Applying a Hybrid Network Approach to Deployment of Self-Driving Mobility Services

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Henry Ford begins Model-T production

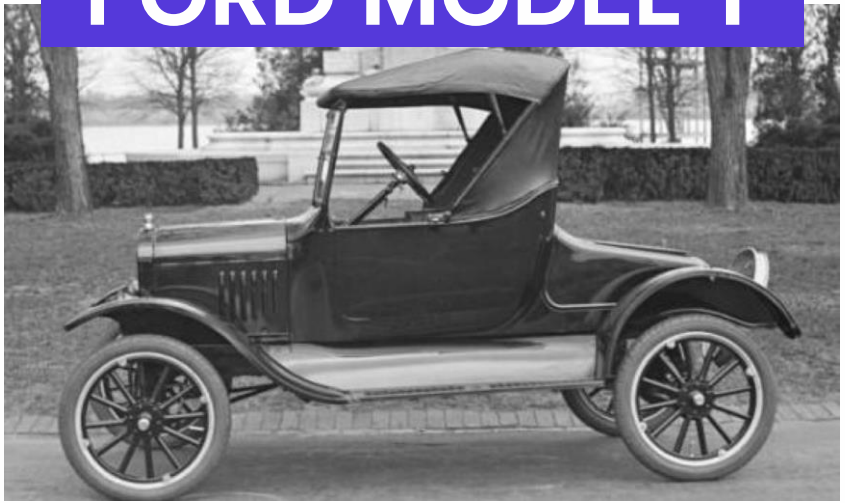
15 millionth Model-T produced

Price comparability by 1927:

