



**Series**

## **A Model Local Law**

# **For the Classification, Maintenance & Rehabilitation of Rural County & Town Roads**

**Prepared by the NYS Legislative Commission  
on Rural Resources  
Legislative Office Building  
Albany, New York 12247**

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## **A Note to Local Officials:**

Contained herein is a model local law for town and county governments to voluntarily establish a realistic framework for the rehabilitation and maintenance of rural town and county roads. It is based on the Manual: Guidelines for Rural Town and County Roads, approved and published by the State of New York Local Roads Research and Coordination Council, December 1992. Local officials and their advisors are encouraged to review the Manual before using this model local law.

In enacting legislation creating the Local Roads Classification Task Force in 1986 and Local Roads Research Coordination Council in 1990, the New York State Legislature noted that “if a closer relationship can be made between the type of road and bridge use and the type of construction and design of such a road including bridges, savings in construction and maintenance costs will be achieved without impairing travel or highway safety.”<sup>1</sup>

Classifications have been developed by the Task Force and Council noted above that establish such a close relationship between the uses of low volume rural roads and their design, maintenance and operation. The classifications identify the significant use characteristics including traffic volumes, vehicle types and seasonal use characteristics, that are present on New York’s low volume, rural roads. Guidelines for design, maintenance and traffic control were developed that closely match those use characteristics and are included in the Manual as well as the model local law presented herein.

Low volume rural roads are defined as roads with fewer than 400 vehicles per day. In rural New York, such roads comprise more than 75 percent of the combined town and county mileage. Land use adjacent to roads became the basis for classification of these roads into categories as a convenient and accurate way of identifying the purpose that a low volume road serves.

Local road categories contained in the model local law include: **Low Volume Collector; Residential Access; Farm Access; Resource/Industrial Access; Agricultural Land Access; Recreation Land Access and Minimum Maintenance Road.**

Each of these rural road classifications generates its own unique characteristic pattern of vehicle type, traffic volume and seasonal use characteristics, which in turn generate design, maintenance and operational guidelines. These guidelines represent the desirable minimums to provide a reasonable and safe level of service for each of the seven low volume road classifications.

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<sup>1</sup> Chapter 702 of the Laws of 1986 and Chapter 565 of the Laws of 1990.

The model local law presented herein has been developed to serve rural towns and counties across the state. However, there is nothing that prevents these guidelines and model local law from being used by other local government agencies where the traffic meets the criteria, especially to maintain continuity or consistency.

For further information or comments on the content or application of this model local law, or to obtain copies of the Manual, please contact the Commission at (518) 455-2544; (518) 426-6960(fax); [ruralres@senate.state.ny.us](mailto:ruralres@senate.state.ny.us).

## **Local Law Filing Instructions:**

1. Each local law shall be filed with the Secretary of State within five days after its final adoption or approval as required by section 27 of the Municipal Home Rule Law. The cited statute provides that a local law shall not become effective before it is filed in the office of the Secretary of State.
2. Each local law shall be filed on a form provided by the Department of State. Please call or write the Department of State at the address given below.
3. Reminder: Each copy of a local law filed with the Secretary of State shall have affixed to it a certification by the Clerk of the (County, Town) or other officer designated by the legislative body. There shall also be included a certification executed by the (County, Town) Attorney that all proper legal procedures have been followed.
4. For filing purposes, local laws shall be mailed or delivered as follows:

**State Records and Law Bureau  
Department of State  
41 State Street  
Albany, NY 12231  
phone: (518) 474-2755**

**(Do not file this instruction sheet with the model local law)**

**A local law in relation to the classification of low volume (county, town) roads and the establishment of maintenance and rehabilitation guidelines for such roads.**

Section 1. Legislative purpose. The (County, Town) of \_\_\_\_\_, hereby enacts this local law for the purpose of reducing the cost of maintaining and rehabilitating low volume (county, town) roads while providing that such roads when used in a manner consistent with the road classification will be safe for the users thereof. While there are generally accepted standards for the design, maintenance and rehabilitation of high volume roads, there are no such comparable standards for roads over which a relatively low volume of traffic passes. In the event there can be a savings in the cost of maintaining or rehabilitating a road that has relatively few vehicles traveling over it, the money saved could be spent on more intense maintenance of roads over which travel is greater. The result could be greater overall safety for the general public. Since the (county, town) resources to be expended for highways is limited, it is incumbent upon the (county, town) to utilize such limited resources in a manner which targets expenditures on the most heavily traveled roads. It is for such purposes that this local law is enacted.

