



Traffic Engineering, Operations & Safety Manual

Chapter 13 Traffic Regulations

Section 1 Through Highway Declarations

13-1-1 Statutory Authority

October 1995

The fundamental principle of the Through Highway Declarations is that no STOP sign **shall** be erected facing traffic on a state trunk highway nor **shall** traffic on any non-state trunk highway be permitted to enter a state trunk highway without stopping, unless specifically provided for in the Declarations.

AUTHORITY

[Section 349.07](#), Wis. Stats., provides the Department with the authority to "...declare any state trunk highway or connecting highway or portion thereof to be a through highway."

A "through highway" is defined in s. [340.01\(67\)](#), Wis. Stats., as:

"...every highway or portion thereof which has been declared by the state or local authorities pursuant to s. 349.07 to be a through highway and at the entrances to which vehicular traffic from intersecting highways is required by traffic control signals or stop signs to stop."

On November 30, 1950, the Highway Commission took action pursuant to the existing statutory authority and implemented a systematic method for establishing and documenting all of its declared through highways. This action was as follow:

"The Commission took up for consideration the matter of declaring all state trunk highways to be arteries for through traffic. Attention was directed to the fact that many state trunk highways are now arterials, that it will be necessary to coordinate the old and new arterial declarations, and that all highways cannot immediately be signed as arterials."

"It was moved, seconded, and carried that all state trunk highways and the urban extensions thereof (designated by the statutes as 'connecting streets') be declared arteries for through traffic pursuant to Section 85.68, Wisconsin Statutes, and that arterial STOP signs be erected stopping traffic on all county trunk highways, town roads, and local city and village street entering said state trunk highway routes unless specifically excepted in this or subsequent actions of the Commission."

"It was further moved, seconded, and carried that traffic on any state trunk highway (and connecting street) **shall not** be required to stop at the intersection with any other state trunk highway (or connecting street), or at the intersection with a county trunk highway, town road, or local city or village street unless specifically required to stop at such intersection by this or subsequent actions of the Commission..."

Following these brief introductory paragraphs was the listing of the highways declared as arteries for through traffic and the descriptive paragraphs delineating the exceptions to each. These descriptive paragraphs (the exceptions) defined all instances where traffic on a state trunk highway was required to stop and where traffic on other streets/highways was permitted to enter a state trunk highway without stopping.

On November 13, 1962, the Highway Commission delegated its statutory authority to declare and regulate through highways to the Chief Traffic Engineer, and established the Chief Traffic Engineer as being responsible for maintaining the official records.

Since that time, the title of Chief Traffic Engineer has been changed to Director, Bureau of Traffic Operations. The Director has notified the Regions that, as of October 16, 1995, the approval authority for Through Highway Declarations is delegated to the Regions. The Regional Transportation Directors were requested to appoint an approval authority and inform the Director of BTO as to the appointment.

13-1-2 Approval Process

October 1995

CHANGES TO THE DECLARATIONS

From time to time, it becomes necessary to make changes in the Declarations. Changes *may* be required due to additions to the state trunk system, deletions from the system, rerouting or renumbering of highways, reconstruction of intersections, or changes in traffic conditions.

Since the exceptions are arranged in geographic order it is desirable that the exceptions for concurrent routes be listed under each appropriate highway number, not just the lowest numbered route. Intersecting state trunk

highways must be investigated and exceptions corrected where necessary, under each appropriate highway number.

THE APPROVAL PROCESS

Whether a proposal involves creation of a new exception paragraph, or the revision or deletion of an existing paragraph, the Region prepares their recommended exception paragraphs for each through highway route and intersection involved. The authority for approval resides with the designated Region approval authority. A copy of the approved declaration is to be sent to the Central Office of Traffic to serve as information for others, and to provide a backup record.

TEMPORARY CHANGES DUE TO CONSTRUCTION

Where construction activities result in necessary temporary changes in arterial arrangements, it is suggested that the Regional office write the changes in the form of declarations as a memo to file. It is not necessary to send a copy to the Central Office.

13-1-5 Declaration Format

April 1996

NUMBERING OF THE DECLARATIONS

The delegation of the authority to approve through highway declarations also carries with it the responsibility for numbering the exception paragraphs in a uniform and sensible manner. The following is a recommendation on a uniform system of numbering which *should* give all the information necessary to find the paragraphs, keep them in order and identify the location to ourselves and others.

An example of the first page of each highway's declarations is given below:

Through Highway Declarations - State Trunk Highway System

Northcentral Region, Waushara County

File: TH 469073

TH-4-69-073.1	Northbound traffic on State Trunk Highway 73 shall stop before entering the east junction of State Trunk Highways 73 and 21.
	Approved Date: 02/24/85 Installed Date: 03/31/86
TH-4-69-073.2	When the traffic control signal at the intersection of State Trunk Highways 73 - 21 (Main Street) and Saint Marie Street in the City of Wautoma, is not operating, traffic on Saint Marie Street shall stop before entering the intersection.
	Approved Date: 07/26/89 Installed Date:

The title indicates to others what the document is, such as when it is mailed out or brought into court. The file number is condensed to be usable in Word Perfect. Each paragraph has a number which contains all the information necessary to identify its location, so that each page stands by itself. The prefix indicates it is Through Highway; the first number is the Region; the second two digits are the county number (which is listed in Figure 1); the next three digits are the highway; and the decimal is the paragraph sequence number.

Following the paragraph it is recommended that the approval date and the installation date be shown. It has also been recommended but not shown at this time that the RP number can be added for future look-up convenience, such as with a GIS system. This would certainly be a Region option.

For sections which have concurrent highways, duplicate paragraphs will be necessary under each highway.

EXCEPTIONS

The exceptions appear in the list following each designated through highway. One descriptive paragraph is devoted to each intersection where an exception occurs and the paragraphs are sequentially numbered geographically for each route. If an intersection is not addressed in the exceptions, the fundamental principle of the Declarations applies: The state trunk highway does not STOP and all non-state trunk highways do.

The exception paragraphs for any through highway route are numbered consecutively in each Region beginning with .1. From time to time, it becomes necessary to add paragraphs within this structure. The following system is typically used:

To insert a new paragraph between paragraphs one (1) and two (2), the new paragraph becomes paragraph .1.1 as follows, or the Region *may* choose to correct the numbering each time.

WRITING EXCEPTIONS

Standard writing formats have been developed for the Declarations to ensure uniformity of application and consistency of interpretation.

The basic exception paragraph takes the following form:

TH-5-52-080.9 North and southbound traffic on State Trunk Highway 80 **shall** stop before entering the intersection of State Trunk Highways 80 and 60.

Approved Date: xxx Installed Date: yyy

1. The traffic is first identified:

"North and southbound traffic"

2. Then the highway on which it is moving (or in the case of turn lanes or ramps, the highway which the traffic is leaving) is identified:

"on State Trunk Highway 80"

3. Then the action this traffic must take is specified:

*"**shall** stop"*

4. Then the location where this action is to be taken is identified:

"before entering the intersection of State Trunk Highways 80 and 60"
(The county does not have to be repeated in each paragraph if the format at the beginning of this procedure is used.)

Within city and village limits, in addition to the highway numbers, the names of streets *may* be included in parentheses to document the location of the State Trunk Highway or Connecting Highway at the time of the action.

TYPICAL EXCEPTION SITUATIONS

Many intersections present similar control situations and are merely variations of the basic exception paragraph discussed earlier. Some of these more common variations will now be addressed.

Permitting Non-STH traffic to enter without stopping

TH-2-51-020.14 Southbound traffic on State Trunk Highway 20 **shall** stop before entering the intersection of State Trunk Highway 20 and County Trunk Highway "D", but eastbound traffic on county trunk Highway "D" **shall** not be required to stop.

Approved Date: xxx Installed Date: yyy

Permitting right turns without stopping

TH-6-47-010.2 Southbound traffic on U.S. Highway 10 (Cedar Street) **shall** stop before entering the intersection of U.S. Highway 10 (Cedar Street) and Cherry Street in the city of Prescott, but traffic making a right turn to go west on Cherry Street **shall** not be required to stop.

Approved Date: xxx Installed Date: yyy

Exceptions for signal flashing arrangement

TH-2-51-011.3 When the traffic control signal at the intersection of State Trunk Highway 11 (Durand Avenue), Ohio Street/Meachem Road in the city of Racine is not operating, east and westbound traffic on State Trunk Highway 11 (Durand Avenue) **shall** stop before entering the intersection.

Approved Date: xxx

Installed Date: yyy

Exceptions for simple interchanges

For simple interchanges the interchange can be considered as single intersection for the purpose of writing the exception. This eliminates the need to prepare an exception for each ramp intersection in the interchange. Shown below are three examples of such interchanges.

TH-4-37-051.20

North and southbound traffic on the ramps in the southeast and northwest quadrants of the interchange of U.S. Highway 51 and State Trunk Highway 153, **shall** stop before entering the intersections of the ramps and State Trunk Highway 153.

Approved Date: xxx

Installed Date: yyy

This exception paragraph was included under the Through Highway listing for U.S. Highway 51, as the traffic required to stop is identifiable as U.S. Highway 51 ramp traffic. No entry is included under the Through Highway listing for STH 153, as STH 153 traffic is not required to stop at these intersections.

TH-4-49-051.15

North and southbound traffic on the ramps in the southeast and northeast quadrants of the interchange of U.S. Highway 51 and County Trunk Highway "B", **shall** stop before entering the intersections of the ramps and County Trunk Highway "B".

Approved Date: xxx

Installed Date: yyy

Note that this paragraph mentions nothing about arterial controls on CTH "B". This is because CTH "B" stops at those locations and the fundamental principle of the declarations is that all non-STH traffic will be required to stop unless specifically accepted in the declarations.

TH-3-36-043.10

North and southbound traffic on the ramps in the southeast and northwest quadrants of the interchange of Interstate Highway 43 and County Trunk Highway "JJ" **shall** stop before entering the intersections of the ramps and County Trunk Highway "JJ", but eastbound and westbound traffic on County Trunk Highway "JJ" **shall not** be required to stop.

Approved Date: xxx

Installed Date: yyy

The through movement on "JJ" had to be covered.

Exceptions of interchanges with multiple controls

The following is an example of a descriptive paragraph dealing with an individual ramp terminal within an interchange.

TH-2-67-094.12

Eastbound traffic on the ramp in the southwest quadrant of the interchange of Interstate Highway 94 and Moorland Road, in the city of Brookfield, **shall** stop before entering the intersection of the ramp and the southbound roadway of Moorland Road, but eastbound traffic turning right to go south on Moorland Road **shall** yield before entering the southbound roadway of Moorland Road. Southbound traffic on Moorland Road **shall not** be required to stop.

Approved Date: xxx

Installed Date: yyy

No turn on red

TH-1-13-051.18

North and southbound traffic on U.S. Highway 51 in the city of Madison controlled by the traffic control signal at its intersection with U.S. Highway 151 **shall not** turn right during steady red signal indications.

Approved Date: xxx

Installed Date: yyy

CHANGES IN THE DECLARATIONS

For the files, the Region *may* prepare a formal action memo documenting changes. Changes in the Arterial Highway Declarations usually take one or a combination of the following forms:

1. Deletion of an existing exception;
2. Addition of a new exception;
3. Amendment of an existing exception;
4. Addition of a new highway to the list of through highways; and
5. Deletion of an existing highway from the list of through highways.

Deletion of an existing exception

State Trunk Highway 12:

Delete paragraph TH-8-57-002.3 approved on November 30, 1988.

Addition of new exception

U.S. Highway 12:

Add the following:

TH-5-27-012.38 Southeast bound traffic on U.S. Highway 12 **shall** stop before entering the west intersection of U.S. Highway 12, U.S. Highway 10, and State Trunk Highway 27.

Approved Date: xxx

Installed Date: yyy

Substitution of a new exception for an existing one

U.S. Highway 151:

Delete paragraph TH-2-13-151.17 on July 16, 1988 and substitute the following:

TH-2-13-151.17 _____

Amendment of an existing exception

Use the substitution procedure above.

Deletion of a through highway

State Trunk Highway 152:

Delete in its entirety.



Traffic Engineering, Operations & Safety Manual

Chapter 13 Traffic Regulations

Section 2 Trucking

13-2-5 Temporary Long Truck Routes

April 1996

Circumstances *may* require that the Department establish a temporary long truck route on a highway which is not designated as a long truck route. In order to clearly and simply provide for the temporary situation it is recommended that the Region prepare a rule in the following form:

TEMPORARY DESIGNATED HIGHWAY FOR LONG TRUCK ROUTE

The following highway **shall** be a designated highway for the duration of the improvement project 1234-56-78, according to [ss.348.07\(4\)](#) Wisconsin Statutes, and [Trans 276.08](#) Wisconsin Administrative Code:

(Highway) from STH XX to STH YY.

Authorized by Regional Trans. Director

Date

13-2-10 Oversize/Overweight Single Trip Permitting

July 2012

PURPOSE

The purpose of this document is to provide internal guidance for all primary and secondary region staff regarding the routing and permitting of any given oversize/overweight (OSOW) load the region may be asked to review. The guidelines contained herein may not perfectly apply to every instance, request, or situation encountered, but the guidelines will serve as a solid foundation. All issues or concerns which arise that are not covered or discussed herein are subject to the discretion of the Region.

DEFINITIONS

Freeway/Expressway - Four-lane divided highway facilities with full or partial control of access by means of grade separation.

Multi-Trip Permit - A permit that is valid for unlimited, non-specific route trips during a range of 3 to 12 months. For example construction companies frequently move large construction equipment to and from job sites.

Oversize/Overweight Load - A load that requires a permit due to exceeding certain dimensions and weights.

OSOW Freight Network -The OSOW FN is a map which depicts the preferred statewide travel routes for OSOW loads. The map is maintained by, and available from, the Regional Freight Operations Unit.

Local Law Enforcement - Local law enforcement consists of municipal (city, village, or town) police or county sheriff. Local law enforcement does not include State Patrol.

Pole Car - A pole car is an escort vehicle equipped with a height sensor. A pole car must precede the load and move sufficiently ahead of the oversize vehicle when approaching structures to ascertain clearance prior to the load arriving. The height sensor pole is made of a non-conductive, non-destructive, flexible material, and shall be set 6-inches above the true height of the load.

Single Trip Permit - A permit that is valid for 14 days and for one trip only. The carrier specifies the route, and the return trip is allowed at no charge if requested with the original permit application.

Urbanized Area - A populated area that normally experiences peak hour traffic volumes in the morning, afternoon and evening travel periods. (As defined and updated by DTIM traffic model analysis that is updated on two year intervals).

PERMITTING

1. Requests and Approvals - The submittal and approval permit process shall be handled electronically.

2. Review - The automated permit system is not designed to identify all geometric scenarios. For example, the routing system does not evaluate for length or turning capabilities. Region review shall be required when:
 - a. Width exceeds 15'11" per [Trans 250.05\(a\)](#), [Trans 254.12](#), [Trans 260](#), and the business routes are coded into the oversize/overweight automated issuance system, Superload.
 - b. The proposed route for loads with an overall length of 100' to 139'11", and less than 16' in overall width will be reused on the same route within a three month period.
 - c. Construction staging and detours will impact loads with an overall length of less 140' and less than 16' in overall width. The automated permit system is not designed to identify any routes deficiencies for such loads.
3. Denial or Restrictions
 - a. The following issues shall result in the denial of a permit:
 - Proposed moves resulting in interrupted power or other utility service to essential services, such as hospitals, fire stations, etc..
 - b. The following issues may result in the denial of a permit or substantial restrictions by the Region:
 - Exceed roadway plus shoulder width;
 - Exceed bridge or structure width;
 - Require 'wrong way' vehicle movement when a suitable alternative route is available;
 - Occur at times of the year that may cause excessive roadway damage;
 - Interfere with high traffic volumes;
 - Substantially impair power service to customers on route as determined by affected utility company;
 - Require excessive removal or rearrangement of permanent or temporary traffic control devices;
 - Utilize a route that is unsuitable due to construction constraints, geometric limitations, and/or unsafe passing conditions. Applicant will be advised to submit another route;
 - Impact state maintained traffic signal equipment (e.g. temporary removal). Any removals shall be approved by the Region and shall be completed by or at the direction and in the presence of WisDOT electricians. Removal of monotube signal arms may require additional (contracted) forces. Any approved removals will be at the expense of the carrier.
 - Reject the proposed route for radioactive materials if another route other than Wisconsin is reasonably available
4. Special Circumstances
 - a. Ramp-Off/Ramp-On (RORO). At the discretion of the Region, RORO may be permissible where conditions would result in an excessive route detour. The Region shall determine the appropriateness of RORO based upon load type and load frequency.
 - b. Sign Removal. Sign removal may be permitted to alleviate geometric deficiencies due to load length or width. Removal must be previously authorized by the Region, and the carrier is responsible for the immediately replacement of all removed signs.

Sign removal shall be coordinated through the regional traffic unit. The preferred method of sign removal/replacement is by the appropriate County Highway Department. If a specific project has a large number of loads and/or scheduling prohibits County Highway Department involvement, WisDOT Regional staff may consider authorizing hauler removal/replacement signs. OSOW load hauler may be required to complete an "Approved Traffic Sign/Post Removal and Replacement Log."

