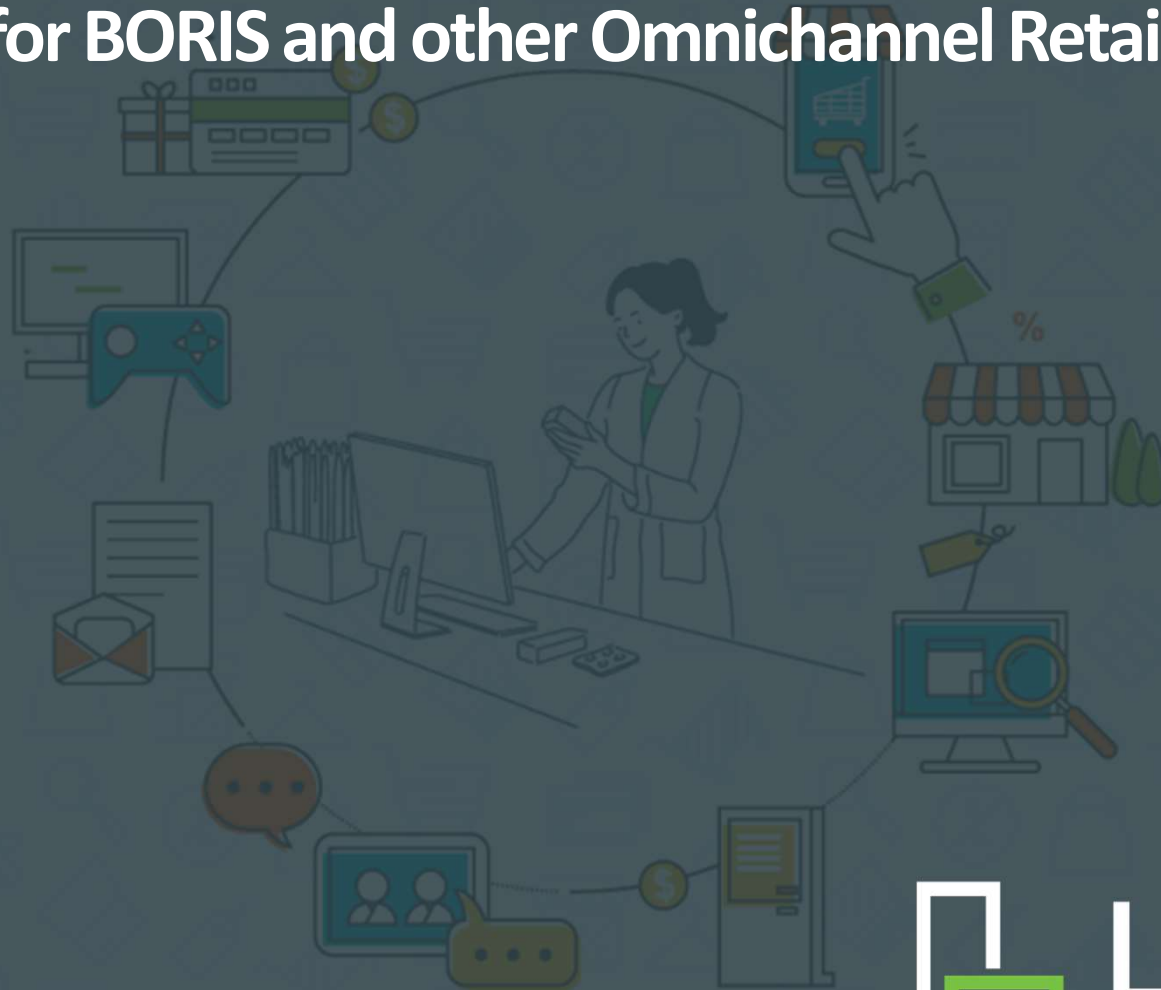


Planning for BORIS and other Omnichannel Retail Patterns



April 18, 2023
Derik Kane, AICP, CNUA
Senior Planner



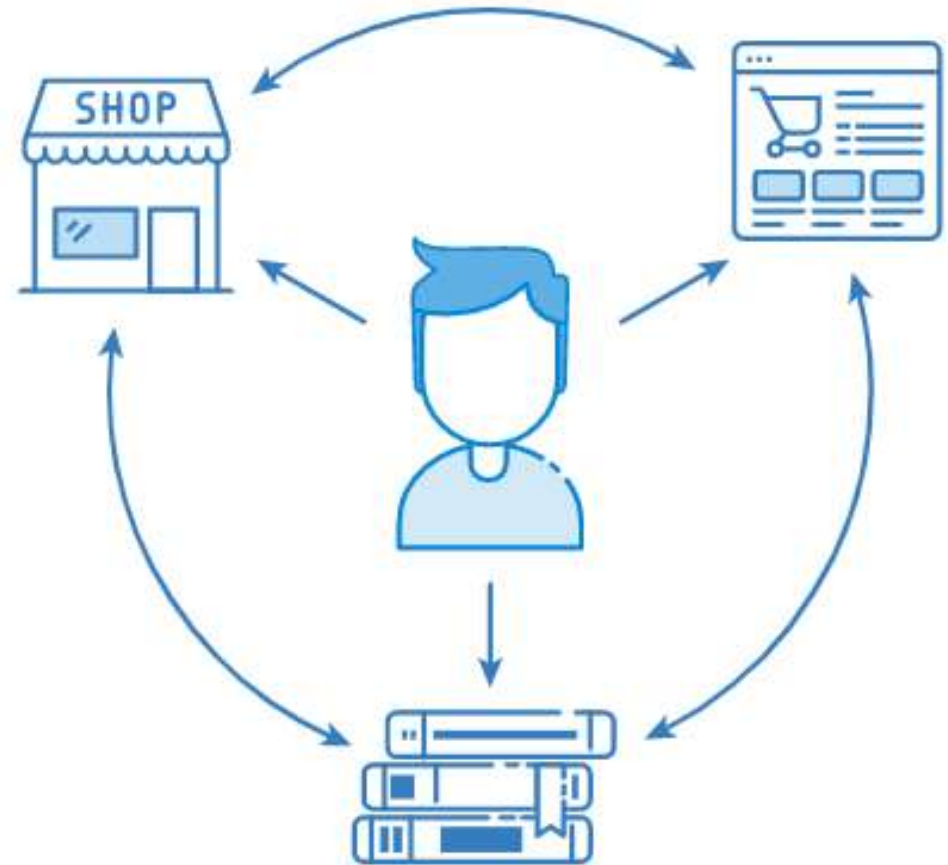
Who Is BORIS, and What is OMNICHannel Retail?

