

THE NEED FOR COUNTERMEASURES

NEXT GENERATION TRANSIT FOR BALANCING FUTURE MOBILITY

FEHR  PEERS

Mike Wallace, Principal

September 26, 2018

AMPO Annual Conference

WHAT'S PROMPTING INTEREST?

Transit is making headlines

Transportation

Falling transit ridership poses an 'emergency' for cities, experts fear

News > Transportation

BART's Oakland Airport Connector losing money; Uber, Lyft to blame?

Home

Transportation

Marin bus ridership decline mirrors Bay Area

Why Is L.A. Expanding Transit—and Losing Riders?

LAURA BLISS FEB 1, 2018

WHAT'S PROMPTING INTEREST?

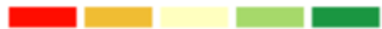
Ridership Declines

Transit Center

Ridership declines
in 31 of 35 major
metropolitan areas

Total Ridership (% change)

< -25 < -10 < 0 < 50 > 50

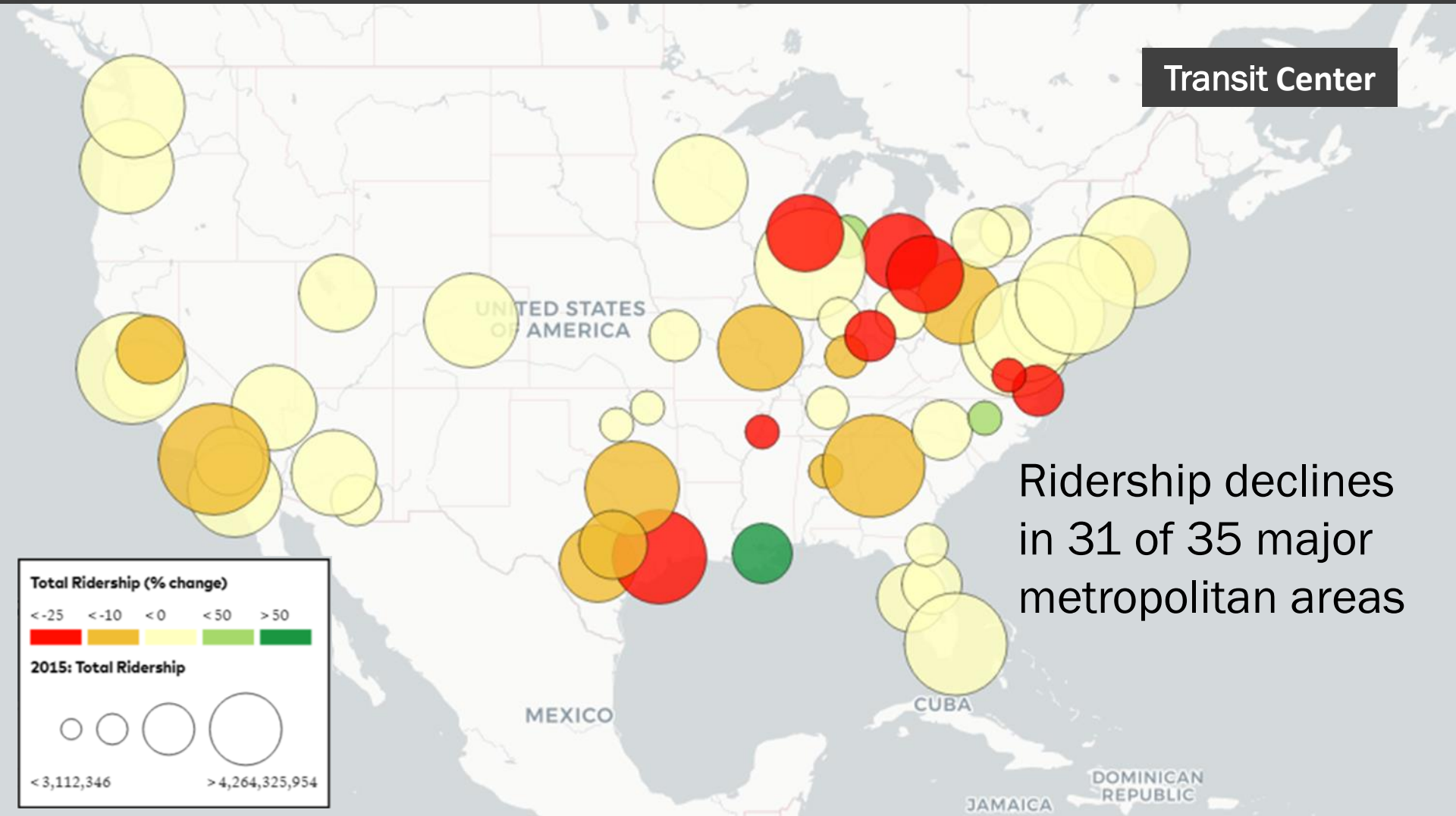


2015: Total Ridership

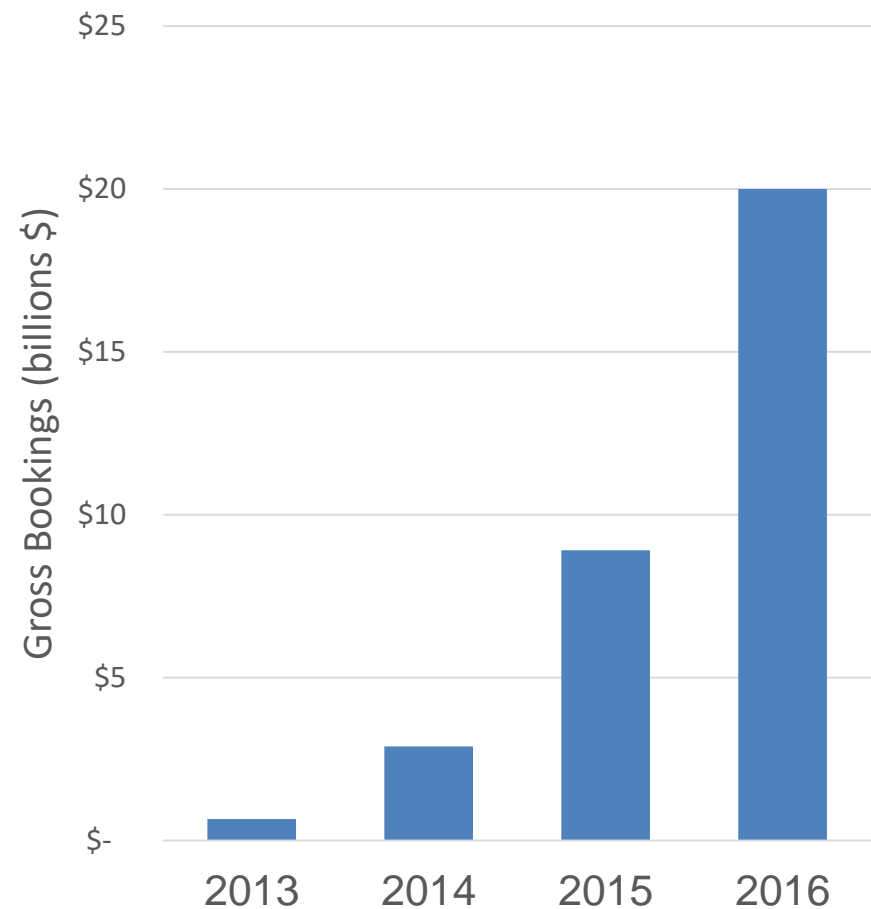


< 3,112,346

> 4,264,325,954

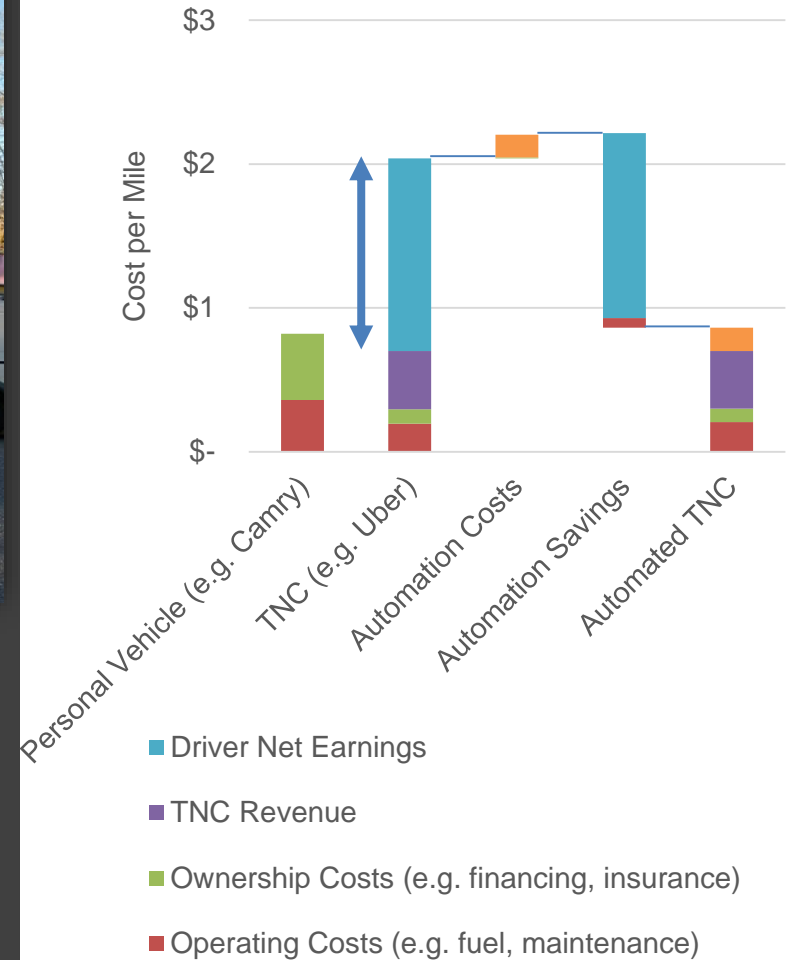


Travel by TNC has experienced astonishing growth



IMPACTS

...are likely to become more pronounced as AVs replace TNC drivers



PLANNING FOR AUTONOMOUS VEHICLES



Presented by Mike Wallace, Fehr & Peers
Research Lead by Kevin Johnson, Fehr & Peers
AMPO Annual Conference, October 2016

WHAT WE FOUND

TRANSIT TRAVEL TRENDS

How Will Autonomous Vehicles Influence the Future of Travel?



NEXT GENERATION TRANSIT

Approach

A variety of services to optimally meet all demands and new levels of cooperation between transit agencies and TNCs.



