

# \\ EDC





## CM Aviles Community Forum on Last Mile Facilities

PS 15, 71 Sullivan St

June 23rd, 2022

5-7pm



Welcome – CM Aviles

Agency Updates (DOT, DCP, EDC)

## **Breakout Sessions**

- Land use and zoning
- Transportation strategies, infrastructure improvements
- Community engagement needs

Reconvene – key takeaways from each group

**Next Steps** 

Close

## **NYC Department of City Planning**

Research Summary – CM Aviles Community Forum

June 23rd, 2022

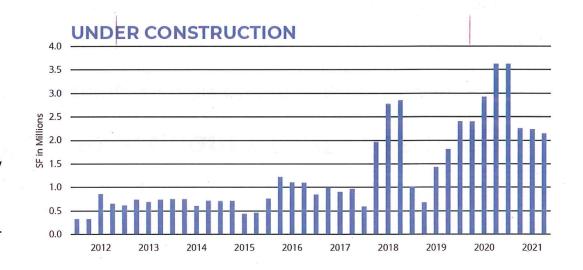




## The Industrial Market in New York City



- As the demand for fast deliveries has grown, companies have increased their presence in New York City in response, for reasons such as:
  - Shorter delivery routes through delivery network optimization
  - Faster delivery to homes and businesses
  - · Better access to the city's workforce
- More than three quarters of total industrial inventory within the five boroughs is in Brooklyn and Queens
- Staten Island has seen 3.3 million out of the 4.6 million new square feet built in the last 3 years, twothirds of which has been leased by Amazon
- About 2.1 million square feet of space is currently under construction, but this may still underserve the demand for space in the five boroughs
- Square footage under construction reached a record peak in 2018 and then again in 2020, but was more modest in 2021

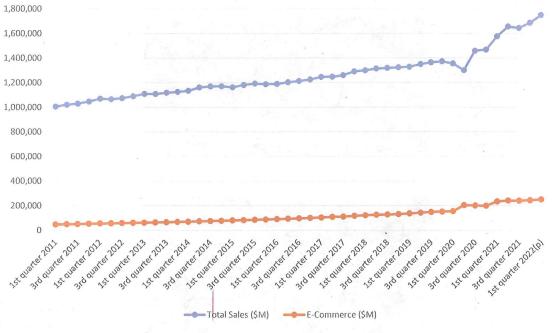




## **The E-Commerce Boom**

- In recent years, e-commerce has become an increasingly important part of daily American life.
- In the first quarter of 2011, e-commerce accounted for just 4.7% of national retail sales. By the second quarter of 2021, that figure had climbed to 13.3%
- The rise of e-commerce was only accelerated by the Covid-19 pandemic.
   Americans spent \$791.7 billion on ecommerce during 2020, a 32.4% increase from 2019.
- In the second quarter of 2020, e-commerce accounted for 15.7 percent of all US retail sales, a 21.9 percent increase from the prior quarter.
- Due to a faster increase in overall retail sales, by 1<sup>st</sup> quarter 2022, e-commerce's share had dropped to 14.3% of all retail sales.





NA Not Available. (p) Preliminary. (r) Revised Estimate

Note: For information on confidentiality protection, sampling error, sample design, and definitions, see <a href="http://www.census.gov/retail/mrts/how-surveys-are-collected.htm">http://www.census.gov/retail/mrts/how-surveys-are-collected.htm</a>

Source: Retail Indicators Branch, U.S. Census Bureau



<sup>1</sup> Estimates are adjusted for seasonal variation, but not for price changes. Total sales estimates are also adjusted for trading-day differences and moving holidays

E-commerce sales are sales of goods and services where an order is placed by the buyer or price and terms of sale are negotiated over an Internet, extranet, Electronic Data Interchange EDI) network, electronic mail, or other online system. Payment may or may not be made online.