§2. Legislative findings. In 1986 the New York State Legislature created the Local Road Classification Task Force (Chapter 708 of the Laws of 1986). Such task force was charged with developing alternative guidelines for classifying town and county roads in rural areas according to principal uses and traffic volume. The task force consisted of the Commissioner of Transportation or his designee, the Dean of the College of Agriculture and Life Sciences of Cornell University or his designee, four rural town highway superintendents, three rural county highway superintendents and three rural business people. Such task force after considerable discussions and upon hearing many experts prepared local road classification guidelines and issued a report in December of 1988. In December of 1989 the task force issued "A Manual: Guidelines For Rural Town and County Roads" to facilitate the use of the local classification by local officials. In July of 1990, the Legislative Commission on Rural Resources worked with the Senate, Assembly, State Department of Transportation and the Governor's office to establish a New York State Local Roads Research and Coordination Council (see Article 16-B Executive Law and Chapters 565 and 652 of the laws of 1990). The Council was empowered to work with the Department of Transportation to:

1. Promote the training of municipal officials and employees to encourage the utilization of innovative and cost cutting procedures as well as more efficient highway maintenance and consolidation methods;
2. Encourage the coordination of local road maintenance and storage facilities;

3. Encourage counties and towns to contract with each other for the maintenance of local roads and bridges;
4. Develop a minimum maintenance road classification addressing repair and service standards for low volume roads, as well as procedures to be followed by local governments for designing minimum maintenance roads within their communities. Accordingly, the Council revised the 1989 Local Roads Classification Task Force Report and published it for use by rural towns and county governments December 30, 1992.

§3. The (county, town) superintendent of highways, in the event he (or she) finds it to be in the best interests of the (county, town), may classify one or more roads or portions thereof as one of the following types of roads: low volume collector; residential access; farm access; resource/industrial access, agricultural land access; recreational land access or minimum maintenance road. However, no road shall be finally determined to be a minimum maintenance road until so designated by the (county legislature, town board) pursuant to section four. The classification of any road or designated portion thereof shall be consistent with the definitions of such type of road as set forth in section ten of this local law. Upon the classification of any road or portion thereof by the (county, town) superintendent of highways such designation shall be filed in the office of the (county, town) clerk and a copy shall be presented to each member of the (county legislature, town board) by the (county legislature, town clerk) within 10 days of such filing. Such designation shall be accompanied by a finding by the (county, town) superintendent of highways which shall contain the information upon which the highway superintendent relied when designating such road or portion thereof. The (county legislature, town board) may, following the filing of such designation, adopt a resolution accepting such designation. Upon the adoption of such resolution, the road or portion thereof shall be classified as determined by the (county, town) superintendent of highways and such (county, town) superintendent of highways shall take into consideration the guidelines for maintaining such roads or portions thereof as set forth in section ten of this local law.

§4. Notwithstanding the provisions of section three of this local law no road or portion thereof shall be designated as a minimum maintenance road except after following the procedure set forth in sections four through six, inclusive.

- a. The (county, town) superintendent of highways shall submit to the (county legislature, town board) a recommendation that a road or portion thereof shall be designated as a minimum maintenance road. No road or portion thereof shall be recommended unless the traffic volume is less than 50 vehicles per day as determined by the (county, town) superintendent of highways and such road or portion thereof is an agricultural land access road or a recreational land access road, and that such road or portion thereof does not provide farm centers of operation and/or year-round

residences with principal motor vehicle access to goods and services necessary for the reasonable support of such farms and/or year-round residences.

- b. The (county, town) upon the approval of such recommendation shall by local law designate such road or portion thereof as a minimum maintenance road.
- c. At least ten days before the public hearing on such local law, written notice of such hearing shall be served, by certified mail upon every owner of real property, as determined by the latest completed assessment roll, abutting such road or portion thereof to be designated a minimum maintenance road.
- d. No local law designating a minimum maintenance road shall be effective until signs pursuant to sections six and eleven of this local law are first posted advising the public that such road is a minimum maintenance road.
- e. No road or portion thereof, once designated a minimum maintenance road shall be determined to have been abandoned.
- f. Prior to any public hearing relating to the adoption of a local law designating a low volume road or portion thereof as a minimum maintenance road, the (county legislature, town board) shall issue findings that such road or portion thereof shall be designated a minimum maintenance road. Such findings shall include but not be limited to:
  - 1. the volume and type of motor vehicle traffic on such road;
  - 2. a determination that the property owners of land abutting the road shall continue to have reasonable access to their property.
  - 3. a determination that the users of the road or portion thereof traveling at a reasonable and prudent speed, under the circumstances, shall not be placed in a hazardous situation;
  - 4. a determination that such road, or portion thereof, does not constitute a farm access as defined pursuant to section ten of this local law; and
  - 5. a determination that such road, or portion thereof, does not constitute access to a year-round residence.

