PUBLIC WORKS COMMITTEE
CITY HALL CONFERENCE ROOM
MONDAY, MARCH 10, 2014
5:00 P.M.

AGENDA

I. CALL TO ORDER

II. CONSENT AGENDA
   A. Minutes (page 1)

III. NEW BUSINESS
   A. Frozen Water Service Policy (page 5)
   B. Snow Plowing Policy (page 8)
      1. Review the 2-17-14 snow fall & untimely snow events.
   C. Sign Retroreflectifity Policy (page)

IV. OLD BUSINESS
   A. Water Plant Rehab Project – Update
   B. MPCA Former Mid Town Service Station – Update
   C. Alley Between River St. & Augusta Ave. – Update
   D. 2014 Street Improvement Project – Update (page 30)
   E. Wastewater Plant Re-Scoping Project – Update
   F. 2015 Street Improvement Project – Update
   G. Truck Route - Update
   H. Approach To NuCara Pharmacy - Update

V. INFORMATIONAL

VI. ADJOURN

***** Please call or email Ron at 320-243-3714 ext. 230 or at ron@paynesvillemn.com if you are not able to attend the meeting.*****

Members: Dave Peschong, Donavan Mayer, Melvin Schaefer, Keith Hemmesch, and Matt Quade – or his proxy.
Advisory Members: Chuck DeWolf, Ron Mergen, and Renee Eckerly

This agenda has been prepared to provide information regarding an upcoming meeting of the Paynesville Public Works Committee. This document does not claim to be complete and is subject to change.

BARRIER FREE: All Paynesville Public Works Committee meetings are accessible to the handicapped. Attempts will be made to accommodate any other individual need for special services. Please contact City Hall (320) 243-3714 early so necessary arrangements can be made.

REQUEST FOR COMMITTEE/COUNCIL ACTION

COMMITTEE/COUNCIL NAME: Public Works Committee

Committee/Council Meeting Date: March 10, 2014

Agenda Section: Consent

Originating Department:

Item Number: II - A

ITEM DESCRIPTION: Minutes

Prepared by: Staff

COMMENTS:

Please review the minutes of the February 10, 2014 Public Works Committee meeting.

ADMINISTRATOR COMMENTS:

COMMITTEE/COUNCIL ACTION:

Motion to approve the minutes of the February 10, 2014 Public Works Committee meeting.

MINUTES
PUBLIC WORKS COMMITTEE

FEBRUARY 10, 2014

The meeting was called to order by Mel Schaefer at 5:00 p.m. Members present were Dave Peschong, Keith Hemmesch, Donavan Mayer, and Matt Quade. Advisory members present were Ron Mergen, Public Works Director; and Chuck DeWolf, Bolton & Menk, Inc.

Motion was made by Hemmesch to approve the minutes from the January 8, 2014 Public Works Committee meeting. Seconded by Quade and unanimously carried.

MEETING SCHEDULE

Motion was made by Quade to set the meeting schedule for the second Monday of each month at 5:00 pm. Seconded by Peschong and unanimously carried.

2014 CRACK SEALING PROJECT

Mergen reported that the City plans to work with the City of Melrose and Paynesville Township again. The cost break down was reviewed:

Product	$3,200.00
Equipment Rental – Melter	$ 375.00
Router	$ 395.00
City's Total Estimated Cost	**$3,970.00**

It was noted that the City will be going over most of the streets previously done and fill in any spots that have failed.

Motion was made by Peschong to approve the Crack Sealing Project proposal and recommend such to the City Council. Seconded by Hemmesch and unanimously carried.

GENERATOR

Members reviewed a service contract and extended warranty on the two new generator sets. The service contracts were $1,630.00 or $3,036.00 annually and the extended warranty was $2,245.00 or $3,470.00 annually. Members discussed that the City has a two year warranty and if the City has any issues it is generally known before that and the maintenance work can be completed by the City staff or a local contractor.

The City also presented prices on a new unit for the Chladek lift:

MN Pump Works		$36,012.00
Cummins N Power	Gas unit	$15,225.00
	Diesel unit	$22,445.00

The need for a standby power unit at this lift station was discussed as the City has about one hour after a power outage before there is potential for sewage backup.

Motion was made by Quade to purchase a natural gas power unit from Cummins in the amount of $15,225.00 with funds to come from Sewer Equipment CIP and recommend such to the City Council. Seconded by Peschong and unanimously carried.

CSAH 66 – LAKE AVE.

Members were informed that Stearns County is planning to seal coat Co. Rd. 66 from Hwy. 55 to Business 23 and is requesting the City pay for the shoulders on the road. Members noted that this is not part of the state funded portion of Co. Rd. 66. The consensus was that the County needs to pay for its own road.

WATER PLANT REHAB

DeWolf reported that the weather had stopped construction for most of January.

MPCA – FORMER MIDTOWN SERVICE STATION

Mergen reported that the at-grade well variance on Lake Ave. was approved; however, the ones on Mill St. and Koronis Ave. were not. John Hunt with Barr Engineering is investigating the issues and compiling information from MPCA.

ALLEY BETWEEN RIVER STREET AND AUGUSTA AVENUE

Mergen reported that the City is working with AMPI and a survey is being planned.

2014 STREET PROJECT

DeWolf reported that the bids are due February 19, 2014. The County's bids for their portion of the project are due February 14, 2014.

WASTEWATER RE-SCOPE PROJECT

No update was given.

IRRIGATION

The bid results were reviewed with the apparent high bid of $277.50 from Tim Wegner. Also reviewed was a proposal in which all three parcels would be seeded into alfalfa. Members noted this would be the best option for the property, but the cost differential is too much and this property is not the City's primary dumping grounds.

Motion was made by Hemmesch to accept the high bid from Tim Wegner in the amount of $277.50 per acre and recommend such to the City Council. Seconded by Quade and unanimously carried.

IRRIGATION CONTRACTS

The City's north property sites were discussed noting this is where 70% of the water is irrigated in a wet year. Members discussed the need to work with the farmers. The grazing acreage would be at $45.00 per acre and on the cropping portion members discussed keeping an increasing scale;

2014 $170.00
2015 $175.00
2016 $180.00

The contracts will be drafted at the above amounts.

TRUCK ROUTE

A downtown truck route was discussed. It would be difficult to keep trucks off Washburne Ave.; however, the trucks could avoid James St. It was questioned if the intersection at Business 23 and River St. could be widened. DeWolf will contact Stearns County.

There being no further business, the meeting was adjourned at 5:40 p.m.

City of Paynesville
Frozen Water Service Line Policy

Frozen water service lines between the curb stop and the building shall be the responsibility of the property owner. Frozen water service line between the water main and the curb stop shall be the responsibility of City.

For the purpose of preventing frozen water service line regardless of where the service line may freeze the City recommends all users monitor the temperature of their cold water tap and if it reaches 40 degrees or less to run a ¼ in or pencil width stream of water.

