

Research Needs Statement

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Title:	Addressing the Traffic Safety and Reducing Pedestrian Accidents and Fatalities in Tennessee
Key Words:	Traffic Safety, Pedestrian, Accidents, Fatalities
Research Problem Statement:	The number of traffic accidents with pedestrian-related fatalities has increased across the nation and in Tennessee. The rapid growth of share bike ridership, use of scooters in some metropolitan areas may also result in the increase of pedestrian accidents. However, the work focusing on pedestrian-related accidents and causes is limited in Tennessee.
Research Objective:	This research project is to investigate the causes of pedestrian accidents and fatalities in Tennessee to better understand the potential reasons for the increase. The development of surveys and models would simulate pedestrian accidents based on different transportation facilities, land use patterns, built environment characteristic, date/time, weather condition, traffic conditions, and transportation modes. The project would provide design and operation guideline for future pedestrian-related transportation facilities in Tennessee.
Related Research/Continuation of Past or Current Project:	N/A
Expected Deliverables:	This project addresses the issues of pedestrian accidents and fatalities. The project outcome would shed some light on the concerns of traffic safety and help planners better design pedestrian-friendly built environment including sidewalk and crosswalk in Tennessee. A better and safer walkable urban setting would greatly encourage active transportation, the use of transit, and transit-oriented development, which helps to reduce traffic congestion, air pollution, and other negative externalities related to auto
Estimate of Problem Funding & Research Period:	TBD
Urgency and Potential Benefits:	This project is urgent. As one of TDOT's missions is to provide a reliable and safe transportation network, the research efforts on pedestrian safety will be improved through this project. The project outcomes will help decision makers and planners better address the

	concerns of pedestrian safety and design a walkable environment.
Implementation Planning:	The project would provide design and operation guideline for future pedestrian-related transportation facilities in Tennessee. A better and safer environment for pedestrian helps encourage active transportation and transit-oriented development in metropolitan areas across Tennessee.
Person(s) Developing the Problem Statement:	TDOT.Research@tn.gov
Submission Date:	35T
Problem Number	To be assigned by Research Office