

Research Report

New York City's M Zoned Land Value Analysis

Prepared for: TigerGenCo



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Introduction

Study Background

Engagement Background

TigerGenCo, owner and operator of the Bayonne Energy Center, has engaged JLL to prepare an independent study of the New York City Real Estate Market particularly as it pertains to M-zoned land suitable for the development of a new powerplant. In order for a property to be considered suitable for development it must meet the following criteria:

1. Size: Greater than 9 Upland Acres for Energy Storage, 12 Upland Acres for Fossil Generation
2. Shape Mostly rectangular and contiguous
3. Location: In Brooklyn, Queens, Manhattan or the Bronx
Note: Due to vastly different market dynamics, and potential deliverability issues for new generation, Staten Island was evaluated separately
4. Proximity: Must be within a 1-mile radius of a substation with 345 kV
Note: Due to the small number of comparable properties, a 3-mile radius was evaluated
5. Lease Term: 23 Years for Energy Storage, 18 Years for Fossil Generation
6. Zoning: M1, M2 or M3 for Energy Storage, M3 for Fossil Generation
Note: While the Fossil Generation case would require M3-Zoned property, due to the small data set, all M-Zoned property was used in establishing the final comp sets
7. Other: Must be outside of established Disadvantaged Communities zones for Fossil Generation
8. Other: Can not be in the same location as an existing substation or operational power plant

Valuation Approach

In order to properly assess the current market value of M zoned land JLL has considered the following:

1. **Economic Trend Analysis:** Establish the macroeconomic trends which are impacting land values today and identify other competing uses for similarly zones land parcels.
2. **Availability of Land:** Define the universe of potential properties that meet the criteria set forth above.
3. **Land Sale Comparable: Analysis:** Examine similar properties within an M zone that have sold over the last 5 years.
4. **Land Lease Comparable Analysis:** Examine similar properties within an M zone that have been leased over the last 5 years.

About JLL

JLL is a professional services and investment management firm offering specialized real estate services to clients seeking increased value in owning, occupying and investing in real estate. The firm has provided real estate services to clients across the globe for more than 200 years. The firm is listed on the New York Stock Exchange under the ticker symbol “JLL.” JLL is the brand name of Jones Lang LaSalle Incorporated and its wholly owned subsidiaries.

Global platform to serve client needs

Founded on the principle of collaborative, client-centric service, JLL continually seeks to grow its resource platform to provide comprehensive expertise to those who depend on its real estate capabilities. To that end, the firm has expanded its range of services and products, both organically and through a series of strategic acquisitions and mergers. Through the expertise of 102,000 professional staff, JLL currently serves clients in over 80 countries.

Americas 10 countries 145 owned offices	EMEA 30 countries 100 owned offices	Asia Pacific 16 countries 91 owned offices
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Service capabilities

Focused service expertise and capabilities

JLL's real estate services include:

- Agency Leasing
- Corporate Finance
- Debt Placement
- Digital Solutions
- Energy and Sustainability Services
- Integrated Facilities Management
- Investment Management & Advisory
- Investment Sales
- Lease Administration
- Logistics and Supply-Chain Management
- Mortgage Origination and Servicing
- Project and Development Management/Design
- Property Management
- Real Estate Investment Banking
- Research
- Strategic Consulting and Advisory Services
- Tenant Representation
- Valuations

Service line overviews



Integrated services platform

JLL offers a comprehensive real estate services platform that includes each of the core disciplines required to ensure optimal. A select list of JLL's services that may be most relevant is set forth below.

Leasing

Agency Leasing executes leasing programs, including marketing, on behalf of property owners (including investors, developers, property-owning companies and public entities) to secure tenants and negotiate leases with terms that reflect our clients' best interests.

Tenant Representation establishes strategic alliances with occupier clients to help them evaluate and execute transactions to meet their occupancy requirements and ongoing real estate needs. We partner with clients to define space requirements, identify suitable alternatives, recommend appropriate occupancy solutions, and negotiate lease and ownership terms with landlords. Our involvement helps our clients reduce real estate costs, minimize occupancy risk, improve occupancy control and flexibility, and create more productive office environments.

Capital Markets

JLL's Capital Markets professionals provide in-depth expertise and proven track records in institutional property sales and acquisitions, real estate financings, private equity placements, and corporate finance. To maximize the Mission and Consulate's negotiating leverage, JLL's Capital Markets experts will review ownership/debt equity, provide broker opinions of value, assist with tenant improvement financing and analyze the financial impact of alternative scenarios.

Estate Investment Banking

Real Estate Investment Banking Services includes sourcing capital, both in the form of equity and debt, derivatives structuring and other traditional investment banking services designed to assist corporate clients in maximizing the value of their real estate. Our real estate investment banking capability helps provide capital and other financial solutions by which our clients can maximize the value of their real estate. In response to volatile market conditions we have established Value Recovery Services to help owners, investors and occupiers value their assets and identify solutions that will allow them to respond decisively. Real Estate Investment Banking Services includes sourcing capital, both in the form of equity and debt, derivatives structuring and other traditional investment banking services designed to assist corporate clients in maximizing the value of their real estate.

Advisory, consulting and other services

Advisory and Consulting provides clients with specialized, value-added real estate consulting services in such areas as technology implementation and optimization, mergers and acquisitions, asset management, occupier portfolio strategy, workplace solutions, location advisory, industry research, financial optimization strategies, organizational strategy and Six Sigma process solutions. Our professionals focus on translating global best practices into local real estate solutions, creating optimal financial and operational results for our clients across asset classes.

Strategic Consulting

Delivers innovative, results-driven real estate solutions that both strategically and tactically align with clients' business objectives. We provide clients with specialized, value-added real estate consulting services in such areas as mergers and acquisitions, occupier portfolio strategy, workplace solutions, location advisory, financial optimization strategies, organizational strategy and Six Sigma real estate solutions. Our professionals focus on translating global best practices into local real estate solutions, creating optimal financial results for our clients.

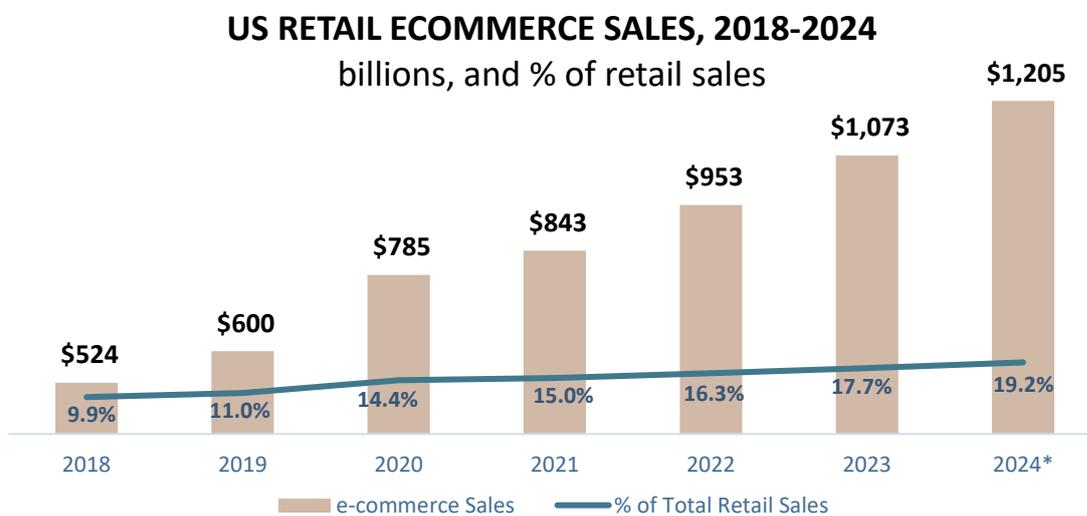
Valuation & Advisory Services

Valuation Services provides clients with professional valuation services and helps them determine market values for office, retail, industrial and mixed-use properties. Such services may involve valuing a single property or a global portfolio of multiple property types. Professional valuations, which typically involve commercial property, are completed for a variety of purposes, including acquisitions, dispositions, debt and equity financings, mergers and acquisitions, securities offerings (including initial public offerings) and privatization initiatives. Clients include occupiers, investors and financing sources from the public and private sectors. Our valuation specialists provide services to clients in most developed countries outside of the United States; we generally do not provide these services in the United States. Valuation helps clients determine market values for office, retail, industrial, mixed-use and other types of properties.

