



MX

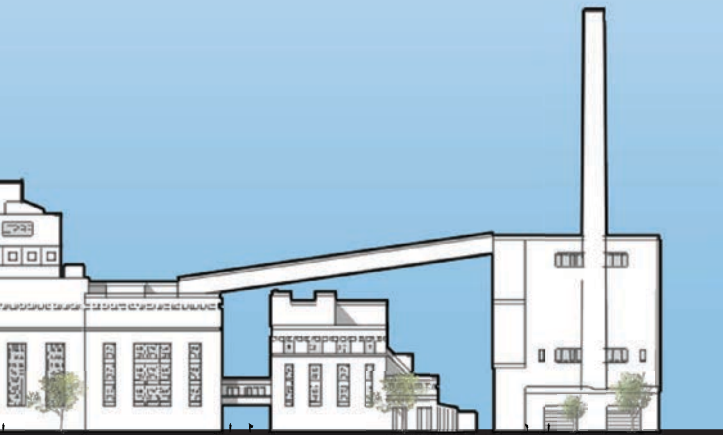
M1

M2

Manufacturing Districts

New York City's industrial areas contain a wide range of activities that are vital to the region's economy. These include traditional production facilities, warehouses and distribution centers, construction contractors' establishments, film production studios, ferry and ship terminals, emerging tech and maker spaces and essential municipal facilities like sewage treatment plants and train yards. Manufacturing Districts also include a wide range of offices, wholesale and retail businesses and a limited number of community facility uses. In 1916 the zoning

included unrestricted zones in which this wide range of activities could occur; the 1961 Resolution introduced the concept of separating industrial activities from residences and limiting their effects on nearby residential areas. Today the Zoning Resolution regulates Manufacturing Districts through rules intended to support the availability of space for a wide range of businesses in an environment that benefits from separation from residential neighborhoods.



M3

Basic Types



Light Manufacturing District



Medium Manufacturing District



Heavy Manufacturing District

There are three types of *Manufacturing Districts* that are distinguishable from each other by the intensity of industrial *uses* permitted within them, the applicable *performance standards* (regulations that limit the amount and type of industrial nuisances permitted for a variety of potentially noxious elements including noise, vibration, smoke, odor and fire hazard) and the range of permitted non-industrial activities. Each district type is further subdivided into a number of individual districts characterized by different *floor area ratios (FARs)* and parking requirements, with increasing intensity of industrial use and density generally indicated by the accompanying numeric suffix. The district categories are:

- M1 – Light Manufacturing Districts. Designed for a wide range of industrial, commercial and a limited number of community facility uses, M1 Districts in some cases act as transition zones between residential areas and areas with heavier industrial activity.
- M2 – Medium Manufacturing Districts. While generally regulated similarly to the more intensive M3 Districts, M2 Districts have more stringent performance standards in some cases. Although not widely mapped, M2 Districts are usually found in or near waterfront areas.
- M3 – Heavy Manufacturing Districts. Originally designed to accommodate essential heavy manufacturing uses and facilities, such as power plants and foundries, which generate high amounts of noise, truck traffic or pollutants, M3 Districts today are the location for open industrial uses such as recycling facilities and cement production.

When adopted in 1961, the Zoning Resolution separated industrial and residential areas so that residential communities would be protected from industrially generated pollution, noise, traffic and other hazardous materials and, conversely, to shield industry from nuisance-generated complaints. (This preceded the

establishment of modern environmental regulations governing air and water quality.) After its adoption, new residences were not permitted in Manufacturing Districts, although many existing residences remained – and continue to remain – as *non-conforming uses* because of historic land use patterns (see Chapter 1 for more background).

Over time, this separation has been relaxed, either to reflect the existing mixed character of the area or to implement a mixed-use neighborhood plan, through the creation of special M1 Districts that permit a mix of residential and manufacturing uses. These *paired districts*, mapped in one of 16 Special *Mixed Use Districts* (denoted on Zoning Maps by “MX” followed by a discrete number) and other special districts, combine an M1 District with a Residence District, allowing a broad range of uses that are considered compatible in close proximity (see Chapter 7). The provisions for other distinct M1 Districts are also described in this chapter. Additional residential uses in certain Manufacturing Districts have also been legalized through provisions of the State Multiple Dwelling Law – known as the Loft Law – and created over time through the adaptive reuse of non-residential buildings.



