

RP 303 – Off-System Roads AADT Estimation Study

- Project Description:

To model safety across the entire network of public roads, and to be compliant with Federal Highway Administration's regulations, traffic data must be available on all public non-federal aid roads. The Fixing America's Surface Transportation Act (FAST Act) requires that an estimate of traffic be available on all paved roads that are not on the federal aid system. In Idaho, there are approximately 12,000 centerline miles of federal aid roads where traffic counts are taken routinely, and approximately 42,000 centerline miles of local roads that make up the rest of the network. However, at present time ITD has no rigorous or automated means other than very basic statewide generalizations to estimate Annual Average Daily Traffic (AADT) values for the local roads that comprise a majority of the statewide network.

While the overall vehicles miles (VMT) traveled is calculated annually for the state, ITD is only capable of calculating general AADTs for broad categories: each large urban area, small urban roads combined, and rural roads combined. This means that some routes that may have a substantially higher AADT are not being well represented. This project will develop and define a methodology that may be implemented with geospatial tools that incorporate the characteristics of the local roads as well as the connecting roads that have an AADT calculated on them already. This project may use inputs such as the existing AADTs on the federal aid system, counts from local agencies, surface type, population, and other factors to develop the approach and method for distributing the annually published statewide VMT to generate annual AADTs on the local roads across the state. These values will then be validated using the Traffic Monitoring Guide (FHWA 2016) and other standards through sample collection annually and across multiple counties, road types, etc.

- The objectives of this project are:

1. Conduct a literature review and State DOT survey to establish an understanding of current and emerging processes and methodologies used to collect, develop, and maintain local AADT estimates, including data needs and strengths/weaknesses for each method.
2. Create a thorough inventory of available data sources that are appropriate for use in AADT estimation.
3. Select and recommend a methodology for estimating AADT that can be integrated with ITD's existing data systems and is suitable given any data limitations.
4. Develop a plan and timeline for methodology implementation, including an approach to verify the accuracy and reliability of the identified methodology.
5. Summarize outcomes of objectives listed above in final presentation and final report submitted to ITD.

- Estimated Completion Date: February 28, 2023

- Budget: \$93,194

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