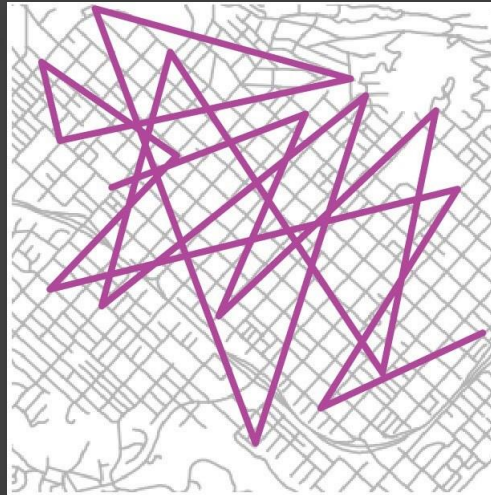
MOBILITY SERVICE TYPES



Rail Hi Cap Bus, BRT

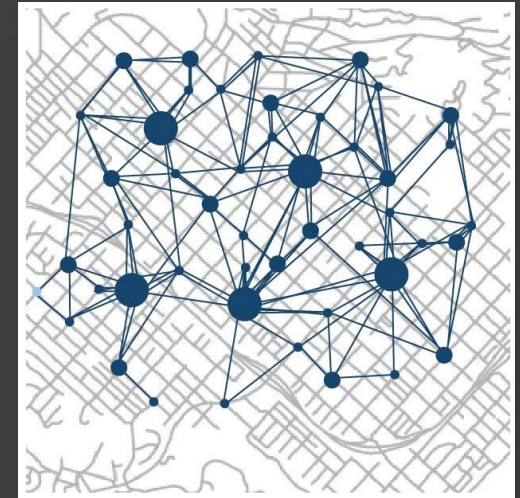
High density,
limited linear
corridors

High /
Moderate
demand density
corridor trunks



Coverage
Bus Shuttles

Moderate demand corridors
and branches



Pooling Drive

Low moderate
many-many
demand
landscape

Low demand
landscape



NEXT GENERATION TRANSIT

Not One-Size-Fits-All