- Traditional: one sole channel sale based on the single-distribution system
- The retailers own only brick-and-mortar stores (offline) or web-stores (online).
- A provider who dominated a market could utilize a single-channel strategy to help maintain that control. However, one channel sale encountered many limitations as the age of digital came about.



Who Is BORIS, and What is OMNICHannel Retail?

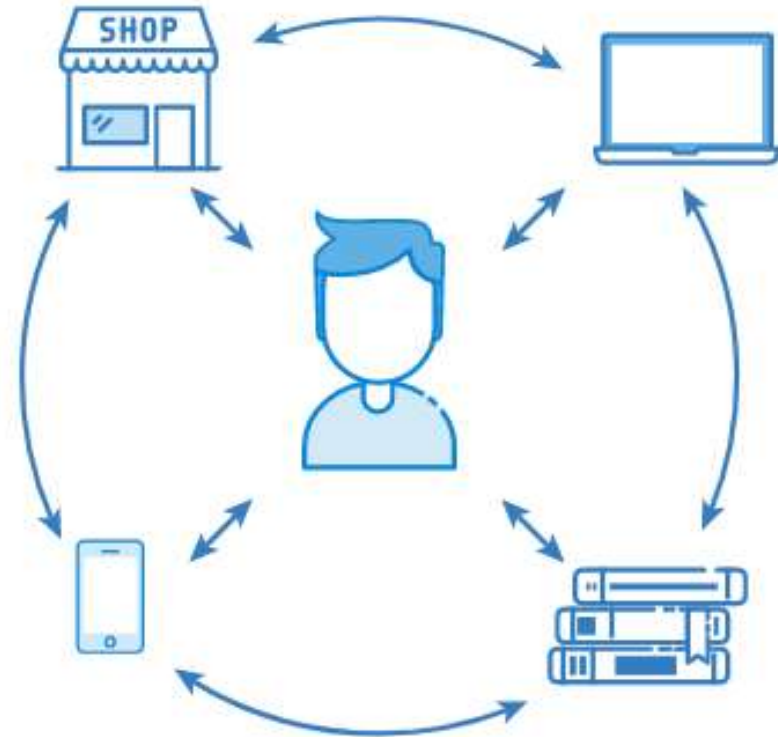
- Multi-Channel: born with the digital revolution. Retailers offer customers a choice of ways to purchase their products, via both online and offline channels
- Offered a level of convenience as it is more flexible and convenient for consumers to purchase goods or services, which in turns helps boost sales.



Multi-channel

Who Is BORIS, and What is OMNICHannel Retail?

- Omnichannel- focuses on data & infrastructure readiness by integrating customer engagement and operational solutions which range from e-commerce platforms to in-store digital signage, kiosks, mobile device-enabled interactions, and point of sale (POS) systems



Omnichannel

BORIS and “his” Family

Introducing the Omnichannel Family

- BORIS (Buy Online, Return in Store);
“Purchase the item they want, have it delivered to their home, and if unsatisfied, return that online item in a physical store”
- BOPIS (Buy Online, Pick up in Store);
“Allows customers to visit your website, purchase the item they want, and then visit your stores for quick and convenient curbside or pickup in-store”
- ROPIS (Reserve Online, Pick up in Store)
“Allow them to know you have their desired item in stock, but still discuss rate plan options with a sales associate and receive assistance on the actual activation of the device”



Changes in Retail Habits

- Death of Malls
- Bankruptcy of Retail
(148 Since 2015)
- Increase in E-commerce
- Increased Corporate debt
- Personal Experience when shopping



RETAIL

UBS expects 50,000 store closures in the U.S. over the next 5 years after pandemic pause

PUBLISHED WED, APR 13 2022 11:41 AM EDT

Lauren Thomas
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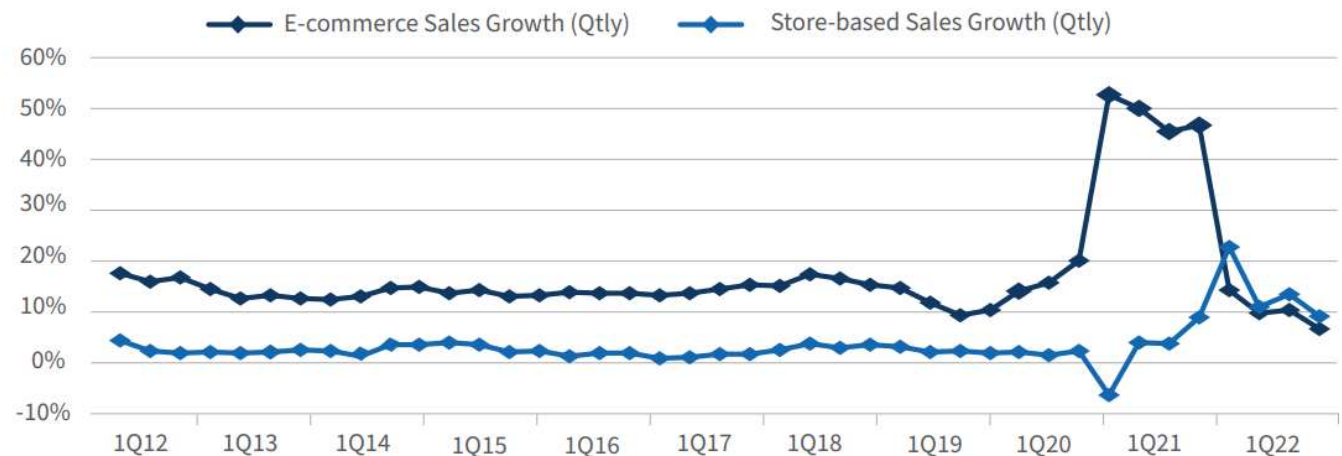
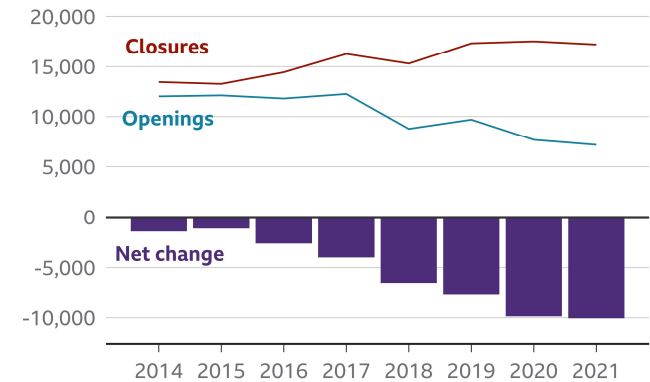
WATCH LIVE

