Research Office
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Research Project Title

Rapid Emergency Evacuation Planning Assessment for Tourist Attractions and Isolated Communities

Purpose of the Project

The purpose of the project is to develop an easy-to-use evacuation planning tool for smaller and less resource-rich communities and municipalities. A modeling tool dubbed *T-REX*, or Tennessee Rapid Evacuation MicroSimlation, will be developed and demonstrated using actual locales in Tennessee with fitting scenarios.

Scope and Significance

The target municipalities are smaller and isolated/remote communities with limited evacuation exits/routes, serving primarily unfamiliar visitors, and susceptible to areawide emergencies such as wild fire and flooding. Typical modeling process for bigger metropolitan areas and major venues are costly, complex, and time-consuming to code the network, identify the population, and work out the scenarios. This effort focuses on a quick implementation of evacuation models with roadway network and population data from readily available sources to significantly shorten the preparatory process and attain results in a timelier manner.

Expected Outcomes

- An easy-to-use modeling tool, T-REX, which could expeditiously simulate possible evacuation scenarios to improve locales' preparedness with potential risks and limited resources.
- T-REX will help identify critical infrastructure and imperiled population/locations and promote community engagement.
- A comprehensive plan towards implementing T-REX, including the technology transfer demonstration and future deployment assistance, will be developed.

Time Period

September 1, 2020 – August 31, 2022

Contact Information

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