



## Florida Department of Transportation Research

### Integrated Work Zone Safety Management System and Analysis Tools

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Traffic flow disruptions that occur around roadway work zones can create hazardous conditions that can contribute to the occurrence of vehicle crashes. The Florida Department of Transportation has made strong efforts to improve work zone safety in Florida. However, analysis tools that could evaluate the effectiveness of these measures were not available.

Researchers from the University of South Florida conducted a comprehensive study of Florida's work zone crash events and safety procedures. Based on the study results, they developed the Florida Work Zone Crash Database, an integrated, web-based tool. This database will collect detailed information about fatal crash events from field offices through a web interface. The information will include crash types and causes, driver characteristics, and environmental conditions. The database will be used to determine which safety measures are the most effective.

The final report for this study includes information about work zone safety devices currently in use; work zone crash data; and the results of a survey on work zone safety, which covered a wide range of possible situations and was given to both workers and drivers to determine their safety concerns. The report also provides the results of an evaluation of a new lane merge control strategy known as the Dynamic Lane Merge (DLM) system. This evaluation included a



*Complex work zones can be made safer with management tools.*

simulation study of the DLM system, which showed that the system does, in fact, have a positive effect on driver behavior.

Reducing work zone crashes would save lives and property, improve traffic flow, and facilitate more timely completion of roadway construction.