Economic Trend Analysis

Logistics and Fulfillment Centerers

The industrial markets of the outer boroughs of New York City have reemerged due to the proliferation of e-commerce and increases in shipping and delivery speeds to end consumers. Since 2018, ecommerce sales have doubled its market share as a percentage of total retail sales. To make this a reality, distributors need to have highly efficient facilities embedded within urban areas which offer significant scale. New York City, the nation's largest metropolitan area, creates a unique set of challenges, as it is divided into multiple sections split by several waterways. Cost prohibitive tolls and intense traffic compound the problem, making it evermore necessary for users to locate facilities within city limits.



Source: eMarketer.com

Despite a deep-seated need for efficient distribution centers, the existing industrial inventory is outdated and limits user's ability to scale their businesses effectively. Traditionally tagged for redevelopment into residential, office, or retail space, capital has recently poured into the boroughs to redevelop the current industrial inventory into modernized products. A broad range of capital sources have seized the opportunity to solve the final mile piece of the supply chain puzzle.

As a result, industrial developers and investors have been paying record pricing for M zoned land in New York City. Notably, coming out of the covid-19 pandemic where online sales surged, fueled by lockdown orders and public safety concerns, the industrial development market in New York City has surged due to the rise of e-commerce and consumer demand for same day delivery of goods.

A sizable portion of the New York City development community is facing the reality that retail and office projects are not performing as well as other asset types such as industrial and are now trying to expand their exposure into this space. Similarly, many well capitalized national industrial developers are under strict mandates to expand their industrial footprints in New York City.

M zoned land in Brooklyn, Queens, and the Bronx has become the epicenter of this development trend, as developers focus their attention on creating modern industrial supply near the large millennial & Gen Z population centers.

Consequentially, land pricing within these areas skyrocketed due to fierce competition among the various buyer pools.



Bronx Logistics Center is 1.3 MSF of speculatively development warehouse and parking facility sitting on 17 acres in the Hunts Point section of the Bronx.

Fleet Parking Facilities

An avalanche of new ecommerce requirements has stormed last mile markets. These space needs mark a change in the way large e-commerce users evaluate and select their facilities, with the fleet storage component often being as big, if not larger than the warehouse foot print itself. This developing trend has created a series of new questions for investors on the broad marketability and value of such facilities. While this trend has only recently made headlines thanks to the sweeping growth of point and click purchasing combined with and the rise of same day delivery service, the supply and demand imbalance for fleet storage inside of the urban core has existed for years. Parcel carriers, city agencies, food and beverage, as well as the telecommunication industry have all contributed to demand for fleet parking in the urban core. None more so than in New York City, which has always depended on a wide variety of industries to support its 8.0 million residents. In order to efficiently and effectively support a city as large and as geographically complex as New York, many rapid service industries are required to store fleets. In the past, Brooklyn, Queens, and The Bronx served as a haven for these types of uses, as underutilized vacant parcels of land could be leased for either long and/or short terms at reasonable rates. However, development in these once predominantly industrial areas has boomed, residential towers have sprouted across Brooklyn and Queens, and where residential or office growth has not

been suitable, multi-story industrial development has begun to take hold their delivery and service fleets within city boundaries.

The rise of same day delivery has exacerbated the supply and demand imbalance, as e-commerce giants roll out massive self-operated fleets within New York City. As developers rush to provide solutions for these companies, many remaining underdeveloped and undeveloped parcels in New York City are being underwritten and acquired at a feverish pace by owners and investors alike. The net result of years of development and an increase in demand driven by the proliferation of e-commerce, is a market that continues to witness significant rental rate appreciation.

In 2017, and prior to the dramatic increase in e-commerce related fleet storage requirements, parking rents in the outer boroughs averaged \$10.00 per square foot, nearly double the national average rental rate for warehouse and distribution space! Since the entrance of major e-commerce giants, and the emergence of new competitors to UPS and FedEx, parking rents in New York City have nearly doubled over the seven years, and now average +/- \$20.00 per square foot.

Tenants and developers have also begun developing large scale structured parking solutions to help solve the ever present need for fleet storage. In 2021, LBA and RXR delivered a 1.1 million square foot facility for Amazon on Grand Ave in Maspeth Queens.



55-15 Grand Avenue is a 1.14MSF warehouse and parking facility for Amazon Logistics. The property is structured solution to the growing need for Fleet storage in outer boroughs

Film Studios

The rise of streaming services, coupled with dramatic push from Hollywood to expand film production to the east coast, has created a new boom in demand for film production space in New York City. This surge is driven by several factors, including the city's attractive locations, extensive talent pool, and substantial incentives offered by both the state of New York and the City of New York.

The flourishing film studio scene in New York City can be attributed to multiple factors. Firstly, the city's iconic landmarks, diverse neighborhoods, and distinctive architecture make for ideal backdrops and settings for film productions. Additionally, the availability of highly skilled professionals, including actors, directors, cinematographers, and technical crews, has contributed to the city's appeal as a film production hub.

To further stimulate growth in the film industry, the state of New York and the City of New York provide a range of incentives for film production companies. The New York State Film Tax Credit Program offers tax credits of up to 25% on qualified production costs, providing substantial financial incentives for companies choosing to film in the state. Additionally, the city itself offers its own set of benefits, such as the "Made in NY" Marketing Credit, which provides a refundable tax credit for qualified advertising expenses. These incentives, coupled with a streamlined permitting process and dedicated film offices, make New York City an enticing destination for film studios looking to establish a presence.

New York City has witnessed a wave of recent studio openings by prominent companies in the film industry. A notable example is Netflix, which expanded its presence in New York City by opening a production hub in Brooklyn's Greenpoint neighborhood. The studio spans over 161,000 square feet and includes sound stages, production offices, and support facilities. Another significant addition is Steiner Studios' expansion in the Brooklyn Navy Yard, where the company added an additional 500,000 square feet of studio space.



The Borden Complex Delivering Mid 2024, Borden Studios is a ground-up, purpose-built 220,000-square-foot film and television studio, offering four world-class sound stages, 99,000 ± square feet of flexible production office and support space, plus an array of next-level features.

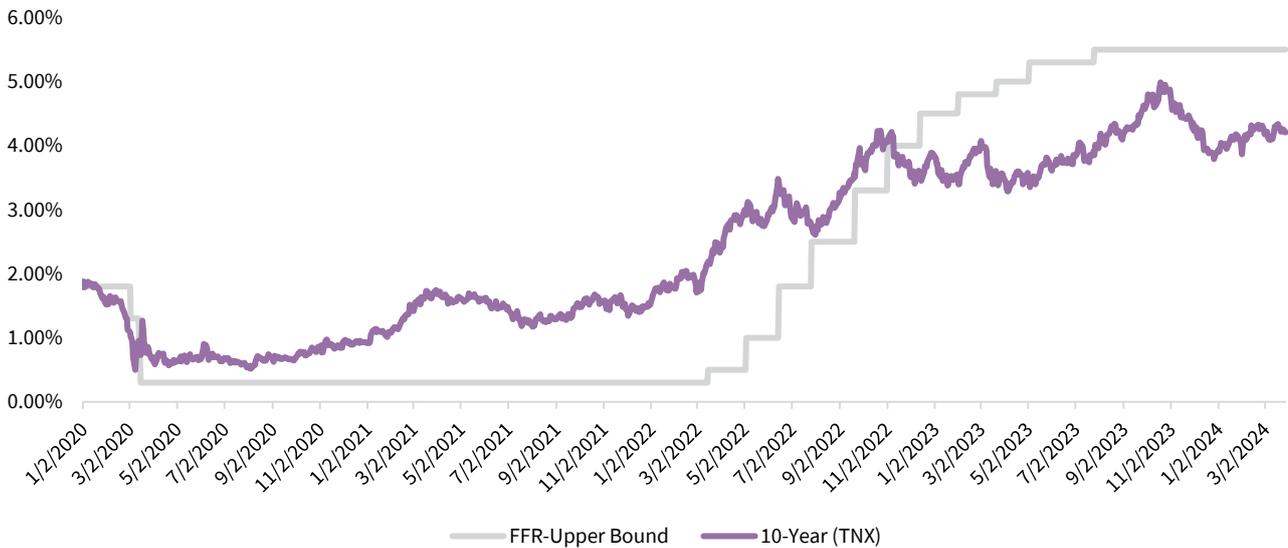
To meet the growing demand from the film industry real estate developers have rushed in to purchase land parcels large enough to meet swelling demand. Innovo property group purchased the former fresh direct facility on Borden Avenue in Long Island City and is nearly complete on a mixed user multilevel logistics and film studio facility known as the Borden Complex.