Figure 1. Approved Traffic Sign/Post Removal and Replacement Log**Instructions:**

1. Attach photograph showing original sign installation for each intersection that requires removal/replacement (R/R) of traffic signs. Label intersection photo by naming the photo as the load approaches and leaves the intersection (ex. I43 SB/WIS 96 WB)
2. For multiple signs/posts requiring R/R at an individual intersection label each sign/post from left to right as viewed on the intersection photo.
3. Complete each field below on log
4. Within 24 hours of R/R, fax this log (including) photos to (xxx) xxx-xxxx. Send/email copies of original to WisDOT at: XXXXXXXX

- A. WisDOT Permit Number: _____
- B. Date of Pre-Approved Traffic sign/Post Removal and Replacement: _____
- C. OSOW Permit Holder Contact Information (Company Name, POC, address, office phone, cell phone, fax, email): _____
- D. Escort Company Contact Information (Company Name, POC, address, office phone, cell phone, fax, email): _____
- E. Individual Conducting Pre-Approved traffic Sign/Post Removal and Replacement (Company Name, POC, address, office phone, cell phone, fax, email): _____

Include a table identifying the following information:

Intersection/sign number, date/time of R/R, printed name of individual(s) conducting R/R, signature certifying sign replaced properly and with same orientation as shown in original photos.

- c. Counter-directional Movements. The Region shall review and approve counter-direction movements of loads at modern intersections including roundabouts.
- d. Loads with Low Level Radiation. DMV will notify DTSD OSOW Unit that a load, consistent with a regional review requirement as prescribed in Trans Rules or this guidance (see Permitting Section 2 above), is radioactive. Upon notice OSOW Unit will work with regions reviewers who shall review the following:
 - i. the location, number, and extent of slows,
 - ii. expected conflict with other traffic due to volumes and congestion,
 - iii. proximity of route to population centers,
 - iv. general level of radiation,
 - v. availability of other routes in Wisconsin other than those proposed,
 - vi. outreach and notification 2 weeks before the move with local communities on route
 - vii. other objective risks and issues associated with the load and route
- e. Other. Other special circumstances not specifically listed here shall be subject to the review and approval of the Region.

5. Suspension

- a. Frequent Violators. Carriers which evidence frequent and/or serious infringement of permit, equipment or traffic regulations will face suspension of existing permits, ineligibility for multiple trip permits or outright denial of future WisDOT oversize/overweight permits, as deemed necessary by the DMV/BHM.
- b. Appeal. The right of the hauler to appeal is established under Wis. Stats. 348.25(9).

6. Conflict Resolution

- a. External. When carriers, county officials, local law enforcement, or external DOT staff raise issues, questions, or concerns regarding permits, the DMV should be contact at (608) 266-7320.
- b. Interregional field recommendation discrepancies. The Bureau of Highway Maintenance (BHM) will make the final recommendations based on coordination between the Regions when a vehicle is traveling through multiple Regions and when regional recommendations conflict.

Primary and secondary contacts are provided in the list below.

Regional Office	Contact
SW Region, Madison	Jeff Gustafson Jim Pavelski
SW Region, La Crosse	Joe Schneider Andrew Winga
SE Region, Waukesha	Eric Perea Allison Blackwood Stacey Pierce Dan Dedrick
NE Region, Green Bay	Rod Hamilton Jodi Marsh
NC Region, Wisconsin Rapids & Rhineland	Laurie Miller Jack Keiffer
NW Region, Eau Claire	Gary Coequyt Greg Mattson Jeff Olson
NW Region, Superior	Greg Mattson Gary Coequyt Jeff Olson Joe Whirry
Bureau of Technical Services Pavement Section	Laura Fenley Bob Arndorfer
Bureau of Highway Maintenance Freight Section	Dan Mulder

ROUTE CONDITIONS

It is recognized that physical roadway conditions may change at the time of the move and the carrier must be aware that they are ultimately responsible for maintaining safe operating conditions and reviewing roadway and vehicle characteristics (i.e., horizontal and vertical clearances, intersection geometrics, load height, tire pressure, etc.).

HOURS OF OPERATIONAL LIMITATIONS

1. The Region shall review permits for hours or days of operation and any other special conditions of operation for escorted loads with an overall length over 160', regardless of overall width.
2. Per Trans 254.11(3), no oversize vehicle that exceeds 12' in width, 13'6" in height, or 100' in length is allowed to operate during the hours of darkness, unless specifically directed and authorized by WisDOT Regional Office.
3. No Region-reviewed oversize vehicle moves shall be made within urbanized areas as defined by DTIM traffic modeling analysis between the hours of 6:00am – 9:00am and 3:00pm – 6:00 pm, or if the area experiences a noon peak period, which will be listed in the Regional recommendations.
4. OSOW vehicles moving at speeds of 25 mph or less (notwithstanding bridge restrictions listed on the permit) should be required to move from 9:30pm – 5:30am to maintain consistent and safe operations for motorists in metro areas and on conventional highways of the State Highway System. Travel time shall be subject to Region discretion and approval.
5. Loads with a width in excess of 16' may be required to move at night, subject to the discretion of the Region.

ESCORT GUIDELINES

1. General. The following Table provides escort vehicle guidance based upon oversize/overweight load type. Final escort configurations shall be at the direction of the Region. For Wind see Escorts in [TEOpS 13-2-11](#).

WEIGHT	LENGTH	WIDTH	HEIGHT	ESCORT
Up to 350K	Any	Any	<16'01"	Pole car requirement subject to Region review.
Up to 350K	Legal to 139'11"	15'01" - 16'0"	>16'01"	Pole car is required. Must lead the load by a minimum of 0.5-miles.
Up to 350K	Legal to 139'11"	16'0" – 17'11"	Any	Two (2) private vehicles.
Up to 350K	Legal to 139'11"	18' – 20'	Any	One (1) law enforcement vehicle and one (1) private vehicle.
Up to 350K	Legal to 139'11"	>20'	Any	Two (2) law enforcement vehicles and one (1) private vehicle.
Up to 350K	>140'	<10'	Any	On freeways and expressways, private escort vehicles may be used in lieu of law enforcement escorts.
Up to 350K	140' – 159'11"	Up to 17'11"	Any	One (1) law enforcement vehicle and one (1) private vehicle at the determination of the Region.

Up to 350K	>160' – 199'11"	>8'6" to 16'0"	Any	Two (2) private vehicles. Region may require law enforcement vehicle.
Up to 350K	200' to 250'	8.6 to 16'0"	Any	Two (2) private vehicles one (1) law enforcement vehicle.
Up to 350K	160'- 224'11"	< or = to 8.6	Any	Two private escort vehicles. Region may require one law enforcement vehicle depending on route complexity.
Up to 350K	>225'	Any	Any	Minimum of Two (2) State Patrol escort vehicles.
>350K	Any	Any	Any	At least one State Patrol Escort (see Heavy Slow Loads below)
Key:	< Less Than > Greater Than			

Note: When multiple conditions for weight and dimension are met reviewer should use the requirement that provides the most coverage for the load in question.

2. **Nighttime or Round-The-Clock Movement.** Any company requesting nighttime or round-the-clock movement shall have a minimum of one (1) law enforcement officer and one (1) private escort, at the direction of the Region.
3. **The WisDOT always retains the right to be more restrictive when it is deemed necessary.**

CONVOYS

1. Review. Each Region shall review all convoy requests and efficiencies should also be considered.
2. Size. Convoys shall not exceed two oversize vehicles per convoy.
3. Conditions. Multiple convoys of a single carrier or project shall have a staged departure with a minimum of ½ hour travel time between convoys, and maintain said travel time separation for the full duration of the trip.

LAW ENFORCEMENT

1. Escort Type
 - a. State Patrol escorts may be used when moving through multiple counties.
 - b. State Patrol, county, or local law enforcement may be used when moving within a local area.
2. Responsibility - Law enforcement responsibility shall be limited to traffic control and load escort. Carriers shall not rely on the law enforcement officers for route navigation and guidance through turning movements.

HEAVY AND SLOW LOADS

1. All vehicles over 270,000 pounds shall be reviewed by the Bureau of Technical Services Pavements Section.
2. The Bureau of Structures reviews overweight loads for adequacy of any structure to safely accommodate such a load at certain speeds prior to BHM and Regional review. BTS review shall be included if applicable.
3. The Region(s) shall review gross vehicle weights exceeding 350,000 pounds and traveling at less than posted speeds for the facility on route.
4. The Region(s) shall review all loads operating at a maximum speed of 45 mph or less on a limited access facility.
5. Recommendations for building moves will be based on the discretion of the Region's evaluation of safety and best practices.
6. Loads in excess of 350,000 pounds escorts based on overall dimension, weight, anticipated speed, and complexity of route. Use the table above for a preliminary reference point. Loads with six or more slow to 5 miles per hour bridge crossing requirements shall have 1 State Patrol and One Private escort.

INSPECTIONS

1. See [TEOpS 13-2-12](#)

WORK ZONES

1. Travel through work zones otherwise limited by posted signs or other constraints (i.e. lane width restrictions) cannot proceed without prior authorization of DMV, BHM, and BTO on the permit. Permit vehicles without prior authorization should interdict and call DMV to either approve travel through the work zone or find an alternate route.

COORDINATION

1. Responsibility

- a. It is the responsibility of the carrier to contact local community and county public works departments or law enforcement agencies to apply for additional permits on connecting highways, and if required by the municipality, for travel on the local roadways.
- b. Carriers shall coordinate with railroad officials as to the times of move for railroad tracks with short storage distances and humped crossings.

Documentation - All carriers shall be required to carry a log documenting all local community, law enforcement, and agency coordination, during operation.

13-2-11 Oversize/Overweight Wind Industry Permits

January 2014

If not stated in this policy, follow [TEOpS 13-2-10](#).

DEFINITIONS

Wind Tower Multi-trip Permit – specific permits relating to a process implemented to plan for multiple trips of oversize/overweight loads to wind projects.

Wind Multi-Trip Permit – A permit that is valid for unlimited, specified route trips during a range of 3 to 6 months. This is applied to each vehicle identification number (VIN) from a company seeking this permit type

Oversize/Overweight Load – A load that requires a permit due to exceeding certain dimensions and weights.

Pole Car – A pole car is an escort vehicle equipped with a height sensor. A pole car must precede the load and move sufficiently ahead of the oversize vehicle when approaching structures to ascertain clearance prior to the load arriving. The height sensor pole shall be made of a non-conductive, non-destructive, flexible material.

Single Trip Permit – A permit that is valid for 14 days and for one trip only. The carrier specifies the route, and the return trip is allowed at no charge if requested with the original permit application.

Urbanized Area – A populated area that normally experiences peak hour traffic volumes in the morning, afternoon and evening travel periods. It is at the discretion of the Region to determine if an area is considered urbanized and if an oversize/overweight vehicle will significantly impede on traffic during peak periods.

Freeway/Expressway – Four-lane divided highway facilities with no or minimal at grade intersections and sharp curves. Expressways are divided arterial highway facilities that have partial control of access, generally with grade separations at major intersections.

GUIDELINES

1. WisDOT permitted hours of operation for movement of wind tower components are:

- 6PM Sunday through Noon on Friday, except during the peak traffic hours of 6AM-9AM and 3:30PM-6PM, Monday through Friday, in below specified urban areas
- 12:01AM Saturday through 10AM Saturday
- 12:01AM Sunday through 10AM Sunday

2. Oversize/overweight permits will restrict travel during peak traffic hours only in the counties of Brown, Outagamie, Winnebago, Dane, Milwaukee, Ozaukee, Washington, Waukesha, Racine, Kenosha, and LaCrosse. The maps for the wind tower restricted urban areas can be found in:

[\\Mad00fph\n4public\BHO\osow\Time Restrictions\](#) (internal DOT access only)

Wind Tower Allowable Times of Travel

Day\Hour	12:01 AM Midnight	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:01 AM	7:00 AM	8:00 AM	9:01 AM	10:00 AM	11:00 AM
Monday	X	X	X	X	X	X	e/u	e/u	e/u	X	X	X
Tuesday	X	X	X	X	X	X	e/u	e/u	e/u	X	X	X
Wednesday	X	X	X	X	X	X	e/u	e/u	e/u	X	X	X
Thursday	X	X	X	X	X	X	e/u	e/u	e/u	X	X	X
Friday	X	X	X	X	X	X	e/u	e/u	e/u	X	X	X
Saturday	X	X	X	X	X	X	X	X	X	X	n/p	n/p
Sunday	X	X	X	X	X	X	X	X	X	X	n/p	n/p

Day\Hour	12:01 PM Noon	1:00 PM	2:00 PM	3:00 PM	3:30 PM	4:00 PM	5:00 PM	6:01 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Monday	X	X	X	X	e/u	e/u	e/u	X	X	X	X	X	X
Tuesday	X	X	X	X	e/u	e/u	e/u	X	X	X	X	X	X
Wednesday	X	X	X	X	e/u	e/u	e/u	X	X	X	X	X	X
Thursday	X	X	X	X	e/u	e/u	e/u	X	X	X	X	X	X
Friday	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p
Saturday	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p	n/p
Sunday	n/p	n/p	n/p	n/p	n/p	n/p	n/p	X	X	X	X	X	X

X = Travel Permitted

e/u = Exception for Urban Areas noted below

n/p = Travel Not Permitted

***Urban Areas**

Green Bay
Kenosha
La Crosse
Appleton including Neenah/Menasha and STH 15

***Counties**

Dane County
Milwaukee County
Ozaukee County
Racine County
Washington County
Winnebago County

*Urban Areas and or Counties may change due to further LOS Analysis

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5/6/2009

3. 30 minute "pulsing" will be allowed. This permit restriction will be replaced with this language: "It is the carrier's responsibility to plan for staging and managing of the departures of permitted loads to avoid congestion on the route due to massing of the permitted loads.
4. Permits *may* include a condition for convoying of two loads in order to more efficiently use escorts. This condition is available on a very limited case-by-case basis and the consecutive convoys cannot move less than 30 minutes apart.
5. Escorts (Wind Only)

WEIGHT	LENGTH	WIDTH	HEIGHT	ESCORT
< 170K	100' to 120'	< 13'	<14'6"	One private escort. Pole car requirement subject to Region review.
< 171K – 270K	121- 189'11"	13'01" -16'0"	14'7" – 15'11"	Two (2) private escort vehicles. Pole car requirement subject to Region review.
Up to 350K 1 to 5 slow to 5mphs	190'6"- 200'0"	16'0" to 20'	16' to 20'	One (1) private vehicle and one (1) state patrol escort vehicles. One (1) private shall be a properly equipped pole car and lead the load by 0.5 miles at all times.
Up to 350K 6 or more slow to 5mphs	200'1"	>20'	>20'	Two (2) state patrol escort vehicles and one (1) private vehicle to provide a properly equipped pole car and lead the load by 0.5 miles at all times.
Key:	< Less Than > Greater Than			

- a. The WisDOT always retains the right to be more restrictive when it is deemed necessary.
 - b. Subject to inspection results or other concerns base loads regardless of weight and dimension maybe required to have one State Patrol Escort until such time as the concern triggering this requirement or concern is removed.
6. Work Zones

Travel through work zones otherwise limited by posted signs or other constraints (i.e. lane width restrictions) cannot proceed without prior authorization of DMV, BHM, and BTO on the permit. Permit vehicles without prior authorization should interdict and call DMV to either approve travel through the work zone or find an alternate route.

7. Ramp Off/Ramp On Method

Ramp off/Ramp on movements for wind industry truck shipments may be utilized and approved by the regions in order to keep the load on the OSOW Freight Network. This method *should* only be used to avoid construction, low bridge clearance, or weight restricted facility. The interchange must be a diamond interchange with a clear path between the exit and entrance ramp. The presence of fixed barriers or medians eliminates this method as an option. Ramp off/Ramp on *should not* be used consecutively on a route or for the overall permit. This method *should* be limited to 1 or 2 exceptions on a route. Additional ramp off/ramp on exceptions are at the discretion of DMV permitting office and BHM staff and only when alternative routes cannot be reasonably identified.

GENERAL NOTES

It is recognized that physical roadway conditions *may* change at the time of the move and the carrier must be aware that they are ultimately responsible for maintaining safe operating conditions and reviewing roadway and vehicle characteristics (i.e., horizontal and vertical clearances, intersection geometrics, load height, tire pressure, etc.)

Contact DMV if there are any loads that do not conform to these load requirement guidelines.

13-2-12 OSOW Inspection Requests and Waiver Procedure

December 2011

PURPOSE

To provide a process for annual vehicle and driver inspections or waivers for specialized transport vehicles that require a permit to travel in Wisconsin and are reviewed under [TEOpS 13-2-10](#) and [TEOpS 13-2-11](#) of this chapter.

DEFINITIONS

OOS – Out of Service violations for the purposes of this section are violations that are significant including but not limited to Brakes, Frame, Suspension, Tires, couplings or any other significant physical feature necessary for safe mobility of the vehicle. OOS for lighting that can be fixed and signed off on would not be considered in the review of a carrier for the purposes of this guidance.

