



Traffic Guidelines Manual

ORIGINATOR State Traffic Engineer		3-2-18
CHAPTER 3	Markings	
SECTION 2	Applications	
SUBJECT 18	Crosswalks	

A. Purpose

Crosswalks mark the path at which a pedestrian should cross the roadway. The purpose of this policy is to provide statewide guidance on the use of crosswalks. The [2009 MUTCD](#), [Section 3B.18](#) discusses crosswalks in further detail.

This policy covers the warrants, funding, placement and maintenance of markings for crosswalks and colored pavement treatments for crosswalks, which cross state-maintained highways.

Curb ramp markings are addressed separately in TGM 3-2-23.1.

In [MUTCD 2009](#), [Section 3B.18](#), the primary purpose of crosswalk marking is to provide guidance to pedestrians crossing roadways by delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops. As a secondary purpose, crosswalk markings *may* also serve to alert drivers of a pedestrian crossing point without signal or stop control. At non-intersection locations, crosswalk markings legally establish the crosswalk.

B. Definitions

Marked Crosswalk: State Statute 340.01(10) defines a marked crosswalk as the portion of a highway clearly indicated for pedestrian crossing by signs, lines or other markings on the surface.

Unmarked Crosswalk: is defined as that part of a roadway, *at an intersection*, included between the transverse lines formed by connecting the corresponding edges of opposing sidewalks. If there is sidewalk only on one side, the crosswalk is included between the extension of the sidewalk edges across the roadway at right angles to the centerline.

Refer to State Statutes [346.23](#), [346.24](#), and [346.25](#) for rights and duties of drivers, pedestrians, and bicyclists when crossing at signal controlled or uncontrolled intersections, or crosswalks, or places other than crosswalks.

C. Policy

In general, WisDOT does not maintain crosswalk markings, which cross the state highway system. Regions have discretion to install and maintain crosswalks at signalized intersections with pedestrian signals where ADA compliant sidewalks are present and at roundabout intersections. Existing crosswalk markings at locations not controlled by pedestrian signals or roundabouts *may* remain until worn away or approved and permitted for remarking under this policy. New or replacement crosswalk markings **shall** be at the request of the local municipality and subject to review by the Regions, under the guidance in this policy which requires local governments to accept the maintenance responsibility through a permit process.

Need / Warrant

Regions *may* permit the placement of crosswalk markings, which **shall** be based on a community pedestrian plan and/or a traffic engineering assessment of need. When used, the traffic study and/or engineering judgment *should* consider the following site-specific characteristics.

- Pedestrian volumes and types and pedestrian delay
- Traffic volumes including trucks and turning movements
- Traffic control; signal, stop, yield or none
- Posted speed
- Geometrics including number of lanes and width of crossing
- Visibility

Additional measures necessary for safety *may* need to be addressed. More detailed guidance on pedestrian safety measures can be found in TCRP Report 112 / NCHRP Report 562, "Improving Pedestrian Safety at Unsignalized Crossings", FHWA 2005 Final Report, "Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations", and the "Wisconsin Pedestrian Best Practices Guide".

Crosswalk markings are warranted, but not required, at signalized intersections where pedestrian indications are present. See TGM 4-4-3.

If crossing marking is warranted and approved because it is a school crossing, the school crossing **shall** be signed.

Crosswalks *should not* be permitted at non-intersection or mid-block locations because these locations are not consistent with driver expectancy. However, if approved at an urban non-intersection location, crosswalks **shall** have crosswalk markings and **shall** be signed in accordance with WisMUTCD Section 2C.50. Additional pedestrian safety measures *may* be required.

Crosswalk markings *should not* be permitted in urban locations where posted speed limits are 45 MPH or more, unless traffic controls (all-way stop, signal, roundabout) or crossing enhancements (curb bump outs, median divider island, etc.) are present.

Under ss. 346.25, pedestrians crossing a road anywhere except a legal crosswalk, marked or unmarked, must yield to all vehicles on the road. If a non-intersection crossing is marked at an isolated or rural location with higher speed traffic, the shared responsibility for yielding under ss. 346.24 governs.

Due to lack of driver expectancy of pedestrians and the need to yield, combined with pedestrian expectation of right-of-way and significantly higher pedestrian risk, it is unwise to establish crosswalks at such locations. Therefore, non-intersection crosswalks **shall not** be permitted at isolated or rural locations with a posted speed limit of 45 MPH or more. Exceptions *may* include trail crossings where advance warning signs are present.

