

## Hathaway Transit Pacific Avenue Corridor Transit Signal Priority Project

### Performance Measurement:

Hathaway Transit has a number of tools available to measure performance after the project is complete. The two primary tools that we recommend are reporting on travel trip time savings for scheduled bus operations and reporting on ridership along the Pacific Avenue corridor. Ridership along all of our bus routes is routinely measured and trends analyzed to report on changes. Hathaway Transit's primary trunk route – Route 1 – operates along the entire corridor. We propose reporting on changes to the Route 1 ridership, since a portion of the ridership increases we expect to experience will be due to more reliable and consistent schedule adherence. Similar to the performance measures utilized for this grant proposal, we will estimate annual vehicle trips and annual vehicle miles travelled savings based on the increase in ridership along the corridor.

TSP data will be matched to transit schedule data to provide a tool for evaluating possible schedule adjustments as a result of TSP time savings. As schedules become more predictable and buses benefit from the TSP implementation, our scheduling department will be able to adjust the scheduled trip time to account for those travel time savings. Hathaway Transit implements these types of service changes three times a year and the performance reporting will include both anecdotal and qualitative reporting of travel time savings to the Route 1 service.

We assume that in year 1 it is reasonable to expect a 3% increase in transit trips (or vehicle trips reduced) based on the development characteristics along the corridor and demand for new transit services. Based on this assumption we expect 268 new riders due to the travel time savings and schedule reliability along the corridor in year 1 (8933 average passengers per weekday x 3% = 268). By year 4 we anticipate growth to 5% additional riders or 447 daily riders (8,933 average passengers per weekday x 5% = 447) choosing to utilize the service because of the improvements along the corridor.

### **Year 1 – Annual Vehicle Trips Reduced =**

268 new daily riders \* 260 days = **69,680 vehicle trips**

### **Year 1 – Annual Vehicle Trips Reduced =**

447 new daily riders \* 260 days = **116,220 vehicle trips**

### **Vehicle Miles Traveled Reduced Annually:**

Hathaway Transit obtained the services of Gilmore Research Group to conduct a market segmentation study of the Pacific Avenue Corridor. The [2008 Hathaway Transit Segmentation Study: SR-7 Corridor Analysis](#), dated August 2008, interviewed 1,501 Hathaway County residents. The market segmentation

found that residents in the Pacific avenue corridor (56% of the market) commute 16.7 miles on average with commutes ranging approximately 30 minutes, roughly the same as all commuters in Hathaway County.

We also know that a portion of riders on express service (44% of the market) will be passengers accessing local destinations. The average trip length or passenger miles per passenger based on our National Transit Database reporting is 3.5 miles. We have divided the vehicle miles travelled between commuter and local trips.

**Year 1 – Annual Vehicle Miles Travelled Reduced =**

Commuter Market:  $69,680 * 44\% = 30,659$  trips

Local Market:  $69,680 * 56\% = 39,021$  trips

Commuter Market – (30,659 Vehicle Trips Reduced) \* (16.7 miles) = 512,005 Vehicle miles

Local Market – (39,021 Vehicle Trips Reduced) \* (3.5 miles) = 136,574 Vehicle Miles

Year 1 Total Annual Vehicle Miles Travelled Reduced = (512,005 + 136,574) = **648,579 Vehicle Miles**

**Year 4 – Annual Vehicle Miles Travelled Reduced =**

Commuter Market:  $116,220 * 44\% = 51,137$  trips

Local Market:  $116,220 * 56\% = 65,083$  trips

Commuter Market - (51,137 Vehicle Trips Reduced) \* (16.7 miles) = 853,988 Vehicle miles

Local Market – (65,083 Vehicle Trips Reduced) \* (3.5 miles) = 227,791 Vehicle Miles

Year 4 Total Annual Vehicle Miles Travelled Reduced = (853,988 + 227,791) = **1,081,779 Vehicle Miles**