CURE identifies, shares, and advocates solutions for a rapidly urbanizing world. CURE redefines sustainability as dense, mixed-income, mixed-use, transit-based urban development. From climate change and energy dependence to the socioeconomic and political upheaval they engender, CURE addresses emerging and current global issues through the lens of urbanization.
TABLE OF CONTENTS

I. Introduction ............................................................................................................. 1
II. 1929 ......................................................................................................................... 1
III. 1958 ....................................................................................................................... 2
IV. 1959 ......................................................................................................................... 4
V. 1960 ......................................................................................................................... 4
VI. 1961 ......................................................................................................................... 5
VII. Conclusion: Opportunity Cost ................................................................................ 5
I. INTRODUCTION

In a city as diverse as New York, there are few issues relating to urban policy where consensus is fairly uniform across the public, private and civic sectors. However, it is universally acknowledged that one of the city’s greatest challenges is one of housing affordability. Within the landscape which provides very little developable raw land within the five boroughs, there is an emerging consensus that greater levels of residential density are inevitable in order to ameliorate the limited supply of housing which is amplified in its negative consequences by a remarkable inelastic demand—particularly for middle income housing. It is anticipated that in the coming months, the City of New York will be advancing state legislation in Albany to repeal Section 26.3 of the Multiple Dwelling Law in order to remove the 12.0 FAR limitation for residential buildings. This policy brief provides an abbreviated historical narrative which explains, in part, the logic and circumstances by which the 12.0 limitation was derived.

II. 1929

The Multiple Dwelling Law (MDL) was first legislated in 1929 to replace Tenement House Act of 1901. Since the passing of the 1901 legislation, the law had been amended nearly 150 times in order to accommodate particular projects on particular sites.\(^1\) The subsequent legislation had become unwieldy and was attributed by local real estate boards to driving up the costs of construction. Likewise, very little housing had been built during World War I; and, with the economic growth of the 1920s, many cities in New York were suffering from a severe housing shortage by the late 1920s. Such a tight housing market also led to a new typology of law evading transient hotels which had no residential restrictions for height and lot coverage. Despite lease restrictions against long-term residency and cooking, many thousands of people were living in sub-standard conditions in hotels which were not designed with kitchens or adequate bathrooms. As a consequence of these perceived failures in the law, the real estate boards together with various charity organizations pushed for a gubernatorial commission in 1927 which was tasked with simplifying the operation of the law.

As matter of legislative intent, the MDL was intended to set light and air standards, address overcrowding and impose safety regulations related to fire and sanitation. In this original legislation, height and bulk limitations were established in strict relationship to the width of the street or avenue directly adjacent to the building. In general, no building could be more than 1.5 times the width of the widest street that the building faced, with the law also establishing 100 feet as the maximum street width considered in the

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height calculation.\(^2\) Later in this same section, the law goes on to set more specific stipulations for lots sized at 30,000 square feet and larger. For cases where the horizontal area of the building footprint is less than 20% of the lot area, the building can be classified as a tower and the allowable height is set at 3 times the width of the widest street—or, 100 feet maximum.\(^3\) In addition, in order to assure the proper accessibility of interior spaces to light and air, the maximum tower dimensions were set as 70 linear feet.

The dimensions and parameters set in this section of the MDL for both the building and the lot establish a numerical context for comparing the ratio of the lot to the permissible buildable floor area. While floor area ratio (FAR) would not be formally introduced until the 1960 iteration of the MDL, the corresponding numerical equivalent can be derived from the information given above. The maximum 70 foot square tower translated to a maximum horizontal area of 4,900 square feet per floor, a value less than 20% of the lot area as required.

\[
\text{Area}_{\text{floor, max}} = 70 \text{ FT} \times 70 \text{ FT} = 4,900 \text{ SQFT}
\]