## **Types of Facility Designs**

Logistics facilities vary in size, layout, and operational characteristics depending on their location, role in the supply chain, age, use of automation, and other factors. Designs of warehouses include:

- Traditional Warehouses
  - · Commonly multistory
  - Low ceiling heights
  - · Little automation / human labor-driven
  - · High truck traffic
- · High cube warehouse
  - · One story with high ceiling heights
  - · Moderate automation
  - · Low employee counts
  - · Moderate truck traffic



A multistory warehouse planned for the Zerega IBZ in the Bronx



A high cube warehouse in Hunts Point, in the Bronx



## The e-commerce logistics chain

Commonly outside of cities

#### Receive center

Typically a high cube warehouse
Dual-sided loading ("cross-dock")
Responsible for breaking down bulk shipments
Human labor-intensive—2 shifts of ~700 people each
Average 200 trucks/day

#### **Fulfillment center (sortable)**

Sortable=items smaller than 18"
Multi-story warehouse
High automation but also labor-intensive (2 shifts, ~1,000/shift)
300 trucks/day

#### **Fulfillment center (non-sortable)**

Non-sortable=items larger than 18"

Typically high cube warehouse, 1 million square feet
Human labor-intensive—2 shifts of ~700 people each
Average 200 trucks/day

#### **Sortation center**

High cube warehouse Cross-dock Sorts customer packages About 250 people/shift, 4 shifts 250 trucks/day

Commonly in cities

## Working approxi

Data: Langan, presented to Multi-State Freight Working Group, 9/14/2021. Figures are approximations based on national trends

#### Delivery station ("last-mile" facility)

High cube warehouse
Few loading docks
Delivers customer packages to final destination
200 people over multiple shifts
Few trucks, about 25/day
Many vans, average 250/day
Average radius served: 6.8 miles (in NYC metro area)\*

\*Journal of Commerce Online, July 12, 2017 https://www.joc.com/trucking-logistics/fulfillments-last-mile-gets-shorter-us-metro-areas 20170712.html

## Where are these facilities in New York City?

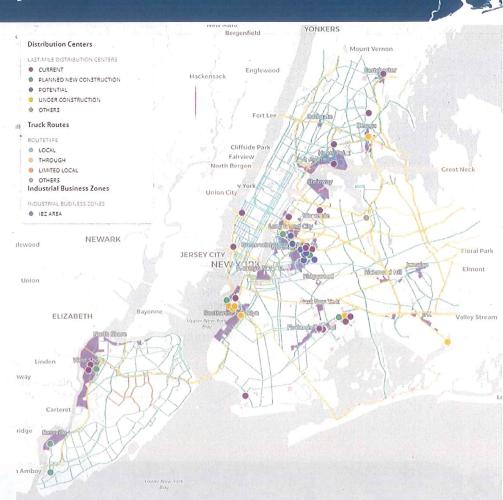
Like many industries, last-mile warehouses in New York City tend to cluster in areas that are suited to their needs. Common features of these neighborhoods include:

- Existing warehouse or other large-footprint buildings
- · Access to highways and through truck routes
- Neighborhoods with manufacturing zoning districts, allowing these facilities to, in many cases, be built as of right
- Proximity to customers—the "last mile" segment of the supply chain is the most costly, so being close to customers can bring costs down

Some neighborhoods that fit these criteria include:

- Red Hook, Brooklyn
- Maspeth, Queens
- · Hunts Point, the Bronx
- · West Shore, Staten Island
- 46 warehouse locations identified so far, including:
  - · Brooklyn: 16
  - The Bronx: 5
  - · Manhattan: 2
  - · Queens: 17
  - · Staten Island: 5



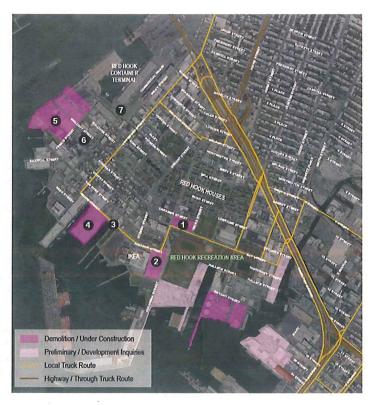


Map shows identified warehouse facilities as of 6/16/2022

## Facilities in Red Hook

Red Hook, Brooklyn has been at the forefront of the debate over last-mile distribution centers in New York City. This neighborhood has a long industrial past, with a historic focus on maritime activities.

In addition to current activities, Red Hook is the site for at least a half-dozen planned and potential new projects, including four last-mile distribution centers that are currently in the demolition or construction phase. Crucially, several of these are within blocks of Red Hook Houses, and most of the sites are on the waterfront.