Permitted Uses

The city's Manufacturing Districts generally permit a wide range of industrial and commercial uses. Industrial uses, which are listed in Use Groups 17 and 18, are permitted in M1, M2 and M3 Districts according to the characteristics of their operations. Each of the three Manufacturing Districts incorporates different minimum performance standards (ZR 42-20), with the most stringent performance standards required in M1 Districts. Since 1961, many of these performance standards have been superseded by other City, State, or Federal environmental regulations, which in many instances are more restrictive.

In general, the more potentially noxious uses, such as power plants and fuel supply depots in Use Group 18, are limited to M3 Districts, but they may also locate in M1 and M2 Districts if they comply with the higher performance standards of those districts. Light manufacturing uses (Use Group 17), such as woodworking shops, repair services and wholesale service and storage facilities, are permitted in all three Manufacturing Districts.

Commercial uses are permitted as-of-right in M1 Districts with few exceptions (ZR 42-10). However, certain retail uses with over 10,000 square feet of floor area – such as food, clothing, furniture, and department stores – require a *City Planning Commission (CPC) special permit* (ZR 42-30).

In M2 and M3 Districts, Use Group 5 transient hotels are not permitted. Certain categories of retail and service uses in Use Groups 6A, 6C, 9A, 10A and 12B are limited in size or not permitted at all.

Certain community facility uses in Use Group 4, primarily houses of worship and medical offices, are permitted as-of-right in M1 Districts, while others such as schools and hospitals are allowed only by a special permit from the

Board of Standards and Appeals or the CPC (ZR 42-31, 42-32). Community facilities are not permitted in M2 and M3 Districts.

Commercial and manufacturing uses, except for materials or product storage and uses for which a specific exception is made in the use group regulations, are subject to special enclosure requirements (ZR 42-41). Such uses are required to be enclosed in M1 Districts, as well as M2 or M3 Districts located close to Residence Districts. In other instances, M2 and M3 Districts do not require enclosure. Open storage of materials or products is not permitted in M1 Districts close to a Residence District. Elsewhere in M1 Districts, and in M2 and M3 Districts close to a Residence District boundary, such open storage is required to be screened (ZR 42-42).

Except in special circumstances, no new residences are permitted in any Manufacturing District. In M1-5A and M1-5B Districts, located only in SoHo and NoHo, artists may occupy *joint living-work quarters for artists* as an industrial use (ZR 42-14). In M1-5M and M1-6M Districts mapped in Midtown South, older buildings can be converted to residential use by CPC Chair *certification* if specified percentages of floor area are preserved for commercial or manufacturing use (ZR 15-21), or by CPC special permit if preservation is not feasible (ZR 74-782). In M1-1D through M1-5D Districts, new residential uses are permitted by CPC *authorization* (ZR 42-47), in recognition of pre-existing residential buildings. In M1-6D Districts, new residential buildings are permitted as-of-right and small existing buildings can also be converted to residential use as-of-right, while commercial and community facility uses are subject to special provisions intended to ensure a robust supply of space for nonresidential activities (ZR 42-48).

In Special Mixed Use Districts, residential and non-residential uses (commercial, community facility and light industrial) are allowed as-of-right and can be located side-by-side or within the same building, within certain limits based on the environmental ratings of materials used within industrial businesses. To accomplish this, an M1 District is paired with an R3 through R10 District, such as M1-2/R6. Most light industrial uses are permitted in MX Districts as-of-right; others are subject to restrictions, and Use Group 18 uses are not allowed, except for small breweries (ZR 123-22).

Permitted Use Groups

	Residential		Community Facility		Retail and Commercial										General Service	Manufacturing		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Manufacturing Districts																	
M1				●	●	●	●	●	●	●	●	●	●	●		●	●	
M2						●	●	●	●	●	●	●	●	●		●	●	
M3						●	●	●	●	●	●	●	●	●		●	●	●

Use Group 6 — Retail and service establishments that serve local shopping needs, such as food and small clothing stores, beauty parlors and dry cleaners, as well as offices **(ZR 32-15)**

Use Group 7 — Home maintenance and repair services, such as plumbing and electrical shops which serve nearby residential areas **(ZR 32-16)**

Use Group 8 — Amusement establishments such as movie theaters and small bowling alleys, service uses such as appliance repair shops, as well as car rental and public parking facilities **(ZR 32-17)**

