



Project Number

BDV29-977-49

Project Managers

Yujing “Tracey” Xie

*FDOT Traffic Engineering and
Operations Office*

Principal Investigator

Priyanka Alluri

Florida International University

Florida Department of Transportation Research

Guidelines for Installing Pedestrian Treatments at Midblock Locations

July 2021

Current Situation

Driving involves many expectations about what other road users are going to do and where certain events will happen. For example, drivers expect that pedestrians will wait on a corner and use a crosswalk. Design standards help roadway users to act in these predictable ways. In places where drivers may not expect a pedestrian, they will be less alert for that event; thus, pedestrians attempting to cross midblock are at added risk. Despite the often apparent nature of this risk, pedestrians may choose to cross midblock because of the time and steps they will save. In some settings, it makes sense to accommodate these pedestrians by creating midblock crossings that are appropriately marked and signalized.



Long blocks that separate shopping and housing areas can tempt pedestrians to make midblock crossings across multilane roads.

Research Objectives

Florida International University researchers studied pedestrian safety treatments for midblock crossings, including identification of crash-prone arterial corridors and pedestrian treatments appropriate for those locations.

Project Activities

The researchers conducted a thorough review of the existing national, state, and local warrants and guidelines on installing pedestrian safety treatments at midblock locations. They also identified the variables that can influence pedestrian crashes at midblock locations, including socioeconomic factors, land use, demography, roadway geometric characteristics, and pedestrian infrastructure.

With this background, the researchers identified 20 pedestrian crash hotspots in FDOT District Four (Indian River, St. Lucie, Martin, Palm Beach, and Broward counties). The hotspots were ranked, and information about the locations, nearby pedestrian infrastructure, traffic statistics, and population was compiled.

A statistical analysis was conducted to evaluate the safety of midblock segments and develop crash modification factors for different geometric, land use, and census variables. Computer modeling identified several variables that increased pedestrian crashes at midblock locations: AADT, proportion of low-income population, density of bus stops, density of bars and food establishments, and density of shopping centers. The following variables were associated with a reduction in crashes: proportion of senior population and total population.

Using the list of variables that were significant for pedestrian crashes and the reviewed guidelines for installing midblock pedestrian safety treatments, the researchers developed Florida-specific guidelines for identifying corridors that would benefit from midblock pedestrian treatments and guidelines for selecting the most appropriate treatment. The assessment procedure was presented in the form of a flow chart based on the significant variables.

Project Benefits

The guidelines and procedures developed in this project will aid in improving safety for pedestrians crossing busy arterials and reduce pedestrian crashes.

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