

# The End of Car Ownership

Harnessing the Benefits  
of Shared Autonomous Vehicles


**Will autonomous cars  
solve our problems?**

**Will autonomous cars  
be shared or owned?**



**Congestion costs the  
American economy  
\$160 billion a year**

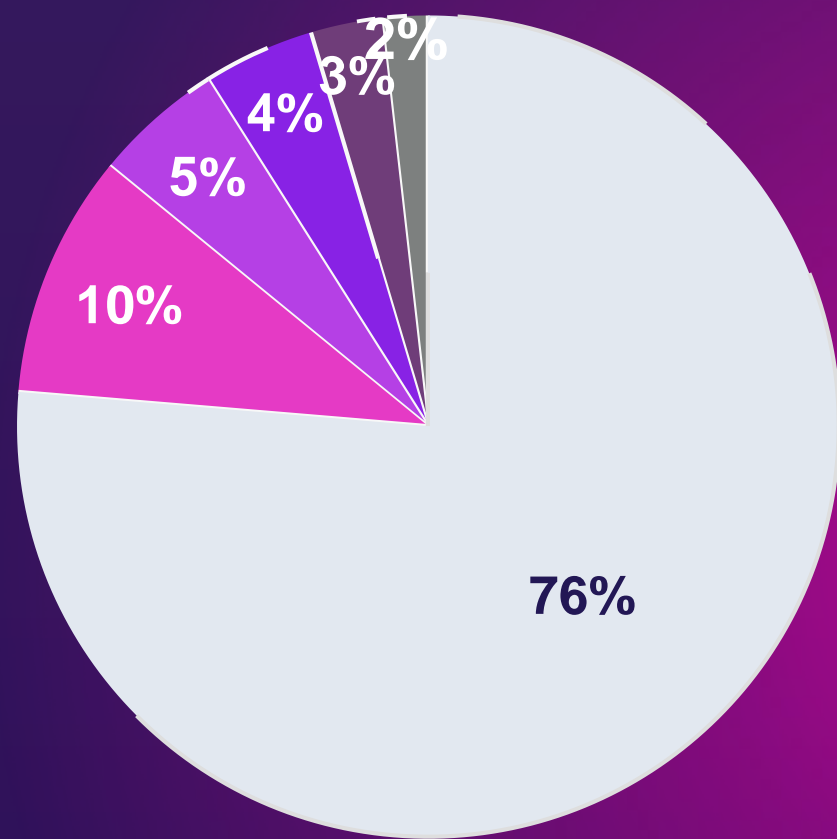




The average car is  
used **4%** of the time,  
at **20%** occupancy



**35,092** Americans  
died in traffic crashes  
in 2015(+7.2%)



**Most  
commuters  
drive alone**

● Drive alone ● Carpool ● Public transportation ● WFH ● Walk ● Other

**How did we  
end up here?**

An aerial photograph of a suburban neighborhood. The houses are uniform in size and style, arranged in neat rows along winding streets. The overall layout is highly organized and repetitive, illustrating a 'one size fits all' approach to urban planning.

**One size doesn't  
fit all densities**





**We've given  
commuters  
two choices**

# Twentieth-Century Choice

## Macro Transit

- Fixed route
- Fixed times
- High capacity
- Frequent only at peak
- Fails in low-density contexts

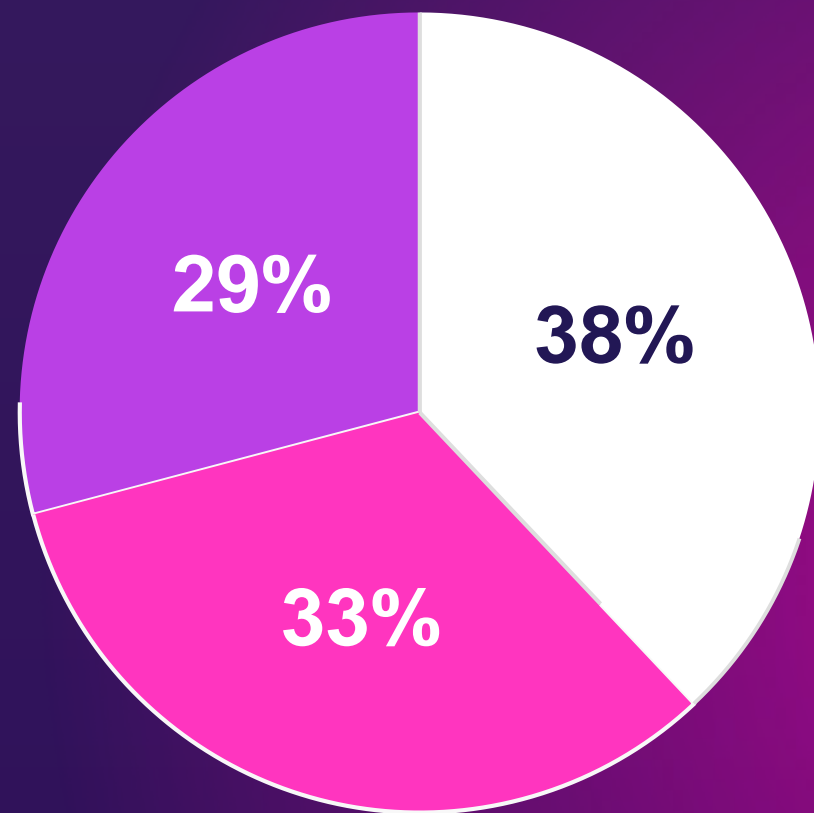
vs.

## Car Ownership

- “Swiss army knife”
- Choice of route
- Choice of time
- Private vehicle
- Always works
- Often fastest