Rising Interest Rates, Lowering Prices, Slowing Sales

In recent years, rising interest rates have been the spotlight across the real estate industry. During the pandemic, the United States experienced explosive economic growth fueled by a loose monetary policy, dubbed the “free money era”. However, this unprecedented expansion period resulted in higher-than-anticipated inflation and a devaluation of the U.S. dollar. These catalysts led to the Federal Reserve embarking on its fastest monetary tightening policy in nearly four decades. In the span of 16 months, the Federal Reserve raised rates by 525 basis points to curb inflation.

Higher Treasury yields have resulted in increased borrowing costs across the risk spectrum, with risky land development being an area most acutely impacted. Higher interest rates have had a dollar-for-dollar impact on what buyers of land could afford and lowered valuations market wide.

Federal Funds Rate vs 10-Year Treasury Yield
Jan 2020 - March 2024



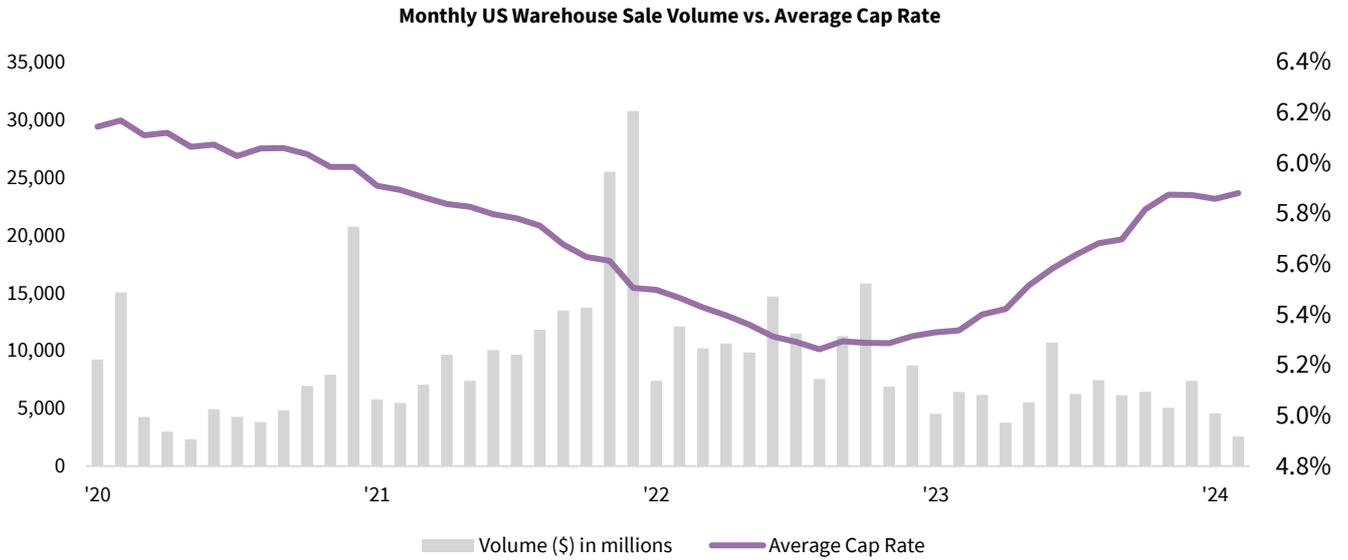
Source: Bloomberg LP., Yahoo! Finance (Updated Q1 2024)

Similarly, the required rates of return for investors have been thrust higher. In the land sale and redevelopment markets, the rise in interest rates and, as a result, construction financing costs, has pushed developer and equity yield thresholds higher. This has led to a decline in land values and a cooling of transaction volume.

While strong leasing fundamentals, and a diverse demand pool for site of scale have materially increased land values, interest rate increases have acted as a drag on land values and significantly decreased transaction volumes across New York City. Furthermore, the 10-year treasury has seen increased volatility over the last six months as it reacts to economic data. This has resulted in a whipsawing of the 10-year treasury between 4.25%

- 5.00% creating uncertainty and instability attributing to an already cautious lender sentiment, and ultimately a further reduction in transaction volumes.

Prior to 2022, the New York City Outer Boroughs saw an average of 164 sale transactions per year¹. Following the fastest set of interest rate hikes in nearly 40 years, transaction volume fell to 114-transactions in 2023, representing a 33.4% decrease from 2022. The average cap rates for transactions have also increased 200 basis points in the same period. Furthermore, the overall sales volume from a dollar perspective decreased 32.8% to \$1.56B compared to \$2.31B in 2022.

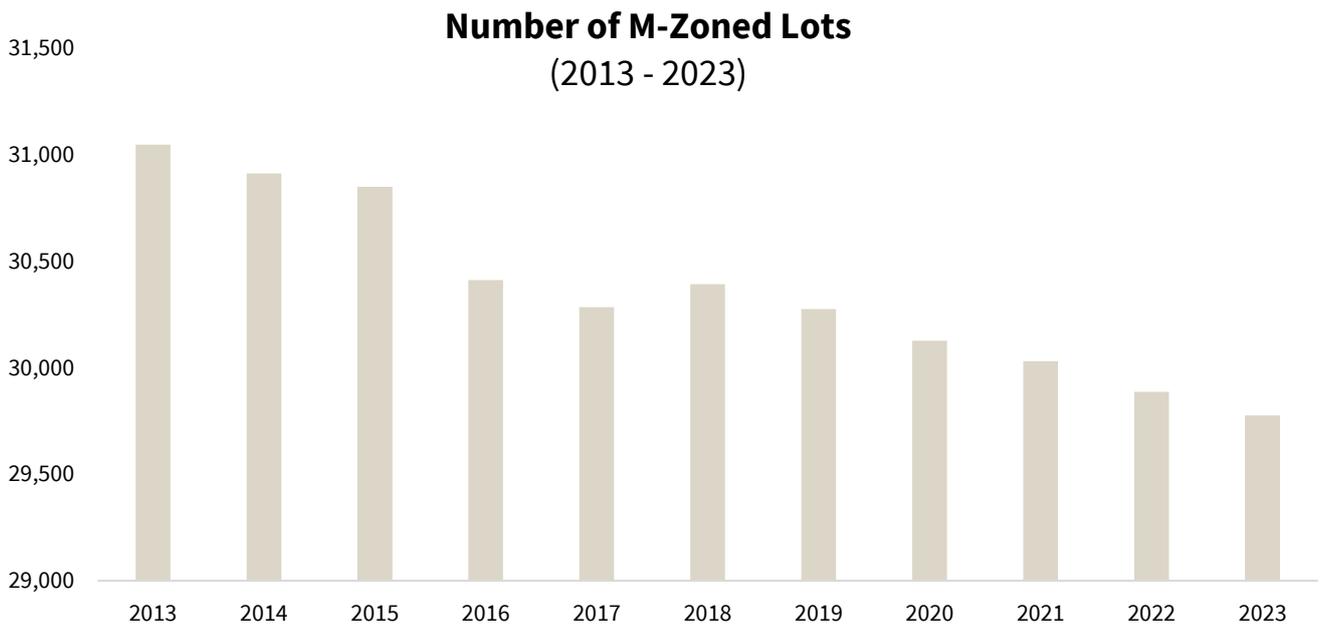


Source: MSCI Real Capital Analytics
 Data based on property & portfolio sales of \$2.5 million & greater (Updated Q1 2024)

1. Data based on property sales of 10,000 SF & greater, sourced from CoStar.

M-Zoned Lots are disappearing

The number of M-zoned lots in New York City has decreased by 4.3% over the past 10 years, going from 31,046 lots at the end of 2013 to 29,775 at the end of 2023. This decrease in the number of M-zoned lots is attributable to a push to upzone/rezone M zoned land where high and better use exists. These areas to date have been concentrated near major transit hubs, and subway stations throughout Brooklyn, Queens, and Bronx. Often M zoned land within a 10-minute walk time of a subway stop is a prime target for conversion to residential zoning. Areas in Long Island City, and the neighborhoods surrounding the Gowanus canal are prime examples of this trend. With fundamentals in the multifamily space remaining strong, we anticipate a continued reduction in M zoned parcels over the long term, which will continue to put upward pressure on land value.