Such findings shall be on file in the office of the (county legislature, town clerk) and be available for public inspection for at least sixty days before the public hearing on the local law.



§5. School board and planning board review. A copy of the findings in section four shall also be sent to the board of education of the central school, town and county planning boards in which each road or road segment is located. Such school board and planning boards may review the findings and within forty-five days file with the (county legislature, town) clerk a resolution recommending such road designation or, in the event such designation is not recommended, the school board or planning board shall set forth in a resolution the reasons for not recommending such designation. The (county legislature, town board) shall, by resolution, accept, accept in part or reject the recommendations of either the school board or town planning board or county planning board prior to any vote upon the proposed local law. In the event the school board, county planning board or town planning board take no action upon the findings issued by the (county legislature, town board) within the prescribed forty-five days, the (county legislature, town board) shall consider such inaction as a recommendation for the proposed minimum maintenance designation.

§6. Posting of signs. Appropriate signs shall be placed on a minimum maintenance road. Such signs shall notify and advise motorists of the need to exercise caution when traveling such road and shall conform to title seventeen of the official compilation of codes, rules and regulations of the state of New York. Properly posted signs shall be prima facie evidence that adequate notice of a minimum maintenance road designation has been given to the public.

§7. Minimum maintenance practices. Minimum maintenance roads shall be maintained in a manner determined by the (county, town) superintendent of highways to be consistent with the volume and type of traffic traveling on such road. Normal road maintenance practices such as, but not limited to paving, patching, blading, dragging or mowing may be done less frequently depending upon the existing condition and use of the road as shall be determined by the (county, town) superintendent of highways. The guidelines for the method and manner of maintaining a minimum maintenance road are set forth in section ten of this local law.

§8. Discontinuance of minimum maintenance road. Any person or persons owning or occupying real property abutting a road or portion thereof which has been designated a minimum maintenance road may petition the (county legislature, town board) to discontinue the designation of such road or portion thereof as a minimum maintenance road. Such petition shall be filed with the clerk of the (county legislature, town board). Such petition shall identify the road or portion thereof to be discontinued as a minimum maintenance road and set forth the reasons for such discontinuance. The (county legislature, town board) shall hold a public hearing upon such petition within thirty days after its receipt; at least ten days public notice shall be given prior to the conduct of such public hearing. At least ten days before the public hearing on such petition, written notice of such public hearing shall be served by certified mail upon every owner of real property, as determined by the latest assessment roll abutting such road or portion thereof. In the event the (county legislature, town board) after such public hearing determines that such road or portion thereof shall continue as a minimum maintenance road, no petition may be submitted pursuant to this section until the lapse of at least two years from the date of the filing of the petition. In the event it is determined that such road shall be discontinued as a minimum maintenance road, the (county

legislature, town board), by local law shall discontinue such road or portion thereof as a minimum maintenance road and such discontinuance shall take place six months after the commencement of the next succeeding fiscal year.

§9. Notwithstanding the provisions of section eight of this local law, the (county legislature, town board) may adopt a local law discontinuing such minimum maintenance road designation in the event it determines such discontinuance to be in the public interest.

§10. The following tables and accompanying data shall be used as guides by the (county, town) superintendent of highways to classify low volume roads in the (County, Town) of \_\_\_\_\_ and shall be used to enable the (county, town) superintendent of highways to determine the guidelines he/she may follow to determine the manner in which low volume roads may be designed, maintained and operated.

## Classification for Low Volume Roads & Guidelines for Their Design, Maintenance & Operation

The following classifications have been developed to establish a close relationship between the uses of low volume roads and their design, maintenance and operation and are hereby adopted by the (County, Town) of \_\_\_\_\_. The classifications identify the significant use characteristics, including traffic volumes, vehicle types and seasonal use characteristics that are present on New York's low volume roads. Guidelines for the design, maintenance and traffic control have been developed that are closely matched to those use characteristics. Such guidelines shall be used by the (county, town) superintendent of highways.