# What keeps people from using transit?



- Not available at all
- Not available at right time

- Convenience, comfort, privacy of car

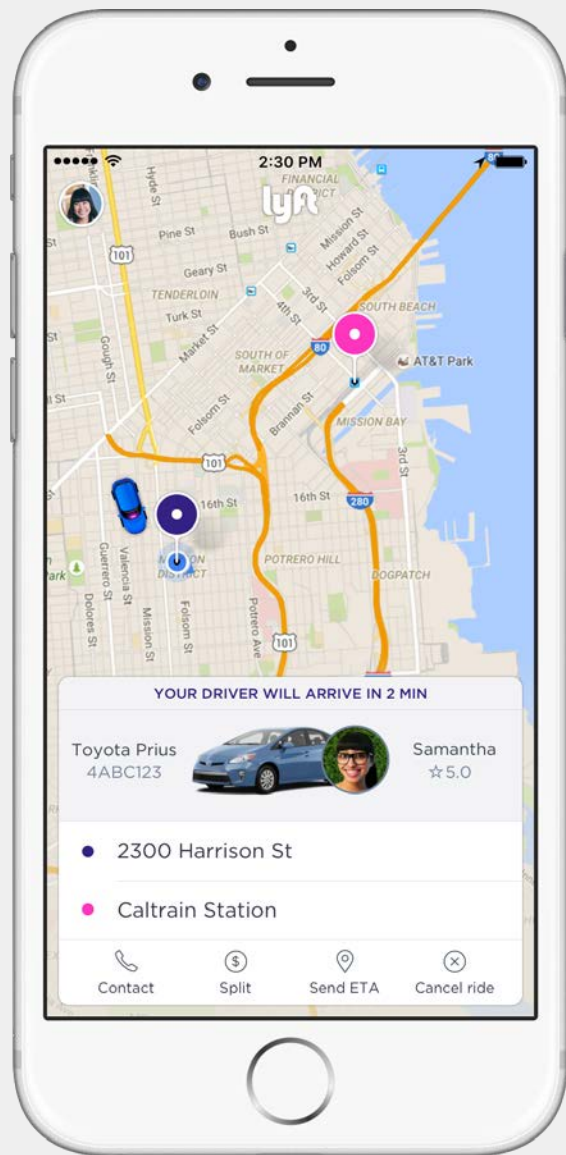
# We need a spectrum of choices

Tailored to every context and customer



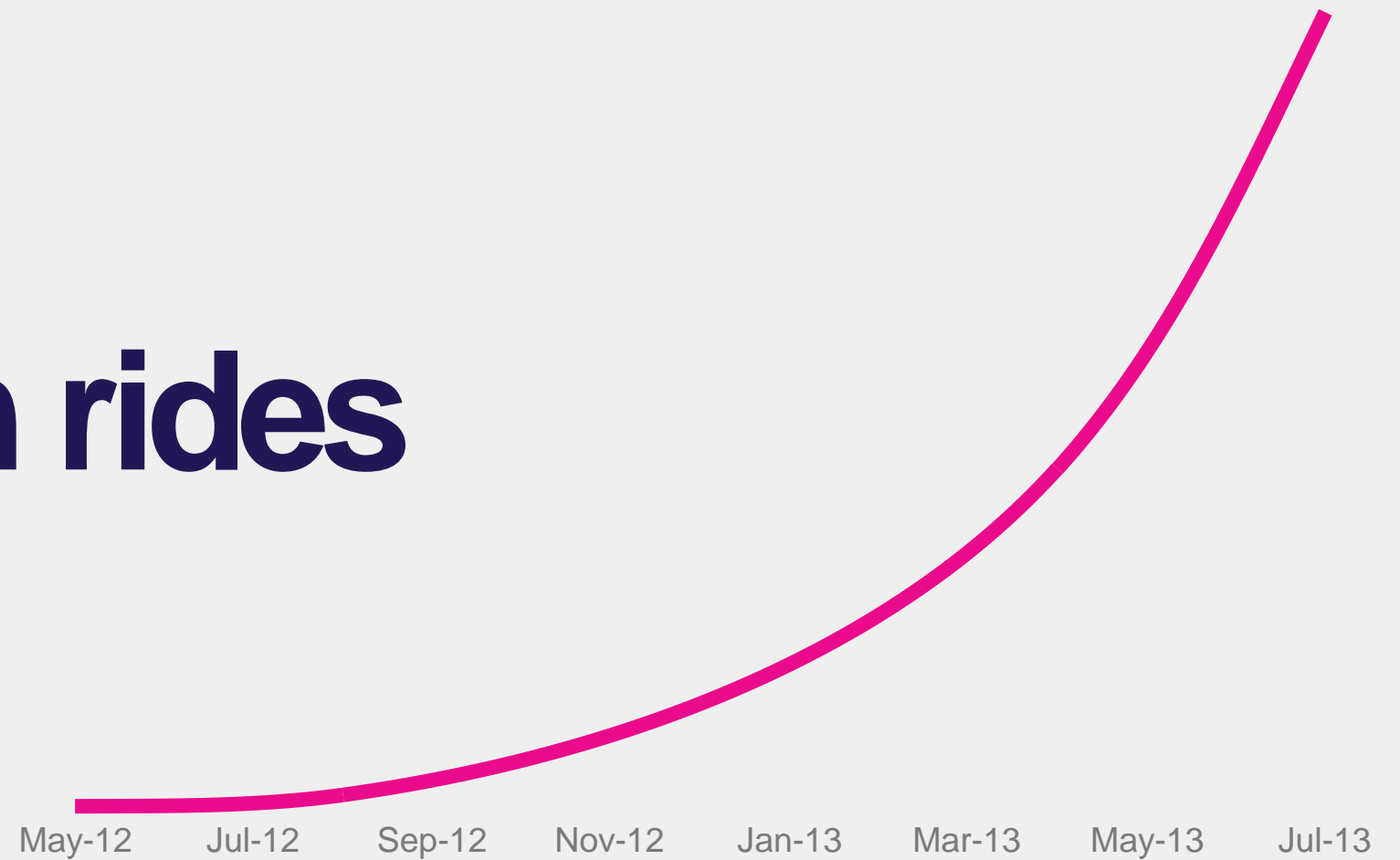
**Will people shift  
from owners to riders?**

