



Strategies for Managing Freight in Urban Environments

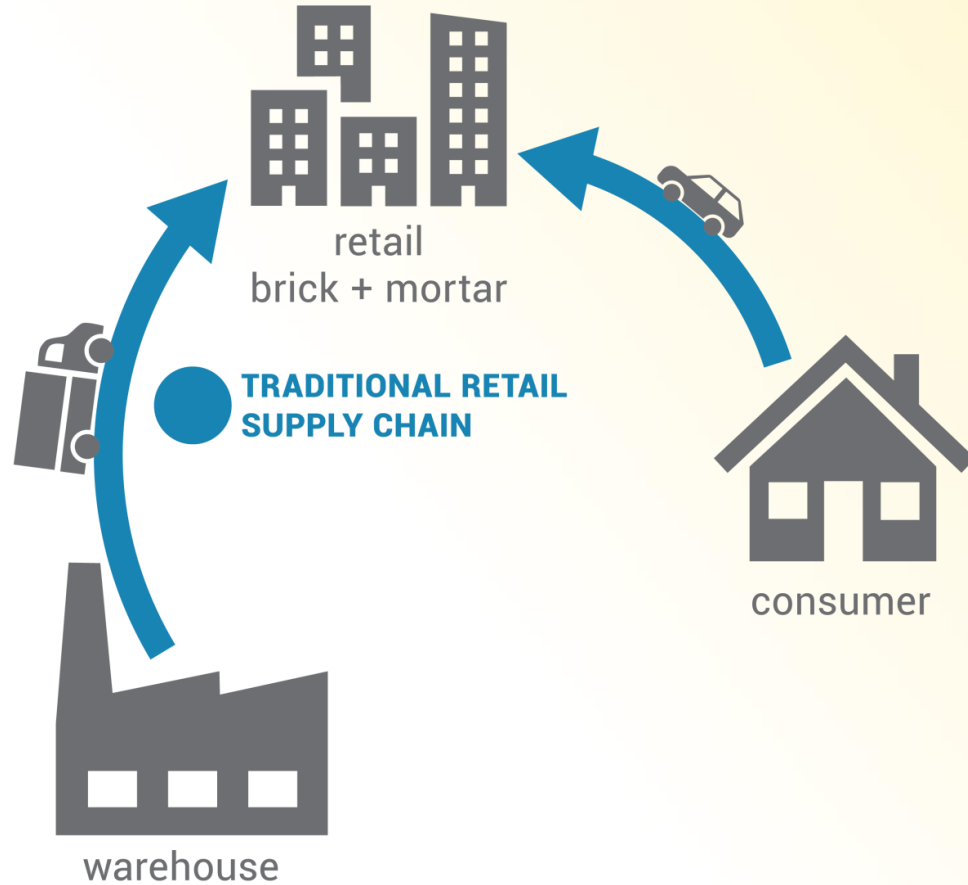
