Enhanced Affordable Housing + Jobs

Enhanced Affordable Housing + Jobs

Prepared for:
New York City Housing Development Corporation

Prepared by:
BAE Urban Economics, Inc.
Carter Ledyard & Milburn LLP

May 1, 2017

Table of Contents

I. Introduction

On March 22, 2016, the New York City Council adopted a comprehensive Mandatory Inclusionary Housing (MIH) program to promote affordable housing production in neighborhoods where a substantial increase in housing capacity is approved through land use actions. This program will help to implement the *Housing New York* plan, which set a goal to build or preserve 200,000 affordable housing units over the next 10 years to foster equitable, inclusive development across the City and in all of its neighborhoods.

The adopted NYC MIH program requires residential developments to include a minimum percentage of units with restricted rents or sale prices that are affordable to low-, moderate-, and/or middle-income households. As summarized below, the adopted program allows the City Council to impose one or both of the two primary options, which require that (1) 25% of units in projects developed in areas rezoned to higher capacity be affordable to an average of 60% of Area Median Income (AMI), or (2) 30% of units be affordable to an average of 80% of AMI. Option 1 allows the mixed-income development to utilize Low Income Housing Tax Credits (LIHTCs) to subsidize the affordable units, while Option 2 could not use this subsidy (because AMI levels of the affordable units exceed what is allowed in the federal LIHTC program).

Figure 1: Summary of Adopted Mandatory Inclusionary Housing Program

---

How it works

When new housing capacity is approved through land use actions, the City Planning Commission and the City Council can choose to impose either one or both of these two basic options:

	Affordable housing set-aside	Area Median Income (AMI)	Maximum annual income (example for family of three)
1	25%	60% (on average)	$47,000 (on average)
	with 10% required at	*40%*	*$31,000*
2	30%	80% (on average)	$62,000 (on average)

The City Planning Commission and the City Council may also add one or both of two other options:

	Affordable housing set-aside	Area Median Income (AMI)	Maximum annual income (example for family of three)
3 *	20%	40% (on average)	$31,000 (on average)
4 **	30%	115% (on average)	$89,000 (on average)
	with 5% required at	*70%*	*$54,000*
	with 5% required at	*90%*	*$70,000*

This option cannot be used with subsidy unless more affordable housing is provided.
**This option cannot be used with subsidy.*

In 2014-2015, the New York City Housing Development Corporation (HDC) engaged BAE Urban Economics to evaluate the impact that a mandatory inclusionary program would have on the financial feasibility of residential development across a range of market conditions, building types, and increases in Floor Area Ratio ("FAR").

The feasibility assessment was based on an analysis of a series of market variables to characterize Neighborhood Tabulation Areas (NTAs) into one of five market condition levels, ranging from Weak to Very Strong. It is important to note that these five market condition categories were not tied to existing household incomes in neighborhoods, but rather reflected then-market conditions for new construction; several NTAs had existing household median incomes lower than the range of market-rate rents or sale prices charged in new development projects. Therefore, the City's MIH program applies a requirement for affordable housing in new developments where land use actions promote new housing development, to ensure that new housing created within these neighborhoods serves households at a range of incomes, including levels below those that would be served by the market alone. Requirements for units to remain permanently affordable ensures that these affordable units remain a resource for the community into the future, promoting neighborhood economic diversity even as economic conditions may change.

BAE also built a financial model to test low-, medium-, and high-rise projects under these five market conditions, with affordable unit set-asides ranging from 20% to 50% of the residential units at rents affordable to households making from 60% to 90% of Area Median Income ("AMI"). The prior analysis, "Market and Financial Study: New York City Mandatory Inclusionary Housing," (September 2015) is available at: http://www1.nyc.gov/assets/planning/download/pdf/plans-studies/mih/bae_report_092015.pdf .

Study Purpose

Prior to the adoption of the MIH program, the City engaged in dialogue with affordable housing advocates, labor activists, residents, and elected officials about how an MIH program could be structured to: produce affordable housing without deterring needed market rate production; work across building types, market cycles and different neighborhoods; and be legally defensible.

One set of concerns voiced during those discussions (and continuing through the debates on the MIH program the City eventually proposed) was the possibility of creating instead (or in addition), a density bonus program that could both require the creation of affordable apartments and also provide additional benefits to the residents of those communities through labor standards such as use of local hiring or apprenticeship programs. Some advocates also called for including options requiring deeper levels of affordability, which the final program provided by requiring some units at 40% AMI in Option1, and by adding Option 3.

As part of the debate about the adoption of the MIH program the City proposed, the City committed to continue to explore additional proposals for securing affordable housing and good, safe jobs through zoning measures. Specifically, it agreed to study further proposals by Real Affordability for All ("RAFA"), a consortium of affordable housing and labor advocates, which had argued that the City's MIH program be amended to serve workforce development goals. These proposed potential economic development policies (known as "Affordable Housing + Jobs") include:

a) A requirement to "hire locally" so that neighborhood residents would benefit from the increase in construction jobs within their own communities, and
b) A requirement to hire a percentage of workers from New York State-approved apprentice programs to provide entry-level career opportunities for local residents.

To explore the RAFA proposal further, NYC's Housing Development Corporation engaged BAE Urban Economics to prepare this study. Due to the questions regarding whether the proposed job-related policies legally could be implemented in NYC through the City's zoning powers, NYC HDC requested a full legal review of federal, state and local laws that might constrain such mandatory requirements. BAE engaged the law firm of Carter, Ledyard & Milburn LLP as a subconsultant to conduct the legal analysis portion of this study, which is discussed below in part II.

In addition, RAFA proposed a density bonus program that would give bonus FAR (above what would be involved in a zoning that led to the application of MIH) to developers that voluntarily agreed to provide deeper affordability levels than the current MIH program reaches, and agreed to abide by local hiring and apprenticeship opportunities rules. As with the current MIH, and all land use requirements, the MIH alternatives studied would become part of the New York City Zoning Code and would need to be able to stand alone, without any commitment of City financial investment such as development subsidy or tax incentives. Part III of this study assesses the financial feasibility of such a requirement.

II. Legal Analysis Summary: Use of Zoning to Implement Jobs-Related Policies

HDC asked Carter Ledyard & Milburn (CLM) to consider the legality of a zoning incentive program in which developers can voluntarily subject themselves to requirements for local hiring of construction workers or hiring from state-approved apprentice programs in exchange for a density bonus (greater height and floor area). This section summarizes CLM's findings, with the more extensive memorandum prepared by CLM attached to this report as Appendix A.

CLM concluded that adopting such a program in the zoning ordinance would likely violate various federal and state laws and exceed the City's zoning authority.   The firm did not identify any zoning law in the United States that creates a generally applicable requirement or incentive to meet labor standards.   Nor did the firm identify any court cases dealing with the subject directly.

Courts distinguish between municipalities' authority as "regulators" (using police powers to regulate private sector conduct) and "market participants" (using public resources to carry out projects).   Cities have broad discretion to mandate labor standards in carrying out their own public projects.   Many municipalities, particularly in California, routinely include labor standards for their own projects. Generally applicable police power regulations face more scrutiny and CLM concluded that zoning incentive programs fall into this category. The inclusion of local hiring requirements in a zoning incentive program will run the risk of successful legal challenges under federal and state law. The apprenticeship requirement would be less risky under federal and state labor laws, but CLM advised that the state enabling act that allows the City to create incentive zoning districts would probably not permit use of such districts to achieve labor goals.

Accordingly, CLM advised that zoning is not the right tool for achieving the objectives sought through the proposed incentive program. CLM prepared a separate memorandum outlining its concerns and findings for the labor issues—first under federal law and then under state law. The memorandum does not extensively address a requirement for union labor, but such a requirement would raise the same host of legal issues that are summarized in point II of the CLM memorandum included as Appendix A of this report.

III. Financial Feasibility: Lower Average AMI Targets for Rental Projects

The legal analysis was conducted to determine if the City could legally use a supplementary zoning bonus program to mandate local hiring and incorporation of apprenticeship programs. The analysis concludes that the City would be at serious legal risk if it attempted to use zoning to try to achieve these labor goals. Therefore, the financial feasibility portion of this study will examine only the feasibility of a program that provided additional FAR in exchange for a developer agreeing to restrict units to the affordability levels proposed by RAFA.

The specific components of this study were taken directly from email communication with leaders of RAFA, who provided four scenarios for study that would require rental projects to provide affordable housing serving target populations earning between 30% and 100% of Area Median Income (AMI), which is a HUD-derived benchmark of the mid-point of all household incomes, adjusted for household size.[1]   The objective of these proposals is to secure deeper levels of affordability than those provided by the MIH program, so that more households earning at or below 30% AMI can be served. Table 1 below provides the 2014 HUD income limits for NYC for reference purposes.

Table 1: HUD Household Income Limits, NYC, 2014

	Extremely Low-Income	Very Low-Income	Low-Income	Low-Income	Moderate-Income	Moderate-Income	Middle-Income
Percentage of HUD Area Median Income	30%	50%	60%	80%	100%	130%	165%
Number of People in Household			Income Limits (Nominal 2014$)				
1	$17,650	$29,400	$35,250	$47,000	$58,750	$76,350	$96,900
2	$20,150	$33,600	$40,250	$53,700	$67,100	$87,250	$110,750
3	$22,650	$37,800	$45,300	$60,400	$75,500	$98,150	$124,600
4	$25,150	$41,950	$50,350	$67,100	$83,900	$109,050	$138,450
5	$27,900	$45,350	$54,350	$72,500	$90,600	$117,800	$149,500
6	$31,950	$48,700	$58,400	$77,850	$97,300	$126,500	$160,600
7	$36,050	$52,050	$62,400	$83,250	$104,050	$135,250	$171,650
8	$40,100	$55,400	$66,450	$88,600	$110,750	$143,950	$182,750

Source: *State of New York City's Housing and Neighborhoods in 2015* (NYU Furman Center, 2015).

---

[1] It should be noted that the Area Median Income for NYC varies by household size, so it is convention in affordable housing policy analysis to express housing need by AMI percentages, while understanding that the application of these policies depends on the size of the household served (and the sizes of the housing units correspondingly developed).

