



Georgia Department of Transportation Setting Speed Limits with Help from USLIMITS2

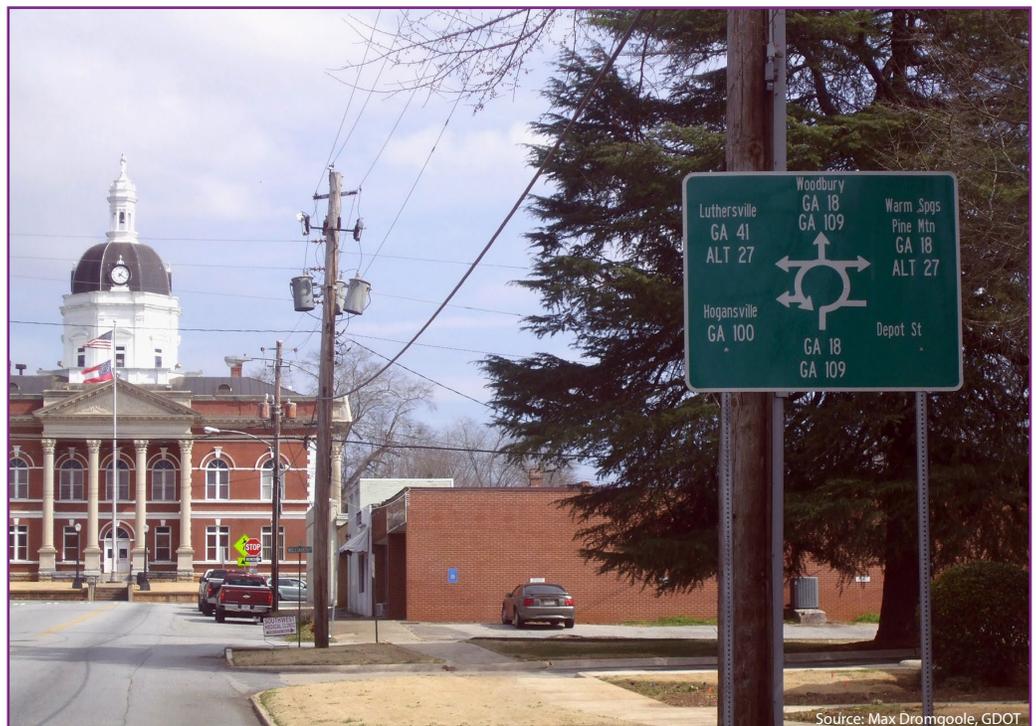


USLIMITS2

is a web-based tool designed to help practitioners set reasonable, safe, and consistent speed limits for specific segments of roads. It is applicable to all types of facilities, from rural local roads and residential streets to urban freeways. The tool provides a suggested speed limit value based on 50th and 85th percentile speeds, roadway characteristics, and (optional) crash data.

Prompted by increased concerns from citizens and local officials, the Georgia Department of Transportation (GDOT) used an engineering speed study supplemented by a tool developed by Federal Highway Administration (FHWA) called USLIMITS2 to evaluate the existing speed limits in Greenville, Georgia.

Located approximately 55 miles southwest of Atlanta, the small city of Greenville is the county seat in Meriwether County. The city's main roadway network feeds into a traffic circle, which encircles the Meriwether County Courthouse at the center of town. US Highway 27 and State Highways 100 and 109 bring motorists through this city's town center and typically carry a fairly large amount of truck traffic. The area around the courthouse contains on-street parking, and with the town hall, a police station, and several businesses nearby, it often brings a high-level of pedestrian activity. Outside the city limits, speed limits are 55 mph and rapidly drop in 10 mph increments to 25 mph leading into the city's center. Many motorists felt the speed limits dropped too suddenly and were unrealistic, setting them up to receive speeding tickets, calling the area a potential speed trap.



Meriwether County Courthouse and sign showing surrounding roadway network.

Source: Max Dromgoole, GDOT

Since **USLIMITS2** software became available in 2007, GDOT estimates it has used the tool to complement the State's engineering speed studies on nearly 500 speed limits statewide.



“The **USLIMITS2 tool takes out all the emotion and politics, and it provides us with something that we could show to others that is concrete and easy to understand.”**
GDOT Traffic Engineer

EVALUATING THE SPEED LIMIT

GDOT's standard procedure for evaluating speed limits includes performing a thorough speed study for both directions of traffic and collecting three years of crash data for the section of the roadway under review. Staff typically complete several test drives to gauge “driver feel and expectation” and collect curve data, as necessary. In addition to these steps, traffic engineers at GDOT then use FHWA's online tool, USLIMITS2. They find that USLIMITS2 is easy to use and provides an objective, unbiased recommendation that gives them confidence in the original speed study results and helps them defend and explain their decisions for setting speed limits.

In early 2015, GDOT followed the process described above and evaluated the speed limits on the roadways leading into Greenville's town center to determine whether they were properly set. GDOT's initial conclusion after reviewing the existing speeds and crash data was that the 25 mph speed limit on the approaching highways was set too low. The operating speed, or 85th percentile speed, was measured to be closer to 35 mph, and the crash data revealed no existing speed-related safety issues. USLIMITS2 supported this by confirming the findings of their engineering speed study. With these results, GDOT increased the 25 mph speed limit to 35 mph on the approaches into the city's center. They also adjusted the speed limits within the transition zone between 55 mph and the new 35 mph, using incremental drops of 5 or 10 miles per hour to make the transition less sudden.

“USLIMITS2 acts as an external, impartial, second set of eyes.”
GDOT Traffic Engineer

RESULTS

Initially, some residents living along these roadways had concerns regarding the speed limit changes, but GDOT staff described the results of the speed and crash analyses, explained the concept of the 85th percentile speed, and pointed out that motorists were already traveling at 35 mph. The USLIMITS2 data lent further support for the speed limit changes.

After the speed limits were adjusted, motorists reported that the speed limits felt more appropriate and provided a smoother transition from a 55 mph speed zone to the town center's 25 mph speed zone. GDOT received several messages of thanks from citizens. A speed study showed that the 85th percentile speeds are now in line with the posted speed limit. Perhaps most importantly, there has been no increase in the number of crashes.

While using USLIMITS2 is a step beyond a standard speed study, the traffic engineers at GDOT believe it provides a fair and unbiased opinion based on sound engineering practices. Overall, they report that it is a valuable tool that augments the credibility of their speed studies and has often helped address concerns from local government officials and private citizens when speed limits are adjusted.

FOR MORE INFORMATION

To learn more about USLIMITS2, visit the [USLIMITS2 website](#).

For additional speed management resources, visit the [Speed Management Safety website](#).

Also, check out FHWA's fact sheets: *Speed Limit Basics* and *Speed Management: More than Just Speed Humps*.

Source: Max Dromgoole, GDOT