FMCSA – Federal Motor Carrier Safety Administration

PROCEDURE

Process	Carrier in Regulatory Compliance	Carrier not in Compliance
ISS	Below 65	Above 65
NAS 7 - Out of Service (OOS)	No OOS w/in 24 months	OOS in last 24 – Order Inspection
396 for Truck and Trailer*	Submit for file	Do not request

- All house/building movers (other than mobile homes and modular home carriers) shall be ordered for inspection as part of every permit application.
- BHM OSOW Freight Unit to check ISS on the first of every month for all carriers that have NAS 7 inspections that will be over 12 months old in OSOW Freight Unit Database within 30 days from the 1st of the month:
 - If a carrier is new to Wisconsin, record is significantly out of date, or not in the OSOW Freight Unit Database than that carrier shall be ordered for inspection.
 - All carriers who have an ISS score of 65 or greater BHM to request inspection at next permit request if load originates in Wisconsin.
 - For loads originating outside Wisconsin and where inspections are required by any other states in route to Wisconsin DMV shall request a signed copy of that inspection. The out of state inspection shall have no Out of Service (OOS) violations and is only good for permit the carrier is applying for at the time of application. If subsequent permit requests originate outside Wisconsin carrier shall supply an inspection with no OOS violations from the other state. BHM will repeat the process at the time of the carrier's permit request for a load originating in Wisconsin and order an inspection if necessary.
 - If a carrier is inspected and found to have OOS violations for lights or other items that can be fixed and signed off on by DSP carrier shall be able to proceed with their load at that time.
- BHM to submit list of carriers identified under item 2 above and ask DSP to check these carriers for OOS violations in Wisconsin within the last 24 months from the date of the request.
 - If no OOS violations are found for last 24 months - proceed to 3 b if there are OOS proceed to 3c.

- b. DMV to request STANDARD OPERATING PROCEDURE (SOP's) and 396 (carrier's annual self-inspection) submittal from carrier.
- c. If there are OOS violations found for the last 24 months from date of request BHM shall order inspection at next permit request (skip task 4 and 5 below). BHM to continue to repeat item 3c on an annual basis until carrier is free of OOS violations for a period of 24 consecutive months from the date of a permit request.
- 4. DMV to request most recent copy of FMCSA annual inspection (aka 396) performed by company or other authorized agency for the tractor and trailer units supplied as part of permit request. DMV to provide copy to BHM. This should be repeated annually even if the carrier is in compliance.
- 5. For item 4, Carrier has 30 calendar days from the date of request to comply.

NON-COMPLIANCE

1. If carrier is not waived for inspection in accordance with this procedure and fails to comply with a request for inspection twice – subsequent permits shall be held until compliant per DMV discretion. DMV to provide BHM OSOW Freight Unit with any waivers of inspection requirement and reason (i.e. not originating Wisconsin). BHM to provide list of non-compliant carriers who have not responded to inspection requests to DMV to monitor carrier applications in the event the carriers:
 - Next permit dimensions and or weight do not meet requirement for review by BHM – OSOW Freight Unit*
 - Next permit would be on a previously approved route that does not require BHM – OSOW Freight Unit review
2. If a carrier who is initially granted a waiver fails to provide to DMV a FMCSA 396 self-inspection form in accordance with items 4 & 5 above of this procedure the carrier shall be consider non-compliant and their annual inspection waiver is revoked until they either submit to and pass an inspection or provide the requested documentation.
3. BHM OSOW Freight Unit will provide DMV with a monthly list of carriers if any that fall subject to Non Compliance item 2 above.

*OSOW Inspections requested by OSOW Freight Unit are for loads in excess of 16 wide, 140 feet long, or 270,000 pounds, or any combination thereof or wind industry components.

13-2-15 Oversize/Overweight Permit Suspension

May 2009

BACKGROUND

State Patrol and other law enforcement officials currently have the authority to restrict or suspend travel on Wisconsin roadways when unsafe driving conditions occur. According to Trans 254.06 (4) Validity for Single Trip Permits for Oversize or Overweight Vehicles or Loads, and Trans 255.06(4) Validity for Multiple Trip Permits for Oversize or Overweight Vehicles or Loads, *“A permit is not valid during periods when adverse weather or road conditions, such as fog, smoke, heavy rain, snow or ice or wind velocity, impair the safety of a movement under the permit.”*

GUIDELINES

The following conditions are considered when defining a travel restriction:

- Impassable or unsafe roadway conditions on the traveled way – extremely slippery, reduced visibility, significant snow cover, flooding over the road, high winds and blowing snow causing whiteout conditions or drifting, and severe wind chill.
- Recovery activities incomplete – vehicle & debris removal operations, transportation of recovery resources, snow removal

Winter Weather, Flooding, and Other Events

WISDOT will incorporate provisions within oversize-overweight (OSOW) shipment permits to reinforce the accountability of carriers to comply with Trans 255.06(4). The carrier's responsibility to remain aware of current roadway restriction, closure, and alternate route information **shall** also be emphasized.

DTSD will maintain web-based travel warning and information sources for travelers, such as

- 511 Traveler Information Services
- Lane and Ramp Closures (Lane Closure System)

- Work Zones & Detour Information

DTSD will not maintain web pages or otherwise support customized or specialized traffic and incident information services or resources specifically for truck routing or oversize-overweight permitted shipments.

DTSD will not be involved in motor carrier notifications or related further action, including internet posting of maps. DMV *may* notify the motor carriers of events or *may* alternately rely upon the provisions in the OSOW permit stating it is the motor carrier's responsibility to refrain from travel when unsafe driving conditions occur.

COMMUNICATION

Internal WISDOT communication with DTSD by other Divisions (including DMV and DSP) **shall** be directed through the State Traffic Engineer of Operations. This **shall** include deliberations involving emergency suspensions of OSOW permits. The State Traffic Engineer of Operations or their designee **shall** be responsible for timely coordination with DTSD Regional OSOW Coordinators and other DTSD representatives.



Traffic Engineering, Operations & Safety Manual

Chapter 13 Traffic Regulations

Section 3 Low Speed Vehicles

13-3-1 Policy

December 2011

A Low-Speed Vehicle (LSV) is defined in Wis. Stat. S.340.01(27h). Formerly known as “Neighborhood Electric Vehicles (NEVs),” LSVs are four-wheeled, motorized vehicles that comply with federal safety standards stated in 49 CFR ss. 571.3(b) and 571.500. LSVs are manufactured with a maximum speed of 25 MPH. Golf carts are not LSVs.

Wisconsin law (ss. 349.26) provides town, village and city governments’ broad discretion to permit LSVs to operate on highways within their territorial boundaries. Municipal ordinances take priority over county ordinances, as well as the default rules explained below. The default rules apply where there are no municipal or county ordinances.

Under new legislation effective October 2010, WisDOT no longer has authority to permit or prohibit LSV use on highways. The law, however, prohibits LSV use on any highway with a speed limit greater than 35MPH, which effectively prohibits LSV use on most of the state highway system.

DEFAULT RULES – NO LOCAL ORDINANCE

Per the Default Rules, LSVs may be used as follows:

- **Connect Highways** – A person may operate an LSV on a connecting highway only if the speed limit of the connecting highway is 25 MPH or less
- **Local Roads** – A person may operate an LSV on any highway, other than a connecting highway, that has a speed limit of 35 MPH or less and that is under the maintenance jurisdiction of a municipality or county. Exception apply at intersections:
 - At an intersection of a local (municipal or county) road with a state trunk highway or connecting highway, LSVs may be used only if:
 - 1) The state trunk highway or connecting highway has a speed limit at the intersection of 35 MPH or less; and
 - 2) Traffic at the intersection is controlled by traffic control signals.
 - At intersections of a local (municipal or county) road with expressways, freeways, or controlled-access highways, LSVs may not be used. This means that an expressway, freeway or controlled access highway effectively creates an impassable barrier to LSV travel in the absence of an ordinance. LSVs cannot cross these highways at grade or at grade-separated interchanges.



Traffic Engineering, Operations & Safety Manual

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Section 5 Speed Limits

13-5-1 Statutory Authority and the Approval Process

November 2024

Speed limits are absolute limits that are established for a roadway under ideal conditions. They also help traffic enforcement by setting standards for what is an unsafe speed. Setting speed limits appropriately helps to reduce the significant risks drivers impose on others – especially vulnerable road users.

The concept of establishing speed limits is based upon the nationally accepted principle that the majority of drivers are cautious, prudent and drive at speeds that are reasonable, regardless of the posted speed limit. This “reasonable and prudent” theme is part of the Wisconsin State Statutes in ss. [346.57 \(4\)](#) and ss. [349.11 \(7\)](#).

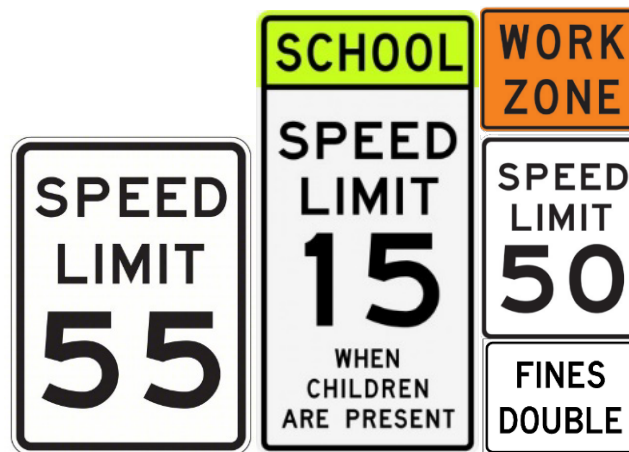
The policy described within aligns with Wisconsin State Statutes and the [Wisconsin Manual on Uniform Traffic Control Devices](#) (WMUTCD) [1].

13-5-2 Types of Speed Limits

November 2024

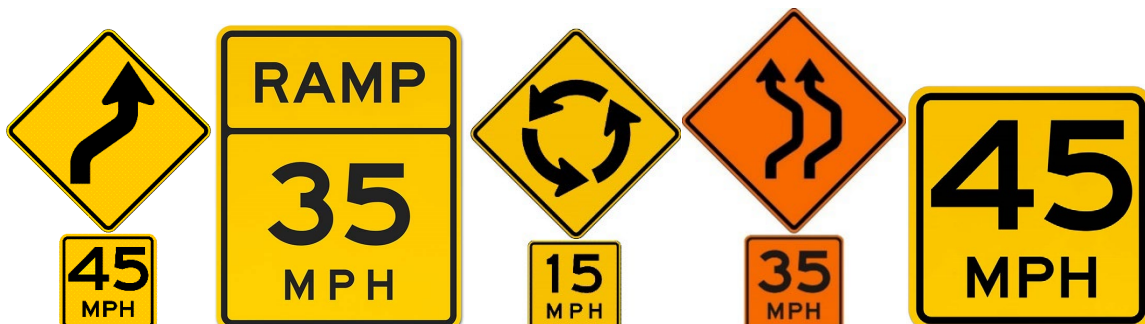
Regulatory

Speed limits posted with a white background and black legend sign are maximum speed limits that a road user must adhere to under average or ideal conditions. These are referred to as regulatory speed limits and examples are shown below. Regulatory speed limits are absolute speed limits, above which it is unlawful to drive regardless of roadway conditions, traffic volumes, pedestrian presence, school activity, highway construction or maintenance workers or other factors.



Advisory

Speed limits posted with a yellow or orange background with black legend sign are warning signs used to advise a road user of a recommended driving speed for an upcoming road condition or hazard. These are used in situations where there is a small section of road that *should* be traveled at a lower speed. These can be used at curves, intersections with reduced visibility, or within work zones. These signs are advisory and not enforceable in Wisconsin unless a driver is driving too fast for conditions. Below are examples of advisory speed limits.



13-5-3 Types of Regulatory Speed Limits

November 2024

Statutory Speed Limits

Statutory speed limits are established by state law and are based on the classification (or type) of roadway (e.g., 70 mph on freeways, 45 mph on rustic roads). Statutory speed limits in Wisconsin are governed by ss. [346.57](#) which establish maximum/minimum speed limits for all roadways. These limits are established legislatively and are applied throughout Wisconsin on public roadways. Statutory speed limits ensure a limit is in place on all roads.

Modified Speed Limits (Modifications to Statutory Speed Limits)

Modified speed limits are typically established on roadways where the statutory speed limit or existing limit is no longer appropriate due to a change in land use, road design, access, traffic volumes, construction/maintenance activity, or number of crashes or crash potential along a roadway. Modified speed limits *should not* be used to address spot safety issues. Often, other engineering countermeasures are more appropriate to address safety issues.

Unless speed limits are set initially by state statutes (statutory speed limits), all speed limits in Wisconsin must be established through an engineering and traffic investigation.

Speed limits that are not used in Wisconsin are as follows:

- Nighttime speed limits – limits that are adjusted based on day or night conditions.
- Minimum speed limits – limits establishing the lowest allowable speed for a roadway.
- Specialty vehicle speed limits (e.g., trucks, golf carts, etc.) – limits applied to certain classes of vehicles.
 - Exceptions include: [All-Terrain Vehicles \(ATV\) and Utility Terrain Vehicles \(UTV\)](#)
- Seasonal speed limits – limits that are applied for a specified period(s) during the year, generally at locations with significantly different levels of roadside activity at different times (e.g., high traffic tourist area popular in summer).

13-5-4 Definitions

November 2024

An engineering and traffic investigation is the analysis and evaluation of available pertinent information including, but not limited to, the safety and operational efficiency of all road users, and the application of appropriate principles, provisions, and practices as contained in the [WMUTCD](#).

The following provides definitions of information typically included within an engineering and traffic investigation.

Roadway Context Terminology

Roadway Geometry is information on the roadway facility's features and dimensions such as lane widths, shoulder widths, curb and gutter presence, curves, sidewalk/pathways, presence of lighting, and available sight distance.

Traffic Volume is used to describe the number of vehicles at a given location on an average day of the year. This is often expressed as either an Average Daily Traffic (ADT) or Annual Average Daily Traffic (AADT) count.

Area Type is a designation for the setting of the environment where the roadway facility is located. There are three area types:

- Urban – locations that have a population of 5,000 or greater. In urban settings there is minimal undeveloped land and several buildings including schools, commerce centers and others.
- Rural – locations that have a population less than 5,000. In rural settings there are typically large areas of undeveloped land with minimal buildings or residences. These may include small towns and unincorporated communities.
- Suburban – transitional areas between rural and urban settings. These typically are locations that are built up areas on the outskirts of cities and villages.

Functional Classification is a transportation planning term that defines how a route *should* perform in serving the flow of traffic through a highway network. It is the grouping of highways, roads and streets by the character of

service they provide (e.g., principal arterial, minor arterial, collector (major/minor), local street).

Vulnerable Road User encompasses non-motorists including people walking, biking or rolling. These include pedestrians, bicyclists, other cyclists, and individuals utilizing other means of personal transportation.

Speed Terminology

Operating Speed (Free-Flow Speed) is defined as the speed at which a driver operates a typical vehicle, or a speed at which the overall traffic operates during free-flow conditions. Free-flowing speed is defined as conditions in which a driver has the ability to choose a speed of travel without undue influence from other traffic, traffic control devices (e.g., traffic signals, roundabouts), conspicuous police presence, or environmental factors. In other words, the driver of a free-flowing vehicle chooses a speed that they find comfortable on the basis of the appearance of the road [2] [3]. WisDOT measures free-flowing vehicle speeds when there is a gap of five seconds or more between vehicles per lane.

Design Speed is the speed selected during the roadway design process that determines the various geometric design features of the roadway such as horizontal alignment, vertical alignment, and cross-section design elements [4]. This includes lane widths, shoulder widths, curb and gutter presence, curves, and available sight distance.

The following are definitions for speed-related performance metrics:

- 85th Percentile Speed is the speed at or below which 85 percent of the sample of free-flowing vehicles travel.
- 50th Percentile Speed (also known as the median speed) is the speed at which 50 percent of the sample of free-flowing vehicles travel.
- Average speed is the typical speed of the sample of free-flowing vehicles. This is calculated by taking the sum of all observed speeds within the same sample and dividing by the total number of observations.
- Pace is the 10-mph range of travel speeds containing the largest number of observed vehicles. This is a metric used to assess the speed dispersion or spread of vehicle speeds. A normal speed dispersion *should* have approximately 70% of the vehicles within this 10-mph range.
- Speed variance is the difference in travel speeds of vehicles traveling on the same stretch of roadway simultaneously. Large speed variances increase the potential for crashes.

Roadway Classifications

State Trunk Highways (STH) are highways that include both Wisconsin State Highways and United States (US) Highways that are maintained by WisDOT. In Wisconsin, these are highways designated with numbers.

County Trunk Highways are highways maintained by County Highway Departments or other municipalities. In Wisconsin, these are highways designated with letters.

Local Streets are roadways that are maintained by incorporated municipalities (i.e., villages/cities) that serve primarily residential traffic and provide a connection between highway systems.

Town Roads are typically low-volume roadways that are maintained by townships.

Rustic Roads are roadways designated by the Rustic Roads Board which have characteristics that promote natural features or wildlife and low volume for the purposes of recreational enjoyment. For more information see the [Rustics Road webpage](#).

Alleys are roadways that are narrow passages between or behind development.

Freeways are high-speed roadways that are access-controlled, and all crossroads are grade-separated (i.e., interchanges/overpasses).

Expressways are high-speed roadways that are partially access-controlled, and crossroads can be either at-grade intersections or grade-separated (i.e., interchanges/overpasses).

Other

Variable speed limits are limits that can dynamically change based on traffic, weather or other conditions.

Connecting Highways are local streets and roads that carry state highway travel and are marked as STHs through cities and villages.

Outlying district is an area contiguous to any highway within the corporate limits of a city or village where on each side of the highway within any 1,000 feet, buildings are spaced on average more than 200 feet apart.

Semiurban district is an area contiguous to any highway where on either or both sides of the highway within any 1,000 feet, buildings are spaced on average less than 200 feet apart.

13-5-5 Background

November 2024

Modified speed limits are typically established on roadways where the statutory speed limit or an existing speed zone is no longer appropriate due to changes in land use, access, traffic volumes, number of crashes or crash potential along the highway. Speed zoning is a means of establishing uniform regulatory speed limits for similar driving conditions throughout the state. It is a means of informing motorists who may be unfamiliar with the road of the "reasonable" driving speeds under ideal operating conditions. Speed limits are established under ideal conditions and not based on temporary situations (e.g., construction, seasonal variations in traffic/pedestrian volumes, special events).

