

Grant Deliverables and Reporting Requirements for UTC Grants

UTC Project Information

Project Title	Vulnerable Road User Safety Enhancements for Transportation Management
University	The University of Texas at El Paso
Principal Investigator	Carlos M. Chang
PI Contact Information	cchangalbitres2@utep.edu 915-747-8301
Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT: \$56,308 El Paso MPO: \$28,154
Total Project Cost	\$84,462
Agency ID or Contract Number	Sponsor Source: Federal Government CFDA #: 20.701 Agreement ID: 69A3551747119
Start and End Dates	Start date: 09/01/2017 End date: 01/31/2019
Brief Description of Research Project	<p>Safety of Vulnerable Road Users (VRU) is a problem of global magnitude since the proportion of fatalities represents more than half of the total deaths in traffic worldwide. VRUs are pedestrians, cyclists, and motorcyclists of all ages and abilities. Roadway assets play a significant role in traffic safety. Pavement markings, sidewalks, bikeways, medians, guardrails, and road lighting influence in the outcome of adverse traffic accidents. This research presents a framework that explicitly incorporates VRU safety into Transportation Asset Management (TAM) practices. The framework should serve as a guideline for State Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), and local agencies. The framework includes a methodology to prioritize infrastructure projects using the Dynamic Bubble Up (DBU) technique for funding allocation and a Vulnerability Road User Safety Index (VRUSI). The TAM-VRU framework and methodology applies to all VRU groups, although VRUSI is developed for pedestrians due to the sustained uptrend of fatalities registered in the last decades. Safety indexes to assess specific risk factors of other VRU groups can also be incorporated in the overall framework.</p>

<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	<p>Expected outcomes include:</p> <ol style="list-style-type: none"> 1. An implementable TAM-VRU framework with safety indexes that incorporates vulnerable user road safety into transportation asset management practices. 2. Technical papers, presentations and seminars to disseminate the products of the research with practitioners.
<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	<p>The TAM-VRU framework will assist transportation agencies to achieve the required level of service of transportation infrastructure in the most cost-effective manner while providing safe transportation. The methodology should serve as guidelines for State Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), and local agencies to mitigate accidents that involved pedestrians and other VRU groups.</p>
<p>Web Links</p> <ul style="list-style-type: none"> • Reports • Project website 	<p>http://ctech.cee.cornell.edu/final-project-reports/</p>