KEY POINTS

- While analysts at UBS see more pain ahead, it's not as many closures as the investment bank had initially projected about a year ago.
- UBS is now projecting between 40,000 to 50,000 retail stores in the United States closing over the next five years, down from the 80,000 closures it previously forecasted.

Chains are closing stores faster than they open new ones

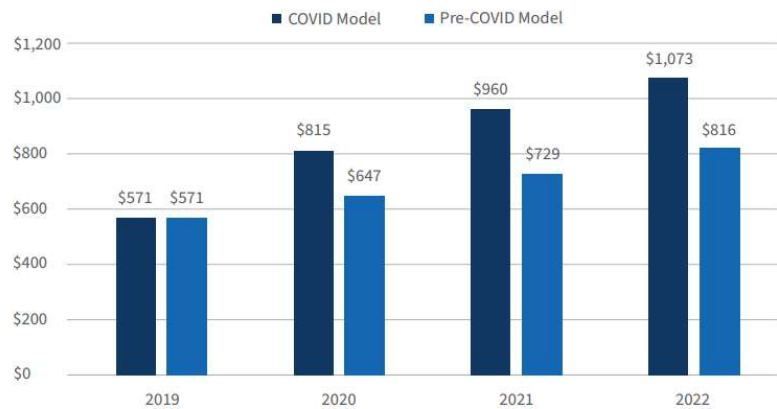
Chain store openings and closures, 2014-2021



Source: U.S. Census Bureau and FTI Consulting

Covid

- Surge in commerce
- Time for Testing
- Less time spent shopping (physical)
- Sped up trend min 5 yrs



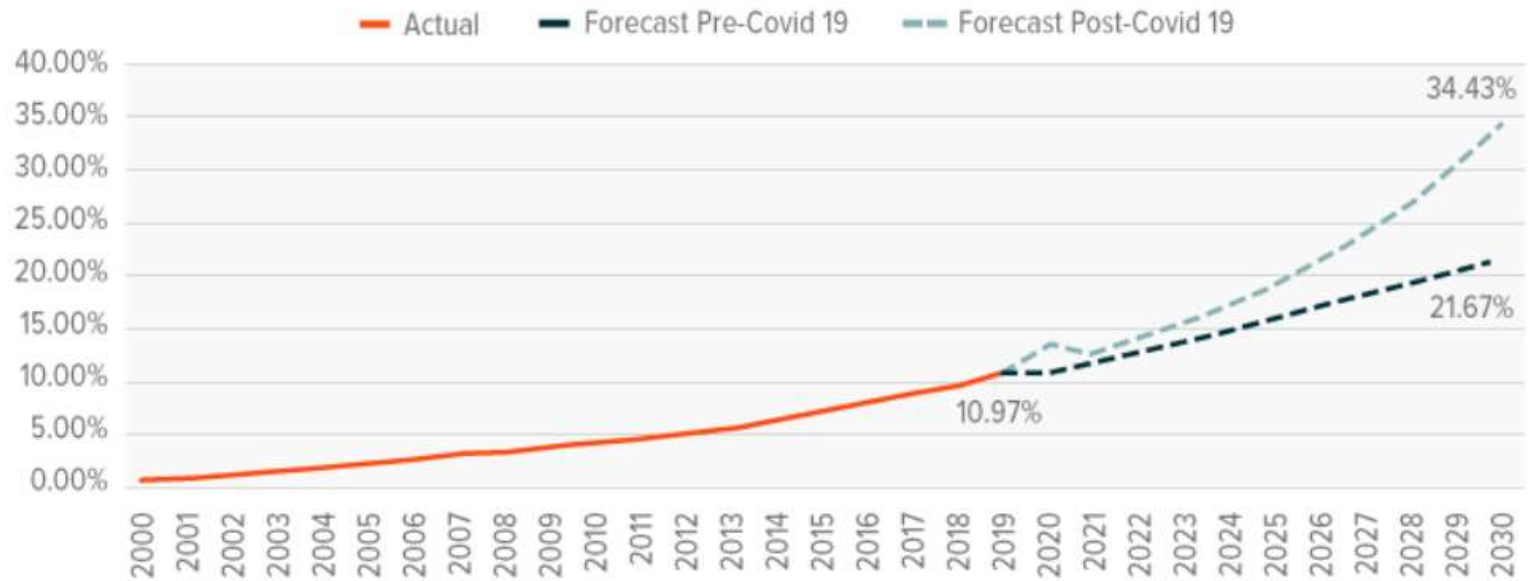
Source: FTI Consulting Estimates



US E-Commerce Retail Sales

U.S. E-COMMERCE PENETRATION: PRE-COVID19 VS. POST-COVID19 ESTIMATES

Source: Global X ETFs, US Census Bureau, Adobe.