Same price ($250) for 6x speed and range

HORSE & BUGGY

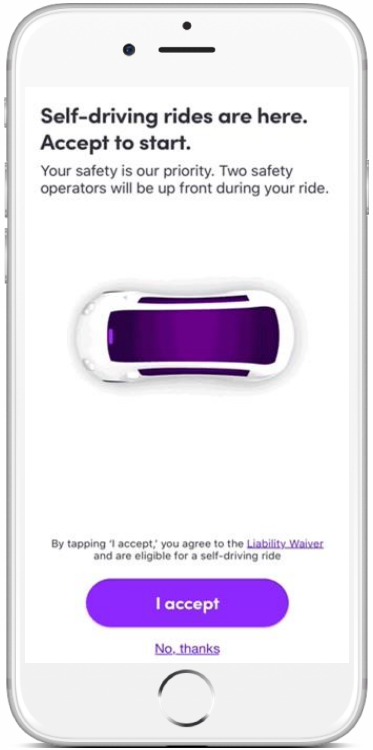
FORD MODEL T



CHALLENGES FACING DEPLOYMENT

BUILDING A HYBRID NETWORK

Consumers are excited about AV

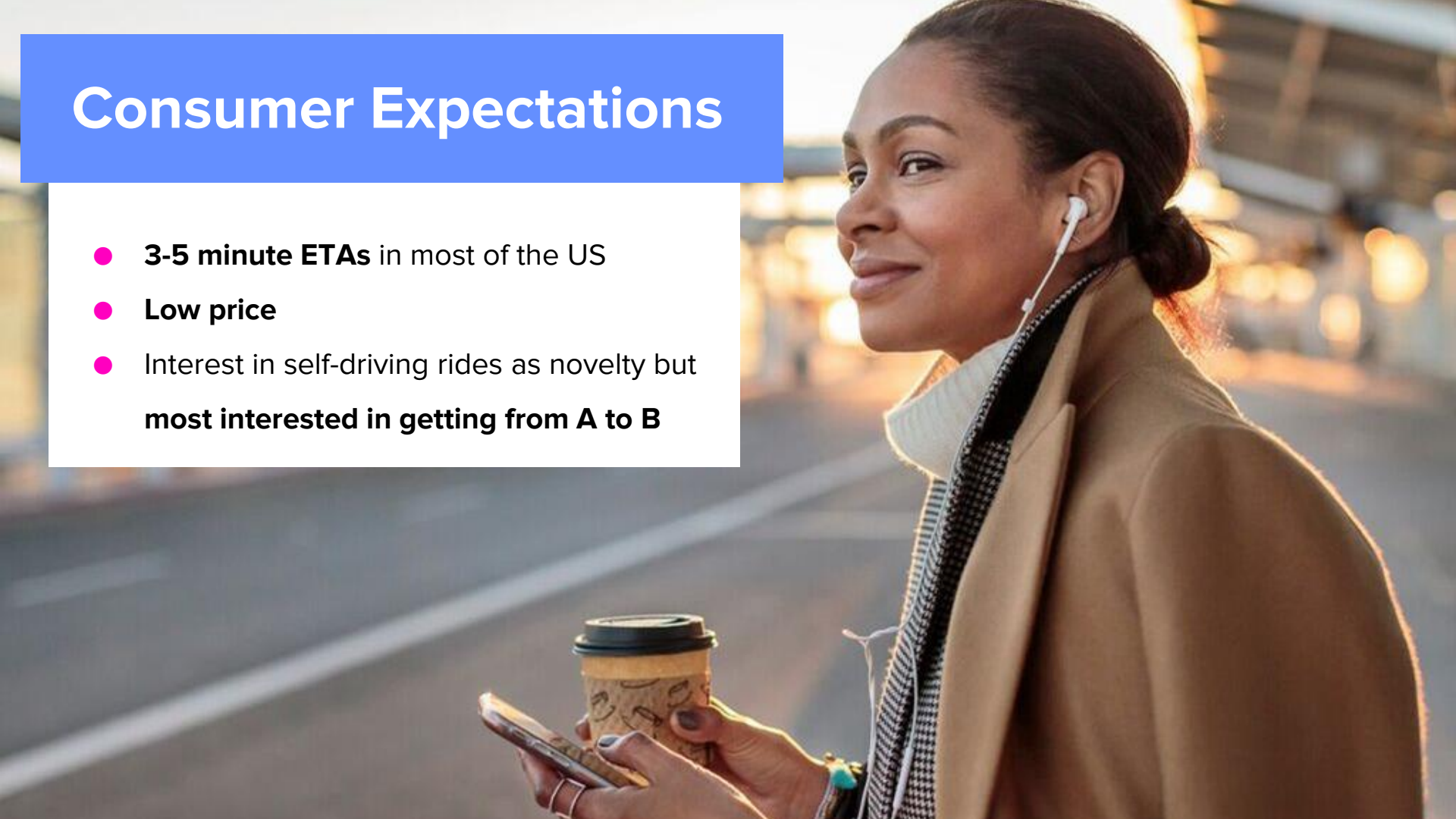


But operational challenges are significant

1. Expensive to build
2. Can’t go a lot of places
3. Can’t drive fast
4. Dead miles kill economics

Consumer Expectations

- **3-5 minute ETAs** in most of the US
- **Low price**
- Interest in self-driving rides as novelty but **most interested in getting from A to B**



What will a successful AV deployment look like?

A Hybrid Network...

