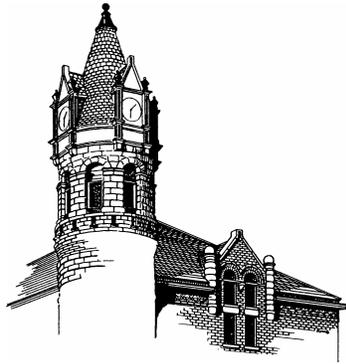


Adopted by the Common Council  
May 25, 2010

**POLICY ON INSTALLING & MAINTAINING TRAFFIC,  
PARKING & STREET NAME SIGNS & TRAFFIC CONTROL SIGNALS**



**City of Stoughton, Wisconsin  
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**TABLE OF CONTENTS**

	<b><u>Page</u></b>
<b>INTRODUCTION.....</b>	3
<b>THE SHAPE AND COLOR.....</b>	3
WARNING SIGNS.....	3
MOTORIST SERVICE SIGNS.....	4
REGULATORY SIGNS.....	4
REC. AND CULTURAL SIGNS.....	5
GUIDE SIGNS.....	5
CONSTRUCTION SIGNS.....	5
<b>GENERAL GUIDELINES FOR TRAFFIC SIGNS.....</b>	6
MOUNTING HEIGHT.....	8
REGULATORY SIGNS.....	10
STOP AND YIELD SIGNS.....	11
WARRANTS FOR STOP SIGN.....	11
WARRANTS FOR YIELD SIGN.....	13
DEAD END SIGNS.....	13
PARKING AND SNOW ROUTES SIGNS.....	14
CROSSWALKS.....	15
WARNING SIGNS.....	16
STREET NAME SIGNS.....	16
<b>MAINTENANCE.....</b>	18
<b>TRAFFIC CONTROL SIGNALS.....</b>	26
<b>TRAFFIC SIGNS LOG.....</b>	27
<b>CONCLUSION.....</b>	27
<b>APPENDIX A.....</b>	28

## **INTRODUCTION**

The City of Stoughton is adopting a standardized traffic signage and traffic control signal policy to ensure the safe and effective flow of both pedestrian and vehicular traffic throughout the city. The Federal Uniform Traffic Control Devices Manual dictates the size, shape, and color of all traffic signs. This manual has guidelines for installing traffic signs and thus creates uniformly from state to state. The City of Stoughton is required by State law to comply with the guidelines and the Wisconsin Manual on Uniform Traffic Control Devices (MUTCD). The MUTCD are to be adhered to when installing new signs, relocating existing signs and repairing/replacing damaged or worn out signs, unless the Administration Engineer specifically direct otherwise.

## **THE SHAPE AND COLOR**

**WARNING** signs alert drivers to existing or potentially hazardous road conditions.



Several warning signs help drivers anticipate sharp turns or curves in the road.



Usually diamond- shaped and yellow, warning signs caution drivers that the road is slippery when wet; there is an intersection ahead, the lanes narrow, or there be bicyclists, farm animals, or wildlife on or near the roadway.



The pentagon shape with point to the top warns us to watch for school children. The new color for these signs fluorescent yellow-green is much easier to see in low light and foggy/rainy weather. The yellow pentagon shape with point to the top warns us to watch for pedestrians.



Pay attention to the round yellow WARNING sign, there is a railroad crossing ahead.



Yellow pennant-shaped signs caution motorists where passing is unsafe.

## MOTORIST SERVICE SIGNS



Blue rectangle or square service signs are a welcome sight for travelers who need a break from the road. We look for these signs to help us find service stations, place to eat, rest areas, phones, and over night facilities. The accessible sign is one most inviting for disabled travelers. (Private sectors= responsibility to add this signs except police department sign).

**REGULATORY** signs instruct drivers to do or do not.



A crossbuck indicates the railroad crossing.



Black and white rectangular regulatory signs control lane use. For example, the turn-ONLY lane or when you must keep right or left of a median. They also assign truck weight limits for certain roadways and tell drivers the direction of traffic.