Land use adjacent to the low volume road shall be the basis for classification because it is a convenient and accurate way of identifying the kind of use that a low volume road serves.

A low volume road is a road with fewer than 400 vehicles per day.

### Low Volume Road Classifications in the (County, Town)

of \_\_\_\_\_.

- **Low Volume Collector**--collects traffic from any of the other classifications and channels it to higher level roads, such as arterials and interstates.
- **Residential Access**--provides access to residences. The traffic volume generated depends on the number of residences. All year access for fire trucks, ambulances and school buses should be provided.
- **Farm Access**--provides access to a farm's center of operations including the residence. Traffic volume is generally low, but may include occasional heavy trucks and farm equipment.
- **Resource/Industrial Access**--provides access to industrial or mining operations. Traffic volume can vary and can include heavy trucks and significant numbers of employees' cars.
- **Agricultural Land Access**--provides access to farm land. Traffic volumes are low and vary seasonally. These roads should accommodate farm equipment that can be up to 20 feet wide.

- **Recreation Land Access**--provides access to recreational land including seasonal dwellings and parks. Volumes of traffic can vary with the type of recreation facility and season of the year, and may include recreational vehicles.
- **Minimum Maintenance Road**--a low-volume road or road segment which may be of a seasonal nature, having an average traffic volume of fewer than fifty vehicles per day which principally or exclusively provides agricultural or recreational land access. A road, or road segment, which has been so designated may be maintained at a level which allows such road to remain passable and functional in accordance with standards contained in this section of the Guidelines. In no way shall the term "minimum maintenance" be construed to mean "no maintenance" or "abandonment". Further, such term shall not apply to those roads, or road segments, which provide farm access as previously defined, or access to an individual year-round residence.

The guidelines for rehabilitation design shall include three rehabilitation design types. Rehabilitation Design Type A is an all purpose road on which vehicles can pass without a reduction in speed. Rehabilitation Design Type B is an area service, two lane road on which vehicles may have to reduce their speeds to pass. Rehabilitation Design Type C is an area service, one lane road on which either of two passing vehicles must slow, stop or briefly leave the roadway to allow the other to pass.

Vehicle interaction characteristics shall be considered by the (county, town) superintendent of highways as the basis for assigning the design types to the respective classifications. Vehicle size (as determined by the absence or presence of significant truck traffic) and traffic volumes (of either greater or equal to 50 vehicles per day, or less than 50 vehicles per day) are the criteria used. The 50 vehicle per day threshold is used because vehicle interactions become so infrequent that the effect on vehicle operation is negligible.

The guidelines to be followed by the (county, town) superintendent of highways for maintenance shall include provisions for a minimum maintenance designation that allows a reduced level of maintenance on roads which are used for agricultural or recreational land access as defined herein.

The guidelines for traffic control parallel the maintenance guidelines. They may include recommendations for signs on normally maintained roads and a minimum maintenance road sign shall be posted at the entrance points to minimum maintenance roads. The only other signs recommended for minimum maintenance roads are those mandated by law (for all roads).

**Table 1**

**Low Volume Road Classifications**

Road Use			Guidelines		
Road Classification	Vehicle Type	ADT <sup>(1)</sup>	Rehab. Design Type	Maintenance	Traffic Control
1. Low Volume Collector	All vehicles	50-400 <50	A B	Normal	MUTCD <sup>(2)</sup>
2. Residential Access	Cars, emergency and service vehicles	50-400 <50	B C	Normal Normal	MUTCD MUTCD
3. Farm Access	Cars, light trucks, occasional heavy trucks, farm equipment	250-40 0 <250	A B	Normal Normal	MUTCD MUTCD
4. Resource/Industrial Access	Trucking employees cars	50-400 <50	A B	Normal Normal	MUTCD MUTCD
5. Agricultural Land Access	Occasional farm equipment seasonal	-	C	Min. Maint.	MUTCD
6. Recreational Land Access	Cars, R.V's Seasonal	50-400 <50	B C	Normal Min. Maint.	MUTCD MUTCD

Note:

<sup>(1)</sup> *Average Daily Traffic*

<sup>(2)</sup> *"Manual of Uniform Traffic Control Devices" Supplemented by "Traffic Sign Handbook for Low Volume Roads" New York State Department of Transportation Traffic and Safety Division, June 1985.*