Permit Process / Requirements

If crosswalk markings are warranted and the need approved by the Region, a permit **shall** be issued to the local unit of government that is accepting long-term maintenance of the crosswalk markings. The Permit Form DT2136₁ is attached to this policy. A copy of the approved permit **shall** be sent to the local government and a copy **shall** be filed in the Region Office.

A permit for crosswalk markings *should not* be approved if a sidewalk or trail approach and/or ADA-compliant curb ramps (where there is curb) do not exist or are not planned concurrently outside the roadway limits on both sides of the crosswalk approach. However, subject to Regional Traffic Engineer discretion, existing crosswalk markings *may* be approved for permitting without sidewalk and/or ADA-compliant curb ramps if the local government agrees to become compliant under the next highway improvement project (regardless of sidewalk or curb work), or under the next local sidewalk project, whichever comes first.

A permit for crosswalk markings **shall not** be approved unless parking is prohibited within 15 feet of the near limits of the crosswalk, as referenced in State Statute 346.53(5).

Under "Type of Project" on the permit form, use the following guidance:

- If the crosswalk (existing or new) is to be marked as part of an improvement project, check the "Improvement Project Agreement" box.
- If the crosswalk is to be first-time marked on existing pavement by the local government, check the "Retrofit Agreement" box.
- If an existing crosswalk is to be remarked on existing pavement by the local government, check the "Maintenance Permit" box.

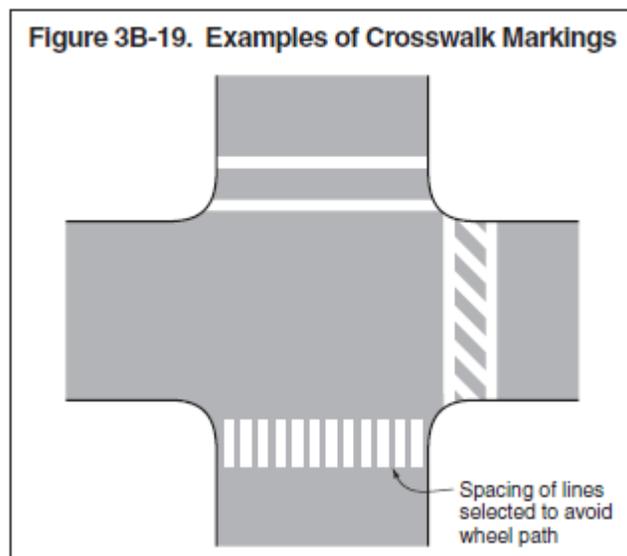
Depending on pedestrian volumes, traffic volumes, posted speed, and visibility, additional pedestrian safety measures *may* be required. If stop lines or yield lines are warranted and/or desired by the local government solely to supplement the crosswalk markings, the maintenance responsibility for the stop line or yield line **shall** be included in the permit issued to the local government. If pedestrian warning signs, flashing beacons, or pedestrian (only) signals are used, see TGM 2-2-12, 2-3-40, 4-4-3 and 4-5-1 pertaining to costs, maintenance and responsibility noted in those policies.

Failure to comply with the permit provisions **shall** void the permit and the crosswalk marking **shall** be removed at the local government's expense.

Crosswalk Marking Patterns

Crosswalk markings *may* be any of the 3 patterns (shown below from Figure 3B-19 of the 2009 MUTCD):

- 2 Transverse Lines (6" or 12" line width)
- Ladder Pattern (24" line width / 24" gap width)
- 2 Transverse lines with 45 degree diagonal lines (12" line width / 24" gap width).



Under special circumstances, where a stop line is not provided, the posted speed is 40 MPH or greater, or where crosswalks are unexpected, it *may* be desirable to increase the width of transverse crosswalk lines. The maximum width **shall** be 24 inches.

Crosswalk markings *should* be placed as nearly perpendicular as possible to the direction of travel on the roadway.

Colored Pavement Treatments for Crosswalks

FHWA has published an official MUTCD Ruling, dated August 15, 2013 that allows subdued-colored aesthetic pavement treatments between legally marked transverse crosswalk lines. However, the following criteria **shall** apply:

- The colored pavement treatment **shall not** be made of retroreflective material.
- Transverse crosswalk lines **shall** delineate the edges of the crosswalk and **shall** be at the correct width, white in color and retroreflective.