Use Group 9 — Business and other services, such as printers or caterers **(ZR 32-18)**

Use Group 10 — Large retail establishments that serve a large area such as department stores and appliance stores **(ZR 32-19)**

Use Group 11 — Custom manufacturing activities such as for jewelry or clothing **(ZR 32-20)**

Use Group 12 — Large entertainment facilities that draw large numbers of people such as arenas and indoor skating rinks **(ZR 32-21)**

Use Group 13 — Low coverage or open amusement uses, such as golf driving ranges, and children's small amusement parks, camps **(ZR 32-22)**

Use Group 14 — Facilities for boating and related activities which are suitable in waterfront recreation areas **(ZR 32-23)**

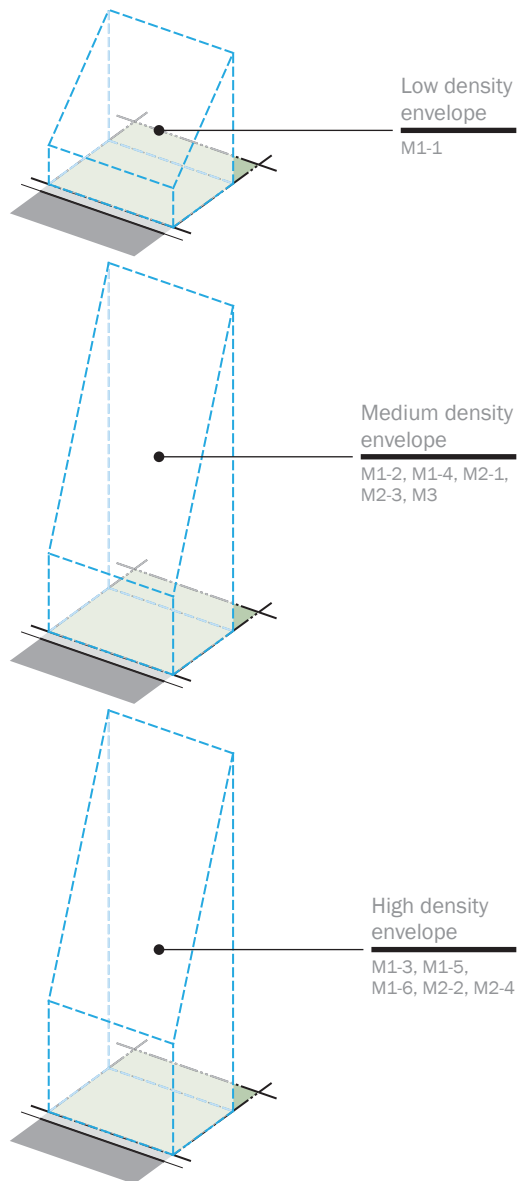
Use Group 15 — Large commercial amusement establishments, including typical amusement park attractions such as Ferris wheels and roller coasters **(ZR 32-24)**

Use Group 16 — Automotive and semi-industrial uses, such as automotive repair, gas stations, custom woodworking and welding shops **(ZR 32-25)**

Use Group 17 — Light industrial uses that can normally conform to high performance standards, such as appliance manufacturing or contractor yards **(ZR 42-14)**

Use Group 18 — Heavy industrial uses, such as cement plants, meat or fish preparation, and junk yards **(ZR 42-15)**

Manufacturing District Envelopes



Permitted Bulk

Floor area ratio (FAR) is the primary instrument for controlling building size in Manufacturing Districts. FARs ranging from 1.0 in M1-1 to 10.0 in M1-6 regulate the size of buildings in these districts (ZR 43-12). Special regulations permit a higher FAR to allow the limited enlargement of manufacturing businesses in buildings built before 1961. In M1 Districts, permitted community facility uses are generally allowed a higher FAR, and bonuses are permitted for public plazas and arcades in M1-6 Districts.

In all Manufacturing Districts there are no requirements for *front* or *side yards*. *Rear yards* on *interior lots* are required to be 20 feet deep, while *through lots* require a 40-foot *rear yard equivalent* above the ground floor (ZR 43-20). If the Manufacturing District is located next to a Residence District, there are requirements for deeper rear yards and for minimum side yards to provide sufficient separation between buildings in the two districts (ZR 43-30). Like Commercial Districts, there are no *lot coverage* limitations in any Manufacturing District.

