

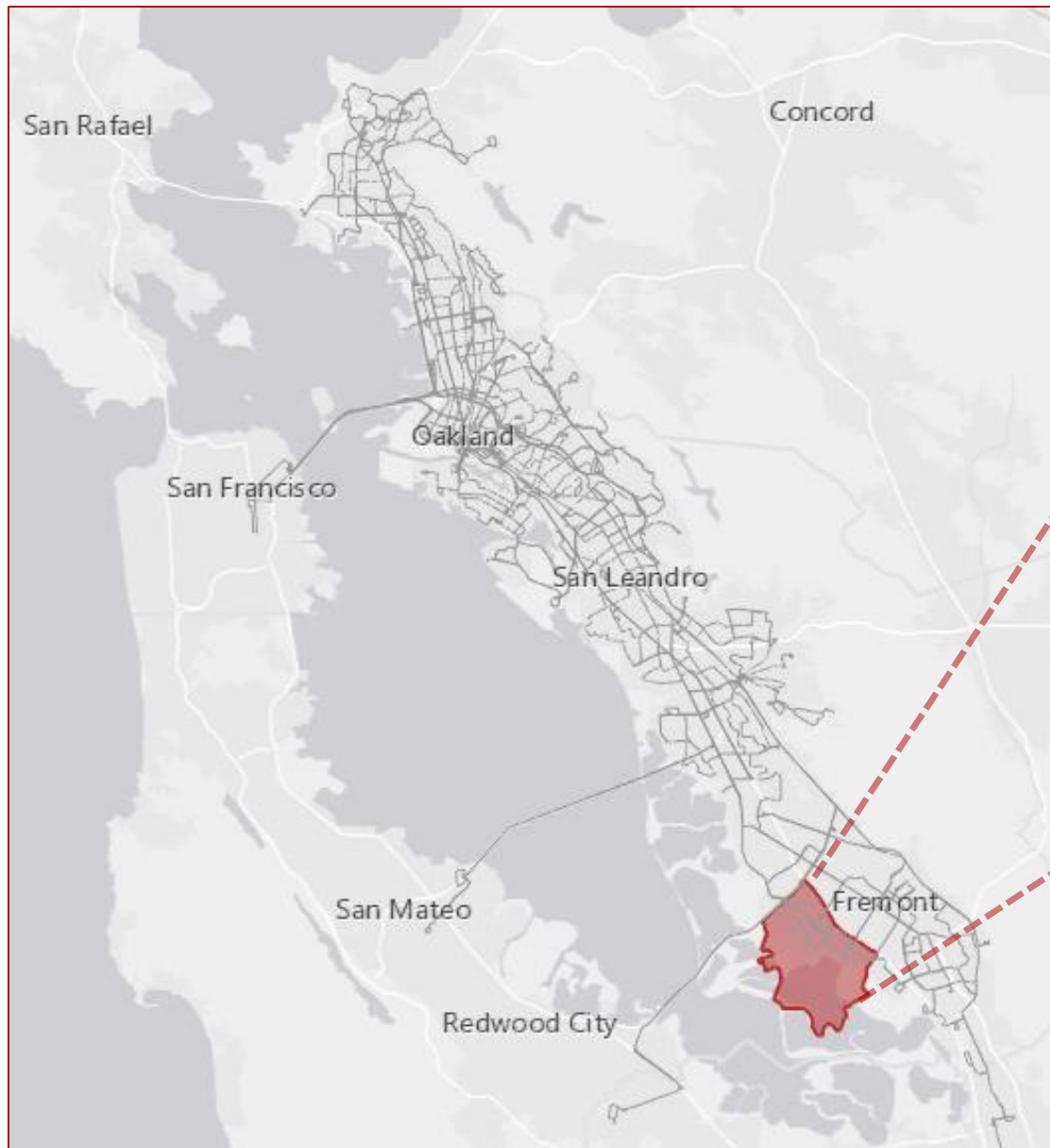


# FLEX MOBILITY ON DEMAND FOR ALL

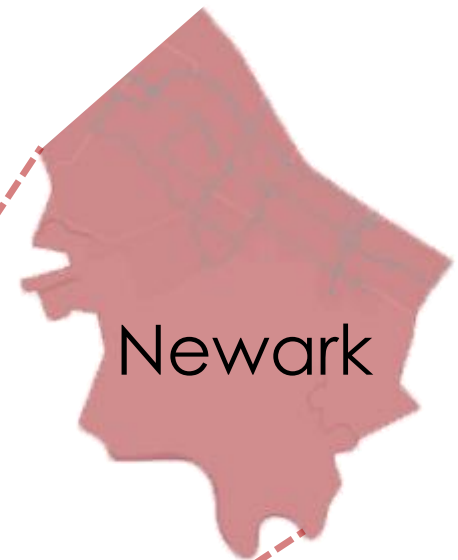
**JOHN URGO**  
SENIOR TRANSPORTATION PLANNER  
AC TRANSIT | OAKLAND, CA



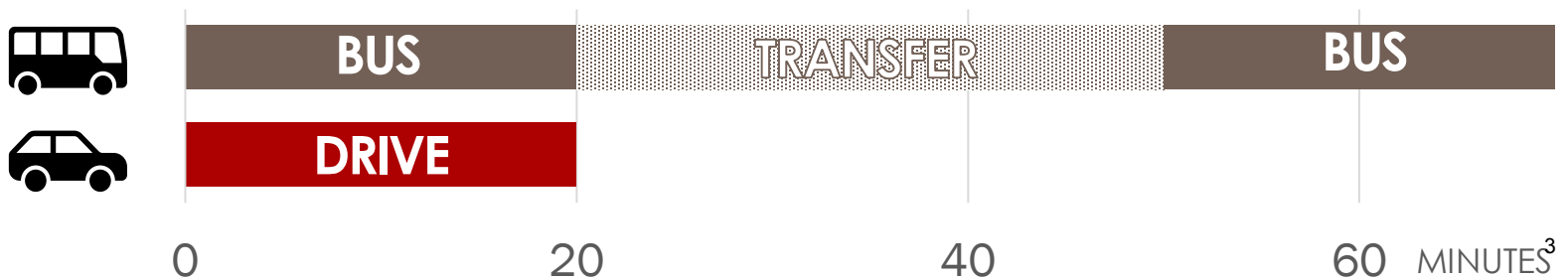
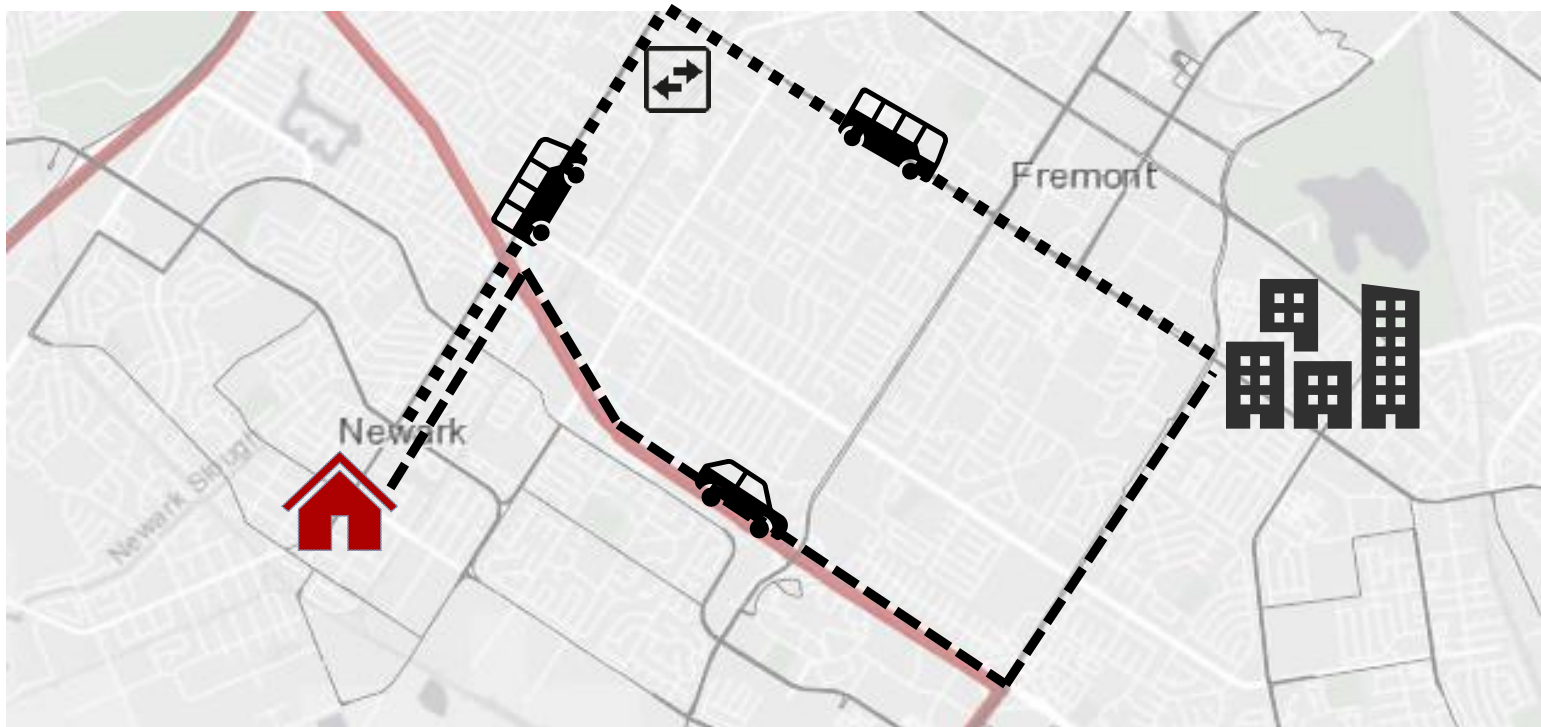
## AC Transit Service Area | San Francisco Bay Area