Unreasonably low speed limits, also called irrational speed limits, are not effective in changing driver behavior and have several negative effects. While irrational speed limits do not result in desired driver behavior, resulting negative effects include higher financial cost due to the need for increased enforcement, higher potential for crashes due to larger variability in vehicle speeds, and encouragement of motorist disregard of other, rational posted speed limits. Irrationally low speed limits also promote a false sense of security among residents and pedestrians who may expect that posting lower limits will change drivers' speed behavior.

Driving environment is the main influence on motorists' speeds. Drivers rely heavily on cues from the roadway environment to judge how fast they are traveling. The primary basis for how a motorist estimates their speed is the visual sensation they observe from the roadway geometrics (e.g., lane width, presence of curves, on-street parking, access along the roadway, bicycle and pedestrian activity, sidewalks/pathways, presence of lighting, etc.) and other information about objects in their immediate vicinity. Roadway design and driving environment *should* be balanced to achieve the following goals [2]:

- The driver's perceptual experience of the roadway *should* be consistent with the intended travel speed
- There *should* be some consistency between relevant roadway cues and the posted regulatory speed.

13-5-6 Authority

November 2024

The statutory authority for establishment of regulatory speed limits is provided in ss. [346.57](#) and ss. [349.11](#). These statutes vest WisDOT with the authority to establish regulatory speed limits on the state trunk highway system. Furthermore, the statutes provide WisDOT with approval authority (refer to ss. [349.11\(3\)\(c\)](#)) for some regulatory speed limits that local units of government establish.

Statutes define that all speed limit changes **shall** be based on an engineering and traffic investigation, including modifications allowed under Statute. An engineering and traffic investigation **shall** be performed by a registered professional engineer with appropriate traffic engineering expertise and/or experience in traffic engineering studies, or by an individual working under the supervision of such an engineer, through the application of procedures and criteria established by the engineer. An engineering and traffic investigation **shall** be documented in writing.

Connecting Highway

Connecting highways are local streets and roads that carry state highway traffic and are marked as State Trunk Highways. Wisconsin ss. [84.02\(11\)](#) and ss. [86.32\(1\)](#) define connecting highways and the funding provided to maintain these roadways. Connecting Highway funding aids are used to maintain these streets and roads at state trunk highway system standards and compensate local governments for the incremental costs of through-traffic routed over municipal streets. For more information see the [Connecting Highway webpage](#).

Connecting Highway speed limits are maintained by the respective municipality. Wisconsin ss. [86.32](#) states such maintenance, operation and traffic control of the connecting highways and swing and lift bridges **shall** be subject to review and approval by WisDOT.

Municipalities that maintain connecting highways are responsible for the maintenance and traffic control of the roadway which includes establishing speed limits. Thus, local authorities responsible for these roadways **shall** follow information within [Table 6.1](#) to establish speed limits. Proposed changes to speed limits on these facilities

that impact the operation of connecting highways **shall** be subject to review and approval by WisDOT.

Approval Authority

Local Government

- Local units of government, under their respective maintenance jurisdictions, can approve speed limit modifications as allowed in [Table 6.1](#).
- When speed limits are recommended outside of the approval authority defined by ss. [349.11](#), local units of government are required to coordinate with WisDOT. For information on how to request WisDOT to review a speed limit modification, see [TEOpS 13-5-7.1](#).
- Local units of government *should* follow the guidance outlined within [TEOpS 13-5](#) to satisfy the requirements of an engineering and traffic investigation.

Table 6.1 Speed Limits and Local Authority

Statutory (Fixed) Limits per ss. 346.57(4)	What Local Governments ^(a) can do per ss. 349.11(3) and (7)
70 mph – Freeway/Expressway	N/A
65 mph – Freeway/Expressway	N/A
55 mph – State Trunk Highway	N/A
55 mph – County Trunk Highway	Lower the speed limit to 50 or 45 mph
55 mph – Town Road	Lower the speed limit to 50 or 45 mph
45 mph – Rustic Road	Lower the speed limit to 40, 35 or 30 mph
35 mph – Town Road with average driveway spacing less than 150 feet	Lower the speed limit to 30 or 25 mph
25 mph – Inside corporate limits of a city or village	Raise the speed limit up to 55 mph Lower the speed limit to 20 or 15 mph
15 mph – Street or Town Road adjacent to a public park	Lower the speed limit to 10 or 5 mph
15 mph – Alley	Lower the speed limit to 10 or 5 mph
15 mph – Pedestrian Safety Zone (with a public transit stop)	No changes permitted
Construction or temporary maintenance zones	See TEOpS 13-5-16 and 13-5-17
School zone/School crossing	See TEOpS 13-5-12
Connecting Highway	Subject to WisDOT approval
(a) All speed limit changes shall be based on an engineering and traffic investigation, including modifications allowed under Statute. Local governments can implement speed limit changes on the local road system without WisDOT approval when proposals are within the constraints identified above.	

WisDOT Regional offices

- Regional offices are authorized to approve speed limit changes on local roads and streets, including county trunk highways, where those changes fall outside the authorized limits that the local authorities *may* exercise as specified in the statutes.
- Regional offices are authorized to establish reductions in speed limits in construction zones on a temporary basis while the need for the reduction exists.
- Regional offices are authorized to approve speed limits which fall within 5 mph of the measured 85th percentile speed and no more than 2 mph below the measured average speed, or where speed limits are established based on statutory requirements. In the absence of speed information, regional staff **shall** coordinate with WisDOT Bureau of Traffic Operations (BTO). Exceptions include:
 - Adjusting speed limits due to relocations from development, access modifications or adjusting due to signage requirements. Extensions *should not* exceed 300' without BTO approval. Speed studies *may* be required for extensions due to these changes.
 - Construction of new roadway facilities or reconstruction of existing facilities in which speeds are posted in accordance with the design speed. If speeds are posted below the design speed, coordination with BTO is required.

WisDOT Bureau of Traffic Operations (BTO)

- The following **shall** be approved by the Traffic Analysis and Safety Unit (TASU) within BTO:
 - Speed limits not meeting the criteria defined above and within [Table 6.1](#).
 - Speed studies that are not able to collect speed data (e.g., short roadways).
 - Modifications or proposed modifications on expressways/freeways with posted speeds greater than or equal to 65 mph.
 - Use of variable speed limits.

13-5-7 Engineering and Traffic Investigation Procedure

November 2024

Request Process

Requests to review a speed zone on the State Trunk Highway (STHs) **shall** be submitted in writing by a local unit of government or County Traffic Safety Commission and include the following:

- Current regulatory speed limit and begin/end points
- Proposed regulatory speed limit
- Proposed begin/end points of proposed zone(s)
- Reasoning for the request (e.g., change in land use, access, traffic volumes, crash trends)

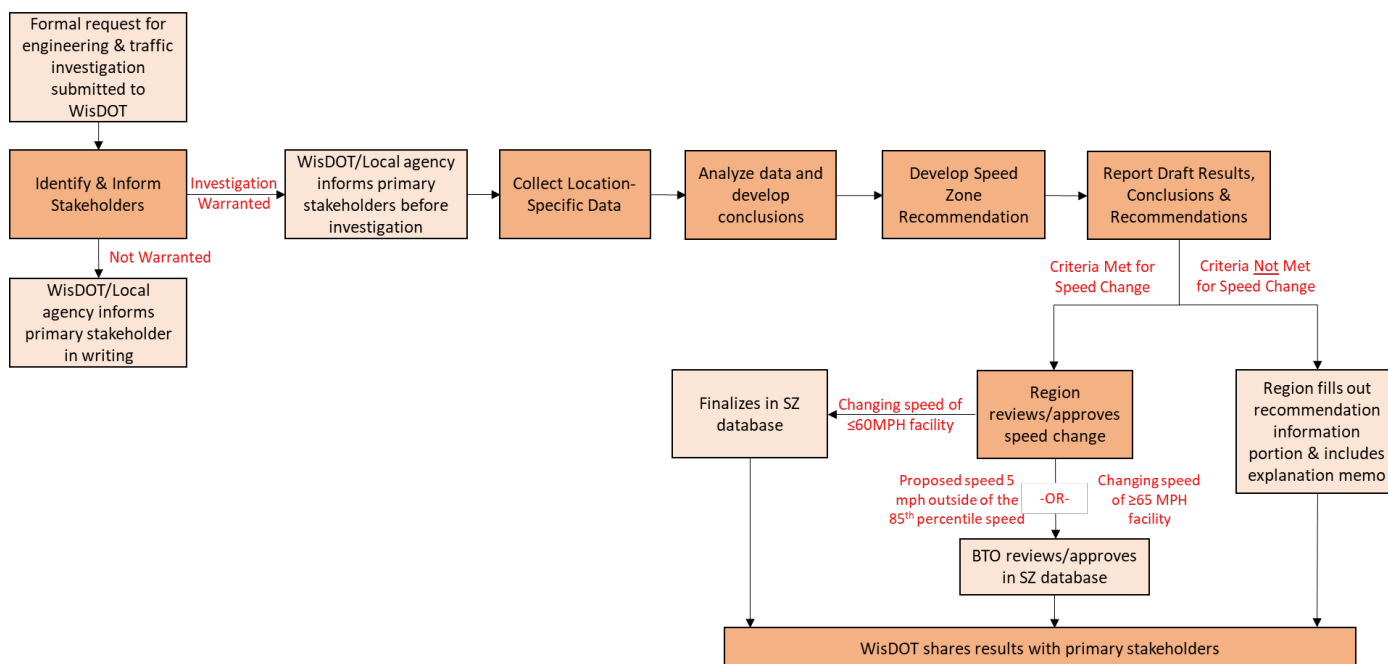
For contact information, please see the WisDOT [Speed Limits webpage](#).

Upon receipt of request, WisDOT will then determine if a review of the speed limit is appropriate. WisDOT does not entertain requests to modify speed limits from individual citizens or advocacy groups. Considerations for speed limit adjustments **shall not** be based solely on the following:

- Noise complaints
- Accommodating specialty vehicles (e.g., ATV/UTV)
- Correcting spot safety concerns
- Future concerns that have not yet occurred (e.g., future development, future roadway improvements)

If an engineering and traffic investigation is warranted, WisDOT will then follow a process outlined in [Figure 7.1](#).

Figure 7.1 Engineering and Traffic Investigation Process



Requirements

For a speed limit to be effective, it *should*:

- Reflect consistent application of traffic engineering principles
- Be a reasonable speed so the majority of drivers will comply voluntarily
- Be based on ideal or average conditions and not temporary situations (e.g., construction, seasonal variations in traffic/pedestrian volumes, special events)
- Local units of government *should* follow the guidance outlined within this manual to satisfy the requirements of an engineering and traffic investigation.
- For state-maintained highways, a traffic engineer with a Wisconsin Professional Engineer License is required to approve a speed limit modification.

An engineering and traffic investigation **shall** include the following section headings. Include information within each section as appropriate based on the study location.

1. Roadway Context Information

- Primary function or purpose of roadway (e.g., residential street, thoroughfare, commuter route, freight route, recreational route, etc.)
- Roadway environment (e.g., development adjacent to the road, average building setback, and types of land use)
- Roadway characteristics (e.g., number of lanes, lane widths, shoulder type and width, roadway curvature, median type, sight distance, presence of curb and gutter, etc.)
- Roadside features (e.g., presence of and distance to roadside hazards including trees, rock outcrops, street furniture, embankments, edge drop-off, side slopes, water bodies, etc.)
- Area Type (e.g., urban, suburban, rural)
- Access density (e.g., number and type of driveways and intersections, etc.)
- Road users (e.g., pedestrians, bicyclists, ATV/UTV, horse and buggies, other vulnerable road users, etc.)
- Traffic Volumes (e.g., AADT/ADT, truck volumes and proportions, pedestrian and bicycle volumes, etc.)
- Public transit volume and location or frequency of stops
- Other information relevant to the roadways purpose and function (e.g., parking practices, functional classification, design speed, etc.)

2. Safety Information

- Years reviewed (minimum of 3 years of reported crash history)
- Number and type of crashes
- Number of injury and fatal injury crashes
- Number of vulnerable road user crashes

3. Speed performance metrics

- 85th percentile speed
- 50th percentile speed
- Average speed
- Pace

4. Other relevant information

- Review of past speed studies to identify any trends in operating speeds

- Recent significant changes (traffic control changes, speed limit adjustments, lane adjustments, new development, etc.)
- Current level of enforcement

For urban and suburban roadways, and on rural roadways that serve as main streets through developed areas of communities, speed performance metrics *should not* be used as the sole criterion to establish speed limits without consideration of roadway context factors described above. On a freeway, expressway, or rural highway (outside urbanized locations or conditions), the speed limit that is posted *should* be within 5 mph of the 85th percentile speed of free-flowing traffic as long as all the factors described within the roadway context section of this policy have been considered and determined to be non-mitigating.

After analyzing information collected above as part of an engineering and traffic investigation, the analyst **shall** use it to develop and support speed zone recommendations. The engineering and traffic investigation **shall** provide a recommendation indicating whether conditions warrant a need to modify the speed limit of the studied section of roadway or not. Decisions regarding the potential change in a speed limit *should* be based on the objective findings of the engineering and traffic investigation and on conditions that exist at the time of the evaluation.

There are expert system tools available to aid in the process of determining appropriate speed limits which can be used to supplement the requirements listed above:

- [USLIMITS2](#)
- [NCHRP 966: Posted Speed Limit Setting Procedure and Tool](#)

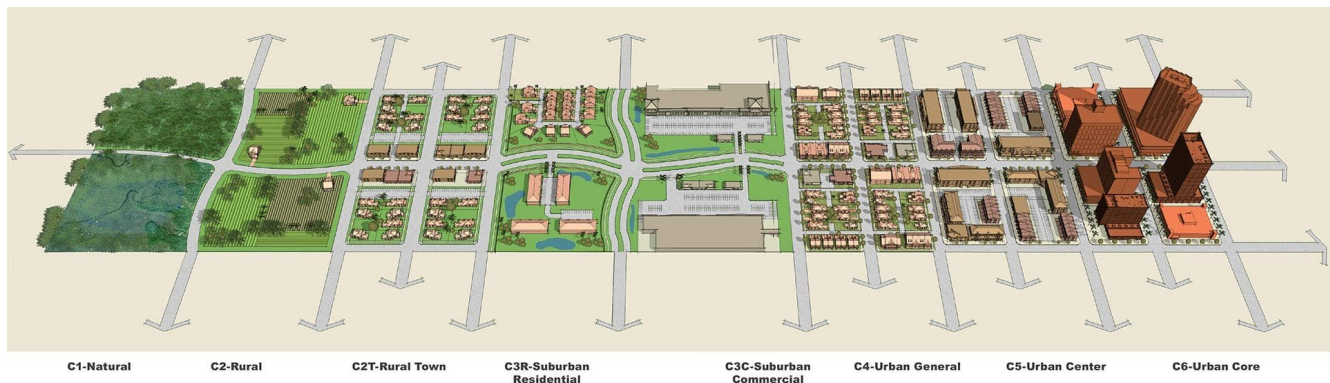
13-5-8 Transitioning between Speed Limits

November 2024

Roadway context and environmental factors play a critical role in establishing appropriate speed limits. Drivers must perceive the need to transition from one speed to another. Development density adjacent to the roadway, building setback distance, the number of streets and driveways that access the roadway, sight distance, roadway features including the presence of curb and gutter, shoulders, medians, sidewalks, pedestrians, bicyclists, and other vulnerable road users provide cues to the driver based on their past experiences. Other aspects considered when setting appropriate speed limits are the number and type of crashes observed, traffic volumes, and observed speeds.

[Figure 8.1](#) illustrates several different roadway context scenarios.

Figure 8.1 Roadway Context Classifications



Source: *Florida DOT's context classification, 2020* [5]

[Table 8.1](#) provides planning-level speed limit recommendations based on the roadway context classifications.

Table 8.1 Design speeds based on context classifications

Context Category	Design Speeds (mph)
Natural	55
Rural	45, 50, 55
Rural Town	40, 45
Suburban Residential	35, 40, 45
Suburban Commercial	35, 40, 45
Urban General	25, 30
Urban Center	20, 25, 30
Urban Core	20, 25, 30

Minimum speed zone lengths *should* follow the guidance in [Table 8.2](#). Engineering judgement *should* be used in determining the appropriate length given the roadway context. If conditions require lengths shorter than those described below, coordinate with BTO's Traffic Analysis and Safety Unit for approval.

Table 8.2 Minimum length of speed zones

Speed Limit (mph)	Minimum Length (miles)
≤40	0.3
45, 50, 55	0.6
60, 65, 70	1.0

Note: Adjusted values from *Methods and Practices for Setting Speed Limits* [6]

Speed Zone Termination Points

The begin and end points of a speed zone *should* be located in locations with adequate sight distance and in advance of where the roadway environment changes (e.g., driveway density, lane transitions, curb and gutter presence, etc.) such that a driver may expect a different speed.

When the roadway environment or roadway characteristics change (e.g., driveway density, lane transitions, curb and gutter presence), the regulatory speed limit sign **shall** be located at the changed condition. Examples include placing speed limit signage within straight sections of roadway or prior to entering a community where there is minimal development, but the roadway characteristics change (e.g., unpaved shoulders to curb and gutter). In advance of the of changed condition, the reduced speed limit sign **shall** be located based on [TEOpS 2-3-30](#). The location of the reduced speed limit sign *should* be adjusted based on engineering judgement such that it is located where adequate sight distance is available or in advance of the changed condition based on site conditions.

