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| **UTC Project Information** |
| Project Title | MPC-361 – Building a Framework for Transportation Resiliency and Evaluating the Resiliency Benefits of Light Rail Transit in Denver, Colorado |
| University | University of Colorado Denver |
| Principal Investigator | Wesley Marshall, PhD, PE |
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| Funding Agencies | USDOT, Research and Innovative Technology Administration |
| Agency ID or Contract Number | DTRT12-G-UTC08 |
| Project Cost | $251,749.59 |
| Start and End Dates | January 1, 2012 – December 31, 2013 |
| Project Duration | 2 Years |
| Brief Description of Research Project | This research effort will further develop the concept of transportation resiliency and build a framework for evaluating the resiliency benefits and value of a major transit investment. Rather than the traditional definition of as a community’s ability to withstand and bounce back from a natural disaster, resiliency will be defined as a subset of an overall sustainable transportation framework and examined at several levels or geographic scales: regionally, citywide, neighborhood-scale, and at the household level. The analysis will also explore beyond current behaviors and examine the resiliency benefits of certain transportation infrastructures on the populations that have access to them, even if they are not currently being utilized. The analysis will also not be constrained to simply an evaluation of transit infrastructure, as there are also resiliency-related benefits of TODs and, for example, mixed-income and mixed-use neighborhoods. The objectives and key contributions of this research are that we will build upon the existing quantitative, transportation resiliency work by: 1. Developing a quantifiable framework for assessing transportation resiliency under the broader scope of transportation sustainability, which includes the consideration of economic, environmental, and social impacts;
2. Investigating transportation resiliency variation across four different geographic levels: regions, cities, neighborhoods, and households;
3. Evaluating the distance-decay effect around transit infrastructure
4. Assessing transportation resiliency variation across different socio-demographic populations; and
5. Incorporating the varying impact of TOD typologies and the impact of features such as station area land uses and street networks

These results can be used in planning transportation infrastructure, developing regional resiliency plans, and for future studies on related topics |
| Describe Implementation of Research Outcomes (or why not implemented)Place Any Photos Here |  |
| Impacts/Benefits of Implementation(actual, not anticipated) |  |
| Web Links* Reports
* Project Website
 | https://www.ugpti.org/resources/reports/details.php?id=788 |