The four proposals suggested by the leaders of RAFA for this study are:

For neighborhoods with an existing median household income above 80% of NYC's median household income, the zoning regulation would require (in exchange for additional FAR) that developers:

1. Set-aside 50 percent of the units in a market-rate project for affordable units serving a distribution of AMIs from 30% to 80% AMI per following:[2]
   - 20% at 30% of AMI
   - 20% at 40% of AMI
   - 20% at 50% of AMI
   - 20% at 60% of AMI
   - 20% at 80% of AMI

2. Set-aside 50 percent of the units in a market rate project as in Option 1 above, for affordable units serving a distribution of AMIs from 30% to 100 % AMI per following:[3]
   - 20% at 30% of AMI
   - 20% at 40% of AMI
   - 20% at 50% of AMI
   - 20% at 60% of AMI
   - 20% at 100% of AMI

For neighborhoods with an existing median household income below 80% of NYC's median household income (i.e., less affluent neighborhoods), the zoning regulation would require (in exchange for additional FAR) that developers:

3. Set-aside 100 percent (all units) with the same a range of AMIs as shown above in Option 1 above (capped at 80% AM), which would require subsidies.
4. Set-aside 100 percent (all units) with the same range of AMIs as shown above in Option 2 (capped at 100 % AMI), which would also require subsidies

Before turning to the analysis of feasibility, it is important to note several ways in which we were not able to follow the specifics of RAFA's proposal. First, RAFA proposes a density "bonus" to subsidize the larger set-aside and deeper affordability they seek to secure. But MIH was sized at the maximum density appropriate for the neighborhood, and the maximum density allowed by law. Under the state's Multiple Dwelling Law, residential FAR is capped at

---

[2] RAFA also requested that 10% of the units be reserved for homeless households and funded by vouchers to bring the rental income up to the equivalent of 60% or 80% AMI for these households. This policy would depend on the availability of Section 8 vouchers for these households, which NYC cannot commit to due to high demand already in place, and the uncertain nature of funding for Section 8 vouchers.

[3] The same 10% homeless household reservation policy to be funded by vouchers was proposed for this option.

12, so any "bonus" has to stay within that limit. In constructing MIH, the City assumed that MIH would be rezoned for that maximum where appropriate. A FAR of 12 would be totally inappropriate in many areas, and in lower density neighborhoods, the City assumed that lower levels of FAR would be the maximum permitted, because of infrastructure constraints and the need to have new buildings add, rather than detract, from the quality of life in a community. Accordingly, there is no room for a "bonus" on top of the densities envisioned in the original design of MIH. We have therefore assumed that any "bonus" would need to come out of, rather than be additional to MIH. That raises some concerns discussed later, but requires us to test the feasibility of securing additional set asides or deeper affordability within the original MIH model.

Second, RAFA's median income request pertains to actual NYC median household income, which is different than the HUD Income Limits. The actual median household income for NYC is based on data collected by the American Community Survey and is not adjusted for household size (because it represents the median for all households living in NYC). In 2014, the New York City actual median household income was $53,063,[4].whereas the HUD 100% AMI was $75,500 for a three-person household, and $83,900 for four-person household.[5]

If the RAFA proposal was implemented, approximately 75 percent of the City's Community Districts would rank above the proposed 80% of median household income threshold.[6]

It also is important to note that RAFA proposes to base the program on a neighborhood's median income, but median income does not perfectly correlate with the market rents in a neighborhood, as explained earlier. A neighborhood in which median incomes are relatively high is not necessarily what the original BAE studied defined as a "very strong" market. We use the original model of market-based categories.

Methodology

This report utilizes the prior BAE financial model developed in 2014 to test RAFA's Option 1 and 2 proposals as outlined above, and described in more detail below. The BAE 2014 financial model is a complex computer model of financial feasibility, calibrated to then-market conditions, and based on substantial underlying data that was collected and analyzed in 2014. For this report, the same model, based upon the same market data, AMI income data, affordable rents based on AMI income thresholds, and a host of other financial variables, was

---

[4] *State of New York City's Housing and Neighborhoods in 2015* (NYU Furman Center, 2015), page 67.

[5] See Table 1 of this report.

[6] Estimate based on the following: 80% of NYC's median income would be $42,450 in 2014. Review of data from *State of New York City's Housing and Neighborhoods in 2015, page 118,* shows that Morningside Heights/Hamilton (MN09) had the closest median household income to this 80% threshold, at $42,288 in 2014. MN09 was ranked by Furman Center as 40th out of 55 Community Districts, meaning that almost 75% of Community Districts had a higher median than this proposed threshold.

used. This approach was taken to preserve the complex relationships that the 2014 analysis and 2015 report provided, and on which the MIH program was based. It is important to note that the prior work was conducted so that the fundamental economic relationships could withstand changing market conditions, work across building types, market cycles and different neighborhoods, and be legally defensible over time.

In addition to utilizing the prior model and its assumptions, it is also important to note that this new analysis includes scenarios for the then-operative 421 a program. However, this program has since expired, and a new program legislated by the State of New York has been suspended.

Options 1 and 2 (for neighborhoods above 80% of NYC's median household income)[7]

This report focuses on Options 1 and 2 as outlined above, which include a 50% affordable housing set-aside targeting households earning from 30% to 100% of AMI. As shown below, the RAFA proposals for these two options result in an average AMI ranging from 52% AMI to 56% AMI. This average is lower than the 60% AMI average published in the prior *Market & Financial Study: NYC Mandatory Inclusion Housing* report of 2015.

Table 2: Summary of RAFA Proposals Analyzed in this Report

AMI	OPTION 1: 50% Set-Aside Up to 80% AMI	Option 2: 50% Set-Aside Up to 100% AMI
30%	10%	10%
40%	10%	10%
50%	10%	10%
60%	10%	10%
80%	10%	None
100%	None	10%
Total Set Aside	**50%**	**50%**
Market-Rate Units	*50%*	*50%*
Avg. AMI - Affordable Units	**52%**	**56%**

Sources: RAFA, Email communication, 2016; BAE, 2016.

It is important to note that the concept of "average" AMI, utilized in both the prior BAE report and this report, is a mechanism to blend specific AMI income limits together to allow for financial analysis. Mathematically, whether the financial impact of each AMI level is calculated separately or averaged does not matter, nor does this analytical approach moot the

---

[7] Again, as noted previously, this threshold relates to actual median household income, not HUD AMI Income Limits. Approximately 75% of NYC's Community Districts would rank about this proposed 80% household median income threshold.

ability to implement an MIH with the exact distribution that RAFA has proposed, such as that shown above.[8] The previous BAE report and underlying financial model took this average AMI approach because it allows for the integration of a typical bedroom mix for both market-rate and affordable units, including studios, one-bedroom units, and two-bedroom units, along with corresponding unit square feet, fit inside a carefully calibrated FAR increase and other zoning and development program assumptions. In other words, using an average AMI was determined to allow greater flexibility in reaching a broader range of households during marketing.

Options 3 and 4 (for neighborhoods below 80% of NYC's median household income)[9]

The current NYC MIH program, and the feasibility analysis supporting it prepared previously by BAE, are predicated on the idea that market-rate development can cross-subsidize affordable units included in the project, assuming a FAR increase and a tax exemption are also provided. This premise of an "internal" cross-subsidy creates a stand-alone program, not dependent, except for a tax-exemption, on external sources of subsidy. Options 3 and 4 as proposed by RAFA, for 100 percent affordable buildings, would eliminate the market-rate cross subsidy, and as RAFA acknowledges, would need additional subsidies beyond Low Income Housing Tax Credits. Because a zoning ordinance cannot commit the City to particular forms or amounts of public subsidy, and the financial feasibility of the development would depend upon the specifics of the subsidy available, Options 3 and 4, are not analyzed in this report.

Analysis

The following summarizes a feasibility analysis of the options 1 and 2 proposed by RAFA, using the same financial model and assumptions as detailed in the 2015 BAE study. For convenience, a summary of model assumptions used in 2015 relevant to this new analysis is provided in Appendix B of this report.

Table 3 on the following page provides a summary of the financial feasibility analysis completed to test the range of average AMI levels suggested by RAFA, which average 52% and 56%. This range of affordability is also combined with the 50% unit set-aside as requested by RAFA. For benchmarking purposes, Table 3 also provides the findings included in the prior BAE 2015 report for the average 60% AMI scenarios with a 50% set-aside for affordable units.

The threshold to determine Yield on Cost (YOC) feasibility is 6.0%, as utilized in the 2015 BAE report. Feasible scenarios are shown in blue-colored cells.

---

[8] Note that the actual AMI levels in a project would affect the ability to obtain various types of financing and subsidies; for example, units affordable to 30% AMI households might be underwritten with a higher risk than those affordable to 60% AMI households.

[9] The proposed RAFA 80% of median household income, different than HUD AMI Income Limits, would affect roughly 25% of NYC's 55 Community Districts.

It should be noted that this analysis was only conducted for Very Strong Market Condition, which in 2014 applied to just portions of Manhattan. At the time, the areas described as "very strong" markets closely matched then-recent building permits (reflecting where market-rate development was occurring). It should also be emphasized that the neighborhoods characterized as "Very Strong" are based upon an analysis of market rents; not an analysis of the neighborhood's actual median income. Regardless of a neighborhood's median income, it is the rents or sales prices commanded by the market that determine feasibility. So this analysis looks at neighborhoods by their market characteristics, not by median incomes, as proposed by RAFA.

Feasibility testing for Strong, Mid-Market, Moderate, and Weak Market Conditions was not conducted for this report because the 2015 BAE report analyzed these scenarios and found that a 50% set-aside for an average of 60% AMI households was not feasible in neighborhoods with market conditions less robust than Very Strong. Therefore, the scenarios proposed by RAFA, with lower average AMIs at 50% set-aside for the affordable component under less robust market conditions, would not improve this prior infeasible finding, and were not included in this new analysis.

The lack of feasibility found in the 2015 BAE report for nearly all conditions other than high rise buildings in Very Strong Market Conditions at a 50% set-aside level (after upzoning of R8 to R10), is a key feature underlying the City's MIH program structure. The MIH program must be feasible across NYC, wherever it is applied to new market-rate development projects. Therefore, the City, when formulating the MIH program as adopted, sought to create a program that worked across market conditions, upzoning scenarios (translated into building types), and across market cycles, so that it can support market-rate housing production along with the affordable component.

Table 3: Summary of Feasibility – Rental Projects

	MIH Only		MIH + 421a		MIH + 421a + LIHTC	
	On-Site	Off-Site	On-Site	Off-Site	On-Site	Off-Site
Very Strong Market Area						
52% AMI (avg)						
Low-Rise	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)
Mid-Rise	1.6%				4.9%	
High-Rise	2.6%	4.7%	4.7%	4.7%	**6.9%**	**6.0%**
53% AMI (avg)						
Low-Rise	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)
Mid-Rise			1.6%	1.6%	5.0%	
High-Rise	2.7%	4.7%	2.6%	2.6%	**6.9%**	**6.0%**
54% AMI (avg)						
Low-Rise	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)
Mid-Rise	1.6%	1.6%	1.6%	1.6%	5.0%	
High-Rise	2.6%	2.6%	2.6%	2.6%	**7.0%**	**6.0%**
55% AMI (avg)						
Low-Rise	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)
Mid-Rise			4.2%		5.0%	
High-Rise	2.7%	4.7%	5.6%	5.5%	**7.0%**	**6.0%**
56% AMI (avg)						
Low-Rise	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)
Mid-Rise			4.2%			
High-Rise	2.7%	4.8%			**7.0%**	**6.0%**
60% AMI (avg) - from prior report						
Low-Rise	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)	NA (a)
Mid-Rise	1.8%	3.4%	4.2%	4.1%	5.1%	4.5%
High-Rise	2.8%	4.8%	5.7%	5.6%	**7.1%**	**6.1%**
Strong Market Area						
52% AMI (avg)						
Low-Rise						
Mid-Rise						
High-Rise						
53% AMI (avg)						
Low-Rise						
Mid-Rise						
High-Rise						
54% AMI (avg)						
Low-Rise						
Mid-Rise						
High-Rise						
55% AMI (avg)						
Low-Rise						
Mid-Rise						
High-Rise						
56% AMI (avg)						
Low-Rise						
Mid-Rise						
High-Rise						
60% AMI (avg) - from prior report						
Low-Rise	0.6%	2.1%	4.1%	3.1%	5.5%	3.5%
Mid-Rise	0.6%	1.9%	3.5%	2.8%	4.5%	3.2%
High-Rise	1.2%	2.9%	4.4%	3.8%	5.7%	4.2%

Blue Cells indicate feasible (6.0% ROC or above)
Black Cells indicate infeasible below 60% AMI avg because prior testing at 60% AMI avg was not feasible.
Source: BAE, 2016.

