

UTC Project Information	
Project Title	MPC-565 – Study on Structural Performance Evaluation of Double-Tee Bridges
University	South Dakota State University
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Funding Source(s) and Amounts Provided (by each agency or organization)	<p>USDOT, Research and Innovative Technology Administration \$29,379</p> <p>SDSU Faculty Time and Effort \$30,921</p>
Total Project Cost	\$60,300
Agency ID or Contract Number	69A3551747108
Start and End Dates	April 18, 2018 to July 31, 2022
Brief Description of Research Project	The ultimate goal of this project is to provide a better understanding of structural performance of in-service DT bridges loaded with actual trucks. The objectives of this project to achieve this goal are: 1) To identify damage of typically used DT bridges; 2) To determine live-load distribution and dynamic load allowance factors of the DT bridges; and 3) To investigate load-carrying capacity of the DT bridges.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	It is expected that the bridge engineers will use the findings from this work to better assess the actual performance of existing DT bridges subjected to live loads and their structural integrity. Also, a number of DT bridges are rapidly deteriorating over time due to inappropriate joints between adjacent DT girders; thus, they should be repaired soon. The findings from this study will also help make better decisions regarding the selection of repair options.
Impacts/Benefits of Implementation (actual, not anticipated)	The research team believes the findings from visual inspection, field testing, and structural analysis can be transferred to bridge engineers. The team developed a partnership with bridge engineers at the South

	Dakota Department of Transportation on a visual inspection and field testing of the DT bridges. It is anticipated that county transportation agencies use research findings and recommendations for the determination of the structural performance of in-service DT bridges.
Web Links <ul style="list-style-type: none">• Reports• Project Website	<ul style="list-style-type: none">• MPC Research Report• University Thesis