A rectangular white sign with green letters indicates that parking is permitted with restrictions.



We all know that the octagon shape means STOP.



A rectangular white sign with red letters indicates that parking is restricted or prohibited.



The red triangle means YIELD, because someone other than you have the right-of-way.



A red circle with a slash often communicate the do not=s enter, turn, U-turn, pedestrians, or parking.

## RECREATIONAL AND CULTURAL INTEREST SIGNS



Brown RECREATION signs direct us to areas of public recreation and cultural interest. In addition to swimming, skiing, boating, and fishing areas, these signs also direct us to the services in recreation areas, including first aid, post office, and food service.

**GUIDE** signs come in a variety of shapes and colors, each one with an important message to help drivers arrive at their destinations safely.



Square black and white markers specify U.S. routes and most State routes. The even/odd numbering system also applies to State routes.



The green and white mile markers help us gauge how far we've driven, or how far we need to drive, through a state.



Green GUIDE signs direct travelers to the right exit to cities, airports, park-and-ride stations, and other destinations. Green signs also mark bicycle routes.



The familiar red, white, and blue shield tells drivers they are traveling on an Interstate Highway. Even-numbered roads run east-west; north-south Interstates have odd numbers.

## CONSTRUCTION SIGNS



CONSTRUCTION signs are orange diamonds specifically used only to WARN drivers about construction and work zone activity. And don't forget to slow down and give road crews a BRAKE!

## **GENERAL GUIDELINES FOR TRAFFIC SIGNS**

1. **ALL** work is to be written up on traffic signs log issued only by Street Department. No traffic or parking sign is to be installed, or an existing sign removed or significantly relocated, without a traffic sign log form. All traffic and parking signs must conform to the MUTCD and Federal Highway Administration (FHWA) with WI-DOT supplement. Except for the routine replacement of a worn-out sign, no new traffic or parking sign is to be made without a traffic signs log form.
2. Diggers Hotline is to be called by the sign crew to obtain clearance with respect to underground utilities before sign posts are installed. The Wisconsin State Statute requires that anyone who intends to excavate provide at least three (3) working days (except in an emergency) notice of such intent to all owners of underground facilities in or near the area of the excavation. It is the digger's responsibility to request underground utility locations by calling Diggers Hotline toll free, at 1-800-242-8511.
3. For Stop or Yield sign knock-downs, or where they are reported missing, are an emergency and their replacement has a higher priority than any other project. Other traffic and parking signs should be replaced or repaired within five (5) days.
4. On your way to all jobs, stop and repair any signs you observe to be down or badly leaning. They are dangerous in this position, are more easily stolen, and attract unwanted and undesirable attention. If you are on your way to an emergency repair, don't stop, but make a Traffic Signs Log so that you will

remember to come back later to repair it. Also, write up a Traffic Signs Log for any signs, including street name signs that you note to be missing.

5. At the job location, don't be too hasty in selecting the sign locations(s).  
Frequently there are problems resulting from driveways, existing signs, utility poles, trees, picture windows, etc. which make it necessary to shift the sign locations from the ideal. Rarely does a property owner welcome the placement of a sign in the terrace in front of its home. If this cannot be avoided, try not locating more than one sign post in front of a house, and never placing a sign in line with the main window of a house. **Place it on the property line if possible.** If a sign has already been posted in the desired location, determine which has precedence and relocate the other accordingly. If the owner complains to you about the location of the sign, and the sign is not a Stop or a Yield, suspend work and immediately contact your supervisor. If neither your supervisor nor a general supervisor is available, stop work at the site and proceed to the next job location. Report the incident to your supervisor at the earliest opportunity so that a satisfactory solution can be worked out by your supervisor. **All questions about why the sign is being installed or removed are to be referred to the Street Superintendent.**
6. Never place a sign where the view of it would be obstructed by a utility pole, tree, another sign, or any other obstruction. This typically occurs if the sign is placed less than fifteen (15) feet beyond other object which is close to the curb.
7. Utility poles should not be routinely used for mounting unless it can be done

within these guidelines, and even then their use should be minimized. Do **not** stretch these guidelines simply to make use a wood utility pole. Allow a seven foot space between a utility pole and a sign post so that there is adequate room to climb the pole.

