



Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAUT, P.E.
SECRETARY

Program Management Bulletin 22-01

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TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Structures Design Engineers, District Maintenance Engineers, District Consultant Project Management Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, Program Management Engineers, District Materials Engineers, District Specifications Engineers, District Estimates Engineers

FROM: Stefanie D. Maxwell, P.E., Manager, Program Management Office

COPIES: Courtney Drummond, Will Watts, Tim Lattner, Dan Hurtado, Rudy Powell, Trey Tillander, Scott Arnold, Michael Shepard, Paul Hiers, Vern Danforth, Daniel Strickland, Alison Stettner, Lora Hollingsworth, Brenda Young, Gevin McDaniel, William Potter, Kevin Burgess (FHWA), Bren George (FHWA), Nahir DeTizio (FHWA)

SUBJECT: **Low-Cost Safety Countermeasures for Local Programs**

DocuSigned by:

Stefanie D. Maxwell

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This bulletin introduces revisions to the FDOT *Local Agency Program Manual* (Topic No. 525-010-300) to implement low-cost safety countermeasures in project design and construction as a mandatory condition for Local Programs grant funding. Audible and Vibratory Treatments (AVT) and permanent pavement markings are two low-cost safety countermeasures that will be mandatory for local roadway projects, funded by the Department, on flush shoulder rural roadways with posted speeds of 50 mph or greater.

The requirement to use the FDOT Design Manual for locally delivered projects on the State and National Highway Systems has not changed.

REQUIREMENTS

The following paragraph will be added to the FDOT Local Agency Program Manual, Chapter 19ⁱ:

All Department funded projects located on a local roadway, off the State Highway System, including Local Agency Program (LAP) Class C and Class D projects, where construction will be performed on flush shoulder rural roadways with posted speeds of 50 mph and greater must include

permanent pavement marking materials per *FDOT Design Manual, Chapter 230* and Audible Vibratory Treatments per *FDOT Design Manual, Chapter 210*.

BACKGROUND

As part of the FDOT Vital Few initiative, the Department is committed to eliminating fatal and serious injuries on all roads in Florida. Lane departure is a key Vital Few Safety focus area, and the Department is committed to addressing the causes of lane departures and implementing safety improvements to eliminate fatal and serious injuries resulting from lane departure crashes. Currently, lane departures represent 33% of all crashes, yet result in 44% of all fatalitiesⁱⁱ. A quality assurance review of Department grant funded projects on local roads was conducted in partnership between the Offices of Design and Program Management to assess if and how local agencies receiving grant funding were incorporating low-cost safety countermeasures in the projects. The review identified that local agencies are minimally including low-cost safety countermeasures in Department funded projects. The Department review also found that many local agencies are using painted pavement markings, which are recommended for temporary use and have a service life of approximately 6 to 18 months. Painted pavement markings that are not maintained properly will wear, no longer providing delineation, and can create unsafe conditions for the traveling public. The use of permanent pavement markings will enhance visibility and provide a service life of approximately 6 to 8 years for high volume roads. However, the service life could be extended to the life of the pavement, when using audible vibratory treatments in combination with permanent pavement markings.

Audible and Vibratory Treatments are the most effective countermeasure at reducing fatal and serious injury lane departure crashes. The cost to include ground-in rumble strips is approximately the same cost per mile as painted pavement markings. According to the Federal Highway Administration's Proven Countermeasures webpage, the following safety benefits may be realized with the use of rumble strips on rural two-lane roads:

- Center line rumble strips result in a 44%- 64%ⁱⁱⁱ reduction in head-on fatal and serious injury lane departure crashes.
- Shoulder rumble strips result in a 13%-51% reduction in fatal and serious injury single vehicle lane departure crashes.

Included in the audible and vibratory treatments are alternative installations that result in lower noise levels for the community. Using these two low-cost safety countermeasures in combination, permanent pavement markings and audible and vibratory treatments, will provide a more durable solution with lower maintenance costs over time, and a safer traveled way.

IMPLEMENTATION

The requirements of this bulletin are effective immediately on all new locally delivered grant funded projects programmed and administered by FDOT Local Programs and Planning Offices.

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CONTACT

Lorraine Moyle
State Local Program Administrator
lorraine.moyle@dot.state.fl.us
(850) 414-4383

For questions on the FDM contact:

Gevin McDaniel
Roadway Design Criteria Administrator
gevin.mcdaniel@dot.state.fl.us
(850) 414-4284

SM/lmm/gjm

ⁱ The Local Agency Program Manual is pending a name change to the Local Programs Manual and chapters will also be renumbered. When the change goes into effect, Chapter 19 will be renumbered to Chapter 17.

ⁱⁱ Source: <https://www.fdot.gov/safety/safetyengineering/countermeasures>

ⁱⁱⁱ Source: FHWA Proven Safety Countermeasures webpage: <https://safety.fhwa.dot.gov/provencountermeasures/>