On-Demand Pilot

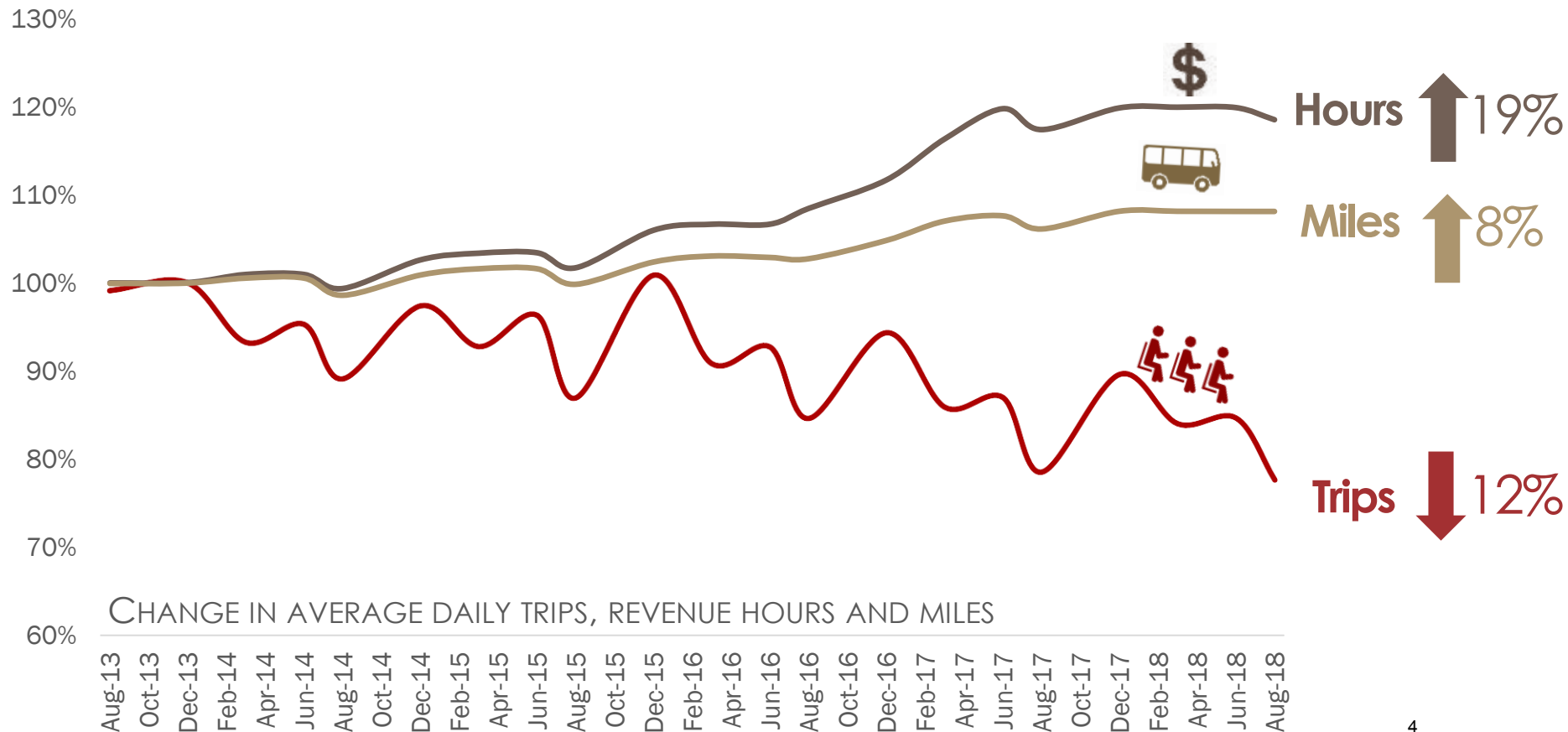


SAME DISTANCE  
MORE THAN  
**DOUBLE** THE TIME

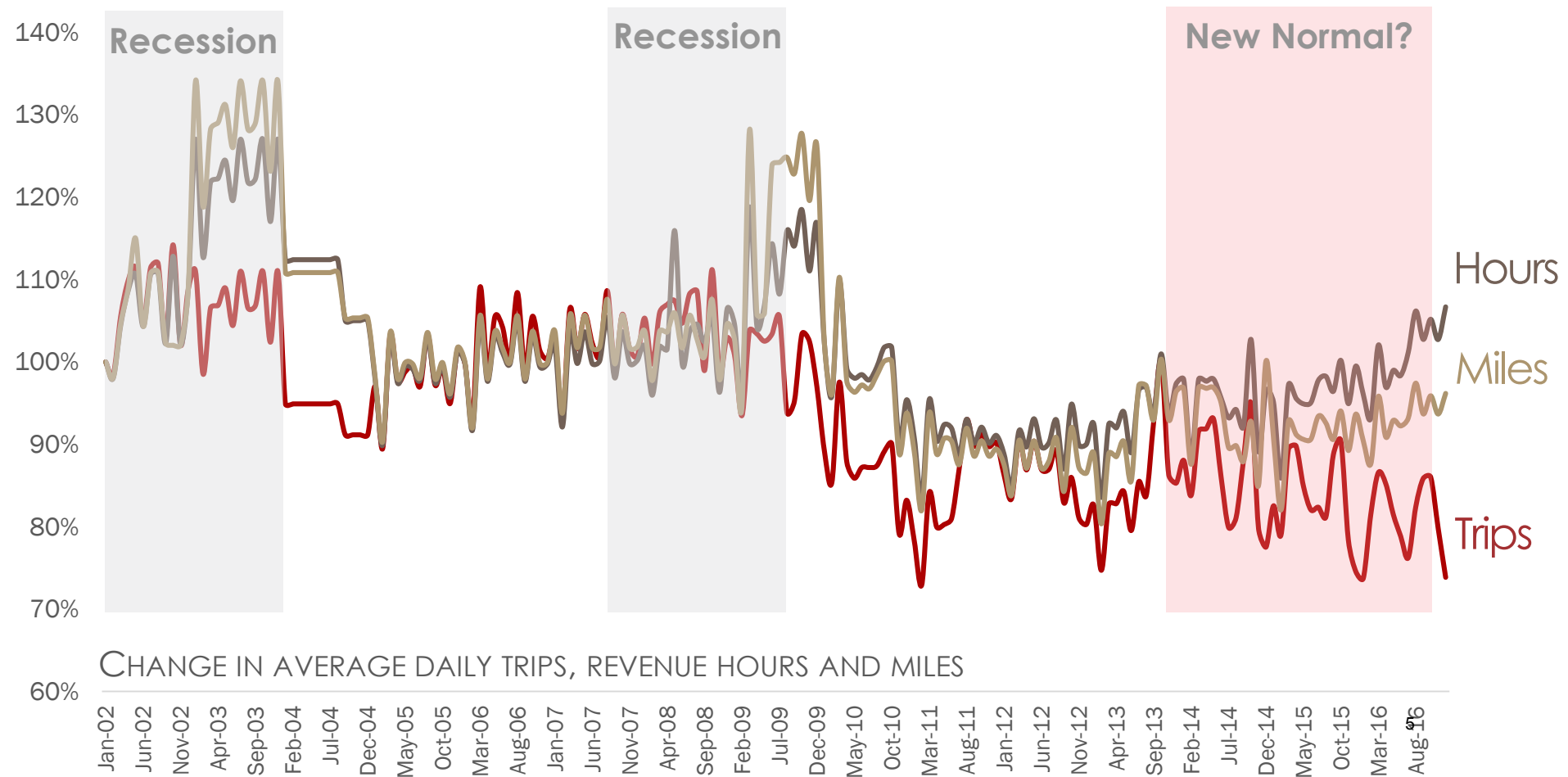


# RIDERSHIP IS **DECREASING**

AS WE SPEND MORE ON SERVICE

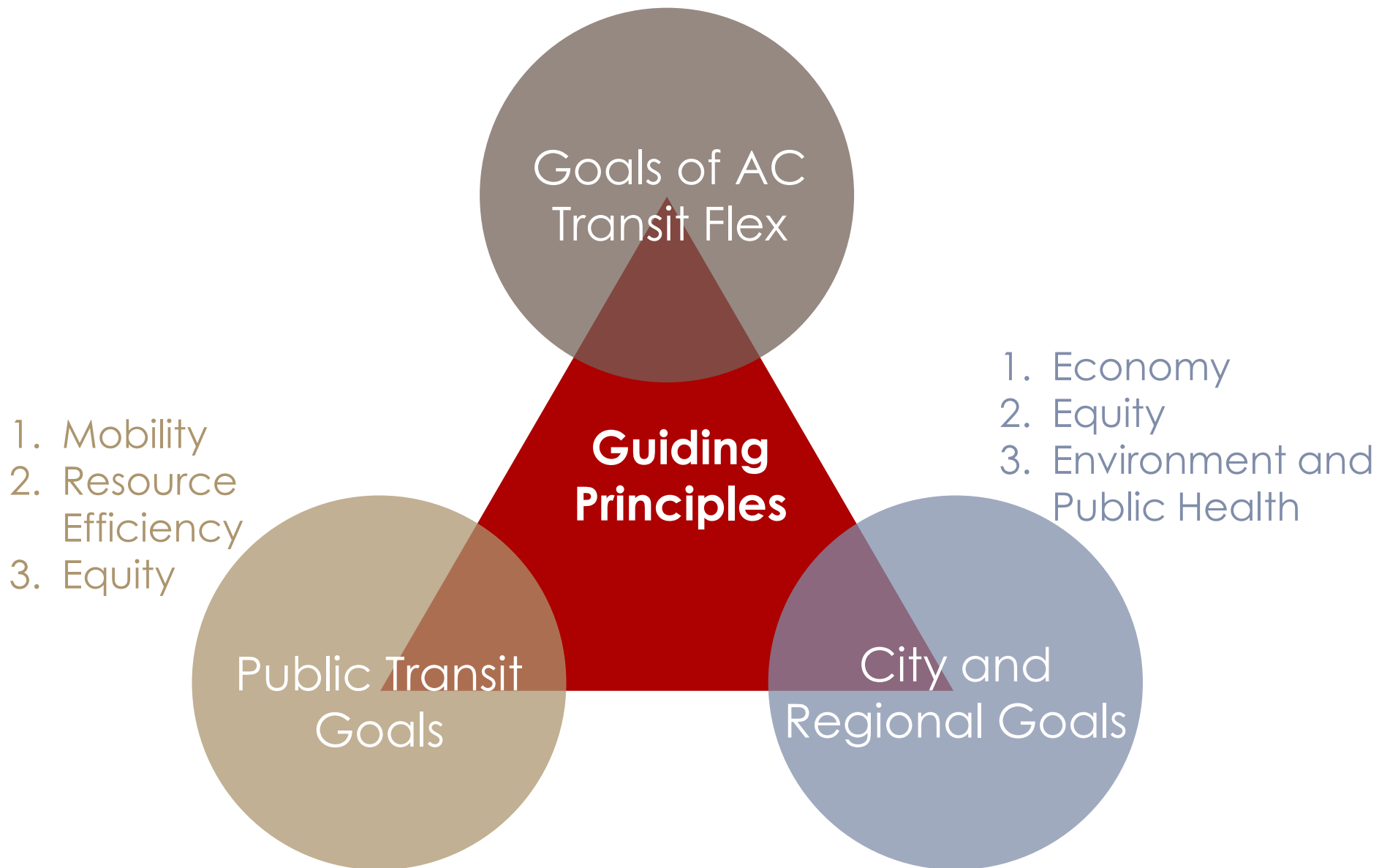


(IT **WASN'T** ALWAYS LIKE THIS)



In sufficiently **low-density** areas, could **on-demand** transit improve service quality at an **equal** or **reduced cost**, freeing up resources that could be invested in a **higher-frequency fixed-route network**?







## **On-demand public transit**

launched in July 2016

Operated on

**AC Transit** vehicles by

**AC Transit** operators

Targeted as **cost neutral** replacement of fixed-route service in **low-density** areas

