

UTC Project Information	
Project Title	Evaluation of Heavy Vehicles on Capacity Analysis for Roundabout Design
University	Trine University
Principal Investigator	Dr. Ryan Overton
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Funding Source(s) and Amounts Provided (by each agency or organization)	\$25,000: NEXTRANS Center/USDOT \$25,000: cost share – Trine University
Total Project Cost	\$50,000
Agency ID or Contract Number	DTRT12-G-UTC05
Start and End Dates	01/01/2016
Brief Description of Research Project	The purpose of this research is to study the passenger car equivalent factor for heavy vehicles. Experience suggests that heavy vehicles, particularly semi-trucks, have a greater impact on a roundabout than two passenger cars. For roundabouts operating near capacity, the ability for heavy vehicles to safely accept a gap in circulating traffic is nearly impossible. Furthermore, substantial queues build behind these vehicles attempting to progress through the roundabout that impact the efficiency long after the heavy vehicle has exited the facility. It is expected that the impact of heavy vehicles on the functionality of the roundabout will vary with demand. This research will provide support for the current 2.0 PCE or determine a new heavy vehicle equivalence for the design of roundabouts.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	

Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none">• Reports• Project website	