



# Managing Demand for the Curb City of Boston

Thursday February 11, 2021

# Increased Demand for the Curb

## Growth of TNCs

The number of TNC trips continues to grow year after year - 2017 - **34.9M**; 2018 - **42.2M**; 2019 - **50M+**?

## Explosion of On Demand Delivery

Deliveries of **online purchases** in Boston's metro region **surged by more than 90 percent** from 2010 to 2018; From 2017-2018 sales of **food delivery** companies **grew more than 60%**; **1.6 million online purchases** delivered in boston metro area every day

## More People More Stuff

The population of Boston has **grown 18%** since 2010. This means more demand for everything from goods, to parking, to livable space

## Challenge of Enforcement

**One commercial loading zone type**; difficulty enforcing time limited regulations, metering is easiest; ticketing is not always a deterrent.

# Identifying Short-Term and Commercial Curb Demand



**Parcel delivery**

**UPS, Fedex, DHL, Amazon:** quick delivery, close to destination, or multiple deliveries in dense areas

**On-Demand Services**

**Postmates, GrubHub, Uber Eats, Caviar, Amazon Flex, Roadie, Instacart, Amazon Fresh** - Demand from pick-up AND delivery

**Food & Bev Resupply**

**AB InBev, Coca Cola, Perrier, Martignetti, Sysco, Dunkin, CVS:** large trucks, longer dwell times, traditional users of loading zones

**Passenger PU/DO**

**Uber, Lyft:** short stops, stopping any available space, deadheading

**Contractors and Trades**

**Contractors:** overstaying in commercial loading zones, using zones as a parking space, ticketing not a deterrent

**Private Vehicles**

Can mimic behavior from any of the above

# Multimodal Priorities are Changing Curb Accss



# Temporary Covid Response Programs Becoming Permanent



# Commercial Curb Demand

**Fixed demand for curb use:** Transportation demand management tools do not translate entirely over to commercial demand. Commercial traffic is in some extent pre-determined by consumption choices, driven higher by an on-demand culture and e-commerce.

**Highly localized access needs:** Delivery drivers and companies prioritize highly localized, proximate access to the destination. This relates to the value of reducing time per delivery as much as possible, in order to enable the least amount of operational time and most number of successful deliveries.



**Enforcement is a big challenge:** Due to the time-sensitive need for proximate access, parking violations are a common occurrence. Enforcement is complicated by the fact that drivers do not pay the tickets they incur - those enrolled in the City of Boston's Fleet Program are billed the total of their violations monthly, or the cost of the fines are passed on through the cost of service.



# Commercial Vehicle Curb Regulations



**Enforcement is complicated by a variety of curb rules and fines, some of which may encourage behavior such as double parking, a lower cost fine.**

*Commercial Vehicles stopped temporarily during the actual loading or unloading of materials, or conducting business in the area, can:*