Both travel directions of speed zones *should* begin and end at the same location to align with driver expectation. Roadway conditions, existing signage and other factors play a role in locating where speed limit signs can be placed in the field. When posted, the beginning and end points of a speed zone **shall** match the ordinance/declaration description as close as possible.

Roadway characteristics such as access points and intersections sometimes prevent speed zones from being aligned in both directions. In situations where a speed zone is written to change at an intersection, the signs **shall** be posted on either side of the intersection. When reviewed as part of a study or within an improvement project, efforts *should* be made to modify these speed zones to align on one side of the intersection.

- For situations in which the separation of the begin and end points is significant or different speeds are posted for each direction, engineering judgement *should* be used.
- If conditions require an offset speed zone coordinate with BTO's Traffic Analysis and Safety Unit for approval.

Gateway Treatments

Gateway treatments are used to capture the attention of a driver to provide awareness of changes in the roadway environment and encourage them to reduce their speed. Examples of this include enhanced signing (e.g., additional warning signage, beacons, dynamic speed display signs), median islands, curb extensions/bump-outs, roundabouts, chicanes, etc. Gateway treatments are important tools to consider in areas where there are large reductions in the posted speed due to an abrupt change in the roadway environment.

13-5-9 Data Collection Best Practices**November 2024**

A speed investigation *should* be performed during non-peak traffic conditions, during daylight hours, and under ideal weather conditions on a typical weekday, when motorists are likely to be traveling at uninterrupted/free-flow speeds. Collecting speed data during peak commute times, unique events, weekends, or holidays may unintentionally capture more variable travel characteristics.

A template for summarizing and reporting speed performance metrics is available on the Speed Limit [References and Resources webpage](#).

Below are best practices for collecting speed performance metrics:

- The observer or speed-measuring device *should* be inconspicuous to the observed traffic so unusual driver behavior does not skew data.
- Speed data *should* be collected away from factors that might influence vehicle speeds, such as railroad crossings, intersections, horizontal and vertical curves, and work zones.
- Vehicle headway (the time between successive vehicles per lane) of five or more seconds *should* be present for reliable speed observations. Measurements collected with smaller headways may not reflect free-flow conditions, as the lead vehicle may influence the speed of the vehicle(s) behind it.

Sample Size Requirements

Selecting a sample size (number of observations) is an important step in collecting speed performance metrics. Below are requirements to help set an appropriate sample size:

- A minimum sample size for speed data collection *should not* be less than 100 vehicles per lane per direction. For example:
 - 200 vehicles for a roadway with one through lane in each direction
 - 400 vehicles for a roadway with two through lanes in each direction
- For roadways classified as very-low volume local roads, the minimum sample size *should not* be less than 30 vehicles. If the analyst anticipates that a sample of 30 vehicles cannot be collected within a reasonable amount of time, coordinate with BTO's Traffic Analysis and Safety Unit to identify alternative data sources or collection methods.

Data Collection Methods

An analyst can use a variety of data collection devices. These devices can be grouped into three categories, which for these purposes, are based on the location that the speed data collection device is installed.

- Manually operated handheld devices that are portable and can be used in most places (e.g., radar gun and laser gun).
- In-road devices that are installed into or on top of the roadway surface (e.g., pneumatic road tube).
- Out-of-road devices that are installed overhead or to the side of the roadway surface (e.g., radar recorders).

Each device has distinct advantages and disadvantages for collecting and analyzing data that may factor in determining the appropriate device to use for a particular location. See WisDOT's [Data Collection Methods document](#) on the [Traffic Operations Manual webpage](#) for more information.

13-5-10 Documentation**November 2024****Speed Zone Database**

The approval process for speed limit modifications proposed by WisDOT on the State Trunk Highway system is conducted electronically within the [Speed Zone Database](#). The following summarizes the different levels of review and approval.

1. If an engineering and traffic investigation is completed on an established speed zone, the investigation findings and other relevant documents **shall** be stored within the database.
2. If WisDOT Regional office authority is met (see [TEOpS 13-5-6.2](#)), the designated Regional approver **shall** electronically sign/approve the speed zone declaration.
3. If WisDOT Bureau of Traffic Operations (BTO) approval is needed, coordinate with BTO's Traffic Analysis and Safety Unit for approval of the speed zone declaration.

Format

Speed zone declarations **shall** reference recognizable and permanent landmarks (e.g., intersections or highways) and denote a distance to or from these landmarks. Landmarks that change (e.g., construction limits, city limits, building names, railroad crossings, etc.) **shall not** be used.

13-5-11 Local Speed Limits**November 2024****Request Process**

Coordinate with the appropriate government agency to discuss concerns or proposed modifications on county highways, city or village roads, or town roads. Upon receipt of request, local authorities can initiate action to modify a speed limit and create a new speed zone on a local road through an engineering and traffic investigation. [TEOpS 13-5](#) is provided to help guide local agencies in establishing appropriate speed limits. Wisconsin ss. [346.57](#) and ss. [349.11](#) are most applicable to modification of regulatory speed limits. These statutes, and local government authority are summarized in [Table 6.1](#).

The following are common examples for local agencies:

- The roadway does not currently have a posted speed and is rural in nature (e.g., sparse development, no curb and gutter, gravel shoulders and grass ditches). In this scenario, by ss. [346.57](#), the speed limit is 55 mph.
- Lowering a 55-mph county trunk highway or rural roadway to 50 or 45 mph. In this scenario, the county or township *may* lower the speed limit to either 50 or 45 mph under the approval authority listed in ss. [346.57](#) and ss. [349.11](#) without WisDOT approval, but an engineering and traffic investigation is required to support the change.

Ordinances

It is recommended that the local approval process include legal adoption of the speed zone recommendation through passage of an ordinance. This establishes a legal record of the speed limit modification and allows the speed zone to be enforceable by law enforcement agencies. Proposed changes that lie outside the constraints presented in [Table 6.1](#) **shall** be reviewed and approved by WisDOT before legal adoption by local authorities. It is recommended that the local process conclude with the local authority responding to the submitting party in writing, providing notification of approval or an explanation of the reasons for denial. The following is an example county ordinance.

Sample Ordinance

Establishment of Speed Zones

The Board of Supervisors of the County of Alpha do ordain as follows:

A traffic and engineering investigation having been made on the following described highways, the maximum permissible speed at which vehicles *may* be operated on said highways, which speed is herewith established as reasonable and safe pursuant to Section 349.11, Wisconsin Statutes, **shall** be as set forth herein subject to approval by the Wisconsin Department of Transportation, and upon the erection of standard signs giving notice thereof, all in Alpha County Wisconsin:

1. County Trunk Highway "A", Town of Soup, Alpha County.
Forty-five miles per hour from its intersection with County Trunk Highway "B", northerly to its intersection with State Trunk Highway 201.
2. County Trunk Highway "B", Town of Blank, Alpha County.
Thirty miles per hour from the intersection of Rabbit's Foot Ave, northerly to a point 0.35 miles north of said intersection.

Documentation

Typical documentation of an engineering and traffic investigation can include a cover letter, memo describing the background and roadway context, , map and/or photos of the area, safety information, speed performance metrics, findings, methodologies, and any other documentation to help support the recommendation. Contact the local WisDOT Regional office for an example of an engineering and traffic investigation or for any questions on the speed limit setting process. See WisDOT's [Speed Limit webpage](#) for contact information.

Speed Limits Within and Outside Incorporated Areas (Outlying District and Semiurban District)

Outlying District and Semiurban Districts are defined in ss. [346.57\(1\)\(ar\)](#) and [346.57\(1\)\(b\)](#) respectfully. These statutes are meant to establish speed limits based on access (building) density and *should not* be used as the sole criteria to establish a speed limit without consideration of other factors listed within [TEOpS 13-5-7.2](#).

13-5-12 School Zones

November 2024

Wisconsin State Statutes require that school advance warning signs be installed and maintained on every highway where a school ground is contiguous to the highway. There is no requirement that a school speed limit be posted except where it differs from the 15-mph provision in ss. [346.57 \(4\)\(a\)](#) and [\(b\)](#). These two provisions place the requirement on the motorist to reduce speed to 15 mph when children are present, even in the absence of speed limit signs.

Sign Requirements

School speed limits require the use of a regulatory school speed zone sign. For more information on school signage, see [TEOpS 2-3-54](#). If used, they *should* be posted at 10 mph less than the posted regulatory speed limit of the roadway.

The physical arrangements of schools along state trunk highways vary greatly. The following are examples to help illustrate guidelines within this policy. Other locations not fitting these will have to be reviewed to determine the appropriate use of school zone signs.

Urban Areas

- In a built-up section of a city or village, where the roadway speed limit is low (i.e., ≤30 mph) and sidewalks are present, many or most of the children walk to school. However, some children may be transported by vehicles which can lead to congestion.
- In developed areas, sudden stoppages and slowdowns are common. If the roadway is a higher speed facility (e.g., 35 mph or greater) it would be desirable to study the location to determine the appropriate school speed limit for the roadway.

Rural Areas

- In a rural area, the school may be the only development along the roadway. In these areas, speed limits often are higher and there are few to no children who bike or walk to school. It is WisDOT's policy to refrain from posting school speed limits under these conditions.
- Since children are unlikely to be present in vicinity of the roadway, school speed limit signs are ineffective at changing a motorist's behavior. If there are no children present, do not post a school speed limit sign. See [TEOpS 2-3-54](#) for information on school signage.

Conflicts with signs

Where school speed limits are posted, it is considered good practice to omit the full-time regulatory speed limit signs in the school zone to prevent confusion or avoid giving motorists grounds for disobeying the school speed limit.

13-5-13 Dynamic Speed Display Signs

November 2024

See [TEOpS 2-1-7](#) regarding policy for dynamic speed display signs.

13-5-14 Posted versus Design Speeds

November 2024

Design speed is used to establish design parameters for the various features of the roadway. The selected design speed *should not* be based on speed measurements but *should* be established based on factors such as the anticipated adjacent land use, topography, crash risks, and operating speed of the roadway. The posted speed **shall not** exceed the statutory speed limit and *should* be equal to or 5 mph lower than the selected design speed. When conditions prevent a roadway feature or element from meeting design speed requirements, the posted speed **shall not** be based on the individual design speed of the feature.

Local agencies *should* coordinate with the [WisDOT regional offices](#) if they have any questions with respect to design speeds and approval authorities outlined in [Table 6.1](#).

Policy

For construction of new roadway facilities or reconstruction of existing facilities, the posted speed limit *should* be posted in accordance with the design speed. Below are considerations for establishing appropriate speed limits on new or reconstructed facilities:

- For WisDOT improvement projects, the project team **shall** coordinate with the regional traffic and planning sections to mutually agree upon an appropriate speed limit. The regional traffic unit **shall** document the speed zone with a speed zone declaration. See [TEOpS 13-5-10](#).
- Posted speeds *should* generally be equal to or within 5 mph of the selected design speed.
 - There are cases, however, where the posted speeds *may* be higher or lower than the design speed for a section of highway.
 - For speed limits posted below the design speed, coordination with the Traffic Analysis and Safety Unit (TASU) in the Bureau of Traffic Operations (BTO) is required.
- Isolated intersections with reduced speed limits **shall** be investigated for design modifications rather than maintaining a posted reduced speed. See [TEOpS 13-5-15](#).
- Conversion of a two-lane roadway to a four-lane roadway **shall not** automatically constitute changing the speed limit from 55 mph to 45 mph.
- Where local roads are converted to state highways or built on relocation, such as bypasses, the speed limit *should* be based on the new geometrics of the roadway and the function and purpose of the highway as either an expressway or conventional highway.
 - The function of the highway includes adjacent land use, spacing of access points and proximity to the roadway.
 - The speed limit that existed prior to the conversion to a state highway *may not* necessarily be retained.

Design parameter considerations

Design parameters and features of the roadway are initially based on a design speed but careful consideration *should* be used to design a roadway to achieve an appropriate operating speed. Design speeds are used to design a roadway to operate safely and efficiently to serve its intended purpose. In some situations, there may be features that are unable to meet these design thresholds and may require a motorist to travel at a reduced speed. See [FDM 11-10-1.5](#) for more information and documentation requirements.

Individual design features such as isolated horizontal and vertical curves **shall not** dictate posted speed limits unless safety issues are identified post-construction. Other examples include:

- **Free-flow ramps at system and service interchanges** - Ramps are signed with advisory speeds mounted under a horizontal alignment sign and ramp speed warning sign.
- **Curves and/or turns with a speed rating less than design speed on a section of highway** – Curves and/or turns are signed with horizontal alignment signs and an advisory speed that provides a motorist with the recommended safe operating speed of the curve or turn.
 - Example: A 55 mph rural section of highway often has turns and curves that necessitate the driver to lower their speed in order to safely negotiate the curve or turn. The regulatory speed limit is not changed for each one of these turns or curves.
- **At transition sections from 4 to 2 lanes** - The transition area where a divided highway becomes an undivided highway *should* use engineering judgement to determine the proper location of where these speed limit transitions occur.
- **Other design features** - such as the presence and offset of curb, curb type (e.g., vertical face, sloped face), wider or narrower shoulders, or other design features **shall not** be a determining factor in establishing an appropriate speed limit in isolation.

13-5-15 Speed Limits on Approach to Controlled Intersections

November 2024

Sections of the state highway system in the immediate vicinity of a controlled intersection *should not* be considered for a speed zone reduction due strictly to the presence (or planned presence) of an intersection control condition. Intersection control conditions include stop conditions (one-way, two-way or all-way), traffic signals, roundabouts, or access restrictions (controlled either by regulatory signs or channelizing islands).

If requests for a modified speed limit in advance of a controlled intersection stem from safety concerns, roadway improvements *should* be considered that pertain to the specific site (e.g., channelized or extended turn lanes, modification to signal phasing or timing, rumble strips, advance warning signs, warning beacons, signing/markings enhancements, etc.). Speed limit reductions in advance of the intersection will likely not influence safety and may even promote poor engineering decisions in the future (e.g., signal equipment placement, signal timing or sign placement).

Existing locations that do not comply **shall** be allowed to remain until such time as the intersection is resurfaced or reconstructed.

Rather than establishing a lower speed limit in advance of a controlled intersection, consider design features such as:

- **Stop Conditions** – Proper placement of advance warning signs (per [WMUTCD](#)).
- **Traffic Signals** – Intersection lighting (per [TEOpS 11-4-2](#)) and Dilemma zone detection on high-speed approaches (per [Traffic Signal Design Manual \(TSDM\) 8-1-6](#)).
- **Roundabouts** – Proper geometric design of splitter islands, roadway curvature (per [FDM 11-26](#)) and lighting (per [TEOpS 11-4-3](#)).
- **Corridor Access Management** – Proper geometric design principles (per [FDM 7-35](#)).

13-5-16 Temporary Traffic Control Zones (Construction Work Zone Speed Limits)

November 2024

Refer to [Section 6B.01](#), Temporary Traffic Control Plans, of the [WMUTCD](#) for more information on reducing the speed in temporary traffic control zones (i.e., construction work zones). Reductions in speed limits for temporary traffic control zones *should* be evaluated according to the criteria in this policy. [Table 16.1](#) provides an illustration of different temporary traffic control zone scenarios.

There is often less need for reduced speed limits in temporary traffic control zones on rural conventional highways. On rural conventional highways, drivers do not have the same expectation for free-flowing traffic as they do on rural freeways. With driveway access and crossing movements on conventional highways, drivers tend to be alert to such movements and other similar conflicts even without reduced speed limits.

Temporary traffic control zones which require lower operating speeds due to changes in alignment (e.g., crossovers and transitions) or other work activities that occupy a short work area, *should* use warning signs with advisory speed plaques in lieu of regulatory speed limit signs.

Authority

The WisDOT work zone operations engineer within BTO has approval authority for temporary traffic control zone speed limits on all interstates and facilities with a posted speed of 65 mph or greater. The WisDOT regional work zone engineer has the authority to approve and establish temporary traffic control zone speed limits on all other roadways.

Policy

Engineering judgment **shall** be used when determining appropriate speed zones. This policy is intended to assist with the development of an appropriate work zone speed limit. Contact the regional work zone engineer or BTO for assistance with applying this policy.

Speed zones provide drivers an indication of what is considered a reasonable speed for that section of roadway. Proximity to construction activities, drop offs, lane closures, narrow lanes/shoulders and pavement condition all influence the driver's determination of a reasonable speed. The type of construction work, project length, area type (i.e., urban vs. rural), facility type, occurrence of night work and traffic mix (e.g., commuter, recreational, truck percentages) all impact driver expectations and the determination of what is a reasonable speed. The policy criteria described below *should* only be used for facilities during intermediate-term and long-term work activities as defined in [Part 6 of the WMUTCD](#).

Speed reductions in segments without active work can lead to disregard of the posted speed. Work with your project manager to incorporate standard special provisions for removing temporary speed zones when active work is not taking place.

Policy criteria 1 through 6 *should* be evaluated, along with engineering judgment, to develop an appropriate work zone speed limit. The most restrictive work zone impact *should* be used as the determining condition.

All reduced work zone speed limits **shall** be approved prior to approval of the 90% Transportation Management Plan (TMP).

