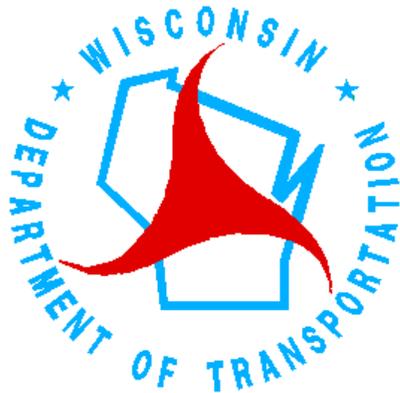




**SECTION 3**

**SIGN  
REPLACEMENT  
&  
MAINTENANCE**



## **I. REGIONAL SIGN COORDINATOR PLANNING**

Regional Signing Coordinators and/or the Regional Traffic/Signing Engineer will determine methods to achieve the desired level of effort needed for annual sign replacements. Regions will compile a list of signs/posts that need to be replaced and arrange for the completion of this work. Regions will determine the budget dollars necessary to complete the projects. Some of the criteria used to identify individual sign replacement are:

1. age: date tag
2. face material: engineer grade - 7 years, high intensity grade - 12 years
3. sign condition: good, fair or poor
4. conformance: meets criteria and warrants
5. appropriateness of the message

SignView can be used as an aid to evaluate the above criteria.

### **A. COUNTY MAINTENANCE AGREEMENTS**

Ideally, counties will be given route segments of the signs and/or posts needing replacement, from a beginning to end or point to point, and for both directions of travel. A Traffic Maintenance Agreement (Project ID 00XX-01-65) is to be used for planned sign maintenance work or work on a sectional approach (XX is the county number). A Routine Maintenance Agreement (RMA) is also to be used for replacement/repair of knocked down or damaged signs, where a damage claim is not applicable. The scheduling of the sign replacements will be left to the county. Counties will then be able to schedule their crews to what best fits their needs. WisDOT, however, is requiring that all sign replacements of the CMA be done by November 15 of the year contracted unless another date is agreed upon. See Exhibit 14 for an example of a TMA. Listed below is the guidance for the preparation and execution of TMAs.

1. Specifically, the following signing activities can be classified into the following county maintenance agreements:

<u>Charge to Damage Claim #0077-0X-00**</u>	<u>Charge to RMA #</u>	<u>Charge to TMA* # 00XX-01-65 (Activity Code 086)</u>
Damage Claim – Replace Sign	Damage Due to Vandalism	Routine Maintenance – Replace Sign
Damage Claim – Replace Sign & Post	Weather Related Damage	Routine Maintenance – Replace Sign & Post
Damage Claim – Replace Post Only	Damage Due to Lawnmowers	Routine Maintenance – Replace Post Only
Hit & Run – Replace Sign	Damage Due to Snowplows	Routine Maintenance – Relocation
Hit & Run – Replace Sign & Post		Straightened Post &/or Assembly
Hit & Run – Replace Post Only		

\*For installation of new signs (i.e. School Bus Stop Ahead, New Speed Zones, Political Sign Requests, etc.) it is recommended that the Regions hold back on giving out 10% of their planned TMA work to account for these expenditures. Once the end

of the year approaches, and not all of the 10% withheld TMA dollars are used up, the counties could be provided the extra work to utilize these dollars.

\*\* "X" designates the number for the Regional office where the counties submit invoices to:

1 – Madison	4 – Wisconsin Rapids	7 – Rhinelander
2 – Waukesha	5 – La Crosse	8 – Superior
3 – Green Bay	6 – Eau Claire	

For Emergency Sign Installations, if there are not sufficient dollars left in the TMA 00XX-01-65 account, RMA dollars can be used to install these signs.

For Routine Surveillance of Signs, no dollars *should* be allocated for a county to do this work. It is part of the Patrol Superintendents job just like with any of our other highway maintenance features.

It is very important that the county charge the proper project ID for the work that they are performing. Any associated posts, fleet and personnel costs shall be charged to the proper project ID as well.

Periodically, the Department may have needs for the County to install signs for special projects. For these cases, the Department will provide a special project ID for Counties to charge their labor, fleet and material costs. Some example special projects may include:

White Arrowboards (Trans 200)	0080-02-63*
TODS Signing:	0080-02-53
Heritage Signing:	0080-02-62
Ski Area Signing:	0080-02-61
Improvement Project <u>Permanent</u> Signing	(ID set up based on Improvement Project)
Improvement Project Detour Signing	(ID set up based on Improvement Project)

\*For White Arrowboards (Trans 200 signs), once counties have completed charging costs to Project ID 0080-02-63, they will need to invoice the requestor. Checks shall be made payable to the Wisconsin Department of Transportation. The applicant should send the checks to: Wisconsin Department of Transportation, Attn: John Noll, PO Box 7986, 4802 Sheboygan Avenue, Room 501, Madison, WI 53707.