Note: Forecasted figures starting in 2020 based on Bass Model and annualized e-commerce sales figures from confirmed first half of 2020 (\$368.8 billion first half 2020 – Adobe).



New Land & Building Uses

- Automated Warehouses
- Impact on workforce?
- Traffic Demand Change
- ITE Trip Generation
- Outdated Terms:
Shopper Dwell Time;
Travel Demand; Parking
Demand; Delivery time;
etc...

New Land & Building Uses

- Short Term Storage
 - High Cube Fulfillment Center (Sortable)
 - High Cube Fulfillment Center (non-Sortable)
 - Cold Storage: High Cube
 - Pickup Locker
-
- *High Cube = 28 ft Tall (robotic sorting)
 - **Sortable (high trip generation)
 - ***Non-sortable (single item)



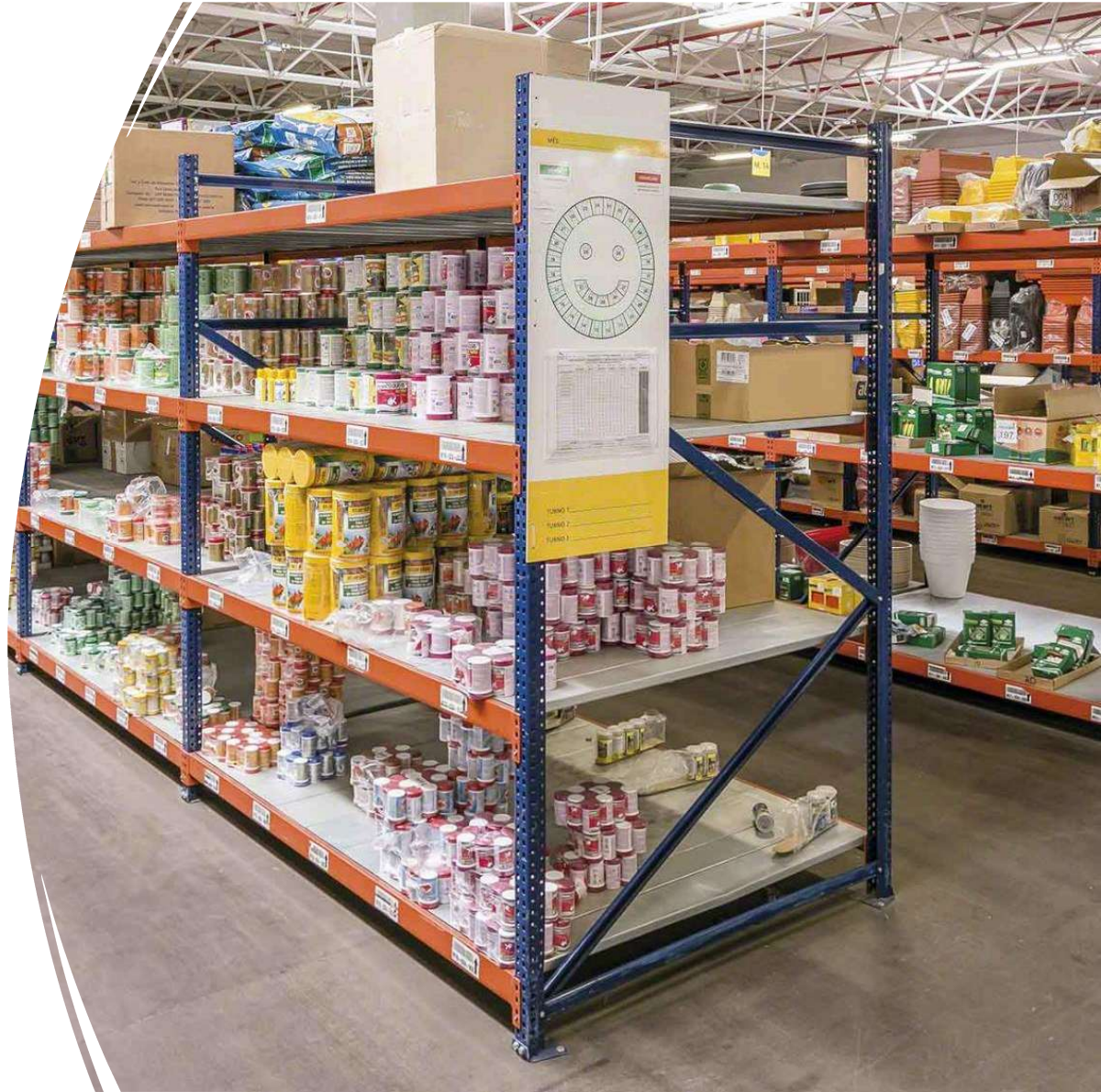
New Land & Building Uses

- Ghost Kitchens
- Delivery only to be \$1T by 2030
- Lower overhead
- Concerns with unregulation
- Rise in use during Covid



New Land & Building Uses

- Dark Stores
- Tesco in Surrey, UK (2009)
- Facilitate home delivery
- Advantages: loss prevention, better product mgmt, more product choice, and contact free
- 2022- Amsterdam



New Land and Building Uses

- Micro-fulfillment (car garages)
- Less than 10k sq ft
- Located near population centers
- 30 min goals
- Facilitate curbside pickup
- Kroger in FL
- Concern w/warehouses: stocking the wrong inventory

