

UTC Project Information	
Project Title	MPC-562 – Evaluation of Durability and Structural Performance of Concrete with Embedded Inductive Coils
University	Utah State University
Principal Investigator	Marvin W. Halling, PhD, PE, SE, F.ASCE
PI Contact Information	Professor Utah State University Phone: (435) 797-3179 Email: marv.halling@usu.edu ORCID: 0000-0003-1599-8304
Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT, Research and Innovative Technology Administration \$59,733.74 Select Center and CEE department funds \$59,733.74
Total Project Cost	\$119,467.48
Agency ID or Contract Number	69A3551747108
Start and End Dates	December 11, 2017 to July 31, 2022
Brief Description of Research Project	A major impediment to public acceptance of electric vehicles is their very limited travel range. An exciting potential solution to this problem is In-Motion Electric Wireless Power Transfer. This proposal addresses initial investigations of the problem from the perspective of the actual civil infrastructure. In order for the future adoption of this technology, roadways will need to be modified to allow the transmission of power to vehicles as they travel. Successful adoption of In-Motion Wireless Power Transfer will require advances in the efficiency of the overall electrical system, improvements in tracking of the actual vehicles, and significant developments in the civil infrastructure. This proposal will address the durability and constructability of coils in Portland cement concrete. The stringent electrical specifications will be monitored while repeated cycles of simulated truck tire loadings are inflicted on constructed specimens.
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 	