Source: DCP Brooklyn Office

#### Red Hook Forthcoming Developments



55 Bay St Last Mile Site 83,000 SF (Building Area) Grinnell Realty / DH Property Holdings Under construction



640 Columbia St Last Mile Site 336,000 SF (Building Area) DH Property Holdings / Amazon Under construction



Red Hook Coastal Resiliency Beard Street Project Area DDC-led long-term neighborhood flood protection project



280 Richards St Last Mile Site 305,000 SF (Building Area) Thor / Amazon Under construction



UPS Last Mile Site
1.2 million SF (Lot Area)
Demolition / Pre-Construction



145 Wolcott St Project BSA Variance for proposed mix use development in IBZ



Red Hook Coastal Resiliency Atlantic Basin Project Area DDC-led long-term neighborhood flood protection project



## **Community Concerns in Red Hook**

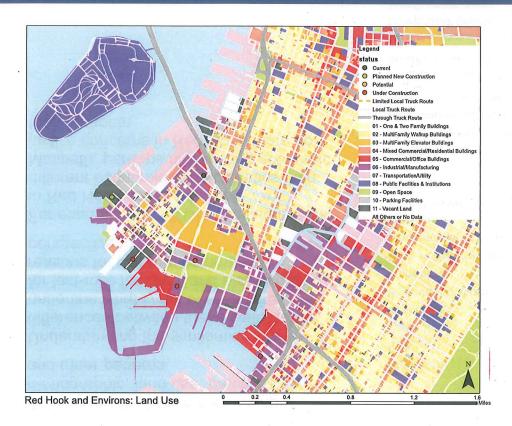
- As-of-right development: There is no explicit description of last-mile
  distribution in the Zoning Resolution, and in industrial districts, these
  developments tend to be as-of-right. Community members have
  voiced concerns that the lack of ULURP public review hampers
  community participation and that a discretionary review process is
  needed.
- Communication: Community members have voiced a perception that there has been insufficient communication from private developers, City agencies and elected officials about current and future warehouse projects.
- Enforcement: The community believes that the NYPD needs to do a better job of enforcing traffic violations on the part of delivery drivers.
- Environmental and social justice: Red Hook is home to a large population of residents of public housing, with a lower median income than city average. Advocates have suggested that the concentration of distribution centers in close proximity to public housing raises traffic safety, environmental justice and equity concerns.
- Jobs: Some industry advocates and elected officials are concerned about the loss of M-zoned land to less job-intensive, nonmanufacturing uses like distribution centers.
- Safety: There are concerns about the safety of pedestrians and bicyclists, particularly children, in the presence of the trucks used for deliveries and loading.

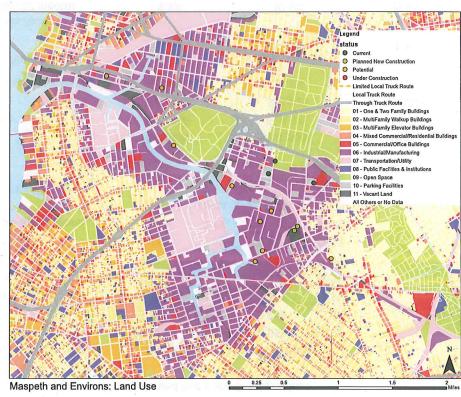


Distribution Centers in Red Hook are in areas of uncertain environmental justice status, with some very near Red Hook Houses, a designated environmental justice area.



## Beyond Red Hook: Expanding the Scope to Other Neighborhoods





Compared to Red Hook, where industrial development encircles residential and NYCHA buildings, Maspeth's industrial zones forms a large centralized mass with the Long Island City and North Brooklyn IBZs, fairly segregated from other uses.



## Beyond Red Hook: Expanding the Scope to Other Neighborhoods

- IBZ's across the city have varying demographic, land use, traffic, safety, and other patterns
- Understanding the similarities and differences between these districts can underline what types of areas are ideal for last-mile facilities, and also suggest reasons for differing community perspectives
- For example, the NYCHA developments in Red Hook cause it to have very different economic characteristics than Maspeth, perhaps highlighting economic justice concerns in Red Hook more so than Maspeth

#### Comparison of Maspeth and Red Hook Demographics

Population	Maspeth		Red Ho		
Total	18,078	100.0%	11,053	100.0%	
Under 18	3,591	19.9%	2,800	15.5%	
65 and older	2,231	12.3%	1,357	7.5%	
Hispanic/Latino (any race)	7,725	42.7%	3,953	21.9%	
White alone	6,631	36.7%	2,041	11.3%	
Black or African American alone	282	1.6%	4,020	22.2%	
American Indian and Alaska Native alone	73	0.4%	0	0.0%	
Asian alone	2,970	16.4%	472	2.6%	
Native Hawaiian and Other Pacific Islander alone	0	0.0%	268	1.5%	
Economic	Maspeth		Red Ho	NYC	
Median Household Income	\$70,366		\$24,971		\$60,762
Mean Household Income	\$87,845		\$54,875		\$97,647
Percentage households w/Social Security	23.3%		23.7%		26.0%
Percentage households w/Supplemental Security Income	4.0%		24.9%		7.9%
Percentage households with Food Stamp/SNAP benefits in last 12 months	9.5%		50.5%		19.8%





