

FY2011 Upcoming Research Request for Proposals

Title/Topic	Background	Tentative Date to Post RFP
Management Strategies for Slide Repairs	Unexpected rock and soil slides often require immediate action to keep traffic moving safely. This study will focus on developing approaches to evaluate slope failures and provide cost-effective repair and mitigation strategies.	January 2011
Self-Consolidating Concrete for Infrastructure Elements	Self-Consolidating Concrete could be another way for MoDOT to reduce project costs, but first the structural implications of using SCC mixes must be compared to traditional concrete mixes. The study will focus on Missouri aggregates and evaluate the affect of SCC mixes on creep, shrinkage, bond, development length, and shear strength as compared to traditional concrete mixes.	August 1, 2010
Use of Coal Fly Ash and other waste products in Soil Stabilization and Road Construction	In an effort to make its projects more “green,” MoDOT is exploring the use of coal fly ash and other waste product to stabilize soil. This study will develop evaluation of the physical and engineering properties of coal fly ash and other waste products in stabilized subgrade in road construction for potential implementation.	August 15, 2010
Design and Evaluation of High-Volume Fly Ash (HVFA) Concrete Mixes	HVFA concrete mixes promise improved strength and durability while using a byproduct from coal fired power plants. This study will design, test, and evaluate HVFA mixtures and develop a guide for specifying HVFA concrete in transportation-related infrastructure.	September 1, 2010
Routing Optimization for Winter Operations in MoDOT St. Louis District –Includes Outcome Based Evaluation of Operations	With high urban traffic volumes, keeping roads open during winter events is critical in the St. Louis area. This study will develop measures to evaluate the effectiveness of the route optimization of winter operations in the MoDOT St. Louis Area District.	August 1, 2010
LED Roadway Luminaries	LED technology is an effective way to save energy and reduce maintenance on traffic signals. This study will develop strategies to implement LED lighting within MoDOT’s existing infrastructure.	August 17, 2010