8. Sign posts are to be placed four (4) feet from the face of the curb, if possible. If the terrace is too narrow, the sign post may be placed as close as one and one-half (1.5) feet. No sign is to overhang beyond the face of curb. On highways with a shoulder, signs should be placed a minimum of eight (8) feet from the edge of the traveled way, with a maximum clearance of twelve (12) feet.

### **MOUNTING HEIGHT**

- A. The **bottom** of a traffic or parking sign should not be less than seven (7) feet, nor more than seven feet six inches (7'6"), above the **top** of the curb. If two signs are mounted on the same post, the required clearance is six (6) feet.
- B. In districts where there is a shoulder but no curb and gutter and pedestrian traffic is light, the property mounting height is five (5) feet from the roadway edge to the bottom of the sign.
- C. Keep Right, Large Arrow (WI-6, WI-7)@ and chevron signs and delineators are to be mounted at a height of 42 inches from the top of curb (or roadway edge) to the **center** of the sign. The WI-6 and WI-7 signs are, as a general rule, to be installed in line with the eyes of an approaching motorist. The best position varies, depending upon the road width, presence or lack of parking, whether a centerline is painted, etc. A rule of thumb for streets without a centerline is that sign should

be placed at a point about one-third (1/3) of the street width from the right curb (or edge).

- D. Clearance above the traveled portion of the roadway to overhead signs and sign structures shall be not less than seventeen (17) feet (usually curb to curb, but if there is no curb it includes the usable width of shoulder).

9. As a general rule, only one sign is to be placed on each sign post or utility pole. However, to provide complete and adequate signing and minimize the number posts, doubling-up may be desirable at times. Only under the following circumstances may two signs be placed on one post or utility pole.

- 1. When both signs are of the same type (such as no parking-timed parking, turn restriction). A No Parking sign always has precedence over a timed (e.g. 2-hour) restriction and is therefore mounted above the other sign, or
- 2. When the two signs will face difference directions (at least 90 degrees apart). Examples are back-to-back, or when a No Parking sign faces approaching traffic and behind it is a One Way sign faces a parking lot across the street.

10. Signs posted on traffic signal standards or on the same post with a stop sign are to be limited to those which are critical to traffic movement, such as No Turn on Red and All Way or 4 Way plates under Stop signs. The mounting height restrictions specified in #9 above still apply.

11. When removing a sign, all mounting hardware is to be completely removed. Do

not leave sign post stubs in the ground.

12. Vandalism stickers (which state the penalty for removing or tampering with the sign) are to be used on all the traffic and parking signs. Under Wisconsin Statute 346.42, you may be prosecuted for intentionally vandalizing or removing this sign.
13. Never place a sign in a location where the message conflicts with the curb markings. An example is placing a 2-hour parking sign in the terrace where the curb is painted yellow (which denotes no parking at any time).

### **REGULATORY SIGNS**

Regulatory signs inform highway users of traffic laws or regulations and indicate the applicability of legal requirements that would not otherwise be apparent. These signs shall be erected wherever needed to fulfill this purpose, but unnecessary mandates should be avoided. Regulatory signs normally shall be erected at those locations where regulations apply. The sign message shall clearly indicate the requirement imposed by the regulation and shall be easily visible and legible to the vehicle operator.