Building heights in Manufacturing Districts are governed by a *sky exposure plane* (ZR 43-40). Similar to non-contextual Commercial Districts, there are three separate sets of sky exposure planes for low, medium and high density Manufacturing Districts. They vary in the maximum height permitted close to the street (highest in high density districts) and the steepness of the sky exposure plane, which varies based on the width of the adjoining street and is steepest in high density districts. In addition, an alternate option permits a steeper sky exposure plane for buildings on sites where an open area is provided along the *street line*, and the entirety of the building is constructed behind this open area. *Towers* are permitted to penetrate the sky exposure plane in a number of zoning districts (M1-3 through M1-6) as long as they meet certain size and locational standards (ZR 43-45).

In M1-1D through M1-5D Districts, residential uses are permitted by CPC authorization, and special bulk rules apply (ZR 43-61). In M1-6D Districts, buildings are subject to special lot coverage, yard regulations, FAR and height and setback controls similar to those for an R10A District, including additional FAR and height allowances when located in an Inclusionary Housing Program area (ZR 43-62).

In MX Districts, residential uses are generally subject to the bulk controls of the governing Residence District. Commercial, community facility and industrial uses are subject to the M1 District bulk controls, except that community facility uses are subject to the residential FAR limits. Special lot coverage, yard and height and setback regulations apply (ZR 123-60).

Parking and Loading

Some Manufacturing Districts require parking while others (M1-4, M1-5, M1-6, M2-3, M2-4 and M3-2) are exempt from parking requirements for all permitted uses and are intended to be mapped in locations where the need for off-street parking is limited.

Permitted and Required Parking Spaces

In districts that require parking, the amount will vary according to the parking rate for the use as well as the size of the building (ZR 44-20). New manufacturing facilities require one parking space for every three employees or every 1,000 square feet of floor area, whichever requires more spaces. Warehouses and other storage establishments, which are often large spaces with relatively few employees, require one space for every three employees or every 2,000 square feet of floor area, whichever requires fewer spaces. Commercial uses permitted in Manufacturing Districts have the same parking requirements as commercial uses in C8-1 Districts. Office buildings and most general retail

Streetscape

Streetscape regulations in Manufacturing Districts are more limited than in Residence or Commercial Districts.

Sign regulations are the same in all three Manufacturing Districts and are generally permissive. Both **accessory signs** and **advertising signs** are permitted in all Manufacturing Districts (ZR 42-52). Different size and height limitations apply to signs based on whether and how they are illuminated and whether they are advertising or accessory signage. For example, a non-illuminated sign can attain a maximum of 1,200 square feet in area, while a sign lit by indirect illumination can only be 750 square feet. Illuminated signs can only be located up to 40 feet in height, while non-illuminated signs can be placed at 58 or 75 feet above curb level depending, respectively, on whether the sign is accessory or advertising.

Special requirements apply more limited signage allowances in M1 Districts that permit residential use and when the Manufacturing District is located close to an arterial highway, Residence District or public park (ZR 42-55, 42-56). In MX Districts, the sign regulations of a C6-1 District apply (ZR 123-40). When located adjacent to a Residence District, special regulations restrict the location of business entrances, show windows and signs (ZR 42-44).

Street trees are required for any new development or significant enlargement in a Manufacturing District, except for those in Use Groups 17 or 18, at a rate of one tree per every 25 feet of street frontage (ZR 43-02). However, the street frontage used to calculate the number of required trees may exclude the frontage occupied by curb cuts serving a number of uses in Use Group 16.

establishments in manufacturing zones, for example, require one parking space per 300 square feet of floor space. The parking requirements can be waived if the calculation of parking requirements result in a small number of spaces (ZR 44-23). This threshold varies from 15 to 40 spaces depending on the zoning district.

As in Commercial Districts, Manufacturing Districts limit the maximum number of permitted accessory parking spaces that can be provided on a zoning lot to 225 spaces (ZR 44-13). These limits apply only to permitted parking; required parking is not subject to these limits.

Residential uses in M1-1D, M1-2D, M1-3D, M1-4D, M1-5D and M1-6D Districts are subject to special parking requirements. One parking space per dwelling unit is required in M1-1D Districts and parking is only permitted in M1-2D through M1-5D Districts through a CPC authorization (ZR 44-28). In M1-6D Districts, the parking requirements of C6-4 Districts apply to residential uses (ZR 44-024).