The County should only repair damaged White Arrowboards when directed to do so by the sign owner. If the county is requested to perform repairs, all county costs for repairs shall be charged to the 0080-02-63 project ID and appropriate invoicing shall be submitted by the county to the requestor.

2. Estimation of RMA dollars is difficult because this type of work is un-predictable. Mother nature has a lot to play into this. Annual RMA dollars are put together on an annual basis from input from the Systems Planning and Operations (SPO) Chiefs and the Operations Delivery Program (ODP) Committee. The Regional sign shops *may* or *may* not be asked to provide input for RMA's. RMA budgets are estimates.
3. Estimation of TMA dollars. On an annual basis (prior to October 1 of the calendar year) the Regional Sign Shops *should* submit a cost estimate for the next calendar year signing TMA's, by December 1. These cost estimates need to be submitted to your Operations Supervisor and SPO Chief. The TMA's are normally signed by January 1 of the calendar year they are put into effect. However, some years *may* vary due to budgetary conditions. The TMA budgets are estimates.
4. The Regional shops need to provide the following items to their SPO Supervisors/Chiefs for a TMA budget estimate:
  - Material Costs (i.e. Posts and Mounting Hardware)
  - County Labor Costs
  - County Fringe Benefit Costs
  - County Equipment Costs
  - Add on of 4½ % For County Administrative Fee (this rate is set for all counties)
  - Annual Listing of Sign and Post Replacement (Example Shown in Exhibit 15).

Notes: Some Regions have indicated that they will provide all posts and mounting hardware. If this is so, you *should* still add \$500.00 on your TMA estimate for Unlisted Highway Materials to cover any unexpected material costs.

5. Detailed breakdown of county costs including county labor, fringe benefit and equipment costs *may* be obtained from the Region or Central Office Program Management personnel. The Regional shops can contact Central Office Program Management personnel at any time with questions on the TMA process.
6. Counties *should* use the county charge code of 86 (Routine Sign Repair) for all TMA work. For RMA work, the counties *should* use the charge code of 81 (Permanent Sign Repair) or 85 (Temporary/Emergency Sign Repair).
7. The Annual Sign and Post Replacement List (Exhibit 15) *should* identify location on respective segment routes, including the direction of travel. The counties performing CMA will be given a listing identifying the sign by code, the message displayed and location for the signs needing replacement.

## **B. IMPROVEMENT/REFURBISHMENT PROJECTS**

Listings *should* identify location on respective improvement project in both directions of travel. The listing will be provided to the designer to be included in the construction project plan. See Exhibit 15 for an example of the listing.

### C. DEPARTMENT ROUTINE SIGN REPLACEMENT PROJECTS

Inspections *should* be performed by area signing personnel and/or the Regional Traffic/Signing Engineer experienced in evaluating sign condition and who are knowledgeable about the types, classifications and priority of desired replacement.

## II. FIELD INSPECTIONS

The Region **shall** update SignView when performing field inspections. SignView will be used to produce a report for all signs scheduled for replacement.

When assessing sign installation condition, evaluators *should* watch for:

1. cracks, stains, darkening on the face, rust streaks
2. age of the sign from the sticker on the back of the sign
3. quality of reflective sheeting
4. sticker on back of sign to identify sheeting manufacturer
5. condition of the post
6. correctness of the installation: height, offset, location
7. retro-reflectivity: *should* be greater than allowable minimums
8. general condition: tight on the post, position in relation to highway
9. appropriateness of mounting: height, offset, plumbness, visibility
10. if the sign is still applicable for field conditions

A night evaluation is more effective for determining sign reflectivity. It will reveal conditions not easily seen in the daylight. Night evaluations are not always possible. Devices that can be used for checking sign retro-reflectivity during daylight are:

- mirrors and sunlight
- high powered lights
- field type retro-reflectometers.

## III. ORDERING SIGN REPLACEMENTS

Signing Coordinators **shall** schedule sign ordering based on the timeliness of the scheduled replacements. Regions ordering signs for the counties *should* plan far enough in advance to allow Central Office feasible time to order and receive signs for annual contracts. The signs *should* arrive far enough in advance so as to provide ample time for checking the new signs for appropriate messages and putting the fieldwork schedule in operation.

Regions *should* plan replacement or resigning from the route evaluation listing. Signs *should* be ordered according to the planned work schedule in order to avoid over stocking in the Region's storage.

Prior to ordering signs, the sign coordinators *should* review appropriateness of the sign message to see if it is still applicable and meets standards.

As a general rule, sign replacements *should* be performed through a field operations work plan, thereby reducing overlapping of driving and unnecessary travel. However, signs of high priority **shall** be attended to as quickly as practicable, refer to Priority of Action in the field and maintenance crew supplemental section.