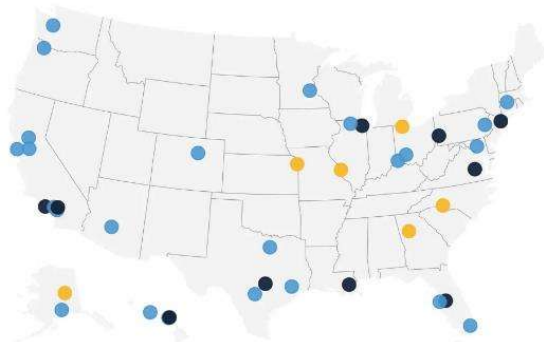


Amazon

- Represents the Largest Market Share of e-commerce
- Largest Growth during Covid
- Increasing number of sites in NYS

Amazon Air's growing network

● Active in April 2020 ● Feb. 2021 ● Aug. 2021



AUGUST 2021
70% of the U.S. population lives within 100 miles of an Amazon airport



Amazon

Last Mile (Heavy)

500 Hudson Valley Ave.	Windsor	227,000	2020	
1055 Bronx River Ave	Bronx	205,400	2021	former jet.com food delivery
245 Rogers Way	Westhampton Beach	91,000	2022	
717 Broadway Ave.	Holbrook	147,000	2021	
12555 & 12595 Flatlands Ave	Brooklyn	211,000	2021	
1500 Bassett Ave.	Bronx	366,000	2021	
566 Gulf Ave.	Staten Island	450,000	2020	45 min radius
200 Miller Pl.	Syosset	204,000	2022	
38-50 21st St.	Long Island City	19,700	2021	Former Green Apple Supermarket
98 Lincoln Ave	Bronx		2020	Seasonal Station
41 Seaver Way	Corona		2020	Seasonal Station at Citi Field parking lot
1255 Hempstead Turnpike	Uniondale		2020	Seasonal Station at Nassau Veterans Memorial Coliseum parking lot
640 Columbia	Brooklyn	135,600	2023	4 story delivery station
Industry City	Brooklyn	120,800	2023	
3920 Bayview Rd	Hamburg	181,500	2024	delayed opening
1770 Walt Whitman Rd & 540 Broad Hollow	Melville	309,500	2023	
90 Ruland Rd.	Melville	276,500	2023	
6823 Industrial Park Rd.	Bath	77,000	2023	
23-30 Borden Ave	Long Island City	100,000	2023	
136 Carlin Rd	Conklin	65,600	2021	Rural Wagon Wheel Delivery System
120 Benson Pl.	Frankfort	80,000	2022	
1159 County Rd. 24	Granville	50,000	2023	
253-51 Rockaway Blvd	North	235,200	2023	Delivery station near JFK Airport (3 story)

Amazon Fresh

7 W 34th St.,	New York	40,000	2014	Hub for Manhattan
850 3rd Ave	Brooklyn	54,300	2015	Hub for Brooklyn
1080 Leggett Ave	Bronx	145,100	2022	Amazon Fresh Distribution Center for NYC
57-00 49th Pl.	Queens	40,000	2019	Hub for Queens
80 Grumman Rd. W.	Bethpage	140,000	2018	Amazon Fresh/Fresh Hub Distribution Center for Long Island
55 Bay St.	Brooklyn	85,000	2021	Amazon Fresh/Fresh Hub Delivery for Brooklyn

Fulfillment Center

546 Gulf Ave	Staten Island	855,000	2018	Small Sortable FC
1835 US Rt. 9	Schodack	1,015,700	2020	Large non-sortable
635 International Blvd.	Montgomery	1,010,900	2021	Large non-sortable
7211 Morgan Rd.	Clay	820,000	2022	Small Sortable FC. 5 story tall (3.8M sq Ft)
2600 Manitou Rd	Rochester	640,000	2023	Small Sortable FC. 6 story tall
8995 Lockport	Niagara Falls	650,000	2024	Small Sortable FC. 5 story tall
34 35th St. Suite 4BSW	Brooklyn	90,000	2020	Amazon Pillpack distribution Center
	Long Island (SNYS)	246,500	2022	Mini fulfillment center/ Amazon Fresh same day delivery

