

## ENGINEERING DIRECTIVES AND STANDARDS

Volume	Chapter	Section	Directive Number	Effective Date
VI	1	1	1	10/9/2014

**SUBJECT: ESTABLISHMENT OF SPEEDZONES**

1. **PURPOSE:** This directive sets forth the Department of Transportation and Development's (DOTD) policy for Speed Zones. This policy is a supplement to the requirements of the Manual of Uniform Traffic Control Devices (MUTCD). This policy shall also conform to any State of Louisiana statutes regarding speed limits.

Speed zoning is the establishment of safe and reasonable speed limits for certain zones or sections of streets or highways where the general statewide legislative speed limits do not fit the road and traffic conditions. Speed zoning permits the control of unsafe speed for certain zones without unduly restricting motorists when higher rates can be permitted with safety on a statewide basis. Nationwide traffic engineering studies have shown that speed limits set higher than the 85<sup>th</sup> percentile speed are not considered reasonable and safe. Studies have also shown that speed limits set below the 85<sup>th</sup> percentile generally do not facilitate the orderly flow of traffic, cannot be enforced effectively and are not voluntarily observed by motorists. In general, highways operate safest when vehicles travel in the same direction at or near the same speed. Setting the posted speed limit below the 85<sup>th</sup> percentile of speed will cause an increase in the relative speed differential between the slower and the faster moving vehicles. (Transportation Research Board. *Special Report 254. Managing Speed: Review of Current Practice for Setting and Enforcing Speed Limits*. National Academy Press, Washington, D.C., 1998. Print)

It is not possible to establish limits based on variables such as weather and road surface conditions. Drivers are required by law to adjust their speed to fit such conditions regardless of any limit which may be in effect.

2. **SCOPE:** This policy is for all speed zones established on state owned highways.

3. **STATE LAWS**

- Louisiana Revised State Statute (RS) 32:64 General Speed Law
- Louisiana Revised State Statute (RS) 32.61 Maximum Speed Limit
- Louisiana Revised State Statute (RS) 32:63 Establishing of Speed Zones

The Manual on Uniform Traffic Control Devices states in Section 2B.13 that: Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering study that has been performed in accordance with traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles.

The Department of Transportation and Development shall develop criteria to determine which portions of a highway warrant a speed limit lower than or higher than the speed limits established by this Section. The criteria are based on an engineering study that shall consider, but not necessarily be limited to, the 85a percentile speed of the road, the road geometry, the use of land surrounding the road and the crash history of the road.

4. **POLICY:** All speed limits shall be in multiples of 5 mph. The 85<sup>th</sup> percentile speed should be used to set all speed limits. If anything outside of the 85<sup>th</sup> is used, it shall be justified in detail within the speed limit report. Only under special circumstances should the speed be set outside of the 85<sup>th</sup> percentile. These special circumstances are as follows, but not limited to:
- 1) High enforcement area in which the driver cannot get a true free flow due to police enforcement;
  - 2) Geometric restrictions, such as 2 or more miles of constant horizontal curves, that don't allow drivers to reach free flow speed; or
  - 3) Shoulder conditions, such as inadequate or non-existing shoulder width, along with a crash history.

**Note:** Speed cannot be reduced for the sole reason of an existing advisory condition, such as a pavement condition rating of 2.0 and below.

The following guidelines apply to the length of speed zones:

- 1) Minimum lengths
  - 1000 feet  $\leq$  35 miles per hour
  - 2500 feet  $\geq$  40 miles per hour
- 2) Transition zones are not required but if used, they should be long enough to allow the driver to coast to the new speed and should not drop more than 10 miles per hour.

To establish, revoke or modify a speed limit, a study/report as defined in the Traffic Engineering Manual shall be performed, signed and stamped by DOTD Traffic staff. It shall include the following:

- 1) Description of the roadway characteristics (i.e. number of lanes, shoulder description, pavement conditions, etc.);
- 2) Written justification if below the 85<sup>th</sup> percentile;
- 3) Current Speed Zone Map;
- 4) Suggested Speed Zone Map;
- 5) Spot Speed Study Table;
- 6) Cumulative Frequency Curve Form;
- 7) Crash Data Table; and
- 8) Proposed Chief Engineer's Order (unless speed limit is statutory)

This report shall be recommended for approval by the District Traffic Operations Engineer, the District Administrator and the Traffic Engineering Management Administrator, and then approved by the Traffic Engineering Division Administrator. The speed limit sign shall only be installed once the proper paperwork has been submitted, approved and signed by the Chief Engineer.

5. **APPLICATION OF STANDARDS:** These standards shall apply immediately.
6. **OTHER ISSUANCES AFFECTED:** All directives, memoranda or instructions issued heretofore in conflict with this directive are hereby rescinded.
7. **IMPLEMENTATION:** This directive will become effective immediately upon issuance.

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