

## Scope of Work

### Technical Assistance for Safety Project Planning (TASPP) - HARPO

#### Overview

The Regional Planning Commission of Greater Birmingham (RPCGB) will review safety data within the Counties of the Heart of Alabama Planning Organization (HARPO) to conduct planning activities for the purpose of assessing local transportation safety needs. The goal is to help local leaders identify issues in their jurisdiction and give them data and other information to make transportation decisions to improve safety.

The four rural Counties included in HARPO are Blount, Chilton, St. Clair, and Walker Counties.

The following tasks will be conducted by the consultant team with assistance from the RPCGB.

#### Assessment of Safety Data

- A. We will assess safety conditions by evaluating 5 years of data from the Alabama Critical Analysis Reporting Environment (CARE) for the four rural Counties.

We will begin by developing an overview of crash trends in each of the four rural Counties. We will identify trends by summarizing crash data by frequency, severity, type, location, contributing factor, and any other relevant category based on the available data. Crash summaries will be broken down in the following categories:

- Overall summary for each County: this summary will focus on crash patterns on all roads and intersections except for Interstates. This summary will provide a big picture of safety issues within the County.
- Summary of State maintained roadways
- Summary of County maintained roadways
- Summary of locally maintained roadways

We will summarize the results of this initial region-wide analysis with Geographic Information Systems (GIS) mapping and tables to show notable patterns or trends in the data.

- B. Using the initial analysis from Task A, we will divide the crash data into logical geographic subareas based on common characteristics (e.g., area/roadway type or development density). Further analysis will be conducted for each subarea to identify locations with crash concentrations for site-specific countermeasures and/or focus crash types for application of systemic countermeasures.
  - 1) Network screening for each subarea will be conducted based on the data from CARE with GIS mapping. Network screening will be based on data-driven performance measures, including:
    - Crash frequency
    - Crash rates (by vehicle miles traveled, if available, or by population)
    - Crash severity
    - Equivalent Property Damage Only (EPDO)
    - Excess predicted crashes, based on the average for the region
  - 2) The deliverable for this task will be a Transportation Safety Profile for each geographic subarea. The summary profiles will include:

## Scope of Work

### Technical Assistance for Safety Project Planning (TASPP)

- Tables summarizing crash data by subarea
  - Heat maps summarizing data by subarea
  - Road maps with priority road segments and intersections to be evaluated for site-specific issues
  - Potential focus areas for systemic countermeasures
- C. During Task B, we will contact the County and other jurisdictions to share assessment information and discuss local safety conditions and concerns.
- 1) We will use a previously developed survey to ask for input from local stakeholders on the perceived safety emphasis areas and high-risk locations within their jurisdictions. The survey responses will be correlated with the CARE data analysis to develop a more complete picture of safety issues and concerns in each jurisdiction.
  - 2) Upon completion of a draft version of each Transportation Safety Profile, we will meet with each jurisdiction to help them understand the safety data and findings from the survey and CARE data analysis. We will explain how data was summarized, what is important to observe when evaluating crash data, what emphasis areas could be an appropriate priority for the jurisdiction, and which road segments and intersections need attention. Feedback from these meetings will be incorporated into the final version of each Transportation Safety Profile.

### Items to be provided by RPCGB in support of the project:

- Access to CARE data or a download of requested data
- GIS data layers (if available)
  - Linear referenced roadways in the MPA
  - Traffic volume data
  - Roadway characteristics (number of lanes, width, speed, etc.)
  - Roadway ownership/maintenance by jurisdiction
  - BJCTA transit stops and routes
- Contacts for counties/municipalities/agencies in the MPA
- Previously collected survey responses regarding safety issues in the Birmingham MPA (e.g., B-Active Plan survey responses on bicycling safety concerns)