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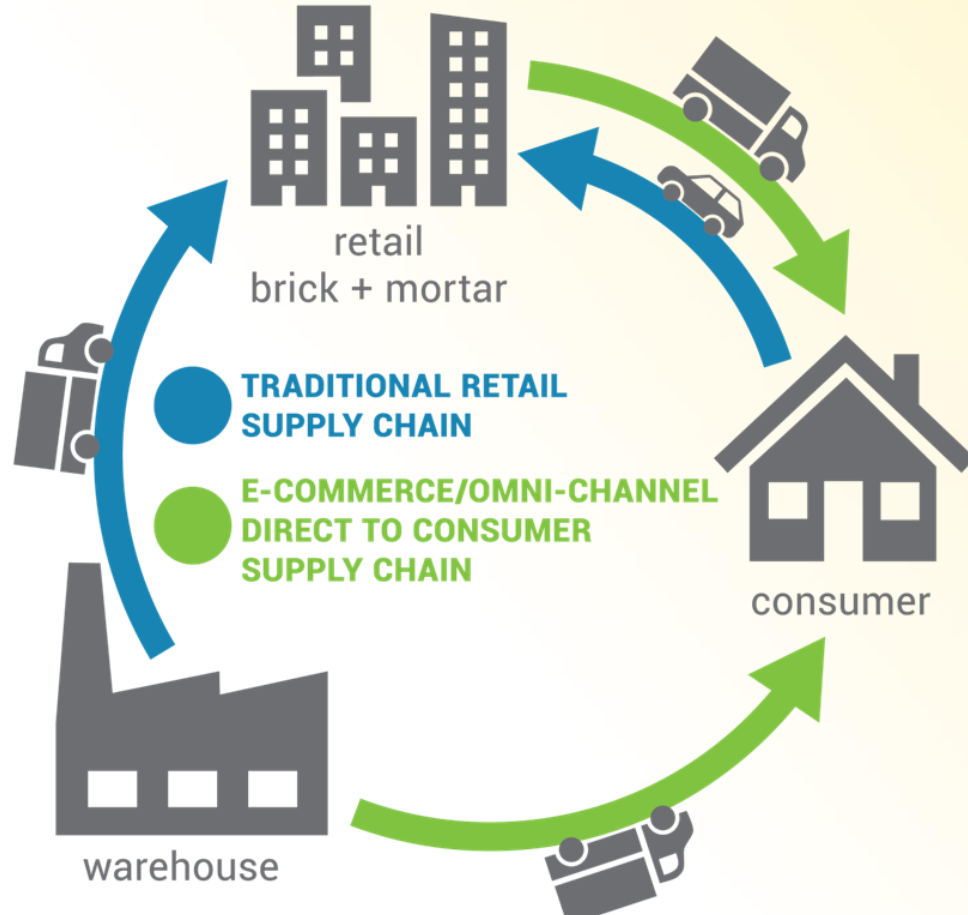