## CASTRO VALLEY



**1 bus** in service



Scheduled  
departure every  
**60** minutes



Flex Bus Stop



## NEWARK



**2 buses** in service



Scheduled  
departure every  
**30** minutes



Flex Bus Stop



## CASTRO VALLEY



**1 bus** in service



Scheduled  
departure every  
**60** minutes



Flex Bus Stop



## NEWARK



**2 buses** in service



Scheduled  
departure every  
**30** minutes



Flex Bus Stop



## **1** BOOK YOUR TRIP ON-DEMAND OR IN ADVANCE

CONFIRM YOUR 10-MINUTE  
PICKUP WINDOW

**1a** WE'LL SEND YOU A PICKUP ETA  
WHEN YOUR BUS IS ON THE WAY

**1b** TRAVEL TO BUS STOP

**1c** TRACK YOUR BUS WHILE  
WAITING AT INTERSECTION

## **2** SHARE YOUR RIDE AS OTHER PASSENGERS GET PICKED UP AND DROPPED OFF

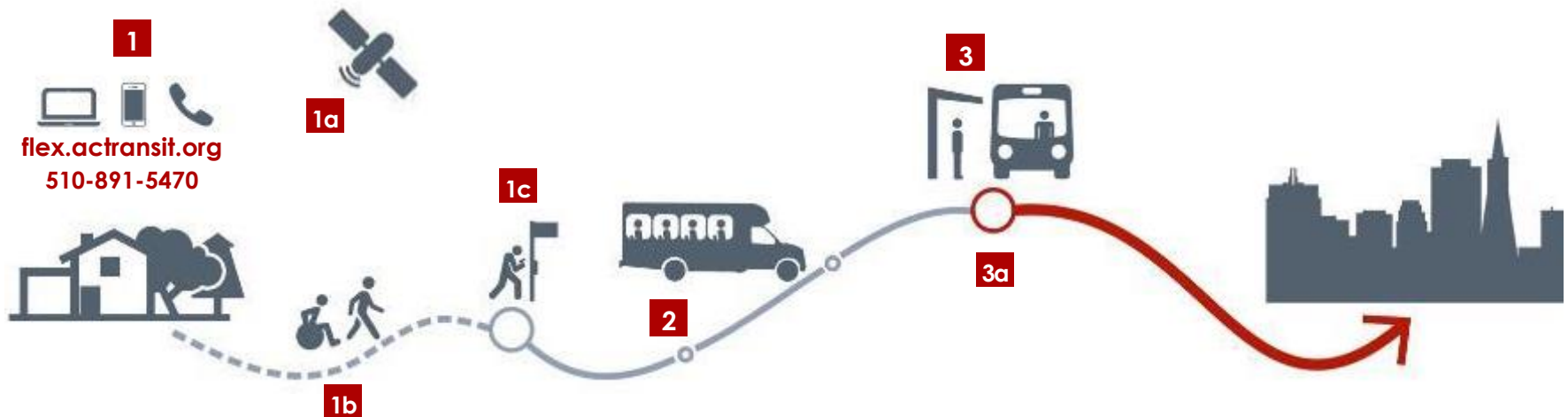
BOARD BUS AND PAY WITH  
CASH, CLIPPER, OR PASS