Classification of Regulatory signs:

1. Right of way series:
  - a. Stop sign
  - b. Yield sign
2. Speed Series
3. Movement series
  - a. turning
  - b. alignment
  - c. exclusion
  - d. one way
4. Parking series

5. Pedestrian series
6. Miscellaneous series

### **STOP AND YIELD SIGNS**

1. Stop and Yield signs are to be placed five (5) feet in advance of the nearest edge of the crosswalk, whether painted or not.
2. When repairing or replacing an existing sign, relocate it to the distance specified in #1 if:
  - A. It is less than four (4), or more than seven (7) feet from the crosswalk, **and**
  - B. Doing so will not obstruct the view of the sign.

### **Warrants for Stop Sign**

Because the STOP sign causes a substantial inconvenience to motorists, it should be used only where warranted. A STOP sign may be warranted at an intersection where one or more of the following conditions exist:

1. Intersection of a less important road with main road where application of the normal right-a-way rule is unduly hazardous.
2. Street entering a through highway or street.
3. Unsignalized intersection in a signalized area.
4. Other intersections where a combination of high speed, restricted view, and serious accident record indicates a need for control by the STOP sign.

Prior to the application of these warrants, consideration should be given to less restrictive measures, such as the YIELD sign where a full stop is not necessary at all times. Periodic reviews of existing installations may be desirable to determine whether, because of changed conditions, the use of less restrictive control or no control could accommodate traffic demands

safely and more effectively. STOP signs should never be used on the through roadways of expressways. Properly designed expressway interchanges provide for the continuous flow of traffic, making STOP signs unnecessary even on the entering roadways. Where at-grade intersections are temporarily justified for local traffic in sparsely populated areas, STOP signs should be used on the entering roadways to protect the through traffic. STOP signs may also be required at the end of diverging roadways at the intersection with other highways not designed as expressways. In most of these cases, the speeds will not warrant any great increase in the sign sizes. STOP signs shall not be erected at intersections where traffic control signals are operating. The conflicting commands of two types of control devices are confusing. If traffic is required to stop when the operation of the stop-and-go signals is not warranted, the signals should be put on flashing operation with the red flashing light facing the traffic that must stop. Where two main highways intersect, the STOP sign or signs should normally be posted on the minor street to stop the lesser flow of traffic. Traffic engineering studies, however, may justify a decision to install a STOP sign or signs on the major street, as at a three-way intersection where safety considerations may justify stopping the greater flow of traffic to permit a left-turning movement. STOP signs may be used at selected railroad-highway grade crossings only after their need has been determined by a detailed traffic engineering study. Portable or part-time STOP signs shall not be used except for emergency purposes. Also, STOP signs should not be used for speed control.

## **Warrants for Yield Signs**

The YIELD sign may be warranted:

1. At the entrance to an intersection where it is necessary to assign right-of-way and where the safe approach speed on the entrance exceeds 10 miles per hour.
2. On the entrance ramp to an expressway where an acceleration lane is not provided.
3. At intersections on a divided highway where the median between the roadways is more than 30 feet wide. At such intersections, a STOP sign may be used at the entrance to the first roadway of the divided highway and a YIELD sign may be placed at the entrance to the second roadway.
4. Where there is a separate or channelized right-turn lane, without an adequate acceleration lane.
5. At any intersection where a special problem exists and where an engineering study indicates the problem to be susceptible to correction by use of the YIELD sign.

YIELD signs generally should not be placed to control the major flow of traffic at an intersection. However, YIELD signs may be installed to control a major traffic movement where a majority of drivers in that movement are making right turns. At such an intersection, YIELD signs should not be erected on more than one approach. YIELD signs should not be used on the through roadways of expressways. They may be used on an entering roadway without an adequate acceleration lane, but in a well-designed interchange, the sign would interfere with the free merging movement, and it should not be used under those circumstances.

## **DEAD END SIGNS**

The Dead End sign will be the standard, rather than No Outlet. Its location is to be on the right side of the road to an entering motorist, unless that is physically impossible. Its standard

location is ten (10) feet beyond the crosswalk.