**Ridesharing has proven**  
**the demand is there**

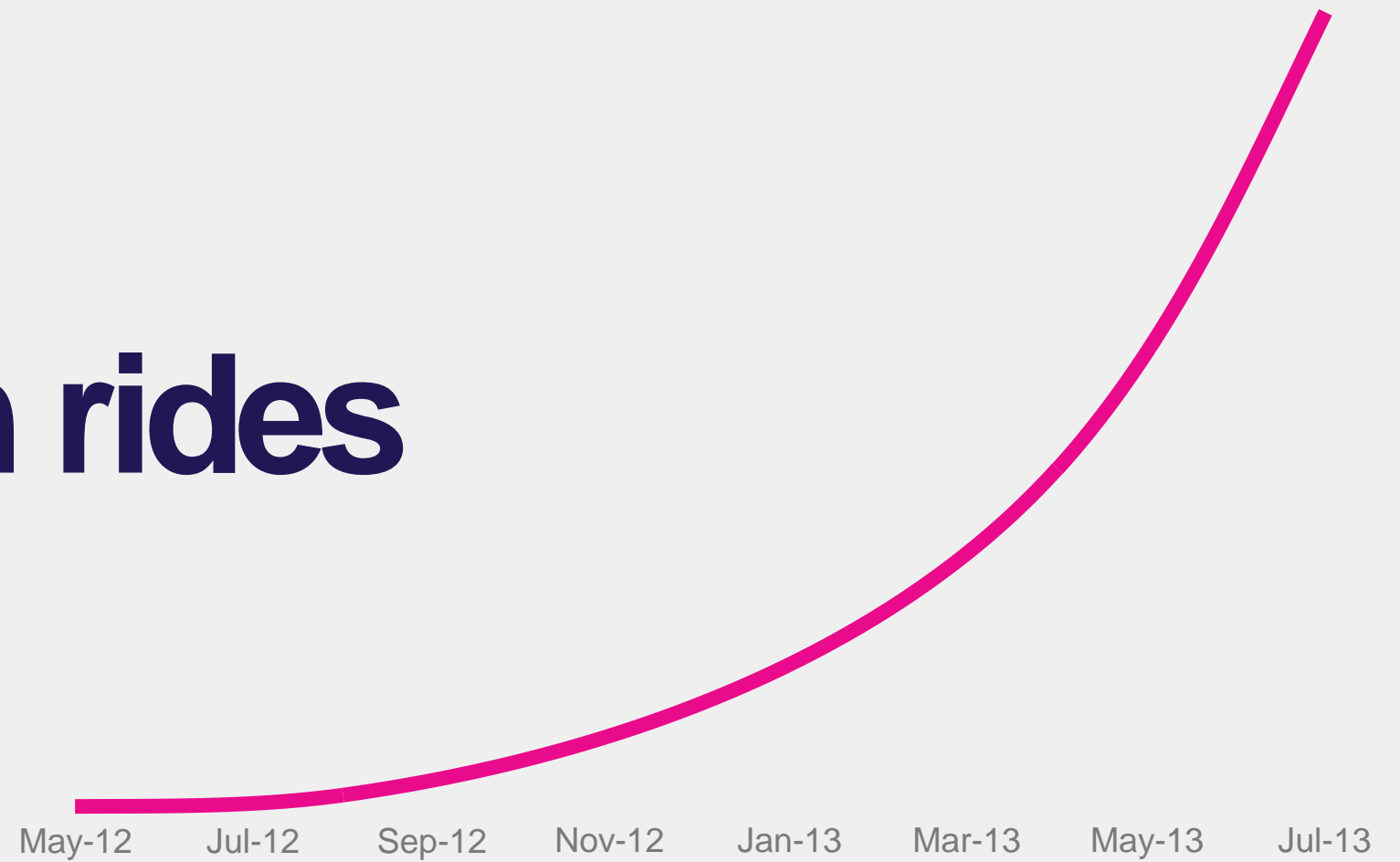


**Lyft launched**  
**2012**

# 1 million rides 2013



**1 million rides  
per day  
2017**





**350 million rides  
this year**



**300+ cities, covering  
75% of Americans**

**2017**



# Alternatives to owning a car must be more attractive than driving

**flexible**

**reliable**

**quick**

**safe**

**door-to-door**

**awesome**

**But will shared mobility  
create positive change?**

**We can expand mobility**  
**more efficiently**

# How Shared Mobility Can Cut VMT



Increase  
Vehicle  
Occupancy

Price Every  
Car Trip

Connect  
to Transit



An aerial photograph of a city landscape. A river winds through the upper half of the image, bordered by green fields and some industrial or commercial buildings. Below the river, a complex network of highways and roads is visible, with a dense urban area in the lower half. The text is overlaid on a white rectangular box in the center of the image.

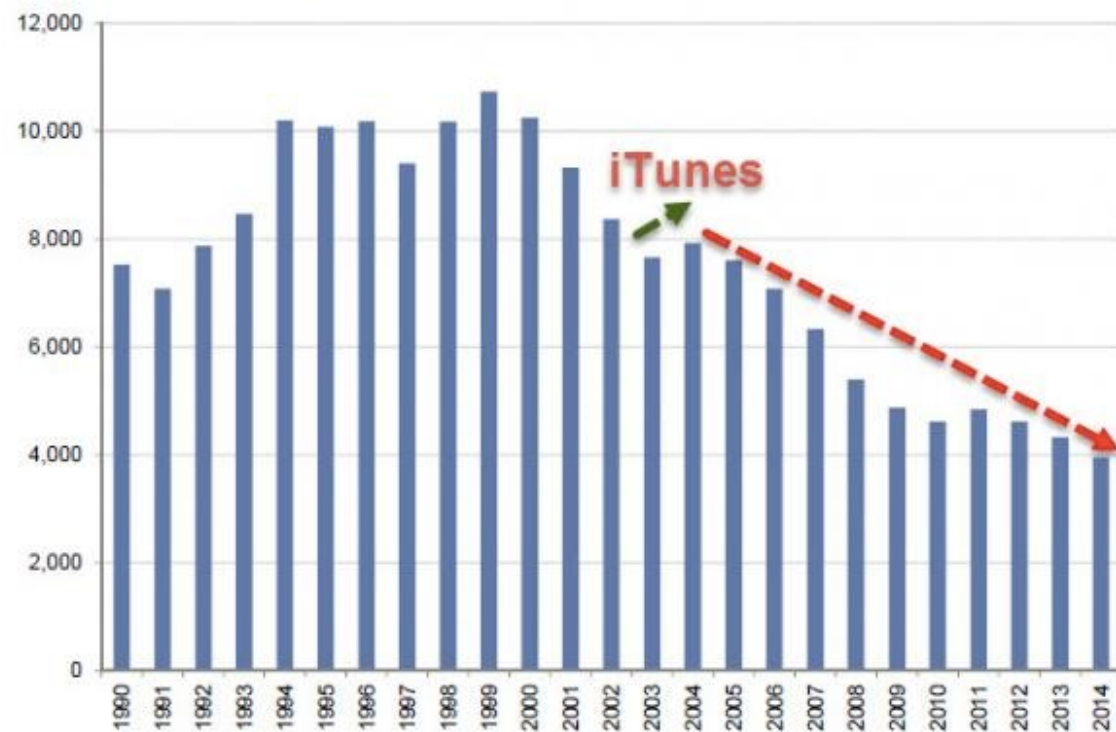
**40%** of passengers  
choose LyftLine  
high-occupancy rides



# The Unbundling Effect

## Remember the Music Industry?

US music – songs sold (in million)



Source: MPAA.

Global recorded music industry revenue - adjusted for inflation



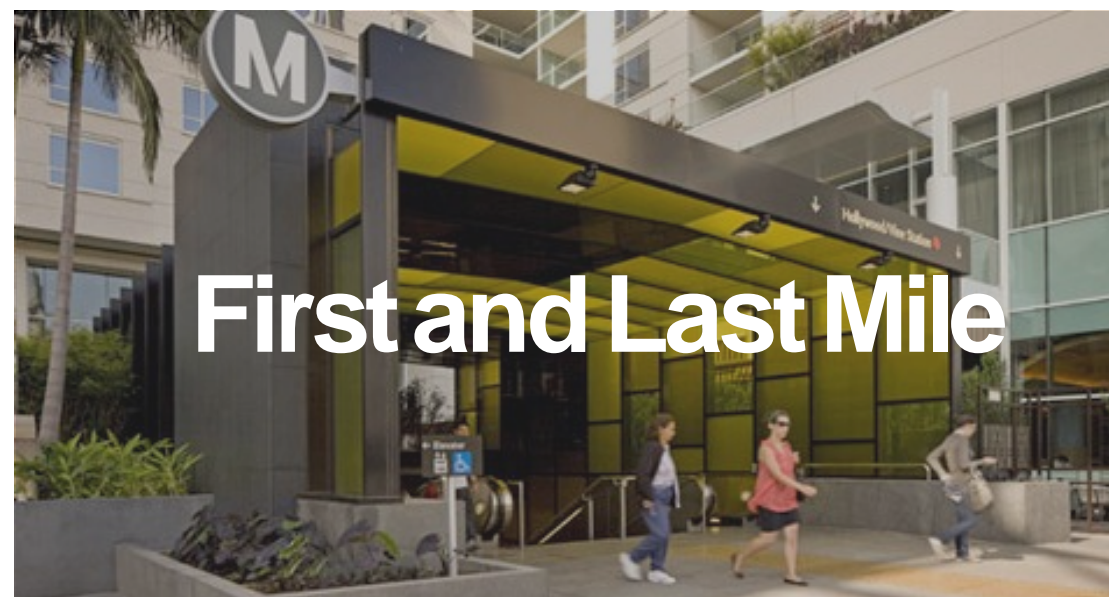
Quartz | qz.com

Date: IFPI Digital Music Report 2015, RIN Report 2014.