In MX Districts, residential and community facility uses are generally subject to the parking rules of the governing Residence District, while commercial and industrial uses are subject to the M1 District regulations (ZR 123-70).

Additional Parking Provisions

Manufacturing District regulations also set forth many complementary provisions for the use and design of the spaces, as well as for loading and for bicycle parking.

To address conditions where there may be difficulty accommodating all the required parking spaces on the zoning lot, special provisions allow for off-site parking within a 600-foot radius of the zoning lot generating the requirement. The additional site could be located in an adjoining Manufacturing District or C8 District, or within joint facilities, or, for houses of worship, shared facilities

(ZR 44-30). Many districts allow accessory spaces to be rented to other users should the primary uses not utilize all the required parking (ZR 44-35).

All parking spaces are subject to additional regulations that establish the minimum size and location of spaces as well as rules allowing car sharing vehicles to park in a range of off-street parking facilities (ZR 44-40).

Public parking garages, with a capacity of up to 150 spaces, are allowed as-of-right in many low density Manufacturing Districts. Public parking garages require a CPC special permit if they contain more than 150 spaces in low density districts, and with any capacity in higher density districts. **Public parking lots**, with a capacity of up to 150 spaces, are allowed as-of-right in all Manufacturing Districts, with higher capacities only permitted by a CPC special permit (ZR 42-32).

Loading berths are required for many uses. The number of required berths varies with the zoning district, the size of the establishment and the type of use, though more berths are usually required in lower density districts than in higher density districts for the same amount of floor area. The regulations also control the size and location of berths, surfacing materials, screening and access requirements (ZR 44-50).

Special design requirements wapply to off-street parking facilities, including locational and size restrictions for curb cuts, and surfacing and screening requirements (ZR 44-40).

Provision of accessory enclosed bicycle parking facilities for employees is required for new commercial developments and for significant enlargements or conversions (ZR 44-60, 36-70). Enclosed areas used for bicycle parking can be exempted from floor area calculations.