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Driving Forces – Consumer Habits



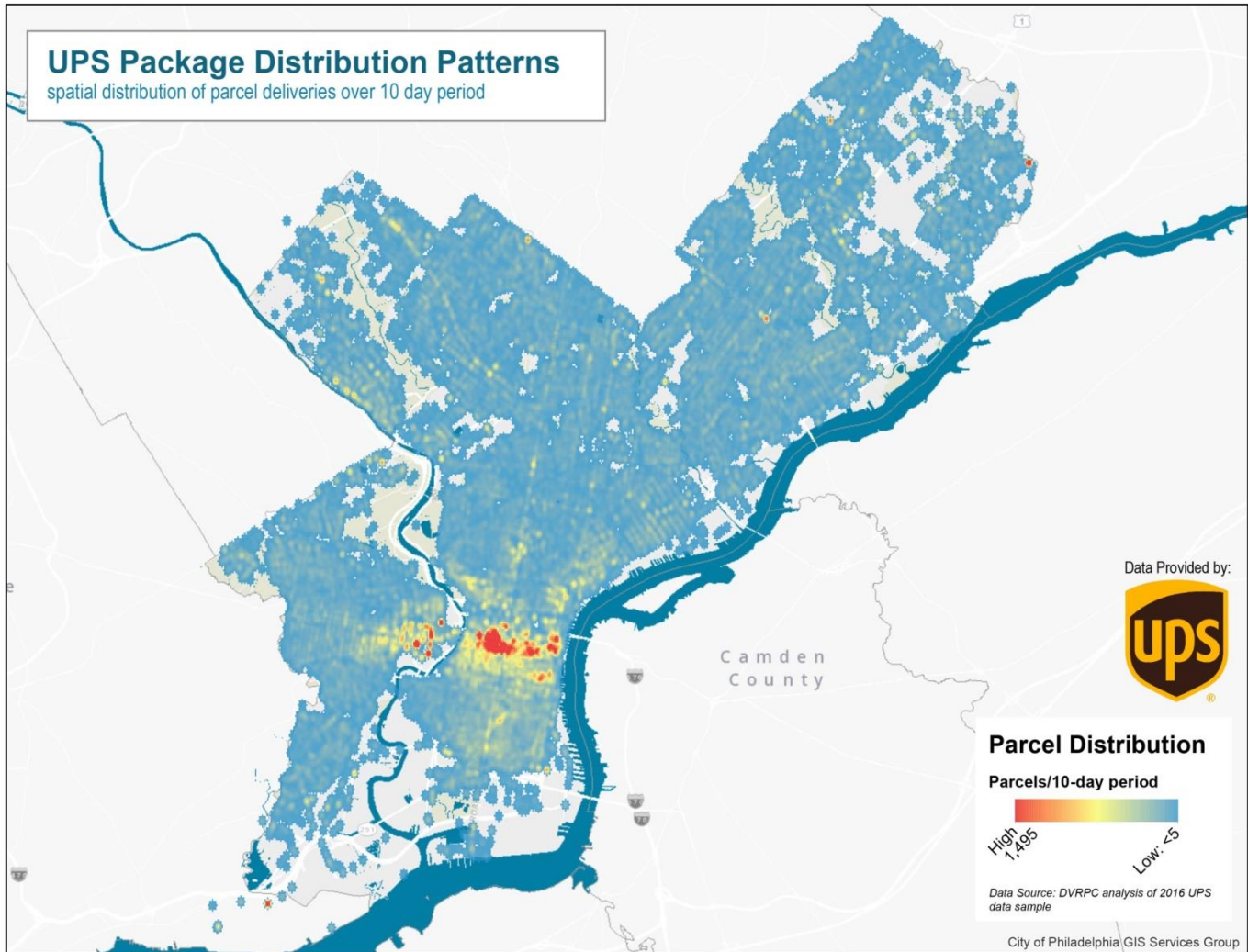
Driving Forces – Consumer Habits





UPS Package Distribution Patterns

spatial distribution of parcel deliveries over 10 day period



The rest of urban freight...

- Truckload and Less-than-truckload deliveries
 - Retail stores
 - Restaurants
 - Institutions
 - Manufacturing
 - Waste Removal

The urban freight landscape is a diverse group of independent industries and competitors supplying the goods that make livable communities possible.



What drives delivery decisions

Inventory procedures

Transaction types

Driver service restrictions

Congestion/construction delay

- \$23 billion in congestion costs



Cheese Steak Supply-chain

	Bread/Hoagie Rolls	RibeyeSteak (beef)	Yellow Spanish Onions	Cheese "Sauce"
Production Location	Delaware Valley	Midwest U.S. or International	New York, Northwest and Southwest U.S.	Midwest U.S.
Packaging Format	20 fresh rolls per box	40 to 80 lb. frozen rolls per box	25 lbs. fresh, whole onions per box	Six 6.5 lb. bags/case
Final Mode of Delivery	Step van	Refrigerated straight truck	Refrigerated straight truck	Tractor-trailer
Frequency of Final Delivery	1-4 times/day	Weekly	Weekly	Every six months

Think Beyond Center City

MANAYUNK: A modest size downtown with mixed-use development requires high levels of freight delivery in order to support a livable street rich with small businesses. Downtowns must accommodate these deliveries to ensure a safe, friendly environment for residents, businesses, and patrons alike.



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Balancing Multiple Modes and Goals

