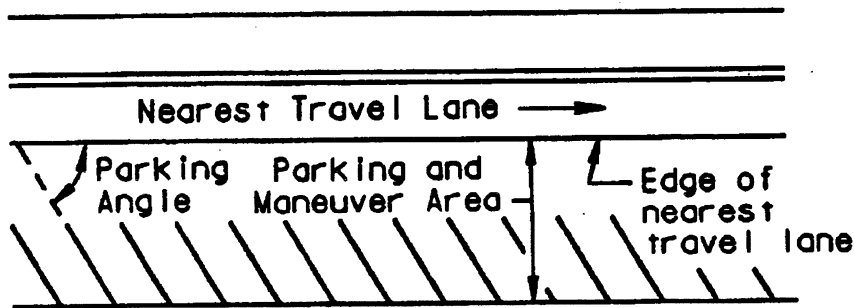
completely off the roadway.

(b) Angle parking. As defined in § 212.2 (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:

Parking Angle (degrees)	Parking and maneuver area (feet)
30	26
45	30
60	37
90	43



(ii) Parked vehicles do not adversely affect intersection 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 (R7-8B) shall be installed below all Reserved Parking Signs (R7-8), as provided in 75 Pa.C.S. §§ 3354(d)(2) and (d)(3)(i) (relating to handicapped persons and severely 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 should 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 stopping, standing or parking restriction if the restriction was:

- (1) established in conjunction with a State or Federal aid project; or
- (2) requested or posted by the Department for safety or capacity reasons; or
- (3) included as a condition on a traffic signal permit.

§ 212.115. No Turn on Red Sign (R10-11a).

(a) Warrants for no-turn-on-red restrictions. The following warrants for no-turn-on-red restrictions may be used in place of the warrants in Section 2B.40 of the MUTCD, 2000 edition (relating to traffic signal signs).

(1) A right turn on red, a 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 sight distance to vehicles approaching on the cross street is less than the minimum shown on the following table:

Cross street speed limit (mph)	Minimum sight distance* (feet)
20	120
25	150
30	190
35	220
40	270
45	320
50	360
55	410

* 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 pavement or curb line.

(ii) The intersection has more than four approaches or has restrictive geometry likely to cause conflicts not easily identified 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, but not limited to, 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 should 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 should be used at locations where a potential safety problem exists for only a portion of the day. These restrictions shall be implemented by the use of:

(i) a Restricted Hours Panel (R3-20) under the No Turn On Red Sign (R10-11a);

(ii) a supplemental message incorporated directly into the No Turn On Red Sign (R10-11a);

(iii) a sign designating the hours the restriction is effective; or

(iv) a blank-out No-Turn-On-Red Sign (R10-11a).

(3) A part-time or intermittent prohibition of the turn-on-red movement, or of the left turn on red from a one-way highway to another one-way highway, 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 subsection

(a)(1) above shall be conducted by local authorities, except that the Department will be responsible for conducting the study:

(1) In cities of the first and second class;

(2) At intersections where the traffic signal controller is preempted during train movements for a nearby crossing; and

(3) 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 Engineer must be obtained prior to installation of a No Turn on Red Sign (R10-11a) at any intersection where the Department has issued the traffic signal permit.

§ 212.116. 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 is exceeded by the load effect of any of the legal load configurations. The safe load capacity of the bridge determined in accordance with Department standards is to be greater than its Inventory Rating Capacity, but is not to exceed

its Operating Rating Capacity.

(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 and/or have been weakened due to deterioration, high traffic volumes or climatic condition, and they 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 substandard underclearance, 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 underclearance 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, following an engineering evaluation considering the horizontal and vertical alignment, prevailing traffic speeds, compatibility of the various types of traffic, history of vehicle crashes or vehicular characteristics, it is determined that the movement of certain vehicles constitutes a safety hazard. Restrictions may include, but are not limited to, 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 subsections (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 subsections (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:

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

§ 212.117. 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.

§ 212.118. Signing of named highways.

Notwithstanding the provisions of Section 2D.48 of the MUTCD, 2000 edition (relating to signing of named highways), signs carrying the name of the highway will be permitted at intervals of not less than 15 miles on conventional highways.

§ 212.119. 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 *Traffic Control Signing Standards, TC-8700 Series* (Department Publication 111M).

§ 212.120. 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 shall 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.

§ 212.121. Recreational and cultural interest area signs.

Recreational and Cultural Interest Signs, as described in Chapter 2H of the *MUTCD, 2000* edition (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.