## **3** ARRIVE AT DROP-OFF POINT AND WALK TO DESTINATION

TRANSFER AT BART FOR  
DESTINATIONS IN THE EAST  
BAY AND SAN FRANCISCO

**3a** ON YOUR RETURN, BOARD FLEX  
AT BART EVERY 30 MINUTES  
WITHOUT RESERVATION

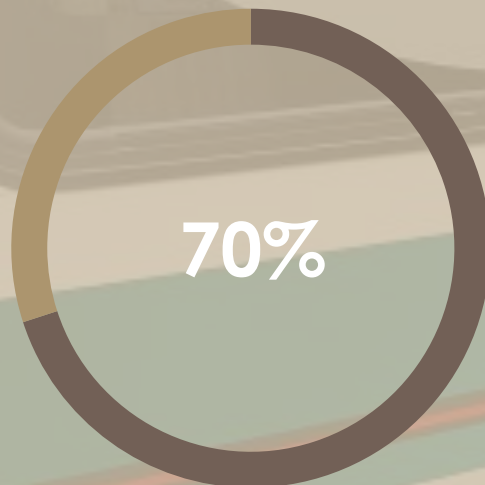
\*RESERVATIONS CAN ALSO BE  
MADE IN ADVANCE, OR ON  
A SUBSCRIPTION BASIS



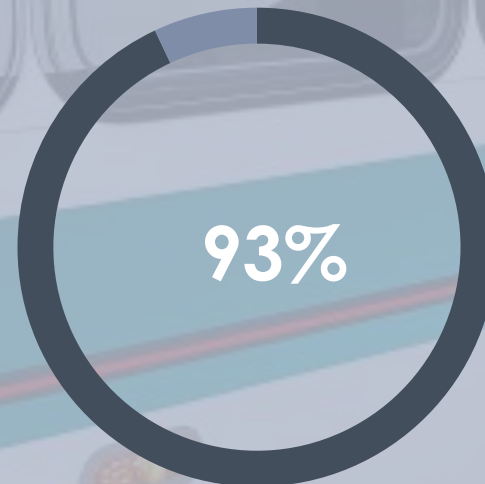
**23,000  
annual  
trips**

**700  
unique  
riders**

Returning Customers



Preferred Flex



# Frequency

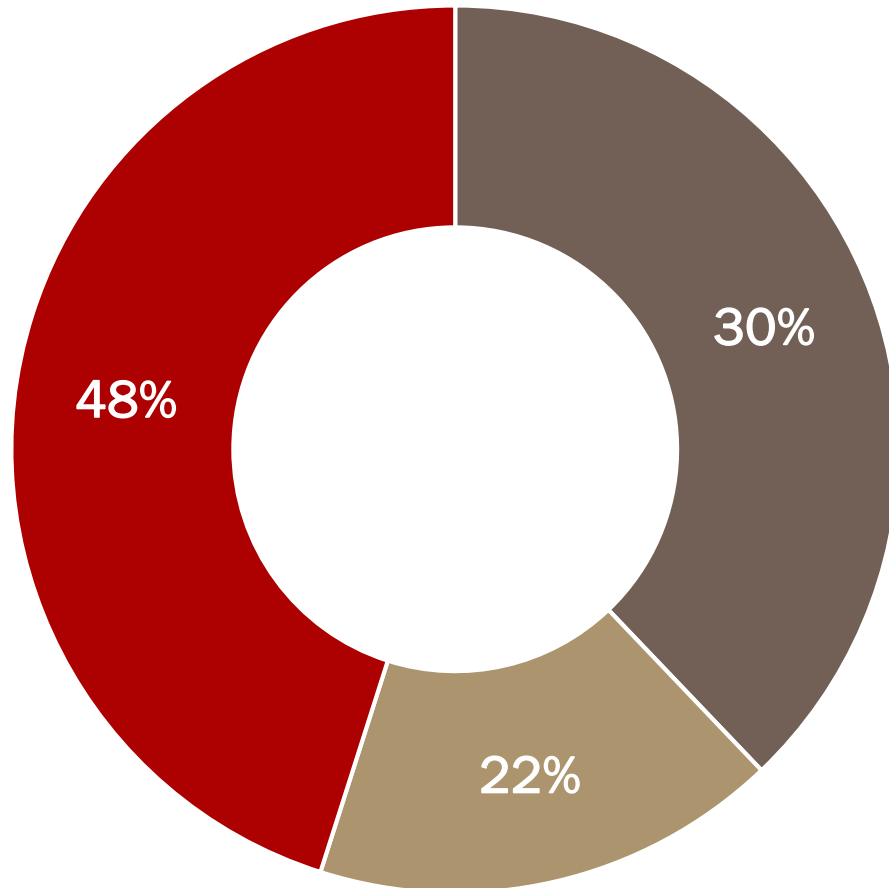
improved  
from **60** to **30** min.

# On time performance

improved  
from **70%** to **85%**



# MOST CUSTOMERS BOOK TRIPS **THEMSELVES**



Maintenance and Operating

# COST NEUTRAL



Flex



No change in # of  
operators or vehicles



Fixed

Line 275

STANDARD BUS



30' Diesel

Flex

SMALL BUS

TECHNOLOGY COST



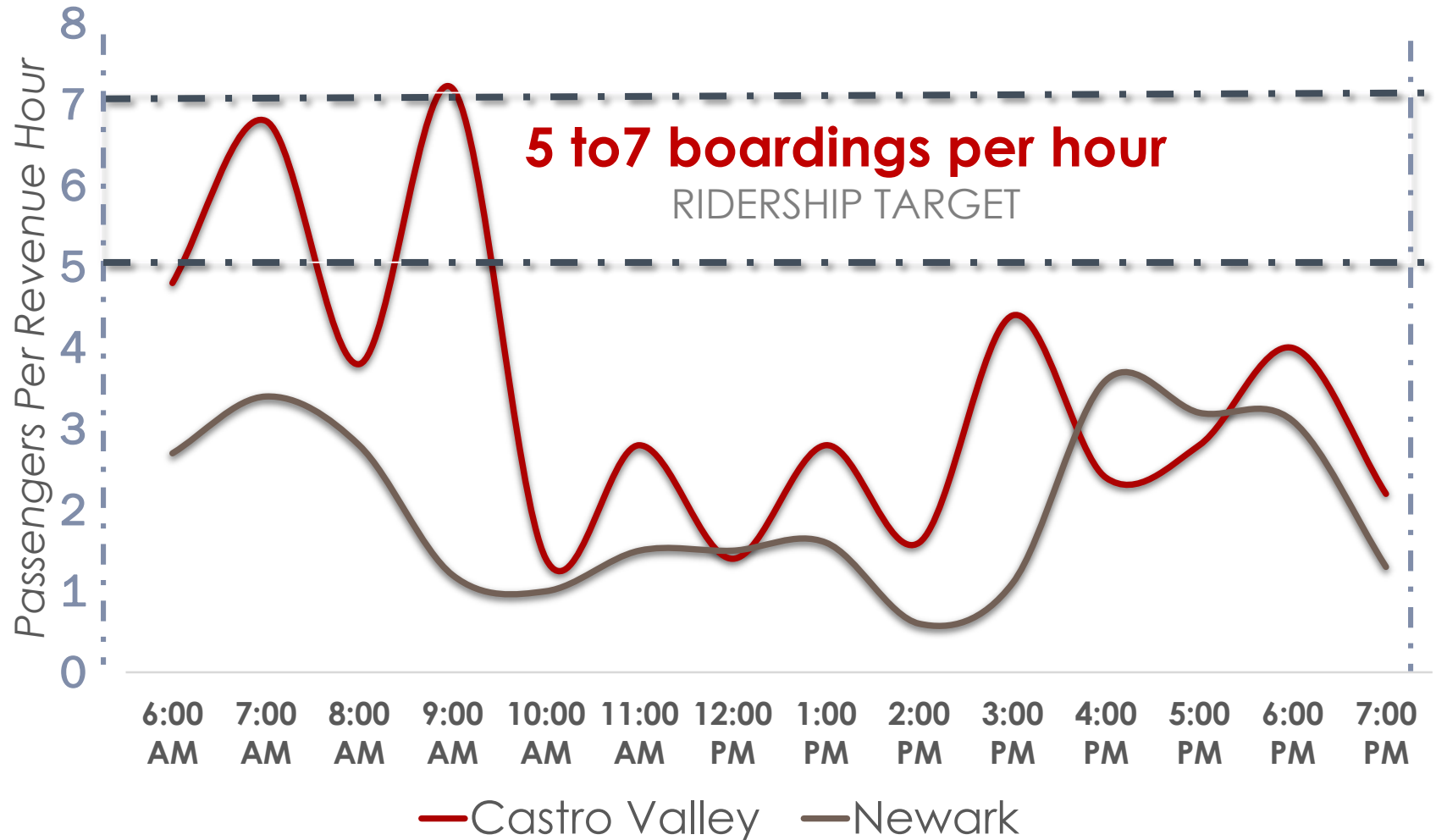
26'