Findings

Summary of RAFA Proposal

RAFA asked for a 50% set-aside of affordable units with affordability ranging from 30% AMI to either 80% or 100% AMI. The currently adopted MIH program requires either 25% set aside of floor area with 10% of those at 40% AMI or an option to do 20% of the floor area at 40% AMI. RAFA also proposed to vary the affordability requirements depending on the neighborhood's existing household incomes (either above 80% of actual median or below); this also diverges from the MIH program, which is applied to upzoned neighborhoods after an extensive planning and environmental review process.

Study Findings

This study found that the only scenario under which the RAFA proposal may be financially feasible is in Very Strong market conditions, with both 421-a and Low Income Housing Tax Credits, and only in the high-rise building type representing an upzoning from R8 to R10 (with a maximum FAR of 12).

This finding is based on the same feasibility criteria as the 2015 BAE report used, which gauged feasibility by a key financial metric for rental projects known as Yield on Cost (YOC). For rental projects, the YOC is analyzed for the stabilized year (when full lease-up has occurred). It consists of dividing net income (before debt service and the investor's income taxes) by total project cost (excluding financing costs). Many analysts and developers prefer using this financial metric to evaluate feasibility because it does not take into account financing costs, and thus allows for projects with a wide range of financing and leverage to be compared to each other, without distortions from leverage. This metric is the closest to a pure "economic" return on the project and does not account for the time value of money. Numerous developers and industry experts agreed in 2015, when the BAE 2015 report was prepared, that a feasible YOC at a minimum, was approximately 6.0 percent for rental projects. Below this level of financial return on the project, most market-rate developers would choose to not build the project, thereby defeating the goals of creating a mixed-income project.

A program such as the structure proposed by RAFA, which is economically feasible in such limited areas, cannot be used citywide as a comprehensive Mandatory program. To apply it on a case-by-case basis as part of a mandatory program leaves the City open to constitutional challenges.   While some of those constitutional concerns might not apply to a voluntary program, the mandatory program already in place assumes that the rezonings that trigger MIH would use the maximum density appropriate for the neighborhood. So, any "bonus" on top of that density would, by definition, be inappropriate from a zoning and planning perspective, and therefore subject to legal challenge and community opposition. Further, the City is constrained by the terms of the state Multiple Dwelling Law, which prohibits zoning from increasing residential density beyond 12 FAR.

The findings in this study are subject to significant caveats, beyond those in the original 2015 analysis:

- To the extent market-rate rents in the areas studied have softened, or development costs have risen faster than market-rate rents, these findings may not hold.
- The findings do not speak to whether such a requirement would cause developers in very strong markets to build condos rather than rentals.
- The findings are based upon a 421-a program that is no longer in effect. Because the renewal of 421-a is uncertain, and the terms on which it is renewed are unknown, it is impossible to determine feasibility beyond the terms of MIH alone. While a voluntary program means that no developer has to take the bonus if tax incentives are not available, a voluntary program that is not feasible without tax incentives will likely go unused in the absence of tax incentives, or if those incentives are uncertain.
- The findings are based upon the value of LIHTC 4% credits being approximately equal to their value in 2015. Corporate tax reform that likely will be considered in the near future may undermine LIHTC's value considerably.
- The findings are based upon the availability of LIHTC 4% credits, which depends in part upon the allocation of bond cap, which is limited by federal law, and further by state allocation rules.
- The findings do not consider whether actual marketing bands versus averages, would add to the cost of a project, and therefore affect the feasibility analysis.
- The findings do not consider whether the project would be feasible if any further requirements (for parks or other infrastructure, for energy efficiency, for resiliency improvements, for community facility space at below market rates, etc.) are imposed as part of the rezoning process. While RAFA's proposal is unclear as to whether host communities would have any role in reviewing specific projects, or whether the voluntary program once adopted, would be as-of-right, in either event, there will be pressure to add additional requirements to any bonus program.
- The findings do not consider the effect on the actual number of affordable units secured that might result from moving from a mandatory program to a voluntary "bonus" program. The impetus for the mandatory program was dissatisfaction with the City's prior voluntary program, so it likely would run counter to the goals of MIH to replace any part of it with a voluntary program. We did not, however, attempt to quantify the production that would result from a fully or partially voluntary program versus a mandatory program that assumes maximum appropriate density will be allowed as part of any rezoning subject to MIH.

For all the foregoing reasons, the bonus program proposed by RAFA is likely to trigger a myriad of serious legal, practical, and financial feasibility obstacles, even in the very limited areas and circumstances in which it could be financially feasible under the analysis presented above.

It is important to note that inclusionary housing is one tool among many to create much-needed new affordable housing in NYC. The findings of the BAE 2015 report, and this study,

do not mean that programs to provide deep affordability cannot work; these findings only pertain to how this particular tool, which relies on internal cross-subsidies from market rate units, can be applied.

Appendix A: Legal Analysis

Carter Ledyard & Milburn LLP
Memorandum

To: NYC Housing Development Corporation
From: Christopher Rizzo
                  Karen Meara
                  Madelyn White
Subject: Labor Issues in Zoning
Date: May 1, 2017

ISSUES

Can New York City legally create a zoning incentive program that provides bonus floor area (among other benefits) in exchange for a developer's commitment to meet (and ensure that its contractors and subcontractors meet) the following labor standards: (1) use a minimum percentage of local labor (e.g., 30%); and (2) employ a minimum number of employees through a state-approved apprenticeship program? Because the law would be paired with a floor area bonus for affordable housing, it is sometimes referred to as the "floor area affordability bonus" or FAAB.

SHORT ANSWER

A zoning incentive program addressing the labor issues described above in exchange for a density bonus (e.g., greater height and floor area) would likely violate various federal and state laws and exceed the City's zoning authority. We are not aware of any zoning law in the United States that creates a generally applicable requirement or incentive to meet labor standards.[1] Although we are not aware of any court cases dealing with the subject directly, we predict that a legal challenge to the proposed zoning incentive program would be successful.

---

[1] South San Francisco has adopted a law which provides for a zoning density bonus if developers meet a combination of public benefits. Although one of the public benefits is local hiring, this law is not comparable to the proposed zoning incentive program because it allows developers to qualify for the bonus in a variety of ways not related to labor standards.

Courts distinguish between municipalities' authority as "regulators" (using police powers to regulate private sector conduct) and "market participants" (using public resources to carry out projects). Cities have broad discretion to mandate labor standards in carrying out their own public projects and many municipalities, particularly in California, do that routinely.[2] Generally applicable regulations face much more scrutiny and we believe zoning incentive programs fall into this category. The application of local hiring requirements to a zoning incentive program will run the risk of legal challenges under federal and state law. The apprenticeship requirement would be less risky under federal law, however there would still be problems under state law. An attempt to impose an apprenticeship requirement through the use of a zoning regulation would exceed the City's authority and legal challenges to such a program would probably be successful.

This memorandum outlines our concerns and findings for each of the three labor issues—first under federal law and then under state law. Section I addresses local hiring, section II addresses apprenticeships. Three exhibits to the memorandum address environmental review considerations (Exhibit A), a summary of conclusions (Exhibit B), and four mandatory laws from California (Exhibit C).

This memorandum does not extensively address a requirement for union labor. But such a requirement would raise a host of legal and logistical issues that are summarized under Point II below. Not surprisingly, our research did not encounter a zoning or other incentive program that requires union labor.

---

[2] Some states are moving in the opposite direction, prohibiting municipalities from setting local hiring or other labor requirements. Ohio and Missouri are two examples. This memorandum does not address these developments further.

ANALYSIS

I.   Local Hiring Requirements.

The local hiring requirements are likely to be found to violate the federal constitution and exceed the legislative authority given to the City by the State.

A.   *Local Hiring Requirements Would Violate Federal Law.*[3]

The local hiring provisions contained in the proposed law would violate the United States Constitution. As currently proposed, in order to obtain the zoning bonus, a developer would have to favor residents living in certain census tracts at the expense of other New York City, State, and out-of-state residents. Such favoritism is generally found to violate two clauses of the United States Constitution: the privileges and immunities clause and the dormant commerce clause.

Privileges and Immunities Clause. The Supreme Court has held that the right to work is a fundamental right. *See United Bldg. & Constr. Trades Counsel of Camden v. Mayor and Council of Camden*, 465 U.S. 208, 219 (1984).[4]   Since the proposed local hiring law implicates a fundamental right, the City would have to show that nonresidents "constitute a peculiar source of the evil at which the statute is aimed." *Id.* at 222 (citing *Toomer v. Witsell*, 334 U.S. 385, 398 (1948)). This is a very difficult standard to meet, and a recent District of Columbia case stated that every case it was aware of that addressed the constitutionality of local hiring laws had found them to be unconstitutional under the privileges and immunities clause as economic protectionism. *See Metropolitan Washington Chapter Assoc. Builders & Contractors, Inc. v. District of Columbia*, 57 F. Supp. 3d 1 (D.D.C. 2014).

---

[3] Local hiring zoning <u>incentives</u> do not raise issues under the takings clause of the Fifth Amendment.

[4] Courts have contrasted the right to work generally, which is a fundamental right, with the right to work for the government, which is not considered to be a fundamental right. *Camden*, 465 U.S. at 219.

7945333.1

Although we were not able to find a law which made the local hiring provision optional, such as the instant proposal which ties the local hiring provision to a zoning bonus, the Supreme Court decision in *Supreme Ct. of Va. v. Friedman*, 487 U.S. 59 (1988), is instructive. In *Friedman*, the State of Virginia allowed resident attorneys to become members of the Virginia bar without taking the bar exam, so long as they met certain conditions. *Id.* at 61-62. However, non-resident attorneys always had to take the bar exam even if they otherwise satisfied the conditions for admission on motion. *Id.* Although non-residents were still able to gain admission to the Virginia bar by taking and passing an exam, the United States Supreme Court struck down the law as unconstitutional, stating that once a state grants certain privileges to its own residents, it had to allow non-residents the same privileges on "terms of substantial equality." *Id.* 70. Under this analysis, the local hiring provision would be problematic as it prevents developers that hire out-of-state residents from qualifying for the zoning bonus.