The city will issue a credit to the account in the form of utilizing the customers previous year's usage in the same billing period. The customer must notify the City in order to receive the credit; this is to verify that the problem indeed does exist.

		Frozen service lines				
1	2/7/2014	Eugene Johnson	373 Hudson st			XX
2	2/7/2014	Jeff Younkin	513 Hudson St			
3	2/10/2014	Benusa Appliance	705 Hwy 55			XX
4	2/11/2014		300 Stearns Av			
5	2/12/2014		363 Hudson St			
6	2/12/2014	TJ Schultz	1520 W Mill st			xx
7	2/12/2014	Donavan Mayer	215 Carroll Ct			xx
8	2/12/2014	Alice Gronli	405 Richmond			xx
9	2/13/2014	Jack Dahl- Rental	321 Business 23 E			
10	2/13/2014	Leo Keller	681 Ponderosa			
11	2/13/2014	John Thompson	411 Hudson St.			xx
12	2/13/2014	Pay Eye Clinic	115 Washburne Av			
13	15-Feb	Ann Miller	401 Minn St			
14	2/18/2014	Shannon Olmscheid	220 Carroll Ct			
15	2/17/2014	Centra Care	645 Lake Av			
16	2/17/2014	Valley Industries				
17	17-Feb	Art Voss	Ponderosa St	Do not thaw		
18	17-Feb	Mavis Koethe	427 Koronis			
19	14-Feb	Pro Tech Auto				
20	13-Feb	John Hein	365 Belmont			
21	14-Feb	Rick Paul	797 Maple St			
22	13-Feb	Rick Rierson	502 Burr st			
23	21-Feb	Rich Schlutz	1102 Main St			
24	23-Feb	Mike Tougas	555 Maywood av			
25	23-Feb	Jacob Heimerman	580 Maywood			

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		Hydrants running				
		Kira Ln	On Cul de sak			
		Oak Park	Dead End			
		Hudson & 2nd st				
		Evergreen Ct				
		Diekman Dr	Behind Teals			
		N Grande				
		Central Av				
		Business 23 & 55				

SNOWPLOWING POLICY

1. INTRODUCTION

The City of Paynesville believes that it is in the best interest of the residents for the City to assume basic responsibility for control of snow and ice on city streets. Reasonable ice and snow control is necessary for routine travel and emergency services. The City will provide such control in a safe and cost effective manner, keeping in mind safety, budget, personnel and environmental concerns. The City will use city employees, equipment and/or private contractors to provide this service.

2. WHEN WILL CITY START SNOW OR ICE CONTROL OPERATIONS?

The Public Works Director will decide when to begin snow or ice control operations. The criteria for that decision are:

A. Snow accumulation of 1 inch. The Police Officer on duty will communicate with the Public Works Department or on call personnel that snow accumulation has occurred and plowing maybe necessary;

B. Drifting of snow that causes problems for travel;

C. Icy conditions which seriously affect travel; and

D. Time of snowfall in relationship to heavy use of streets.

Snow and ice control operations are expensive and involve the use of limited personnel and equipment. Consequently snowplowing operations will not generally be conducted for snowfall of less than 2 inches. To minimize the potential for snowplow/vehicle accidents, plowing will generally commence between 1:00 a.m. and 2:00 a.m.

3. HOW SNOW WILL BE PLOWED?

Snow will be plowed in a manner so as to minimize any traffic obstructions. The center of the roadway will be plowed first. The snow shall then be pushed from left to right. The discharge shall go onto the boulevard area of the street. In times of extreme snowfall, streets will not always immediately be able to be completely cleared of snow.

4. SNOW REMOVAL

Snow removal from the downtown area will be removed with each snowplowing event. Snow will be removed from the sidewalks and away from the curb. Snow will then be plowed to the center of the street, blown into trucks and hauled to a designated site.

Other areas, which may require snow removal, are intersections, cul-de-sacs, etc. will be done after the downtown is complete and equipment and operators are available. In heavy snowfall events this may take several days. This snow will be removed by tractor/blower and blowing snow into the boulevard area or front yard areas.

5. Priorities And Schedule For Which Streets Will Be Plowed

The City subcontracts the majority of is snowplowing, the Public Works Department shall communicate with the contractors those streets of major importance; these are high volume routes, which provide access for emergency vehicles, fire, police, ambulance and hospital.

6. Work Schedule For Snowplow Operators

City operators will be expected to work eight-hour shifts. In severe snow emergencies, operators sometimes have to work in excess of eight-hour shifts. However, because of budget and safety concerns, no operator shall work more than a twelve-hour shift in any twenty four-hour period. Operators will be allowed a fifteen-minute break approximately midway throughout each four-hour shift with a half-hour meal break after four hours. After a twelve-hour day, the operators will be replaced if additional qualified personnel are available.

7. Weather Conditions

Snow and ice control operations will be conducted only when weather conditions do not endanger the safety of city employees and equipment. Factors that may delay snow or ice control operations include; sever cold, significant winds and limited visibility.

8. Use Of Sand, Salt, And Other Chemicals

The City will use sand, salt and other chemicals when there are hazardous ice or slippery conditions. The City is concerned about the effect of such chemicals on the environment and will limit its use for that reason.

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Proposed Sign Retroreflectivity Rules Become Final

The new rules offer cities more flexibility in deciding when to replace signs.
(Published May 16, 2012)

The Federal Highway Administration (FHWA) enacted final rules on May 14 regarding minimum sign retroreflectivity levels. The final rules will save cities money by allowing them to replace signs based on the city's resources and conditions rather than by a specific date.

The rules require cities to establish an assessment or management method that is designed to maintain sign retroreflectivity at or above minimum levels specified in the *Manual on Uniform Traffic Control Devices* (MUTCD). Under the old rules, cities were required to have a policy establishing an assessment or management method, or combination thereof, by Jan. 22, 2012.

Under the new rules, cities must have a policy designed to maintain sign retroreflectivity at or above the established minimum levels within two years from the effective date of the revised rules. The effective date is June 13, 2012. Accordingly, cities must have a policy enacted by June 13, 2014.

Under the old rules, cities were required to comply with the minimum retroreflectivity requirements for all regulatory signs (such as stop signs and speed limit signs), yellow "warning" signs and green/white "guide" signs by Jan. 22, 2015. Cities were required to comply with the minimum retroreflectivity requirements for overhead guide signs and all street name signs by Jan. 22, 2018.

Under the new rules, the above 2015 and 2018 compliance dates have been eliminated to provide cities and other governmental units the flexibility to allocate scarce financial resources based on local conditions and the useful service life of its traffic signs. In addition, the new rules removed "guide" signs from needing to meet minimum retroreflective levels.

The elimination of the compliance dates for sign retroreflectivity in the MUTCD does not eliminate the regulatory requirement for cities to comply with the minimum sign retroreflectivity standard. The standard remains in the MUTCD and applies to any new sign installations, but the compliance date for replacing noncompliant signs that exist in the field has been eliminated.

