Table 4.9-12
Existing Off-Street Public Parking Facilities

Figure No.	Garage	Address	License Number	Licensed Capacity	Utilization Rate			Available Capacity		
					Weekday Early AM	Weekday Midday	Saturday Midday	Weekday Early AM	Weekday Midday	Saturday Midday
1	98 Bayard Parking	98 Bayard Street	Closed	12	Closed			Closed		
2	Chun Pak Parking	95 Baxter Street	902515	28	Closed	100%	71%	Closed	100%	71%
3	62 Mulberry Parking	62 Mulberry Street	2024014	191	20%	95%	29%	20%	95%	29%
4	SP Plus	101 Worth Street	2021771	226	5%	30%	90%	5%	30%	90%
5	Edison NY Parking[1]	174 Centre Street	926757	93	20%	100%	100%	20%	100%	100%
6	Quik Park MIA	38 Bowery	1461597	140	25%	80%	100%	25%	80%	100%
7	170 Park Row	170 Park Row	2045155	130	60%	100%	29%	60%	100%	29%
8	95 Worth[2]	336 Broadway	1039043	114	60%	100%	50%	60%	100%	50%
9	44 Elizabeth St	44 Elizabeth Street	2020001	147	10%	100%	48%	10%	100%	48%
10	106 Mott St Parking	106 Mott Street	2018213	154	20%	30%	65%	20%	30%	65%
11	Leonard St Parking	88 Leonard Street	1261900	225	60%	60%	100%	60%	60%	100%
12	Champion Parking 700	411 Broadway	1406477	60	Closed	60%	69%	Closed	60%	69%
13	Champion Confucius	2 Division Street	1146910	30	40%	40%	26%	40%	40%	26%
Total Weekday Early Morning				1,720	32%			1,170		
Total Weekday Midday				1,808		67%			598	
Total Saturday Midday				1,808			62%			687

Note:
[1]No response at 174 Centre Street for AM period (assumed same utilization rate as nearby garage at 106 Mott Street)
[2]No response at 336 Broadway for AM period (assumed same utilization rate as nearby garage at 88 Leonard street)

Table 4.9-13
Existing On-Street Parking Utilization

	Legal Curbside Spaces	Estimated Utilization	Available Capacity
Weekday Early AM	1,789	34.0%	1,180
Weekday Midday	1,449	95.3%	68
Saturday Midday	1,604	90.4%	154

NO ACTION CONDITION

Overall public parking utilization is expected to experience the same growth as projected for traffic. Under the No Action condition, between 2018 and 2027, it is expected that parking demand in the vicinity of the Manhattan Site will increase due to long-term background growth as well as developments expected to occur in the vicinity. The No Action parking demand reflects annual background growth as well as, an additional 5.4 percent of growth to account for the large number of small to moderate sized developments.

OFF-STREET PARKING

Under the No Action condition, no change to the parking supply is anticipated within the ¼-mile study area. As shown in **Table 4.9-14**, based on the increased demand under the No Action condition, weekday early morning, weekday midday, and Saturday midday off-street public parking utilization within the study area is expected to increase to approximately 42 percent, 88 percent and 82 percent of capacity, respectively, with no deficit of spaces during any peak hour.

Table 4.9-14
No Action Off-Street Public Parking Capacity, Demand and Utilization

	Weekday Early AM	Weekday Midday	Saturday Midday
Off-Street Capacity			
Existing Supply	1,720	1,808	1,808
2027 No Action Supply	**1,720**	**1,808**	**1,808**
Off-Street Demand			
Existing Demand	550	1,210	1,121
Incremental Background Growth Demand	10	21	20
Additional 5.4% Incremental Background Growth Demand	165	364	337
2027 No Action Off-Street Parking Total Demand	**725**	**1,595**	**1,478**
Utilization			
2027 No Action Off-Street Public Parking Utilization	42%	88%	82%
2027 No Action Off-Street Public Parking Surplus/(Deficit)	**995**	**213**	**330**

ON-STREET PARKING

As shown in **Table 4.9-15**, on-street parking capacities a ¼-mile of the site are expected to total approximately 1,789, 1,449, and 1,604 spaces during the weekday early morning, weekday midday and Saturday midday periods, respectively. After accounting for background growth and demand from projected No Action development, the demand for on-street parking within the study area is expected to increase to 803 spaces in the weekday early morning period, 1,821 spaces in the weekday midday period, and 1,912 spaces in the Saturday midday period. On-street parking spaces within a ¼-mile of the project site is expected to be approximately 45 percent utilized in the weekday early morning period, 126 percent utilized in the weekday midday period, and 119 percent utilized in the Saturday midday period. There would be approximately 986 on-street parking spaces available during the weekday early morning. During the weekday midday period and Saturday midday period, there would be a deficit of 372 and 308 on street parking spaces, respectively.