## **PARKING SIGNS**

1. Because of the varying lengths of city blocks and the different circumstances which exist in each block, it is obvious that no absolute standard can be established for selecting the best location for parking signs. A definite pattern and will be established, however, to promote consistency and aid enforcement. It does require that good judgment be exercised by the sign poster. The basic pattern is to locate the first sign approximately 55 feet beyond the end of the corner. No Parking restriction (which state law extends 15 feet from the crosswalk), or 70 feet from the crosswalk, whether painted or not) and the restriction covers entire block, the second sign should be placed somewhat beyond the middle of the block. Using the guidelines previously stated, final locations are to be selected and the signs installed. On blocks longer than 550 feet a third parking sign is required to adequately post the entire block. The first sign is still placed 70 feet beyond the crosswalk, but the other two signs are tentatively located as follows:
  - A. The distance from the first sign to the next intersection is measured, if necessary and divided into three equal lengths.
  - B. The other two signs are placed at the ends of the first two of these lengths (the one-third and two-thirds points of the distance from the first sign to the next intersection).

An example: A block is 585 feet long. The first sign is placed 70 feet from the crosswalk. Subtracting 70 from 585 leaves 515 feet. Dividing 515 by 3 results in 172. Therefore, the second

sign should be placed approximately 170 feet beyond the first, and the third one 170 feet beyond the second. The guidelines stated earlier do, of course, apply in selecting the final sign locations.

2. The No Parking Here to Corner (NPHTC) sign will be the standard sign for extended (more than 15 feet from the crosswalk) corner parking restrictions. It is to have an arrow pointing the appropriate direction and installed in the same manner as No Parking between Signs sign. If the NPHTC sign is located more than 70 feet from the crosswalk, a second sign - No Parking Any Time, will be placed approximately midway between the crosswalk and the NPHTC@ sign.
3. No Parking This Side signs are to be used where parking is not permitted at any time on the entire block. For other full-time restrictions of lesser distance, the No Parking Any Time sign is to be used.
4. If different parking restrictions are in effect at different times, two separate signs will generally be used. An example would be No Parking 6-8 a.m. on the top sign, and 2 Hour Parking 8 a.m. - 6 p.m. on a separate sign below it.

## **CROSSWALK**

Crosswalks are a critical part of the pedestrian network. Marked crosswalks are most effective when they can be identified easily by motorists. The Manual of Uniform Traffic Control Devices (MUTCD) have guidelines for marking crosswalk and permits some variations for additional visibility, the basic specifications call for solid white lines not less than 6 inch marking both edges of the crosswalk and spaced at least 72 inches apart (we use 2 feet by 6 feet blocks in most areas). In some situations, marked crosswalks might not be enough to ensure pedestrian safety. There is alternative treatments to improve safety such as electronically

activated crosswalks, pedestrian-actuated traffic controls, flashing traffic signals, light guard flashing crosswalks, traffic calming measures, raised crosswalks, and traffic signals are also being used.

## **WARNING SIGNS**

Warning signs are used to when it is deemed necessary to warn traffic of existing or potentially hazardous conditions on or adjacent to a highway or street. Warning signs require caution on the part of the vehicle operator and may call for reduction of speed or a maneuver in the interests of his/her own safety and that of other vehicle operators and pedestrians. Adequate warnings are of great assistance to the vehicle operator and are valuable in safe-guarding and expediting traffic. The use of warning signs should be kept to a minimum because the unnecessary use of them to warn of conditions which are apparent tends to breed disrespect for all signs.

Typical locations and hazards that may warrant the use of warning signs are:

1. Change in horizontal alignment
2. Intersections
3. Advance warning of control devices
4. Converging traffic lanes
5. Narrow roadways
6. Changes in highway design
7. Grades
8. Roadway surface conditions
9. Railroad crossings
10. Miscellaneous.

## **STREET NAME SIGNS**

The Street Name sign shall be retroreflective or illuminated to show the same shape and similar color both day and night. The legend and background shall be of contrasting colors.