Source: NYC Department of City Planning (Zoning Tax Lot Database Archive files)

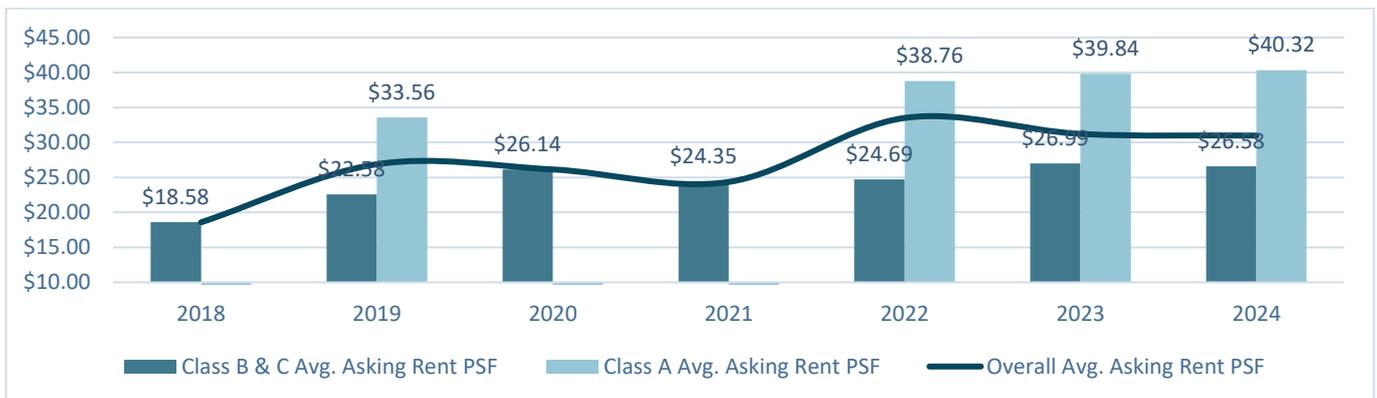
Warehouse Submarket leasing updates Q4 2023

Brooklyn

The Brooklyn logistics and warehouse submarket is comprised of 48.4 million s.f., making it the second largest of all four New York City outer boroughs markets; made up of 95.8% Class-C product with an average building size of 35,522 s.f., 18’ clear heights, and an original build date of 1944. The market is poised to experience significant growth over the coming years as several new developments, totaling over 3.7 million s.f., are expected to deliver. Brooklyn has become a key place of interest for retailers looking to grow their last mile network given the borough’s massive consumer base. 2.8 million people live in Brooklyn, and the borough has pockets of immense wealth in areas such as Park Slope, Williamsburg and Cobble Hill, where consumers have great propensity to shop online.

Leasing velocity reached 942,073 s.f. in 2023, outpacing the rest of the submarkets in the outer boroughs. This was the second largest annual leasing volume in Brooklyn, only after the 1.3 million s.f. leased in 2020. However, unlike the previous peak which saw 1.0 million s.f. of Class A transactions, 2023’s leasing volume was predominantly comprised of Class C deals, as 94.7% of all transactions were in this Class segment. Although leasing volume was primarily driven by small-to-mid size deals, two out of the three biggest leases signed in 2023 across the outer boroughs took place in Brooklyn. The New York City Department of Transportation signed 92,221 SF at 101 Varick Ave in Greenpoint/Williamsburg in a deal that also included 62,000 s.f. of parking, while Net Zero Logistics, a 3PL user, signed 70,000 SF at Seagis’ 1970 Pitkin Ave in Flatlands/East New York.

Brooklyn’s strong leasing activity combined with a lack of quality options has resulted in the lowest vacancy rate amongst the outer boroughs (excluding Staten Island). There are no existing Class A options and only two existing availabilities over 100,000 s.f.



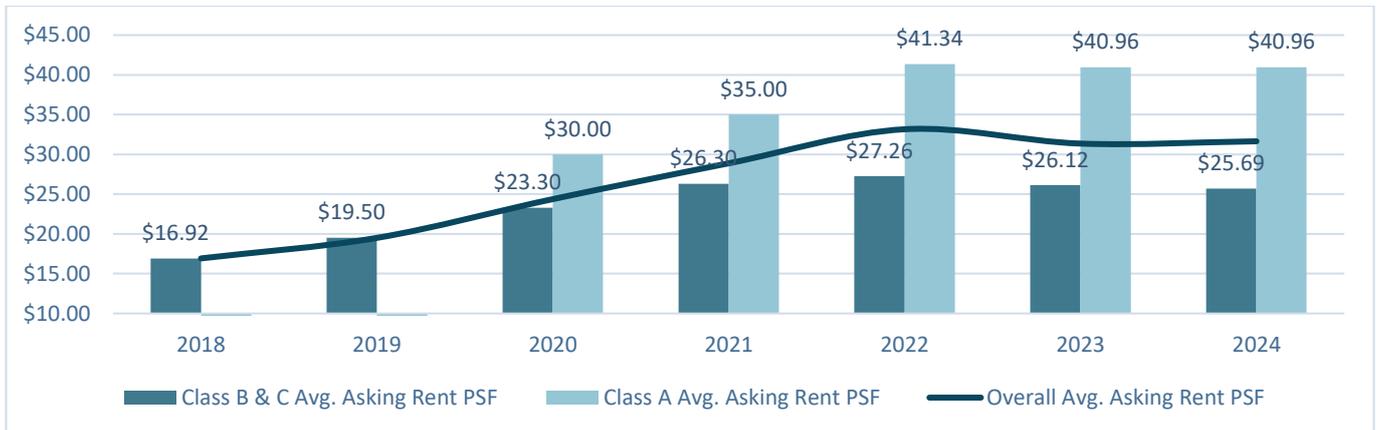
Warehouse Submarket leasing updates Q4 2023

Queens

The Queens logistics and warehouse market, with an average building size of 39,225 s.f. and clear heights of 17', is comprised of 55.2 million s.f., making it the largest market by inventory in New York City's outer boroughs. The Queens market features pockets of high-income millennial populations that make it ideal for retailers looking to expand their last mile network and ensure efficient delivery times to their customers, as well as proximity to the Midtown tunnel, granting quick access to the east side of Manhattan.

Leasing velocity was held to 791,032 s.f. in 2023, the lowest annual volume since 2018, as activity was concentrated in Class B and C small-to-mid size deals. Despite recording 37 transactions, all leases were under 60,000 s.f., with no Class A deals. Of note, FW Webb Company leased 55,120 s.f. at 49-25 Maspeth Ave in Maspeth, while Sussman-Automatic Mr. Steam signed a renewal for 51,918 s.f. at 43-20 34th St in Long Island City. Another factor that limited tenants' ability to transact is the lack of quality options in the borough, as there are currently no existing Class A options and only four Class B availabilities over 10,000 s.f.

Of the product currently under construction, there are three projects totaling 1.0 million s.f. that remain available for lease, all delivering in 2024. These developments are spread across the borough and will bring much-needed quality options to the existing tenant base. In Long Island City, IPG's 680,000 s.f. at The Borden Complex is expected to deliver in Q2, the biggest project delivering in Queens in 2024. Meanwhile, Wildflower is under construction on two projects in Queens: 245,337 s.f. at College Point Logistics Center in the Whitestone/Flushing submarket, and 116,725 s.f. at JFK Conduit Logistics Center in the JFK submarket. Both of these projects are slated to be delivered in early 2024.



Warehouse Submarket leasing updates Q4 2023

Bronx

The Bronx industrial market is comprised of 24.0 million s.f., consisting of 83.4% Class C product, with an average building size of 45,070 s.f. and an original build date of 1950. The location of the Bronx market makes it well-suited for delivery into upper Manhattan, and with direct access to I-95, the Bronx is ideal as a regional hub for distribution companies looking to also service the Westchester, Fairfield, and Long Island markets. The Bronx market is also home to a large concentration of food and beverage distributors as well as the Hunts Point Food Market.

Leasing velocity in the Bronx was amongst the lowest in the outer boroughs, reaching just 351,828 s.f. in 2023, a 58.1% decrease from 2022. Activity was almost entirely comprised of small Class C deals. This is evidenced by just one Class B transaction at Link Logistics' 1160 Commerce Ave, a 30,000 s.f. short term deal signed by Primo Water. Additionally, the only deal over 40,000 s.f. in the entire submarket was the 137,605 s.f. lease renewal by the South Bronx Overall Economic Development Corporation (SoBro) at 131 Walnut Ave in South Bronx, a city-owned building they have been leasing since 1982.

Although the Bronx has the highest vacancy rate in NYC, this is primarily driven by the 499,011 s.f. second story space that remains available at IPG / Affinius Capital's 2505 Bruckner Blvd, the only existing Class A availability in the NYC market. This project has been heavily impacted by the macroeconomic headwinds of the past 18 months which have affected demand for big box space. However, demand for the Class B and C segments remains strong with sitting at 2.9% in these Class segments, which has also limited tenants' ability to transact in the submarket.



