



Florida Department of Transportation Research

Development of a Central Data Warehouse for Statewide ITS and Transportation Data in Florida Phase II: Proof of Concept
BD545-37

Researchers at the University of Florida Transportation Research Center have developed and tested a prototype traffic data archive system. When completed, the Statewide Transportation Engineering Warehouse for Archived Regional Data (STEWARD) will archive traffic flow data from traffic management centers throughout the state. Traffic managers will be able to use STEWARD's data archive to produce reports, monitor traffic sensor performance, and develop new traffic management programs.

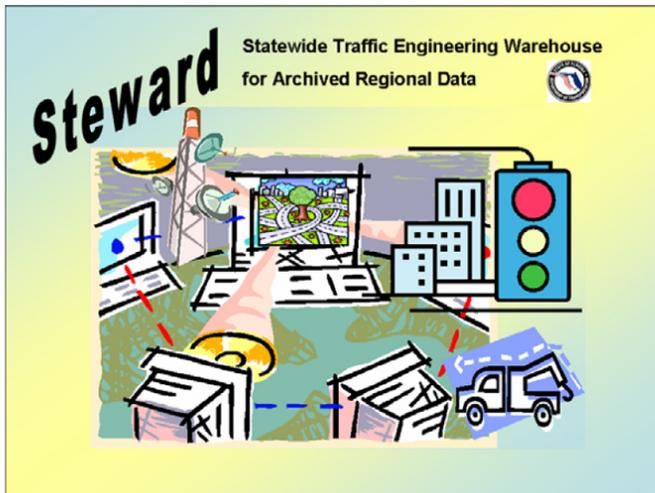
A 2004 Phase I feasibility study (BC354-61) laid the groundwork for STEWARD, which is a subsystem of the Florida Statewide Intelligent Transportation System Architecture.

The initial data source for STEWARD is the SunGuide traffic sensor system along Interstate 95 in FDOT's District Two. Data from 120 traffic detection stations feeds into STEWARD 24

hours a day. STEWARD analyzes the data to report on highway usage factors such as traffic flow rates, traffic lane volumes, total vehicle miles and travel times, speeds, and traffic density. The data is also applied to create travel performance measures, including delays due to congestion and slow-downs, and the percentage of on-time travel at or just below the speed limit.

STEWARD currently receives data from traffic detection systems in FDOT Districts Four and Six, and will soon be able to receive data from Districts Five and Seven. In the future, data from other FDOT sources may be added to the STEWARD archive. The utility and value of STEWARD will expand as additional data from more areas of Florida is entered into the system. Internet access to STEWARD may also be developed.

STEWARD's continuous data archiving and analysis capability will make it possible for traffic managers to respond promptly to situations affecting traffic flow, which should enhance the level of reliable, on-time service of Florida's highway system and benefit the state's economy.



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For more information, visit <http://dot.state.fl.us/research-center>.