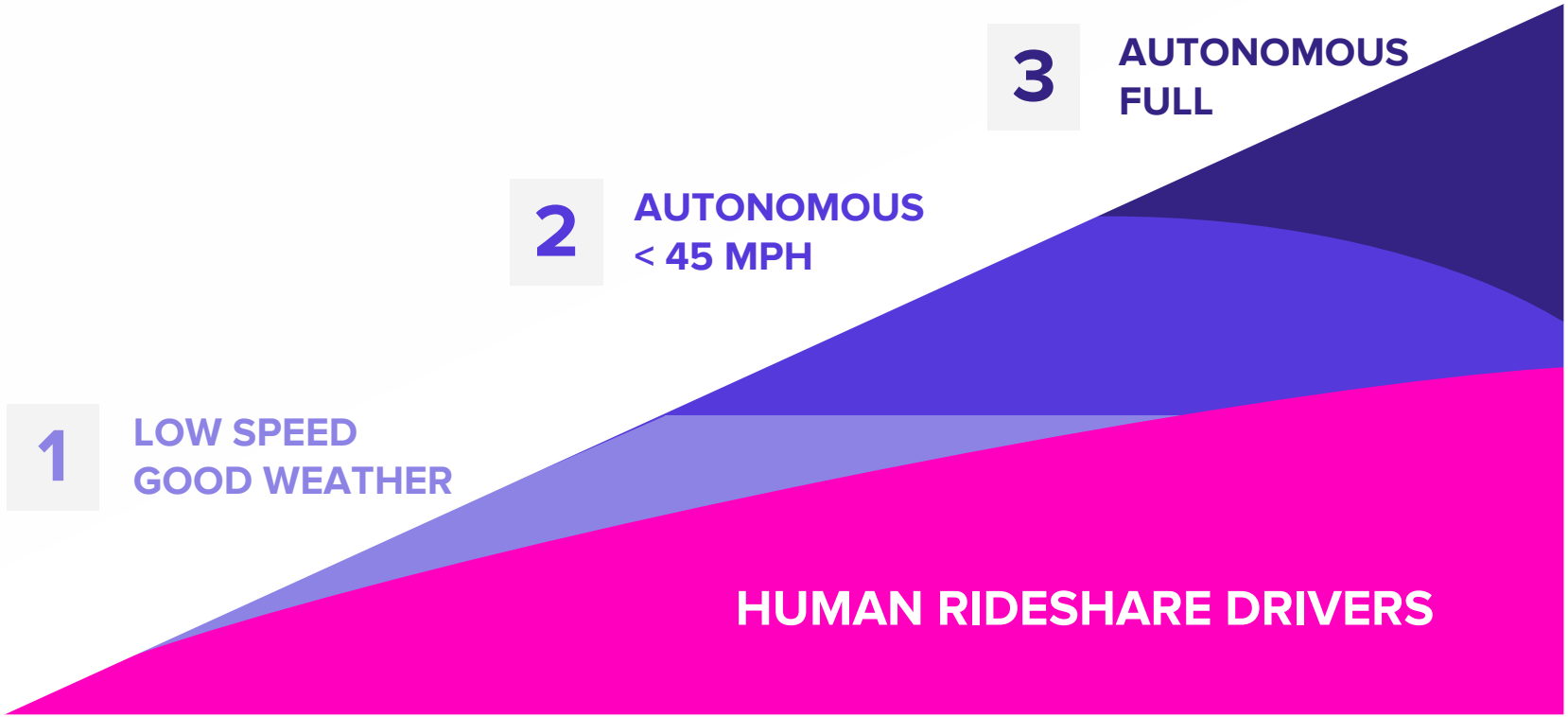
HUMAN DRIVERS

TODAY

HUMAN + SELF-DRIVING

NEXT 10 YEARS

...with incremental deployment



Keys to effective deployment

1

Know WHERE to drive

2

Keep COSTS LOW

3

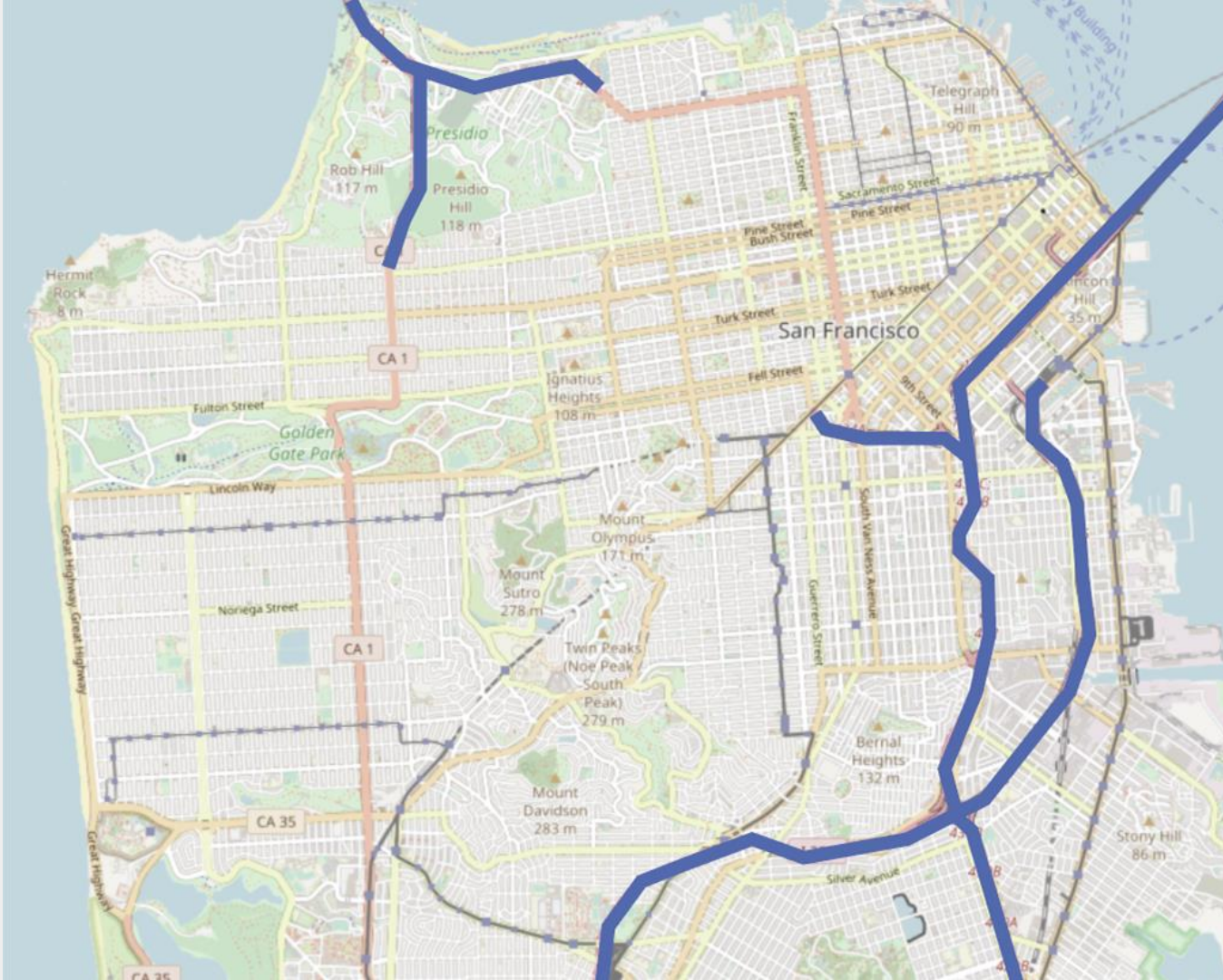
FILL UP the cars