Analysis / Strategic Planning

- SANDAG UATS
- SPUR
- Cincinnati Uber Transit Study



Application / Pilot Projects

- Go Centennial
- Josephine County, OR
- Go Dublin

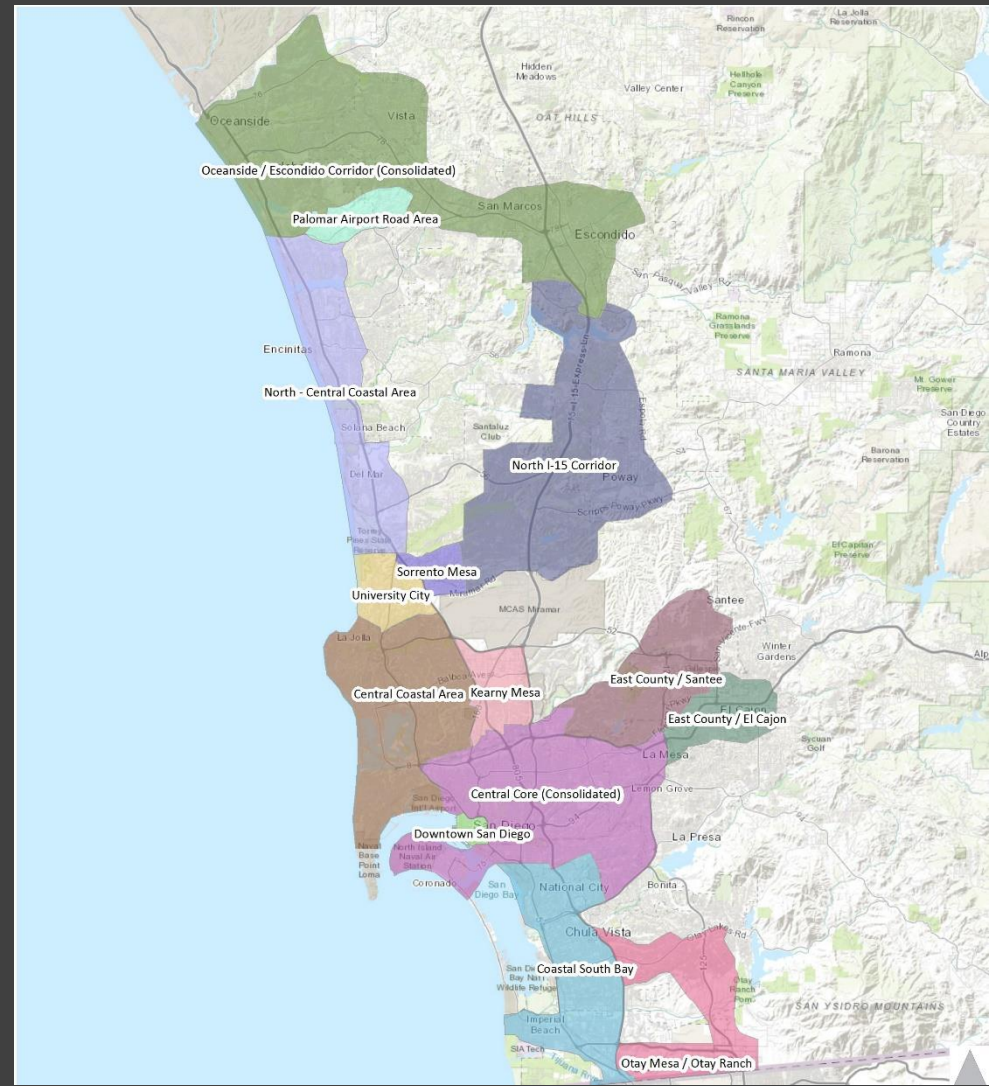


More details at <http://www.fehrandpeers.com/next-generation-transit/>

SANDAG UATS PROJECT

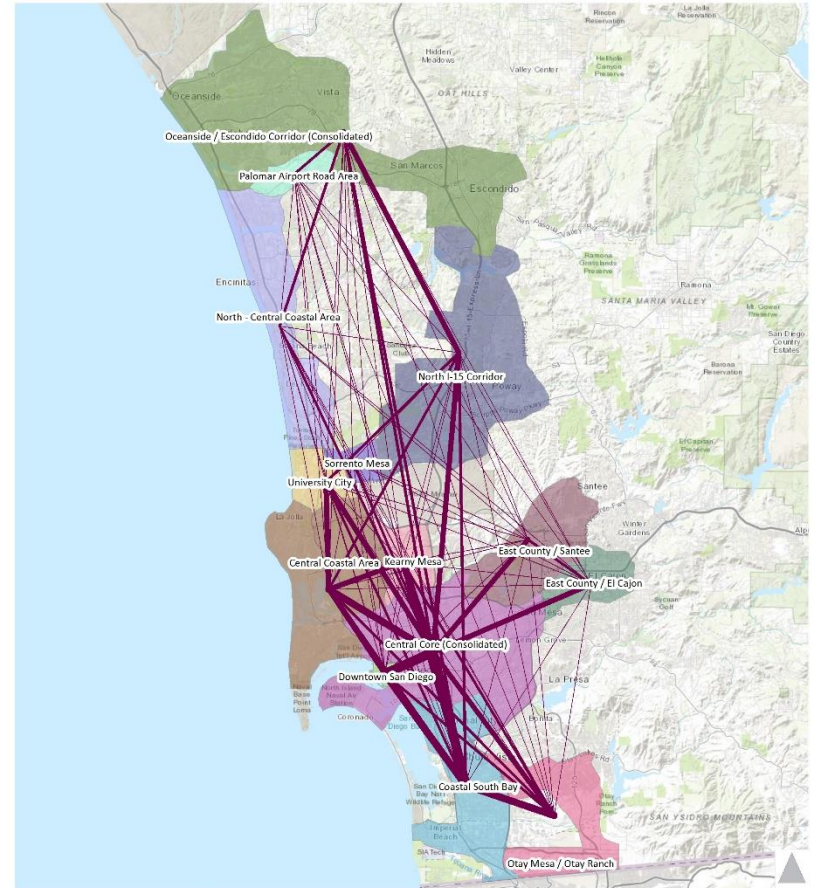
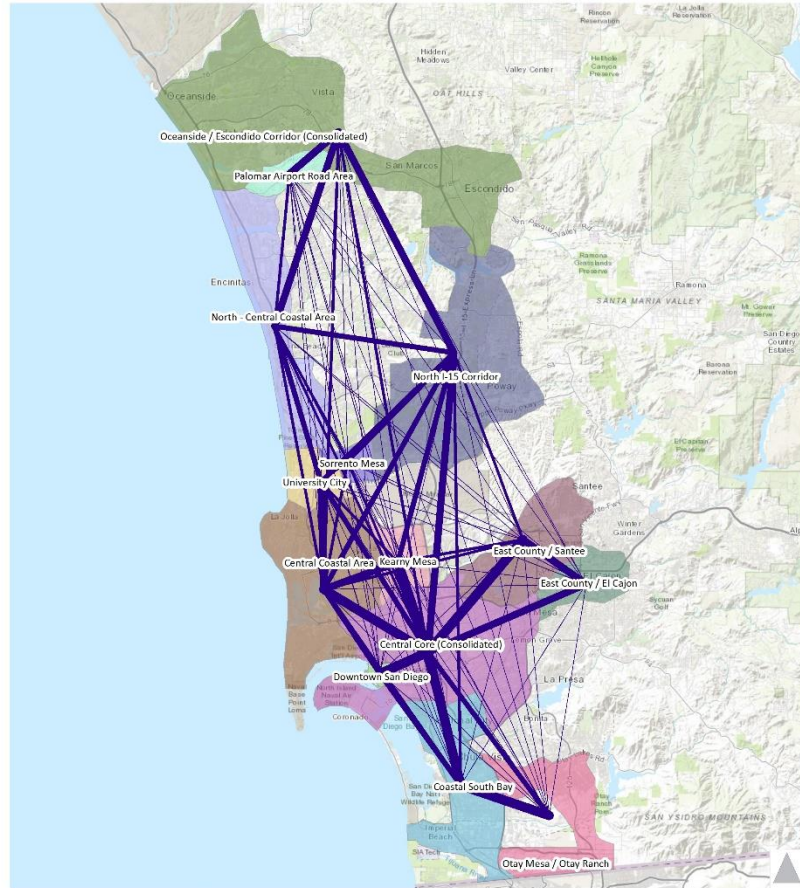
Next Generation Transit Analysis to Inform RTP

