

<b>UTC Project Information</b>	
Project Title	MPC-534 – Traffic Performance Assessment of Disrupted Roadway Networks Following Earthquakes
University	Colorado State University
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT, Research and Innovative Technology Administration \$57,000  Colorado State University \$57,000
Total Project Cost	\$114,000
Agency ID or Contract Number	69A3551747108
Start and End Dates	November 2, 2017 to July 31, 2022
Brief Description of Research Project	This project will develop (1) a basic framework to characterize representative scenarios of disrupted transportation network following earthquakes by considering interdependent impacts from other infrastructure categories, and (2) the simulation tool to assess traffic performance of road network at both road and network levels. In the future, more resilient hazard mitigation strategy may be developed based on this study through predicting possible outcome and the optimal strategy to minimize the impact on post-hazard network.
Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here	The proposed methodology of developing the travel time functions of partially blocked roads will be helpful for accurate estimation of traffic demand of post-hazard transportation networks.
Impacts/Benefits of Implementation (actual, not anticipated)	This study provides important tool and methodology for assessing the traffic performance after some disruptions with improved accuracy and fidelity.
Web Links <ul style="list-style-type: none"> <li>• Reports</li> <li>• Project Website</li> </ul>	<ul style="list-style-type: none"> <li>• MPC Research Report – <a href="#">Traffic Performance Assessment of Disrupted Roadway Networks Following Hazards</a></li> <li>• Journal Article – <a href="#">Development of Travel Time Functions for Disrupted Urban Arterials with Microscopic Traffic Simulation</a></li> <li>• Journal Paper – <a href="#">An Improved Cellular Automaton Model for Work Zone Traffic Simulation Considering Realistic Driving Behavior</a></li> </ul>

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|  | <ul style="list-style-type: none"><li>• Journal Paper – <a href="#">Traffic Performance Assessment Methodology of Degraded Roadway Links Following Hazards</a></li><li>• CSU Doctoral Thesis – <a href="#">Multi-Scale Traffic Performance Modeling of Transportation Systems Subjected to Multiple Hazards</a></li></ul> |
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