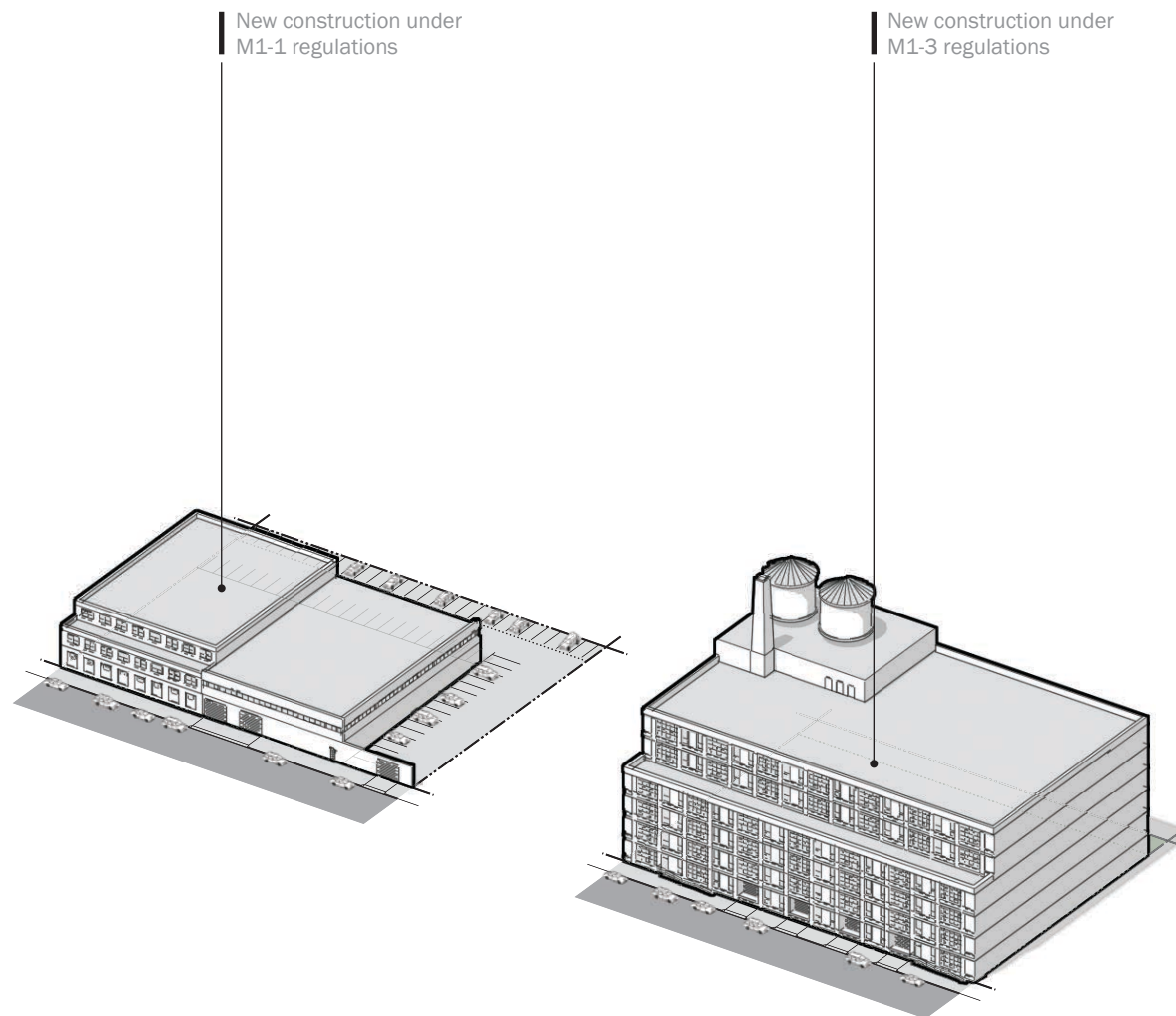
M1

M1 Districts are designated for areas with light industries, as well as wholesale service and storage facilities. They are often buffers between the more intensive M2 or M3 Districts and adjacent Residence or Commercial Districts. There are six types, each designated by a numeric suffix.

M1-1 Districts are mainly found in areas with one-story industrial buildings, such as the Flatlands neighborhood of Brooklyn. Concentrations of two- to four-story industrial buildings can be found in M1-2 and M1-4 Districts, with M1-4 Districts generally found close to transit, such as in East New York in Brooklyn, while M1-2 Districts are found in areas further from transit as in Hunts Point in The Bronx. Similarly, M1-3 and M1-5 designations denote denser industrial areas, with access to transit varying by neighborhood: M1-3 Districts are found outside of Manhattan in areas such as Ravenswood in Queens, while M1-5 Districts are mainly found along the western edge of Manhattan. M1-6 Districts are mainly found in central areas of Manhattan where multi-story manufacturing buildings originally developed.



