### **Transportation Pooled Fund Program**

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| **Project Title:** Traffic Analysis and Simulation Pooled Fund Study TPF-5(176)  Task 3 - Highway Capacity Analysis Procedures for Alternative Intersections / Interchanges | | |
| **Project Manager and Phone Number:**  COR: Randy VanGorder, FHWA – 202-493-3266  PI: Ram Jagannathan, SAIC - 703-318-4693 | **Project No:**  T-13002 | Project is:  PLANNING  X R&D |
| **Reporting Period:**  April-June 2013 | **Multi Year Project**  FY13, 14, 15 |  |
| **Description of Work Performed and Progress:**  To develop Highway Capacity Manual (HCM) analysis procedures for evaluating capacity and quality of service of the double crossover diamond interchange (DCD) (aka, divergent diamond interchange (DDI), the displaced left turn (DLT), the median U-turn (MUT), and the restricted conflict U-turn (RCUT). These procedures or guides should include extensions of HCM methods to address gaps in the HCM relevant to the operations of these advanced intersection types. The analysis procedure and guide should be suitable for inclusion in Volume 4 of the 2010 HCM and be issued as an FHWA Traffic Analysis Document.  **Work Accomplished**  Start date of this task order was 4/4/2013 (end date 10/3/2015). The project kickoff meeting was held on via webinar on 5/1/2013. The contractor immediately began data collection starting May 6 and concluded on June 10, 2013 prior to public school closures (which would be expected to impact congestion levels and corresponding data collection). Data collection sites included Leland, NC & Detroit, MI (Signalized RCUT), Frederick, MD, Emmitsburg, MD, & Miamisburg, OH (Unsignalized RCUT), Detroit, MI (MUT), West Valley, UT, Taylorsville, UT, Baton Rouge, LA, Lafayette, LA, Natchez, MS, & Loveland, CO (DLT/CFI), and Lehigh, UT (DDI/DCD). In addition to the data collected in Lehigh, UT for the DDI/DCD, the following data is also available from previous studies: MO13 at I-44, Springfield, MO; National Ave at US-60, Springfield, MO; Bessemer St at US-129, Alcoa, TN; Dorsett Rd at I-270, Maryland Heights, MO; Harrodsburg Rd at KY-5, Lexington, KY; Front St at I-435, Kansas City, MO; and Winton Rd at I-590, Rochester, NY. A Webinar was held on June 12 that focused on Task 2 to review existing materials in the 2010 Highway Capacity Manual (HCM), identify limitations and gaps in the current methodologies, and proposed ways to adapt HCM methods to incorporate the evaluation of alternative intersections and interchanges. A second Webinar is planned July 25 that will focus on Task 3 and will be a follow-up to the Task 2 proposed adaptations webinar by presenting and soliciting feedback on the data collection and analysis plan. | | |
| **STATUS AND COMPLETION DATE**  Percentage of work completed to date for total project  Project is: \_30%  X on schedule behind schedule, explain:  Expected Completion Date: \_\_10/3/2015 – Contract is currently ahead of schedule \_ | | |

**Project Manager: Randy VanGorder**