- Identify and segment travel markets
- Define appropriate levels of right-sized transit to increase sustainable mode share
- Inform changes to future transit projects



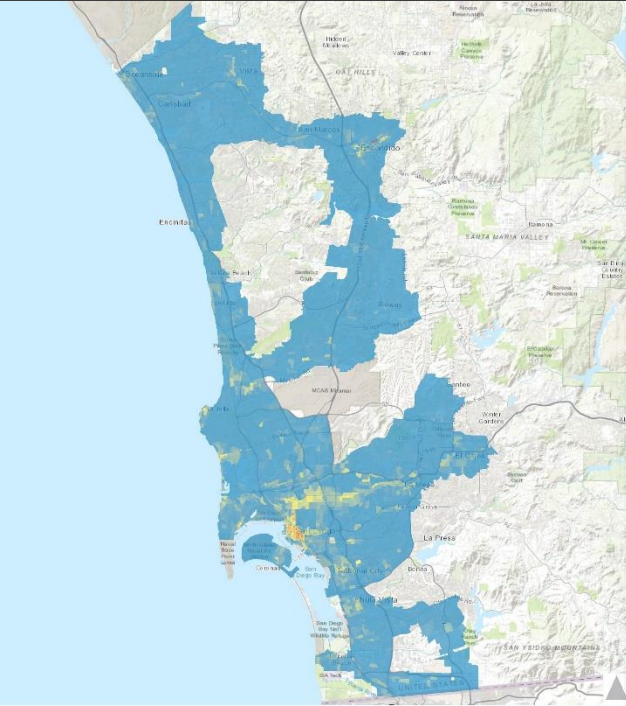
SANDAG

Person and Transit Trip Desire Lines

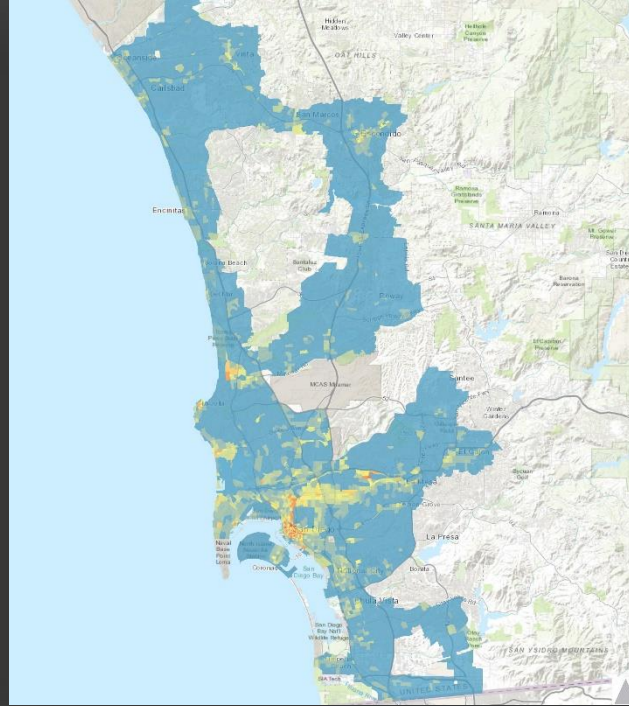


SANDAG

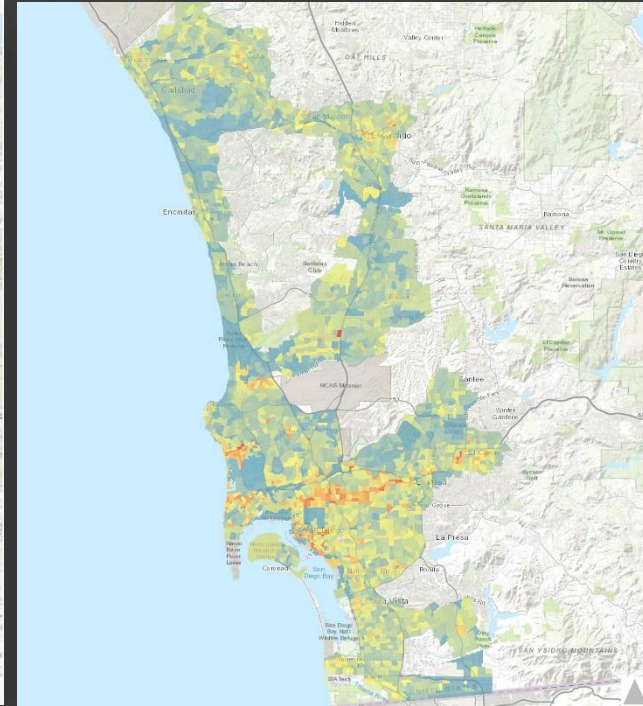
TAZ Demand Analysis