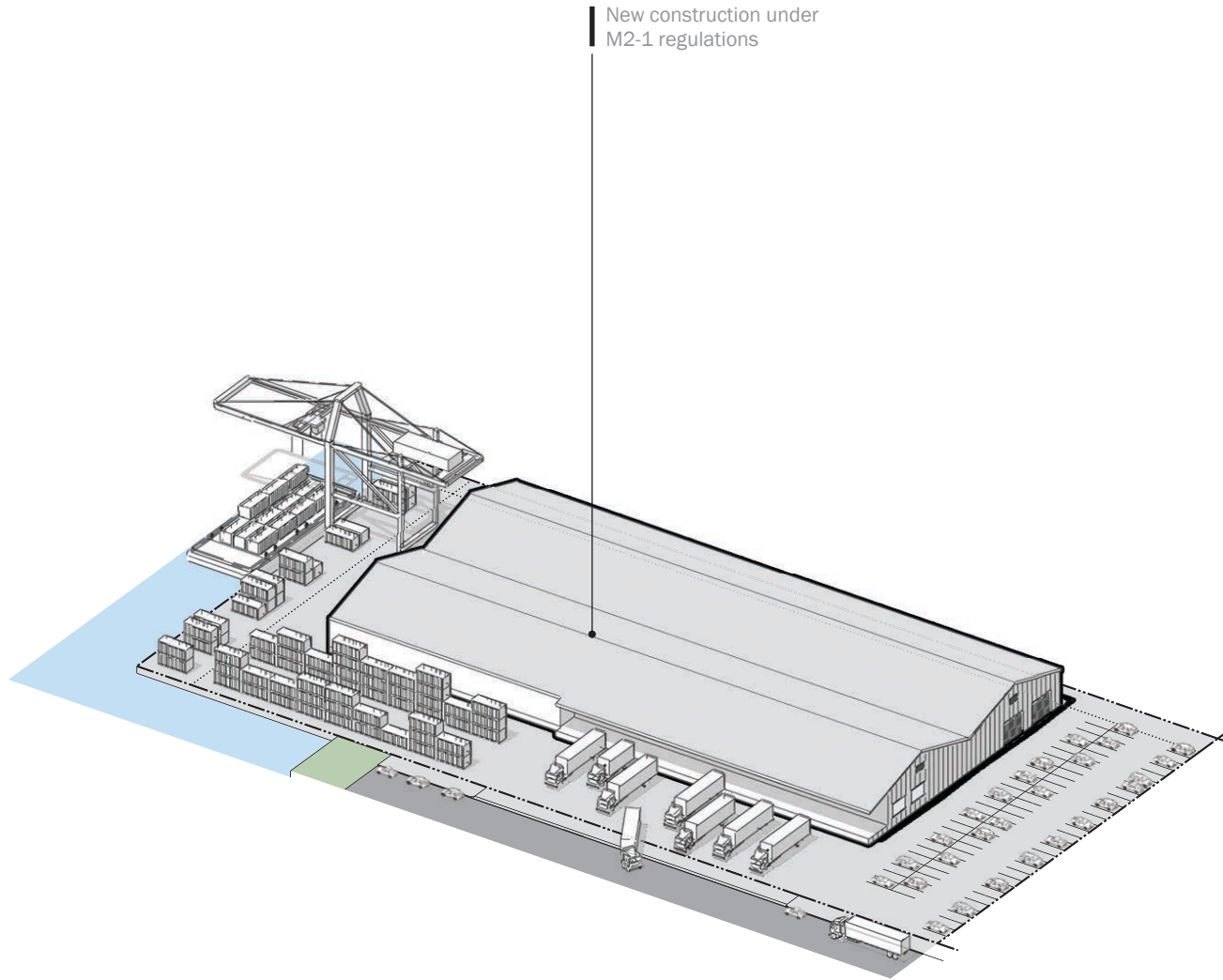
Long Island City, Queens



M1	Light Manufacturing District (High Performance)					
	M1-1	M1-2	M1-3	M1-4	M1-5	M1-6
Manufacturing FAR	1.0	2.0	5.0	2.0	5.0	10.0
Required Accessory Parking PRC-B	1 per 300 sf			None		
Permitted Sign Regulations (Surface Area)	6 x street frontage					

M2 Districts occupy the middle ground between light and heavy industrial areas. The four types of M2 Districts, each designated by a numeric suffix, are mapped mainly in the city's older industrial areas along the waterfront. All are original to the 1961 Zoning Resolution.

M2-1 Districts are mapped along much of Brooklyn's Red Hook and Sunset Park waterfronts and College Point in Queens. M2-2, M2-3 and M2-4 Districts are only found in Manhattan. The borough's Hudson River piers, including the Passenger Ship Terminal at West 51st Street and many municipal facilities, are located within M2-3 Districts.



West Rossville, Staten Island



Gowanus, Brooklyn

M2	Medium Manufacturing District (Medium Performance)			
	M2-1	M2-2	M2-3	M2-4
Manufacturing FAR	2.0	5.0	2.0	5.0
Required Accessory Parking PRC-B	1 per 300 sf		None	
Permitted Sign Regulations (Surface Area)	6 x street frontage			

M3

M3 Districts are designated for areas with heavy industries that generate noise, traffic or pollutants. Typical uses located in M3 Districts include power plants, solid waste transfer facilities and recycling plants, as well as fuel supply depots. The two types of M3 Districts, each designated by a numeric suffix, are original to the 1961 Zoning Resolution.

Like M2 Districts, M3 Districts are generally located near the waterfront and are buffered from residential areas. Large M3 Districts are mapped along the Arthur Kill in Staten Island, along the East River in the South Bronx and along the Gowanus Canal in Brooklyn. Smaller M3 Districts, such as portions of Astoria in Queens, are located in all five boroughs and accommodate public utilities.