WITH ACTION CONDITION

Tables 4.9-16 and **4.9-17** presents the hourly net incremental change in parking demand generated by the site under the With-Action condition. As shown in **Tables 4.9-16** and **4.9-17**, incremental parking demand generated by the proposed new facility would peak just before the start of the uniformed staff shift change periods. In the weekday early morning period, total incremental parking demand would peak at 102 spaces during the 6:00-7:00 AM hour. In the weekday and Saturday midday periods (2:00-3:00 PM), peak parking demand would total 124 and 101 spaces, respectively.

Table 4.9-15
No Action On-Street Parking Capacity, Demand and Utilization

	Weekday Early AM	Weekday Midday	Saturday Midday
On-Street Capacity			
Existing Supply	1,789	1,449	1,604
2027 No Action Supply	**1,789**	**1,449**	**1,604**
On-Street Demand			
Existing Demand	609	1,381	1,450
Incremental Background Growth Demand	11	24	26
Additional 5.4% Incremental Background Growth Demand	183	415	436
2027 No Action On-Street Parking Total Demand	**803**	**1,821**	**1,912**
Utilization			
2027 No Action On-Street Parking Utilization	45%	126%	119%
2027 No Action On-Street Parking Surplus/(Deficit)	**986**	**(372)**	**(308)**

Table 4.9-16
With Action Net Incremental Weekday Hourly Parking Demand

Hour	Uniformed Staff[1]	Non-Uniformed Staff	Medical Staff	Authorized Visitors	Other Visitors[2]	Local Retail	Total
12-1 AM	29	0	1	0	0	0	30
1-2 AM	29	0	1	0	0	0	30
2-3 AM	29	0	1	0	0	0	30
3-4 AM	29	0	1	0	0	0	30
4-5 AM	36	0	1	0	0	0	37
5-6 AM	38	0	1	0	0	0	39
6-7 AM	82	18	1	1	0	0	102
7-8 AM	75	18	3	4	0	0	100
8-9 AM	65	18	2	8	0	0	93
9-10 AM	67	18	2	10	0	0	97
10-11 AM	69	18	2	9	0	0	98
11-12 PM	70	18	2	9	0	0	99
12-1 PM	78	18	2	11	0	0	109
1-2 PM	73	18	2	12	1	0	106
2-3 PM	97	14	2	9	2	0	124
3-4 PM	57	0	4	11	2	0	74
4-5 PM	48	0	2	10	2	0	62
5-6 PM	48	0	2	8	2	0	60
6-7 PM	46	0	2	4	2	0	54
7-8 PM	44	0	2	2	2	0	50
8-9 PM	43	0	2	0	1	0	46
9-10 PM	31	0	2	0	0	0	33
10-11 PM	53	0	2	0	0	0	55
11-12 PM	29	0	3	0	0	0	32

Note:
[1]To be conservative for parking analysis purposes, unlike in the traffic analysis where it is assumed all uniformed staff partaking in a shift change do so in the same hour, uniformed staff hourly parking demand is based on in/out patterns observed at the existing Manhattan and Brooklyn facilities.
[2]Other visitors refers to family/friends visiting persons who are detained.

Table 4.9-17
With Action Net Incremental Saturday Hourly Parking Demand

Hour	Uniformed Staff[1]	Non-Uniformed Staff	Medical Staff	Authorized Visitors	Other Visitors[2]	Local Retail	Total
12-1 AM	28	0	1	0	0	0	29
1-2 AM	28	0	1	0	0	0	29
2-3 AM	28	0	1	0	0	0	29
3-4 AM	28	0	1	0	0	0	29
4-5 AM	33	0	1	0	0	0	34
5-6 AM	34	0	1	0	0	0	35
6-7 AM	67	18	1	0	0	0	86
7-8 AM	57	18	3	1	0	0	79
8-9 AM	49	18	2	2	1	0	72
9-10 AM	51	18	2	3	2	0	76
10-11 AM	53	18	2	3	2	0	78
11-12 PM	54	18	2	3	2	0	79
12-1 PM	59	18	2	3	2	0	84
1-2 PM	56	18	2	3	2	0	81
2-3 PM	81	14	2	2	2	0	101
3-4 PM	51	0	4	2	1	0	58
4-5 PM	43	0	2	2	0	0	47
5-6 PM	43	0	2	1	0	0	46
6-7 PM	41	0	2	0	0	0	43
7-8 PM	39	0	2	0	0	0	41
8-9 PM	38	0	2	0	0	0	40
9-10 PM	30	0	2	0	0	0	32
10-11 PM	51	0	2	0	0	0	53
11-12 PM	28	0	3	0	0	0	31