Street Name signs should have a white legend on a green background. A border, if used, should be the same color as the legend. A red background on the Street Name signs is prohibited. The WisDOT preference for letter sizes on Street Name signs are 6" Upper Case letter and 4" Lower Cases letters (see detail below). This lettering configuration is easier to read and is consistent with lettering layouts on the advanced crossroad name signs.

1. Where possible, the city will use square break-a way sign posts with anchor system.
2. Street Name signs which are mounted on square posts shall have a minimum vertical clearance of 9 feet and a maximum of 10 feet (to the bottom of the lowest sign). Those which are mounted with a wing bracket to a traffic signal or light pole and are close to, or overhang, the road are to be mounted at least 12 feet but no higher than 13 feet.
3. All street name signs will be assembled using 2 single side street name sign plates attached to square post to be able to view street name from both directions.
4. Note that the sign post is usually placed where it could be used for mounting a stop or yield sign (either at the time of installation or at a future date).

## **MAINTENANCE**

### **Maintenance Records**

Keeping records of sign maintenance and inspections is important, particularly small signs as these are the ones most often affected by weather and vehicular accidents.

Keeping good records will help you:

- ! Make good decisions about when old signs panels should be replaced,
- ! Respond more quickly to relocating or replacing signs frequently damaged,
- ! Determine which materials are best suited for your area and need to effectively manage your sign program,
- ! Work with law enforcement personnel to reduce vandalism, and
- ! Defend against lawsuits arising from collision with or challenges about the condition of the sign.

The three main elements of maintenance records include:

- ! The sign inventory;
- ! The log or record of incident reports, and
- ! The sign/sign support maintenance records.

### **Sign Inventory**

It is very important to develop and maintain a sign inventory (the Street Department uses Signview by Cartagraph). Without a record of the type, size, location, and age of a sign, it is often difficult to know what signs are missing or where maintenance efforts can be best applied. A sign inventory can help you respond quickly and more effectively to an

incident report. It can help identify areas where there are vandalism or accident problems. Information that should be included in the inventory includes:

- ! Sign location includes street or highway, milepost, or block location, and the traffic directions it faces.

- ! Sign type or name (i.e. STOP, NO PASSING, etc.).

- ! Sign panel size (shape) (i.e. 18" X 18", 30" X 30").

- ! Date installed or replaced.

- ! Date of any changes and a brief note of what the change was (i.e. raised it 2 feet, changed pipe post to 4" by 4" wood post, etc.).

- ! Date of most recent inspection or repair.

## **Incident Reports**

Incident reports should include:

- ! The date and time the report is made or received,

- ! Who made the report and who received and entered the report,

- ! A brief description of the problem reported or observed, and

- ! What action was taken, when it was taken and who was responsible for it. If there was a subsequent review of the work then note who made the review, when it was made and any subsequent actions required and taken.

This type report read as follows: The STOP sign (work order #12) on the Northwest corner of intersection of Oak St. and Prairie St. was reported bent by a concerned citizen.

The sign was checked and straightened by J. Smith on August 16, 2009.

## Maintenance Records

Maintenance records should be kept for any new installations, repairs of existing installations, or replacement jobs done on sign and sign supports. This will help to determine changes in your maintenance activities that improved driver and work safety, reduce costs, and reduced potential for liability lawsuits. A sign (and sign support) maintenance record, report, file, or log should included, as a minimum, the following information:

Time and date of work and name of person responsible for completed work.

Sign/support location by street or highway and traffic direction it is facing.

Type of sign and size of sign if replaced.

Type and size of support if replaced

If the following were/are to be checked what were they?

\*Height to bottom of sign

\*Color of sign

\*Size of sign

\*Any breakaway features of post

\*Orientation of sign (for night traffic)

\*Wear or fading of sign

\*Location with respect to pavement

\*Anything blocking driver's view of sign

Sign that need maintenance frequently should be investigated. If they are being repeatedly stolen. Then vandal proof hardware should be used. If they are being hit by

cars. Then the Street Superintendent should be notified that there may be something about the streets design or the condition of the pavement that is causing problems.

