

Project Title:	Testing of ITS Sensor Attachments for Smart Work Zones
Project Synopsis:	Project will review existing literature, survey state use of ITS sensors for work zone applications, crash test a worst-case application with attachment location, weight, and size, and provide final guidance.
Project Goal(s):	Evaluate ITS sensors attached to sign systems for MASH compliance. Provide guidance for weight and size of sensor attachments.
Project Background:	<p>Rear end crashes are the leading cause of work zone fatalities on the nations roadways. ITS sensors are a major part of reducing fatalities in work zones. Under NCHRP 350 these devices were often placed on trailers and categorized as Category 4 device which didn't require testing based upon the net benefit these device provided to the motoring public. There was also documents allowing a sensor to be attached to a sign system that didn't take the net weight of that system over 600lbs to be approved. As it stands with MASH these sensors will need to be crash tested and for states to continue the use of queue detection systems the pooled study should evaluate a common method for mounting sensors of a generic weight and size.</p>
Proposed Work Plan:	<p><i>Please describe what work or test will be done and what the result will be.</i></p> <p>The proposed work plan includes the following tasks:</p> <ul style="list-style-type: none"> • Literature Review and State Survey • Engineering Analysis • MASH TL-3 Crash Testing • Final Report

Deliverables:	Crash test report, photos, videos, summary of results and performance evaluation summary, ITS sensor attachment guidelines
Urgency and Expected Benefit:	MASH compliant ITS sensor use with work zone sign systems.
Problem Funding and Research Period:	<p><i>Please describe what are the estimated costs and time to complete the project</i></p> The estimated costs to complete the proposed project is \$110,000. Estimated time to complete the project is 12 months.
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