Cutaway

\$0 \$20,000 \$40,000 \$60,000 \$80,000 \$100,000 \$120,000 \$140,000

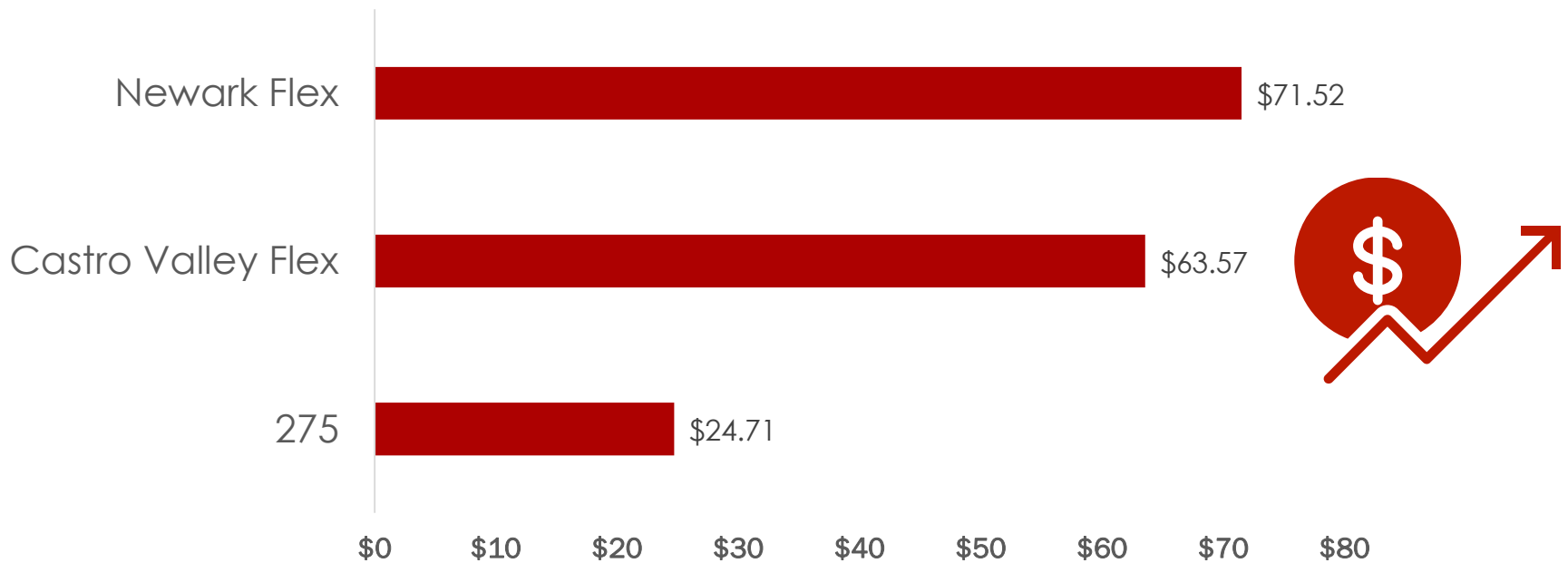
2 YEAR O&M + TECHNOLOGY COST

# RIDERSHIP IS **LOWER** THAN EXPECTED



# THE COST PER PASSENGER IS HIGH

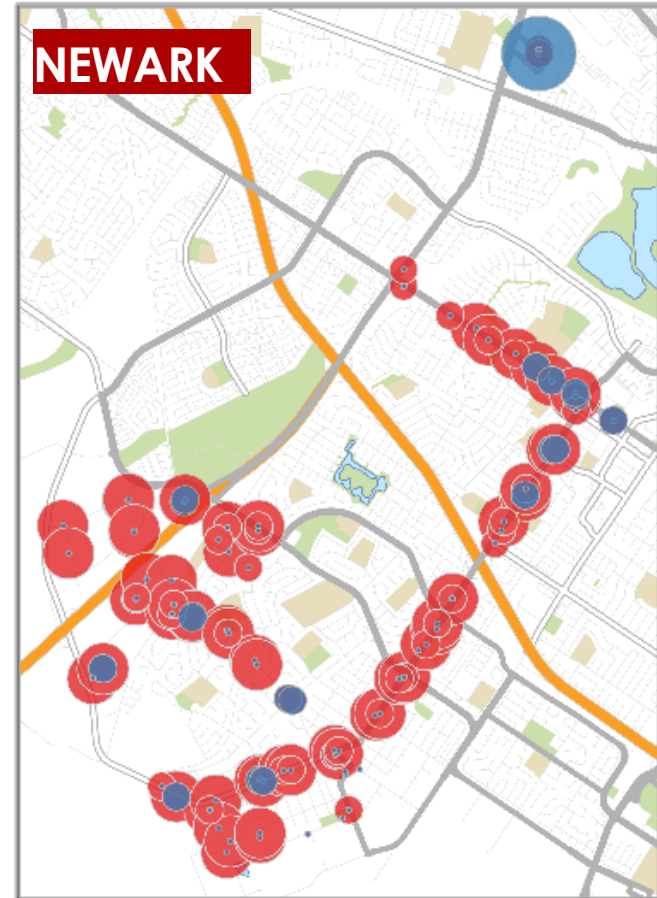
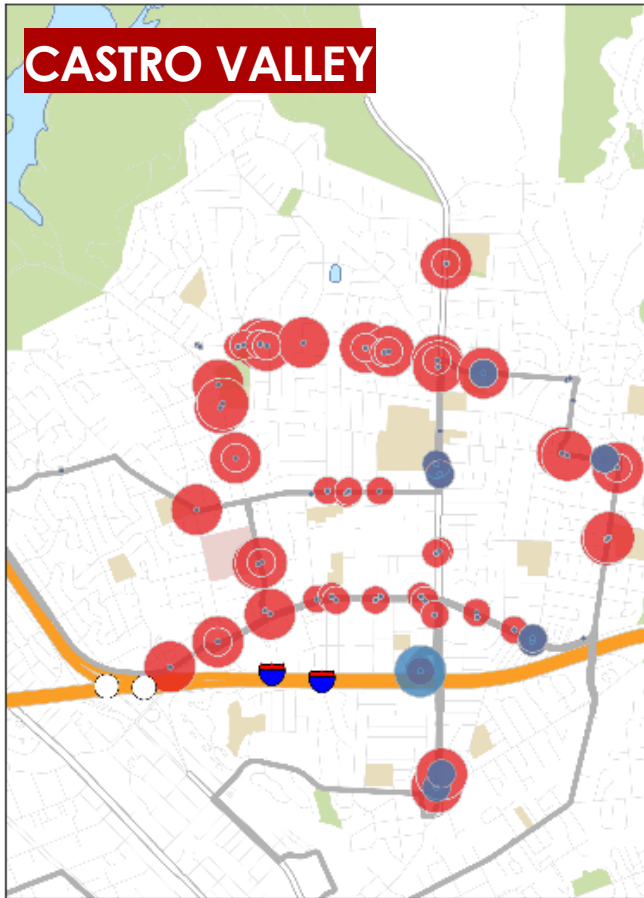
## AVERAGE SUBSIDY PER PASSENGER TRIP