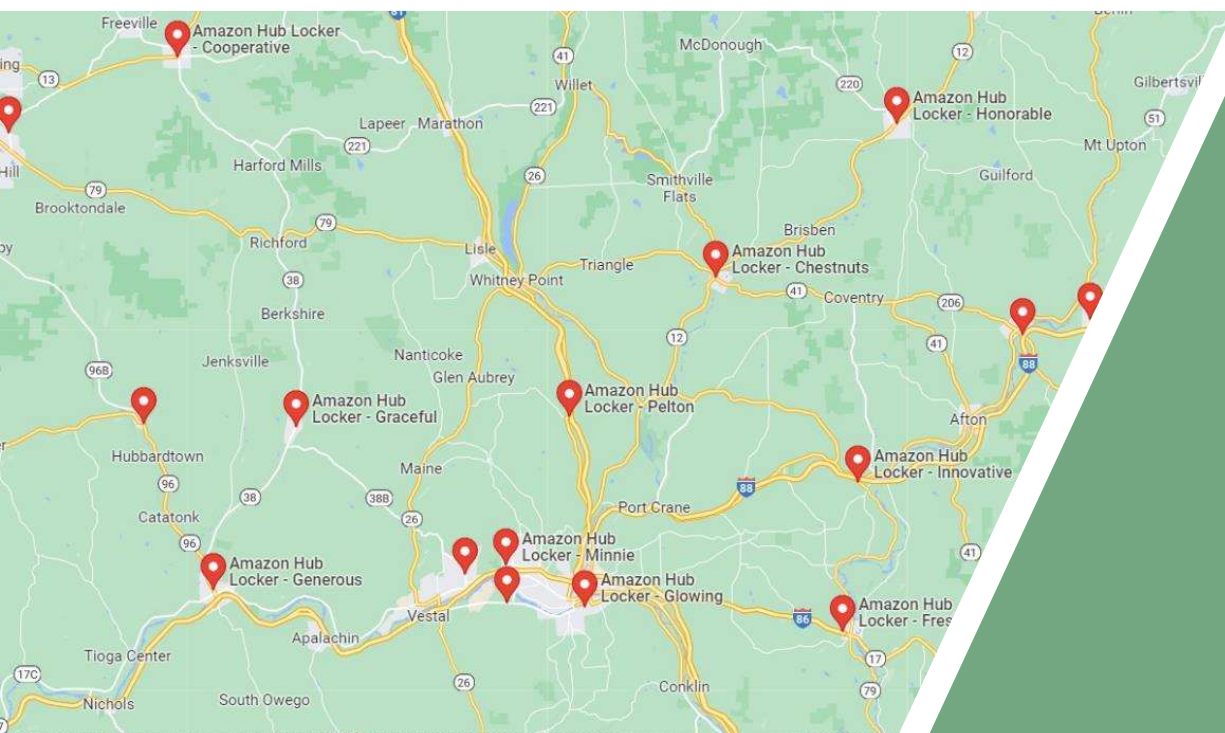
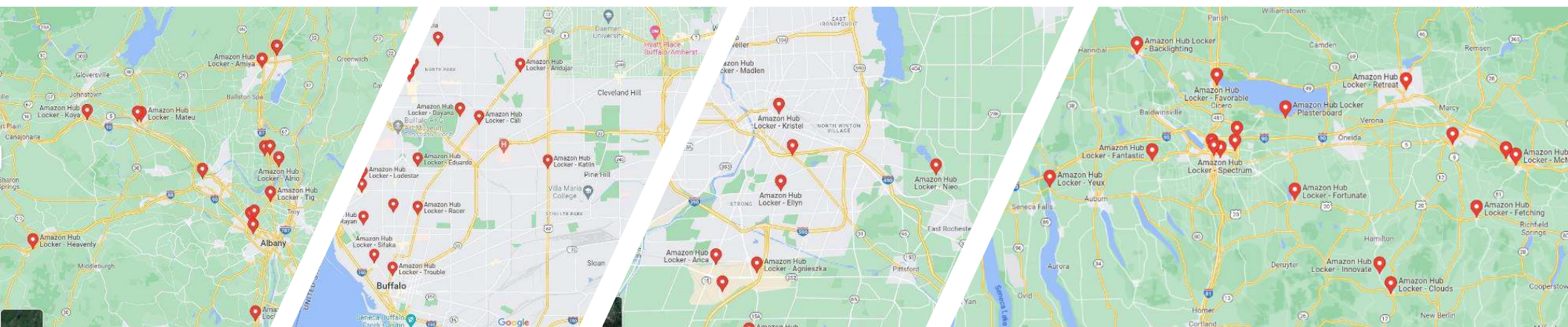
Inbound Cross Dock

1940 Rt. 52	East Fishkill	631,000	2023	Inbound Cross Dock (IXD)- holding center for fulfillment center
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Amazon

Last Mile (Heavy)				
30B Post Rd.	Colonie	16,000	2020	For products 60-300 lbs.
56-85 49th	Queens	19,600	2021	Delivery Station
5 Warehouse Ln.	Elmsford	100,000	2021	For products 60-300 lbs.
Last Mile (Heavy)				
10 Jupiter Ln.	Colonie	123,000	2020	Delivery Station
1785 NY-55	Amsterdam	53,000	2020	
280 Richards St.	Brooklyn	151,000	2022	
100 Precision Dr.	Shirley	110,700	2020	
	Green Island			
75 Cohoes Ave	Village	64,000	2017	
1 Bulova Ave	Queens	83,300	2018	
5605 Grand Ave.	Queens	250,000	2022	
2300 Linden	Brooklyn	90,000	2021	
800 Riverwalk Pkwy	Tonawanda	117,000	2020	
6834 Kirkville	Dewitt	112,000	2021	
2 Westbury	Mineola	55,700	2020	former Waldbaums
1 Mustang Dr	Cohoes	115,600	2022	
60 East 42nd St.	New York	54,300	2015	
1200 Zerega Ave	Bronx	97,800	2021	
49 Wireless Ave	Huappage	64,000	2023	
66-26 Metropolitan	Queens	190,000	2022	
511 Barry St.	Bronx	139,700	2022	Refrigerated Space
211 Saw Mill River Rd.	Mt. Pleasant	153,000	2023	
330 Clay Rd.	Rochester	85,800	2018	
1200 Lexington Ave (Eastman business Park)	Rochester	180,000	2021	
200 & 400 Oritani Dr.	Blauvelt	174,000	2020	Separate Buildings

Sortion (Middle Mile)				
4201 Walden Ave	Lancaster	525,000	2017	
526 Gulf Ave	Staten Island	975,000	2020	
Rt 150 (South Side)				
corner of 9 and 20	Schodack	278,700	2023	
90 Shepard Rd.	Rochester	278,500	2024	
30B Post Rd.	Colonie	16,000	2020	Heavy/Bulky Delivery station for products 60-300 lbs.
56-85 49th	Queens	19,600	2021	
5 Warehouse Ln.	Elmsford	100,000	2021	Heavy/Bulky Delivery station for products 60-300 lbs.
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2300 Linden	Brooklyn	90,000	2021	



Lockers



Amazon Network

- Reverse Fulfillment
- Incentives
- Try before you buy
- Amazon Fresh & Amazon Go Stores
- Amazon pop-up in airports

Now accepting
amazon RETURNS
at Kohl's



**We'll pack it & ship it
for FREE**

Visit [Kohls.com/amazon](https://www.kohls.com/amazon) to learn more.



