Florida Department of Transportation Research

Phase I: Before Study Evaluation of Interstate 4 (I-4) Florida's Regional Advanced Mobility Elements (FRAME) Project (Before Analysis)

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BDV24-977-38

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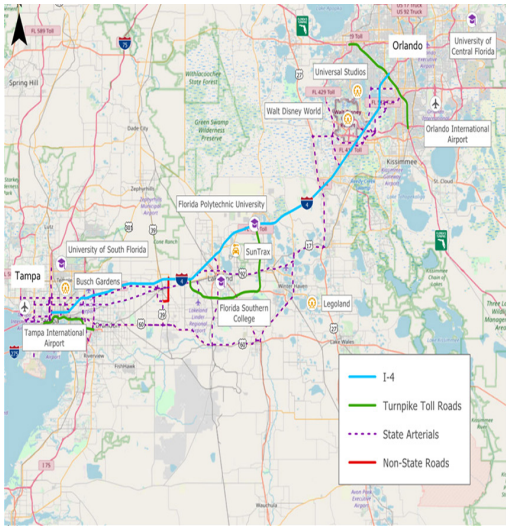
Current Situation

The best way to find out if a transportation research project was meaningful is to check the numbers. The Florida Department of Transportation is laying the foundation to do that with a massive new undertaking that aims to capture safety and mobility conditions along Interstate 4 (I-4) from Orlando to Tampa.

The I-4 Florida's Regional Advanced Mobility Elements (FRAME) project is an extensive, interregional, Integrated Corridor Management (ICM) project running from Tampa to the southwest side of Orlando at Florida's Turnpike. The project covers over 77 miles of I-4, 200 miles of other limited access, state and non-state routes and 381 traffic signals. The project will deploy an advanced integrated corridor management system consisting of next-generation traffic incident management, work zone traffic management, road weather alerts, freeway back-of-queue warning, wrong-way driving, and speed harmonization message systems using vehicle-to-infrastructure (V2I) and vehicle-to-vehicle (V2V) technologies.

Multiple universities across Florida will aid in completing the before-after evaluation of the project.



I-4 FRAME project map.

Research Objectives

The primary objectives of this project were to evaluate the existing safety and mobility conditions along the I-4 corridor from Orlando to Tampa.

Project Activities

For this project, a team from the University of Central Florida collected massive data from different sources on the corridor's freeways, expressways, and arterials, including crashes (time, location, type, severity, etc.), traffic details (throughput, delay, average speed, etc.), event information (lane clearance time, incident clearance duration, etc.), and weather.

After the initial data collection, the team conducted an extensive analysis for safety and mobility evaluations; developed appropriate performance measures; and identified the prevailing mobility and safety challenges on the selected roadways.

Project Conclusions and Benefits

This project summarizes the overall safety and mobility evaluation before the new I-4 FRAME technologies are implemented and will be used to compare with safety and mobility data after implementation.

For more information, please see *fdot.gov/research*.