SPR RESEARCH PROJECT DESCRIPTION

PROJECT NUMBER:
03419

PROJECT TITLE
Transportation Networks: Data, Analysis, Methodology Development and Visualization

CO-PRINCIPAL INVESTIGATORS:
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PROJECT OBJECTIVE
This project will provide data compilation, analysis methodology and visualization methodology for the current network data assets of the Alabama Department of Transportation (ALDOT).

PROJECT ABSTRACT
ALDOT is faced with a considerable number of challenges in meeting the growing demand for transportation. This project will provide a technology-enabled tool for asset management, to help define issues, and to help managers make optimum decisions about work issues and allocation of resources. It will build upon previous work, and will conduct nine tasks to establish data sources, data formats, data access, GIS capabilities, and decision-maker needs. It will collect required data, forecast future conditions of roadways and other modes offered in the ALDOT system, and will use this analysis to develop the methodology to determine future transportation needs. The developed system will be GASB 34 compliant.

PROJECT TASK DESCRIPTIONS:
1. Analyze Comprehensive Project Management System
2. Identify system data and data sources
3. Define data and Geographic Information System capability
4. Develop and document the desired format for results (tables, maps, graphics)
5. Develop a finalized work plan
6. Conduct project coordination steps
7. Develop draft deliverables
8. Plan future activities
9. Provide continuing support and on-call services

MILESTONES:
This is a 9-month project
Task 1: 1.5 months
Task 2: 1.5 months
Task 3: 1.5 months
Task 4: 1.5 months
Task 5: 2 months
Task 6: 2 months
Task 7: 2 months
Task 8: 2 months
Task 9: as agreed upon

FUNDING AGENCY: Alabama Department of Transportation, State Planning and Research funds (SPR) $138,975

STUDENT INVOLVEMENT: 
This project will not involve students.

RELATIONSHIP TO OTHER RESEARCH PROJECTS: 
This project is the culmination of a series of projects that will develop and deploy ALDOT’s asset management system:
• UTCA Project 01459: “ALDOT and GASB 34 - Phase I” (completed)
• UTCA Project 02114: “GIS-Resource Allocation Visualization” (completed)
• UTCA Project 02411: “GASB 34 Compliance - Phase II.” (completed)
• UTCA Project 03112: “Bridge Decay/Maintenance Forecasting” (underway)
• UTCA Project 03416: “Pavement Condition Management System” (awarded)
• UTCA Project 03417: “GASB 34 Compliance - Road Condition Rating” (awarded)
• UTCA Project 03418: “GASB 34 Compliance – Bridge Condition Rating” (awarded)
• UTCA Project 03419: “Transportation Network Planning: Data, Analysis, and Visualization” (awarded)

TECHNOLOGY TRANSFER ACTIVITIES:
None

TRB KEYWORDS:
GASB 34, asset management, management information system, information resource information system, data visualization