Backbone



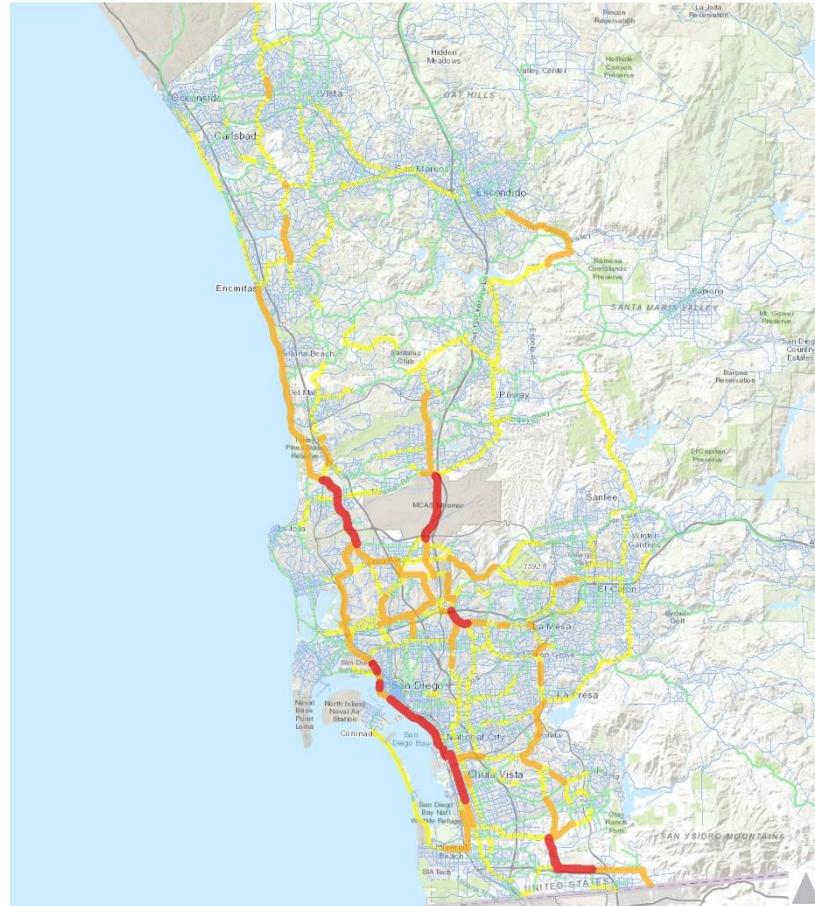
Crowdsourcing



Door-to-Door

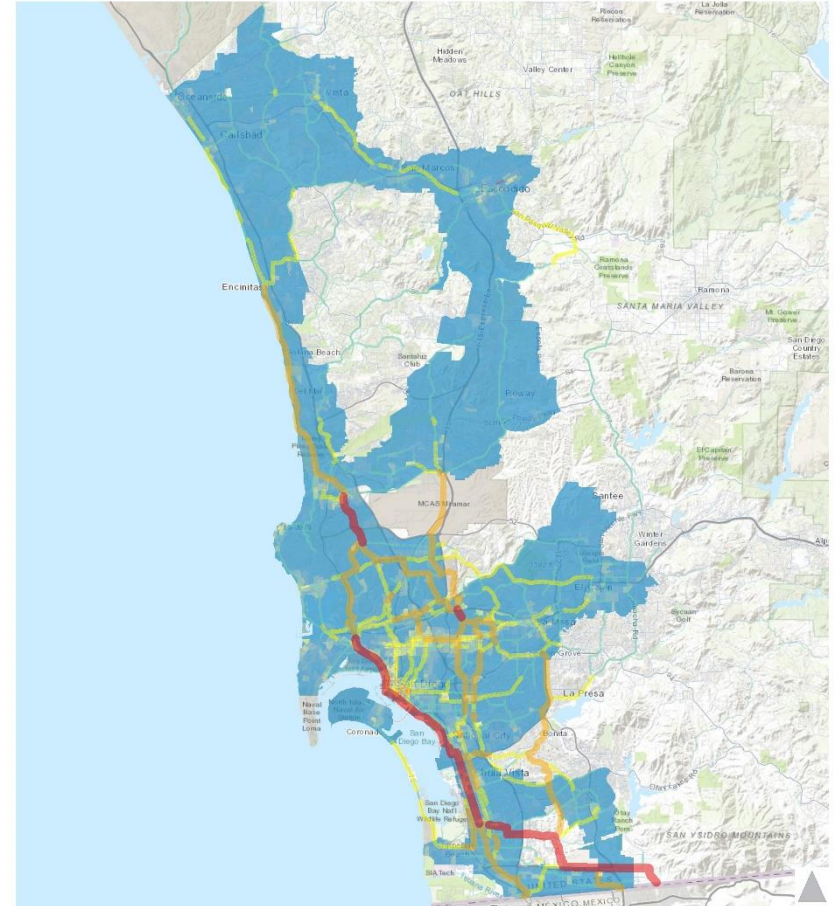
SANDAG

Corridor Level Analysis



Person Trip Flow

1 - 23576	71766 - 146918
23577 - 71765	146919 - 271604
	271605 - 502559



Composite Score

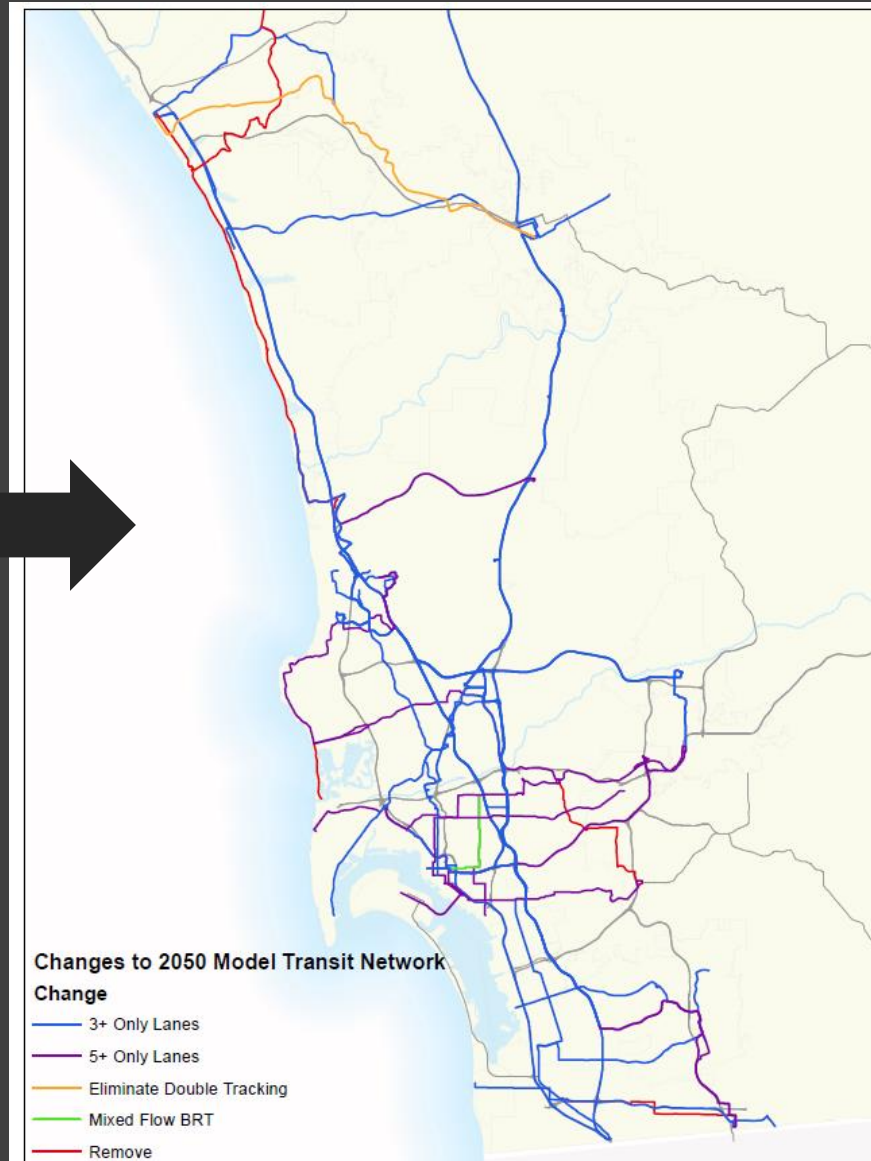
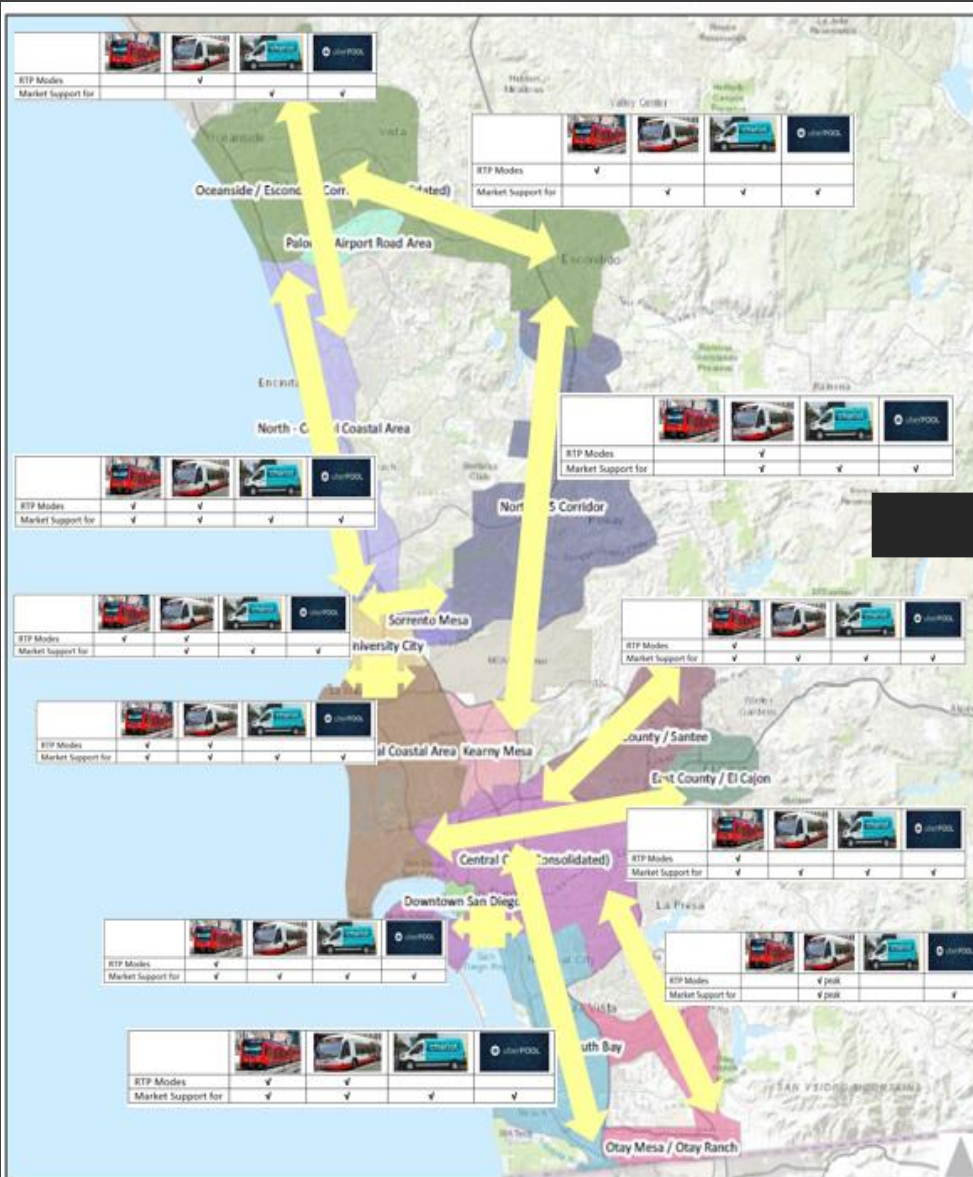
Low Medium High