Even without a specific compliance date, cities will still need to replace any sign identified as not meeting the established minimum retroreflectivity levels. A city's schedule for replacing signs, however, would be based on resources and relative priorities as outlined in your policy, rather than specific compliance dates.

The League will be working with the Minnesota Department of Transportation and other entities to assist cities in complying with the new rules. The League will develop additional resources to help cities adopt a policy to comply with the new rules. In the meantime, cities should make sure that any new or replacement signs meet the minimum retroreflectivity standard. Cities should also continue to think about future budget implications as they replace noncompliant signs.

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City of Paynesville, Minnesota
Sign Retroreflectivity Policy

Article I. Purpose and Goal.

The purpose of this policy is to establish how the city will implement an assessment or management method, or combination of methods, to meet the minimum sign retroreflectivity requirements in the Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD).

Substantial conformance with the MN MUTCD is achieved by having a method in place to maintain minimum retroreflectivity levels. Conformance does not require or guarantee that every individual sign in the city will meet or exceed the minimum retroreflective levels at every point in time.

The goal of this policy is to improve public safety on the city's streets and roads and prioritize the city's limited resources to replace signs.

Article II. Applicable Signs.

This policy applies to all traffic sign in the city except the following:

- Parking, Standing, and Stopping signs (R7 and R8 series)
- Walking/Hitchhiking/Crossing signs (R9 series, R10-1 through R10-4b)
- Adopt-A-Highway signs
- All signs with blue (motor services) or brown (recreational) backgrounds
- Bikeway signs that are intended for exclusive use by bicyclists or pedestrians

Article III. Resource Materials

The city has reviewed and relied on numerous resources in adopting this policy. These resource materials include, but are not limited to the following:

- *Methods for Maintaining Traffic Sign Retroreflectivity*, Publication No. FHWA-HRT-08-026, U.S. Department of Transportation, Federal Highway Administration (November 2007).

- *Sign Retroreflectivity Guidebook*, Publication No. FHWA-CFL/TD-09-005, U.S. Department of Transportation, Federal Highway Administration (September 2009).

- *Sign Retroreflectivity: A Minnesota Toolkit*, Minnesota Department of Transportation, Local Road Research Board (June 2010).

- Traffic Sign Maintenance/Management Handbook, Report No. 2010RIC10, Version 1.1, Minnesota Department of Transportation (October 2010).

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- *LMCIT Sign Retroreflectivity Memo and Model Policy*, League of Minnesota Cities (3rd Edition, January 2014).

Article IV. Sign Inventory

To meet the city's goal of maintaining sign retroreflectivity above certain levels, the city will maintain a sign inventory of all new or replacement signs installed after the effective date of this policy. The inventory shall indicate the type of sign, the location of the sign, the date of installation or replacement, the type of sheeting material used on the sign face, the expected life of the sign, and any maintenance performed on the sign.

As to existing signs, the city will perform an inventory of all signs covered by this policy. The city recognizes this process will occur over time subject to the city's monetary and human resources. The city expects to complete its sign inventory by __11/1/2019_____. The city shall record the above information related to new signs to the extent that such information is known and shall also include a statement on the general condition of the sign.

Article V. Removal of Signs

In recognition of the fact that excess road signs have been shown to reduce the effectiveness of signage, as well as impose an unnecessary financial burden on road authorities, it is the city's policy to remove signs determined to be unnecessary for safety purposes and which are not required to comply with an applicable state or federal statute or regulation. The removal of signs shall be based on an engineering study and the MN MUTCD. Particular attention shall be paid to recommendations on signage for roads considered to be "low-volume" under the MN MUTCD. The city shall document the date a sign is removed and the reason for the removal.

Article VI. Approved Sign Evaluation Method.

[NOTE: Each city needs to customize this section of the policy to select the method or combination of methods it will use to meet the sign retroreflectivity requirements. Below is a non-exhaustive list of suggestions that a city might use to comply with the requirements. You can check one or more boxes to match the city's selected method(s).

If the city chooses an assessment method (nighttime visual inspection or measured sign retroreflectivity), the city needs to select a reoccurring time frame, e.g., annual, every other year, etc., to assure continued compliance.

LMCIT suggests that you consult with your city's engineer in determining which method is most appropriate for your city.]

After reviewing the various methods proposed for sign maintenance, the City adopts one or more of the following methods to meet the minimum sign retroreflectivity requirements in the MN MUTCD: [Check one or more of the boxes that apply; for example, a city might choose Nighttime Visual Inspection and Expected Sign Life]

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☐ **Nighttime Visual Inspection.** The retroreflectivity of the City's signs is assessed by a trained sign inspector following a formal visual inspection procedure from a moving vehicle during nighttime conditions. Signs that are visually identified by the inspector to have retroreflectivity below the minimum levels will be replaced. The City will visually inspect its signs based on the following schedule: _____
_____.

[Describe how often the city will visually inspect signs. For example, the City might visually inspect all signs covered by this policy once each year; visually inspect one-half of all sign covered by this policy in even-numbered years and visually inspect the other one-half of its signs in odd-numbered years; visually inspect all signs on high volume roads once per year and visually inspect signs on all other roads once every three years.]

☐ **Measured Sign Retroreflectivity.** Sign retroreflectivity is measured using a retroreflectometer. Signs with retroreflectivity below the minimum levels will be replaced. The City will measure sign retroreflectivity based on the following schedule: _____
_____.

[Describe how often the city will measure signs. For example, the City might measure the retroreflectivity of all signs covered by this policy once every two years; measure the retroreflectivity of all signs covered by this policy once every four years dividing the City into quadrants and measuring all the signs in one quadrant each year; measure the retroreflectivity of all signs on principal arterial roads once each year, measure the retroreflectivity of minor arterial roads once every two years and measure the retroreflectivity of all other roads once every three years.]

XX☐ **Expected Sign Life.** The installation date is labeled or recorded when a sign is installed, so that the age of any given sign is known. The age of the sign is compared to the expected sign life. The expected sign life is based on the experience of sign retroreflectivity degradation in the City. Signs older than the expected life will be replaced.

☐ **Blanket Replacement.** All signs in the City of a given type are replaced at specified intervals. This eliminates the need to assess retroreflectivity or track the life of individual signs. The replacement interval is based on the expected sign life for the shortest-life material used in the City or a given sign type. The current replacement interval is ____ years.

☐ **Control Signs.** Replacement of signs in the City is based on the performance of a sample set of signs. The control signs will be a small sample located in the City's maintenance yard or a selection of signs in the field. The control signs will be monitored to determine the end of retroreflective life for the associated signs. All signs represented by a specific set of control signs will be replaced before the retroreflectivity levels of the control signs reach the minimum retroreflectivity levels.

Article VII. Sign Replacement.