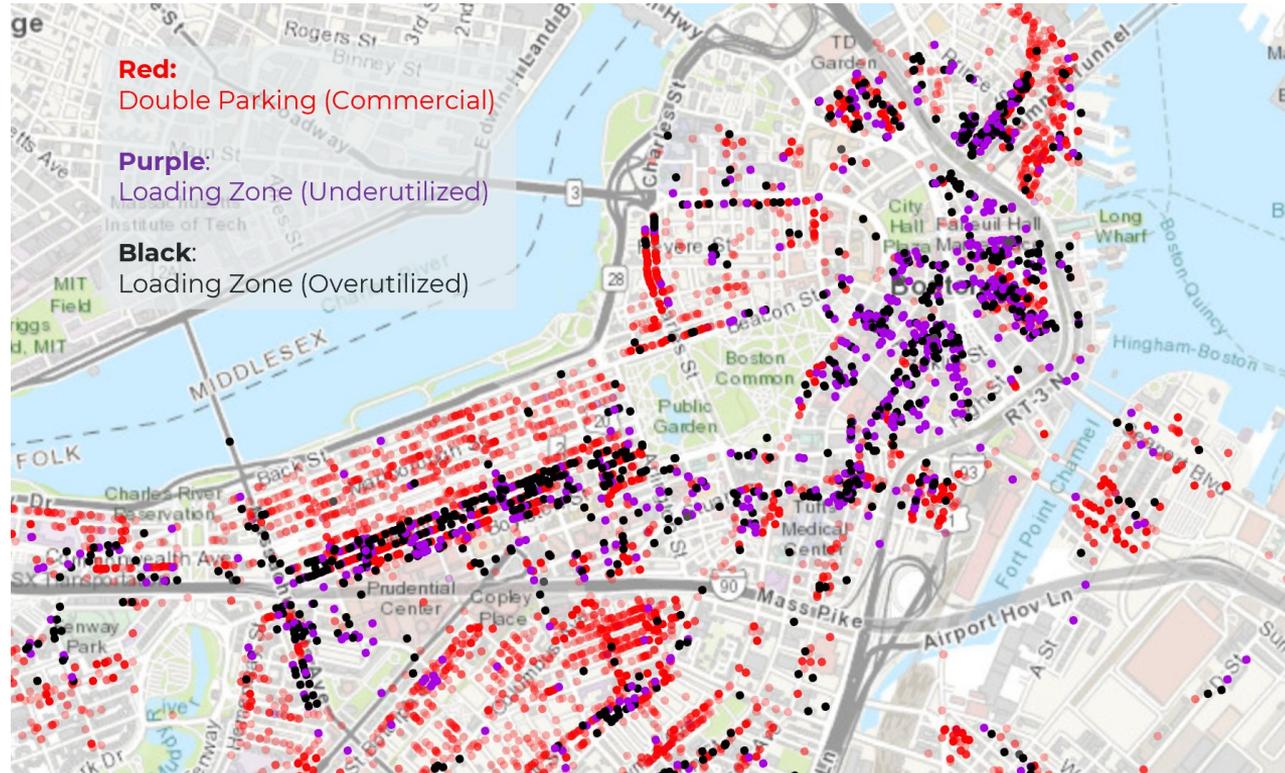
- *Park in a loading zone for 1 hour, unless otherwise posted*
- *Park in a residential permit parking zone for 3 hours*
- *Park in restricted curbs for 1 hour*
- *Park at a meter for up to 3 hours, regardless of meter timing, so long as fee is paid*
- *Park at a meter that is broken for up to 1 hour*

<b>Violation</b>	<b>Fine</b>
Stop in Bus/Bike Lane	\$100
Beyond Loading Zone Time Limit	\$90
No Stopping	\$90
No Parking	\$55 - \$90
Double Parking	\$35 - \$55
Unpaid or beyond meter time limit	\$40

**In 2019 the City issued more than 1 million tickets bringing in \$61 million**

# Visualizing Ticket Data

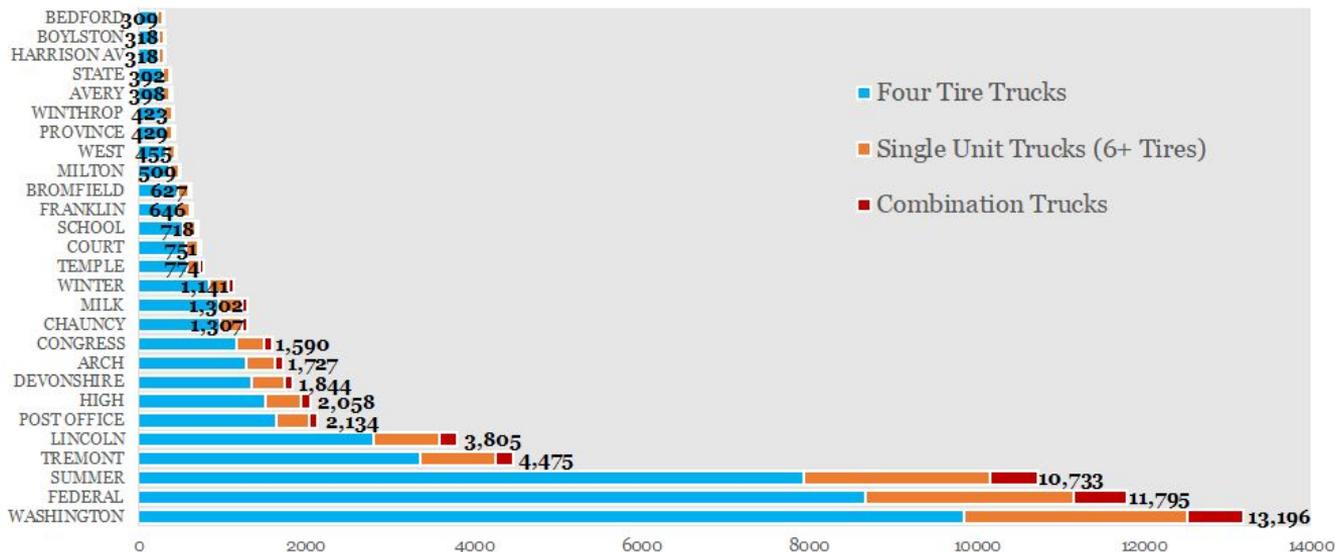
Ticket data tells us many parts of the city lack in commercial delivery space, while others may be overserved. This tracks with the change in commercial delivery types. The red are residential areas, seeing more parcel, food, and other deliveries; while the purple and black are more traditional business districts.