Sales Comparables

M-Zoned Sales Comparables

The Figure 1.1 and below provides detail on every M zoned parcel above 4 acres to trade since 2019. These comps include two types of comps. The first being Land Sales which are vacant or underutilized parcels which were purchased for either redevelopment to another use or to be used for parking. Second, are traditional building sale comparables which have existing infrastructure in place which is still the highest best use for the property. The vast majority of the land sale transactions represent sales for the development of new logistics facilities, new studios, or sites to store/park large logistic fleets. As such these properties typically trade based not on their land square footage or acreage, but on their Zoneable Foot Area Ratio of ZFA. ZFA is calculated by multiplying the land square footage by the allowable Foot Area Ratio (FAR) per the zoning. Given the land area required to build a new power generation facility, and the utter lack of vacant/underutilized land parcels of scale in New York City, it is most likely that a purchaser would need to consider properties with existing improvement already in place. Not reflected in the comps below would be the additional costs of buying out any tenants leasing space at the property but also the cost of demolishing the existing infrastructure.

Figure 1.1

Table of M Zoned Land Sale Comp
Greater than 4.0 Acres
2019 – Present

#	Sale Date	Address	Size (Ac)	Land / Building Sale	Purchase Price	Price per Acre	Zoning
1	2/2/2024	2731 West 12th St Brooklyn	16.8	Land sale	\$51,000,000	\$3,039,078	M3-1
2	12/28/2023	50 21st St Brooklyn	5.1	Bldg sale	\$248,000,000	\$48,249,027	M3-1
3	5/31/2023	28-90 Review Ave Long Island City	4.4	Bldg sale	\$354,000,000	\$79,909,707	M3-1
4	3/10/2023	55-15 Grand Ave Maspeth	8.8	Bldg sale	\$387,851,141	\$43,924,252	M3-1
5	1/30/2023	151-11 6th Road Queens	4.6	Land sale	\$12,100,000	\$2,635,601	M1-1
6	1/6/2023	31-01 20th Ave Astoria	15.7	Land sale	\$215,471,500	\$13,704,961	M3-1
7	6/30/2022	640 Columbia St Brooklyn	4.0	Bldg sale	\$330,000,000	\$81,683,168	M3-1
8	1/28/2022	46-81 Metropolitan Ave Queens	4.5	Land sale	\$42,736,600	\$9,512,687	M3-1

#	Sale Date	Address	Size (Ac)	Land / Building Sale	Purchase Price	Price per Acre	Zoning
9	1/7/2022	50-35 56th Rd Maspeth	5.7	Bldg sale	\$130,000,000	\$22,807,018	M1-1
10	12/31/2021	728 Court St Brooklyn	17.4	Land sale	\$123,000,000	\$7,052,752	M3-1
11	11/1/2021	1110 Oak Point Ave Bronx	6.4	Land sale	\$103,000,000	\$16,023,921	M3-1
12	8/25/2021	511 Barry St Bronx	4.6	Bldg sale	\$119,000,000	\$25,925,926	M1-2
13	7/19/2021	512 Gardner Ave Brooklyn	4.5	Land sale	\$75,000,000	\$16,568,012	M3-1
14	5/27/2021	688-702 Court St Brooklyn	3.7	Bldg sale	\$45,000,000	\$12,261,580	M3-1
15	5/19/2021	1080 Leggett Ave Bronx	4.9	Bldg sale	\$116,500,000	\$23,775,510	M1-2
16	4/23/2021	182-20 Liberty Ave Jamaica	5.3	Bldg sale	\$58,100,000	\$10,921,053	M1-1
17	1/13/2021	1900 South Ave Staten Island	44.4	Land sale	\$66,096,000	\$1,489,997	M3-1
18	12/23/2020	4101 Arthur Kill Rd Staten Island	206.4	Land sale	\$85,000,000	\$411,783	M3-1
19	11/24/2020	48-00 Grand Ave Queens	5.1	Land sale	\$51,000,000	\$9,958,263	M3-1
20	9/30/2020	34-02 Starr Ave Queens	4.7	Bldg sale	\$369,300,000	\$78,241,525	M1-3
21	9/11/2020	980 E 149th St Bronx	13.2	Land sale	\$159,569,000	\$12,061,193	M3-1
22	6/23/2020	28-90 Review Ave Queens	4.4	Land sale	\$34,000,000	\$7,682,092	M3-1
23	6/11/2020	66-35, 66-31 & 67-25 Otto Rd Glendale	6.7	Bldg sale	\$112,000,000	\$16,666,667	M1-1
24	2/7/2020	1 Steinway Pl Queens	5.2	Land sale	\$71,600,000	\$13,638,150	M3-1
25	1/27/2020	1 Nassau Pl Staten Island	18.3	Land sale	\$30,600,000	\$1,674,549	M3-1
26	1/13/2020	101-01 Avenue D Brooklyn	7.3	Bldg sale	\$27,592,365	\$3,800,601	M1-1

#	Sale Date	Address	Size (Ac)	Land / Building Sale	Purchase Price	Price per Acre	Zoning
27	1/13/2020	10110 Foster Ave Brooklyn	11.6	Bldg sale	\$49,241,759	\$4,248,642	M1-1
28	1/13/2020	103-00 Foster Ave Brooklyn	10.4	Bldg sale	\$57,165,720	\$5,507,295	M1-1
29	1/6/2020	1900 Shore Parkway Brooklyn	8.8	Land sale	\$53,500,000	\$6,073,660	M1-1 / R4
30	12/16/2019	511 Barry St Bronx	4.6	Bldg sale	\$54,250,000	\$11,819,172	M1-2
31	8/29/2019	134-154 Morgan Ave Brooklyn	5.8	Bldg sale	\$80,500,000	\$13,784,247	M3-1
32	8/1/2019	25-70 Whitestone Expy Queens	27.8	Bldg sale	\$6,900,000	\$248,649	M1-1
33	5/22/2019	1080 Leggett Ave Bronx	4.9	Bldg sale	\$38,500,000	\$7,857,143	M1-2
34	5/7/2019	1601 Bronxdale Ave Bronx	5.3	Bldg sale	\$88,998,360	\$16,952,069	M1-1
35	1/31/2019	66-35, 66-31 & 67-25 Otto Rd Glendale	6.7	Bldg sale	\$36,000,000	\$5,357,143	M1-1
36	1/29/2019	23-30 Borden Ave Queens	4.7	Land sale	\$75,000,000	\$16,074,972	M3-2
37	1/10/2019	50 21st St Brooklyn	16.8	Land sale	\$255,000,000	\$15,196,719	M3-1

Table source: JLL Research

Land / Building Sale	Outside Staten Island	Within 3-Miles of Substation	Outside DAC	Number of Comps	Average Price per Acre ¹	Observation
Land sale	FALSE			3	\$1,192,110	Property outside of Staten Island commands a significant premium compared to property within Staten Island
Bldg sale	FALSE			0	N/A	
Land sale	TRUE			14	\$10,658,719	
Bldg sale	TRUE			20	\$25,697,020	

1. The Average Price per Acre is calculated as a straight average of the respective Price per Acre that made up the respective Comps. The Comps were not adjusted to reflect expected present day market valuations, i.e. a sale from 2019 would be expected to command a higher sale price in 2024.