Amazon

- Total SQ in NYS
 - 15,241,500 Sq Ft. of Space
- Total Growth in NYS since 2020
 - 13,299,800 Sq Ft. of Space

**Not including Private Lockers







IKEA

- Introduction to some markets (Buffalo)
- Use of Augmented Reality
- \$3B invested to convert 30-40% of stores to distribution centers

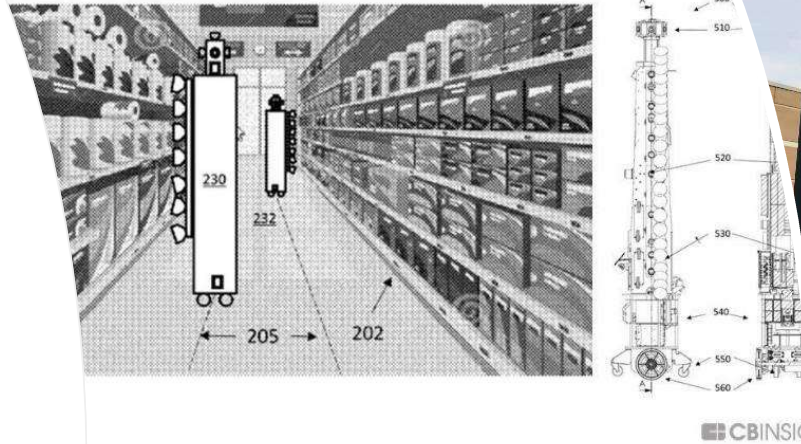


BIG Box Retail

- Kohls reduced footprint
- Pinterest & Target
- Sephora: purchase history and Aug Reality
- Disney- skip checkout
- Apple Wallet
- Target and BOPIS
- Macys- Tablet and Complete the look

Bossa Nova's robots will audit Walmart store

The startup applied for 4 patents in 2017 for inventory scanning



Pharmacies

- CVS- 900 stores over 3 years to close
- **Previously heavily regulated**
- Virtual healthcare (CVS minute clinic: Asthma, hypertension, diabetes, COPD, and depression)
- Auto re-fill/deliver
- Print at register coupons
- Walgreens- scan prescription to refill.
- Prescription history



BIG Box: home Furnishings

- Bed Bath & Beyond- 25% Stores now Fulfillment Centers
- Late adaptor- still focused on paper coupon
- Expanded stores over last decade
- Home & Happier Campaign (2021)
- BB&BH



Land Opportunities

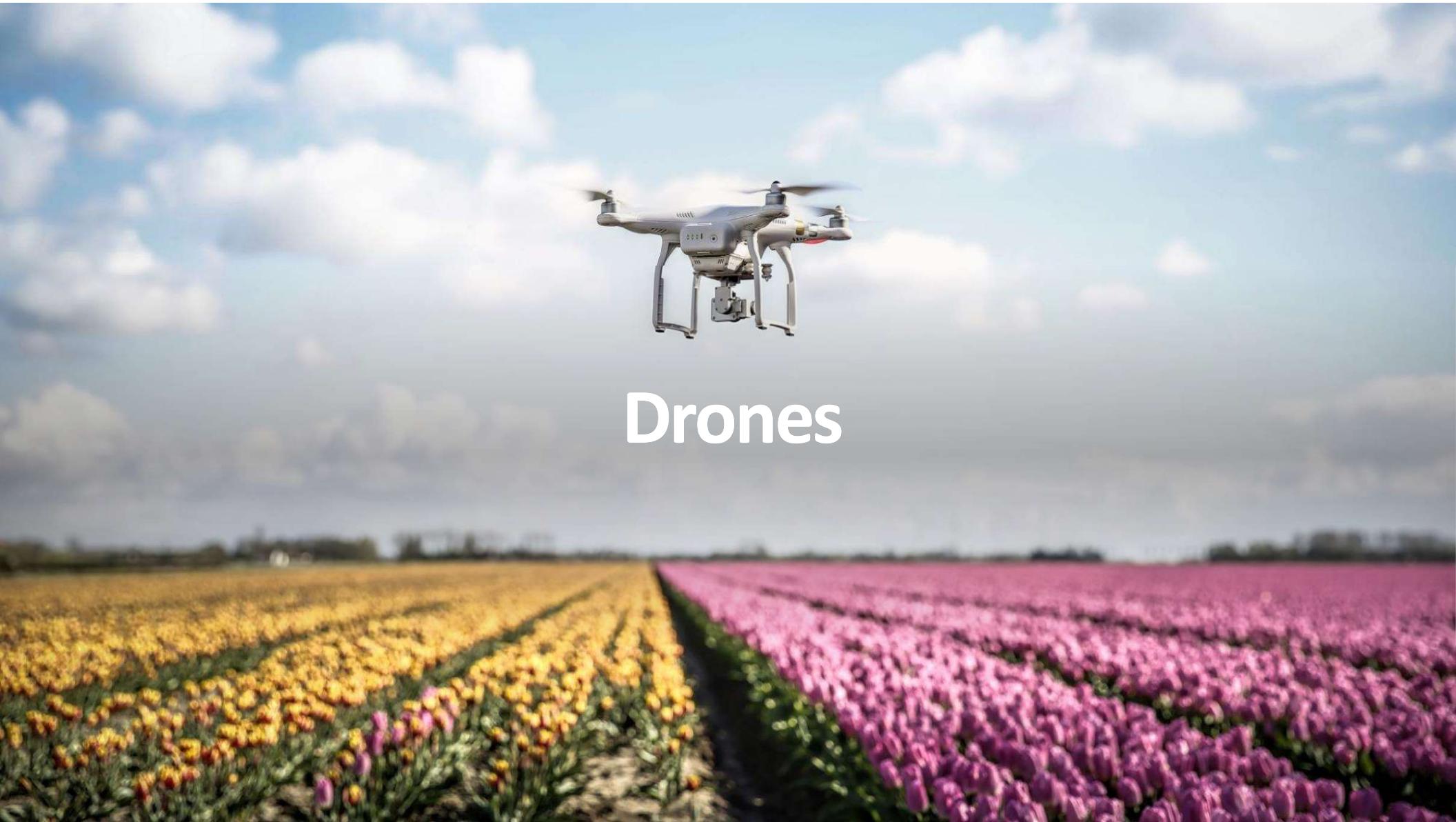
- Less land required
- ~8B Sq ft of retail throughout US
- ~9.2B Sq ft of parking and circulation throughout US for retail
- 25% reduction = 100k new acres of space
- 1.5X size of Alleghany State Park