Based on a street width of 100 feet, the maximum height of the tower is set as three times that width or 300 feet. By assuming an average floor-to-floor height of 10 feet for simplicity, a 300-foot tower is equivalent to approximately 30 stories.\(^5\) As a result, the total building floor area would be 147,000 square feet.

\[
\text{Total Floor Area} = \text{Area}_{\text{floor, max}} \times 30 \text{ STORIES} = 147,000 \text{ SQFT}
\]

This total floor area can then be compared to the original 30,000 square foot total lot area as a ratio, equivalent to the floor area ratio.

\[
\text{FAR Equivalent} = \frac{\text{Total Floor Area}}{\text{Lot Area}} = \frac{147,000\text{SQFT}}{30,000\text{SQF}} = 4.9
\]

### III. 1958

The next set of amendments to the MDL revising the allowed equivalent floor area ratio were not enacted until almost 30 years after the original enactment despite numerous interim draft amendments. By 1957, there was local political movement to overhaul the MDL particularly in light of a wave of immigration from Puerto Rico and the Caribbean which was placing significant burdens on the housing market by virtue of overcrowding.\(^6\) At the national level, federally financed

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\(^2\) 1929 NY, Sess. Laws Ch. 713, Art. 3 § 26.

\(^3\) Id.

\(^4\) Id.

\(^5\) A 10 foot floor-to-floor height in the 1920’s was a common dimension in residential construction; see generally, Witold Rybczynski, Ceiling Heights in Homes and Offices, Working Paper #648, Zell and Lurie Real Estate Center, The Wharton School, University of Pennsylvania (2010).

DIAGRAMS 1-4:
Maximum building dimensions per various amendments to the Multiple Dwelling Law.
urban renewal was well underway and the predominance of a tower in the park typology was taking hold. While the legislature stated reluctance to piecemeal the legislation, a committee was already in place to overhaul the MDL; and, while this amendment which was rationalized to provide “possible larger landscape areas,” its rationality was likely more political than practical. The 1958 amendments included removing the tower dimension restriction of 70 feet and increasing the permitted lot coverage percentage from 20% to 25%. As a result, for the same maximum building height of 300 feet, or approximately 30 stories, the equivalent floor area ratio increased from 4.9 to 7.5.

\[
\text{Area}_{\text{floor, max}} = 25\% \times \text{Area}_{\text{lot}}
\]

\[
\text{Total Floor Area} = 30^{\text{STORIES}} \times \text{Area}_{\text{floor, max}}
\]

\[
\text{Total Floor Area} = 30^{\text{STORIES}} \times 25\% \times \text{Area}_{\text{lot}} = 7.5 \times \text{Area}_{\text{lot}}
\]

\[
\text{FAR Equivalent} = 7.5
\]

IV. 1959

Additional amendments in the 1959 legislative session further increased the allowable equivalent FAR to 11.25. This was accomplished by further increasing the permissible lot coverage from the 25% revision in the 1958 amendments to 30%; it also decoupled the maximum allowable tower height from its relationship to street width, instead setting an absolute maximum of 375 feet—increased from 300 feet in the years prior. Maintaining the original assumption of a 10-foot floor-to-floor height for simplicity, a 375-foot tower comprises 37.5 stories. With a 30% lot coverage ratio, similarly to the 1958 calculation, the floor area ratio can be determined as follows:

\[
\text{Area}_{\text{floor, max}} = 30\% \times \text{Area}_{\text{lot}}
\]

\[
\text{Total Floor Area} = 37.5^{\text{STORIES}} \times \text{Area}_{\text{floor, max}}
\]

\[
\text{Total Floor Area} = 37.5^{\text{STORIES}} \times 30\% \times \text{Area}_{\text{lot}} = 11.25 \times \text{Area}_{\text{lot}}
\]

\[
\text{FAR Equivalent} \approx 11.25
\]

IV. 1959

Additional amendments in the 1959 legislative session further increased the allowable equivalent FAR to 11.25. This was accomplished by further increasing the permissible lot coverage from the 25% revision in the 1958 amendments to 30%;