Improve **visibility** + **availability** of freight data

Educate planners and the public

Develop better **data sharing** with public- and private-sectors

Encourage smart transportation systems

Inform transportation infrastructure investment

Benefits of Smart Goods Delivery System

Efficient Transportation System

Environmental

Energy Consumption

Quality of Life

Land Use

Economic Development

Urban Freight Work

Identified issues and trends

Featured best practices

Identified gaps on the public side

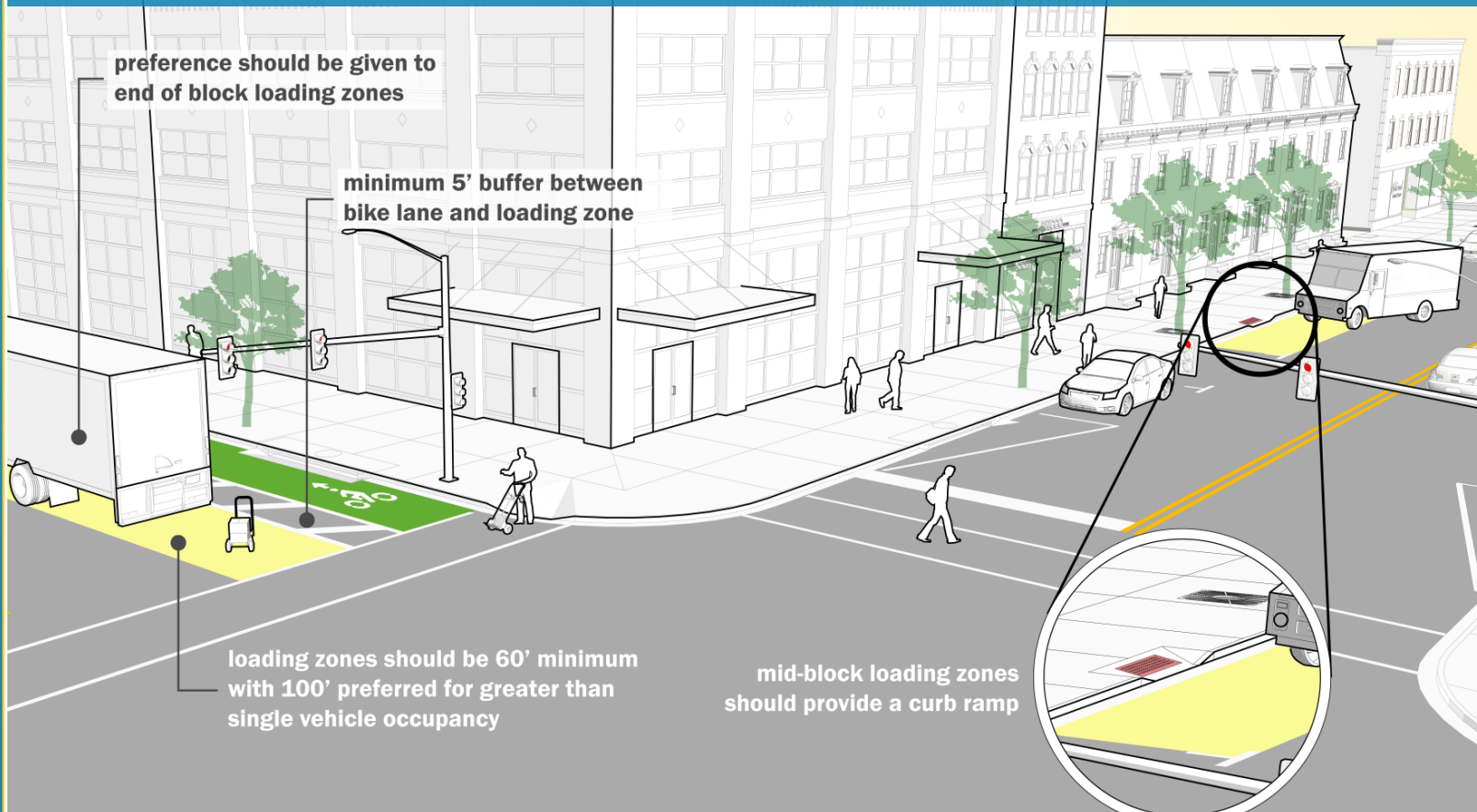
Foundation for future work



Best Practices for Philadelphia



#1 Opportunity: Curbside Management