The privileges and immunities clause only prohibits favoring local residents over out-of-state residents. Therefore, states are allowed to discriminate against or among their own citizens so long as the law does not apply to non-residents. *See City of Cleveland v. Ohio*, 508 F.3d 827 (6th Cir. 2007). Practically, this means that New York City could enact a law requiring that developers grant preferences to certain New York residents compared to other New York residents, so long as the developer is still free to hire as many non-New York residents as it wants. However, such a law would be unlikely to meet the desired goals and be very hard to administer.

Dormant Commerce Clause. Since the local hiring law at issue would apply to private developers, as opposed to city projects, the city is acting as a regulator, not a market participant. This means that the law would have to comply with the dormant commerce clause. *See White v. Mass. Council of Constr. Employers, Inc.*, 460 U.S. 204 (1983).

Under the dormant commerce clause, courts balance the relative burden a law places on interstate commerce compared to the local interest the law is designed to protect. *See Foster-Fountain Packing Co. v. Haydel*, 278 U.S. 1 (1928); *Pike v. Bruce Church, Inc.*, 397 U.S. 137 (1970). Under this analysis, courts have invalidated statutes that are designed to protect or promote local industry at the expense of industries in other states. *Id.* By affording developers a zoning bonus related to local hiring, the law essentially makes development projects more costly or less profitable for out-of-state developers. As such, the law would likely be found to violate the dormant commerce clause. *See Hunt v. Washington State Apple Advertising Comm'n*, 432 U.S. 333 (1977).

Contracts Clause. If the local hiring provision were drafted so as to have a retroactive effect, and therefore had the potential to disrupt pre-existing contracts, the law could also be problematic under the United States Constitution's contract clause (Article I, Section 10). In analyzing whether a law violates the contract clause, courts answer three questions: 1) whether the contractual impairment is significant; 2) whether the law serves a legitimate public purpose; and 3) whether the means are reasonable and necessary. *See Buffalo Teachers Fed'n v. Tobe*, 464 F.3d 362, 368 (2d Cir. 2006). However, the law must interfere with an already existing contract, any restrictions on *future* contracts do not violate the contract clause. *See Allen v. Cuomo*, 100 F.3d 253, 262 (2d Cir. 1996). Therefore, so long as the local hiring provision only applies to future development projects, it is unlikely that the law could be challenged based on the contract clause.

Equal Protection. Due to the demographics of New York City and where the local hiring provision would be imposed, the law would disproportionately benefit minority communities. Accordingly, we considered whether the law could violate anti-discrimination laws and constitutional protections. We concluded that although opponents of the law could mount a

challenge under the Fourteenth Amendment, any such challenge would be unlikely to succeed.[5]

Under the Fourteenth Amendment, only laws which "amount to express racial classification" are

subject to strict scrutiny. *See Pyke v. Cuomo*, 567 F.3d 74, 77 (2d Cir. 2009). Here, since the law

is aimed at geographic areas, not racial classes, it should not be subject to strict scrutiny analysis.

Id. Therefore, to mount a successful challenge under the Fourteenth Amendment, a plaintiff would

have to allege that the law was applied in an intentionally discriminatory manner. *See Floyd v.

City of New York*, 959 F. Supp. 2d 540, 570-71 (S.D.N.Y. 2013). The discriminatory motive does

not have to be the "primary" one, it must simply be "*a* motivating factor." *Id.* (emphasis in

original). In order to successfully challenge the law under the Fourteenth Amendment, a plaintiff

would have to show both an adverse effect *and* discriminatory animus. *See Brown v. City of

Oneonta*, 221 F.3d 329, 338 (2d Cir. 2000) ("Without additional evidence of discriminatory

animus, the disparate impact … is insufficient to sustain an equal protection claim.").

Accordingly, so long as there are race-neutral reasons for which neighborhoods or census tracts

are subject to the zoning bonus requirement, any challenge on Fourteenth Amendment grounds

should be unsuccessful.

B.   *Local Hiring Requirements Would Likely Violate State Law.*

Using a zoning law to regulate the labor market would likely violate the City's zoning

authority under New York State law.

---

[5] The proposed law does not raise concerns under the Civil Rights Act, Title VII which prohibits discrimination in
the employment context as that law only provides a cause of action by employees against their employers. *See
Arculeo v. On-Site Sales & Marketing, LLC*, 425 F.3d 193, 197 (2d Cir. 2005).

7945333.1

i. Municipalities in New York only have the legislative authority that is specifically allocated to them by the State.

Municipalities are "creatures" of state law and only have as much power as the legislature allocates to them. State law needs to provide specific authority for the City to adopt zoning paired with labor requirements. Moreover, even where state law provides authority, the City's exercise of that authority must not conflict with other state laws. The City's authority under its zoning enabling act is the first inquiry. Next, the N.Y.S. Labor Law must not preempt local labor requirements.[6] We are not aware of any state statute (labor or otherwise) that preempts a local hiring preference and thus focus in this section only on the City's authority to use zoning to address labor. (State labor law does address apprenticeships as discussed in Sections II and III below.)

ii. Using zoning to achieve labor goals would likely violate the City's authority under New York State's zoning enabling act for cities.

There is no question that the General City Law delegates authority to New York City to regulate zoning: sections 20(24)–(25) grant cities the power to establish zoning districts and set rules governing height, bulk, uses etc., to advance purposes ranging from securing safety from "fire, flood, and other dangers" to the more general goal of promoting public health and welfare. N.Y. GEN. CITY LAW §§ 20(24)-(25) (McKinney 2016).

Moreover, incentive zoning is expressly authorized in General City Law § 81-d. Section 81-d defines incentive zoning as a "system by which specific incentives or bonuses are granted . . . on condition that specific physical, social, or cultural benefits or amenities would inure to the

---

[6] The home rule provisions of the N.Y.S. Constitution (Article 9, Section 2) "confer broad police power upon local government relating to the welfare of its citizens."[6] *New York State Club Ass'n, Inc. v. City of New York*, 505 N.E.2d 915 (1987). However, a municipality may not pass laws that are "inconsistent with [or] contravene laws of the State" and laws passed must "bear a reasonable relation to the objective sought to be achieved." *Dibble v. Town of Ripley*, 478 N.Y.S.2d 751, 752 (Sup. Ct., Chautauqua County, 1984) (affirming local law limiting truck weight on dirt road during mud season). *See also New York State Club Ass'n*, 505 N.E.2d at 917 (noting that New York City may not pass laws that are inconsistent with or preempted by state law).

community." Id. § 81-d(1)(c). An incentive zoning system must be consistent with a locally adopted comprehensive plan. See § 81-d(2).

However, there is no case law addressing whether a local hiring preference (or any other labor related condition) would be considered a "social benefit" that would "inure to the community." Nor is there any case law examining whether a bonus program granting such benefit would be deemed consistent with New York City's equivalent of a "locally adopted comprehensive plan"[7] or otherwise "bears a reasonable relation to the objectives sought to be achieved." *Dibble,* 478 N.Y.S.2d at 752. And while there is no question that regulation of labor is a proper use of the police powers to advance public welfare outside the zoning context, we are aware of no decision in which a court has addressed whether the right to promote public welfare through zoning includes the right to regulate labor.

While Section 81-d is broad on its face, a court would probably conclude that the community benefits it requires must relate to land-use matters such as construction of senior centers, daycare centers, affordable housing or public open space in exchange for density bonuses. FAAB is fundamentally different from such benefits because its labor standards would have no obvious relationship to land use, added density or the impacts that that density might cause. Additionally, the definition of "community benefits or amenities" under Section 81-d strongly implies that these benefits must be tangible physical benefits, which would preclude labor standards from qualifying as the community benefit under the zoning incentive law. *See* § 81-d(1)(b).

---

[7] Pursuant to State zoning enabling laws, most municipalities in New York State are encouraged to adopt a "comprehensive plan" and, if they do, are required to carry out land use regulation consistent with such plan. However, New York City is exempt from these provisions. *See* General City Law § 28-A ("this section shall not apply in a city having a population of more than one million"). Section 81-d includes no such carve out, thus if New York City of its own volition has adopted a "comprehensive plan" or its equivalent, an incentive zoning program must be consistent with such plan.

7945333.1

iii. An incentive zoning district with labor requirements is probably not illegal contract zoning.

Contract zoning occurs where a landowner enters into a reciprocal agreement with a municipality in which the owner promises to restrict the use of property or perform certain promises in exchange for an agreement to rezone. When the contract relates to land-use issues and community impacts, it is legal. When the contract relates to extraneous public benefits, it is not. The Court of Appeals has held that where the "conditions" agreed to are for the benefit of the neighbors, the legislative exercise is well within a locality's powers. *See Church v. Town of Islip*, 168 N.E.2d 680 (N.Y. 1960) (conditions requiring a fence and shrubbery on property rezoned from residential to business were not illegal). In contrast, where the conditions imposed "do not seek to ameliorate the effects of the land use at issue, and are thus unrelated to the legitimate purposes of zoning," the legislative enactment tying conditions to a rezoning may be deemed invalid. *St. Onge v. Donovan*, 522 N.E.2d 1019, 1023 (1988).

The Court of Appeals decided *St. Onge* prior to enactment of section 81-d, which expressly permits localities to enact incentive zoning programs designed to provide "specific physical, social, or cultural benefits or amenities" for the benefit of the community. N.Y. Gen. City Law § 81-d. Moreover, FAAB would provide labor standards applicable to any developer and would therefore not be subject to "bargaining" with the municipality. FAAB would not constitute illegal contract zoning. But negotiating labor standards on a project-by-project basis could raise contract zoning concerns under *Church* and *St. Onge* unless the standards have an established connection to land-use concerns. We thus caution the City about negotiating one-off deals with developers trading higher building densities in exchange for labor concessions.

C.   **Any kind of union labor requirement would likely raise legal issues.**

Any union labor requirements would be especially problematic as they would almost certainly violate provisions of the U.S. constitution and federal laws as well as New York's zoning enabling act. A requirement to use union labor to gain access to zoning bonuses would likely violate the National Labor Relations Act by limiting the ability of workers to negotiate with employers and organize. It may violate the Constitution's guarantee of equal protection if a court were to determine that the requirement (and preference of union over non-union labor) were irrational, arbitrary or capricious. It may violate the contracts clause of the Constitution if a developer could show that it interfered with pre-existing labor agreements. Finally, if enacted through a zoning law a court could find that it exceeded the City's authority under New York's zoning enabling act for cities (a conclusion we reached for the other labor requirements). We have not encountered laws (zoning or otherwise) in other states that require union labor.

II.   <u>Apprenticeships.</u>

Federal law probably does not preempt a properly drafted, local apprenticeship requirement. State law also does not preempt municipalities from requiring compliance with state-approved apprenticeship program so long as the local law does not change or vary the certification <u>standards</u> applied by the State. But as discussed above, such a program would most likely exceed the City's zoning authority under state law.