Temporary Traffic Control Zone Policy Criteria

1. Interstates and Expressways with 70 or 65 mph speed limit:

- If bi-directional traffic separated by concrete barrier temporary precast, then speed limit *may* be lowered to 60 mph if warranted.
- If bi-directional traffic separated by tubular markers, then reduce to 55 mph.
- If workers are present within 12 feet of live traffic without positive protection* for any length or work area, then reduce to 55 mph.
- If work area is less than or equal to 0.5 miles in length with lane shifts or narrowed travel lanes and has positive protection*, then post warning signs with an advisory speed plaque.
- If work area is less than or equal to 0.5 miles in length with no lane shifts or narrowed travel lanes and has positive protection*, then do not lower the speed limit.
- If work is taking place outside the clear zone, then do not lower the speed limit.
- During periods of no work activity, restore speed limit to posted speed. Such speed limit reduction **shall** be subject to documented approval by the BTO work zone operations engineer. When a reduced work zone speed limit is recommended in the TMP, a temporary speed zone declaration **shall** be completed and sent to BTO for approval.



2. Expressways and other multi-lane highways with 55 or 50 mph speed limit:

- Reduce to 45 mph only in situations that have a combination of extreme lane shifts, narrowed lanes, bi-directional traffic, or milled surfaces.

- Restore speed limit to normal posted speed when reduction criteria are not present.
3. Multi-lane highways with 45 mph speed limit:
 - Reduce speed limit to 35 mph only in situations that have a combination of extreme lane shifts, narrowed lanes, bi-directional traffic, or milled surfaces.
 4. Two-lane rural highways with 55 mph speed limit:
 - Reduce to 45 mph only in situations that have a combination of extreme lane shifts, narrowed lanes or milled surfaces.
 - A flagging operation in and of itself would typically not warrant a reduced speed limit since motorists are controlled by the flagging devices.
 5. Two-lane rural roadways with speed limit of 45 mph or less:
 - Typically, no reduction in speed limit.
 - *May* consider a speed reduction up to 10 mph in increments of 5 mph in situations that have a combination of extreme lane shifts, narrowed lanes or milled/gravel surfaces.
 6. Two-lane urban roadways with speed limit of 40 mph or less
 - No change in speed limit except reduction to 35 mph *may* be considered in situations that have a combination of extreme lane shifts, narrowed lanes or milled/gravel surface.

*Positive protection is defined by FHWA as a temporary precast concrete barrier that contains or redirects vehicles and separates workers from the active travel lanes.

Table 16.1 Example Temporary Traffic Control Zone Scenarios

	Bi-directional traffic separated by flexible tubular markers
	Active work areas within 12-ft. of live traffic without positive protection
	Lane shift to shoulder or temporary pavement
	Lane closure without positive protection

Work Zone Temporary Speed Zone Declarations

Reduced speed limits in temporary traffic control zones are subject to approval by the BTO work zone operations engineer. A Temporary Speed Zone Declaration (TSZD) **shall** be submitted through the Department's online Wisconsin Transportation Management Plan (WisTMP) system.

- Complete the [Temporary Speed Zone Declaration Form](#) and attach it to Section 4 of the TMP.
- The TSZD will be approved by BTO and/or the regional work zone engineer by signing the 90% TMP.

13-5-17 Maintenance Work Zones

November 2024

Wisconsin ss. [349.11\(10\)](#) provides that a county *may* establish a speed limit through a maintenance work zone on a state trunk highway less than the authorized speed limit. This includes all freeways and interstate highways. The State Patrol will enforce the speed limit but need to be informed of its inauguration and the ordinance, resolution, or action enacting it.

Follow [TEOpS 13-5-16](#), policy criteria 1-6 when establishing a temporary speed zone reduction for maintenance activities.

Document the reduced regulatory speed in the [Wisconsin Lane Closure system](#) (WisLCS).

13-5-18 References

November 2024

- [1] **Federal Highway Administration.** *Manual on Uniform Traffic Control Devices for Streets and Highways, 11th Edition*, FHWA, December 2023.
- [2] **National Cooperative Highway Research Program.** *Human Factors Guidelines for Road Systems*, Washington D.C., NCHRP, 2012.
- [3] **Federal Highway Administration.** *Safe System Approach for Speed Management*, FHWA, May 2023.
- [4] **American Association of State Highway and Transportation Officials.** *A Policy on Geometric Design of Highways and Streets, 7th Edition*, AASHTO, 2018.
- [5] **Florida Department of Transportation.** *FDOT Context Classification Guide*, FDOT, July 2020.
- [6] **Federal Highway Administration.** *Methods and Practices for Setting Speed Limits*, FHWA, 2012.



Traffic Engineering, Operations & Safety Manual

Chapter 13 Traffic Regulations

Section 10 Detour Permit

13-10-1 Authority and Policy

July 2012

PURPOSE

This policy covers the process that a municipality **shall** follow when requesting permission to close a state highway and provide a temporary detour route. The municipality may need to close a state highway for maintenance work or the moving of large objects or machinery. **Closing and detouring a state highway route for special events is covered under TEOpS 2-10-1.**

AUTHORITY

Section 84.07(4) establishes the conditions under which a city or village *may* detour State Trunk Highway traffic:

"Except in the case of emergency, no city, village or town **shall** obstruct any street over which any State Trunk Highway is marked, unless it first makes arrangements with the Department for marking a detour."

This provides the statutory basis for the issuance of detour permits. The arrangements with the Department must be documented in a detour permit.

APPROVAL

The Region Traffic Engineer or designee has the authority to make decisions with regard to requests for permits to temporarily close or obstruct a street carrying the marked route of a state highway, or to detour the marked route of a state highway. Those decisions are subject to the conditions established in this policy. Permits may be issued only to a municipality upon formal request from its governing body and **shall not** be issued to individuals or non-governmental organizations. All closures and restrictions on Corridors 2030 roadways require approval by the Regional Traffic Engineer (RTE) via the Lane Closure Planning System.

GENERAL PROVISIONS

Applications for permits and the approval thereof **shall** be made in writing on the standard form provided for the purpose (DT1479, copy appended), with such attachments as are necessary, such as a map. When a permit application is denied, the denial *should* be in writing with a letter of explanation to the applicant.

Circumstances that *may* result in a decision to grant a permit include:

1. Construction, maintenance and repair of streets, structures and utilities.
2. The movement of large single objects such as buildings and machinery.

In all instances, the Region must be satisfied that traffic on the state highway route will not be unduly inconvenienced and that an adequate detour will be provided.

The municipality **shall** agree to accept the terms and conditions of the permit as specified by the Department. Refer to Figure 1 for the Permit Application by Municipality for Permission to Detour State Trunk Highway Traffic (DT1479 form).

The Region should consider the following requirements for the approval process of the roadway closure and detour permit. The Region *may* modify or impose additional reasonable requirements or restrictions to the permit as are necessary for the particular circumstances of that permit.

1. A plan for traffic control and detour, and documentation of the means to implement it, *should* be submitted to the WisDOT Region Traffic Engineer for review at least 90 calendar days in advance of the event.
2. A detour **shall** be required. Motorists **shall** be guided through the detour by signs and/or law enforcement personnel.
3. A detour permit application (Form DT1479) **shall** be completed.
4. All traffic control and detour signs **shall** be in conformance with the standards established in the MUTCD.

5. The municipality **shall** notify appropriate media, emergency services and affected schools five (5) days prior to the detour.
6. All road closures and detours **shall** be coordinated with the State Patrol and/or the local law enforcement agency. The coordination **shall** be documented by the municipality.
7. The WisDOT Region Traffic Engineer *should* notify the Region Communications Manager of the Special Event once the DT1479 form has been completed and signed.
8. The municipality **shall** be responsible for providing adequate traffic control for the duration of the closure and effective coordination with law enforcement.
9. The municipality **shall** be responsible for all costs associated with providing the traffic control, law enforcement, and coordination of other services to accomplish the closure consistent with the permit requirements.

Figure 1. Forum DT1479

APPLICATION BY MUNICIPALITY FOR PERMISSION TO DETOUR STATE TRUNK HIGHWAY TRAFFIC DT1479 6/2007 (Replaces ET604) s.84.07(4) Wis. Stats.		Wisconsin Department of Transportation
TO: REGIONAL TRAFFIC SECTION		
Municipality	County	
Area Code – Telephone Number	E-Mail Address	
Name of Street(s) to be Closed <input type="checkbox"/> STH <input type="checkbox"/> USH	Streets Closed Between (Street Name) FROM: TO:	
PROPOSED TEMPORARY ROUTE		
<input type="checkbox"/> MAP ATTACHED	Date and Duration of Detour Date:	Time: a.m. to a.m.
Reason		
Name and Address to Whom Permit will be Returned		
<p>The above municipality requests permission to close the marked route as described, during which time the municipality will provide temporary route as designated.</p> <p>The municipality agrees to accept the following terms and conditions:</p> <ol style="list-style-type: none"> 1. The municipality shall provide a detour having structural, geometric and traffic control characteristics, which are acceptable to the Region. A detour map which provides street names shall be submitted. 2. The municipality shall furnish, erect and remove signs and markers at the sole expense of the municipality, unless provided for in (3), or unless directed by officers for short routes and short timeframe (less than 3 days). 3. A Detour and Traffic Control Plan shall be submitted to the Region for approval. An example is Standard Detail Drawing 15C2-4C. 4. The municipality shall agree to minimize, as much as practicable, the duration of closure, including providing for assembly and dispersal of parades in areas removed from the state highway route. 5. The municipality shall accept full responsibility for any damage to local roads and streets resulting from closure and detour. 6. The requester shall arrange for adequate traffic control from either WisDOT or the appropriate county, and provide documentation of enforcement coordination. 7. The requester shall notify all media, emergency services and schools, five (5) days prior to the detour. 8. Additional conditions: . Attachments: <input type="checkbox"/> Yes <input type="checkbox"/> No 		
_____ (Authorized Official Signature)	_____ (Title)	_____ (Date)
Permission is granted to temporarily close the designated segment of state trunk highway and to provide a detour, subject to the stated conditions.		
_____ (Permit Number)	_____ (Approved By)	_____ (Date)

13-10-2 Use of Highway Right-of-Way for Special Events**December 2008****PURPOSE**

The Department receives frequent requests to use the highway right-of-way for various activities. These activities are typically short-term, readily definable activities that fall in two categories:

- roadway or roadside modifications, repairs, or maintenance operations by a local unit of government, or permitted railroad or utility work,
- and certain types of special events, such as parades, marathons, bicycle races, charity walks/runs, filming, etc.

Roadway or roadside operations, including utility work, are regulated under Chapters 90 and 96 of the Maintenance Manual and DOT Permit Form DT1812. The purpose of this policy is to establish criteria on the use of the highway right-of-way for the special events that can be conducted with the road open to traffic under certain restrictions.

Road closures and detours for special events shall be governed by the guidance in [TEOpS 13-10-1](#) and DOT Permit Form DT1479. Signing for Special Events off of the State Highway system shall be governed by the guidance in [TEOpS 2-15-25](#).

The basis for allowing the use of the highway for these special events is Wisconsin State Statute 349.185, which allows governments in charge of maintaining the highway the authority to regulate community events or celebrations, processions or assemblages on the highways. The word “assemblage” is interpreted to mean that the Department *may* consider activities such as street fairs, bike racing and marathons as legitimate reasons for traffic restrictions, up to and including closing the street and arranging for a detour if the municipality so chooses.

In general, use of the state highway right-of-way for special events will not be allowed unless a legitimate public interest (supported by the Local Government) is served and the activity does not cause safety or capacity problems. Requests for closing and detouring the highway **shall** come from the municipal government. Special event requests that only require temporary traffic restrictions *may* come from the municipality, individuals, private enterprises or a neighborhood community. Authorization for usage of the highway right-of-way for special events *may* be granted by the WisDOT Region office in the form of a permit, provided all pertinent criteria covered in these guidelines are satisfied. All closures and restrictions on Corridors 2030 roadways require approval by the Regional Traffic Engineer (RTE) via the Lane Closure Planning System.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have fully controlled access at interchanges only. Interstate Highways are freeways with the interstate route designation.

Expressways are defined as divided arterial highway facilities with partially controlled access by a combination of interchanges, at-grade intersections, and driveways.

Conventional Highways are defined as streets or roads other than freeways, expressways, or low-volume roads. They may be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

GENERAL POLICY CRITERIA

1. Special events on the highway right-of-way **shall not** be allowed on freeways, expressways or any roadway with a posted speed above 55 mph.
2. The permit **shall** identify that the special event sponsor agrees to assume the entire responsibility and liability for all damages or injury to all persons, whether employees or otherwise and to all property, arising out of, resulting from or in any manner connected with the operation of the special event. The sponsor **shall** provide proof of General Liability Insurance Coverage and **shall** agree to defend and indemnify WisDOT, its agents and employees from all such claims including, without limiting the generality of the foregoing, claims for which WisDOT may be paid or incurred to enforce the provisions of this paragraph, and the sponsor shall further agree and pay for such general liability coverage which protects the state as an additional named insured.
3. The requestor **shall** submit the permit application to the WisDOT Region Traffic Section at least 90 calendar days in advance of the event.

4. The sponsor **shall** be responsible for any damage done to the highway property as a result of the special event.
5. The special event minimum attendance is typically 100 participants. This attendance number does not include spectators.
6. A special event **shall not** occur more than once annually by the same sponsor in the same location. Special events **shall not** occur more than twice a year in the same location.
7. WisDOT is responsible for determining whether the event qualifies for special event signs, providing guidance on acceptable signs and placement, reviewing the permit application, and assuring compliance with the permit.
8. The Region Traffic Section will evaluate the safety of any nighttime special event requests.

DETAILED POLICY CRITERIA

1. Special Events **shall** not be allowed during peak traffic periods, as determined by the WisDOT Region Traffic Engineer.
2. The time duration of the Special Event should not exceed four hours or when the last event participant has cleared the roadway.
3. The use of the right-of-way **shall not** interfere with motorists' safe operation of their vehicles.
4. The use of the right-of-way shall not obstruct sight distance and shall not detract from motorists' view of traffic control devices.
5. A plan for traffic control and documentation of the means to implement it **shall** be submitted to the WisDOT Region Traffic Engineer for review and approval at least 90 calendar days in advance of the event.
6. All traffic control signs shall be in conformance with the MUTCD.
7. Advance notices to the media **shall** be coordinated by the Requestor.
8. All special events **shall** be coordinated with the State Patrol and/or the local law enforcement agency as appropriate, by the requestor. Documentation of this coordination is required.
9. Parking shall not be allowed on the state highway right-of-way, which includes the shoulders.
10. If the event will take place on highways maintained by other agencies, the Requestor **shall** coordinate the event and provide proof by letter to the WisDOT Region Traffic Engineer.
11. The usage of police powers for special events **shall not** substitute for appropriate signing.

SIGNING LIMITATIONS

1. No commercial advertising is allowed on the signs. The inclusion of a brand name within the name of an event, such as "Brand X Racing Event" is permissible. The sign message *may* include the word "Event" or "Parking". Event names on signs should be as clear and concise as possible. Pictographs **shall not** be allowed on the signs, per interpretation of the MUTCD and guidance from FHWA.
2. The signing layout detail and installation locations **shall** be approved by the Regional Traffic Section and Bureau of Traffic Operations.
3. Guidance signs with red, orange, yellow, or fluorescent yellow-green background **shall** not be used. Temporary work zone warning signs **shall** be fluorescent orange. Sign base material **shall** consist of plywood or sheet aluminum. If banners are used, they must meet the requirements of the policy on banners ([TEOpS 13-12-1](#)). Posts **shall** be of an approved type for highway signs per WISDOT standards. Signs **shall** be manufactured by a fabricator who has been in the traffic signing business for a minimum of three years.
4. Letter size, font, and spacing **shall** meet MUTCD guidelines. Minimum of 6" upper case letters and 4 ½" lower case letters **shall** be used.
5. If the event takes place at night, the signs **shall** be high intensity, retroreflective.
6. Changeable message signs *may* be used, subject to WisDOT policy requirements for use of changeable message signs. The Regional Traffic Section **shall** approve the message content, letter height, and sign location by completing the PCMS Usage Request Form for special events in [TEOpS 17-2-1](#). Larger letter

heights are needed on changeable message signs for readability. Refer to the [TEOpS 17-2-1](#) for additional provisions regarding PCMS usage.

7. Pre-event signing *may* be required up to 10 days in advance of the special event. The signing layout and installation details for pre-event signing **shall** be approved by the Regional Traffic Section and the Bureau of Traffic Operations.

IMPLEMENTATION/COST

1. The event organization or requesting group **shall** pay for all costs associated with the special event signing including costs to obtain the permit, which *may* include WisDOT review costs, any costs to acquire, install, and remove the special event signs, including changeable message signs, and any additional costs incurred by the Department. The event organizer will be responsible for obtaining signs that conform to Department standards and arranging to have those signs placed, operated, and removed consistent with the terms of the permit. All work on the highway right of way must be performed by a contractor or local government agency approved by WisDOT.
2. Installation by county forces *may* be an option in some situations. When that occurs, all costs are charged back to the requesting organization.

**APPLICATION BY MUNICIPALITY FOR PERMISSION
TO DETOUR STATE TRUNK HIGHWAY TRAFFIC**
DT1479 7/2011 (Replaces ET604) s.84.07(4) Wis. Stats.

Wisconsin Department of Transportation

TO: REGIONAL TRAFFIC SECTION

Municipality		County	
(Area Code) Telephone Number		Email Address	
Name of Street(s) to be Closed <input type="checkbox"/> STH <input type="checkbox"/> USH		Streets Closed Between (Street Name) FROM: TO:	
Proposed Temporary Route			
<input type="checkbox"/> MAP ATTACHED	Date and Duration of Detour Date:	Time: a.m. to a.m.	
Reason			
Name and Address to Whom Permit will be Returned			

The above municipality requests permission to close the marked route as described, during which time the municipality will provide temporary route as designated.