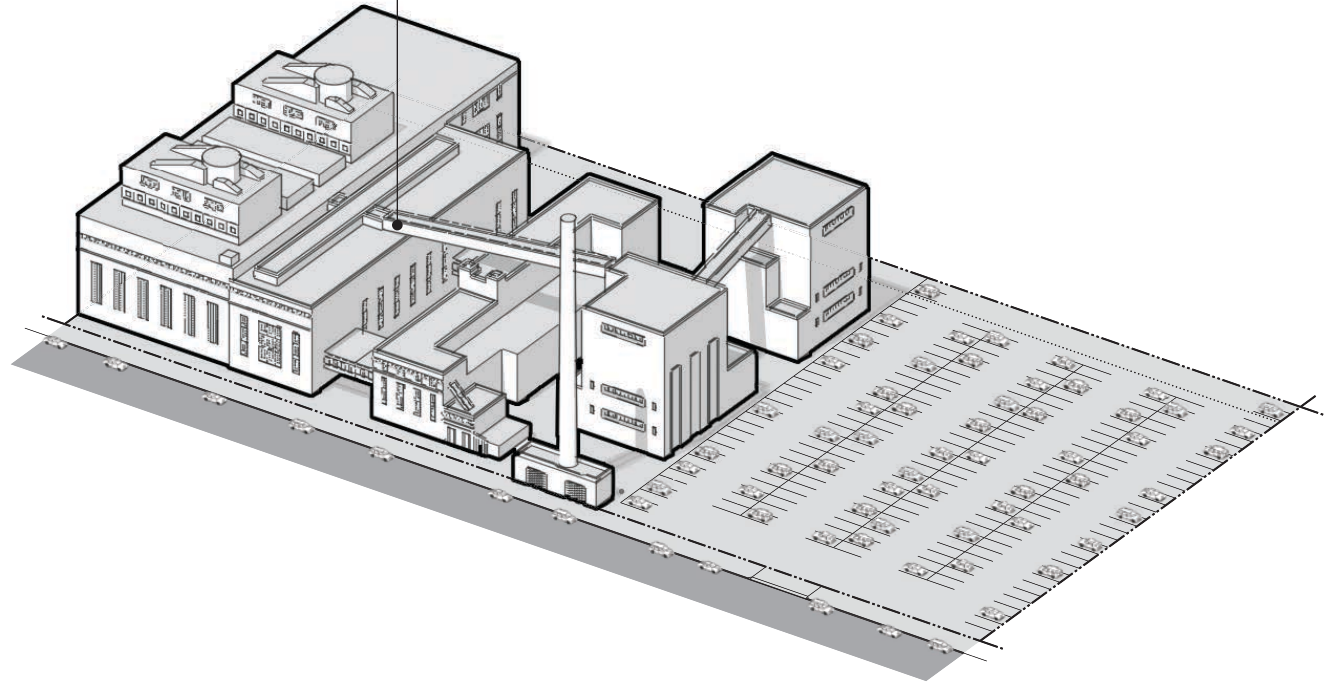


Ravenswood, Queens



Greenpoint, Brooklyn

New construction under
M3-1 regulations



M3

Heavy Manufacturing District (Low Performance)

	M3-1	M3-2
Manufacturing FAR	2.0	
Required Accessory Parking PRC-B	1 per 300 sf	None
Permitted Sign Regulations (Surface Area)	6 x street frontage	

M1-M3 Manufacturing Districts

Use	M1-1	M1-2	M1-3	M1-4	M1-5	M1-6	M2-1	M2-2	M2-3	M2-4	M3-1	M3-2
Residential Use Groups 1-2												
Community Facility Use Groups 3-4	•	•	•	•	•	•						
Commercial Use Groups 5-15	•	•	•	•	•	•	•	•	•	•	•	•
General Service Use Group 16	•	•	•	•	•	•	•	•	•	•	•	•
Manufacturing	Use Group 17	•	•	•	•	•	•	•	•	•	•	•
	Use Group 18										•	•
Bulk												
Manufacturing FAR	1.0	2.0	5.0	2.0	5.0	10.0	2.0	5.0	2.0	5.0	2.0	
Community Facility FAR	2.40	4.80	6.50			10.0	N/A					
Parking												
Required Accessory Manufacturing Parking (sf) PRC-B	1 per 300 sf			None			1 per 300 sf		None		1 per 300 sf	None

Signage		Height Above Curb Level	Size of Individual Sign	Surface Area
All Manufacturing Districts	Accessory	Illuminated or flashing	40 ft	500 sf
		Indirect illumination	75 ft	750 sf
		Non-illuminated	75 ft	1,200 sf
	Advertising	Indirect illumination	75 ft	750 sf
		Non-illuminated	75 ft	1,200 sf
				6 x street frontage