## PLANS, MEET OPERATIONS

Exercise 2: AVL & GTFS

## Learning objectives: exercise 2

- Following this exercise, participants should:
  - understand schedule matching by time and location
  - define & calculate on-time performance
  - design an interactive map display of performance

## **Instructions**

- 1. examine the two data sets (GTFS & AVL)
  - what columns would allow joining one to the other?
  - join the AVL data *to* the schedule
- 2. code or pseudo-code the answer to the following queries:
  - 1. how many scheduled trips have at least one missing AVL record?
  - 2. what is the average *adherence* (scheduled time actual time) for the day?
  - 3. specify a standard for being "on time" (in seconds or minutes)
    - according to your standard, what % of stop visits are on time?
- 3. design a map view of these data
  - how would a user understand on time performance?

*challenge task:* how would you approach this problem if AVL data lacked the stop identifier?

1. ignore the column you used to join the AVL data and try again...