## **REPAIR AND REPLACEMENT OF SIGN PANELS**

### **Bent and Damaged Signs**

When signs are damaged, bent or vandalized, you have to determine if the sign should be repaired, replaced or left as is. This is usually a field judgement-more often than not, it is cheaper to replace badly damaged or unreadable sign than attempt many repairs.

Consider the repair costs, remaining service life of the sign face after repairs and the value of sign blank (when it is reusable) against replacing it with a new or recycled sign.

**Do not leave a sign down or take a sign away and leave nothing. Always try to have a replacement sign or sufficient repair materials with you.** If you decide a field repair is appropriate or you have a repair the sign until a replacement sign can be obtained, consider the following points:

While many bent signs can be read in the daylight, some bent signs, even signs with minor bending are difficult to see at night because they no longer reflect the light from the vehicle's headlights back to the driver's eyes. Minor bending may be repaired by removing the sign from the post and straightening the sign face.

### **Accident Damaged Signs and Sign Supports**

Retroreflective surfaces that have split, breaks, peels, or separations should be replaced as soon as practical with new sign. Sign supports should be repaired or replaced to original conditions.

## **Simple Maintenance**

If the sign is adequate under normal conditions but when tampered with, it can induce a lack of respect in the driver, additionally the driver's attention is diverted from the warning message. City employees should be trained to report or resolve such conditions immediately.

If the sign is old and the surface is seriously cracked - it has lost its retroreflective characteristic and appears as a distorted image at night. It should be replaced.

Cracked, crazed, or faded sign faces do not provide adequate night time retroreflectivity.

## **Damaged Signs**

Damaged signs are often more than just bent signs. They can be damaged as a result of natural actions, accidents, or vandalism.

- \*Natural action, such as exposure to sunlight, can result in color fading, discoloration, and loss of the retroreflective characteristics.

- \*Accidents can result in bends and scrapes that remove part of the retroreflective material or the message on the sign, additionally bullet holes, dings, and peeled, worn, or separated surfaces can make a sign difficult to read.

- \*Vandalized signs are usually either missing or over-sprayed with paint.

Signs may be considered damaged if, because of their retroreflective characteristics and orientation, they cannot be seen at night. These signs sustained both physical and chemical damage and are no longer visible at night.

## **Field Repair of Bent Signs**

A bent sign can often be fixed simply by straightening. If after straightening the message

remains clear, legible, retroreflective and the sign surface is not opened, cracked or separated from the sign face, it may be reused. Remember, if a sign is so badly bent that it will take several hours to fix, it is often cheaper to replace the sign and leave any repair or salvage to a sign shop operation. To repair a sign with minor bends, you should:

11. First try to straighten the sign. If possible, bend the sign back in place on the sign post with hand pressure (wear leather gloves)
12. If the sign can't be straightened sufficiently with hand pressure, remove the sign from support and place it on a flat surface such as a truck bed, trailer bed, or fender dolly. Use cardboard or cloth to protect the sign face and pound it flat with a rubber mallet. (The cloth and rubber mallet will minimize further damage to the reflective sheeting.)
13. You must use your judgment to determine if the sign remains serviceable; remember, this means it is legible both day and night (retroreflective) and there is no cracking or separation of the sheeting material.
14. If, in your opinion, the sign is no longer serviceable replace it immediately. **If no sign is available at the site, remount the existing sign** until you return later with a satisfactory replacement.

### **Field Repair of Scrapes and Holes**

Signs with scraped faces (usually as result of being hit) or signs have holes in them (occasionally as a result of vandalism) are often no longer legible, particularly at night. The damaged areas no longer reflect light back to the driver. These signs often cannot be read at night.

## **Missing Signs**

Missing signs are also a very significant problem. While signs can be blown down in storms, missing signs are often removed by individuals seeking a souvenir or engaged what they might consider a Harmless Prank. Of course a missing sign provides no information for the driver and may create or contribute to a potentially hazardous situation. This is particularly true when the missing signs are regulatory or warning signs.