Transit Trip Flow

1 - 1604	5499 - 13135
1605 - 5498	13136 - 32882
	32883 - 74810



CORRIDOR LEVEL ANALYSIS



MOBILITY HUBS

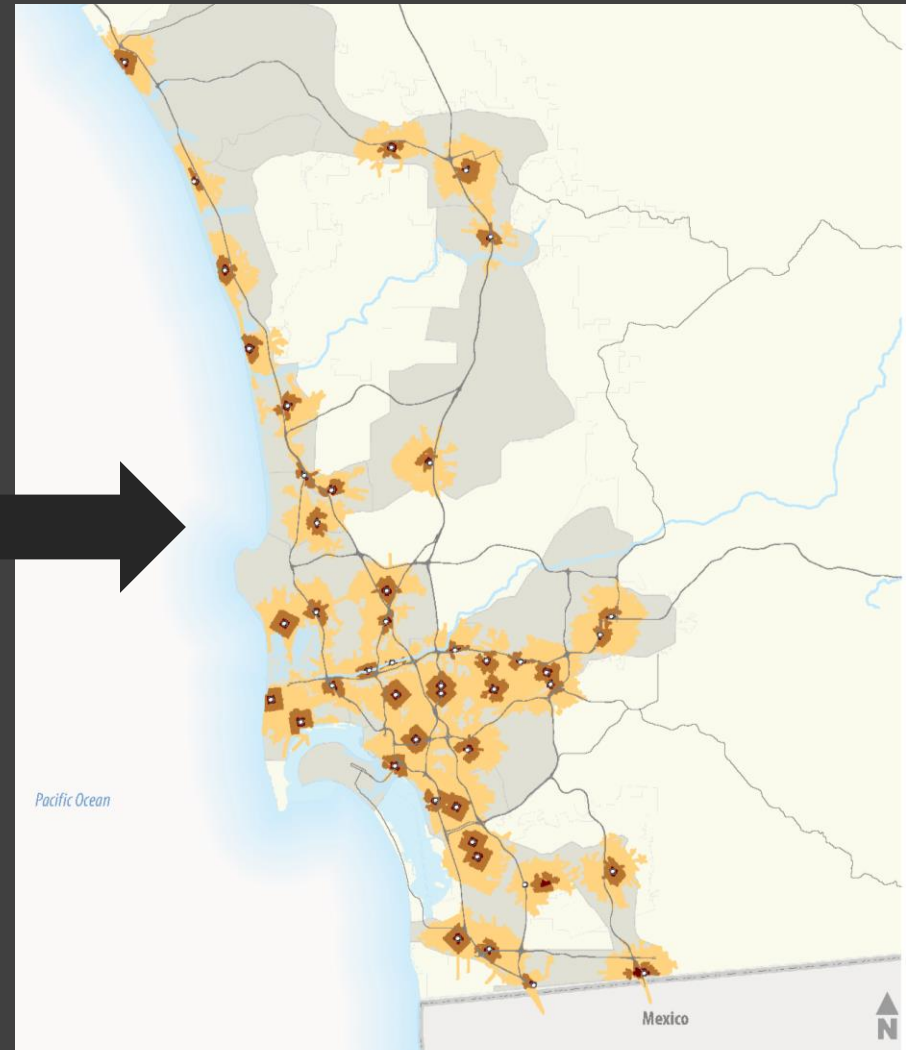
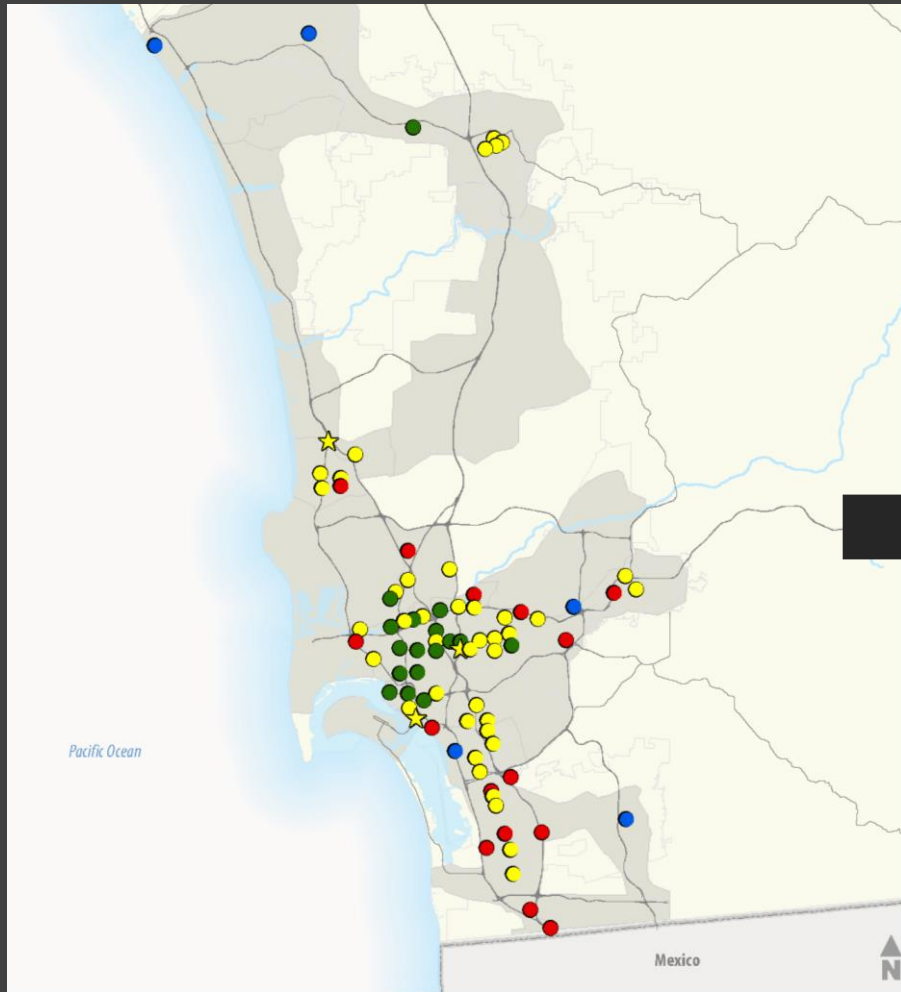
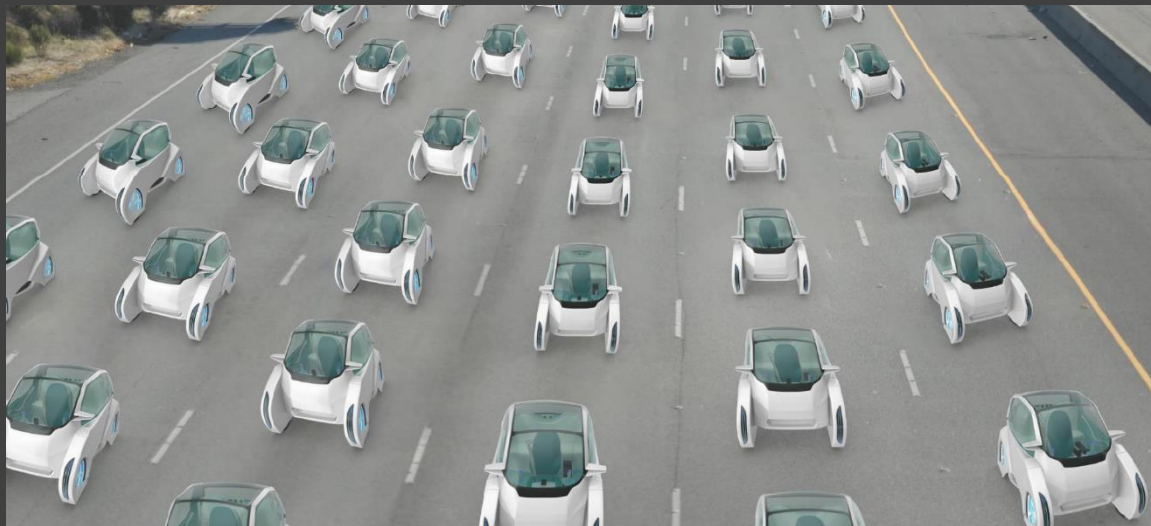
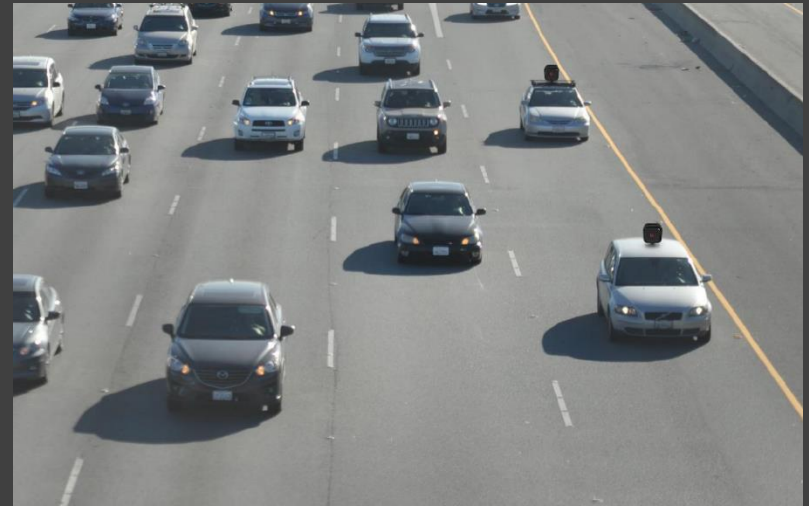