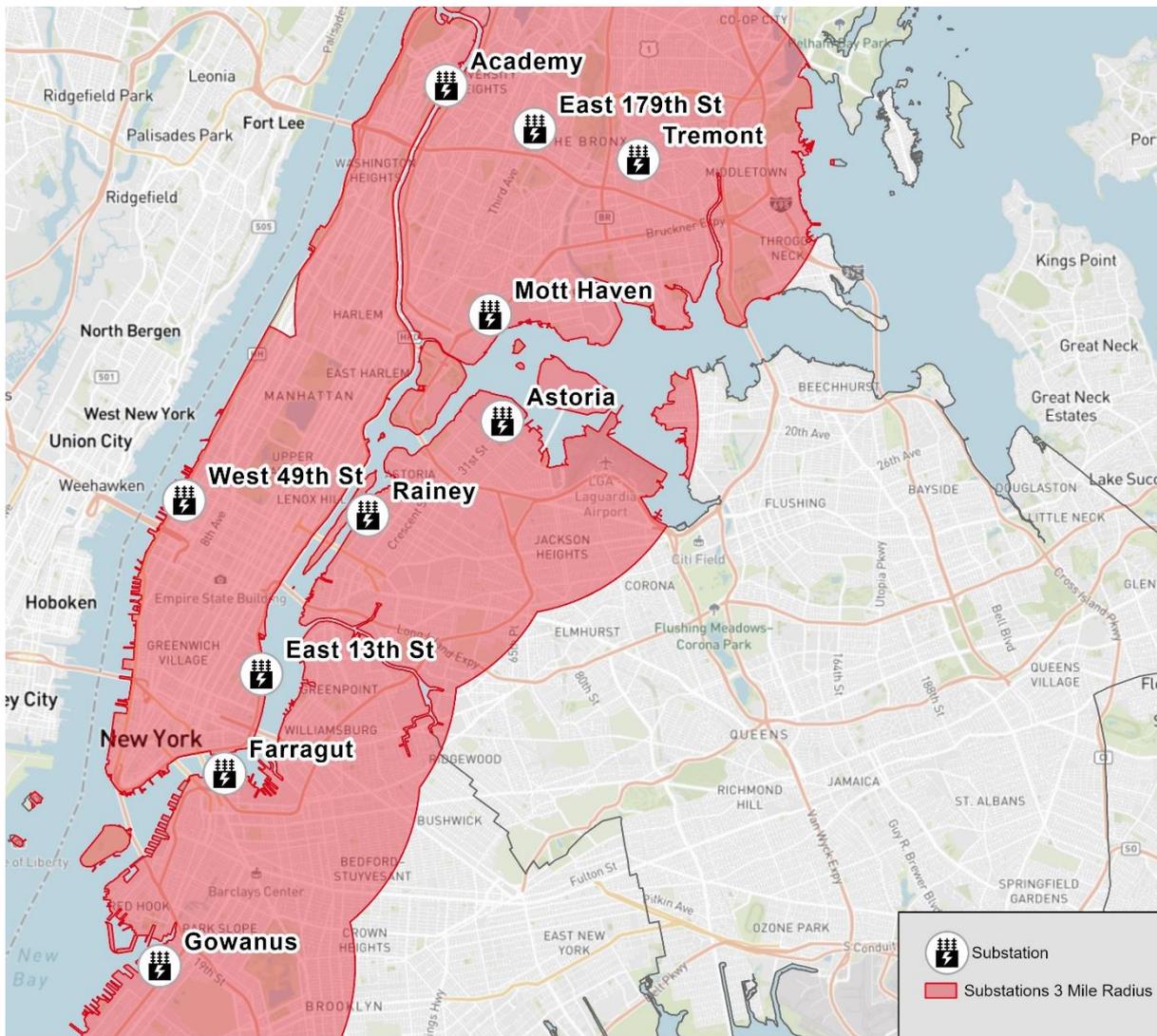
Figure 1.2

Map of M Zoned Land Sale Comp
Greater than 4.0 Acres
2019 – Present

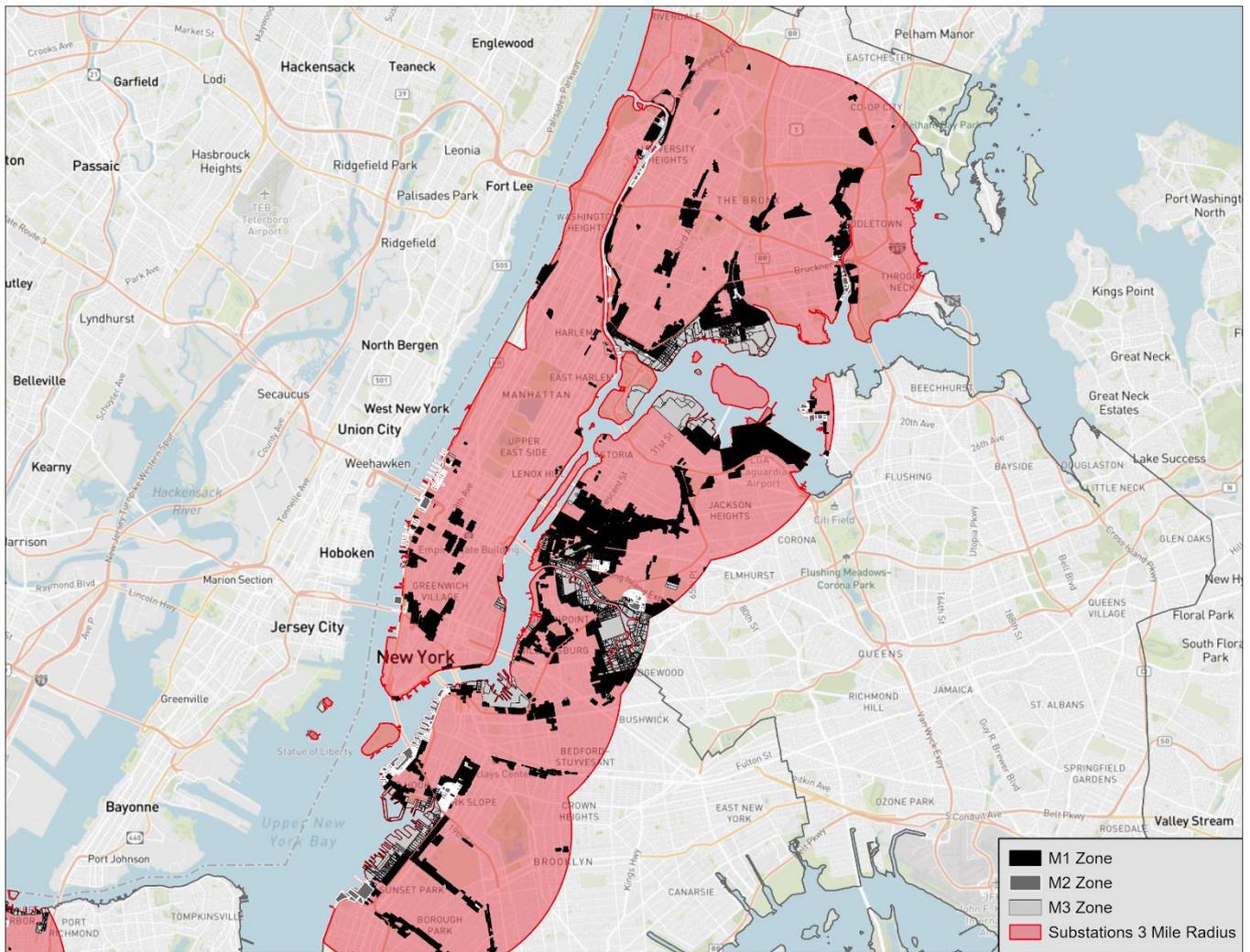
While the table above depicts all transactions within an M-zone in New York City, we acknowledge that not all of the locations are in close proximity to a substation, located outside of established Disadvantaged Communities, and that Staten Island in particular would require significant power infrastructure investment to be considered a viable location.

In order to provide a more relevant comp list for determining potential land cost for this project JLL has created the below map to refine the data set.