# Partnering with Public Transit

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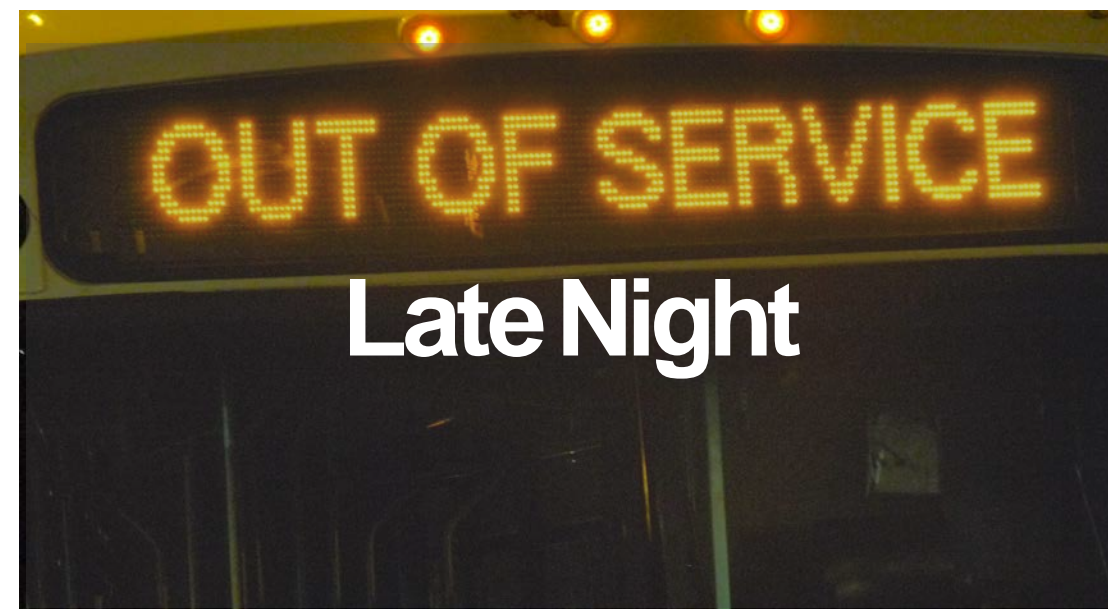
**First and Last Mile**



**Suburban Solutions**



**Paratransit**



**Late Night**



# New pathways to electrify VMT

A man in a dark suit and tie is shaking hands with a woman in a light blue and white striped shirt. They are both smiling. In the background, a white car is visible on a car lift in a dealership setting.

**Today, EV policies  
promote consumer  
car ownership**

# Why Shared Fleets will Want EVs



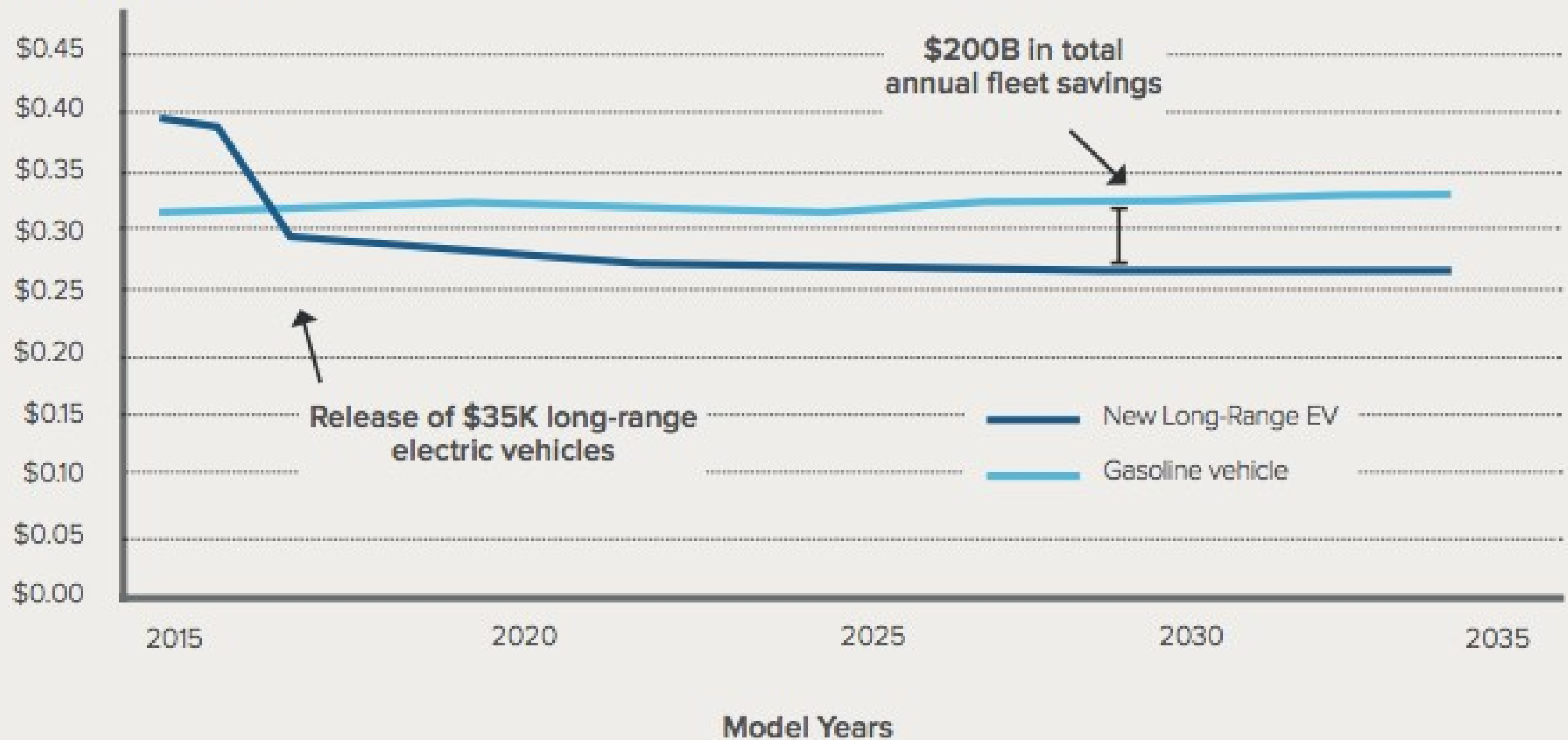
Lower  
Variable  
Costs

High  
Utilization

Optimized  
Management

## Relative Cost of Electric vs. Gasoline Vehicles for Mobility Service

Cost per mile  
(70,000 mi/yr) (\$ 2015)