The City hereby establishes the following priority order in which road signs will be replaced:

- First priority shall be given to replacing all signs determined not to meet applicable retroreflectivity standards. Top priority shall also be given to replacing missing or damaged signs determined to be of a priority for safety purposes.
- Second priority shall be given to signs determined to be marginal in their retroreflectivity evaluation.
- Third priority shall be given to all remaining signs as they come to the end of their anticipated service life, become damaged, etc.

In addition, within each category above, further priority shall be given to warning and regulatory signs on roads with higher vehicle usage.

After the initial replacement of signs as provided for in this Article or the installation of new signs, the City shall, for the purpose of complying with the requirements of the MN MUTCD, maintain minimum retroreflectivity standards, as budgetary factors allow, by replacing signs as they reach the end of the latter of their (a) warranty period; (b) expected life expectancy for the sheeting material used on the sign; or (c) expected life as determined by an authorized engineering study.

Damaged, stolen, or missing signs may be replaced as needed.

Article VIII. Modification and Deviation from Policy.

The City reserves the right to modify this Sign Retroreflectivity Policy at any time if deemed to be in the best interests of the City based on safety, political and economic considerations.

The Director of Public Works, or his or her designee, may authorize a deviation from the implementation of this policy in regard to a particular sign when deemed to be in the best interests of the City based on safety, political and economic considerations. Such deviation shall be documented including the reason for the deviation and other information supporting the deviation.

Adopted by the City Council of the City of _____ on this _____ day of _____, 2014.

_____
City Clerk or Administrator

_____
Mayor

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This Model Policy is for guideline purposes only. Each city has unique and specific circumstances that may dictate a different approach than is recommended here. Please consult your engineer and city attorney when developing a policy for your city. The responsibility for complying with the MN MUTCD rests with each city.

To obtain a Word© copy of this document, contact Helene Tetz at (651) 215-4095 or htetz@lmc.org.

LEAGUE OF MINNESOTA CITIES

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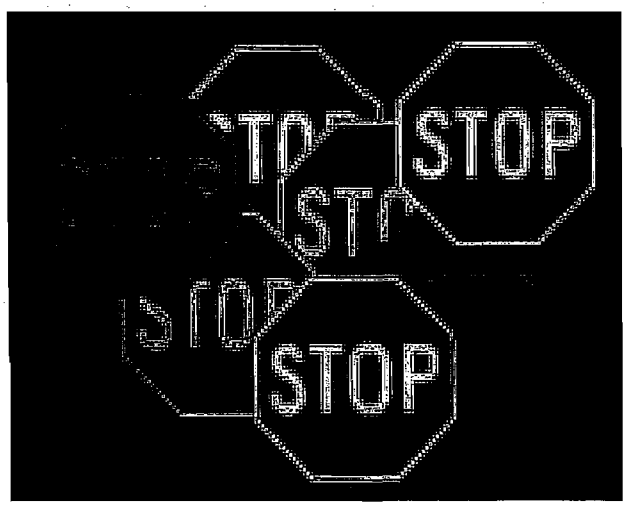
RISK MANAGEMENT INFORMATION

LMCIT SIGN RETROREFLECTIFITY MEMO AND MODEL POLICY

(3rd Edition, Revised January 2014)



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145 UNIVERSITY AVE. WEST
ST. PAUL, MN 55103-2044

PHONE: (651) 281-1200 FAX: (651) 281-1299
TOLL FREE: (800) 925-1122 WEB: WWW.LMC.ORG

Introduction
This memo and model policy has been developed and revised by the League of Minnesota Cities to help our members meet the latest federal and state requirements related to sign retroreflectivity.

By June 13, 2014, all agencies, including cities, who maintain roadways open to public travel must adopt a sign maintenance program designed to maintain traffic sign retroreflectivity at or above specific levels.

"Retroreflectivity" describes how light is reflected from a surface and returned to its original source. Traffic signs are made with retroreflective sign sheeting material that redirects headlamp illumination back toward the vehicle, thereby making the sign visible at nighttime to the vehicle driver. Improvements to nighttime visibility of traffic signs will help drivers better navigate roads at night and thus promote safety and mobility. Improvements in sign visibility will also help older drivers whose visual capabilities may be declining.

The retroreflective properties of all sign sheeting materials degrade over time making signs progressively less visible at night. As signs degrade and become less retroreflective, their effectiveness in communicating regulatory, warning, and guidance messages to road users at nighttime diminishes to the point that they cannot be seen or read in time for the driver to react properly. Thus, to maintain nighttime effectiveness, signs should be replaced before they reach the end of their useful retroreflective life.

Manual of Uniform Traffic Control Devices
The *Manual of Uniform Traffic Control Devices* (MUTCD), published by the U.S. Department of Transportation, Federal Highway Administration (FHWA), sets forth basic principles of traffic signs in order to promote safety on public roads. The MUTCD establishes uniform standards for traffic signs.

The Minnesota Department of Transportation (MN/DOT) has adopted the MUTCD and certain MN/DOT appendices as the *Minnesota Manual on Uniform Traffic Control Devices* (MN MUTCD). See http://www.dot.state.mn.us/trafficeng/publ/mutcd/index.html. The Minnesota Commissioner of Transportation has ordered that the MN MUTCD shall be implemented and applied to all traffic control devices.

The MN MUTCD requires the city to establish an assessment or management method that is designed to maintain sign retroreflectivity at or above minimum levels specified in MN MUTCD Table 2A-3, which can be seen on page 2A-6 of the following document: http://www.dot.state.mn.us/trafficeng/publ/mutcd/mnmutcd2009/mn%20mutcd-2A%202009.pdf.

The 2015 and 2018 compliance dates for replacement of signs that fail to meet minimum standards have been eliminated. However, cities still need to adopt a policy to replace traffic signs when they are worn out. Adopting a sign retroreflectivity policy will significantly reduce tort liability lawsuits involving traffic signs.

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Applicable Signs
The sign retroreflectivity requirements apply to all signs in the city except the following:

Parking, Standing, and Stopping signs (R7 and R8 series). Signs governing the parking, stopping, and standing of vehicles cover a wide variety of regulations, and only general guidance can be provided here. The word "standing" when used on the R7 and R8 series of signs refers to the practice of a driver keeping the vehicle in a stationary position while continuing to occupy the vehicle. Typical examples of parking, stopping, and standing signs are as follows:

- NO PARKING ANY TIME
- NO PARKING 8:30 AM TO 5:30 PM
- NO PARKING EXCEPT SUNDAYS AND HOLIDAYS
- ONE HOUR PARKING
- NO PARKING LOADING ZONE
- NO PARKING BUS STOP
- NO PARKING ON PAVEMENT
- NO PARKING EXCEPT ON SHOULDER
- NO STOPPING ON PAVEMENT

Walking/Hitchhiking/Crossing signs (R9 series, R10-1 through R10-4b).