1 Where to drive: know the best routes

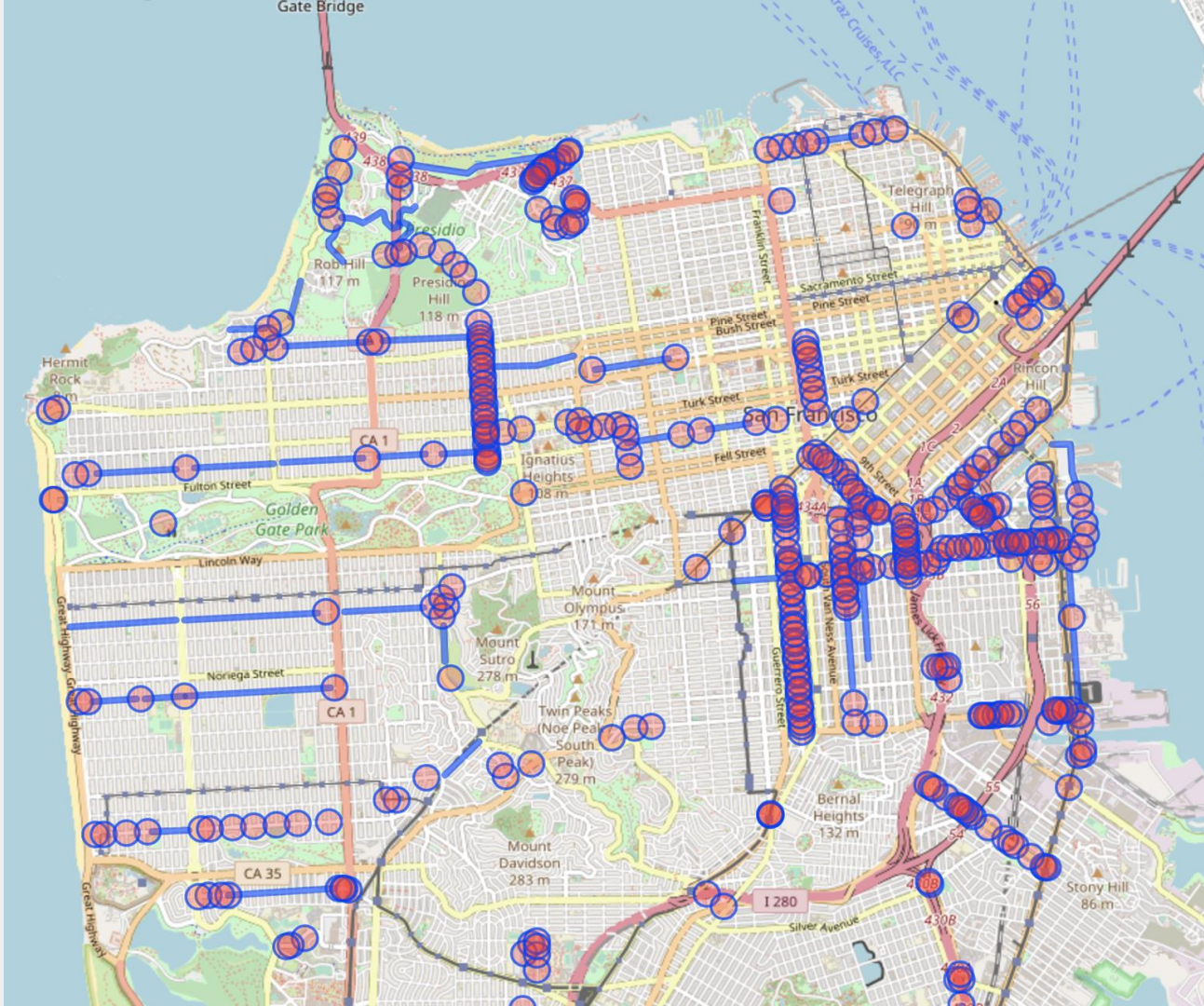
Lower speeds, limit complex situations & traffic restrictions

- Speeds <= 35 MPH
- Avoid difficult intersections
- No bike lanes
- Well-marked roads
- Easy pick-up and drop-off