- Examples of acceptable aesthetic pavement treatments include brick lattice patterns, paving bricks, paving stones, cobbles or other types of paving.
- Examples of acceptable colors for aesthetic pavement treatments are red, rust, brown, burgundy, clay, tan or similar earth tone equivalents.

Funding

Funding for new crosswalk markings, replacement of existing crosswalk markings or new and replacement colored pavement treatments is entirely the responsibility of the local government permittee, with the exception of the following:

As part of a highway improvement (new or altered pavement surface) project, funding of the initial installation of new or replacement crosswalk markings and/or colored pavement treatments on the new or altered pavement surface *may* be included in the project cost without local participation. Routine maintenance of the crosswalk markings between successive improvement projects **shall** be entirely the responsibility of the local government (permittee).

At signalized intersections with pedestrian signals and at roundabouts, regions have discretion to maintain the crosswalk marking where sidewalks and ADA compliant ramps are present. If the local unit of government desires any marking beyond the standard 6" wide lines, the maintenance of the marking is borne by the local unit of government.

APPLICATION/PERMIT FOR PEDESTRIAN CROSSWALK MARKING

Wisconsin Department of Transportation
 DT2136 2/2009 s.86.07(2) Wis. Stats.

When approved, this permit documents the terms and conditions for use by the Municipality for installation and/or maintenance of pedestrian crosswalk marking on highways under the jurisdiction of the Wisconsin Department of Transportation. The applicant must obtain this approved permit prior to marking the crosswalk.

Submit the completed application to the WisDOT Regional Office that has maintenance jurisdiction of the state trunk highway in the county where the crossing will be located. A single application will be made for each intersection or mid-block crossing. Multiple crossings at an intersection may require a separate detail for each crossing.

Applicant – Municipality		County
Mailing Address		Area Code – Telephone Number
		FAX Number
Type of Project <input type="checkbox"/> Improvement Project Agreement <input type="checkbox"/> Retrofit Agreement <input type="checkbox"/> Maintenance Permit		
Location: On Highway – Direction		At Intersecting Street
		Or (if not at intersection) Distance ft. from Intersecting Street
Type of Crosswalk Marking (Design, dimensions and material) <input type="checkbox"/> Minimum standard, 6" lines, 6' gap <input type="checkbox"/> Other, Attach detail & reason Material: <input type="checkbox"/> Paint <input type="checkbox"/> Epoxy <input type="checkbox"/> Preformed <input type="checkbox"/> Other, (Specify)		School Crossing <input type="checkbox"/> Yes <input type="checkbox"/> No
		Speed Limit mph
Operational Features <input type="checkbox"/> Yes <input type="checkbox"/> No Curb Ramps at Sidewalks at Location <input type="checkbox"/> Yes <input type="checkbox"/> No Signalized Intersection <input type="checkbox"/> Yes <input type="checkbox"/> No Pedestrian Indications <input type="checkbox"/> Yes <input type="checkbox"/> No Meets ADA Requirements		Pedestrian Count List supplemental signing to be used
Reasons for Crosswalks		

Crosswalk Marking Installation Conditions

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| <ol style="list-style-type: none"> 1. WisDOT's Policy for <i>Crosswalk Marking</i> is made a part of this permit agreement. By entering into this agreement, the Municipality agrees to the terms and cost arrangements in this policy document. 2. The design, installation and operation shall comply with Chapter 3 of the Wisconsin Manual of Uniform Traffic Control Devices. 3. During the installation and/or maintenance, the permittee shall follow all pertinent provisions for work zone traffic control as provided in Part 6 of the Wisconsin Manual of Uniform Traffic Control Devices. 4. The permittee shall coordinate the installation with the WisDOT Regional Office and other right-of-way users (i.e., utilities, adjacent property owners, etc.). | <ol style="list-style-type: none"> 5. The permittee shall repair any damage to the pavement and/or right-of-way caused by installation or maintenance of equipment. Failure to do so promptly will result in permit revocation. 6. The permittee shall notify WisDOT after layout of the authorized work has been completed, but prior to the installation of any markings. 7. Permitted facilities shall be located as defined within this permit. Any part of the facility found to be otherwise located shall be subject to correction by and at the cost of the applicant to such extent as the WisDOT Regional Office may specify. 8. The permittee should be aware that future upgrading of the highway will remove the permitted crosswalk. A future permit will be needed to replace the crosswalk. |
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It is understood and agreed that approval is subject to the applicant's full compliance with the pertinent Statutes, as well as any codes, rules, regulations, and permit requirements of other jurisdictional agencies. The applicant shall also comply with all permit conditions, superimposed notes, and detail drawings, which may be added by WisDOT. Any alteration of this form by the applicant is prohibited and may be cause to revoke this permit.