Adopt-A-Highway signs.

All signs with blue (motor services) or brown (recreational) backgrounds.

Bikeway signs that are intended for exclusive use by bicyclists or pedestrians.

Evaluation Methods
The establishment of minimum maintained traffic sign retroreflectivity levels in the MN MUTCD requires the city adopt one or more acceptable methods to assure adequate nighttime visibility of traffic signs. The MN MUTCD describes various evaluation methods that cities can chose from to provide reasonable nighttime sign visibility. It does not dictate which method to use. Rather, the city has several options to choose from based on the city's resources, needs, and current practices.

Evaluation methods can be divided into one of two categories—*assessment* or *management* methods. Assessment methods involve some type of assessment of the nighttime visibility of individual signs (e.g., visual inspection or retroreflectivity measurement). Management methods are based on the expected retroreflective life of the overall sign inventory, based on factors such as warranties, demonstrated performance, or control sign assessments.

The following is a description of the evaluation methods and some of the concerns, advantages, and disadvantages of each method. The descriptions are taken from *Methods for Maintaining Traffic Sign Retroreflectivity* (Publication No. FHWA-HRT-08-026, November 2007), published by the U.S. Department of Transportation, Federal Highway Administration.

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A. Assessment Methods.

The basic concept of an assessment method is that the condition of each individual sign in the city is assessed or evaluated on a periodic basis. The MN MUTCD does not set specific intervals. The two assessment methods are:

- Nighttime Visual Inspection
- Measured Sign Retroreflectivity

Nighttime Visual Inspection
Visual inspections are perceived to be the most likely means to find nighttime visibility problems with signs. Using this approach, it is possible to assess more than just the retroreflectivity of a sign. Damage, obstructions, poor placement, and other factors that might detract from the nighttime visibility of the sign can be observed. The MN MUTCD currently includes language that encourages cities to undertake periodic daytime and nighttime visual inspections.

This method requires a minimal investment of resources on the part of the city, although there is a need for a record-keeping system for inspection data and the potential for higher labor costs where overtime pay is required. While visual inspections will reveal night visibility problems not discernable under any other method, they are subjective and hence more difficult to tie to a benchmark value of retroreflectivity.

Cities using visual inspections must establish procedures to provide consistency in inspections. This implies the need for training programs and certification of inspectors to assure consistency of inspections. Inspection procedures should address the type of vehicle used, type of headlamps on the inspection vehicle, headlamp aiming, and age and visual acuity of the inspector(s). While there are some concerns about the reliability of the visual nighttime inspection, research has shown that trained inspectors can do a reasonable job of determining which signs need to be replaced because of inadequate retroreflectivity.

The visual inspection technique uses trained personnel to observe traffic signs during the nighttime to assess the overall appearance of a sign and determine if it meets the required minimum retroreflectivity level. The observation is typically done through the windshield of the vehicle at or near the speed limit of the roadway. The key to this method is having trained inspectors. While there is no nationally-recognized training course or certification for sign inspectors, cities should provide some form of training before sign inspections are performed.

One way to perform the training is to have the inspectors observe sample signs at a variety of known retroreflectivity levels before conducting the inspections. Training helps facilitate an inspector's ability to discern sign retroreflectivity levels that are at the minimum levels prior to conducting inspections. Preferably, there should be sample signs that are at or near the minimum retroreflectivity levels associated with each sign type and color. The inspector should view the sample signs under similar conditions to those under which inspections will be performed. This includes using the appropriate vehicle and placing the sample signs at typical positions that will be encountered during an inspection. For this method to be effective, the training must prepare the

inspector in advance, using correct sample signs that represent retroreflectivity levels at or near the MN MUTCD minimum retroreflectivity levels.

The usual method of inspecting signs at night is to use a two-person crew. While the driver focuses on the driving task, the passenger evaluates the signs and records the appropriate information. If an inventory is available, signs that have been knocked down or missing for some other reason can be identified during the nighttime inspection. If no inventory exists, an inventory of existing signs can be created while conducting the nighttime inspection, but it may not account for missing signs. A nighttime inspection procedure can be performed without a sign inventory.

The nighttime visual inspection method should only use the low-beam headlamps of the vehicle as the source of illumination for the signs. The interior light of the vehicle should remain off to the extent feasible. The inspection should be performed at highway speeds and from the travel lanes and not the shoulder. As the vehicle approaches the sign, the sign's overall appearance in terms of brightness and legibility is assessed. Usually the sign is given a rating defined by the city. At a minimum, the scale should include three designations: good, fair, and poor. The inspector records the information for each sign and the rating that it is given. Signs rated as poor should be scheduled for replacement as soon as possible. Depending on the inspection schedule, signs rated as fair can be noted as requiring attention during the next set of scheduled inspections or can be identified for additional assessment, such as measurement at a later date using a handheld retroreflectometer.

The vehicle and inspector combination should be selected to provide a conservative estimate of sign retroreflectivity. The increased sales of pickup trucks and sport utility vehicles, which result in larger observation angles, make these types of vehicles appropriate for use. Relatively new vehicles, with visually/optically aimable (VOA) headlamps, should be considered. Ideally, the inspector should be older, with nighttime visual capabilities similar to older drivers. The vision of the inspector should be tested to ensure that it is within the legal limits of the State of Minnesota. It is important that a city develop consistent guidelines to decrease the subjectivity of inspections. For instance, some items to consider are procedures to clean the headlamps and windshield before each night of inspections and to periodically check the headlamp aiming.

Probably the most important element of nighttime inspection is documenting the process and results. This can be done with a voice or video recorder, or even with paper and pencil. Whichever method is selected, it is important that inspections are properly documented and preserved to provide tort protection.

Concerns

One concern associated with nighttime visual inspections is that it is the most subjective of all the methods. Another concern is funding overtime pay to conduct the inspections during late evening or early-morning hours. It is also important that inspectors are properly trained.

Linking Nighttime Visual Inspections to Minimum Retroreflectivity Levels

Minimum retroreflectivity levels are incorporated into this method by training the inspectors and using procedures that allow them to correlate their observations through the use of sample signs. A good practice is for inspectors to observe the sample signs prior to each inspection run. The use of

appropriate sample signs at or near minimum retroreflectivity levels is a key element to training that links the nighttime visual inspection method to the minimum retroreflectivity levels.

Advantages and Disadvantages
One of the major benefits of using the visual inspection method is that it has the least administrative and fiscal burden of all the methods. This method also has a unique feature in that the signs are viewed in their natural surroundings. Thus, the overall appearance of the sign and the ability of the sign to provide information to the driving public can be assessed.

Another advantage of the visual inspection method is that it has the lowest level of sign replacement and sign waste. Only those signs identified as needing to be replaced because of low retroreflectivity levels are replaced, assuming that the inspection frequency is appropriate. With management methods, it is probable that some signs will be replaced before their full life is achieved. This may imply that the visual inspection method (as compared to the measured retroreflectivity method) maximizes sign life.