§ 212.122. 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, 2000 edition (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 Department will publish *Pavement Marking and Delineation Standards* (Department Publication ###) to show 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 should conform to the *Pavement Marking and Delineation 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*, 2000 edition (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 § 212.2 (relating to definitions).

(3) On and in advance of a railroad grade crossing, 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 400 feet in length or less than two-thirds of the required minimum passing sight distance for the posted speed limit.

(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 paragraphs (a)(1) through (a)(5) should precede the location by the minimum distance noted in the following table:

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

§ 212.203. Delineation.

The 4-foot mounting height specified in Section 3D.04 of the MUTCD, 2000 edition (relating to delineator placement and spacing) is not applicable for guide rail and barrier-mounted delineators.

Subchapter D. SIGNALS

§ 212.301. Purpose.

This subchapter sets forth additional guidance and criteria relating to the design, application and operation of traffic signals within the 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) Operation of traffic-control signals. Two primary signal heads on each approach shall be flashed during emergency flashing operation. Any other signal heads may be blanked out.

(b) Warrants. In addition to the criteria in the MUTCD, the following criteria shall also apply:

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

(2) Vehicle crashes. In Section 4C.08 of the MUTCD, 2000 edition (relating to crash experience), the five or more reported crashes within a 12-month period for Warrant 7 may include both reportable crashes, and non-reportable crashes that are documented in the police files, that occurred within a 12-month period during the most recent three 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 in Sections 4C.02 through 4C.09 of the MUTCD, 2000 edition (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

six months of the opening of a development or within two 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, 525 School Street, S.W., Washington, D.C. 20024, equal or exceed the values in the following table:

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

* 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 percent 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 Part 6 of the *MUTCD*, 2000 edition (relating to temporary traffic control), and shall apply to contractors; federal, State, county, and municipal employees; public utility employees; and others doing applicable construction, maintenance, utility, permit work, or incident management on highways or so close to a highway that workers, equipment, or materials encroach on the highway. Compliance with the provisions of this subchapter shall 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 guidelines 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, street sweeping, and residential lawn care, but sweeping operations performed as part of a highway construction project shall not be exempt.

(3) Operations which do not involve construction, maintenance, permit, 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 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 or utility work behind a guide rail, more than 2 feet behind a curb or 15 feet or more from the edge of a roadway; except when workers, equipment or materials are between the guide rail or curb and the 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. Traffic control plans.

Plans for construction projects that are competitively bid by contractors shall reference or include a traffic control plan. The traffic control plan shall consist of one of the following:

(1) A reference to a specific figure either in the *MUTCD* or in the Department's Publication entitled *Work Zone Traffic Control Guide* that properly depicts actual site conditions.

(2) A copy of a specific figure either in the *MUTCD* or the Department's Publication entitled *Work Zone Traffic Control Guide* 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 traffic control requirements for the specific project.

§ 212.404. Signs.

(a) Post-mounted signs. Post-mounted signs or signs on fixed supports shall be installed in accordance with *Traffic Control Signing 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. 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 shall not be intermixed within the same taper or line. 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 only 18 inches high may only be used to protect new pavement markings.

(c) Yield to Pedestrian Sign. A Yield to Pedestrian Sign (R9-9), when used, shall be displayed on both the front and the back of the channelizing device.

§ 212.406. 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 Section 6F.66 of the MUTCD, 2000 edition (relating to temporary pavement markings in work zones), 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 areas.

(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 area and alternating at intervals not greater than one-quarter mile within the work area in both directions.

(4) For a period of approximately 2 weeks during which time:

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

(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 area and at intervals not greater than one-half mile throughout the work area where the interim markings are used.

§ 212.407. 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.

§ 212.408. Rumble strips.

Temporary bituminous rumble strips may be used to provide an audible warning to alert drivers of a potentially dangerous situation including, but not limited to, a median crossover, lane reduction, and congested area. Recommended rumble strip designs are available from the Department's 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.

§ 212.409. Delineators.

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

§ 212.410. Flaggers.

In addition to the requirements of the MUTCD, flaggers shall wear a protective helmet, and a

fluorescent orange or a fluorescent yellow-green vest, or a vest with a combination of the two colors.

§ 212.411. 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 Traffic Control Plan. For these applications, it may be desirable to use traffic-actuated or manual control to compensate for unbalanced traffic flows.

§ 212.412. Regulatory speed limits.