Figure 1

SCENARIO DEFINITION



SCENARIO DEFINITION



9'
BUFFERED
BIKE LANE
AND GUTTER

12'
BUS LANE

11'
DRIVE LANE

11'
DRIVE LANE

12'
REVERSIBLE
DRIVE LANE

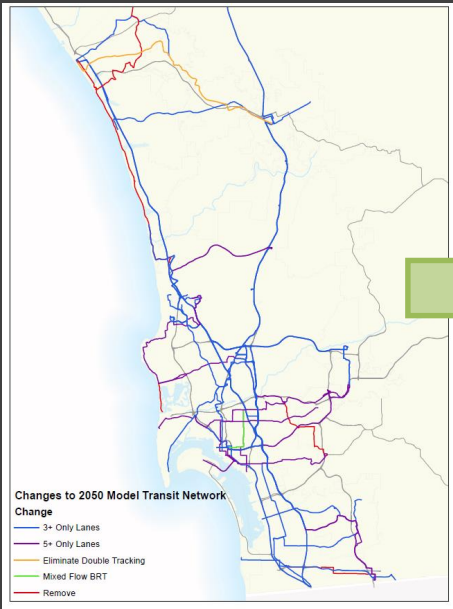
11'
DRIVE LANE


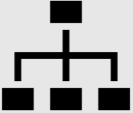



11'
DRIVE LANE

12'
BUS LANE

9'
BUFFERED
BIKE LANE
AND GUTTER

SCENARIO EVALUATION



Input	Scenario A	Scenario B	Scenario C	RTP
	++++	+	+	+
	++++		++	++
			++	++
			---	---
				++

SCENARIO IMPLEMENTATION



NACTO TRANSIT LEADERSHIP
RESOURCE PAPER
NOVEMBER 2017

CURB APPEAL

CURBSIDE MANAGEMENT STRATEGIES FOR IMPROVING TRANSIT RELIABILITY

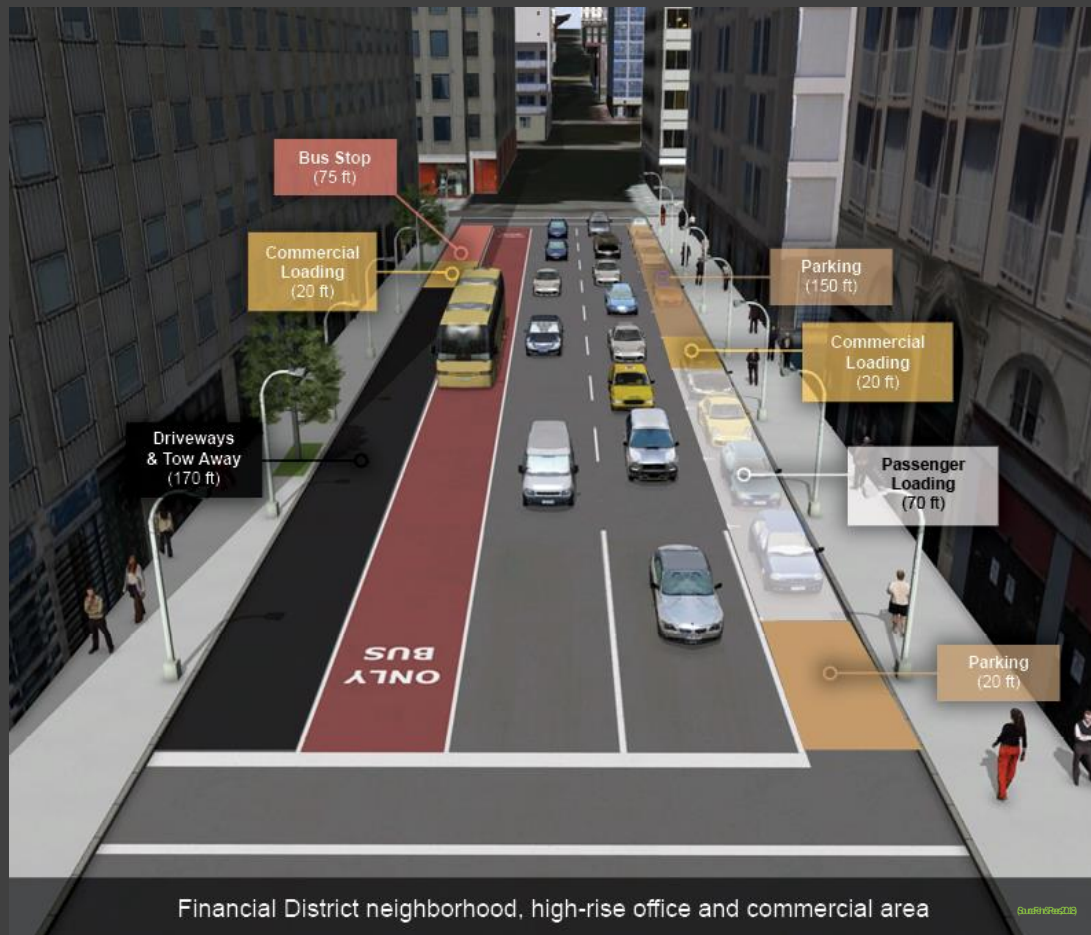


Cities are clearing the way for transit by taking control of their curbs. To support key transit routes, cities are increasingly taking steps to shift from curbsides dominated by "free parking" to reliable bus lanes, safe bikeways, freight loading, and public space. With transit-served streets thriving and the demand for curbside access rising, there is a growing recognition that our approach to curbs needs to make transit service reliable in an era of urban growth.

Cities now have the design tools they need to make transit more reliable, but the politics of parking too often stymie the best projects. The results of twentieth-century "first-come-first-served" parking are frustrating and wasteful: transit riders and drivers are delayed by double parking, with an especially large impact on the same vibrant, walkable streets where some of the highest bus and rail ridership is found. Without space for loading, delivery workers and for-hire vehicles are both inconvenienced and cause delays to others; people bicycling and walking are put in danger by blocked bike lanes and bad visibility; and drivers cruise for long distances to find parking. Yet these practices have been tolerated for decades, in part because of the politically charged nature of "removing parking spaces" without addressing the underlying mismatch between supply and demand.

Supporting major street design changes with a curbside management system is a way to make sure that shifts to sustainable citywide mobility do not come at the expense of quality public space or small business needs. Modern curbside policies recognize that transit is fundamentally different from adding motor vehicle capacity because it can deliver so many people to a street. These policies seek to make better decisions about curbs based on a recognition that transit and local businesses support one another. Transit riders, transit agencies, city governments, and local merchants all have a stake in more reliable transit and better public space.

This paper provides examples of how cities have successfully changed curb use to support transit. It is focused on the types of busy, store-lined streets where high-ridership transit lines often struggle with reliability. These key curbside management strategies support reliable transit and safer streets in one of two ways: either by directly making room for transit, or supporting transit projects by better managing the many demands on the urban curb.



Financial District neighborhood, high-rise office and commercial area

(Source: SFRTD)

Published References

Local Vision



QUESTIONS?

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