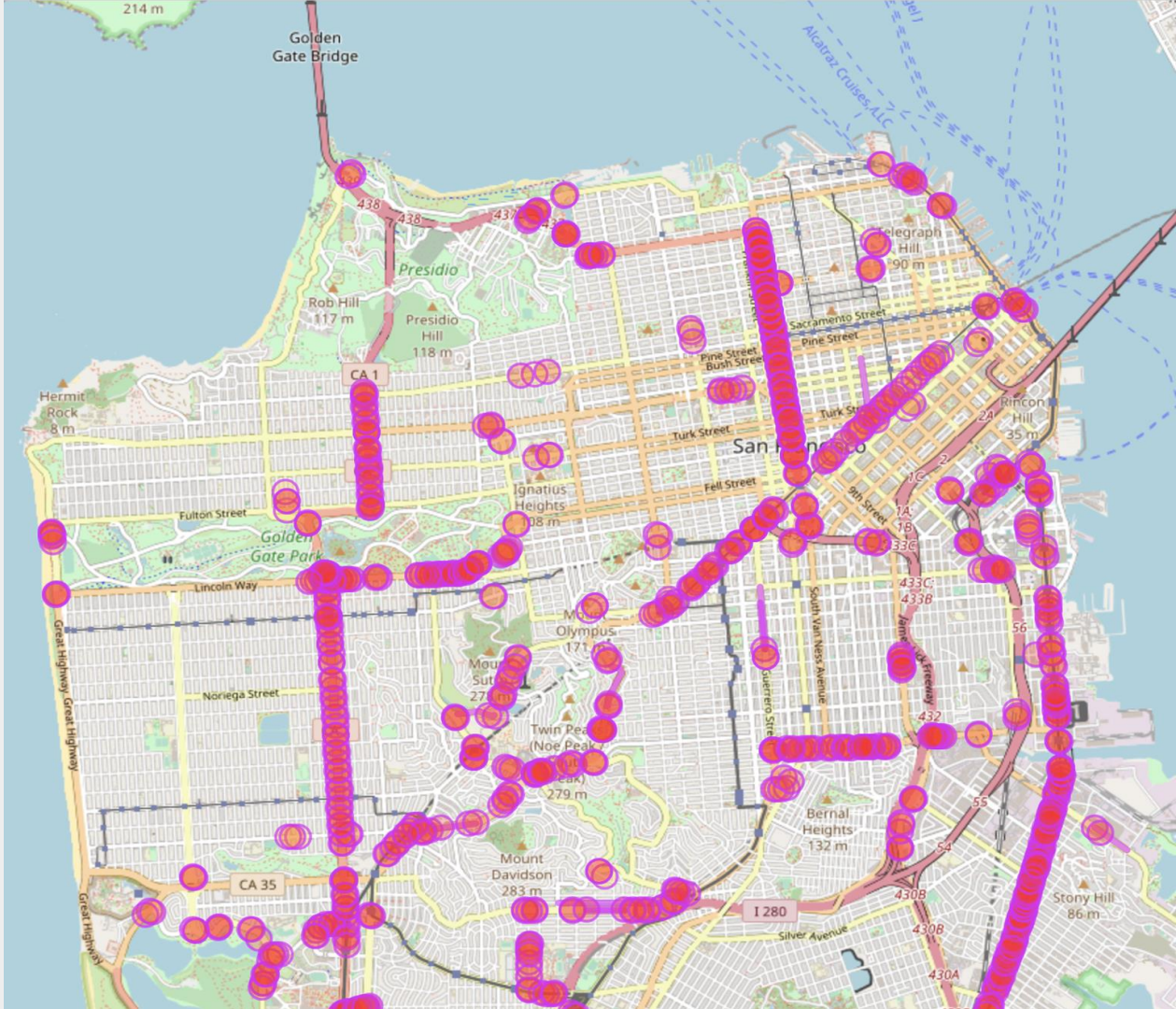
Remove Highways



Remove Bike Lanes

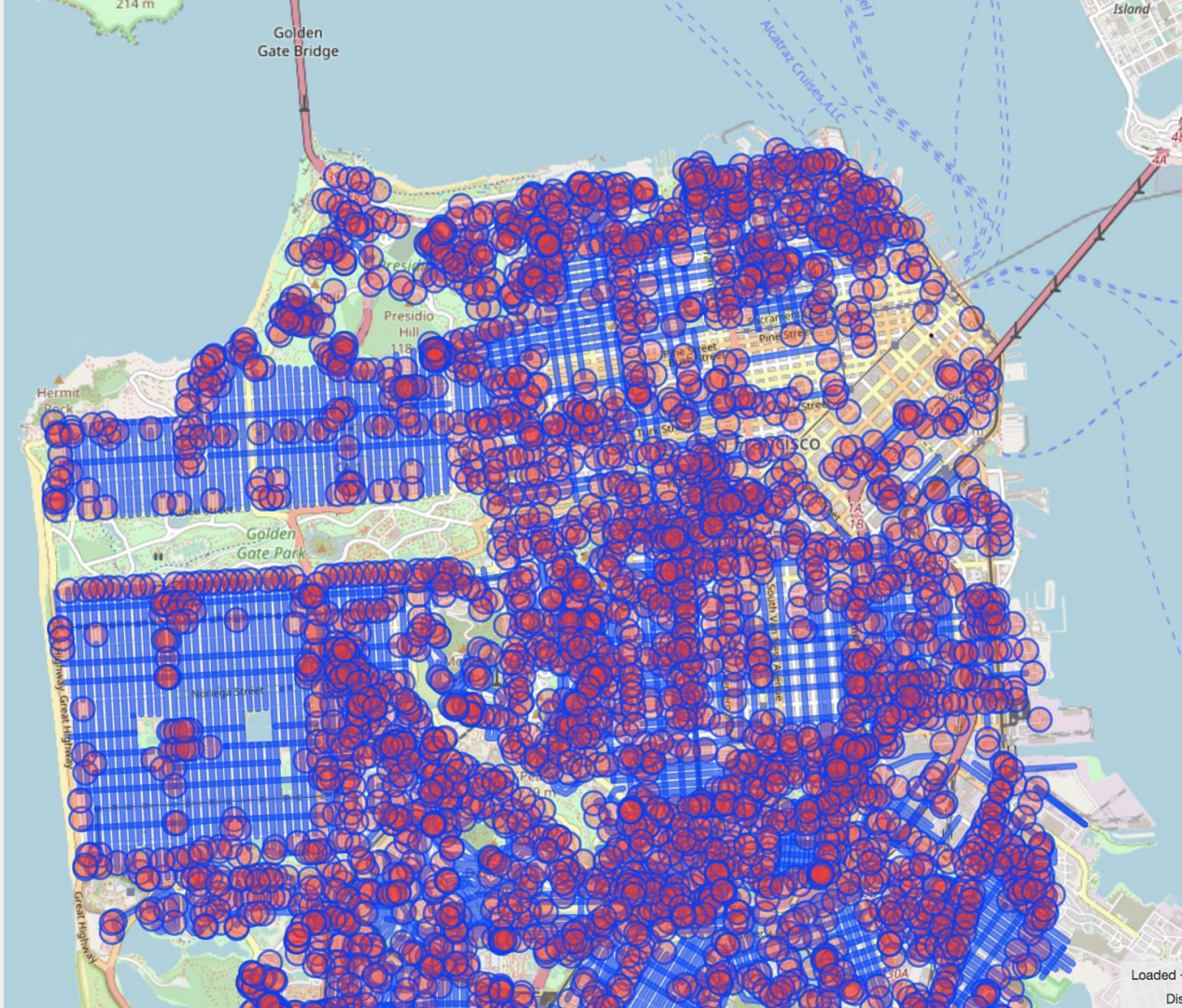