**Table 2**

**Design Guidelines for Road Rehabilitation by Road Type**

<b>Type A All Purpose Road</b>		<b>Type B Area Service 2-Way 2 Lane Road</b>	<b>Type C Area Service Single Lane 2-Way Road</b>
Minimum Width Traveled Way	18 feet <sup>(1)</sup>	16 feet <sup>(1)</sup>	10 feet <sup>(2)</sup>
Shoulder	2 feet	2 feet	
Opposing Vehicle Interactions	All vehicles pass with no speed reductions	1. Trucks cannot meet without reducing speed. 2. Cars cannot meet trucks without reducing speed. 3. Cars pass with almost normal speed.	All vehicles require special widening for passing.
Operating Speed <sup>(3)</sup>	45 mph or greater	25 mph to 45 mph	40 mph or less
Typical Surface Material <sup>(4)</sup>	Asphaltic Concrete ADT>150	Asphaltic Concrete ADT>150	Usually unsurfaced
	Aggregate ADT<150	Aggregate ADT<150	
Surface Condition	No adverse effect on operating speed	May cause reduction in operating speed	Reduced operating speed

<sup>1</sup> Add 2ft. to the traveled way if significant truck traffic is present.

<sup>2</sup> If farm vehicles are present, maintain 20 foot horizontal clearance. Widening of traveled way should be provided at approximately 1000 foot intervals to allow vehicles to pass.

<sup>3</sup> Applicable to normal maintenance roads.

<sup>4</sup> ADT thresholds recommended based on economic analysis, "Economic Evaluation of Pavement Design for Low Volume Roads," Proceedings of the Third International Low Volume Road Conference 1983, Transportation Research Board, National Research Council, Washington, D.C. 1983.

**Table 3**

**Cross Slope Drainage Criteria, By Surface Type**

Surface Type	Range in Cross Slope
High (asphalt, etc.)	1.5%--2.0%
Intermediate (surface treated)	1.5%--3.0%
Low (unpaved)	4.0%--6.0%

- **Clear Zone**--The width of the roadside area that should be studied for possible hazard mitigation measures varies with the operating speed, traffic level and degree of curvature of the road. Desirable clear zones are indicated below. (Clear zone is measured from the edge of the traveled way.)

**Type A Road**--a 10-foot clear zone is desirable.

**Type B Road**--a 2-foot to 5-foot clear zone is desirable; a 10-foot clear zone on the outside of sharp curves and on curves at the bottom of long grades is desirable.

**Type C Road**--a 2-foot clear zone is desirable; a wider clear zone on the outside of sharp curves is suggested. On minimum maintenance roads a clear zone may not be provided.

Hazard mitigation measures to be considered include:

- Improved delineation of the road including edgelines, delineators and reflectors.
- Guiderail
- Berms and earth work
- Drainage modifications
- Removal of the hazard

Property owners should recognize the legal right of local government to remove fixed objects within the right of way of the road.

**Guide Rail**--New York State Department of Transportation Guide Rail and Bridge Rail designs are intended for high volume, high speed highways and are often too expensive for many low volume road applications. Alternative designs that are less expensive and adequately tested to assure performance may be used on low volume roads.

*Source: AASHTO Policy for Geometric Design of Highways and Streets, 1984.*

**Table 4**

**Maintenance Activities for Low Volume Activities &  
Minimum Maintenance Town Roads**

Activity	Normal Maintenance Roads	Minimum Maintenance Roads
Surface Maintenance		
Crack Sealing	As necessary	Maintain in manner determined by town highway superintendent consistent with volume and type of traffic and in the manner stated in section seven of this local law.
Patching and Potholes	On demand	
Surface Seals	As necessary	
Thin Overlays	As necessary	
Snow Removal	Roads kept clear	
Shoulder Maintenance	Grading cleaning	
Blading	Regular	Infrequent
Roadside Maintenance		
Cleaning	As necessary	Maintain in manner determined by town highway superintendent consistent with volume and type of traffic and in the manner stated in section seven of this local law.
Mowing	Regular	
Brush Control	Site Distance maintained	
Guide Rail Maint	Regular	
Drainage:		
-Structure	As necessary	
-Ditches	Positive drainage maintained	
Slopes	Repair failures	
Bridges		
Cleaning	As necessary to preserve bridge	Maintain in manner determined by town highway superintendent consistent with volume and type of traffic and in the manner stated in section seven of this local law.
Lubrication	As necessary to preserve bridge	
Painting	As necessary to preserve bridge	
Deck	As necessary to preserve bridge	
Drainage	As necessary to preserve bridge	
Signs	MUTCD <sup>(1)</sup>	MUTCD <sup>(1)</sup>

Note:

<sup>(1)</sup> MUTCD is the Manual of Uniform Traffic Control Devices.