Land Opportunities

- Retail Destination → Destination w/ Retail
- Walmart Placemaking (re-imagine parking as experience space)





Drones

Drones

- 1st used during WWII
- Previously mostly used by military, law enforcement and media

Recent Milestones:

- 2013- Bezo's Delivery in 30 mins is goal
- Aug 2014- Google enters drone mkt
- August 2019- Alphabet's Wing is 1st approved by FAA for Home Delivery
- March 2020- Zipline begins home pharmaceutical delivery
- August 2020- amazon approved by FAA to operate as a drone airline
- December 2020- sidewalk drones allowed in Pennsylvania, can weigh up to 500 lbs



Drones-Aerial

- Faster but more expensive to utilize
- More space needed to launch and land
- Longer range of operations
- Good within rural areas/ hard to reach areas
- Can avoid traffic
- **Challenge is FAA regulations**
 - Some air regulations loosened due to Covid



Drones- Terrestrial

- Carry Heavier loads
- Less space required
- Shorter range of operations (Last mile)
- Not as common, less regulations though
- Starship = 4 mph
- Nuro R2 = 25mph



Concerns

- Permitting for Beehives, reconfigurable pods, and pedobikes?
- Noise
- Privacy
- Frequent recharge
- Towers/Launches



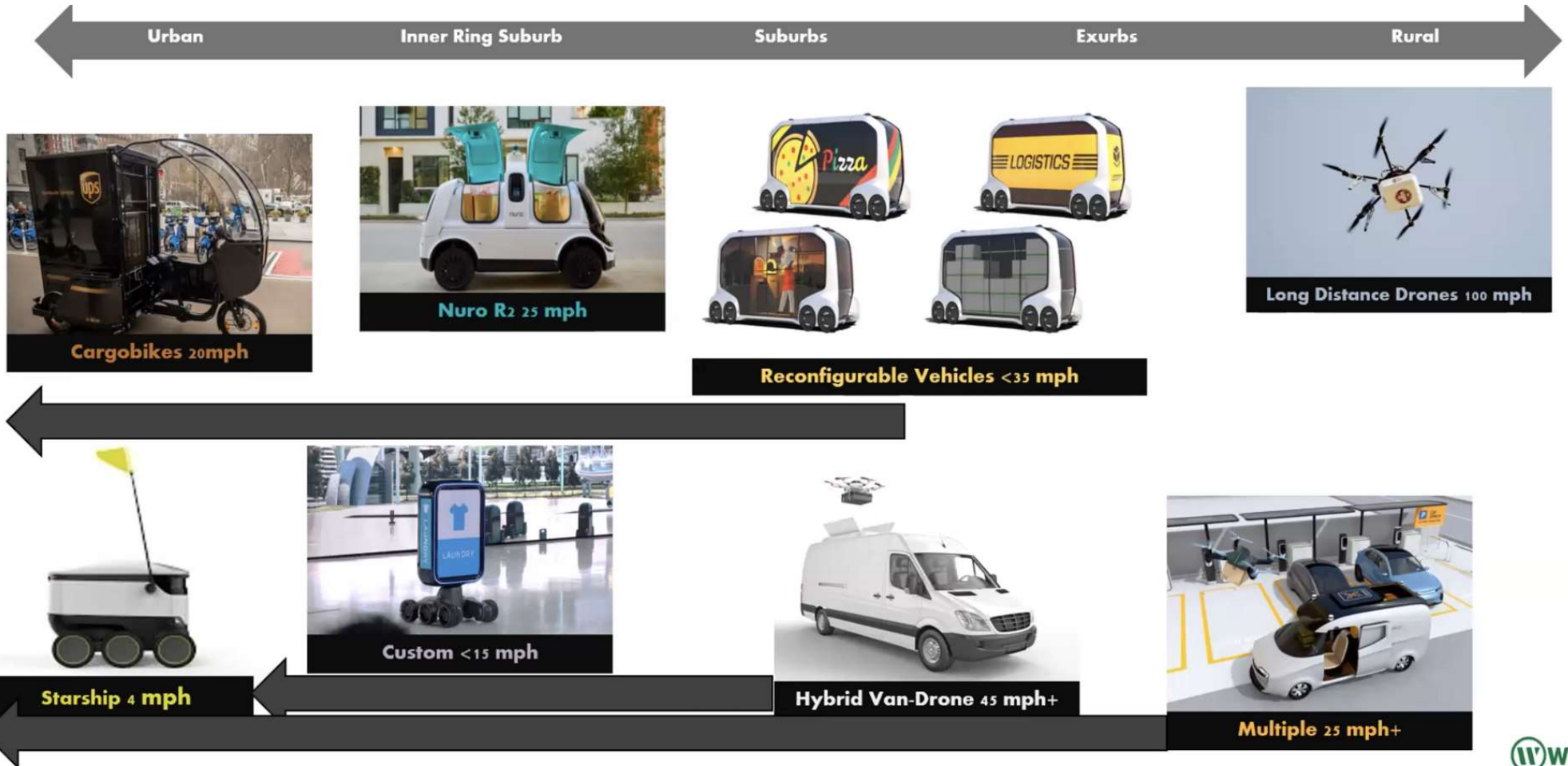


Considerations

- Building Code for Drones
- Push: 30-45 minute delivery
- Premium of Curb
- ROW Issues. Slow speed drones located?



Drone Transect



Considerations for Your Community (TL; DR)

- Fit current Standards?
- Site Plan (Access, Loading)
- ROW
- Change in Streets: Bike Lanes, Traffic Lanes, Car free zones, tactical freight lanes, Loading areas
- Impacts on employment
- Use of sidewalks
- Integrate autonomous delivery into site
- Price the Curb
- Permitting
- Switch in retail space (physical and workforce impact)- less land required
- Traffic Demand
- Track Federal, State and Local Approval Processes



Thank you!

Questions?

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