A.   ***An apprenticeship requirement probably does not violate federal labor laws.***

So long as the City properly drafts an apprentice law, it would not violate federal law. The Supreme Court addressed the question of whether a state apprenticeship requirement is preempted by ERISA in *Dillingham*, 519 U.S. 316 (1997). In *Dillingham*, the Court found that California's apprenticeship program which allowed companies to pay lower wages to apprentices on public

10

works contracts was not preempted by ERISA. However, the court cautioned that if only apprenticeship programs sponsored by unions were allowed, then the law might not pass muster. *Id.* at 325-26.

In addition to ERISA, an apprenticeship requirement could be challenged under the NLRA. Few courts have addressed the issue. But in a later court ruling in *Dillingham*, the Ninth Circuit applied the same considerations in determining whether an apprenticeship program is preempted by the NLRA. So long as the law set forth generally applicable minimum standards, NRLA would not preempt it. *See Dillingham Constr. N.A. v. County of Sonoma*, 190 F.3d 1034 (9th Cir. 1999). Accordingly, an apprenticeship program should be drafted to set general minimum standards as opposed to targeting specific trades.

Finally, any apprenticeship requirement must be drafted to allow both in-state and out-of-state residents to qualify for the zoning bonus. In *TRI-M Group, LLC v. Sharp*, 638 F3d 406 (3d Cir. 2011), the Third Circuit found an apprenticeship requirement violated the dormant commerce clause because, due to the way it was drafted, it had the effect of preventing out-of-state companies from meeting the requirements. *Id.* at 429.

B. So long as the City does not set forth its own standards and licensing requirements for apprenticeship programs, the New York State Labor Law would not preempt a local apprentice requirement.

New York's Labor Law §§ 810 *et seq.* preempts local regulation of apprenticeship programs. State law regulates apprenticeship training programs both directly and, in some localities, through regional councils. The law and the councils set standards by trade group for the contents of apprenticeship agreements entered into voluntarily by employers and employee organizations or individual apprentices.[8] State Labor Law does not, however, mandate that any

---

[8] Supplemental training (e.g. community college courses) are regulated elsewhere in state law.

7945333.1

entity enter into apprenticeship agreements. There are no court decisions interpreting whether a locality may <u>require</u> private entities to enter into apprenticeship agreements as a condition of a local, voluntary zoning bonus. We do not believe, however, that such a local requirement would violate the Labor Law so long as the local program did not vary the standards or contents of the apprenticeship program as established by New York State.

> ### C.   Using zoning to implement apprenticeship goals would potentially exceed the City's zoning authority as set forth in Section I above. (Same analysis as set forth in Section I above.)

Exhibit A
Environmental Review of the FAAB District

New York State law expressly requires municipalities to prepare a "generic" environmental impact statement ("GEIS") for incentive zoning districts that may be mapped in various locations over time. The law states: "A generic environmental impact statement pursuant to [SEQRA] shall be prepared by the legislative body of a city for any zoning district in which the granting of incentives or bonuses have a significant effect on the environment before any such district is designated, and such statement shall be supplemented from time to time by the legislative body of a city if there are material changes in circumstances that may result in significant adverse impacts."[9]

Typically, when a municipality creates an incentive zoning district it maps the district in one or more locations and then adds new locations over time. The environmental analysis is therefore generic in that it considers the types of impacts that may occur where districts are mapped over time and thus have "wide application restricting the range of future alternative policies or projects." The analysis would consider "hypothetical scenarios that could and are likely to occur."[10] To carry out the review, the City needs to know the size of the potential zoning bonuses, any other design controls that would be used and the types of neighborhoods where it would be mapped.

In this case, the City would likely need to prepare a GEIS for the incentive zoning district that considered any district where it was immediately mapped and the hypothetical impacts in other representative areas where it might be mapped in the future. As new districts are mapped

_____

[9] N.Y. GEN. CITY LAW § 81-d(3)(d).

[10] N.Y. COMP. CODES R. & REGS. § 617.10(d) (McKinney 2016).

A-1

over time, the City would need to conduct supplemental environmental review to assess location-specific impacts. Ideally, the GEIS would allow those supplemental reviews to be limited and targeted.

Exhibit B

Summary of Conclusions

- <u>Use City support to achieve labor goals</u>.

    o New York City can require developers to meet certain labor goals when acting on public projects. The City should define the level of public support that triggers the designation "public project," as it already does through the Hire NYC program. Some California municipalities set lower thresholds for mandating labor requirements than the City does for Hire NYC. But we believe the standard should be high and the support direct so that a court would find that the project is legitimately public and that the City is acting in a "market participant" rather than regulatory role.

    o We do not believe the floor area bonus is itself enough to qualify a development as public or City-sponsored.

- <u>Avoid local hiring requirements</u>. Even on public projects, a local hiring requirement could be problematic under the U.S. Constitution and disadvantage out-of-state union members.

- <u>Apprenticeship requirements are valid on public projects</u>. The City can require developers to have apprenticeship programs on public projects. However, these standards should not be applied through laws of general applicability (such as a zoning bonus program). Additionally the City cannot regulate the terms of apprenticeship programs because of state preemption.

- <u>Zoning is not the right tool to achieve labor goals</u>. The City should not use the Zoning Resolution to achieve the labor goals because it is possible this would exceed its authority under the N.Y.S. General City Law.

- <u>Document Rationale</u>. In enacting any labor-related standards for public contracts, the City must document its basis for the law. With regard to apprenticeship programs, the goals may include reducing unemployment and improving construction safety.

Exhibit C

Examples of Localities with Labor-Related Land-Use Laws

Locality	Year Enacted	Location	Local Hiring Requirement?	Apprentice Program Requirement?	Summary (regulation, incentive or market participant)
Laws applying generally					
South San Francisco[11]	2016	Zoning Code	Yes (optional)	No	Developers are eligible for increased density and floor area if they provide any combination of 9 enumerated public benefits, one of which is local hiring.[12] The developer must present financial analysis to demonstrate that the cost of the public benefits is commensurate to the added density it seeks. This law has not been challenged in court yet but it is possible that the city hopes to immunize it from challenge under the Privileges and Immunities and Dormant Commerce clauses by making local hiring one of nine possible ways to win the density bonus.
Berkeley[13]	2012	Zoning Code	Yes	Yes (for large buildings and hotels)	Developers can apply for streamlined permitting and reviews in the Commercial Downtown Mixed Use District through the "Green Pathway" program that requires labor standards. With regard to local hiring, in exchange for meeting local hiring standards the city provides a modest benefit—expedited review. With regard to prevailing wages, the law avoids federal problems by setting forth broadly applicable minimum standards. California does not preempt local minimum wages the way New York does.
Los Angeles [14]	2014	Municipal Code	No	No	Hotels with 150 or more rooms must pay employees a prevailing wage. With regard to legality, see above regarding Berkeley.

---

[11] SOUTH S.F. MUN. CODE § 20.280.005 (Ord. 1511 § 2, 2016, Cal.).

[12] Local hire program, public art, streetscape enhancements, public space enhancement, public meeting and child care facilities, displaced business relocation, green building measures, transit subsidies to residents or employees or similar benefits.

[13] BERKELEY MUN. CODE § 23B.34.050 (Ord. 7230-NS § 1 (part), 2012, Cal.).
[14] L.A. MUN. CODE, ch. XVIII, art. 6, § 186.00 (Ord. 183241, 2014, Cal.).

Locality	Year Enacted	Location	Local Hiring Requirement?	Apprentice Program Requirement?	Summary (regulation, incentive or market participant)
Laws applying generally					
Los Angeles	Ballot Initiative, passed with 64% of the vote on November 8, 2016	Municipal Code	Yes	Yes	Residential projects of 10 or more units that request a General Plan Amendment would have to comply with a prevailing wage requirement, affordable housing requirement, or otherwise pay into an affordable housing trust. Compliance is reviewed by the Planning Department. With regard to prevailing wages, see the distinction noted above between California and New York. Also, there are local hiring guidelines, in which contractors shall make a "good-faith effort" to ensure a certain percentage of laborers are residents of LA. Compliance is administered by the Department of Public Works. Because these are "good faith" requirements they probably do not raise the same constitutional issues as the FAAB would.

Appendix B: Updated Approach and Methodology

Financial Feasibility Model

In 2014-15, BAE developed a dynamic financial feasibility model to analyze the impact of a range of potential inclusionary requirements on residential development feasibility across market conditions. The model contains all key cost, revenue, and financing assumptions outlined in the previous chapter, along with numerous secondary, supporting assumptions. Throughout the development of this analysis BAE consistently chose the more conservative value for key inputs where there was a range of observed values, and so these feasibility findings reflect a deliberately conservative analysis.

The model structure was designed to allow the user to input a series of key scenario conditions, including market condition, project tenure, zoning and density, on- or off-site development of affordable units, and application of the 421-a Program and/or LIHTC. Within any given set of these key scenario conditions, the model allows the user to test the effect a particular mandatory inclusionary program policy choice, as designed by the City, would have on the financial feasibility of a prototypical development.

The model used a series of development pro forma and 30-year cash flows to translate these key scenario conditions into a unit production and financial feasibility result for any given potential inclusionary requirement. The unit production output is expressed in terms of the total number of market-rate and affordable units yielded under each scenario, while the financial feasibility output is expressed in terms of three key metrics: yield-on-cost (YOC) or return-on-cost (ROC) at stabilization (for apartment and condominium scenarios, respectively. These terms are defined below.

Key Terms of Analysis

The following discussion is from the 2015 BAE report, modified to focus primarily on rental projects. Please see the 2015 BAE report for more information.

- **Market Condition:** BAE defined five market condition classifications (Very Strong, Strong, Mid-Market, Moderate, and Weak) to represent the range of market conditions currently present throughout the City.

- **Building Prototype:** This analysis tests the financial feasibility of potential MIH requirements under three building prototypes, each of which corresponds to a characteristic building in a sample zoning designation. For the purpose of this analysis, low-rise refers to a seven-story building in an R7A zoning district; Mid-rise

refers to a 10-story building in an R7D district; and High-rise refers to a 30-story building in an R10 district.

- **On- and Off-Site:** These terms refer to whether the project is permitted to meet the affordability requirement through the production of affordable units at a second location, in a separate building, on a separate zoning lot (Off-Site), or is required to meet the requirement within the subject development, in the same building or in a separate building on the same zoning lot (On-Site). If the Off-Site scenario is assumed, the hard costs for the off-site building are assumed to be lower due to the use of a less expensive construction type (i.e. block and plank), but the land cost is assumed to match the average cost per zoning square foot for the market area in which the projects is tested. This assumption reflects the City's dynamic and competitive land market, in which affordable developers may not always succeed in obtaining land at a below-market price.

- **421-a Program:** This refers to the 421-a Real Estate Tax Exemption Program (421-a Program) as it was applicable during the original study period (e.g., 2014). This includes the as-of-right 15-year and extended 20-year and 25-year benefit options, applied depending on the correspondence between market types and Geographic Exclusion Area boundaries, and on the affordability requirements associated with benefits. Note that for the purposes of this analysis, the use of 421-a certificates was not assumed. For this study's analysis, the same assumptions were used as in the prior study, even though this program has since expired, and a new program legislated by the State of New York has been suspended.