Remove Difficult Intersections

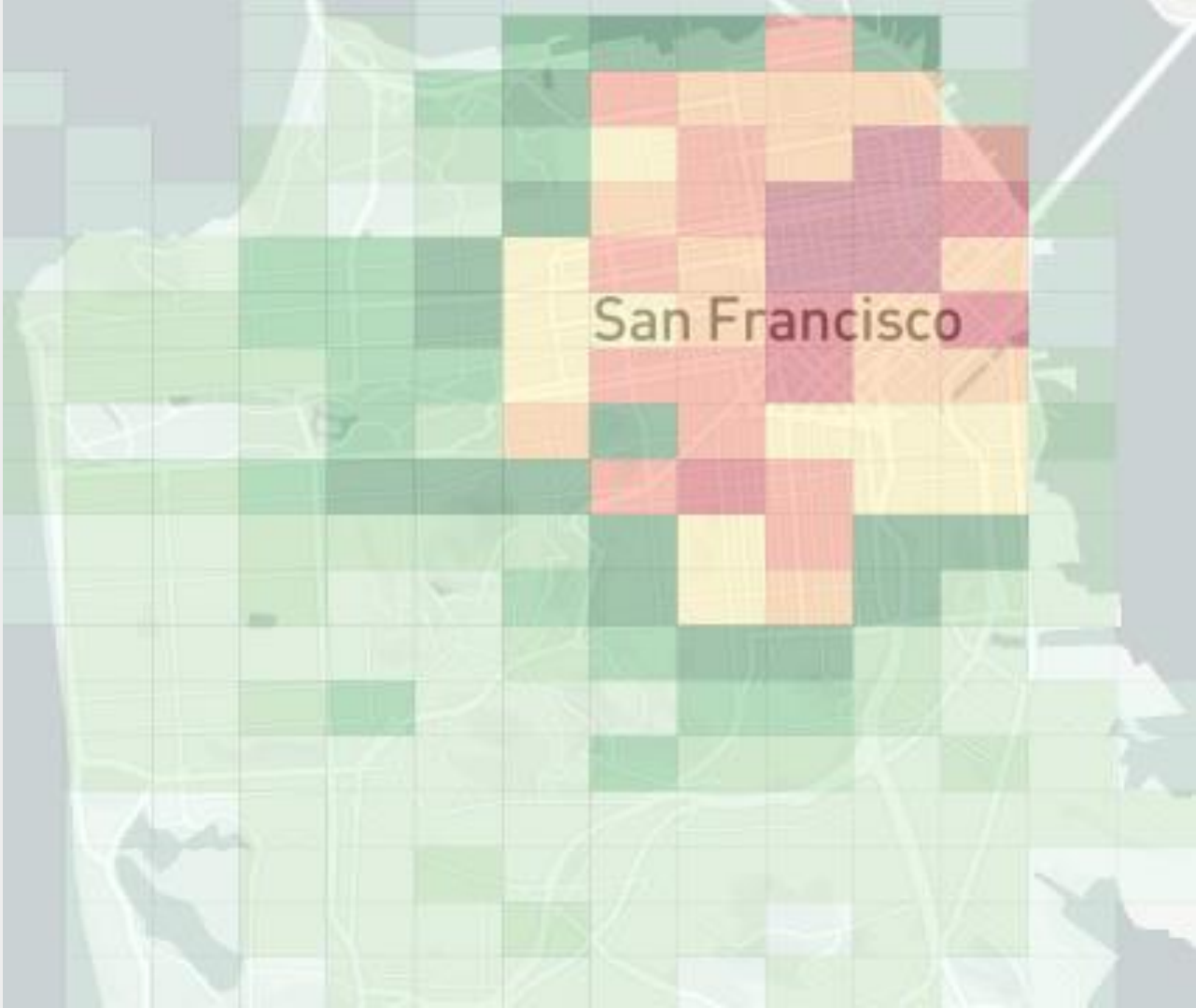


Remaining Routes:

“AV Eligible”