**Can we compete with cars  
on cost-per-mile?**

# The Open Era of Autonomous



# Laying the foundation for autonomous fleets

# The Holy Trinity of Automation

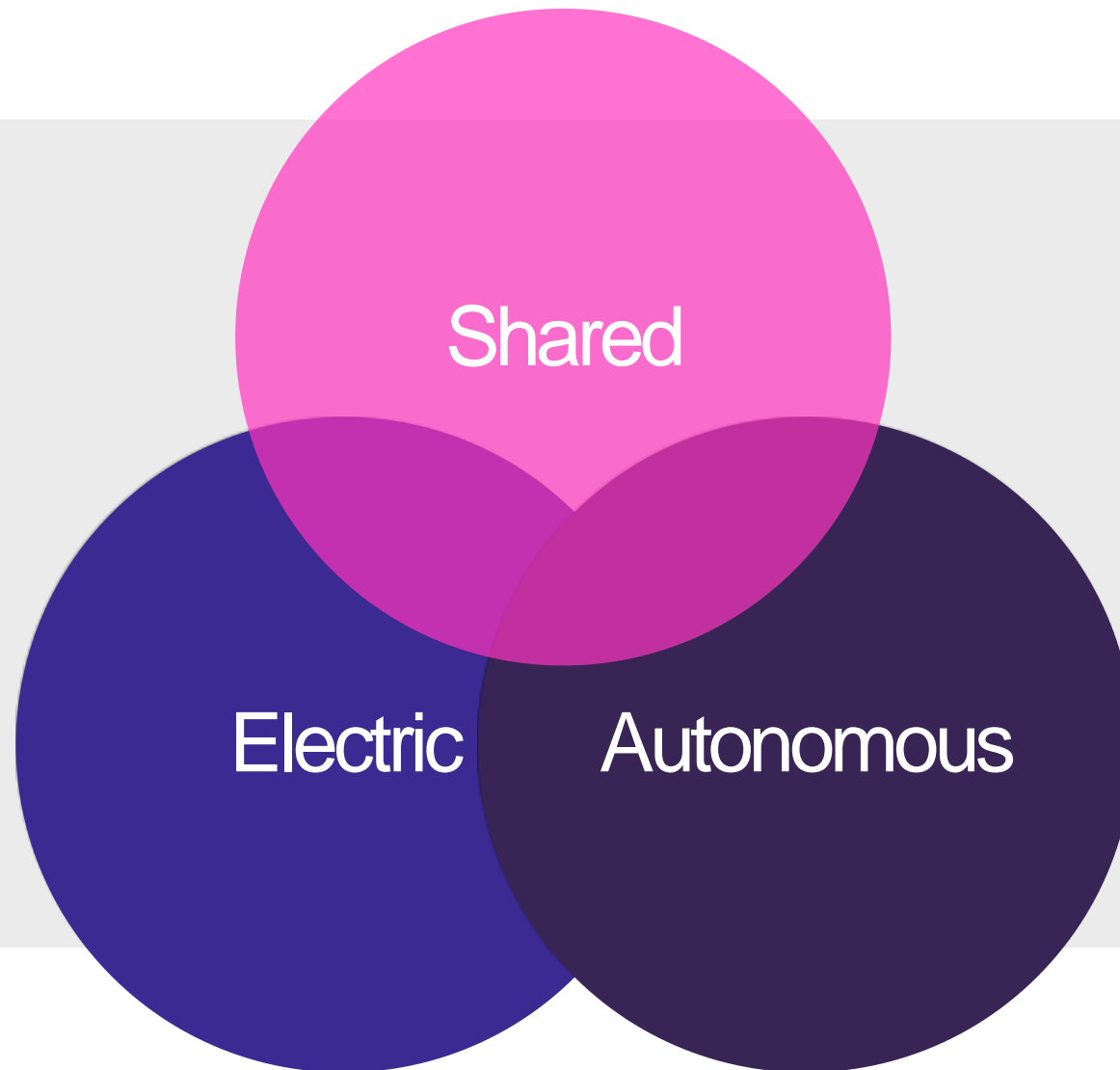


Shared

Electric

Autonomous

# Better Together



# Why are Shared Platforms Best for AVs?



Unlock  
Mobility and  
Land Use

Electric  
and VMT-  
Efficient

Controlled  
Deployment







## Expansive Network

Gain access to millions of rides through Lyft's extensive nationwide network.



## Invaluable Data

Access an exclusive set of data based on real-life scenarios to inform development.



## Seamless Integration

Get started right away: Our robust API is quick and easy to plug into.



## Smart Dispatching

Use vehicle dispatching that deploys when there's only the highest confidence in routes and conditions.



## Uniquely Designed Experience

Showcase your technology with a memorable in-car experience for passengers.



## Trusted Partner

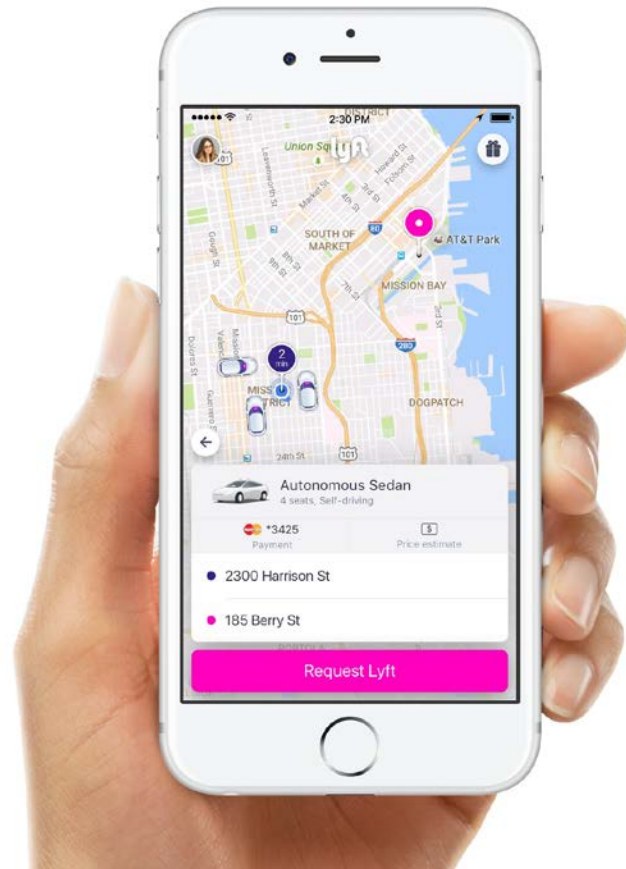
Join an established brand who believes in the power of community and forward progress.



An aerial photograph of a school campus. A large, multi-story building with a light-colored facade and a series of windows is prominent on the left. To its right is a large parking lot filled with cars. In the background, there are more buildings, including one with a red roof, and a dense line of trees. The overall scene is a typical school environment.

