

CITY OF NORTHFIELD, MINNESOTA  
CITY COUNCIL RESOLUTION 2014-085  
BICYCLE DETECTOR PAVEMENT  
MARKING MAINTENANCE

WHEREAS, the City of Northfield wishes to accommodate safe crossing of MN Trunk Highway 3 by bicycles at the intersection of Second Street; and,

WHEREAS, the MnDOT District 6's Traffic Operations Engineer has been working local cyclists to establish a way to trigger the signals at MN Trunk Highway 3 and Second Street with the detector loops; and,

WHEREAS, the current testing has proven to be successful; and,

WHEREAS, the City of Northfield is requesting MnDOT approve the adding of Bicycle Detector Pavement Marking; and,

WHEREAS, if the requested pavement markings are approved, the City of Northfield acknowledges it is responsible for the installation and ongoing maintenance of those markings; and,

WHEREAS, the City of Northfield is also requesting the installation of R10-22 Bicycle Signal Actuation Signs by MnDOT.

NOW THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF NORTHFIELD, MINNESOTA, that the City of Northfield formally requests the addition of the Bicycle Detector Pavement Markings and acknowledges it is responsible for the installation and maintenance of said markings.

PASSED by the Mayor and City Council of the City of Northfield this 5th day of August 2014.

ATTEST

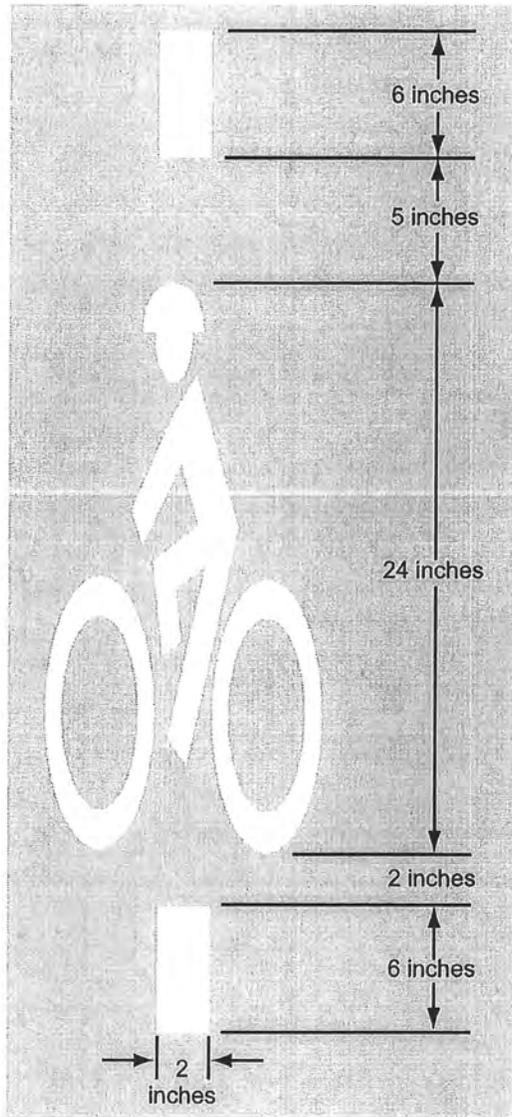


City Clerk



Mayor

VOTE: Y GRAHAM Y DELONG A LUDESCHER A NAKASIAN  
Y PETERSON WHITE Y POWNELL Y ZWEIFEL



**Figure 9C-7 Bicycle Detector Pavement Marking**

**GUIDANCE:**

If used, the R9-5, R10-4, R10-24, or R10-26 signs should be installed near the edge of the sidewalk in the vicinity of where bicyclists will be crossing the street.

**OPTION:**

If bicyclists are crossing a roadway where In-Roadway Warning Lights (see Section 4N.2) or other warning lights or beacons have been provided, the R10-25 sign may be used.

The R9-6 sign may be used where a bicyclist is required to cross or share a facility used by pedestrians and is required to yield to the pedestrians.



R9-X1



R9-X2

The R9-X1 sign may be used to direct bicyclists to the road shoulder when there is no designated bicycle lane.

The R9-X2 sign may be used to encourage bicyclists to use the existing, separate bicycle lane, when one exists, and not the roadway shoulder.

**9B.12 Shared-Use Path Restriction Sign (R9-7)**



R9-7

**OPTION:**

The Shared-Use Path Restriction (R9-7) sign may be installed to supplement a solid white pavement marking line (see Section 9C.3) on facilities that are to be shared by pedestrians and bicyclists in order to provide a separate designated pavement area for each mode of travel. The symbols may be switched as appropriate.

**GUIDANCE:**

If two-way operation is permitted on the facility for pedestrians and/or bicyclists, the designated pavement area that is provided for each two-way mode of travel should be wide enough to accommodate both directions of travel for that mode.

**SUPPORT:**

Guidelines for the design of bikeway and shared-use path facilities can be found in the current MnDOT Bikeway Facility Design manual.

**9B.13 Bicycle Signal Actuation Sign (R10-22)**



R10-22

**OPTION:**

The Bicycle Signal Actuation (R10-22) sign may be installed at signalized intersections where markings are used to indicate the location where a bicyclist is to be positioned to actuate the signal (see Section 9C.5).

**GUIDANCE:**

If the Bicycle Signal Actuation sign is installed, it should be placed at the roadside adjacent to the marking to emphasize the connection between the marking and the sign.



**Date of City Council Meeting:** August 5, 2014

**To:** Mayor and City Council  
City Administrator

**From:** Brian Erickson, P.E. Assistant Public Works Director/Assistant City Engineer

**Subject:** Approve Maintenance for Bicycle Detector Pavement Marking at Second Street

**Action Requested:**

The Northfield City Council approves Resolution 2014-085 authorizing the formal request to MnDOT to install and maintain bicycle detector pavement markings at the intersection of MN Trunk Highway 3 and Second Street.

**Summary Report:**

MnDOT has been working with a local bicyclist to adjust the sensitivity of the vehicle detection loops at the intersection of MN Trunk Highway 3 and Second Street. This adjustment allows a bicyclist to activate the signals so they can cross the highway. At this point, both the eastbound and westbound loops have been adjusted by MnDOT. This adjustment allows a bicycle to activate the loop without adding to false triggers from vehicles in other lanes. As a result of these adjustments bicyclists can use the signals in the same manner as motorized traffic.

Previously some bicyclists would use the pedestrian signals to cross the highway. However, they were able to clear the intersection more quickly than a pedestrian thus leaving the signals in a longer stop condition for Trunk Highway 3 through traffic.

The Minnesota Manual for Uniform Traffic Control Devices (MMUTCD) contains both a roadway stencil and sign (Attachment 2) that can be used to denote the optimum position for a bicyclist to actuate the signal. The MnDOT District 6 Traffic Operations Engineer has proposed that the City of Northfield paint and maintain the pavement marking and that MnDOT would install and maintain the sign. Staff is recommending that this pavement marking be installed.

**Alternative Options:**

Council may decide not to proceed with this request; however, the adjustments would remain in place for these detector loops.

**Financial Impacts:**

The pavement marking would be an epoxy traffic marking paint and installation is anticipated to cost approximately \$1,000 and maintenance will occur on an as needed basis, estimated to be every 3 – 5 years.

**Timelines:**

Once approved, staff will coordinate with MnDOT to have the marking installed. It is anticipated this can be completed prior to the end of the summer.

**Attachments:**

1. Resolution 2014-085
2. Bicycle Detector Roadway Symbol and Sign