## **Comparison of Jobs in NYC IBZs**



- DCP compared employment in the Transportation and Warehousing job sector—the most specific QCEW sector with enough available data—across IBZs.
- Roughly 11% of total jobs in the Southwest Brooklyn IBZ are within the Transportation and Warehousing sector.
- However, because this IBZ is among the largest overall in the city, it has among the highest total people working in this sector – more than 3,300.
- The Southwest Brooklyn IBZ is comparable to LIC, Maspeth, and Zerega in total transportation and warehousing jobs, but, unlike those IBZs, T&W represents only a small percent of total employment in Southwest Brooklyn.

#### **Transportation and Warehousing Sector**

IBZ	Establishments	% of Total Esta	ablishments	Jobs		% of To	otal Jobs
Astoria	13		8.0%		101		2.8%
Brooklyn Navy Yard	9		4.7%		40		1.4%
East New York	14		10.9%		597		23.5%
Flatlands/Fairfield	38		6.1%		1,844		14.8%
Hunts Point	40		8.4%		948		8.2%
Jamaica	13		5.4%		73		1.8%
JFK	333	•	69.5%		2,911		61.3%
Long Island City	84		5.2%		2,299		6.8%
Maspeth	41		5.8%		3,600		23.6%
North Brooklyn	47		4.2%		1,142		8.4%
Port Morris	25		9.4%		785		19.8%
Southwest Brooklyn	62		3.9%		3,305		11.5%
Staten Island North Shore	12		20.7%		1,420		77.5%
Woodside	6		6.4%		87		6.7%
Zerega	15	*	9.0%		2,601		36.7%
ALL IBZs	784		9.2%		29,876		18.2%
NYC TOTAL	5,090		1.8%		97,740		2.5%
Staten Island North Shore Woodside Zerega ALL IBZs	12 6 15 784		20.7% 6.4% 9.0% 9.2%	yantid	1,420 87 2,601 29,876		77.5% 6.7% 36.7% 18.2%

ource: NYS Department of Labor, Quarterly Census of Employment and Wages, 2020 Q3(p). NYC Department of City Planning, Housing and Economic Development Division. January 2022.



## Comparison of Industry Salaries in NYC



- The median salary of all occupations in New York City is \$58,260
  - · Mean entry-level: \$32,300
  - Mean experienced: \$104,370
- The Transportation and Material Moving Occupations sector, which makes up about 6% of NYC employment, has a median salary of \$40.790

SOC	Title	Employment	Annual Wages (\$)			
Code	Organia III		Mean	Median	Entry *	Experienced**
00-0000	Total, All Occupations	4,040,120	\$80,350	\$58,260	\$32,300	\$104,370
53-0000	Transportation and Material Moving Occupations	229,980	\$52,310	\$40,790	\$31,200	\$63,540

- Positions with relatively higher median salaries include:
  - Distribution managers
  - Heavy truck drivers
- Positions with lower median salaries include:
  - Sales workers
  - · Packers and packagers
  - Stockers



## **Potential Regulatory Approaches**



Any policy implemented with respect to last-mile distribution centers and similar facilities should be sure to keep the following points in mind:

- 1.) Zoning must establish districts that provide **sufficient suitable opportunities** for businesses to locate, and for facilities that support the city's residents and economy.
- 2.) Zoning **limits truck-intensive activities**—such as warehouses and distribution facilities—to districts that **do not permit housing**, such as **M-districts** and **C-8 commercial** districts.
- 3.) The distribution system requires facilities to locate where they can **effectively receive deliveries** and deploy trucks in a safe, efficient, and environmentally responsible manner while **reducing unnecessary truck traffic**

To promote economic activity, environmental quality, and equity, the City can explore:

- The potential for **zoning regulations or other incentives** to promote a better distribution of facility locations that better addresses these goals. Such measures must be considered holistically, keeping in mind that distribution facilities serve neighborhoods around the city, and shifting facilities away from one location may **affect other neighborhoods**.
- Measures to promote safety, air quality and public health, and other outcomes beneficial to neighborhoods in and around areas containing these facilities