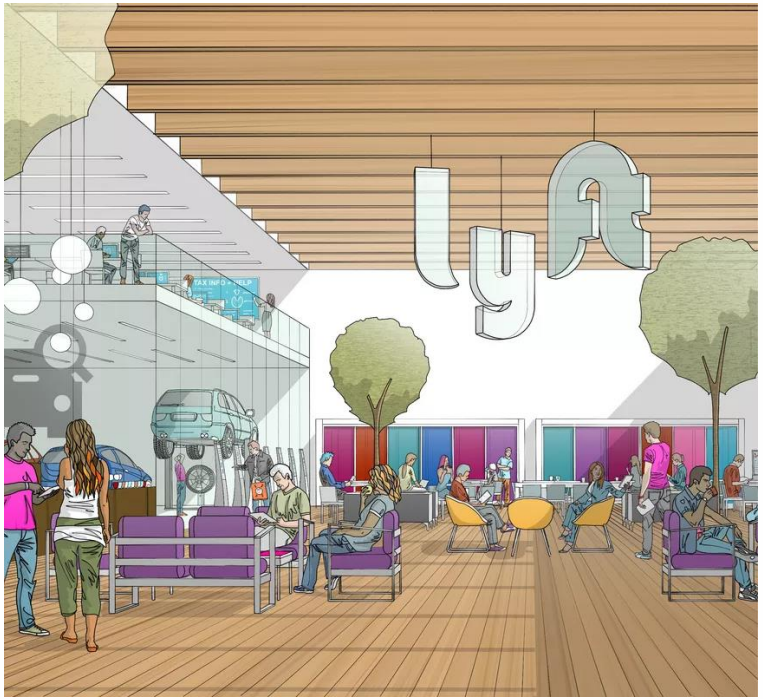


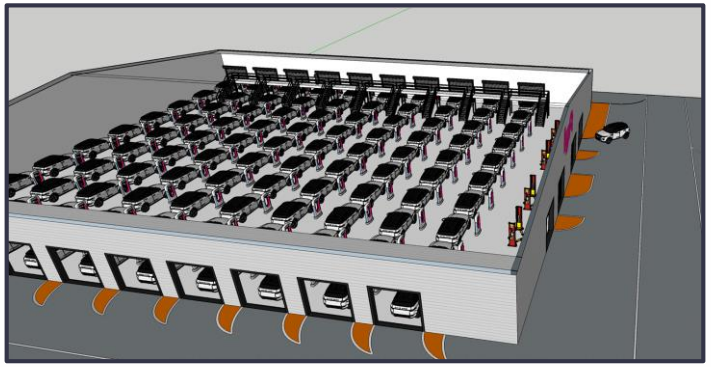
Overlay: AV Eligible Demand

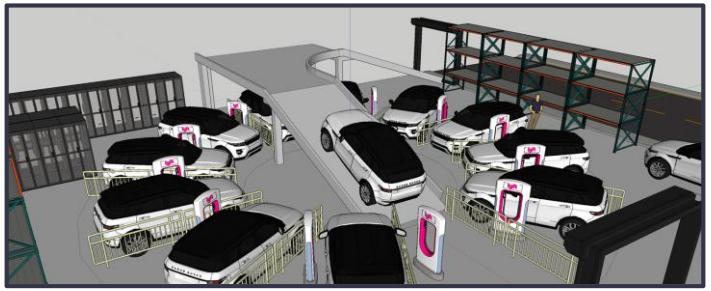


2 Low-cost operations

Driver Service Centers for maintenance, cleaning, parking, & charging





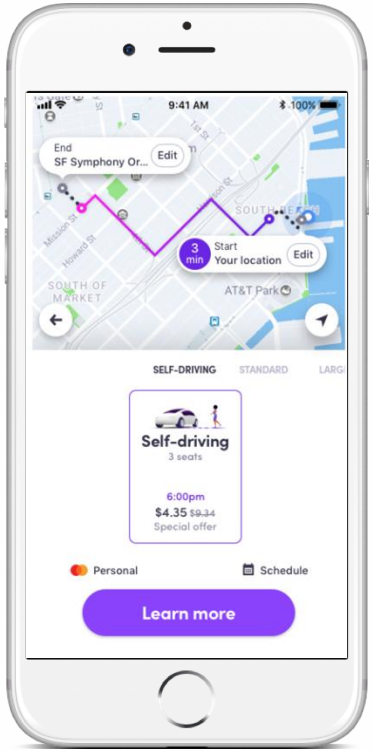


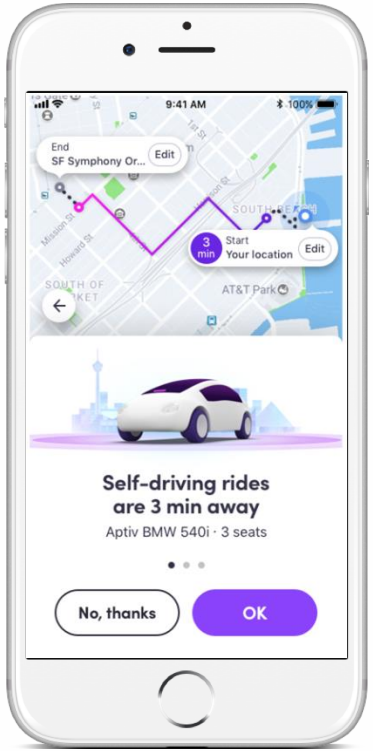
3 Shared Rides