The municipality agrees to accept the following terms and conditions:

1. The municipality shall provide a detour having structural, geometric and traffic control characteristics, which are acceptable to the Region. A detour map which provides street names shall be submitted.
2. The municipality shall furnish, erect and remove signs and markers at the sole expense of the municipality, unless provided for in (3), or unless directed by officers for short routes and short timeframe (less than 3 days).
3. A Detour and Traffic Control Plan shall be submitted to the Region for approval. An example is Standard Detail Drawing 15C2-4C.
4. The municipality shall agree to minimize, as much as practicable, the duration of closure, including providing for assembly and dispersal of parades in areas removed from the state highway route.
5. The municipality shall accept full responsibility for any damage to local roads and streets resulting from closure and detour.
6. The requester shall arrange for adequate traffic control from either WisDOT, traffic control contractor, or the appropriate county, and provide documentation of enforcement coordination.
7. The requester shall notify all media, emergency services and schools, five (5) days prior to the detour.
8. Additional conditions: . Attachments: ☐ Yes ☐ No

(Authorized Official Signature)

(Title)

(Date)

Permission is granted to temporarily close the designated segment of state trunk highway and to provide a detour, subject to the stated conditions.

(Permit Number)

(Approved By)

(Date)



Traffic Engineering, Operations & Safety Manual

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Section 11 Survey Permits

13-11-1 Policy

May 1990

(The following was contained in a memorandum of April 4, 1974, instituting the issuance of permits for surveying and related activities.)

From time to time private land surveyors, utility company surveyors, and others doing similar work are an highway right-of-ways for the purpose -of making land surveys, locating landmarks or monuments, surveying for utility lines, etc. The work may take place wholly on or above the highway surface as is the case in measuring distances and courses or establishing elevations, or it *may* include excavation, for example to locate monuments. For the safety of both highway traffic and persons making these surveys, it appears desirable to re-emphasize the requirements for such operations.

It is recognized that such private survey work on or along a highway is accomplished in a short time and does not involve any significant interference with traffic or hazard to either traffic or the survey crew. In such cases, the survey personnel have the same status as any pedestrian upon the highway, although unlike persons engaged in highway construction or maintenance they are not exempt from the provisions of the Rules of the Road. Such survey personnel *should* be strongly encouraged to wear high-visibility clothing. Whether or not they *should* place advance warning signing will depend somewhat upon whether the work is near or across the roadway, or if it is done well away from traffic.

A permit is required whenever the survey activity will necessitate actual closure of a portion of the roadway for more than a very brief period such as when an isolated measurement is made across the road. The attached permit format *should* be used. The Region *should* add special conditions necessitated by the specific situation. When the highway is heavily traveled it may be desirable to require that a uniformed police officer be provided to direct traffic.

Permits for surveys and other similar operations not requiring an excavation on highway right-of-ways will normally be issued by the Regional Traffic Section and a copy **shall** be sent to the Central Office Traffic Section.

Whenever it is necessary to cut into the roadway surface, to use mechanized equipment or to make any substantial excavation elsewhere in the highway right-of-way to locate a monument or for any reason, a permit is required from the Maintenance Section.

E.T-613-74

State of Wisconsin / Department of Transportation

APPLICATION FOR PERMIT TO CONDUCT PRIVATE LAND SURVEY ON STATE HIGHWAY RIGHT OF WAY

To the District Engineer - Wisconsin Dept. of Transportation - Division of Highways

Address

City

State

Zip Code

The undersigned hereby requests permission to temporarily close a portion of the roadway of the state trunk highway indicated below for the purpose of making a land survey which cannot be safely and expeditiously conducted without such closure. The undersigned applicant certifies that he has read and will comply with the conditions of this application including any conditions which may be imposed by the Division of Highways prior to issuance of a permit.

Date of Application	APPLICANT		By
Address		Date of Closure	Hours
Highway to be closed	County	Location Description	
USH _____ STH _____			
Description of closure (lane, width, etc.)			

CONDITIONS FOR A PERMIT

1. The permittee shall minimize as much as practicable the duration of work on the highway right of way.
2. Adequate standard warning signs (SURVEY CREW AHEAD; FLAGMAN AHEAD; ONE LANE ROAD; RIGHT or LEFT LANE CLOSED AHEAD; etc. as appropriate) shall be used at and in advance of the work. Traffic cones or barricades shall be provided and used as needed or as required by the district engineer.
3. Survey crew members, including flagmen, shall wear high visibility vests.
4. Flagmen, when required by this permit (see below), shall use either a red flag at least 18" x 18" in size in good condition on a 3' staff or alternatively a sign paddle with the words STOP, SLOW or GO as appropriate.
5. This permit does not authorize disturbance of highway surfacing or excavation elsewhere in the highway right of way.
6. Survey crew vehicles shall be parked in a safe location where they will not interfere with visibility or operations for traffic on the highway.
7. In applying for and accepting this permit, the permittee agrees to hold the Division of Highways and its employees harmless from any claim which may arise as a result of operations under the permit.
8. No trees, brush or shrubs shall be cut in the course of work under this permit.
9. Additional conditions:

PERMIT

Permission is hereby granted to the above applicant and his employees to temporarily close the indicated part of the state trunk highway roadway for the requested period of time as set forth in the application, subject to the conditions stated above.

PERMIT NO.

DATE ISSUED

EXPIRATION DATE

APPROVED BY



Traffic Engineering, Operations & Safety Manual

Chapter 13 Traffic Regulations

Section 12 Permits for Temporary Banners and Civic Displays

13-12-1 Policy

January 2014

GENERAL

Communities *may* request permits to install banners and/or civic displays to promote special events or to display civic pride. These banners/displays can provide a very effective and efficient means to convey a message to the motorist, and when used correctly can provide a positive effect for the flow of traffic, and ultimately traffic safety.

The MUTCD, Section [1A.01](#) and Wisconsin State Statute 86.19 clearly state that advertising messages **shall not** appear on traffic control devices. Even though banners and civic displays are not considered traffic control devices and are not used to control traffic, they can compete with essential traffic control signs. Therefore, careful consideration must be taken to provide signs and messages which do not conflict with these rules or have a negative impact on traffic safety.

Regional Transportation directors, or their designees, *may* approve or deny applications for permission to install temporary banners or civic displays. Applicants *may* be municipalities, or private entities who must receive endorsement from the respective municipality. Approval **shall** be by means of the standard form. Denial *should* be by letter, giving reasons for rejection.

DEFINITIONS

Banners are defined as flexible, horizontal signs that are either overhead or ground mounted displays that *may* promote public activities such as parades, celebrations, speeches, concerts, plays, musicals, contests, athletic events and charitable events. Banners are considered short-term and are removed once the event has completed.

Civic Displays are considered a permanent decorative feature installed by the community to promote civic pride and are not associated with a special event. Examples of civic displays include:

- Decorations on light poles, including wrapping
- Community achievements
- Holiday decorations
- Civic mottos or emblems
- Seasonal messages
- Extra enforcement locations, such as EZ Wrap

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate Highways are freeways with the interstate route designation.

Expressways are defined as divided highways with partially controlled access by a combination of interchanges, at-grade intersections, and driveways.

Conventional Highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

POLICY

1. Banners and civic displays **shall not** display commercial advertising or advertise specific commercial products, services or businesses. The inclusion of a brand name within the name of an event, such as "Brand X Bike Race" is permissible.
2. Lettering on banners **shall** be a minimum of 4" in height and overhead banners **shall** have a minimum clearance of 17 feet (bottom of banner to top of roadway).
3. All banners **shall** be made out of a flexible material, and have no horizontal stiffeners, except banners supported on overpasses. Civic displays *may* be made out of a rigid material.
4. Banners and civic displays **shall not** be permitted on freeways or expressways.
5. Banners and civic displays **shall** be removed or replaced when legibility is impaired due to wear or fading.
6. Any new posts installed for banners or civic displays **shall** be NCHRP 350 crash compliant.

7. Maximum length of time for banners promoting community events is 30 days and 90 days for community promotion. Civic displays *may* be installed indefinitely, provided they remain in good shape.
8. Banners and civic displays **shall not** be installed on existing traffic control devices or supports.
9. The applicant **shall** accept full responsibility for any damage claims from any permitted banner or civic display.
10. Banners located in the highway right-of-way *should* be located as close to the right-of-way line as possible.



TEMPORARY BANNER / CIVIC DISPLAY INSTALLATION APPLICATION / PERMIT

Wisconsin Department of Transportation
DT1876 1/2014 (Replaces ET717) s.86.19(2) Wis. Stats.

Submit application in duplicate to the Division of Transportation System Development Regional Office, Wisconsin Department of Transportation (WisDOT). A single application may be made for each associated pair of temporary banners or group of civic displays.

Applicant – If applicant is not a municipality, indicate endorsement below by responsible municipal official.	
Contact Person Name	(Area Code) Telephone Number
Mailing Address, City, State and ZIP Code	Email Address
Wording on Banner	
Location(s) Highway Number	At
	And At
Date To Be Erected	Date To Be Removed

The undersigned applicant requests permission to install temporary banner(s) and/or civic displays at the above location(s). It is understood and agreed that the applicant shall comply with the general and specific conditions stated below and/or attached. The undersigned certifies that he/she is authorized to sign this application on behalf of the named applicant.

X

(Applicant or Authorized Representative Signature) (Date – m/d/yyyy)

Representative Title

X

(Municipal Endorsement Signature)

Municipal Title

CONDITIONS

1. A banner is defined as a flexible, horizontal sign extending with its rope or cable supports across an entire roadway.
2. The lettering on banners shall be at least 4 inches in height and the minimum clearance to ground on overhead banners shall be 17 feet.
3. The banner shall not be made of rigid material, and shall have no horizontal stiffeners, except that it may be supported on an overpass. Civic displays may be made of ridged material.
4. Banners and civic displays shall not be permitted over Interstate highways, freeways or expressways.
5. Banners and civic displays shall be removed or replaced when legibility is impaired due to wear or fading.
6. Permitted maximum length of time for banner displays is 30 days for events, and 90 days for community promotion.
7. No banner or civic displays shall be installed using state-owned supports.
8. If new supports are installed to support an overhead banner or any civic display, the applicant shall review the proposed installation with the Regional Traffic Engineer.
9. The applicant shall accept full responsibility for any damage claims resulting from any permitted banner or civic displays.
10. Owners of banners or civic displays which do not conform to the stated conditions are subject to penalty as provided in s.86.19(3) Wis. Stats.
11. Notwithstanding the preceding, no banner or civic display shall display commercial advertising or advertise specific commercial products, services or businesses. The inclusion of a brand name within the name of an event, such as "Brand X Bike Race" is permissible on banners.
12. The applicant shall provide certification, by a Professional Engineer, that any banners or civic displays installed on lighting supports shall meet wind loading requirements.
13. Other conditions: ☐ No ☐ Yes ☐ On Reverse ☐ Attached

PERMIT Approved for the Wisconsin Department of Transportation

Permit Number

X

(WisDOT Representative Signature)

(Date – m/d/yyyy)

Print Name and Title



Traffic Engineering, Operations & Safety Manual

Chapter 13 Traffic Regulations

Section 13 Snowmobiles Crossing Freeways

13-13-1 Authority and Policy

January 1993

POLICY

Regional Transportation Directors *may* approve or disapprove crossings for snowmobiles over or under freeways which are on the State Trunk Highway system. The crossings *may* be via State Trunk Highways, other public highways, and non-highway crossings.

CROSS-REFERENCE

Operation of snowmobiles on or in the vicinity of highways, s. 350.02, Wis. Stats., (1) freeways, and (2) highways.

REQUEST AND APPLICATIONS

Requests for approval for snowmobiles to cross freeways *should* be made in writing, and approvals or disapprovals will be transmitted in writing. Requests will be accepted only from governmental authorities who are responsible for the designation and maintenance of snowmobile trails within their jurisdiction. A copy of each request, together with the approval or denial **shall** be sent to the State Traffic Engineer for Highways and to the State Maintenance Engineer for Highways.

GENERAL PROVISIONS

An official snowmobile trail or an approved snowmobile route (defined in s. 350.01, Wis. Stats.) must be designated on both sides of the freeway at the point of the proposed crossing.

The Regional Transportation Director **shall** be satisfied that snowmobiles *may* cross the freeway ramps with reasonable safety if using the proposed crossing, assuming that the snowmobile operator uses ordinary safety precautions and obeys the law relating to snowmobile operation.

AT CROSSROADS WITH INTERCHANGES

Snowmobiles *may* cross freeways at crossroads with interchanges, whether the crossroad is over or under the freeway provided that the ramp crossings are visible to the motorist did not obscured by snow piles, curvature or other features, and provided that, if the crossroad is under the freeway' the crossing can be made without violating ss. 350.02(2)(b)1, 2 and 4, Wis. Stats. (In some cases, the design of the bridge *may* prevent this).

OTHER CROSSINGS

Snowmobiles *may* cross freeways at bridges other than at crossroads providing that it *may* be done without violating the access control and there is adequate horizontal and vertical clearance.

CONDITIONS OF APPROVAL TO BE ACCEPTED BY MUNICIPALITY

1. The county or municipality **shall** sign the trail with approved snowmobile signs in compliance with the standards of the DNR.
2. The Regional Transportation Director *may* impose such additional reasonable requirements as a prerequisite to approval as are necessitated by the particular circumstances of the request.

13-13-2 Model Ordinance

April 1996

POLICY

Wisconsin Act 61 of 1995 provided for the operation of snowmobiles on roadways of streets and highways in municipalities for trips from residences or lodges to the nearest trail out of town. This includes permission to travel on state and county highways. The law requires that the municipality pass an ordinance to this effect. The ordinance *may* specify all roadways, all roadways with certain omissions, or specific roadways and segments.

The ordinance and guidelines were prepared by the DNR and the Snowmobile Council. They were reviewed by the State Traffic Engineer. The municipalities who are interested in this are likely to obtain these documents

from the other agencies, but a copy is included herein for the Regions' information and for making copies if asked.

SNOWMOBILE ACCESS
MODEL ORDINANCE

**AN ORDINANCE TO ALLOW SNOWMOBILE ACCESS FROM A RESIDENCE OR RESIDENCE AND
LODGING ESTABLISHMENT TO A SNOWMOBILE ROUTE OR TRAIL,
IN THE (TOWN/CITY/VILLAGE) OF _____,
COUNTY, WISCONSIN AND PRESCRIBING PENALTIES FOR VIOLATION THEREOF.**

The (Town/City/Village) Board of the (Town/City/Village) of _____,
_____ County, Wisconsin do ordain as follows:

Section I. Intent

1a. The intent of this ordinance is to provide a means for persons to travel from a residence within the limits of (Town/City/Village) _____, _____ County, Wisconsin for the shortest distance that is necessary for a person to operate a snowmobile to the snowmobile route or trail that is closest to that residence.

OR

1b. The intent of this ordinance is to provide a means for persons to travel from a residence and lodging establishment within the limits of (Town/City/Village) _____, _____ County, Wisconsin for the shortest distance that is necessary for a person to operate a snowmobile to the snowmobile route or trail that is closest to that residence and lodging establishment

Section II. Statutory Authority

This ordinance is adopted as authorized under s.350. 18 (3) (a).

Section III. Designated Roadways and/or Highways

No person **shall** operate a snowmobile on a roadway or shoulder of a highway not designated as a snowmobile route other than the following:

- (a) all roadways or shoulders or,
- (b) the following listed roadways or shoulders

Section IV. Conditions

This ordinance designates the roadways and/or shoulders of specific highways for snowmobile travel by persons residing in or staying at a lodging establishment within the limits of (Town/City/Village) _____, _____ County, Wisconsin to travel for the shortest distance that is necessary to reach the snowmobile trail or route that is closest to that residence or lodging establishment subject to the following conditions:

Section V. Speed

A snowmobile operated on a portion of the roadway or shoulder of a highway pursuant to this ordinance **shall** observe roadway speed limits.

Section VI. Enforcement

This ordinance **shall** be enforced by any law enforcement officer of the (Town/City/Village) of _____, _____ County, Wisconsin.

Section VII. Penalties

Wisconsin state snowmobile penalties as found in s. 350.11(1)(a), Wis. Stats., are adopted by reference.

Section VIII. Severability

The provisions of this ordinance **shall** be deemed severable and it is expressly declared that the (Town/City/Village) Board would have Wised the other provisions of this ordinance irrespective of whether or not one or more provisions *may* be declared invalid. If any provision of this ordinance or the application to any person or circumstances is held invalid, the remainder of the ordinance and the application of such provisions to other persons or circumstances **shall** not be affected.

Section VIII. Effective Date

This ordinance will become effective upon passage and publication.

Passed this _____ day of _____, _____ (year).

(Town/City/Village) Chairman

GUIDELINES FOR WRITING LOCAL SNOWMOBILE ACCESS ORDINANCES

This guideline and attached model ordinance is provided to assist you in developing your local ordinance. You *may* be more restrictive, you do not have to include lodging establishments and additional snowmobile regulations such as snowmobile routes can be included. Please feel free to utilize all or portions of this model.

State law allows Towns, Cities and Villages to enact local regulations allowing snowmobilers to travel between a residence or a lodging to travel along roadways and/or shoulders of highways to die closest snowmobile route or trail. The authority to enact local snowmobile residential access regulations is found in Chapter 350. 1 1(1)(a) of the Wisconsin Statutes.