(a) General. Regulatory speed limits in work areas, and in the area in advance of the work area where traffic queues are anticipated may be established as follows:

(1) A regulatory speed limit up to 15 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 15 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) Reduced regulatory speed limits shall be signed with Work Area Speed Limit Signs (R2-2-2) spaced not greater than one-half 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) An End Road Work Sign (G20-2A), an End Work Area Sign (G20-3), or a Speed Limit Sign (R2-1) showing the speed limit on the section of highway following the work zone shall be positioned at the end of the reduced regulatory speed limit area to show the end of the reduced 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, but not limited to traffic speeds, volumes, densities, and queues.

§ 212.413. 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 must otherwise comply with the provisions of this subchapter.

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

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

(2) Work zone traffic control has been set up and it is found that additional work zone 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.

§ 212.414. Flagging.

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.

§ 212.415. 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.

Subchapter F. TRAFFIC CONTROLS FOR SCHOOL AREAS

§ 212.501. School zone speed limits.

(a) Establishment. A 15 miles per hour school zone speed limit shall be established during the normal hours that students are arriving at or leaving school, in accordance with Section 3365(b) of the Vehicle Code (75 Pa.C.S. § 3365(b)) (relating to school zones). The limits of a school zone may extend beyond the abutting school property line for purposes of improving the visibility of walking students or to encompass a school crosswalk. The length of any school zone may not be greater than 1,600 feet.

(1) Local authorities shall be responsible for conducting an engineering and traffic study for establishment of a school zone and shall provide a copy of the study and a drawing 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 in accordance with 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 official traffic control devices without specific Department approval.

(iii) On highways in first and second class cities except 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 (S4-11) 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. SPECIAL EVENTS

§ 212.601. Definitions.

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

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, but are not limited to, street fairs, block parties and other recreational events.

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, but is not limited to, walks, runs, parades and marches.

Special activity — Any 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 Section 3367 of the Vehicle Code (75 Pa.C.S. § 3367) (relating to racing on highways).

§ 212.602. 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 five 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:

(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; or

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

(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 five 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 Engineer 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 Engineer at least three 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, including the proposed date 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:

(A) approval of the municipality allowing the sponsor to conduct the event; and

(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 three 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 of the special event, including the proposed date and the 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 three 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 two months before the anticipated road closure.

Subchapter H. MISCELLANEOUS PROVISIONS

§ 212.701. Removal of traffic hazards.

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 corner sight distance for drivers entering from side roads or driveways to distances less than the appropriate minimum stopping 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.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

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(717) 787-6485

April 9, 2003

Robert E. Nyce
Executive Director
14th Floor Harristown 2
333 Market Street
Harrisburg, PA 17101

**Re: Proposed Rulemaking
Regulation #18-373: 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, and 211 (relating to engineering and traffic studies, work zone traffic control, and official traffic control devices) 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 "Stephen 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: 18-373

SUBJECT: Engineering and Traffic Studies; Work Zone Traffic Control; Official
Traffic Control Devices and School Bus Drivers
67 Pa. Code Chapters 201, 203, 211 and 212 {new}

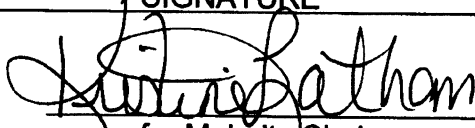
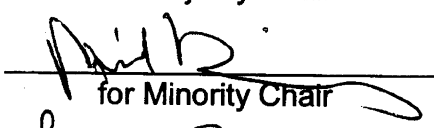
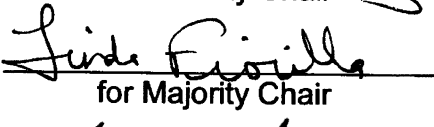

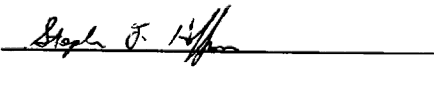
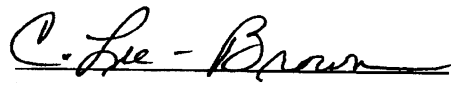
AGENCY: Department of Transportation

TYPE OF REGULATION

- 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

REVIEW COMMISSION
2003 APR 9 PM 5:01

FILING OF REGULATION

DATE	SIGNATURE	DESIGNATION
4/9/03	 for Majority Chair	HOUSE COMMITTEE ON TRANSPORTATION
4/9/03	 for Minority Chair	
4/9/03	 for Majority Chair	SENATE COMMITTEE ON TRANSPORTATION
4/9/03	 for Minority Chair	
4/9/03		INDEPENDENT REGULATORY REVIEW COMMISSION
		ATTORNEY GENERAL
4/9/03		LEGISLATIVE REFERENCE BUREAU

Date: April 9, 2003