- **Low Income Housing Tax Credit (LIHTC):** For the purposes of this analysis, only a 4-percent LIHTC is assumed, because these credits are as-of-right to eligible mixed-income residential developments to finance affordable units for households earning up to 60 percent of AMI. All of the scenarios tested for this 2016 report would be eligible for this subsidy, however this resource is a limited resource and is capped by the federal government.

- **MIH Affordability Requirement:** Each potential MIH requirement tested in this analysis represents a combination of income target and set-aside requirement. The income target, expressed as a percent of Area Median Income (AMI), specifies the maximum income level of households for whom affordable units would be reserved. Note that in this analysis, a blended *average* AMI level is presented, as described in greater detail in the following section. The set-aside requirement represents the total percentage of the project square footage that must be provided as affordable units.

- **Yield-on-Cost (YOC):** This is a commonly used metric to determine the feasibility of a potential development, without consideration of financing costs. This simple measure

eliminates the complexity of various equity/debt combinations that vary by developer. Yield-on-cost (YOC), the measure used for rental projects, is calculated as the net operating income (NOI) for a rental project at the year of stabilization divided by the total development cost.

Market-Driven Assumptions

Market-Rate Rents and Sale Prices

The NYC marketplace presents several challenges in determining accurate financial assumptions for rents and sale prices, due to variability both by geography (which is accounted for by the Market Conditions Index), bedroom count/unit size, and premiums associated with height (e.g., floor level giving distance from street noise as well as improved views in many high-rise buildings).

In order to accurately estimate market-rate rents and sale prices in the financial model, a three-step method was used. Baseline average rent and sale price data were developed by unit size using only market data from the past 18 months, filtered to include only those units located in recently built structures (since 2010). Next, adjustment factors were formulated to account for building height and view premiums, as described below. Finally, the height and view premium adjustments were applied to the baseline averages, to formulate the final array of rents and sale prices by market condition and building type. Each step is detailed below.

A. Baseline Market Rate Rents / Market Rate Sale Prices

Market rate rent assumptions were developed by analyzing a subset of the data series described earlier (REIS), so that only current rents for units located in buildings built since 2010 were used. This filter was applied to provide both the most current rents, and rents approximating those found in the newest buildings only. Rent data from REIS is available by bedroom count by building; these variables were both used to sort the data based on the location's Market Index, and each Index category's rents by bedroom count were then averaged to derive an average rent per unit by bedroom count. The table below shows the result of this analysis. Because this analysis is based on market-rate rents in relatively new buildings only (built after 2009), the rents may appear higher than perceptions of rental markets overall in NTAs within each market condition category.

Table B1: Baseline Market Rate Rents (before Height Adjustments)

Market Condition	Studio	1-Bedroom	2-Bedroom
Weak	$1,301	$1,594	$1,982
Moderate	$1,626	$1,992	$2,477
Mid-Market	$1,864	$2,565	$3,287
Strong	$2,669	$3,443	$5,010
Very Strong	$3,767	$4,999	$8,991

Note: Figures reflect data for market-rate asking rents in buildings built in 2010 or later.

Sources: Reis, 2014; BAE, 2015.

Condominium sale prices were estimated based on a similar process, using the subset of sales occurring in buildings built since 2010 (newer buildings only). Year built was obtained by purchasing the same sales data found in the DOF Rolling Sales database from DataQuick, a private data vendor. This additional information was applied to the DOF sales to create new building subset information. However, because the DOF data does not specify bedroom counts for units in the dataset, BAE further sorted the data by square feet (which is provided) and grouped it per BAE's estimate of bedroom count based on the square feet for each sale.

Table B2: Baseline Market Rate Condo Prices (before Height Adjustments)

Market Condition	Studio	1-Bedroom	2-Bedroom	3-Bedroom
Weak	$244,414	$308,541	$458,474	$540,295
Moderate	$305,517	$385,676	$573,093	$675,369
Mid-Market	$326,355	$421,387	$810,929	$854,828
Strong	$580,346	$1,027,690	$1,701,277	$2,058,768
Very Strong	$900,780	$1,412,887	$2,903,023	$3,924,139

Sources: DataQuick, 2014; BAE, 2015.

B. Adjustments to Rents/ Sale Prices for Floor Level and Views

The baseline rental rate assumptions used in the financial feasibility model are derived from a dataset of market rate rents reported for buildings at an average height of 20 stories, and are therefore assumed to represent units on average on the 10th floor. To account for the combined impact of height and view premiums on rental rates and sale prices, a height premium adjustment factor was applied to the rents and sale price assumptions shown above. This factor, shown below, was based on a review of available published analyses on this topic and interviews with appraisers familiar with the New York City residential market. BAE assumed that, on average, rents/sale prices increase by one percent per building floor for all building types <u>and</u> that a one-time 10 percent view premium is also earned by units on the 20th floor of a building to account for view lines[10].

---

[10] To adjust for floor level, the baseline rents were adjusted downward by one percent per floor below 10 stories, and upwards by one percent per floor above 10 stories. In addition, a view premium of 10 percent was applied to units on the 20th floor of the high-rise prototype. These adjusted rents were then compared to baseline rents, to develop the factor used across all model assumptions as appropriate (per building prototype).

Table B3: Floor Level and View Adjustment Factor

| | Rental Apartment | | |
	Avg. Annual Rent PSF (a)	Adj. Annual Rent PSF (b)	Adjustment Factor
Low-rise (7 stories)	$89.53	$83.81	-6.39%
Mid-rise (10 stories)	$89.53	$85.36	-4.66%
High-rise (30 stories)	$89.53	$98.22	9.71%

| | Condominium | | |
	Avg. Sale Price PSF	Adj. Sale Price PSF	Adjustment Factor
Low-rise (7 stories)	$2,138.71	$2,013.96	-5.83%
Mid-rise (10 stories)	$2,138.71	$2,044.99	-4.38%
High-rise (30 stories)	$2,138.71	$2,348.27	9.80%

Notes:
(a) Average annual rent per square foot and average sale price per square foot reflect the average values assumed as the baseline rent or sale price per unit, based on analysis of market rate rent and recent sales data.
(b) Adjusted rent and sale price per square foot reflect the adjusted average for a low- ,mid-, or high-rise building assuming an increase of one percent per floor and a one-time increase of 10 percent on the 20th floor.
Sources: Reis, 2014; DataQuick, 2014; BAE, 2015.

The rental rate and sale price assumptions resulting from height and view premium adjustments are summarized by building type and market condition in the table below.

Table B4: Adjusted Rental Rates/Sale Prices by Building Type and Market Condition

	Low-Rise Building (7 floors)						
	Rental Apartment			Condominium			
Market Condition	Studio	1-BR	2-BR	Studio	1-BR	2-BR	3-BR
Weak	$1,218	$1,492	$1,856	$230,157	$290,544	$431,732	$508,780
Moderate	$1,523	$1,865	$2,319	$287,696	$363,180	$539,665	$635,975
Mid-Market	$1,745	$2,402	$3,078	$307,319	$396,808	$763,628	$804,966
Strong	$2,499	$3,224	$4,691	$546,495	$967,745	$1,602,042	$1,938,681
Very Strong	$3,527	$4,681	$8,419	$848,238	$1,330,474	$2,733,691	$3,695,245

	Mid-Rise Building (10 floors)						
	Rental Apartment			Condominium			
	Studio	1-BR	2-BR	Studio	1-BR	2-BR	3-BR
Weak	$1,240	$1,519	$1,889	$233,703	$295,020	$438,384	$516,619
Moderate	$1,550	$1,899	$2,362	$292,129	$368,775	$547,980	$645,774
Mid-Market	$1,777	$2,445	$3,134	$312,054	$402,922	$775,393	$817,369
Strong	$2,545	$3,283	$4,777	$554,915	$982,656	$1,626,726	$1,968,551
Very Strong	$3,591	$4,766	$8,572	$861,307	$1,350,973	$2,775,810	$3,752,180

	High-Rise Building (30 floors)						
	Rental Apartment			Condominium			
	Studio	1-BR	2-BR	Studio	1-BR	2-BR	3-BR
Weak	$1,427	$1,748	$2,174	$268,362	$338,773	$503,398	$593,236
Moderate	$1,784	$2,185	$2,717	$335,453	$423,466	$629,247	$741,545
Mid-Market	$2,045	$2,814	$3,606	$358,333	$462,676	$890,387	$938,588
Strong	$2,928	$3,777	$5,496	$637,211	$1,128,388	$1,867,975	$2,260,495
Very Strong	$4,133	$5,484	$9,864	$989,042	$1,551,328	$3,187,474	$4,308,643

Note: Figures reflect data for units in buildings built in 2010 or later.
Sources: Reis; DataQuick, 2014; BAE, 2015.

Land Acquisition Cost

The acquisition cost of land was a key variable considered in the financial feasibility model. In order to develop accurate estimates of the average value of land in various markets, BAE obtained land sale records from CoStar Group, a leading commercial real estate information company. Records were pulled for all sales of land for $1.0 M or more with a residential intended use and with a closing date between January 1, 2013 and October 31, 2014. After filtering out sales of development or air rights and incomplete records, BAE sorted the remaining 150 records by NTA location, leading to a data set coded by market condition.

In order to establish a normalized acquisition cost assumption, BAE provided this set of sale records to DCP, which matched each record to the zoning classification and corresponding residential FAR for that property based on permitted FARs for the zoning districts listed in the 2014 PLUTO database[11]. This data was then used to calculate the average sale price per

---

[11] Note that DCP's estimate of ZFA for each of the 150 land transactions analyzed did not involve an in-depth, site-specific FAR estimate. The ZFA is based on the generalized zoning and other regulatory allowances for that site's location.

square foot of estimated zoned floor area (ZFA) within each market condition category (e.g. weak, strong).

In addition, BAE compared these results with the observations from a series of in-depth developer interviews in order to arrive at a final land acquisition assumption per ZFA for the financial feasibility model. These data are summarized in the table below.

It should also be noted that use of the sale price per ZFA metric in the model means that every unit across low-, mid- , and high-rise building prototypes in the market area has the same per-unit land cost. However, because the different building types and re-zonings being tested result in differently-sized building envelopes on the same 20,000 square foot lot (held constant), the use of a per ZFA land cost means that the larger the building, the more expensive the total land cost.

Table B5: Summary of Land Acquisition Cost Data and Model Assumptions

	Land Sale Records(a)				Developer Interviews (b)	Model Assumptions
	# of Sales	Median $/ZFA	Average $/ZFA	90th Percentile $ / ZFA	$ / ZFA	$ / ZFA
Weak	4	$31.59	$30.25	$40.05	NA	$40.00
Moderate	52	$89.38	$94.99	$158.99	$150.00	$160.00
Mid-Market	39	$143.51	$160.65	$276.93	$275.00	$275.00
Strong	40	$179.60	$192.57	$326.79	$300.00	$325.00
Very Strong	13	$422.44	$436.51	$537.67	$500.00 - $1,000.00	$550.00

Notes:
a) Sale records obtained from CoStar for land sales with an intended residential use for sales over $1,000,000 from Jan 1, 2013 to Oct 31, 2014; NYC DCP provided ZFA assumptions to convert total land sale price to $/ZFA.
b) BAE conducted six in-depth interviews with multifamily developers active in the New York market between Nov 2014 and Jan 2015; Several developers noted that in Very Strong and Strong Markets, land tends to trade at condo-related prices, creating challenges for rental projects which are challenging to "pencil" at condo land prices.
Sources: CoStar; NYC DCP; Developer interviews; BAE, 2014.