# A RESERVATION

BARRIER MAY EXIST

**40%** of passengers riding **FROM** BART are not taking the service **TO** BART

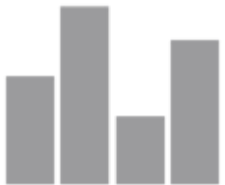


Blue = Boarding, Red = Alighting

# LESSONS LEARNED



Technology leads to greater **efficiency** and **on-time performance** but a clear division of labor is needed to avoid **headaches**



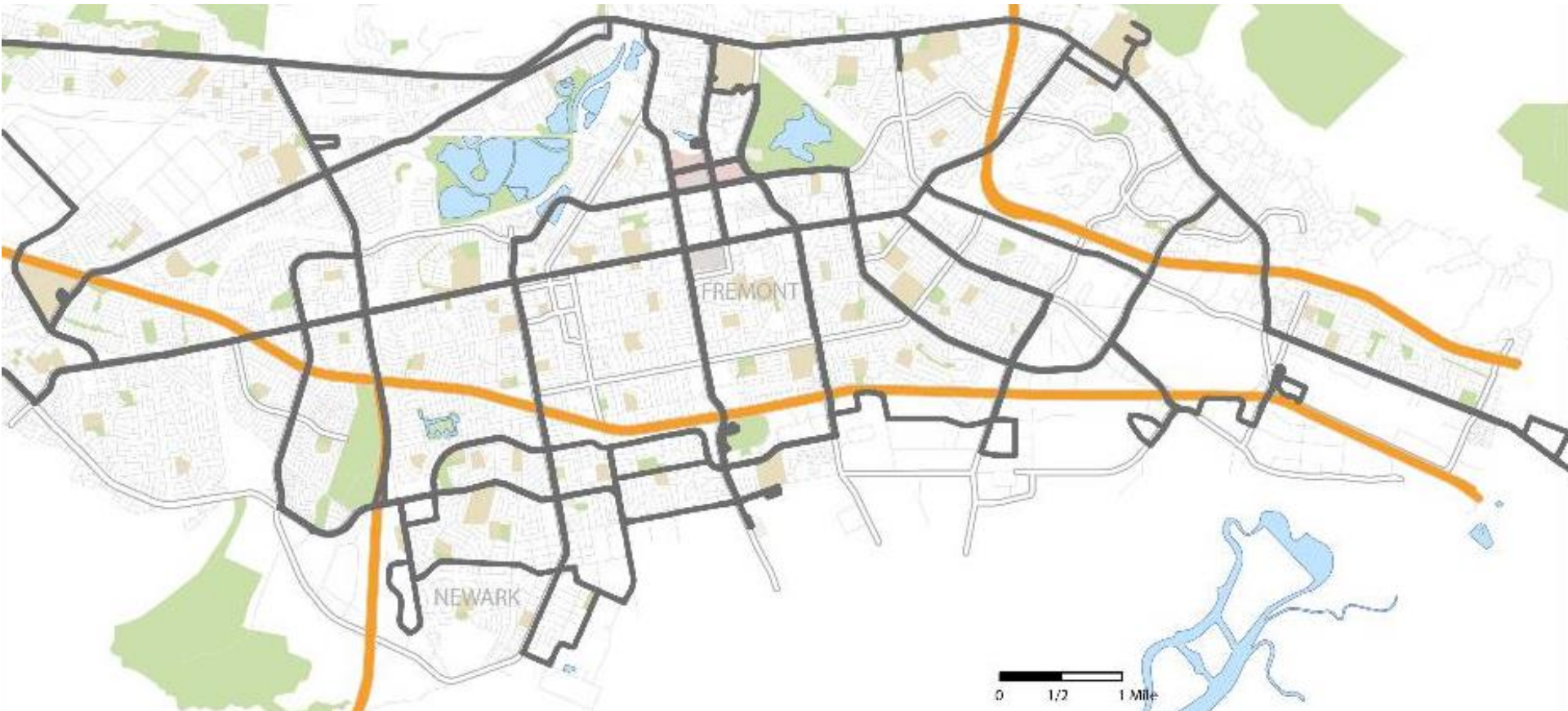
**Upper limit** of **7 (or 3?)** passengers/revenue hour



