9-3-4 Bicycle Lanes August 2011

PURPOSE

WisDOT encourages bicycling by adding or utilizing space on roadways for use of bicyclists. This is done in one of three ways - paved shoulders, wide curb lanes and bicycle lanes. Of those three, only bicycle lanes are designated "bikeway" facilities as defined by AASHTO and the MUTCD. This chapter presents the appropriate markings for bicycle accommodations including bicycle lanes.

It *should* be noted that due to costs associated with maintaining bicycle lane markings and a significantly reduced maintenance budget, WisDOT has adopted the following policy to give guidance for both design and maintenance. This policy does not pertain to the connecting highway system. Connecting highways are maintained by local governments and aids are provided to cover the costs to maintain these facilities.

MARKING GUIDANCE AND POLICY

Paved Shoulders

Edge line markings for shoulders are maintained by the department along state highways. Bicyclists are the only vehicular user to be permitted to use shoulders under Wisconsin Statute 84.01 and will most often use that space when the condition of the pavement is satisfactory. When edge lines are added in urban cross-section streets to define shoulder segments or curb offsets, those markings will be maintained by the authority charged with the maintenance of the facility and will be considered part of our standard maintenance practice. These edge lines are added to prevent motorists from deviating from the travel lane or doubling up in an otherwise wide lane. Secondarily they also help define the space that bicyclists will use.

Occasionally at some intersections, markings will be added to the left of the right turn lane, for a separate bike slip lane as shown in SDD 15C 29 a and b and Table 1. These markings will also be maintained as part of the standard WisDOT practice if the rest of the street is not marked with bicycle lanes. If the rest of the facility is marked with bicycle lanes, the local community will be responsible for maintaining these markings along with all of the other markings.

Wide Curb Lanes

Wide curb lanes do not require markings of any kind to differentiate space for bicyclists. However, when lanes are 14' or greater there *may* be operational reasons why an edge line is desired. Whenever a 4" edge line is added per TEOpS 3-10-1 for urban curb and gutter sections, WisDOT **shall** maintain these markings on WisDOT maintained facilities. A 4" edge line requires a permit when there is no operational reason for placement.

Bicycle Lanes

1. Rural Applications

Bike lane markings define preferential space for bicyclists and are considered bikeways. Bike lanes are rarely marked on rural highways.

Exception will be when **a highway is designed with 5 feet or wider paved shoulders or bike lanes to accommodate bicyclists per Wisconsin Statute 84.01(35) and Trans 75.**, then intersection treatments found in SDD 15C 29 a and b **shall** follow what is prescribed in the following table:

Table 1. Type A2, B1 and B2 Rural Intersection Treatments When Side road ADT exceeds 250 for design year *

	2 Lane w/ signals or signed or marked for right turn only	**2 Lane without signals or signed or marked for right turn only**	**4 Lane Divided with signals or signed or marked for right turn only**	**4 Lane Divided without signals or signed or marked for right turn only**
	SDD 15C 29 Drawing Detail Title, sheets a and b			
Posted Speed > 45mph	Bike Slip Lane	Wider Turn Lane or Bike Accommodations on Shoulder	N/a	Wider Turn Lane or Bike Accommodations on Shoulder
Posted Speed ≤ 45 mph	Bike Lane with symbols	Bike Slip Lane or Wider Turn Lane	Bike Lane 4 Lane Divided with Right Turn Lane	Bike Slip Lane or Wider Turn Lane

* All intersections types are found in SDD 9A 1 and FDM 11-25, Attachment 1.1

For A-1, C, and D intersection types no special intersection designs are necessary to accommodate bicyclists. Whenever a bike lane is marked to an intersection, it must be to the left of a right turn only lane as shown in these details.

2. Urban Applications

SDD 15C 29 c and d are urban type bike lane diagrams shown with and without parking and right turn lanes. The bike lane markings shown at the intersections are part of a continuous bike lane. However, it is permissible to use the bike lane intersection markings (bike slip lanes) independent of continuous bike lane markings if there is space at an intersection and the Region Traffic Engineer believes it will better serve bicyclists and motorists at an intersection through improved lane delineation.

If bike lane markings and symbols designating the preferential space are appropriate and the need approved by the Region Traffic engineer, permit DT2500 for symbols **shall** be issued to the local unit of government that is accepting long-term maintenance of the markings. WisDOT **shall** pay to initially mark them as part of a reconstruction or resurfacing project. All costs associated with subsequent maintenance will be borne by the participating local unit of government.

Refer to SDD 15C 29e for layout of the marking symbols and words.

PERMIT PROCESS/REQUIREMENTS

The Region Traffic Engineer will review the request with the Region Bike and Pedestrian Coordinator. It is recommended developing a maintenance agreement no later than the time of design study report (DSR). This will ensure that the local unit of government will clearly have knowledge of what they are to maintain. This is important for when local jurisdictions decide to add bike lane markings. If edge lines or bike lane markings are approved, a permit **shall** be issued to the local unit of government that is accepting long-term maintenance of the markings. Permit Form DT2500, 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.

Existing markings *should* be evaluated with the community, based on need and safety, individually and collectively within the community.

The permit **shall** be officially signed and approved prior to any marking of new edge line or bike lane markings. Subsequent remarking will not require a new permit.

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

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

Failure to comply with the permit provisions **shall** void the permit and the bike lane markings **shall** be removed at the local government’s expense.