Absorption

BAE gathered information regarding current market expectations for absorption of newly built rental apartments and condominium units through a series of in-depth interviews with multifamily developers active in the New York City market. To avoid overestimating the value of time-sensitive financial measures within the analysis, based on these interviews and a wider review of recently published reports, BAE applied an absorption schedule intended to reflect a relatively conservative pace. These absorption assumptions, varied by project scale (building size), are summarized in the table below.

Table A5: Assumed Unit Absorption Schedule

	Rental Apartment			Condominium		
	Unit Count (a)	Absorption Rate (b)	Lease Up/Sales Period (c)	Unit Count (a)	Absorption Rate (b)	Lease Up/Sales Period (c)
Low-rise	110	10	0.92	77	6	1.07
Mid-rise	134	10	1.12	93	6	1.29
High-rise	287	10	2.39	200	6	2.78

Notes:
(a) Reports the number of units expected for each building prototype based on financial model assumptions including FAR, site size, loss factor, and unit size and distribution; Note that actual unit count under different affordability scenarios will vary, due to the variance in unit size between market-rate and affordable units.
(b) Absorption rate reported as the average number of units leased for the first time or sold per month
(c) Represents the approximate total period required to reach full leaseup or clear all for-sale units in years
Sources: BAE, 2015.

Affordability Targets

For affordable rental units, BAE calculated the maximum allowable monthly rent at various AMI levels for studio, one-, two-, and three-bedroom units using the average household size per unit and the adjusted Area Median Income of $86,300 for a four-person household as the basis for calculations of rent limits at all AMI levels. [12] This figure is based on the Fair Market Rent (FMR) figures published by HUD for 2015, as adjusted and provided to BAE by HPD staff. The maximum affordable rents for each unit type at each AMI level represents the amount that the household could afford to pay for rent without paying more than 30 percent of the household's median monthly income on combined rent and utility payments. The key assumptions and resulting rent limits used in the financial feasibility model are summarized in the table on the next page.

To estimate the maximum affordable sale price for condominium units, BAE assumed the same median income assumption for a family of four and average household size per unit factors as in the methodology described above for rent limits. The maximum affordable sale price is defined as the sale price at which a household will be able to pay no more than 30 percent of the household's monthly income on combined mortgage and maintenance and

---

[12] The analysis was prepared in December 2014 and January 2015. The 2015 median household income was available, but the analysis used 2014 utility allowances due to 2015 estimates not yet available.

operation (M&O) payments. To calculate the affordable sale price for studio, one-, two-, and three-bedroom units at various AMI levels, BAE used a modified version of the maximum affordable sale price calculator provided by HPD staff. Mortgage terms were assumed to reflect current market norms, and monthly M&O costs to the unit owner. In lieu of specific data for these owner costs, BAE generated an assumption of monthly cost using the average per unit operating expense used in the rental analysis as a proxy. This factor was then inflated by 15 percent to reflect the higher costs for an ownership unit. These key assumptions and the resulting maximum affordable sale prices for each unit type and AMI level used in the model are summarized in the table on second following page.

Building-Driven Assumptions

Building Prototypes
The financial feasibility model was designed to test three building prototypes using two tenure scenarios and two construction methods.

The building prototypes are defined as a low-rise building of seven floors, a mid-rise building of 10 floors, and a high-rise building of 30 floors. These three prototypes reflect consultation with NYC DCP and developers interviewed in late October, 2014. All building prototypes are assumed to use a poured concrete construction method. In order to most closely match the scale of off-site affordable developments contemplated in the feasibility model, we assume that off-site affordable buildings will be the low-rise prototype and therefore use block-and-plank construction,

Table B6: Development Program Summary

Market-Rate	Floors	Const. Type	Elevators
Low-Rise	7	Poured Concrete	1
Mid-Rise	10	Poured Concrete	2
High-Rise	30	Poured Concrete	2+
Affordable Off-Site			
Low-Rise	7	Block-and-plank	1

Sources: BAE, 2015

BAE modeled underground parking at a ratio of 0.5 spaces per market rate unit in all market-rate and mixed-income (i.e. "on-site") building scenarios except for those in the Very Strong market category. This exception was made due to the Very Strong market category occurring exclusively in areas of Manhattan in which the zoning code does not include a parking requirement. Moreover, no parking requirement was assumed for affordable units under any scenario or market condition, reflecting the Department of City Planning's proposal to eliminate required parking for affordable housing in the transit-accessible areas. In the event

41

that parking were required for affordable units, increased construction costs in the absence of offsetting revenues would be expected to have a negative effect on project returns.

Each building prototype was tested for financial feasibility under a rental apartment-only and a condominium-only tenure scenario. No mixed-tenure building was tested in this analysis. All Development Programs are exclusively residential, with no ground floor retail or other uses assumed. This assumption was made for the purpose of isolating the impact of various affordability requirements on residential development in particular.

Zoning and Floor Area Ratio

All building prototypes are modeled to correspond to one of three pairs of zoning classifications representing initial and increased zoning and corresponding maximum FAR. These three pairs of zoning classifications represent three potential rezoning scenarios in which permitted residential densities are increased, and were identified by DCP as a range of typical scenarios based on a review of recent zoning map changes, and are summarized in the table below.

Table B7: Zoning and Density Assumptions

Upzoning Factor (a)	Initial Zoning	Initial FAR	Increased Zoning	Increased FAR (b)	Building Type	Building Size (gsf) (c)
130% FAR Increase	M1-2	2.00 (d)	R7A	4.60	Low-Rise	101,200
40% FAR Increase	R7A	4.00	R7D	5.60	Mid-Rsie	123,200
100% FAR Increase	R8	6.02	R10	12.00	High-Rise	264,000

Notes:
(a) All potential rezoning factors were provided by DCP to represent a range of hypothetical zoning increases for analytic purposes only; these factors do not represent any statement of current or anticipated City policy.
(b) "Increased FAR" in this analysis refers to higher FAR allowed in areas designated for the Inclusionary Housing program.
(c) Building size, expressed as gross square feet (gsf), is calculated by inflating the zoning FAR by a factor of 10 percent and applying this adjusted FAR to a model site of 20,000 square feet.
(d) M1-2 zoning does not permit residential use.
Sources: New York City Department of City Planning (DCP); BAE, 2015.

To estimate the maximum building envelope for each development scenario in the feasibility model, BAE assumed a model 20,000 square foot development site, based on direction from DCP staff. In the street grid system widely found in New York City, this represents a typical lot frontage encompassing the short end of a block, for example along Manhattan's north-south avenues. The maximum building envelope in gross square feet was calculated by applying an adjusted FAR for the applicable zoning classification to the site size. The gross square footage figures for each zoning classification were also inflated by 10 percent from ZFA in order to account for floor space exempted from the definition of FAR (this includes mechanical space and certain other exempt spaces). Architects interviewed by DCP suggested this 10 percent loss factor.

Hard Costs

Hard construction costs, which include labor, building materials, and interior systems, vary greatly from project to project due to each project's unique site conditions. The methodology to develop hard costs for the three building types and the off-site affordable type was as follows:

- Estimate a baseline cost by building type using RS Means, a published guide to cost-estimating by region around the US

- Consultations with developers, both in a group setting in late October 2014, and through subsequent follow-up interviews. Note that some developers provided a range of costs per each building type, and also advised that these costs could vary, based on whether the project's contractors used union labor/paid union wages.

- Review of 11 pro formas of actual 80/20 rental projects submitted to NYC HPD in 2013-2014 as part of application of HPD subsidies.

- Formulation of model assumptions, based on a middle to high point in the range of costs provided by developers to account for union wages and a conservative approach to the analysis.

Table B8: Hard Cost Model Assumptions

	RS Means (a)	Dev Group	HPD Sample (c)	Model Assuption
Market Rate (assumed poured concrete for all prototypes)				
Low-Rise				
Stories	7	7	7	7
Price/Sq. Ft.	$234	$230 - $250	$217 - $244	**$250**
Mid-Rise				
Stories			8-12	10
Price/Sq. Ft.	NA	$260 - $275	$200 - $418	**$260**
High-Rise				
Stories	24	28	up to 47	30
Price/Sq. Ft.	$305	$330 - $360	$296 - $454	**$330**
Off Site Affordable (assumed block & plank for prototypes shown)				
Low-Rise				
Stories	7			
Price/Sq. Ft.	NA	$215 - 230	NA	**$215**

a) RS Means - Low Rise from pre-cast panels & reinforced concrete
RS Means - High-Rise from ribbed pre-cast concreate & reinforced concrete
Calcs per RS Means:

	Low Rise Calc	High Rise Calc
Base/Sq.Ft.	$174.50	$227.40
Reg Adjustmt	1.34	1.34

b) Dev Group - High Rise based primarily on information from Avalon Bay for 28 story project last year (all union).
Some developers felt that this year cost would be $360/psf due to cost escalation.
c) From analysis of pro formas for 15 projects with 80/20 rental mix + 3 additional for 100% affordable projects.
Provided by HPD.
Sources: RS Means, HPD, BAE, 2015.

In addition to the aforementioned hard cost assumptions, the analysis recognizes that hard costs are higher for more highly-finished condominiums than for rental units. Further, the "finishes" cost factor will be higher in Very Strong and Strong markets than in less expensive areas, in order to add value and create a more luxurious unit.

Table B9: Hard Cost Adjustment for Finishes

	Rental	Condo (a)
Weak	n/a	$0.00
Moderate	n/a	$0.00
Mid-Market	n/a	$10.00
Strong	n/a	$20.00
Very Strong	n/a	$40.00

Notes:
a) Based on interviews with developers, who cited a $40 to $50+ finishes allowance for very strong projects.
Source: BAE, 2015.

Soft Costs

Soft costs are costs for design, engineering, legal, accounting, and fees/permits. Because most of these costs tend to vary based on the size and complexity of the project, to capture this relationship, soft costs are typically expressed as a percent of hard costs. However, some developers cited these costs as a fixed cost per square foot of building.

Sources for soft cost estimates included developer consultations and review of 14 sample pro formas provided by HPD (11 for 80/20 projects and 3 for 100 percent LIHTC projects). Research indicated that soft costs range from 15 to 18+ percent of hard costs. For purposes of using a conservative assumption, the model assumes a 20 percent soft cost factor applied to each hard cost assumption per building type/finishes, which did not include fees associated with construction financing.

Operating Expenses

Operating expenses for rental projects include the relatively constant set of services needed for any project (e.g., maintenance and repair, janitorial, utilities, and management), as well as the more variable costs associated with the level of amenities provided to tenants (e.g., doormen, fitness center, etc.). Operating costs will also vary between projects that are primarily market-rate (e.g. 80/20 or equivalent), and those that are 100 percent affordable.