# Introducing Level 5





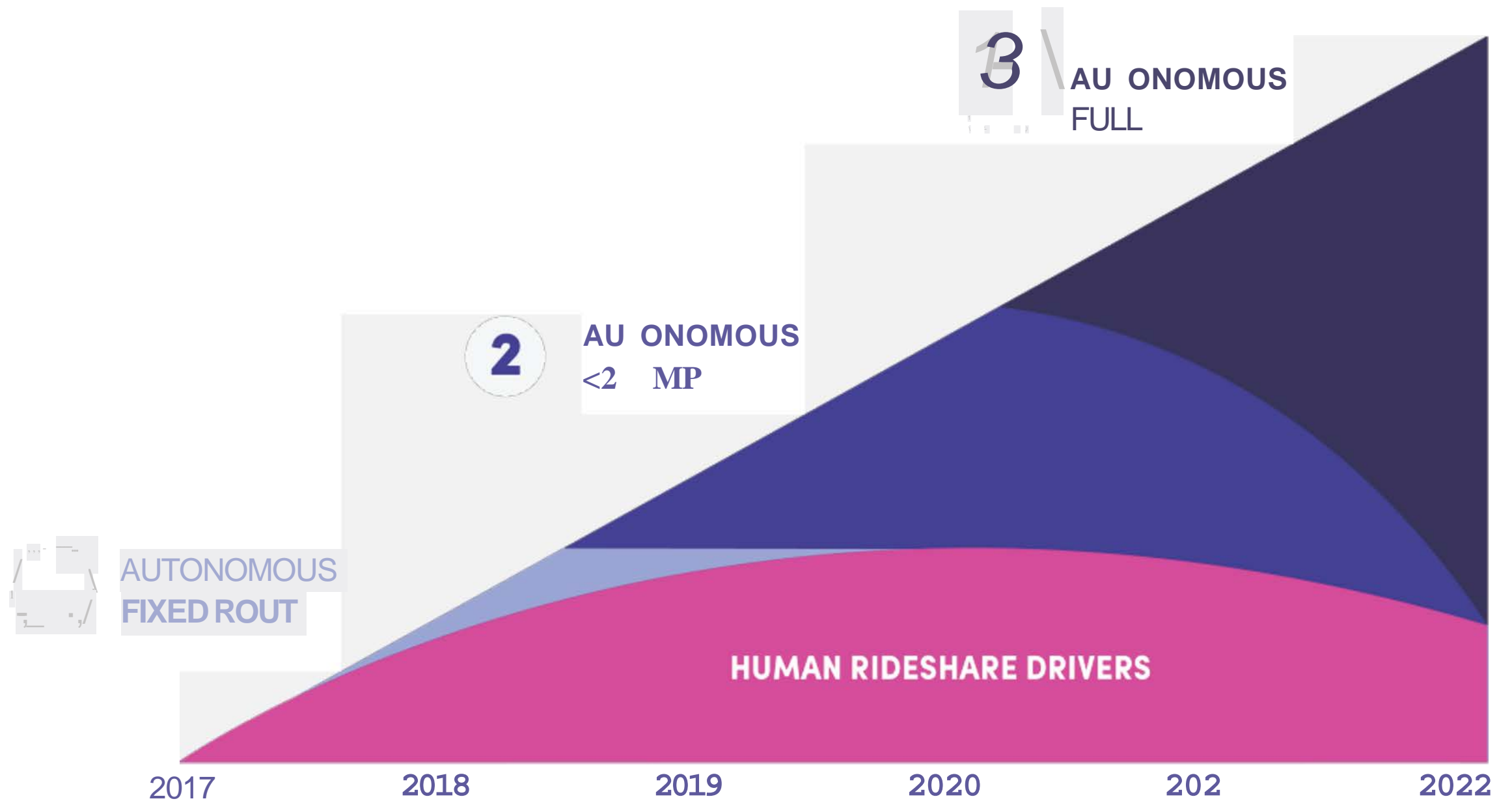
**Within five years  
a fully autonomous fleet  
of cars will provide the  
majority of Lyft rides  
across the U.S.**



**One billion**  
**electric autonomous**  
**rides per year by 2025**

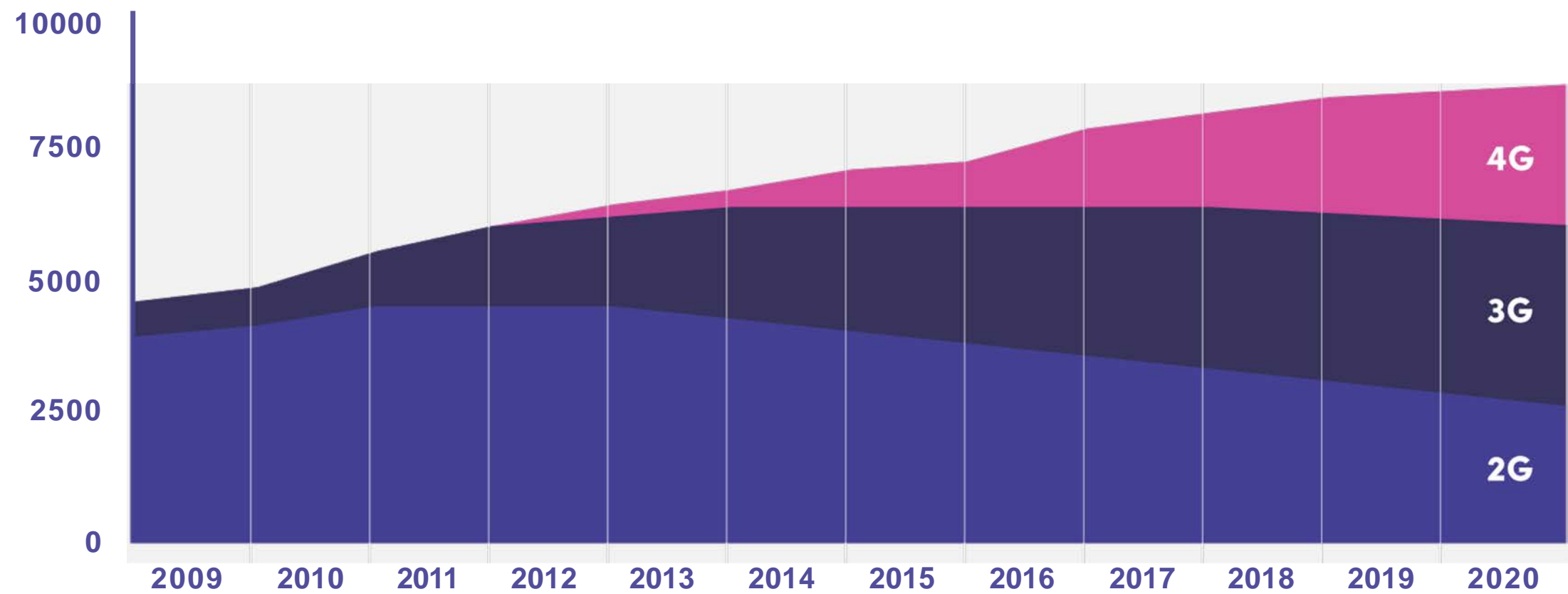
**By 2025, private car  
ownership will  
all but end in  
major U.S. cities**





# THE WIRELESS MARKET

Global connections by technology (millions)



