



Road Business

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Figure 1. An improperly installed Speed Limit Sign (R2-1)

On the Road in New Hampshire

Setting and Posting Speed Limits

Federal and state laws require a technical study to set speed limits. However, in many cities and towns setting speed limits are often political decisions. Also, as shown in Figure 1, some municipalities improperly install speed limit signs. This article describes the rules and accepted process for setting and posting speed limits.

Speed Limit Determination

RSA 265:60 sets speed limits for certain areas. The road in Figure 1 is a “rural residence district” with a statutory speed limit of 35 mph. RSA 265:63 also gives municipalities the authority to modify the statutory speed zones. It and federal laws (MUTCD, 2B.11), however, limit that authority by requiring engineering and traffic studies. A municipality must hire a consultant

unless it has “sufficient staff” to conduct the investigation. That staff must have the time and expertise to consider the many factors in a speed limit study.

- Road characteristics, such as travel surface, shoulder condition, road alignment and sight distance, road and shoulder width, the number of lanes, and passing zones.
- Land use and numbers of driveways.
- The speeds of vehicles, and the “85th percentile speed” (85% of the traffic flows at or below the prevailing speed).
- Safe speed for curves and intersections.
- Parking practices and pedestrian activity.
- Vehicle volume, types, and characteristics.
- Weather and climate.
- Accident frequency and severity for the past 12 months.

Investigators must collect and analyze data for all the factors. The Vermont Local Roads Program’s *Setting Speed Limits* has worksheets for data collection and analysis. (See the UNH T² Center website to view this booklet, or page 9 to order it and applicable RSAs.)

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Technology Transfer
Center
University of New
Hampshire
33 College Road
Durham NH 03824

603-862-2826
800-423-0060 (NH)
Fax: 603-862-2364
t2.center@unh.edu
<http://www.t2.unh.edu>

UNH T² Center Staff

David H. Fluharty
LTAP Director
Charles H. Goodspeed
TRCG Director
Kathy DesRoches
Assistant Director and
Road Business Editor
Tara Farnsworth, Project Assistant
Alyssa Rezendes, Project Assistant
Beth Terney, Project Assistant



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Investigators should also consider Advisory Speed Plaques (W13-1). They tell drivers that a lower speed might be necessary at curves, turns, intersections, and other local conditions. Although not enforceable, they add emphasis and information to other warning signs. The MUTCD requires that advisory speeds be determined by an engineering study.

A technically determined speed limit is usually the 85th percentile speed. Especially in modern residential developments, that speed might be dangerous to pedestrians and bicyclist. Lowering speed limits, however, are seldom the best solution. More than 15% of the drivers will then exceed speed limits. Many residents and pedestrians will have a false sense of security. Traffic calming techniques are usually a better solution. (See "Taming Traffic" in *Road Business*, Summer 2001)

Speed Limit Sign Installation

The Speed Limit Sign (R2-1) informs motorists of speeds required by law. The MUTCD requires a Speed Limit Sign be installed

- Where one speed limit changes to another,
- Beyond major intersections and where necessary to remind drivers of the lawful speed,
- At municipal boundaries, and
- Where easily seen by all motorists.

In Figure 1, even without the R2-1 sign, the Horizontal Alignment/Intersection Sign (W1-10) is too low. The bottom of a single sign must be at least 5 feet above the near edge of the pavement. The height must be 7 feet where parking or pedestrian movement occurs. For two signs, mounting height to the bottom of the secondary sign may be one foot less.

The Institute of Traffic Engineers (ITE) recommends that agencies normally erect signs on individual posts. Grouping is appropriate when one sign supplements another. Grouping, if it does not confuse motorists, can reduce roadside obstructions and to save money.

After the Figure 1 picture was taken, the Town decided that the W1-10/R2-1 grouping might be confusing. It replaced the speed limit sign with an Advisory Speed Plaque. It relocated the Speed Limit Sign past the intersection. This meets the general MUTCD standard for location: "Signs requiring different decisions by the road user shall be spaced sufficiently far apart for the required decisions to be made safely."

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