While this method may be more subjective than other methods, research has shown that trained observers can reasonably and repeatedly detect signs with marginal retroreflectivity. There is some risk involved while doing these inspections, particularly if the driver is also the evaluator and recorder. Ideally, nighttime inspections should be conducted with two people for safety reasons.

Measured Sign Retroreflectivity
In general, there are two ways that sign retroreflectivity can be measured in the field: with handheld contact instruments or with non-contact instruments. Contact instruments require the measurement device to be in physical contact with the sign surface. Non-contact instruments, which measure the retroreflectivity from a distance, include both a hand-held device and vehicle based systems. The use of the measurement method as an exclusive process to maintain sign retroreflectivity has not historically appealed to cities. However, when combined with another method, the measured sign retroreflectivity method adds an element of accuracy to the overall program. This combination of methods may maximize maintenance budgets and provide additional protection from tort claims.

There are several commercially available hand-held retroreflectometers that can be used to measure sign retroreflectivity. While the contact instruments are believed to provide relatively low levels of uncertainty for a given measurement, using contact instruments can be time consuming. Non-contact devices offer flexibility and speed-up the measurement process, but the trade-off is a higher level of uncertainty. The uncertainty associated with field measurement of sign retroreflectivity has not been well established. The FHWA does not endorse the use of any specific instrument.

Concerns
The main concern with the measured sign retroreflectivity method is that retroreflectivity only accounts for one aspect of a sign's appearance. Other factors should be considered when determining whether or not a sign is adequate for continued use at a particular location. These factors include ambient light levels, presence of glare, location relative to the road, and the complexity of the visual background. A sign that is acceptable in a rural environment may not be acceptable in a complex urban environment.

Another concern with this method is the amount of time it takes to measure the retroreflectivity of a traffic sign using hand-held devices. Given the current methods and technology available to obtain a sign's retroreflectivity, the time commitment required to take retroreflectivity readings of all signs within a city's jurisdiction may be labor intensive and cost prohibitive.

Linking Measurements to Minimum Retroreflectivity Levels
This method uses measured retroreflectivity as the basis for the decision of whether or not a sign meets the required minimum level of retroreflectivity. The measured retroreflectivity values are compared to the minimum retroreflectivity levels specified in the MN MUTCD. A sign should be scheduled for replacement if the measured retroreflectivity is at or very close to the minimum required level. This method provides the most direct comparison of the sign's in-service retroreflectivity relative to the minimum maintained retroreflectivity levels.

Advantages and Disadvantages
Measured retroreflectivity provides the most direct means of monitoring the maintained retroreflectivity levels of traffic signs. This removes all subjectivity that exists in other methods.

The main disadvantage of using this method is that measuring all of the signs in a jurisdiction is time consuming. In addition the cost of the equipment to measure signs can be very expensive. Most retroreflectometers are in excess of $12,000. Measured sign retroreflectivity may be best used to support one of the other methods or as a means of evaluating marginal signs. Another disadvantage is that using the retroreflectivity of the sign as the only indicator of whether or not a sign should be replaced may end up neglecting other attributes of the sign's overall appearance. Other factors should be considered, including the overall appearance and legibility of the sign, as well as environmental concerns, such as areas with high levels of visual clutter or glare, that may require a brighter sign. Cities need access to instruments and trained personnel to use this method.

B. <u>Management Methods</u>.

Management methods are based on the expected retroreflective life of the overall sign inventory. The three management methods are:

- Expected Sign Life Method.
- Blanket Replacement Method.
- Control Sign Method.

Expected Sign Life
In this method, signs are replaced before they reach the end of their expected service life. The expected service life is based on the time required for the retroreflective material to degrade to the minimum retroreflectivity levels. The expected service life of a sign can be based on sign sheeting warranties, test deck measurements, measurement of signs in the field (control signs) and measurement of signs taken out of service, or information from other municipalities. The key to this method is being able to identify the age of individual signs. This is often accomplished by placing a

sticker or other label on the sign that identifies the year of fabrication, installation, or planned replacement or by recording the date of installation in a sign management system.

Although there are variations to this method, the basic idea is that the installation date of every sign in a city's jurisdiction is known, along with the type of retroreflective sheeting material used on the sign face. It is also necessary to define an expected sign life for each type of retroreflective sheeting material. This can be done for individual signs or as a general parameter for the types of material used by the city. Other information may also be of interest to the city such as sign color, direction the sign is facing, and sign construction. This information is used in a systematic manner to "flag" signs that need to be replaced before their sign life expires.

One way to use this method is through a computerized sign management system to keep track of a city's sign inventory and periodically extract information on signs that are reaching the age at which they need to be replaced. The degree of sophistication of the sign management system will dictate the options available to the city. For example, most systems can generate lists of signs needing replacement, but some allow specific categories of sign type, size, or color to be focused upon. These systems may be able to generate individual work orders for each sign that needs to be replaced or can group replacements in a manner that provides an effective work schedule for sign crews.

If a city has a computerized sign management system, it should be possible to query the sign database at regular intervals for a list of signs that are nearing the end of service life. Actual readings of sign retroreflectivity can be taken to determine if the degradation is occurring as expected. If the degradation is not occurring as fast as expected, then signs of that type could be left in the field longer (and an update to the planned replacement date subsequently made in the database). Conversely, if the deterioration is occurring faster than expected, the signs can be scheduled for replacement sooner. Monitoring changes in degradation can help ensure better nighttime visibility and increase the overall life cycle of a city's signs, resulting in cost savings.

Another way this method can be used is by placing an installation or replacement date sticker on each sign to allow field crews to know when specific signs reach their replacement age. If a sign is found to be older than indicated by the maximum life noted on the sticker, then the sign should be replaced. This method can be time consuming if signs along a roadway vary significantly in age, but it can be executed during the day and requires no inspection or measurement of the sign.

A complication of this method is related to the placement of the date stickers. When placed on the front of the sign, field crews can more readily view the date information. However, the information must be limited so as not to distract from the message on the sign. More information can be included on stickers placed on the back of the sign, but it is harder for field crews to see this information as they drive by, particularly on wide roadways.

Concerns

The main concern with this method is that there are little data on how different types of sheeting deteriorate over time in a given climate. It can be a complex process to determine how long signs of a certain sheeting type and color will last in a given region of the country. Also, there are no

definitive results on the role that the orientation of the sign face plays in the deterioration of the sign and whether or not signs facing different directions deteriorate at significantly different rates. While there have been many studies, these studies do not come to the same conclusions about the relationship between sign face orientation and deterioration rates.

One of the easiest ways to assign expected sign life to retroreflective sheeting materials is to use the manufacturer's warranty. However, these warranties obviously include a certain factor of risk on the part of the manufacturer and therefore are often conservative. They may also vary depending on the region of the country.