Primary Considerations

Understand demand and capacity for loading

Balance limited right-of-way with increasing demands

Integrate freight needs with building requirements

Prepare for shifting land-use patterns

Limited right-of-way and resources mean doing more with what we have

Innovative Solutions

Provides data and information for policy decisions

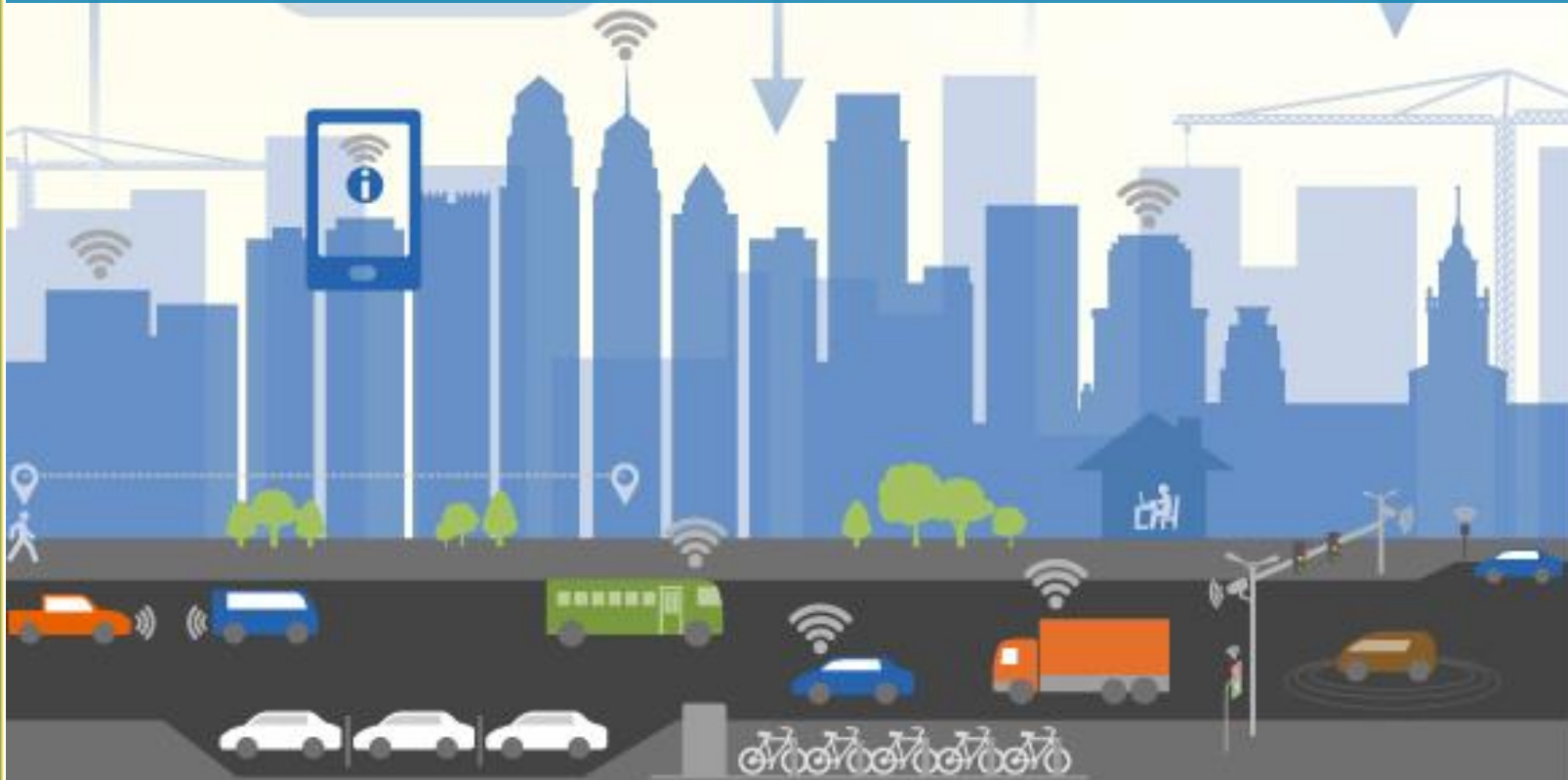
Reduces congestion, improves safety

Technology that can leverage existing infrastructure to do more

UPS Delivers

- E-commerce, M-commerce Growth
- Alternate Delivery Locations
 - UPS Access Points
- Consolidated Deliveries
 - Sure Post
- Home Deliveries
 - Telematics
 - ORION