Source: GSMA Intelligence

# What Policies Will Help Ensure This Future?



Pricing

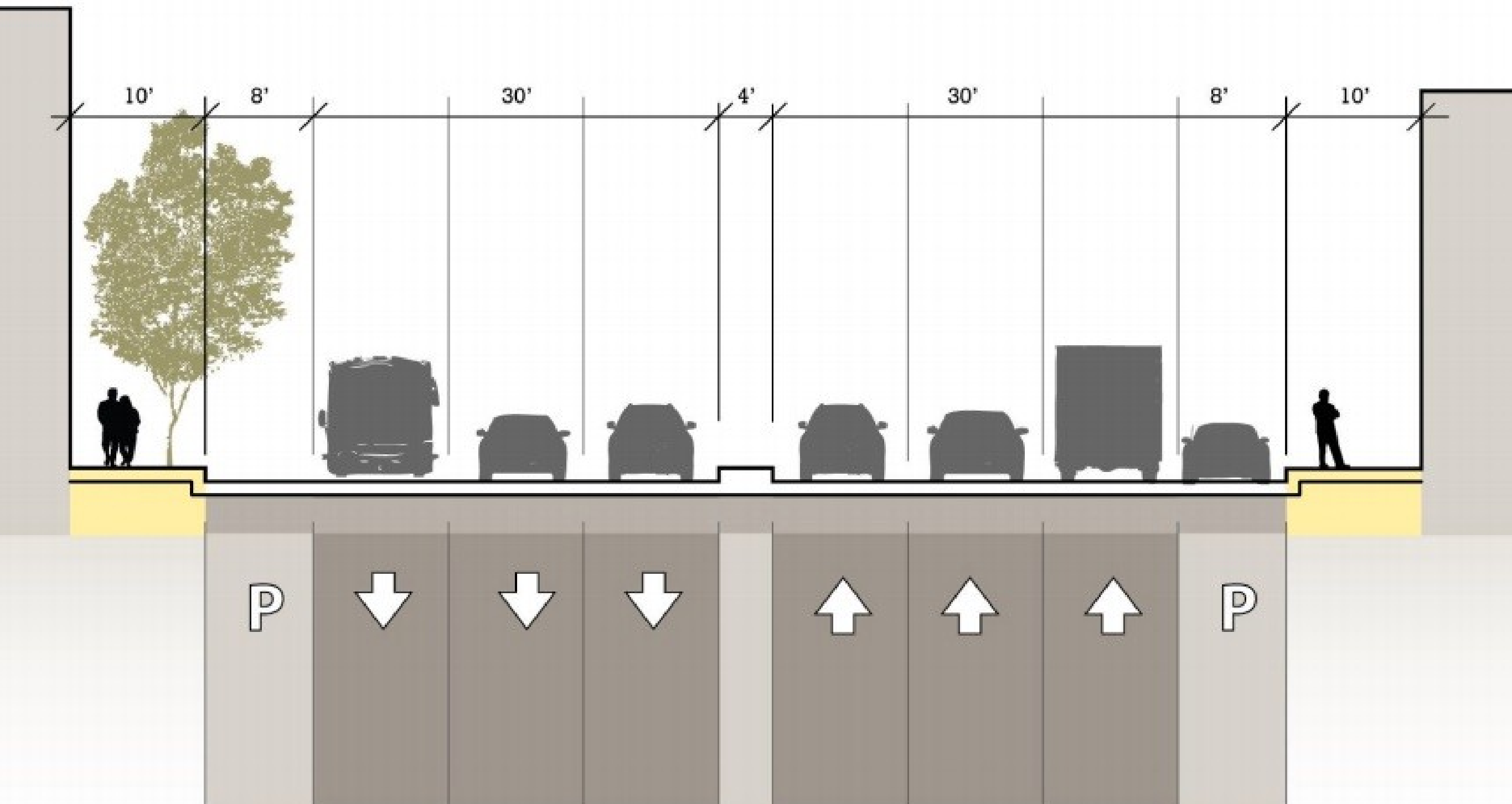
Land Use

Uniform AV  
Rules

SIDEWALK

ROADWAY

SIDEWALK





SIDEWALK

GREEN SPACE

BIKE/ROAD

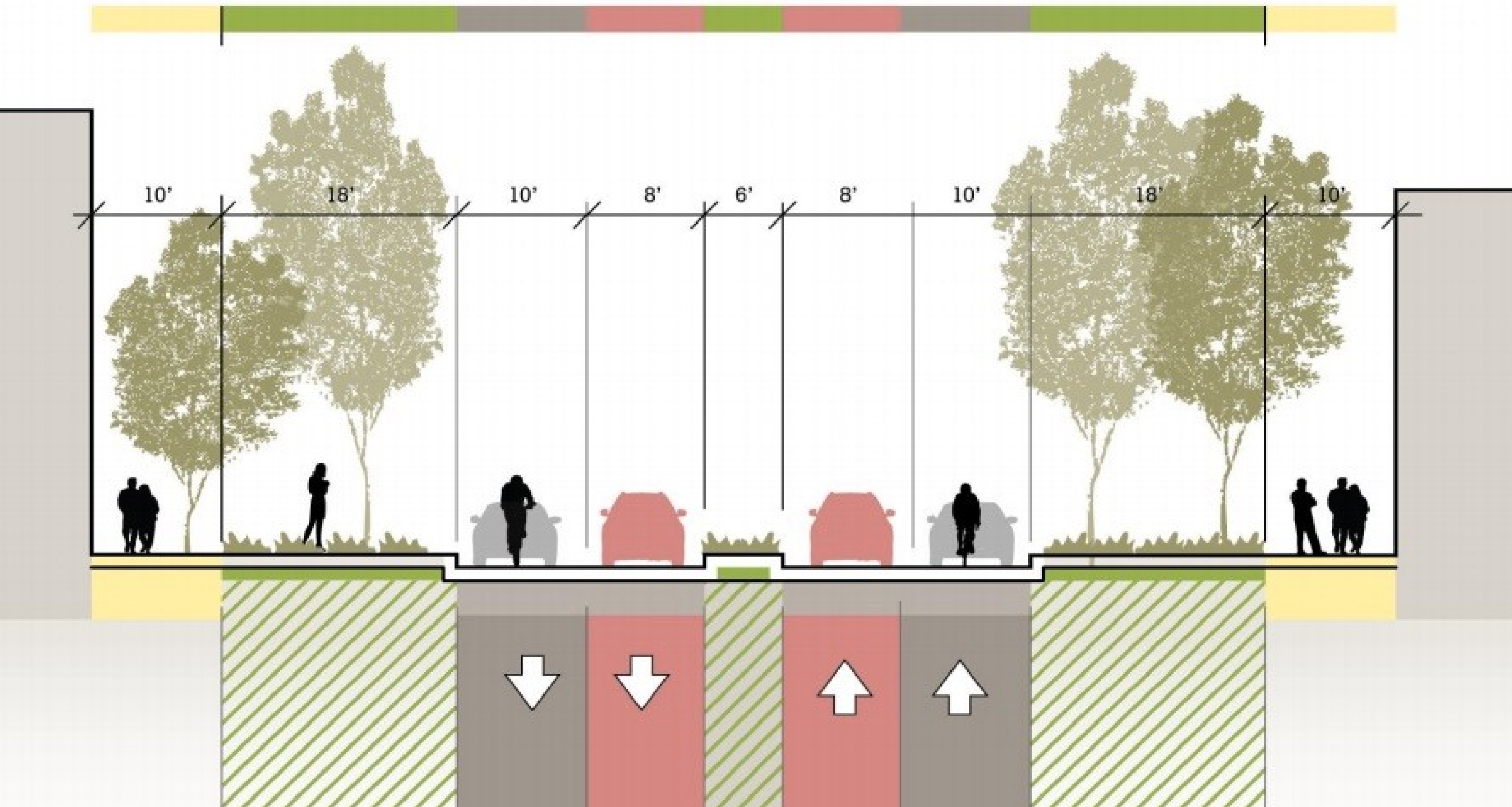
REDCAR

REDCAR

BIKE/ROAD

GREENSPACE

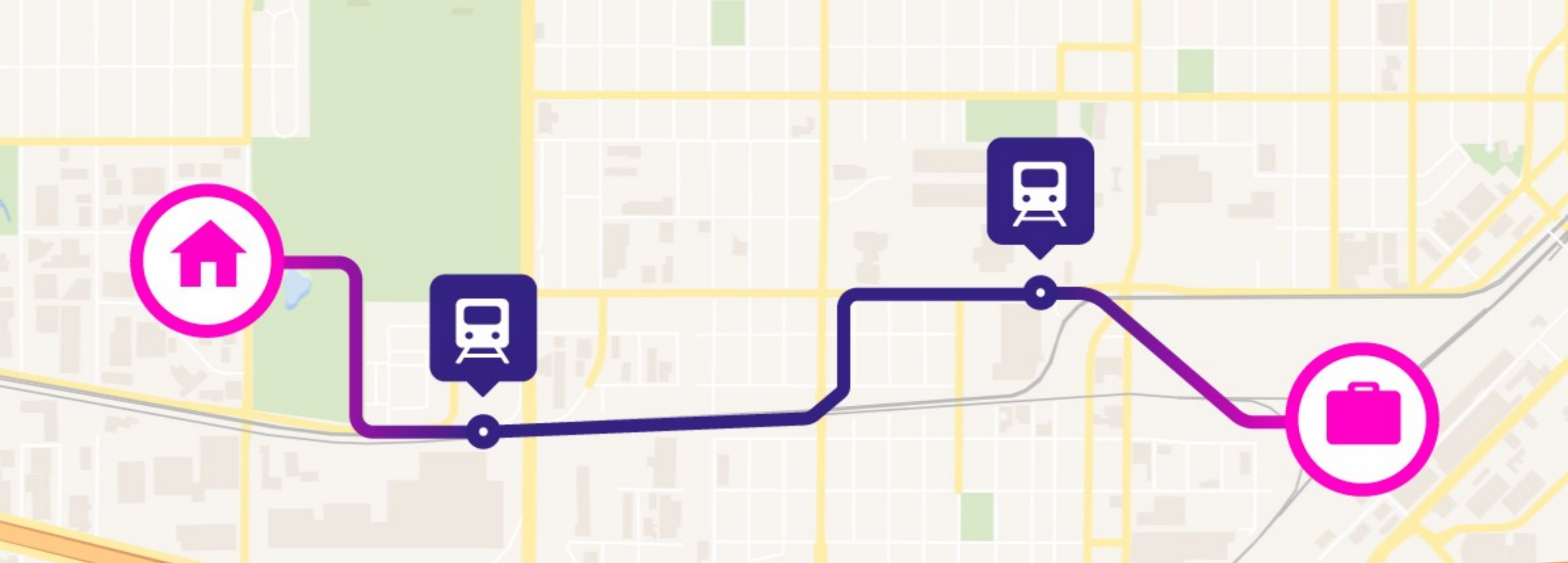
SIDEWALK



EXPRESS LANES			
10 WEST		15 NORTH	
0 AIRPORT	\$0.50	ARROW RTE	\$0.50
SR-83	\$0.60	US-395	\$0.90
SR-57	\$0.90	SR-18 E	\$1.80
HOV 2+ NO TOLL			