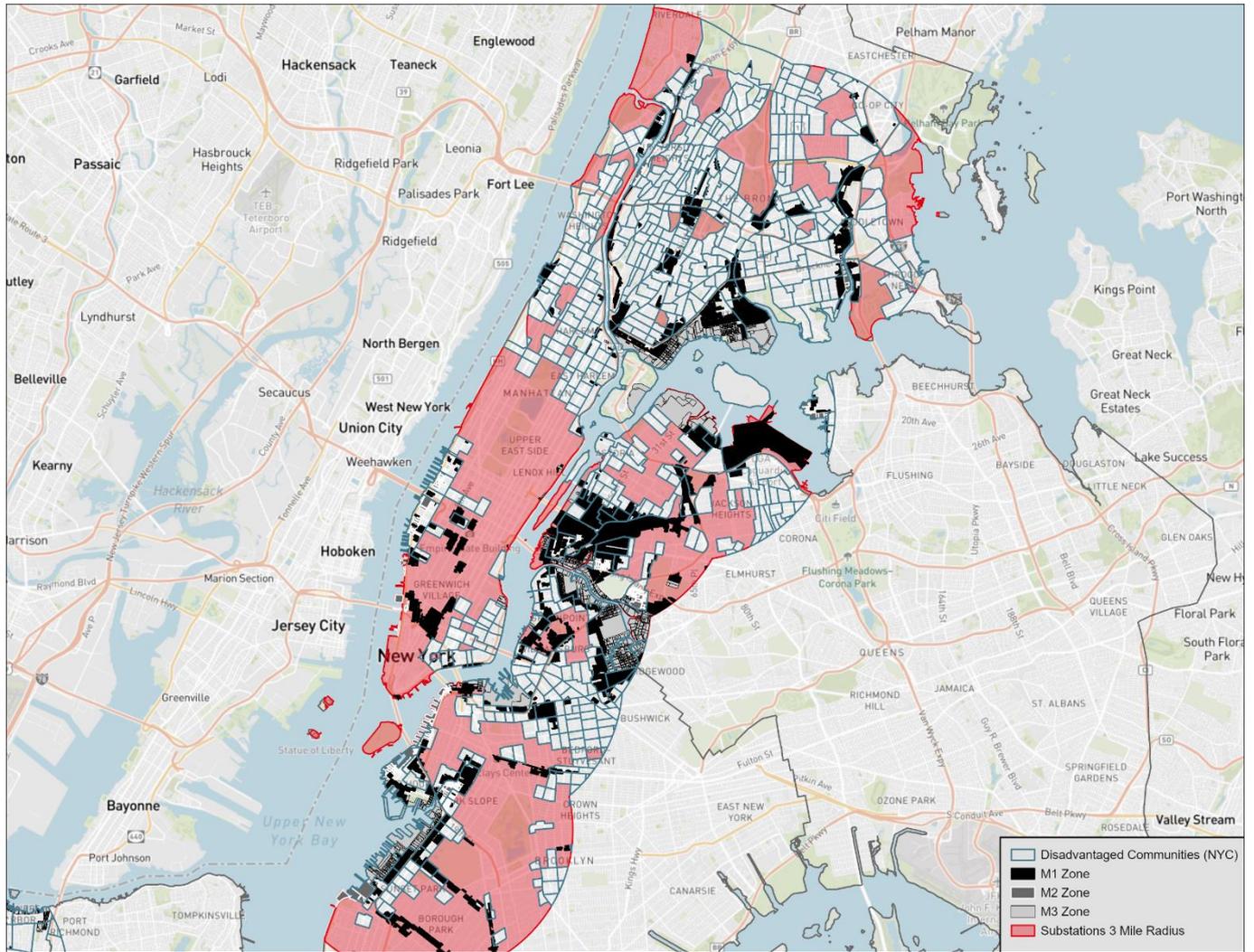
First JLL mapped a 3-mile radius around all NYC substations with 345kV which yielded the map below.



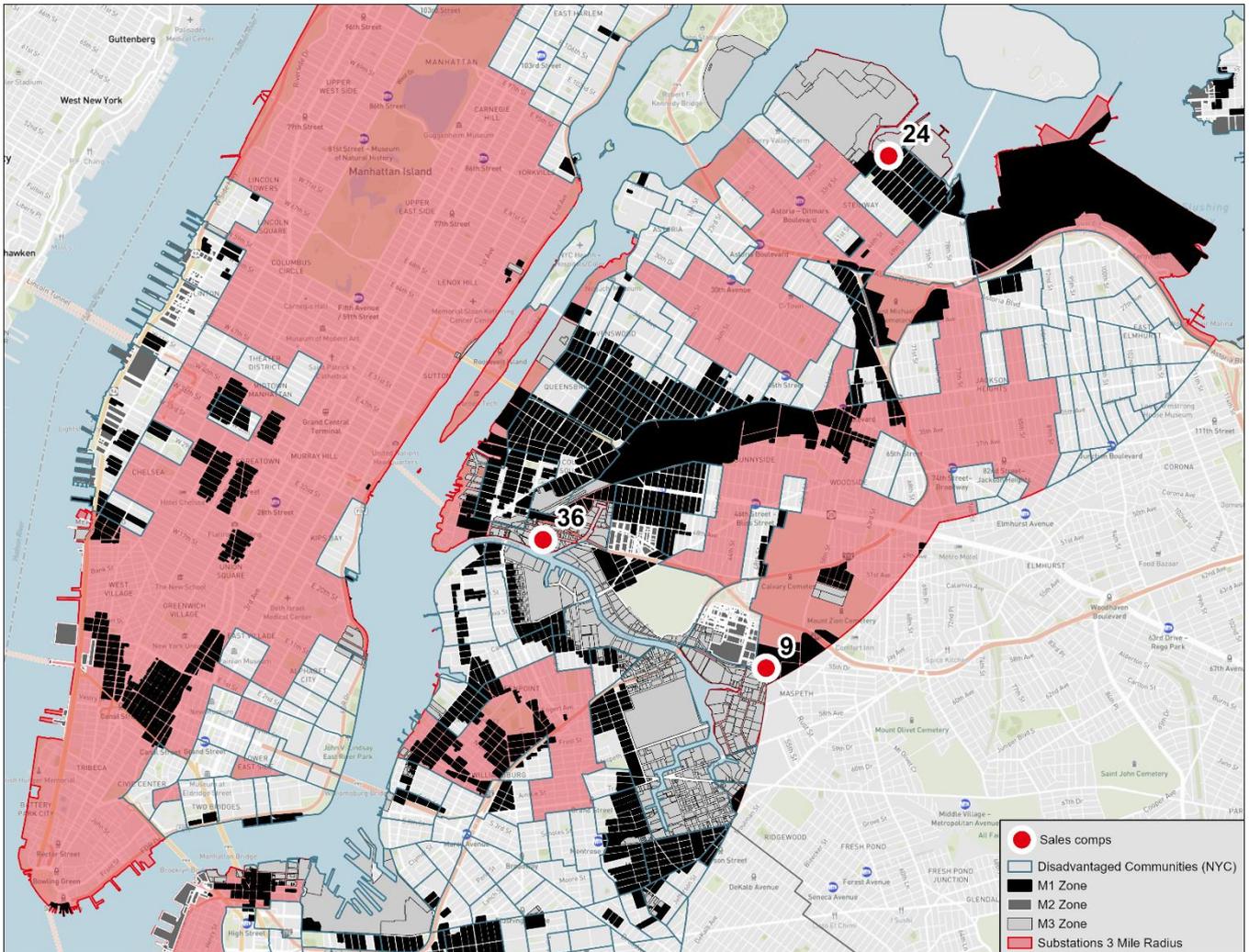
Next, JLL layered in all M-zoned areas.



Next, JLL layered in the established Disadvantaged Communities and eliminated those locations as a possibility for the Fossil Generation case.



Finally, JLL has overlaid the comp data provided above to arrive at the final comp sets relevant to this search.



Land / Building Sale	Outside Staten Island	Within 3-Miles of Substation	Outside DAC	Number of Comps	Average Price per Acre ¹	Observation
Land sale	TRUE	FALSE		3	\$3,916,113	Property within 3-miles of a substation commands a significant premium compared to property further than 3-miles of a substation
Bldg sale	TRUE	FALSE		5	\$4,945,248	
Land sale	TRUE	TRUE		11	\$12,497,611	
Bldg sale	TRUE	TRUE		15	\$32,614,277	
Land sale	TRUE	TRUE	FALSE	7	\$12,013,911	Property within 3-miles of a substation and outside of a DAC is scarce and finding enough M3-zoned property to assemble 12-acres would likely drive a premium
Bldg sale	TRUE	TRUE	FALSE	13	\$32,498,683	
Land sale	TRUE	TRUE	TRUE	4	\$13,344,087	
Bldg sale	TRUE	TRUE	TRUE	2	\$33,365,635	

1. The Average Price per Acre is calculated as a straight average of the respective Price per Acre that made up the respective Comps. The Comps were not adjusted to reflect expected present day market valuations, i.e. a sale from 2019 would be expected to command a higher sale price in 2024.

Lease Comparables

M-Zoned Lease Comparables

Figures 2.1 and 2.2 below detail comparable land lease transactions over the last five years in the outer boroughs. Land leases typically take place on smaller acreage parcels and are mostly comprised of fleet storage requirements for large logistics fleets which service the city. In some cases, the presence of bulkhead and direct waterway access can help increase the value of the land and increase potential lease rates. While the land area associated with these comps is typically on the smaller side, JLL believes that underlying economic drivers and factors would be the same for larger parcels and were any to be available they would lease for similar rates. Therefore, JLL believes the data set below would be applicable for both large scale power generation leases as well as land leases for smaller battery projects.