Infrastructure sensors – Parking



Infrastructure sensors – Parking

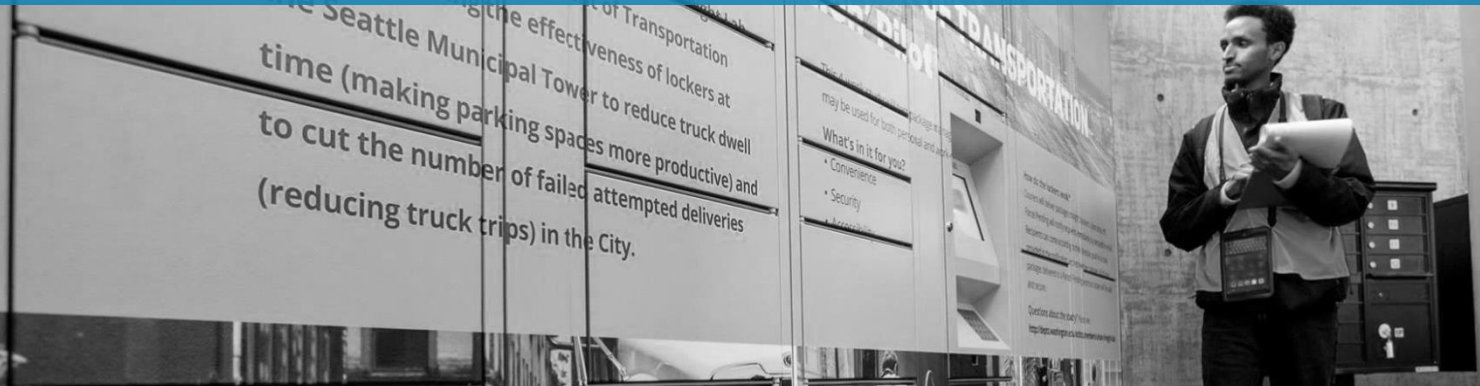
Improved data on curb utilization > better allocation and pricing

Live information and data integration to carriers, operations

Alternate Delivery Locations



Alternate Delivery Locations



Consumer convenience, reduced trips
Public-private partnerships for
common carrier lockers at transit

Chestnut Street Pilot – City of Philly

6-MONTH STUDY

GOAL: TO IMPROVE CURBSIDE MANAGEMENT AND BUS OPERATIONS
ON CHESTNUT STREET

PARTNERSHIP BETWEEN CITY OF PHILADELPHIA, DVRPC, SEPTA, PPA

LOCATION: 2000 – 600 Chestnut Streets



Chestnut Street Pilot – City of Philly

EXISTING

Entire block

- 6AM – 10AM loading only (20 minute time limit)
- 10AM – 10PM parking only (2 hour time limit)
- 10PM – 6AM no regulation

PILOT

- 80' loading zone at west end of each block (20 minute time limit) all day
- 20' handicap parking at east end of each block
- Remaining space- 2 hour enforced meter parking 6AM – 2AM

Chestnut Street Pilot – City of Philly

VIDEO ANALYSIS SAMPLE

Vehicle Type	Travel Lane	Delay Start	Delay End	Duration
Pickup	R	23:36:00	12:19:46	19:46
Auto	L	1:14:39	1:15:11	0:42
Truck	L	2:49:09	2:56:31	7:22
Van	R	3:48:13	3:49:17	1:04
Auto & Truck	R	5:52:12	6:52:01	11:49
Truck	L	7:22:20	7:24:56	2:36
Paratransit	R	8:17:50	8:20:45	2:55
Garbage Truck	R	8:22:34	8:25:08	2:34
Auto	L	8:47:56	8:50:19	2:23

NYC 14th Street Transit/Truck Priority

18-MONTH PILOT PROJECT

GOALS: INCREASE SPEED AND RELIABILITY FOR M14 BUS SERVICE
IMPROVE SAFETY ALONG VISION ZERO PRIORITY CORRIDOR

6AM – 10PM

- Only buses and trucks can make through trips
- All other vehicles can make local trips to access the curb and garages
- Commercial vehicles may load and unload in short-term metered loading zones
- Passenger vehicles may drop-off and pickup all along the corridor
- No left turns

10PM – 6AM

- All vehicles can make trips along the corridor
- No parking regulations to allow loading and unloading along the corridor
- No left turns

Moving Ahead

Improving curbside regulations and allocation

Complete streets with trucks

Truck routing for local municipalities

Continue to leverage data to inform better decisions and a safer, more efficient freight system

UPS Delivers

- E-commerce, Micro-entrepreneurs
- Alternate Delivery Locations
 - UPS Access Points
- Consolidated Deliveries
 - Sure Post
- Home Deliveries
 - Telematics
 - ORION



Thank You

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