**Reservation-less + Scheduled + On-demand** trips boost productivity (but **lower** reliability)

# THE FUTURE OF FLEX: **REDESIGNING THE NETWORK**

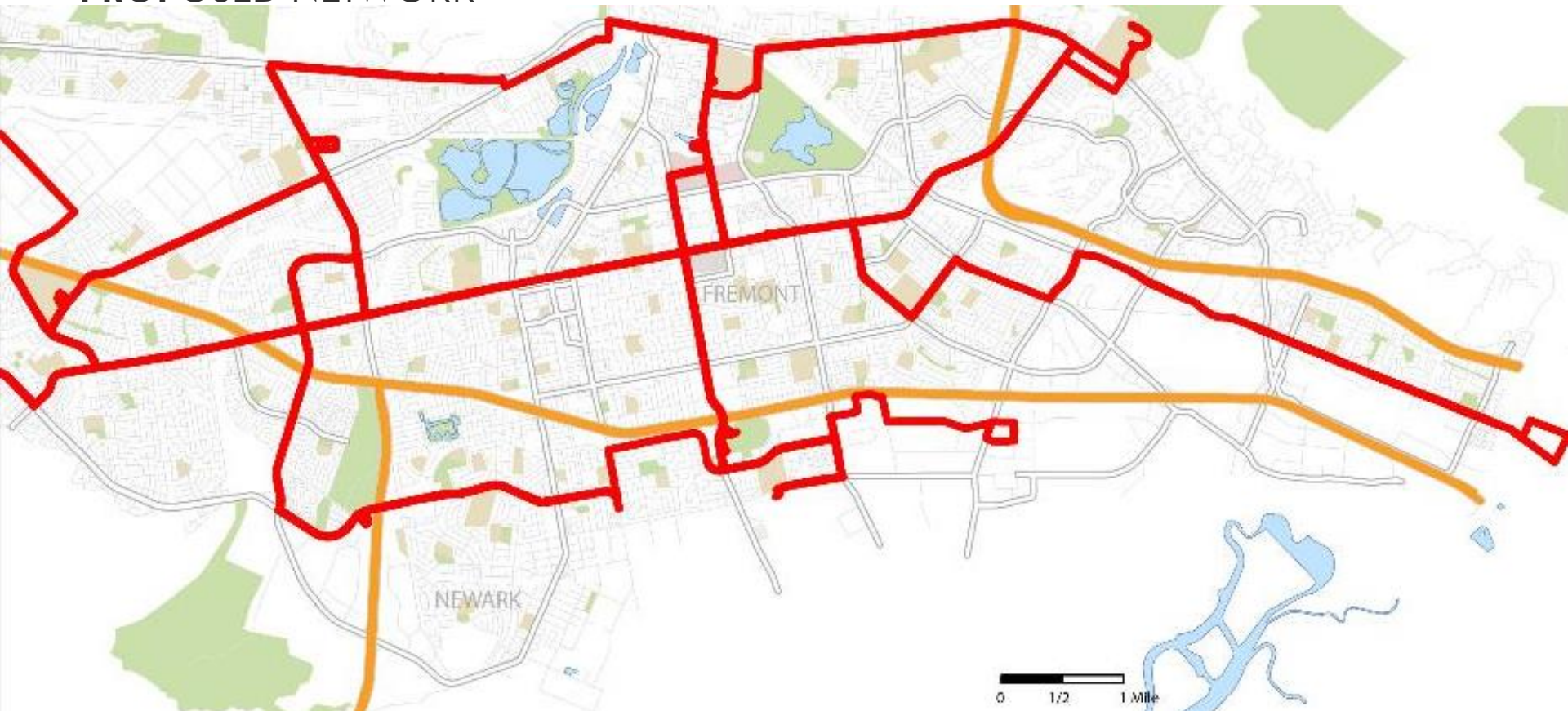
EXISTING NETWORK



6 HOURLY ROUTES + 4 HALF-HOURLY ROUTES =  
**100% COVERAGE**<sup>20</sup>

# THE FUTURE OF FLEX: **REDESIGNING THE NETWORK**

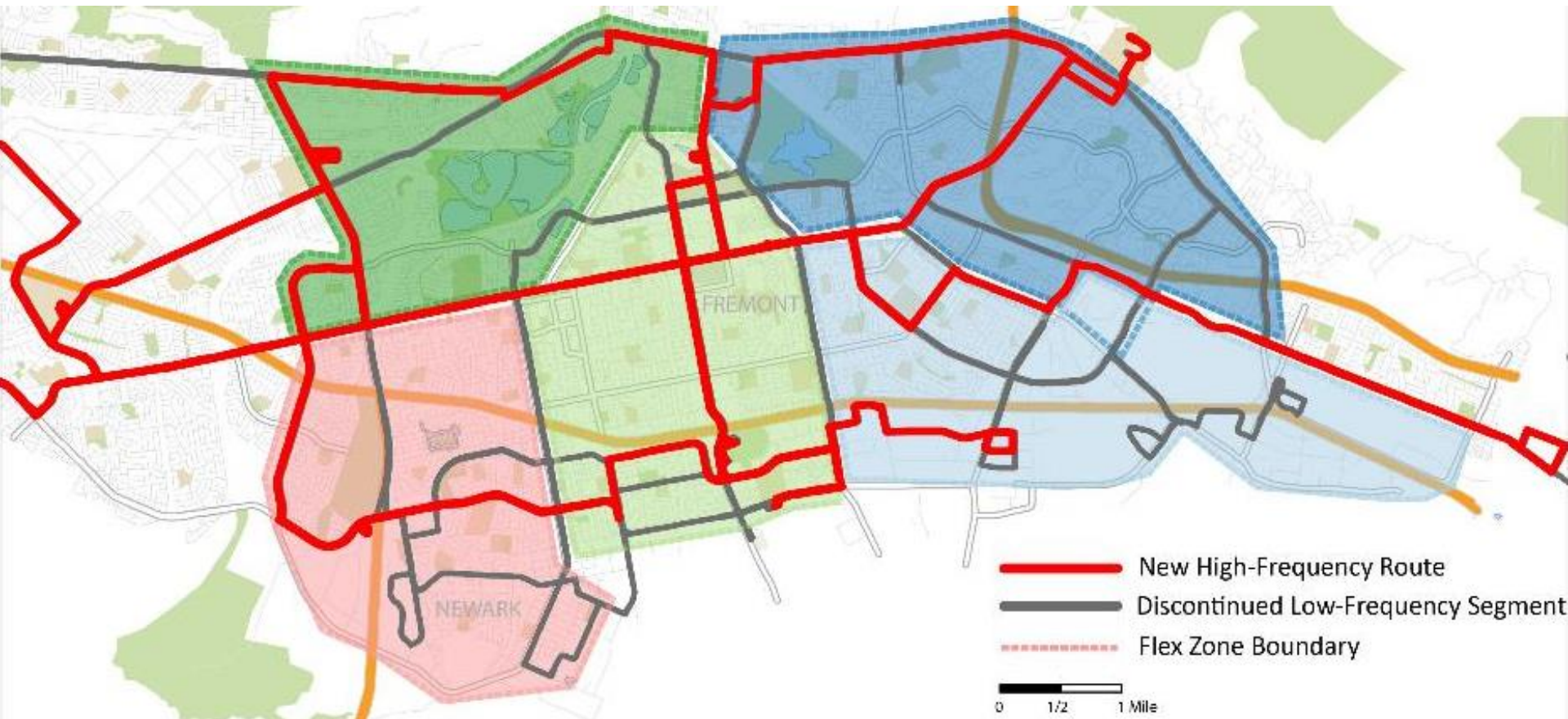
## PROPOSED NETWORK



**(4)** 15-MIN ROUTES

# THE FUTURE OF FLEX: **REDESIGNING THE NETWORK**

## PROPOSED NETWORK



(4) 15-MIN ROUTES + 5 FLEX ZONES =

# **70%-30% FREQUENT- COVERAGE**

THANK  
YOU!

**JOHN URGO**  
SENIOR TRANSPORTATION PLANNER  
AC TRANSIT  
OAKLAND, CA  
(510) 891-4735  
JURGO@ACTRANSIT.ORG

(510) 891-5470 / Free language assistance / Asistencia gratuita en el idioma / 免費語言協助 / Libreng tulong para sa wika / Hỗ trợ giúp thông dịch miễn phí  
무료 언어 지원 / मुफ्त भाषा सहायता / زبان سے متعلق مفت اعانت / 無料の言語支援 / مساعدة لغوية مجانية / Assistência linguagem livre / បកប្រែភាសាមិនគិតថ្លៃ  
Бесплатная помощь переводчиков / ການຊ່ວຍເຫຼືອພາສາບໍ່ເສຍຄ່າ / ມຸຖຸດ ບາເຟ ຊີເຢ ສຊາຍຕຸ / Assistance linguistique gratuite