**Lanes priced to manage  
demand and occupancy**





# Transforming **Transit** for Suburbia



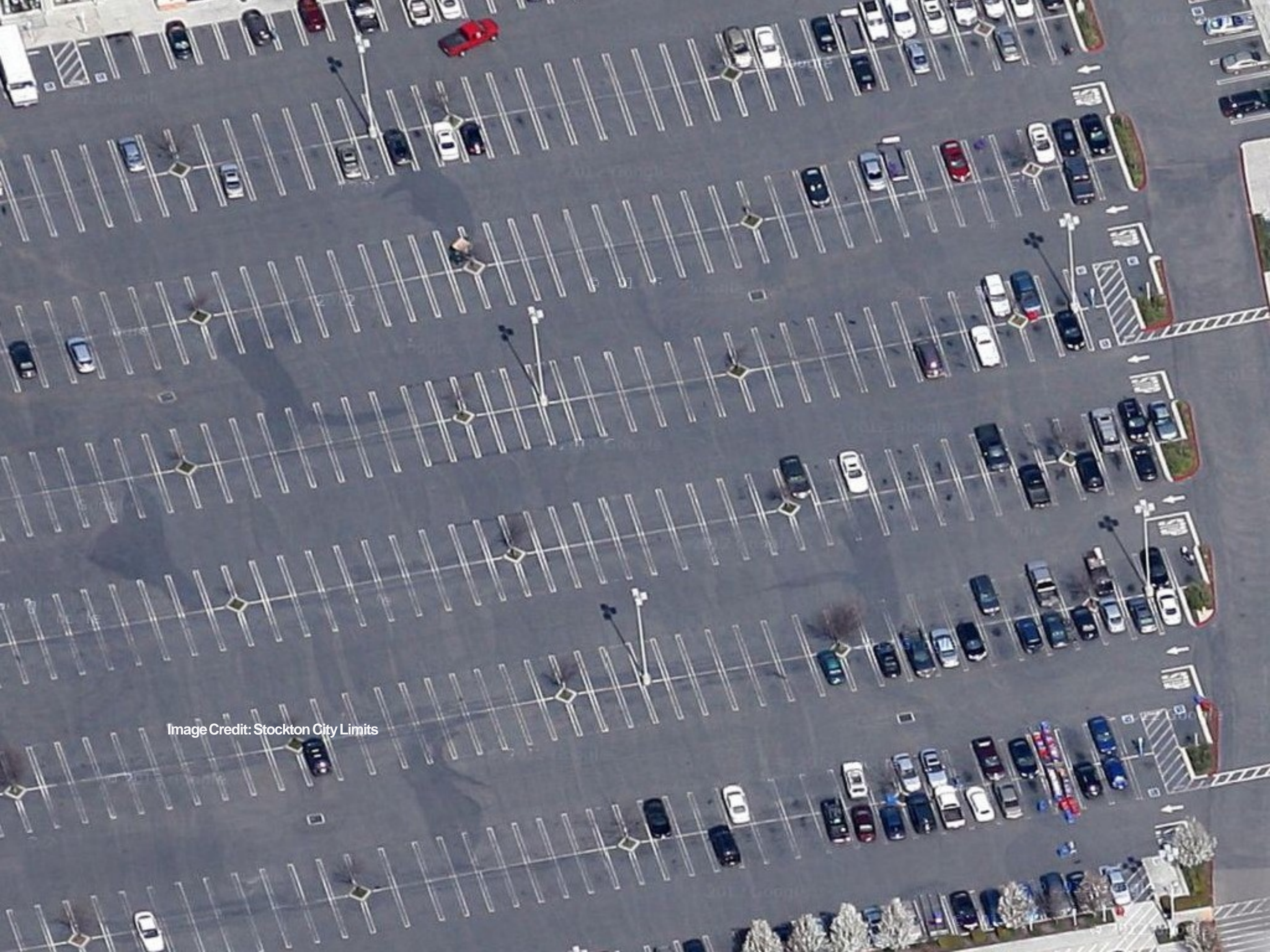


Image Credit: Stockton City Limits





**Reduce vehicle  
emissions by  
>90 percent.**

Jeffery Greenblatt and Samveg Saxena, Lawrence Berkeley National Laboratory,  
"Autonomous taxis could greatly reduce greenhouse-gas emissions of US light-duty vehicles." *Nature Climate Change*, 2015.



# Sustainable communities re-designed for people





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