# Right Sizing Vehicles

Most deliveries are made by smaller four tire trucks. E-cargo bikes and other small e-vehicles could potentially replace these trips, while larger vehicles could be replaced with distribution hubs in dark storefronts, or staging points, where goods could be distributed by smaller vehicles. Our city streets are not made to accommodate large trucks and they shouldn't be making deliveries in our most congested areas.

Estimated Truck Trips by Street, Downtown BID



In the summer of 2020 we released an RFI and received 13 responses. We are using this information to inform a pilot program for e-cargo bike delivery, to launch sometime in mid- to late-2021.

## RFI: E-CARGO BIKE DELIVERY SOLUTIONS



	E-BIKE MANUFACTURER	OUTREACH	DATA MANAGEMENT	CYCLE LOGISTICS	POLICY SUPPORT	PILOT/ PLANNING
CAELI			●			
COASTER CYCLES	●					
ELECTRIC AVENUE		●	●	●	●	●
HOPR		●	●	●	●	●
IQSPACIAL AND SAM STARR		●	●	●	●	●
LOENDERSLOOT		●		●	●	●
LOGICITIES				●		
NELSON/NYGAARD		●	●	●	●	●
PEDDLESMART	●	●				
POPULUS		●	●			●
SomEV				●		
SARIS		●				●
YUBA CARGO E-BIKES	●	●				

# E-Cargo Bike Pilot Program

## Potential Pilot Approaches

- Creating tactical dedicated loading zones.
- Partnering with a provider that has a delivery facility in the urban core.
- Packages are loaded from a delivery van at a central location in the urban core, where it remains parked all day.
- Utilizing vacant retail locations which could work as mini-distribution centers.
- On-street bike corrals be offered to support e-cargo bikes.
- Private garages could be incentivized for charging and parking for e-cargo bikes.
- Parking on sidewalks during delivery sessions.
- Partnering with mainstreet organizations for local deliveries



# E-Cargo Bike Pilot Program

## DEPLOY & OPERATE A SHARED FLEET

- Targeted for food delivery and commercial customers, mainstreets
- E-bike, e-cargo trikes, and LDEVs
- Establish parking hubs
- Charge delivery and gig workers
- Available to general public for rent

## THE DETAILS

- Coordinate with a logistics broker
- Evaluate community-based refrigeration lockers, and possibly bikes with refrigeration
- Suggested policy examples:
  - Charging a surcharge for not using electric vehicles. Or a policy that requires delivery companies to do 35% of all intown delivery trips by e-cargo
  - Rebate for bike purchase



# Knox - The Cargo E-Trike Pilot Program

- E-Cargo Bike Pilot as part of the City of Boston's Fleethub Program, available for employees to use
- If we added a cargo electric-assist trike to the fleet, would employees want to use it instead of a car or truck?
- How would residents perceive the City's use of the cargo e-trike to reduce our emissions?



# Contact Information

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Resources:

[Recharge Boston](#)

[Knox - The Cargo E-Trike](#)

[RFI for E-Cargo Bikes](#)