V. 1960

The contemporary metric of FAR widely used throughout the real estate industry was formally defined and legislated in 1960. This revision of the MDL repealed Sections 26 and 27, the sections containing the parameters outlined in the previous years above used to calculate equivalent floor area ratio values, and replaced the two sections with a single section that extensively simplified the height and bulk regulations from conditional statements tied to street width or height restrictions, established floor area ratio (FAR) as a definition, and

\footnotesize{1958 NY, Sess. Laws Ch. 44, § 1 (citing from the Chapter Note).}

\footnotesize{1958 NY, Sess. Laws Ch. 44, § 1; 1958 NY, Sess. Laws Ch. 859, § 1.}

\footnotesize{1959 NY, Sess. Laws Ch. 488, § 1.}
set of maximum restriction of 12.0 FAR for all single-lot dwellings.\textsuperscript{10} Although it does not appear in the record, it is likely that that the precise number (n=12.0) was derived by simply rounding up the equivalent 1959 amended calculation (n=11.25). This amendment set the stage for what would be a comprehensive amendment to the New York Zoning Resolution by the New York City Board of Estimate at the end of 1960.\textsuperscript{11} Both amendments at the state and city level greatly simplified the calculations which were often subject to metrics which were often conflicting and unreliable. By example, in New York City, the amendment would consolidate 62 zoning districts which replaced a three-tiered mapping system with over 1,000 combinations, of which 286 were officially mapped.\textsuperscript{13}

VI. 1961

The 1961 amendments clarified various ambiguities in the 1960 legislation prior to effective date of the 1961 city zoning resolution. Of note, the 1961 amendments removed limiting language in the definition of FAR which left open the possibility of zoning lot mergers which would later obviate the original legislative intent of the 1960 law.\textsuperscript{14} In a 1961 Governor’s Message accompanying the legislation of the New York State Laws, Governor Nelson Rockefeller briefly explains the intended goals of the recodification of the height and bulk specifications. Rockefeller asserts that the amendments to the law were intended to facilitate the necessary revisions of the New York City zoning ordinance, citing the necessity “to replace antiquated provisions with modern standards in order to provide proper regulation of density, better provisions for light and air, and greater flexibility of design.”\textsuperscript{15}

VII. CONCLUSION: OPPORTUNITY COST

The question now before the New York State Legislature is the extent to which regulations promulgated to accommodate design parameters in the 1960s are themselves outdated in an era of contextual zoning and high performance HVAC and lighting systems. As NYC struggles with an affordable housing crisis driven in part by a lack of a consistent supply of affordable housing, it is worth speculating on the opportunity cost of the impact of MDL Section 26.3. The following maps highlight those properties which were developed with excess capacity in the years following

\textsuperscript{10} 1960 NY, Sess. Laws Ch. 1072, § 1.


\textsuperscript{12} City Planning Commission, Planning Progress, 1959, Department of City Planning, City of New York (1959); City Planning Commission, Report and Resolution (CP-15820) (October 18, 1960).

\textsuperscript{13} Id. at 3.


\textsuperscript{15} McKinney’s CONSOLIDATED LAWS OF NEW YORK, Governor’s Message, Multiple Dwellings—Height and Bulk Specifications p. 2127 (1961).
each statutory enactment as identified in Table 1. Unit and household size are adjusted to a contemporary metric of 1,700 sf and 2.4, respectively.

The selected properties are measured against the existing zoning allowance and not the allowance which might or might not have existed at the time of construction (i.e., prior to 1960). As an example, if property X is constructed in 1946 at an equivalent 4.9 FAR and the existing zoning (2014) allows for an FAR of 6.0, then the ‘opportunity cost’ is an FAR equivalent to 1.1. This assumes that in 1946 a 6.0 FAR would have otherwise been allowable—all factors being equal. Those properties with an excess capacity equivocal to less than a habitable unit (n=250 sf) were removed from the calculations. An additional methodological limitation is that it does not account for market demand, consumer preferences or infrastructural limitations at the time of construction which would have otherwise limited the density of the housing. For instance, the consumer preference for single family housing in Staten Island is readily observable in the maps.