The undersigned certifies that he/she is authorized to sign this application on behalf of the named unit of government.

X _____
 (Authorized Representative) (Title) (Date)

Approved for the Wisconsin Department of Transportation

Permit Number = Region (NC, NE, NW, SE, or SW) – County Number – Three-digit, consecutive permit number

Permit Number	X		
- -	(Regional Authorized Representative)	(Area Code - Telephone Number)	(Date)

INDEMNIFICATION

The Applicant shall save and hold the State, its officers, employees, agents, and all private and governmental contractors and subcontractors with the State under Chapter 84 Wisconsin Statutes, harmless from actions of any nature whatsoever (including any by Applicant itself) which arise out of, or are connected with, or are claimed to arise out of or be connected with any of the work done by the Applicant, or the construction or maintenance of facilities by the Applicant, pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, (1) while the Applicant is performing its work, or (2) while any of the Applicant's property, equipment, or personnel, are in or about such place or the vicinity thereof, or (3) while any property constructed, placed or operated by or on behalf of Applicant remains on the State's property or right-of-way pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way; including without limiting the generality of the foregoing, all liability, damages, loss, expense, claims, demands and actions on account of personal injury, death or property loss to the State, its officers, employees, agents, contractors, subcontractors or frequenters; to the Applicant, its employees, agents, contractors, subcontractors, or frequenters; or to any other persons, whether based upon, or claimed to be based upon, statutory (including, without limiting the generality of the foregoing, worker's compensation), contractual, tort, or whether or not caused or claimed to have been caused by active or inactive negligence or other breach of duty by the State, its officers, employees, agents, contractors, subcontractors or frequenters; Applicant, its employees, agents, contractors, subcontractors or frequenters; or any other person. Without limiting the generality of the foregoing, the liability, damage, loss, expense, claims, demands and actions indemnified against shall include all liability, damage, loss, expense, claims, demands and actions for damage to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way in the past or present, or that are located on any highway or State property or right-of-way with or without a permit issued by the State, for any loss of data, information, or material; for trademark, copyright or patent infringement; for unfair competition or infringement of personal or property rights of any kind whatever. The Applicant shall at its own expense investigate all such claims and demands, attend to their settlement or other disposition, defend all actions based thereon and pay all charges of attorneys and all other costs and expenses of any kind arising from any such liability, damage, loss, claims, demands and actions.

Any transfer, whether voluntary or involuntary, of ownership or control of any property constructed, placed or operated by or on behalf of the Applicant that remains on the State's property or right-of-way pursuant to this permit shall not release Applicant from any of the indemnification requirements of this permit, unless the State is notified of such transfer in writing. Any acceptance by any other person or entity, whether voluntary or involuntary, of ownership or control of any property constructed, placed or operated by or on behalf of the Applicant that remains on the State's property or right-of-way pursuant to this permit, shall include acceptance of all of the indemnification requirements of this permit by the other person or entity receiving ownership or control.

Notwithstanding the foregoing, a private contractor or subcontractor with the State under Chapter 84 Wisconsin Statutes, that fails to comply with sections 66.047 and 182.0175 Wisconsin Statutes (1985-1986), remains subject to the payment to the Applicant of the actual cost of repair of intentional or negligent damage by the contractor or subcontractor to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, and remains subject to payment to the Applicant for losses due to personal injury or death resulting from negligence by the contractor or subcontractor.

Notwithstanding the foregoing, if the State, or its officers, employees and agents, fail to comply with sections 66.047 and 182.0175 Wisconsin Statutes (1985-1986), the State or its officers, employees and agents, remain subject to the payment to the Applicant of the actual cost of repair of willful and intentional damage by the State, or its officers, employees and agents, to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, and remain subject to payment to the Applicant for losses due to personal injury or death resulting from negligence by the State, its officers, employees and agents.

No indemnification of private contractors or subcontractors with the State under Chapter 84 Wisconsin Statutes, shall apply in the event of willful and intentional damage by such private contractors or subcontractors to the property, lines and facilities of the Applicant located on the highway right-of-way pursuant to this permit or any other permit issued by the State for the location of property, lines or facilities on highway right-of-way.