## **Surface Maintenance**

**Crack Sealing** - manually pouring hot asphalt, with or without a fiber reinforcement material, into road surface cracks that have first been cleaned of all loose debris, vegetation, etc. The cracks may occur at construction joints, utility cuts, or just be random due to the effects of time, weather, loads, etc. Crack sealing has been found to be a very cost-effective measure, because it prevents the entry of water into the base course and surges. By blocking the entry of water, crack sealing indirectly strengthens the load supporting capability of the road.

**Patching and Potholes** - placement and compaction of asphalt concrete into surface defects, such as potholes, which have first been cut back to sound material and cleaned of loose debris, water, etc. While a certain amount of this work will have to be done on an emergency basis during inclement weather to provide a safe road, expedient patches should be replaced with permanent patches using proper methods and materials when conditions are favorable. Extensive patching and potholes is an indication that a pavement has reached the end of its functional life, and the road should be scheduled for rehabilitation in accordance with the guidelines set forth in this local law.

**Surface Seals** - also known as "chip seals," this method involves spraying a rapid-setting emulsified asphalt onto the road surface, followed immediately by the placement of a single layer of clean, crushed stone particles. A pneumatic, rubber-tired compactor is used to press the stones into the asphalt before the emulsion sets up. Chip sealing is used where the surface cracking is more extensive, while manual crack sealing is used where the cracking is less extensive. Chip sealing may also be used to enhance skid resistance on a slippery road. Where water entry is prevented by the surface seal, some strengthening of the road will result.

**Thin Overlays** - while "thin" is a relative term, it is used here to refer to hot-mix or cold-mix overlay shaving a thickness of 1 ½ inches or less. This method adds more to the structural capability of the pavement than does a chip seal. However, it performs much the same function as a chip seal, although it can be expected to have a more lasting effect. When a thin overlay is placed on a paved road, it is customary to use a tack coat to promote a bond between the old surface and the overlay. According to the Asphalt Institute, the tack coat should be sprayed from a distributor, allowing adequate time for it to become "tacky" before paving. Traffic should be kept off the tacked area before paving. They recommend using an SS-1 or a CSS-1 asphalt emulsion diluted 50-50 with water, and applied at a rate of 0.05 to 0.15 gallons per square yard. Application of tack coat at higher rates should be avoided, as this can lead to slippage of the overlay or "bleeding" and loss of skid resistance on the surface of the overlay.

**Snow Removal** - Snow and ice control are performed to foster safety and to expedite travel during the winter months. Blading of snow is done to remove it from the roadway to prevent the buildup of ice. Abrasives (sand, usually mixed with salt) are used to enhance trafficability during a storm or immediately

afterward when a thin layer of ice or snow remains on the road. Salt is used to lower the melting temperature of the ice, and to diminish the bond of the ice on the road surface.

**Shoulder Maintenance** - activities may differ depending on whether the shoulder is paved or unpaved. The objective is to keep the surface smooth so that moving vehicles can leave the main roadway safely, and also to assure that water from the road will move across the shoulder and into the ditch or gutter. It is particularly important to remove the accumulated winter maintenance abrasives from the shoulders to prevent the retention of water near the edge of the pavement.

**Blading** - for aggregate roads and unpaved shoulders, blading removes potholes, corrugations, and other surface defects, rendering the surface smoother and safer to travel on. Blading is usually preceded by scarification to a depth slightly deeper than the deepest surface defects. Blading should be used to establish a cross-slope of 4 to 6 percent ( $\frac{1}{2}$  to  $\frac{3}{4}$  inch per foot) for good drainage and to reduce the development of potholes in the aggregate surface.

**Regraveling** - the addition of aggregate materials to re-establish the crown and grade of the road. This activity is commonly done at the same time as blading, but less frequently. The new aggregate is needed periodically to make up for materials that have been lost due to traffic, water erosion, dusting, and blading losses.