Despite the technical shortcomings, the maps do highlight the extent to which MDL Section 26.3 played a significant role in under developing NYC housing. While it is unlikely that over 800,000 people could or should have been accommodated in the absence of the law, one could argue that that the analysis is more meaningful when properties are measured relative to a greater proximity (.5 mile) to subway stops. As listed in Table 2, it could be argued that nearly 500,000 people accounting for approximately 200,000 units could have been accommodated, in an alternative scenario, as the likelihood of greater density proximate transit is more reasonable as an assumption.

As NYC continues to promote infill development and several new subway extensions begin operations, the historical logics of the MDL may begin to carry less weight in light of the potential opportunity cost of more housing—affordable or otherwise. While the public’s concerns of more density relating to intensity of use, light and air are valid, there is an opportunity within architecture and real estate to accommodate new typologies, such as Hong Kong’s pencil towers, which may mediate the public’s concerns for density while mitigating some of the negative implications of a historical legacy of ad hoc density. The New York State Legislature will soon be tasked with rethinking the balance between supply and demand sides of the housing equation. As such, removing this supply side limitation could be an effective tax-free measure for promoting the production of housing.
### TABLE 1: Speculative Impact on Housing Density (All Properties)

<table>
<thead>
<tr>
<th>Years of Enactment</th>
<th>Years Covered</th>
<th>FAR</th>
<th>Excess SF</th>
<th>Excess Units</th>
<th>Excess Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>1930-1958</td>
<td>4.90</td>
<td>343,210,849</td>
<td>201,889</td>
<td>484,533</td>
</tr>
<tr>
<td>1958</td>
<td>1959</td>
<td>7.50</td>
<td>4,336,032</td>
<td>2,551</td>
<td>6,121</td>
</tr>
<tr>
<td>1959</td>
<td>1960</td>
<td>11.25</td>
<td>31,215,076</td>
<td>18,362</td>
<td>44,068</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td></td>
<td><strong>596,866,598</strong></td>
<td><strong>351,098</strong></td>
<td><strong>842,635</strong></td>
</tr>
</tbody>
</table>

### TABLE 2: Speculative Impact on Housing Density (.5 Miles from Subway Stop)

<table>
<thead>
<tr>
<th>Years of Enactment</th>
<th>Years Covered</th>
<th>FAR</th>
<th>Excess SF</th>
<th>Excess Units</th>
<th>Excess Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>1930-1958</td>
<td>4.90</td>
<td>185,342,824</td>
<td>109,025</td>
<td>261,660</td>
</tr>
<tr>
<td>1958</td>
<td>1959</td>
<td>7.50</td>
<td>1,652,253</td>
<td>972</td>
<td>2,333</td>
</tr>
<tr>
<td>1959</td>
<td>1960</td>
<td>11.25</td>
<td>15,150,775</td>
<td>8,912</td>
<td>21,389</td>
</tr>
<tr>
<td>1960, 1961</td>
<td>1961-2014</td>
<td>12.00</td>
<td>147,200,010</td>
<td>86,588</td>
<td>207,812</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td></td>
<td><strong>349,345,861</strong></td>
<td><strong>205,498</strong></td>
<td><strong>493,194</strong></td>
</tr>
</tbody>
</table>

### MAP 1: Lots with excess allowable FAR 1930 - 1958 (based on 4.9 FAR)
MAP 2: Lots with excess allowable FAR 1959 (based on 7.5 FAR)

MAP 3: Lots with excess allowable FAR 1960 (based on 11.25 FAR)
MAP 4: Lots with excess allowable FAR 1961 - 2014 (based on 12.0 FAR)

MAP 5: Lots with excess allowable FAR (1930 - 2014) within 0.5mi of a transit stop.
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