Linking Expected Sign Life to Minimum Retroreflectivity Levels
The minimum retroreflectivity levels provide the initial basis for the expected life criteria, but an understanding of the actual degradation rates of in-service signs is required to set appropriate triggers as retroreflectivity levels approach the minimum requirements. Degradation rates differ by region of the country, type and color of material, and orientation. Furthermore, under this method, the actual retroreflectivity of a sign is not assessed—only the age of the sign is monitored.

There is a potential need to gather sample data on the true service life of signs to adjust the expected life measures. Some cities accomplish this by the measurement of a sample of the removed signs; some monitor the performance of a small number of signs; and others measure the retroreflectivity of in-service signs with known installation dates.

Advantages and Disadvantages
This method requires that cities track the installation date of their signs. For the field replacement approach to this method, there is the benefit of associating the condition of a sign to its age. The use of a computerized sign management system may eliminate the need for a date sticker, but it also limits the means that may be used to analyze actual service lives because of the need for bar-code reading equipment or other technology-dependent equipment that might be used to code information on a sign.

The expected sign life method allows cities to help develop local service life requirements based on actual end-of-service-life retroreflectivity measurements and comparisons to minimum required levels. These comparisons can provide useful information on service life under local conditions, product performance, sign fabrication processes, and analysis of replacement strategies. This method requires that the type of sheeting used to fabricate a sign be known.

One drawback to this method is that it can be fairly time consuming to check date stickers if the stickers are not easily viewable or identifiable on the sign. Another possible difficulty relates to marking signs that need to be replaced, although immediate replacement is possible for some sign types. If a city uses a sign management system and functions with the use of portable computers in the field, the inspectors can easily note the signs that need to be replaced, and even generate work orders.

Blanket Replacement
The blanket replacement method is essentially the expected sign life method executed on a spatial or strategic basis. On a spatial basis, all the signs in a specific area or corridor get slated for

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replacement at the same time, when the effective service life is reached. On a strategic basis, all the signs of a specific type get slated for replacement at the same time. Depending on the size of the jurisdiction, it may be possible to plan sign replacements that consider both geographic and strategic criteria.

This method is probably the simplest of the management methods in that tracking the age of individual signs, either by physical labeling or in a database, is not necessary. It is only necessary to maintain a record of when the blanket actions were undertaken and when they need to be repeated. Usually this method is repeated after a set number of years, depending on the expected life of the signs.

At set time periods, a sign maintenance crew will go to a specific area or corridor and replace all the designated traffic signs under its jurisdiction. This might be done such that regulatory signs are replaced in one cycle, warning signs in another cycle, and guide signs in a third cycle. The time interval between replacements is usually based on the expected sign life as discussed in the previous section. Under this method, all signs are replaced regardless of the amount of time they have been in the field or the condition at the time of replacement. Blanket replacements can be scheduled to coincide with major roadwork or repaving, resulting in the least impact on traffic. This is especially beneficial on routes with high traffic volumes.

Concerns
One of the issues with this method is that the replacement times can vary depending on the region of the country in which the city, or even across a jurisdiction for large cities. The replacement time also depends on the types of sheeting that are used to make the city's traffic signs. Therefore, a city needs to have relevant data on the in-service life of all the sheeting materials it has in the field. Another concern is that this method potentially wastes resources by removing signs before their useful life has been reached. This is particularly true where signs have been added or replaced in an area after the last replacement cycle. When the replacement cycle comes around, these signs will be replaced regardless of their age.

Linking Blanket Replacement to Minimum Retroreflectivity Levels
The minimum retroreflectivity levels provide the initial basis for the expected life criteria, but an understanding of the actual degradation rates of in-service signs is required to set appropriate triggers as retroreflectivity levels approach the minimum requirements. Under this method, retroreflectivity levels of signs are not measured, and opportunities are limited for capturing data that may be useful in adjusting service lives, trigger points, or sign maintenance strategies.

Advantages and Disadvantages
The major benefit of using this method is that all signs are replaced; there is a low likelihood of a given sign being skipped over or not being replaced. This ensures that all replaced signs are visible and meet minimum retroreflectivity levels.

The major drawback to this method is the potential amount of waste than can be generated if signs that are relatively new are removed during a normal replacement cycle. This can be particularly expensive when a blanket replacement method is first implemented. Follow-up replacement cycles

can also be wasteful if signs are replaced between the expected service life periods because of knockdowns, graffiti, etc.

Control Signs

The control sign method is based on measurements made of a subset of signs that represent the city's inventory. The subset of signs represents a population of signs made with the same material for which the retroreflectivity performance over time is monitored by actual measurements. As the retroreflectivity levels of the control signs approach the minimum levels, it triggers action to begin replacement of the entire associated population of city signs. The control signs can be located at one or more of the city's maintenance yards or can be traffic signs that are deployed at various locations in the city. The control signs are measured periodically to monitor actual degradation of retroreflectivity. This method requires only the management of the control sign information and the retroreflectivity measurements of those signs over time.

The use of this method requires the installation of signs in a maintenance yard or the definition of specific control signs from the population of deployed signs. Periodic measurements of control signs are made following ASTM E1709 or other accepted procedures. Measurements or other observations are tracked over time to monitor changes in retroreflectivity and nighttime visibility. Once these signs, as a whole, start to approach the minimum retroreflectivity levels, all the traffic signs in the field that these control signs represent are replaced.

Concerns

The effectiveness of this method is dependent upon the size of the control sign sample. The larger the sample, the better the estimation of the retroreflectivity levels of the sign populations it represents. There is no specific guidance on the number or percentage of the population the sample represents. However, a minimum of three signs per type of sheeting and color should be monitored.

Another question relates to how often a set of control signs is needed. Each new sign material or deployment of a major product order would warrant a set of control signs, as there are likely to be differences in retroreflectivity performance. It may be appropriate to install controls when new sign fabrication processes are implemented or other major changes in the sign management process occur. It may also be appropriate for a large city that deploys signs continually to set up control signs as materials age on the shelf and personnel change. Too short a time period between adding control signs may cause the city to have a large number of control signs to monitor, which negates the simplicity of this method. Too much time between control signs could result in errors estimating the service life of signs installed in the time interval between the control signs.

Another consideration is how often the control signs should be checked for their retroreflectivity levels and appearance. If the time interval between measurements is too short, then this may needlessly waste time and personnel resources. On the other hand, if the time interval is too long, signs may be left in the field that are not adequate for continued use and may pose a possible safety risk. An annual inspection of the signs, including retroreflectivity measurements, may be appropriate.

Linking Control Signs to Minimum Retroreflectivity Levels
The control signs must be measured at given intervals with a retroreflectometer to determine how they are performing. These values are then compared to the minimum retroreflectivity levels in order to trigger sign replacement actions. The precise retroreflectivity levels of the majority of deployed signs are not known using this method.