Figure 2.1

Table of M Zoned Land Lease Comp
Greater than 4.0 Acres
2019 – Present

#	Lease Date	Address	Size (AC)	Rent /AC NNN	Term (months)	Tenant	Zoning
1	Jun-23	38-50 21st Street, Long Island City NY	1.23	\$784,080	60	Fisker	M1-3
2	Mar-23	2647 Stillwell Ave, Brooklyn NY	1.90	\$664,290	124	Seth Transportation	M1-2 / M3-1
3	Feb-23	57-27 49th St, Maspeth NY	1.28	\$1,089,000	240	FW Webb Company	M3-1
4	Dec-22	512 Gardner Ave, Brooklyn NY	4.53	\$958,320	120	Old Dominion Freight Line	M3-1
5	Nov-22	1400 Ferris Place, Bronx NY	1.13	\$1,155,211	-	Carvana	M3-1
6	Sep-22	595 Smith St, Brooklyn NY	4.25	\$958,320	180	National Grid / Honeywell	M3-1
7	Aug-22	930 Soundview, Bronx NY	1.17	\$903,870	120	Altice	R6 / C2-2
8	Jun-22	54-12 48th St, Queens NY	0.86	\$1,110,780	192	Revel	M2-1
9	Sep-21	688 Court St, Brooklyn NY	3.62	\$892,980	36	Verizon	M3-1
10	Jun-20	31-11 20th Ave, Queens NY	5.00	\$588,060	120	E-Commerce User	M3-1
11	Jun-20	1340 East Bay Ave, Bronx NY	2.79	\$784,080	120	Amazon	M3-1
12	Mar-20	1 Railroad Pl, Queens NY	2.18	\$657,756	120	The Brink's Company	M3-1

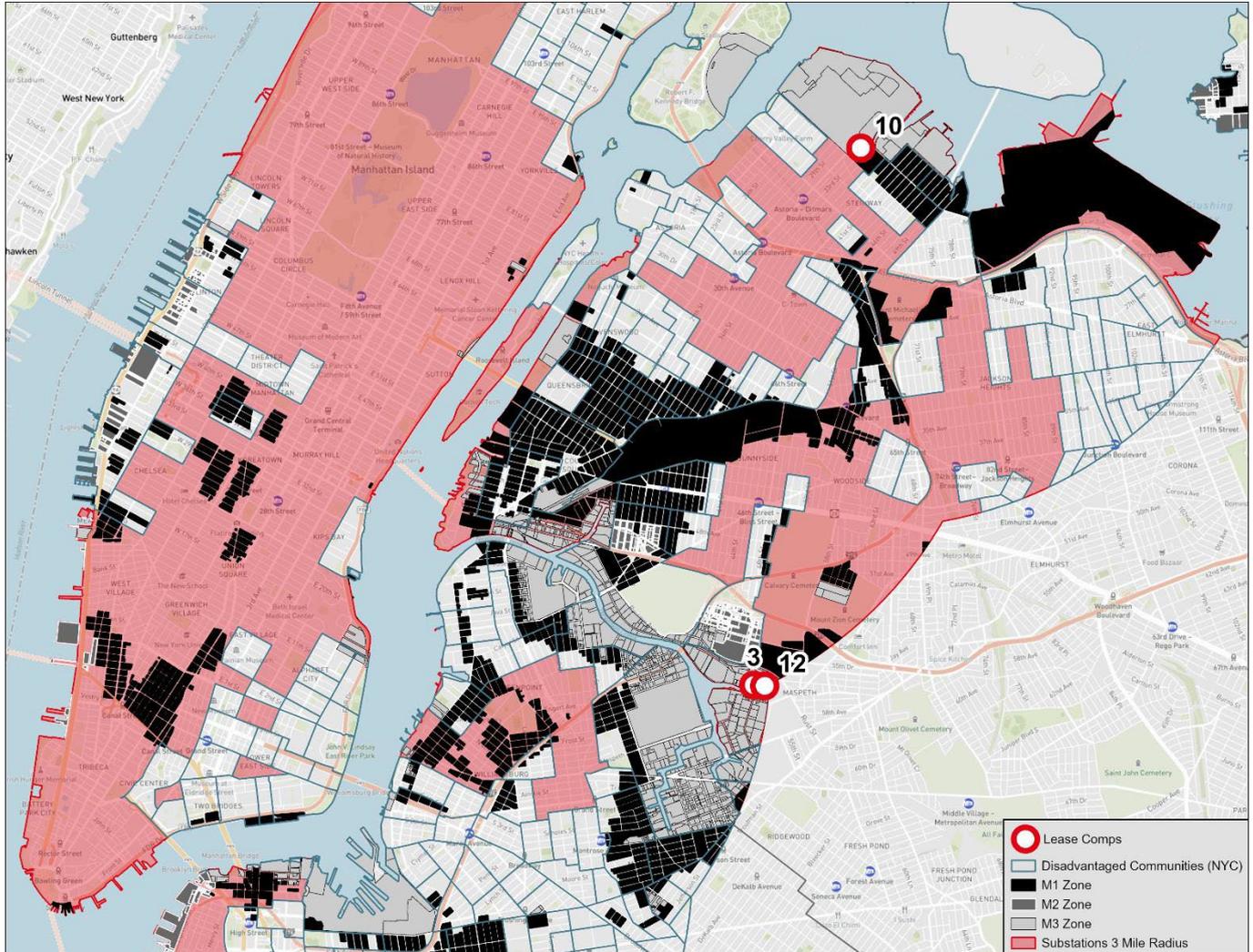
Table source: JLL Research

Outside Staten Island	Within 3-Miles of Substation	Outside DAC	Number of Comps	Average Rent/AC NNN ¹	Observation
TRUE			12	\$878,896	

1. The Average Rent/Acre is calculated as a straight average of the respective Rent/Acre that made up the respective Comps. The Comps were not adjusted to reflect expected present day market valuations, i.e. a lease from 2019 would be expected to command a higher rate in 2024.

Following the same criteria and approach as shown above for land sales, JLL has overlaid the comp data provided above to arrive at the final comp sets relevant to this search.

Figure 2.2
 Map of M Zoned Land Lease Comps
 Greater than 4.0 Acres
 2019 – Present



Outside Staten Island	Within 3-Miles of Substation	Outside DAC	Number of Comps	Average Rent/AC NNN ¹	Observation
TRUE	FALSE		1	\$664,290	Property within 3-miles of a substation commands a significant premium compared to property further than 3-miles of a substation
TRUE	TRUE		11	\$898,405	
TRUE	TRUE	FALSE	8	\$943,455	Property within 3-miles of a substation and outside of a DAC is scarce and finding enough M3-zoned property to assemble 12-acres would likely drive a premium
TRUE	TRUE	TRUE	3	\$778,272	

1. The Average Rent/Acre is calculated as a straight average of the respective Rent/Acre that made up the respective Comps. The Comps were not adjusted to reflect expected present day market valuations, i.e. a lease from 2019 would be expected to command a higher rate in 2024.

Valuation Conclusion

Valuation Conclusion

Brooklyn, Queens, the Bronx

Based on the dramatic scarcity of large land parcels in the New York Market, the growing demand from Film Studios, Logistics Facilities, and alternative energy, and most importantly the geographic constraints as outlined above, JLL estimates that acquiring M-zoned land within Brooklyn, Queens, or the Bronx that is within 3-miles of a substation with 345 kV would cost:

	HIGH	MIDPOINT	LOW
SALE RANGE:	\$15,000,000 per acre	\$12,000,000 per acre	\$9,000,000 per acre
LEASE RANGE:	\$22.00 per land foot	\$20.00 per land foot	\$18.00 per land foot

Please note that this valuation is a high-level estimate based on market averages, and does not take into account any site-specific details such as, Environmental, Geotechnical, elevation, or actual allowable FAR. All of which could have a material impact on the value of property and are all common site considerations in M-zoned land. Furthermore, this does not take into consideration the lack of land parcels under common ownership that are readily available for purchase or lease. In order to actually carry out this business plan, aggregating multiple locations would likely be required and there would be a relatively high likelihood of needing to acquire sites with in-place buildings with existing tenants which could dramatically increase the cost of acquisition.

Staten Island

While not the main focus of this report due to its vastly different market dynamics, and potential deliverability issues for new generation plants, JLL has included sales transaction data for Staten Island. Based on the sale and lease comps of the larger parcels in Staten Island, JLL estimates land values for Staten Island to be as follows:

	HIGH	MIDPOINT	LOW
SALE RANGE:	\$1,500,000 per acre	\$1,250,000 per acre	\$900,000 per acre
LEASE RANGE:	\$5.50 per land foot	\$4.85 per land foot	\$4.15 per land foot

Please note that this valuation is a high-level estimate based on market averages, and does not take into account any site-specific details such as, Environmental, Geotechnical, elevation, or actual allowable FAR. All of which could have a material impact on the value of property and are all common site considerations in M-zoned land.



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