Table B10: Operating Expense Assumptions

| Developers (a) | HPD Sample Pro Formas | | Model (b) |
	# of Projects	Average	
Market Rate			
Very Strong (a)	$9,000 -$10,000	4	$9,289	$9,500
Strong	not active	5	$9,095	$9,000
Mid-Market	not active	1	$8,175	$8,500
Moderate	not active	0	NA	$8,000
Weak	not active	0	NA	$7,500
Affordable (Off-Site)			
Very Strong	not active	1	$10,450	$6,700
Strong	not active	1	$7,926	$6,700
Mid-Market	$6,400	1	$6,522	$6,500
Moderate	not active	0	NA	$6,000
Weak	not active	0	NA	$6,000

a) Most developers interviewed gave broad ranges b/c it depends on amenities scale of project. All market rate rental developers interviewed were currently active only in the Very Strong market.
b) If data was not available, BAE made estimate based on scaling from known information.
Sources: Developer consultations, sample pro formas from HPD, BAE, 2015.

Financing, Public Subsidies, and Real Estate Tax Assumptions

Financing Assumptions

Financing assumptions for the analysis were formulated based on interviews with a mix of residential lenders including Enterprise, Citi, and Wells Fargo along with several industry representatives. HPD also provided its underwriting assumptions for 80/20 tax exempt bond financing. Assumptions utilized in the analysis are shown below.

Table B11: Financing Assumptions

| | Rental | | | Condo |
	Const. Loan	Perm. Loan	Tax-Exempt Bond	Const. Loan
Term (years)	2	30	35	2
Interest Rate	4.50%	5.75%	5.00%	4.50%
Debt Service Coverage Ratio (DSCR)	n/a	1.25	1.15	n/a
Loan-to-Cost (LTC), Loan-to-Value (LTV)	75.00%	75.00%	85.00%	75.00%
Originiation & Underwriting	2.25%	2.25%	3.25%	2.25%
Condo Release Rate				1.15

Sources: Interviews with 5 residential lenders; BAE 2015.

Public Subsidy: 4 Percent Low Income Housing Tax Credits (LIHTCs)

The 4-percent LIHTC supports affordable rental projects by providing a source of equity through sale of the credit to investors, as well as use of tax-exempt bonds as a source of inexpensive debt. The eligible basis for the issuance of LIHTCs is based on the hard, soft, and financing costs attributable to the portion of the development targeted to households at or below 60-percent AMI; the total equity available from the syndication of the credits is calculated based on information published in the State 2014 Low Income Housing Qualified Allocation Plan (QAP) and provided by HPD and HDC staff. As per direction of HDC staff, the maximum tax-exempt bond amount eligible to be used for construction financing is set to the equivalent of 52 percent of hard and soft costs attributable to the portion of the project targeted at or below 60-percent. The maximum tax-exempt bond amount available for permanent financing is based on the Net Operating Income (NOI) attributable to the portion of the project targeted at or below 60-percent AMI. The table below summarizes the key assumptions used to calculate both the LIHTC equity and tax-exempt bond amount available to development scenarios in the financial feasibility model.

Table B12: Key Assumptions for Low Income Housing Tax Credits (LIHTC)

LIHTC Equity Assumptions

High Cost Area Adjustment Factor (DDA)	1.30
Value of 4-percent Tax Credit	3.22%
Price of $1.00 4-percent Credit (a)	$1.13
Maximum Tax Credit Value per Unit	$455,000
Maximum Eligible Developer Fee	15.00%
Eligible Portion of Soft Costs	95.00%

Tax-Exempt Bond Assumptions

Portion of Aff. Hard, Soft Costs Issued for Const.	52.00%
Bond Terms (years)	35
Annual Interest Rate	5.00%
Debt Service Coverage Ratio (DSCR)	1.15
Issuance Costs	3.25%

Notes:
(a) Value of $1.00 credit is net of syndication costs.
Sources: 2014 New York State Qualified Action Plan (QAP); New York City Housing Development Corporation (HDC); New York City Dept. of Housing Development and Preservation (HPD); BAE, 2015.

Real Estate Taxes

In order to accurately estimate the real estate tax liability for model development scenarios, BAE designed the financial feasibility model to include the impacts of the 421-a Program under a variety of circumstances. The 421-a Program, created in 1971, exempts a portion of the property taxes due on new construction residential development for a certain period of time. The period of time is determined depending of the location of the development and how much on-site affordable housing is required. The exemption is applied to the difference between the entire assessed value of the property after it has been built and the assessed value of the development site prior to construction. The program's goals are to stimulate the production of housing and to ensure that some portion of that housing is affordable to low- and moderate-income New Yorkers. The program, renewed and amended in June 2011, is currently in effect until June 15, 2015, at which time, without State extending legislation, benefits for new projects will not be available. BAE was directed by City staff to perform the financial feasibility analysis described in this report assuming the use of the as-of-right 15-year and extended 20-year and 25-year benefit options, applied depending on the correspondence between market types and Geographic Exclusion Area boundaries, and on the affordability requirements associated with benefits. Note that for the purposes of this analysis, the use of 421-a certificates was not assumed.

The key feature of the 421-a Program is that a certain portion of a property's assessed value is exempted from consideration in the calculation of real property taxes for a specific period of time, or benefit period. In order to receive the benefit in a multifamily rental development, the project may be required to provide a certain portion of units as affordable units. The applicable benefit period and affordability requirement (if any) for a given property are determined by the property's location – either inside or outside of a Geographic Exclusion Area (GEA) – and whether or not the property receives any additional public subsidy, or Substantial Government Assistance (SGA). For the purposes of this analysis, BAE consulted with City staff to determine a simplified set of applicable benefit periods to correspond with the market condition and level of affordability of each development scenario.

Table B12: Benefit Schedule Assumptions by Market Condition and Affordability

Market Condition	No Affordability (a)	Meets Aff. Requirement (b)
Weak	15-year benefit	25-year benefit
Moderate	15-year benefit	25-year benefit
Mid-Market	15-year benefit	25-year benefit
Strong	no benefit	25-year benefit
Very Strong	no benefit	20-year benefit

Notes:
(a) "No affordability" refers to a 100 percent market rate project with no affordable units.
(b) A project was considered to meet the affordability requirement if at least 20 percent of total units were designated for households at or below 60 percent AMI.

Under each benefit schedule, the difference between the Total Assessed Value (AV) for the built project and the Base Year AV for the property prior to construction is exempted from taxation for the duration of the benefit period, which phases out gradually over the last four to eight years of the benefit period. The Base Year AV is always taxed at full value regardless of the benefit period.

In consultation with HDC staff, BAE estimated the Total AV and Base Year AV for each development scenario based on an analysis of available data from the Department of Finance (DOF). The Base Year AV was determined by applying the average AV per square foot of land observed in the FY 2014-15 DOF Comparable Properties database to a 20,000 square foot model site. The average AV was calculated for real properties in each of the five market condition categories defined in the market index component of this study.

To be consistent with the valuation methodology employed by DOF, the Total AV was defined as equal to 45 percent of the approximate Market Value, which was calculated following the method used by DOF. The DOF Approximate Market Value is calculated by dividing the sum of a DOF Cap Rate and Effective Tax Rate into an NOI estimate for the project. The DOF Cap Rate and Effective Tax Rate figures were taken from the FY 2016 Guidelines for Properties Valued Based on the Income Approach, published in January 2015. The estimated NOI for each development scenario was determined by applying the 95th percentile of NOI per building square foot observed in the FY 2014-15 DOF Comparable Properties database to the gross square feet to be development under each model scenario. Note that the Total AV was also calculated following this method on a pro-rated basis for years falling during the construction period.

In addition, for development scenarios where no affordable units were included (e.g. a project that is developed outside of the GEA with no on- or off-site affordable housing or a project within the GEA which meets the affordability requirement through off-site development), an AV cap was applied. The AV cap limits the amount of a property's Total AV that is eligible for exemption under the 421-a Program to a level determined by a per unit cap. The AV cap was set to $65,000 per unit in 2008 with an annual three percent escalation, meaning that for 2015 a cap of $79,941 per unit applies. This means that when the Total AV, as calculated following the methodology above, is higher than this amount on a per unit basis, that the Total AV to which the 421-a exemption is applied throughout the benefit period is reduced. This AV cap methodology is consistent with the 421-a Legislation Overview published by HPD in February 2013 and provided to BAE by HDC staff.

Following the methodology outlined above, BAE applied the published real property tax rate for Class II properties for FY 2014-15 of 12.855 percent of Assessed Value to the Total AV (as adjusted for the AV cap, as applicable) to estimate the total real estate taxed owed without exemption. BAE then deducted the total real estate tax exemption amount, as determined by the applicable 421-a benefit schedule, to arrive at the total real estate taxes owed with a 421-

a exemption by each development scenario. The following table summarizes the assumed values for each of the variables described above.

Table B13: Assumed Values for Calculation of Assessed Value & Real Property Taxes

Market Condition	Base Year AV per sq. ft. of land (a)	DOF Cap Rate (b)	DOF Effective Tax Rate (c)	NOI per gross sq. ft. (d)	Base Tax Rate (e)
Weak	$15.00	7.50%	5.785%	$13.28	12.855%
Moderate	$15.00	7.50%	5.785%	$18.01	12.855%
Mid-Market	$35.00	7.50%	5.785%	$25.88	12.855%
Strong	$50.00	6.90%	5.785%	$33.45	12.855%
Very Strong	$100.00	6.70%	5.785%	$36.39	12.855%

Notes:
(a) Based on analysis of reported Assessed Values by market area in the FY 2014-15 DOF Comparable Properties Database.
(b) Based on the range of cap rates for residential buildings with more than 10 units built after 1972 in high, medium, and low markets in Manhattan and the Outer Boroughs as published by DOF in the FY 2016 Guidelines for Properties Valued Based on the Income Approach
(c) As published in the DOF in the FY 2016 Guidelines for Properties Valued Based on the Income Approach
(d) Represents the 95th percentile value of observed NOI per GSF by market area as published in the FY 2014-15 DOF Comparable Properties Database
(e) Base tax rate for Class II properties for FY 2014-15 as published by DOF
Sources: New York Department of Finance (DOF); New York Housing Development Corporation (HDC); BAE, 2015.

Measure of Financial Return: Yield on Cost (YOC)

A key measure of feasibility is the project's Yield on Cost for rental projects (YOC). For rental projects, the YOC is analyzed for the stabilized year (when full lease-up has occurred). It consists of dividing net income (before debt service and the investor's income taxes) by total project cost (excluding financing costs). Many analysts and developers prefer using this financial metric to evaluate feasibility because it does not take into account financing costs, and thus allows for projects with a wide range of financing and leverage to be compared to each other, without distortions from leverage. This metric is the closest to a pure "economic" return on the project and does not account for the time value of money. Numerous developers and industry experts agree that a feasible YOC, at a minimum, is approximately 6.0 percent for rental projects.