## **Vandalized Signs**

If the sign has been hit by several gun shots, it should be replaced or repaired as soon as practical. If the sign faces are damaged as a result of shot holes, or being struck by other objects (such as bottles) should be noted and checked later that night to determine if their retroreflective characteristics are acceptable.

A practical method is to use series of retroreflective inspection guide panels and a flashlight at night or during hours of relative darkness. Agencies should assemble their own field repair kits, and include all tools and materials, such as adhesive sheeting and aluminum tape, that they need for common field repairs.

1. Use masking tape or a spring clip to hold the appropriate 8"x10" sign inspection guide panel to the clean area of the sign face,
2. Stand back about 30 feet from the sign,
3. Hold a flashlight about 2 inches from your eye and shine it on the sign.
4. If the inspection guide panel is brighter than the sign face or the sign is illegible, the sign should be replaced.
5. If the inspection guide panel blends with the sign and is about the same

brightness, the sign should be considered as marginal and inspected again after a year.

Nighttime retroreflectivity can also be checked during the day by using a high intensity spotlight. The spotlight can be flashed on the sign face from inside of maintenance vehicle. If the sign flashes back, its retroreflectivity is good. If there is no flashback, the sign's sheeting is dead and the sign should be replaced. The spot light should have a 200,00 to 400,000 candlepower bulb and be powered through the vehicle's cigarette lighter. The light and observer should be between 100 to 200 feet from the sign.

Remember, night reviews are still important, while a sign may appear adequate during the day, it may be non-visible at night.

Sign vandalism also includes the theft of signs. Missing signs can be the result of storms or traffic incidents; however, the primary reason in many areas is simply theft. While theft can't be eliminated it may be substantially reduced by making it difficult to remove a sign and by developing and implementing laws to penalize vandals.

Specific fasteners can be used to attach signs to support posts which make it far more difficult for vandals to remove sign panels. Among the more common special fasteners in use are:

1. Expanding anchor bolts and blind aluminum rivets.
2. Bolts (or nuts) that require special tools to install and remove them (such as fluted nuts or star bolts).
3. Nuts with sheared off heads.
4. Simply hammering down the excess portion of the threaded bolt so that it cannot

be easily unscrewed.

### **TRAFFIC CONTROL SIGNALS**

A traffic control signal shall be defined as any highway traffic signal by which traffic is alternately directed to stop and permitted to proceed. Traffic shall be defined as pedestrians, bicyclists, vehicles, streetcars, and other conveyances either singularly or together while on any highway for purpose of travel. The standard for traffic control signals are also important because signals need to function reliably under a wide range of conditions including day and night, adverse weather, and visually complex surroundings.

#### **MAINTENANCE:**

- A. The Stoughton Street Department contracts with Traffic and Parking Control Co. (TAPCO) for yearly maintenance of traffic control signals (877-814-7328)
- B. The Stoughton Street Department utilizes Remington Electric (608-838-0750) for repairs to traffic signals, loop detectors, and light poles.

## **TRAFFIC SIGNS LOG**

**ALL** work is to be written up on a Traffic Signs Log, so that administrative staff can enter data collected into Signview Inventory Program. Advantages to the Signview software:

1. Recorded date of repair or installation.
2. Location, type, direction.
3. The status of the job is readily accessible.
4. It allows for comments/additional information.

## **SIGNAGE REQUESTS**

To request a signage, you must write a request to Public Safety Committee.

The City installs the signage at no charge to requester

## **CONCLUSION**

The City of Stoughton is required by State law to comply with the guidelines in the Wisconsin Manual on Uniform Traffic Control Devices (WMUTCD). Establishing a consistent, clear traffic signage and control sign policy for the City of Superior would improve the effective flow of traffic in Stoughton. This would make travel safer and the traffic flow smoother for pedestrians and vehicles both.

**TRAFFIC SIGNS LOG**

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