Section I. Intent

State the specific name of the (Town/City/Village) covered by the ordinance. The law gives you the option to allow residential access and lodging access (only if residential access is also allowed) within your jurisdiction to operate their snowmobiles on a roadway or shoulder of a highway. Specify which activities you are allowing.

Section II. Statutory Authority

Your authorizing statute is s.350.18 (3)(a).

Section III. Designating Roadways and/or Highways

You have authority to open all the roadways and shoulders of highways within your jurisdiction for residential/lodging establishment access. This includes state and county trunk highways within your jurisdiction. Even though this authority exists, you also have the right to omit these major roadways from your ordinance. You are encouraged to open up only those roadways that will suit the needs of the snowmobilers in your community. Once determined, list the specific roadways to be open to snowmobilers.

The authorizing law gives you two options on where snowmobiles *may* be operated. One is the roadway which is the traveled portion of a highway or on the shoulder. Specify in this section where you are authorizing snowmobile operation.

Section IV. Conditions

Except for speed limits, the authorizing law does not grant additional authority to regulate snowmobile operation. (Municipal snowmobile ordinances are subject to the limitations of s.350.18, Wis. Stats.) However, you have the right to establish conditions on the right to use the roadways. The following is a list of conditions for your consideration:

1. Snowmobiles **shall** be operated on the extreme right side of the roadway and travel with the flow of traffic.
2. Snowmobiles are to be operated in single file.
3. Headlights *should* be on at all times.
4. Snowmobile operators **shall** yield the right-of-way to other vehicular traffic and pedestrians.

Snowmobiles violating any of the above conditions would be subject to the underlying violation of operating on the roadway.

Section V. Speed

Section 350.18 Wis. Stats., allows municipalities to adopt certain ordinances in strict conformity with state law. This language mirrors that found in founding s. 350.02(2)(a) 6, Wis. Stats.

Section VI. Enforcement

The law enforcement officer/s within your jurisdiction *should* be listed as the enforcement authority. State Conservation Wardens do not have authority to enforce local ordinances.

Section VII. Penalties

The appropriate penalty section to be adopted would be s.350.1 1(1)(a), Wis. Stats.

Consideration *should* be given to include in your ordinance a seasonal effective date to eliminate problems that might occur because of early/late snowfalls. This would also eliminate any prospects of snowmobile use during non-winter seasons.

Snowmobile activity is constantly growing and local regulation can be responsive to the public need. Through regulation, a safe, enjoyable snowmobiling environment can be provided while at the same time controlling undesirable conflict. Understanding is needed by everyone involved in the process.

Once, your ordinance is adopted, you are required to submit a copy to the Department of Natural Resources, Attn. Snowmobile Section, P.O. Box 7921, Madison, Wisconsin 53707 and to the office of the law enforcement agency of the municipality and county having jurisdiction over such street or highway.



Traffic Engineering, Operations & Safety Manual

Chapter 13 Traffic Regulations

Section 25 Turn Prohibitions

13-25-1 No Turn on Red

May 1990

Guidelines for prohibiting turning movements on red indication at specific intersections are as follows:

A. Turning on red *should* be prohibited where:

1. Sight distance of vehicles approaching is less than the following minimums:

<u>Cross Street Speed Limit (MPH)</u>	<u>Minimum Sight Distance (Feet)</u>
20	120
25	150
30	190
35	220
40	270
45	320
50	360

2. The intersection has more than four approaches or has unusual geometrics which cause unexpected conflicts. The restriction *should* apply to only those approaches affected.
3. The intersection is within 200 feet of a railroad grade crossing, and the sequence is pre-empted during train crossings. The restriction *should* apply to the right turn toward the crossing.

B. Turning on red *may* be prohibited where:

1. Large volumes of pedestrians exist such as on downtown streets.
2. There has been more than one accident directly resulting from turning on red signal per year.
3. There are two lanes turning right, or two opposing lanes turning left.

C. Turns on red *may* be prohibited at school crossings, but allowed at other times. Refer to [2B-37](#) of MUTCD.

D. All restrictions must be authorized by an approved declaration before posting.



13-26-1 Passing on Right at Intersection

February 2017

BACKGROUND

Passing on the right at intersections can present enforcement problems if the marking and signing are not clear as to whether a motorist can pass on the right where there is a standing left turner at an intersection. The intersection *may* have a paved shoulder, a paved right turn lane or a gravel shoulder.

The State Statutes "Rules of Road" indicate the following:

ss 346.08 When overtaking and passing on the right permitted. The operator of a vehicle *may* overtake and pass another vehicle upon the right only under conditions permitting such the movement in safety and only if the operator can do so while remaining on either the roadway or a paved shoulder, and then only under the following conditions:

1. When the vehicle overtaken is making or about to make a left turn or U-turn; or
2. Upon a street or highway with unobstructed pavement of sufficient width to enable 2 or more lines of vehicles lawfully to proceed, at the same time, in the direction in which the passing vehicle is proceeding; or
3. Upon a one-way street or divided highway with unobstructed pavement of sufficient width to enable 2 or more lines of vehicles lawfully to proceed in the same direction at the same time.

This language can be misunderstood. Therefore, it is important to provide the proper signing and pavement marking for intersection lane control. Refer to [TEOpS 2-2-20](#) for additional lane control signage.

POLICY

1. Provide pavement marking in accordance with Figure 1 if the intersection is to operate with a bypass option lane where the right lane functions as a right turn lane or bypass lane. If the intersection is to operate with a bypass option lane where the right lane functions as a bypass lane, provide pavement marking in accordance with Standard Detail Drawing 15C8-10b (Intersections).
2. Provide signing and pavement marking in accordance with Figure 2 if the intersection is to operate with an exclusive right turn lane.
3. Provide signing as optional in accordance with Figure 3 or Figure 4 if you desire to restrict drivers from making the maneuver to bypass a standing left turner. Typically this sign is used only if you have a history of crash issues. The sign is intended for use at intersections.

Note: Figure 1 is used except in unusual cases, Figure 2 is used for higher crash locations. Evaluate the number of right turns versus left turns to determine the proper marking and signing for right turn only lane versus allowing the right hand lane as a bypass lane.

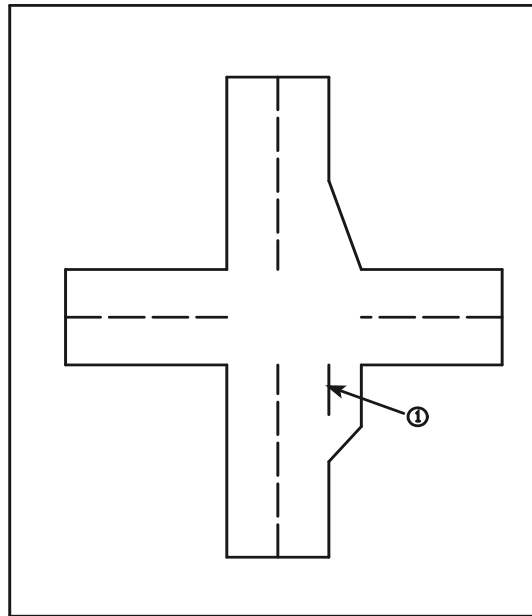


FIG. 1 PAVED BYPASS/RIGHT TURN LANE

① 8" CHANNELIZING PAVEMENT MARKING

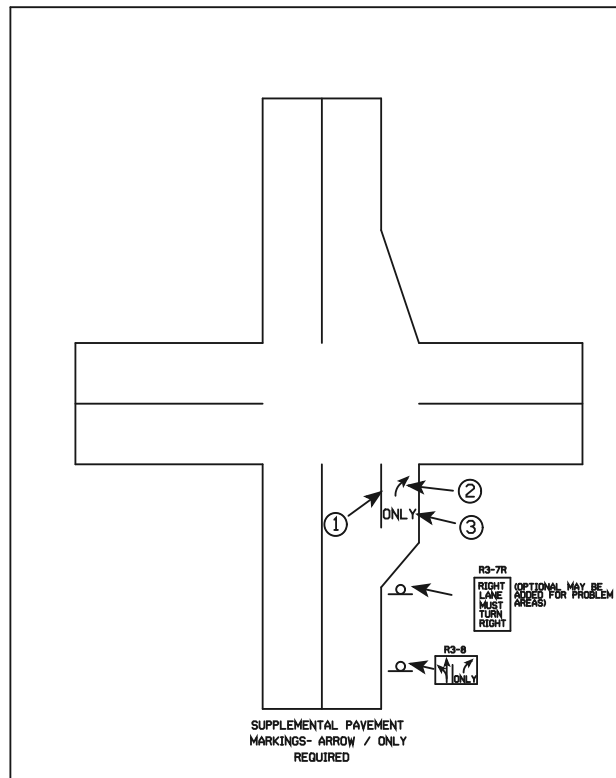


FIG. 2 EXCLUSIVE PAVED RIGHT TURN LANE

- ① 8" CHANNELIZING PAVEMENT MARKING
- ② TYPE 2 ARROW PAVEMENT MARKING
- ③ WORD PAVEMENT MARKING

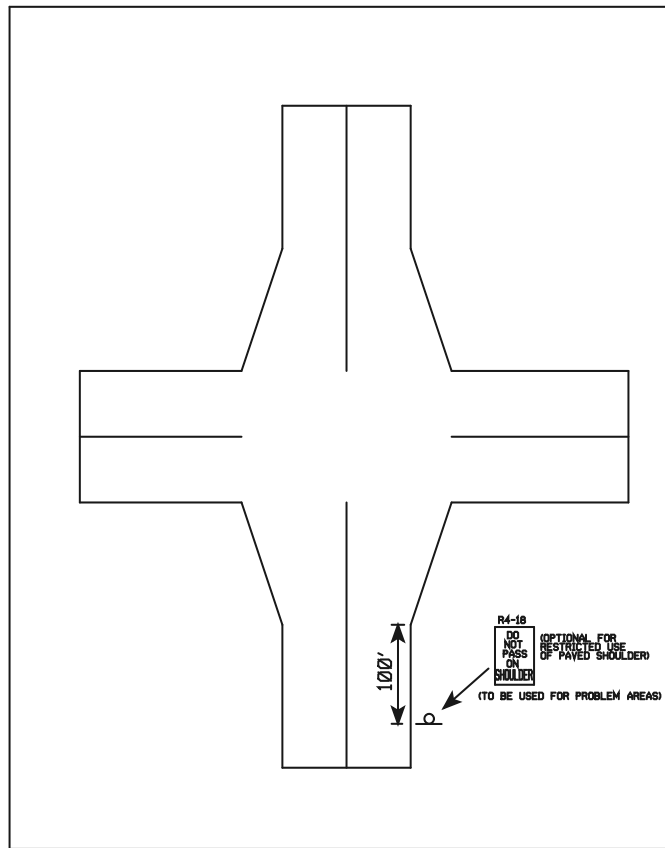


FIG. 3 PAVED RIGHT TURN LANE

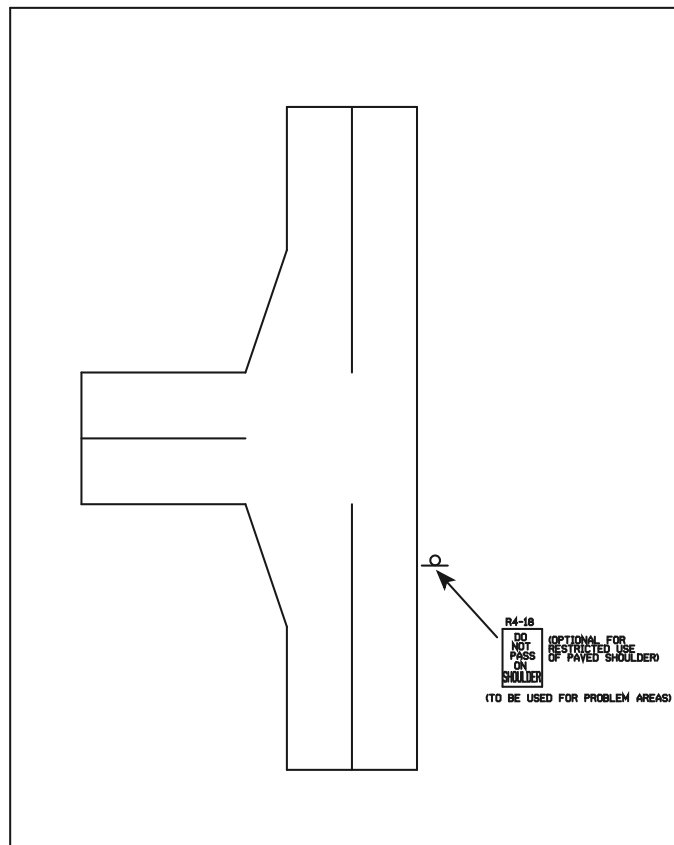


FIG. 4 T-INTERSECTION

13-26-5 All-Way Stop**May 2009****PURPOSE**

This policy describes WisDOT's philosophy regarding the use of all-way stop control (AWSC) as a permanent method of traffic control at State Trunk Highway (STH) intersections that are under WisDOT jurisdiction or State Trunk Highway intersections under local jurisdiction as a Connecting STH. (WisDOT maintains statutory approval authority for any stop controls implemented on Connecting STHs).

GUIDANCE

Refer to MUTCD [2B.07](#), Multiway Stop Applications, for further detail.

WisDOT has maintained a philosophy that emphasizes minimal use All Way Stop Control (AWSC) as a permanent traffic control method. This philosophy is based on the concept of maintaining mobility by allowing traffic to "free-flow" as much as possible. Also, all STHs in Wisconsin are statutorily designated as "through" highways, and typically *should not* be stopped without strong justification. AWSC *should* be considered only after other less restrictive options have been evaluated and determined not to be feasible.

EVALUATION CRITERIA

MUTCD [2B.07](#) describes several criteria that *should* be considered in an engineering study for a multi-way stop sign installation. These guidance criteria include the need for interim traffic control, crash history, and traffic volume. MUTCD [2B.07](#) also describes additional criteria that *may* be considered in an engineering study. These optional criteria include the need to control left turn conflicts, pedestrian conflicts, sight restriction, and the intersection of two residential neighborhood collector streets.

An AWSC Warrant Criteria worksheet *may* be found at the following link:

<http://wisconsindot.gov/dtsdManuals/traffic-ops/manuals-and-standards/teops/awsc-warrant.xlsx>

All the criteria in MUTCD [2B.07](#), both guidance and optional, **shall** be considered when evaluating whether AWSC is an appropriate method control for intersections on the STH system. In addition, the following supplemental criteria **shall** also be considered:

1. Functional Highway Classification - There are five levels of functional highway classes used by WisDOT: principal arterial, minor arterial, major collector, minor collector, and local roads. For desirable AWSC, the intersecting roadways *should* have the same or similar functional class on at least three approaches. Similar functional class would be only one level of difference between intersecting highways. For example, a minor arterial and major collector would be considered similar functional class, but a principal arterial and major collector would not be considered similar.
2. Average Daily Traffic (ADT) - For AWSC, it is highly desirable for the intersecting roadways to have closely balanced ADTs on at least 3 approaches. Closely balanced ADTs would be considered as the volume of at least one of the minor roadway approaches (stop controlled on a 2-way stop) being not less than 70% of the higher volume of the two approaches on the major roadway (through STH).
3. Crash History - AWSC *should* be considered if it is expected to correct a significant number of intersection crashes that have occurred in the last 5 years (that are susceptible to correction by a multi-way stop installation), and/or expected to significantly reduce the overall severity of future crashes from what previously occurred. AWSC, while typically reducing severe right angle crashes, *may* increase less severe rear-end crashes.
4. Alternatives - Improvement alternatives that are less restrictive than AWSC **shall** be considered and evaluated. See section D below.
5. Mobility Impact - Evaluate the ramifications of stopping the existing "through" STH, including the average vehicle delay and queue length. Perform an AWSC capacity analysis and compare it to the existing two-way stop control capacity analysis. Will the high-volume of existing "through" STH traffic experience significant delays for the benefit of reducing delays for a low-volume side street?
6. Right turn inclusion - Similar to signal warrant evaluation, the inclusion of right turns from the minor approach(es) in the AWSC warrant analysis *should* be evaluated. See the WisDOT Traffic Signal Design Manual (TSDM) [2-3-2](#).

ALTERNATIVES TO AWSC

Similar to MUTCD Section [4B.04](#), Alternatives to Traffic Control Signals, consideration **shall** be given to providing less restrictive alternatives to AWSC even if one or more of the warranting factors in the MUTCD is satisfied.

These alternatives *may* include, but are not limited to, the following:

1. Adding a dedicated right turn lane (with optional “pork-chop” channelizing island) on the stop-controlled minor roadway approach(es) to separate the minor roadway right turns from minor roadway left turn / through movements and reduce the delay for a high-volume right turn.
2. Remove or relocate vision corner obstructions such as utilities, vegetation, parking, or other sight restrictions that are impeding the side street traffic from finding reasonable gaps in the “through” highway. Utilize local government setback ordinances as enforcement when these impediments are located outside the highway right-of-way.
3. Restrict, relocate, or consolidate driveway access that *may* be interfering with intersection operation.
4. Installing a roundabout intersection.
5. Relocating the stop line on the minor approach to improve the sight distance.
6. Installing warning signs and / or supplemental flashing beacons advance of the intersection. (See [TEOpS 4-5-1](#) Beacons Policy).
7. Improve pedestrian crossing ability by providing a mid-crossing refuge island or decreasing the crossing distance by using curb bumpouts.
8. Improve sight distance for the minor roadway to see vehicles approaching on the through roadway by modifying a vertical crest in the through profile or modification of the horizontal curve.
9. Restricting turning movements if alternate access points are nearby.