SUPPORTING THOUGHTS

Adding bicycle lanes is most practical and cost-effective at the time of reconstruction. There are likely to be many more opportunities for bike lane markings on the connecting highway system (590 miles) than on non-connecting state highways. This is especially true in the metropolitan areas of the state. Although there are approximately 1,175 miles of urban state highways (municipal extensions), hundreds of miles are categorized as freeways or are higher-speed rural cross-section highways at the edges of urban areas where shoulders are appropriate, but not bike lanes. While some municipal extensions of state highways will be good candidates for bicycle lanes, right of way constraints will likely limit prospects for many bike lanes on these highways. In some cases, wide curb lanes *may* still be possible candidates for these streets.

APPLICATION/PERMIT FOR BIKE LANE MARKING AND SIGNING

Wisconsin Department of Transportation
DT2500 5/2011 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 bike lane marking and signing on highways under the jurisdiction of the Wisconsin Department of Transportation. The applicant must obtain this approved permit prior to marking and signing the bike lane.

Submit the completed application to the WisDOT Regional Office that has maintenance jurisdiction of the state trunk highway in the county where the marking will be located. A single application will be made for each continuous bike lane segment.

Applicant – Municipality	County
Mailing Address	Area Code – Telephone Number FAX Number
Type of Project ☐ Improvement Project Agreement ☐ Maintenance Permit ☐ Retrofit Agreement	**Project ID** ☐ Yes, Project #_____ ☐ No ☐ N/A
Location: On Highway / Local Street Name	**Intersecting Street** From: To:
Type of Bike Lane Marking (design/dimensions) ☐ Other (attach detail & reason)	(material) ☐ Paint ☐ Epoxy ☐ Preformed Plastic ☐ Preformed Thermoplastic ☐ Other, (specify)
Speed Limit mph	
Operational Features ☐ Yes ☐ No Edge Line ☐ Yes ☐ No Symbols ☐ Yes ☐ No Words ☐ Yes ☐ No Signs	**Description/Type of Marking and Signing**
Reasons for Bike Lane Marking and Signing	

Marking and Signing Installation Conditions

1. 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 9 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.), unless other arrangements have been made.
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 marking and signing. A future permit will be needed to replace the marking and signing.
9. Right of way permit

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.

9-3-7 Shared Lane Markings — August 2011

PURPOSE

WisDOT encourages bicycling by adding or utilizing space on roadways, for use of bicyclists. When this cannot be done, this policy gives guidance for when both bicyclist and motorist are sharing the roadway so to minimize motorist and bicyclist crashes.

Due to costs associated with maintaining shared lane markings and a significantly reduced maintenance budget, WisDOT has adopted specific maintenance provisions as part of the following policy.

This policy does not pertain to the connecting highway system. Connecting highways are maintained by local

governments and aids are provided to cover the costs to maintain these facilities.

POLICY

Shared Lane markings

- Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist's impacting the open door of a parked vehicle.
- Assist bicyclist with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane.
- Alert road users of the lateral location bicyclists are likely to occupy within the traveled way.
- Encourage safe passing of bicyclists by motorists
- Reduce the incidence of wrong-way bicycling.

These markings *should not* be placed on roadways that have a speed limit above 35 mph. They **shall not** be used on shoulders or in designated bicycle lanes. When used, the marking *should* be placed immediately after an intersection and spaced at intervals not greater than 250 feet thereafter.

Refer to SDD 15C 29f for layout of the marking.

PERMIT PROCESS/REQUIREMENTS

The Region Traffic Engineer will review the request with the Regional Bike and Pedestrian Coordinator. If shared lane markings are approved, a permit **shall** be issued to the local unit of government that is accepting long-term maintenance of the markings.

The form DT 2137 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.

The permit **shall** be officially signed and approved prior to any marking of new shared lane markings. Subsequent remarking will not require a new permit except after upgrading of the highway.

Existing markings *should* be evaluated with the community, based on need and safety, individually and collectively within the community.

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

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

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

APPLICATION/PERMIT FOR SHARED LANE MARKING

Wisconsin Department of Transportation
DT2137 5/2011 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 shared lane markings on highways under the jurisdiction of the Wisconsin Department of Transportation. The applicant must obtain this approved permit prior to marking a shared lane symbol.

Submit the completed application to the WisDOT Regional Office that has maintenance jurisdiction of the state trunk highway in the county where the marking will be located. A single application will be made per continuous segment of shared lane markings. A map with corresponding details is required for all applications.

Applicant – Municipality	County
Mailing Address	Area Code – Telephone Number
	FAX Number

Type of Project ☐ Improvement Project Agreement ☐ Maintenance Permit ☐ Retrofit Agreement	**Project ID** ☐ Yes, Project #_____ ☐ No ☐ N/A
Location: On Highway / Local Street Name	**Intersecting Street** From: To:

Type of Shared Lane Marking (material) ☐ Paint ☐ Epoxy ☐ Preformed Plastic ☐ Preformed Thermoplastic ☐ Other, (specify)	**Speed Limit** mph	**List supplemental signing to be used**
Operational Features ☐ Yes ☐ No Recognized Bike Route ☐ Yes ☐ No Parking ☐ Yes ☐ No Curbs Available	**Width of Travel Lane**	**Width of Parking Lane** (if present)

Shared Lane Marking Installation Conditions

1. By entering into this agreement, the Municipality agrees to cover all costs related to the placing and maintaining of permitted shared lane markings.
2. The design, installation and operation shall comply with Chapter 9 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.).
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 marking. A future permit may be needed to replace the marking.

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

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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.