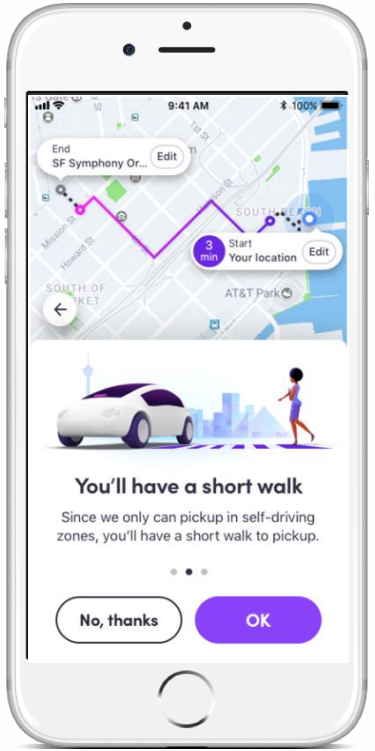
Filling the cars up is essential for cost and congestion

Shared is 35% of Lyft rides in major markets

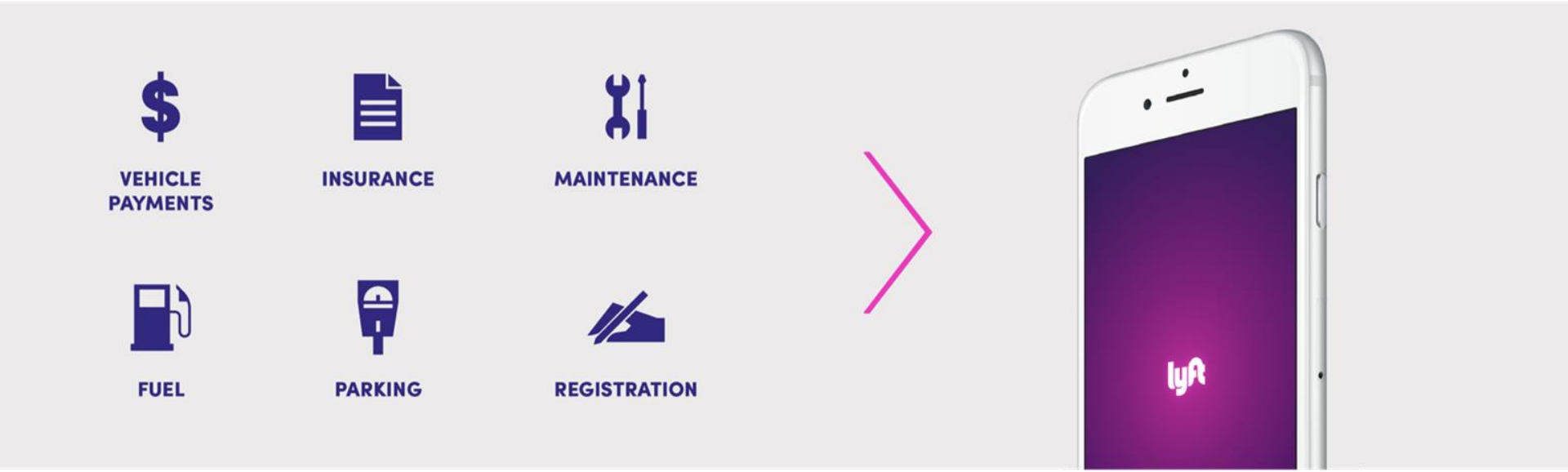
3 Building Shared into AV from day one







Endgame: Subscription Service



$9,000 Annual Cost Per Vehicle

Multi-modal subscription that gets you where you need to go

New possibilities for cities

lyft