Advancing Adoption of General Transit Specification Feed (GTFS) Programs in California

The General Transit Specification Feed (GTFS) and its more recent extension to real-time data allow transit agencies to make their route and schedule information (as well as real-time updates) available to external trip planners.

WHAT IS THE NEED?

The General Transit Specification Feed (GTFS) and its more recent extension to real-time data allow transit agencies to make their route and schedule information (as well as real-time updates) available to external trip planners. Research has found that the availability of this information, particularly via smartphone applications increases the legibility, predictability, and, consequently, use of transit services. Furthermore, the availability of this schedule and real-time information is a critical basis for any Mobility-as-a-Service offering.

California has an unusually large array of transit providers that often offer connecting and overlapping services. There is a need to provide the underlying trip data so that public and private entrepreneurs can make these data available to the public to maximize the use of the associated transit resources as well as promote integrated mobility services.

WHAT ARE WE DOING?

This project will facilitate the adoption of GTFS static and GTFS real-time into the practices of transit agencies across the state as well as create a statewide clearinghouse and historical archive of GTFS information. All transit agencies receiving Federal Transit Agency or Caltrans support will be included.

This project will:
a. Identify the existing public availability of GTFS for all California public transportation providers receiving state or federal transit funding.
b. Interview five systems of different size and location that make GTFS publicly available to understand:
   i. The approach to generating and updating schedule information
   ii. The process for translating those data to a public feed
   iii. Perceptions of costs and benefits of those efforts, including ridership change
c. Interview five systems of different size and location that do not make GTFS publicly available to understand:
   i. The approach to generating and updating schedule information, including scheduling software, staff allocation, and consultant use
   ii. Perceived barriers to GTFS implementation
   iii. Perceived benefits of GTFS implementation
d. Develop guidance to simplify and streamline GTFS development / sharing
e. Provide standardized contracting language to ensure GTFS provision is incorporated within consulting agreements
f. Build a statewide GTFS repository/archive whose features include:
   i. Tracking of GTFS availability by agency
   ii. Historical representation of California transit services
   iii. Storage of GTFS real-time data to capture actual service provision
   iv. Basis for California Transit Map and systemwide service analysis
g. Develop statewide capacity for the addition of future standardized service reporting (such as various GTFS and other extensions)
h. Leverage capacity to prioritize interventions to advance GTFS adoption.

WHAT IS OUR GOAL?

The research will produce data that will provide an important historical record of transit service provision and performance throughout the state. Caltrans has a long-term interest in archiving this material to manage the transportation system.

WHAT IS THE BENEFIT?

The proposed project carried out via this task order aligns with two Caltrans priorities:

- Modality – this research will leverage transit by measuring their performance.
- Innovation – this research is embracing the dedicated short-range communications data and other real-time data to help Caltrans solve major planning issues.

WHAT IS THE PROGRESS TO DATE?

The amended schedule doubled up the literature review and technical memorandum. The researcher is midway through the literature review, but needs to hire a graduate student to advance the technical memorandum.