SCOPE OF WORK

SUBMITTED TO: Santosh Bhattarai   via Email

SUBMITTED BY: Hannah Carson   RSG

CLIENT:

DATE SUBMITTED:

RSG PROJECT #:   **TASK ORDER #:**

CLIENT PROJECT #:   **VERSION #:**   1

PROJECT TITLE: Fresno AB Model Enhancements

1.0 PROJECT MANAGEMENT

The project team will continue to hold bi-weekly conference calls with FresnoCOG to discuss progress in the previous period and issues that may have been encountered. RSG will prepare monthly invoices and progress reports.

Deliverables*:*

- Meeting Notes
- Monthly invoices and progress reports

2.0 UPDATE MODEL FOR LIGHT RAIL AND COMMUTER RAIL MODE

As part of the future RTP/SCS, FresnoCOG is envisioning a light rail service. The currently implemented version of DaySim does include the availability to turn on the light rail and commuter rail modes. Several updates will need to be made in the model setup to incorporate these modes.

2.1 UPDATE TRANSIT NETWORK

The model network will need to be augmented to include fixed guideway transit links. RSG will work with FresnoCOG to establish fixed guideway routes and appropriately code new rail lines with planned headways and runtimes. Depending on the fare system of the rail lines which may be zone based or fixed fare – the fare settings for either mode will be coded accordingly.

2.2 UPDATE TRANSIT SKIMMING AND ASSIGNMENT PROCEDURES

The transit skimming is done for peak and off-peak periods with walk and drive access to each transit stop. The skims are segmented by Premium services (Bus + BRT) or Local services (Bus only). The skimming procedure will be updated to include light rail and commuter rail in the Premium Services skims.

2.3 UPDATE DAYSIM INPUTS

There are several ways DaySim uses transit inputs. One is the transit stops file which catalogs transit stop locations and their modes for DaySim to evaluate densities and accessibilities. This file is automatically generated in the input processing using the highway nodes and the transit line file. This script will be updated to ensure all rail stops are also included.

The roster file and roster matrix are DaySim inputs which turn on or off different transit modes, and tell DaySim which transit skims to read for different skimmed values such as in-vehicle-time, fare, and distance. These files will be updated to include the light rail and commuter rail modes and ensure the correct skims are being applied within DaySim.

For new services in which there is no validation or calibration data it is appropriate to borrow model coefficients for similar services in similar regions. RSG will provide recommendations for borrowing model specifications for both the light rail and commuter rail modes and implement based on best recommendations.

2.4 UPDATE TRANSIT ASSIGNMENT REPORTING

The current model setup includes transit validation reports for ridership, revenue miles, and revenue hours. These reports will be updated so that new transit lines are automatically included for simple summarization of new transit lines.

Deliverables:

- Updated model setup on GitHub

- Updated model documentation and User's Guide

3.0 BUDGET AND SCHEDULE

TABLE 1: STAFF RATES

STAFF	TITLE	LOADED HOURLY RATE
Mark Bradley	Technical Advisor	$325
Nagendra Dhakar	Technical Advisor	$214.57
Joel Freedman	Technical Advisor	$383.68
Hannah Carson	Project Manager	$193.86
Edna Aguilar	Analyst	$156.83

The estimated timeline for the new model enhancement is 2 months. This task will be carried out in January and February of 2025. The total estimated hours and budget for this task are 108 hours and $19,006 respectively.