Advantages and Disadvantages
The main benefit of this method is that it is not nearly as labor intensive as taking retroreflectivity readings on every sign in a city's jurisdiction. Because a sample set of signs is used to monitor the retroreflectivity levels, it is easier and less labor intensive to get an estimate on how the traffic signs, represented by the control signs, are performing in the field.

Another benefit of using this method is that signs that do meet the required minimum retroreflectivity levels are not removed prematurely, allowing for an efficient use of the signs and their material. This may be particularly advantageous when the life of a new sign material exceeds the warranties provided by the manufacturer.

This method requires cities to have the capability to measure the retroreflectivity of the control signs. Without an appropriate sampling process, the control signs may not be representative of the larger sign population they are intended to represent. This could lead to replacing signs that do not need replacement or not replacing signs that do need replacement. Therefore, cities must evaluate the number of signs of each type within their jurisdiction and establish guidelines on the number of control signs that are needed to appropriately represent signs in the field.

C. Combination of Evaluation Methods or New Methods.

Combinations of two or more methods will be viable for many cities. In addition, cities are not limited to the proposed evaluation methods. Cities may develop their own methods using documented engineering studies that demonstrate that deviations are appropriate.

Cities may combine different methods or parts of different methods to achieve sign retroreflectivity maintenance practices that best fit the city's needs and budget. For example, a combination method might include a management method complemented with an assessment method used to provide supplemental data. This method provides a means to track individual signs but without the need to inspect or measure every sign. Any number of combinations can be implemented to logically integrate with other aspects of the sign management process and best fit a city's limited resources. Also note that the proposed methods can be used exclusively with effective results.

One possible combination is the use of a management method with both daytime and nighttime visual inspections. The expected life of a sign is a management method and is based on the age and degradation of the sheeting types used. This management method in combination with daytime visual inspections may allow a city to track how many signs they have, how old they are, and where they are located. It also provides field crews with a list or summary of deployed signs that can be easily used to note the need for sign replacements or repairs when conducting nighttime visual inspections. The information may be downloaded to laptop computers to further facilitate field

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inspections and documentation of sign conditions and replacement needs. Combining the expected sign life management method with both daytime and nighttime visual inspections is one example of adapting methods that meet a city's needs.

Another possibility is to combine expected sign life with measured retroreflectivity. Under this method, a city is not required to measure the retroreflectivity of all signs. Measurement of a small sample from across a region allows the city to compare the expected and measured retroreflectivity. The measurements allow the city to validate, and revise if necessary, the service life of each sign sheeting material and color used by the city.

In summary, these methods can be used in different ways but will provide a consistent evaluation of the nighttime visibility of in-place traffic signs.

Which method should cities use?
Selecting a method, or combination of methods, is one of the first decisions a city needs to make in order to comply with the new retroreflectivity requirements.

It is not appropriate to prescribe a single method for all cities to follow. The most cost effective and efficient method to maintain sign retroreflectivity will vary by city. However, many engineers and city officials have suggested that that some variation of the Blanket Replacement Method combined with the Expected Sign Life Method would likely be the best methods for most cities. Once the age of a sign is known, using the Expected Sign Life Method is likely to be the easiest approach to replacing signs.

Documentation
Regardless of which method is adopted by the city, it is important for the city to document the process. Good records provide documentation that an appropriate method was used and also allows the city to assess and revise, if necessary, the method used to meet the sign retroreflectivity requirements. As long as the city has a reasonable method in place to manage or assess it signs and establishes a reasonable schedule for sign replacement, the city will be in conformance with the new sign retroreflectivity requirements.

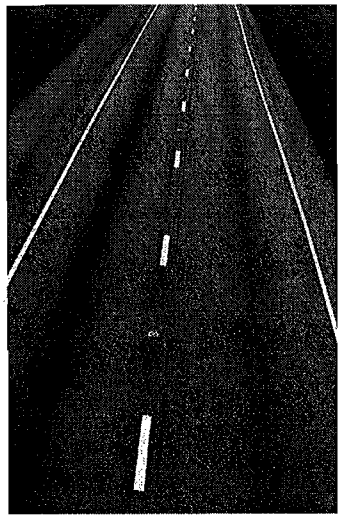
Sign reduction
As cities contemplate how to comply with the new sign retroreflectivity requirements, it is likely that part of the discussion will involve considering a reduction in the size of the city's sign inventory. If a city has fewer signs, the cost of complying with the new requirements will be less. Only certain signs are required by the MN MUTCD. Thus, the city may consider getting rid of signs that are not required.

Implementation plan
No one implementation plan will work for every city. However, below is a suggested plan of action to assist cities in meeting the new sign retroreflectivity requirements.

- Create a traffic sign inventory for the city
- Remove excess and unnecessary signs

- Adopt one or more methods to manage or assess the retroreflectivity of the city's signs
- Develop a budget for replacing signs
- Use the selected method to evaluate the retroreflectivity of the city's traffic signs
- Identify signs that do not meet the minimum retroreflectivity requirements
- Prioritize and schedule replacement of signs that do not meet the minimum retroreflectivity requirements
- Plan for long-term compliance to better manage your city's signs
- Document the city's actions

Chris Smith (January 2014)

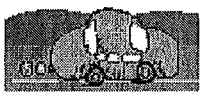


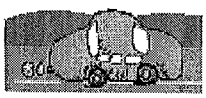
2014 Street Project Open House

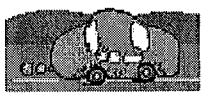
Wednesday, March 19, 2014
4—7 p.m.
City Hall Council Chambers

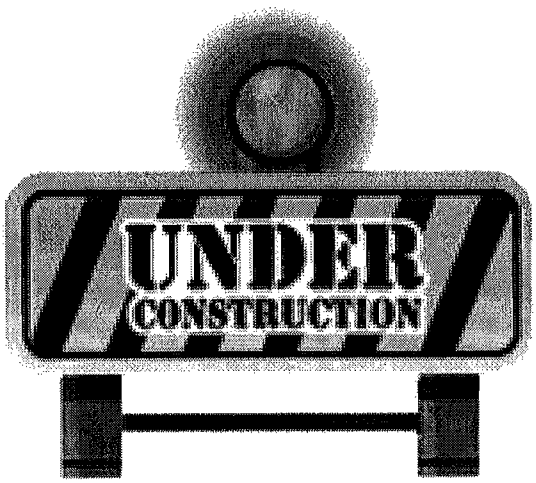
Meet with the City Engineer & Public Works Director to answer questions including:

- What effects will the project have on your property?
- When will the project start?
- Will any trees be disturbed?
- Who will be the contractor?
- Why do I have to sign an Easement?
- How much will the project cost?
- Are there payment options?









It is necessary that all property owners (husband & wife, if applicable) attend this open house to review the project and to sign a Temporary Easement Agreement.

If you can't attend the Open House, it is imperative that you contact Ron Mergen at 320-243-3714 ext. 230 to schedule an appointment.