**Dust Palliation** - application of water, calcium chloride, sodium chloride (salt), lignin sulfonate, or other non-toxic chemicals to bind the surface and prevent loss of dust. Dust loss leads to the gradual erosion of the road surface, reducing its thickness and load supporting capability. Dust can make summertime travel hazardous when traffic volumes are sufficient to require passing maneuvers. Sometimes the use of dust palliatives will reduce the need for blading and regraveling to a sufficient degree to be highly cost-effective.

## **Roadside Maintenance**

**Cleaning** - picking up litter and other roadside debris, principally for aesthetic reasons, but also to protect the flow capacity of culverts and ditches.

**Mowing** - cutting grass and weeds. This is particularly important near driveways and intersections, to provide a clear line of sight for traffic.

**Brush Control** - cutting woody shrubs to prevent encroachment onto the right-of-way. This is important to provide adequate sight distance, particularly around the inside of curves, and at driveways and intersections.

**Guide Rail Maintenance** - replacement of damaged, ineffective guide rail. This may also involve use of herbicides to retard the growth of weeds and shrubs in front of and immediately behind the guide rail.

**Drainage** - cleaning debris from the inlets and outlets around culverts, and cleaning ditches to maintain flow capacity. When possible, ditches should be cleaned in the late spring of the year, so that vegetation will be quickly re-established to protect against erosion. At other times, reseeding may be necessary for erosion protection.

**Slope Maintenance** - remove landslide debris, cut and remove trees from fill slopes, protect against erosion due to runoff from the road surface or ditches, seed slopes to retard erosion.

## **Bridges**

**Bridge Maintenance** - cleaning of drainage scuppers, lubrication of pins and bearings, painting of beams and railings, cleaning and patching of deck surface defects, removal of winter maintenance abrasive and salt residues, protection of bridge abutments against scour and erosion, inspection of abutments, clearance of the waterway to maintain flow capacity.

## **Signs**

**Sign Maintenance** - clearance of shrubs and trees obstructing visibility, replacement of damaged signs, verification that signs are used and placed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

§11. Guidelines for Traffic Control on Low Volume and Minimum Maintenance Roads. This section lists guidelines for traffic control on low volume and minimum maintenance roads. It describes methods of traffic control that are cost effective and promote safety.

## **Signs on Low Volume Roads**

The (county, town) superintendent of highways is authorized in Section 1682 of the Vehicle and Traffic Law to decide conditions to which drivers are to be alerted with traffic control devices. It is mandatory to provide signs indicating weight restrictions, low clearances, dead-end roadways, railroad crossings and road closures. These are specified elsewhere in law. On low volume roads subject to normal maintenance activities, the decision regarding the need for other signs shall be based on the principle of positive guidance. In essence, this principle suggests that hazard warnings be provided whenever a driver cannot anticipate a hazard in time to react safely.

When the (county, town) superintendent of highways decides that a condition on a town road is potentially hazardous, appropriate signing, in conformance with the NYSMUTCD, is to be provided. The New York

State Department of Transportation's "Traffic Sign Handbook for Low Volume Roads" may be helpful in determining the type and location of signs to be used, once the need for a sign has been established.

Features that are inconsistent with the general driving environment should be identified and analyzed for the possible installation of signs. Identification can be made by driving over the road and noting if a reduction in speed is necessary or if a surprising or unanticipated feature is encountered. Such things as isolated curves or narrow bridges, especially those with limited sight distance, should be evaluated for a "surprise" factor. Signs at every curve are generally not necessary on low volume roads as drivers are cognizant of conditions. Signs should be restricted to those features that the (county, town) superintendent of highways determines are inconsistent with the general highway environment and cannot be anticipated early enough for drivers to take appropriate defensive action. Records of all determinations should be made and properly filed for future reference.

### **Signs on Designated Minimum Maintenance Roads**

1. **Design of road signs.** The NYS Department of Transportation has designed signs for posting minimum maintenance roads. Such signs notify and advise motorists that reduced levels of maintenance are in effect. These signs are contained in title seventeen of the official compilation of code rules and regulations of New York state.

2. **Installation of signs.** Minimum maintenance road signs shall be installed at each end of the minimum maintenance section and immediately beyond intersections with other public roads. The maximum distance between signs should not exceed two miles. Additional installation conditions are set forth in the Manual. Posting of minimum maintenance road signs will not relieve the town of its responsibility to post other legally-required signs such as railroad crossings, dead ends, bridge capacity, low clearance and road closures.

§12. This local law shall take effect immediately.