Note:
[1]To be conservative for parking analysis purposes, unlike in the traffic analysis where it is assumed all uniformed staff partaking in a shift change do so in the same hour, uniformed staff hourly parking demand is based on in/out patterns observed at the existing Manhattan and Brooklyn facilities.
[2]Other visitors refers to family/friends visiting persons who are detained.

The project would include approximately 125 accessory parking spaces for authorized DOC and CHS staff. These spaces would be located in a below-grade parking garage under the proposed building. However, with the removal of vehicular access onto White Street between Centre Street and Baxter Street, approximately 48 existing spaces would be displaced by the proposed project. These existing spaces are currently accessory to the existing MDC. In addition, up to two additional spaces on Baxter Street would be displaced due to the introduction of a new curb cut needed to access the entrance to the proposed below-grade garage. It is assumed that any other existing on-street spaces dedicated to authorized DOC vehicles would remain in-place under the With-Action condition. Lastly, any non-DOC-related authorized vehicle spaces lost as a result of the project will be restored in kind proximate to the original spaces.

As shown in **Tables 4.9-16** and **4.9-17**, the combined incremental demand to be accommodated by the on-site spaces (uniformed staff plus non-uniformed staff and CHS staff) would total 101, 113 and 97 spaces in the weekday early AM and midday period, and Saturday midday period, respectively. As 125 spaces for DOC/CHS staff would be provided, there would be a surplus of 24, 12 and 28 DOC/CHS staff only spaces during the weekday early AM, weekday midday, and Saturday midday periods. As a result, the same number of spaces currently utilized by existing MDC staff would be freed up as some vehicles would relocate to the proposed on-site garage. Therefore, when accounting for the displacement of up to 50 on-street spaces (48 on White Street

and two on Baxter Street) and the surplus garage spaces, the project would displace a net total of 26, 38, and 22 spaces in the weekday early AM, weekday midday and Saturday periods, respectively. This demand would need to be accommodated either within off-street facilities or on the street.

OFF-STREET PARKING

A comparison of estimated No-Action and With-Action parking demand and capacity at study area off-street parking facilities is provided in **Table 4.9-18**. As described above, approximately, 125 accessory parking spaces will be provided on site within a below-grade garage. These accessory spaces would be restricted to authorized users e.g., DOC and CHS staff. No on-site parking spaces would be provided to accommodate other visitors or patrons.

Table 4.9-18
With Action Off-Street Public Parking Capacity, Demand and Utilization

	Weekday Early AM	Weekday Midday	Saturday Midday
Off-Street Capacity			
2027 No Action Supply	1,720	1,808	1,808
2027 With Action Public Parking Supply	1,720	1,808	1,808
Project Provided On-Site Accessory Spaces	125	125	125
2027 With Action Off-Street Supply *(No Action Public plus On-Site)*	**1,845**	**1,845**	**1,933**
Off-Street Demand			
2027 No Action Off-Street Public Parking Demand	725	1,595	1,478
Displaced No-Action On-Street Demand to be Accommodated Off-Street	50	50	50
Displaced No-Action On-Street Demand Accommodated by On-Site Accessory Surplus	-24	-12	-28
Net Displaced Spaces to be Accommodated by Public Supply *(50 spaces minus surplus of accessory spaces)*	26	38	22
Project Increment Parking Demand Accommodated On-Site	101	113	97
Project Increment Parking Demand Not Accommodated On-Site	1	11	4
2027 With Action Net Incremental Public Parking Demand *(project demand not accommodated on-site plus net displaced spaces)*	**27**	**49**	**26**
2027 With Action Public Parking Demand	**752**	**1,644**	**1,504**
Utilization			
2027 With Action Off-Street Public Parking Utilization	44%	91%	83%
2027 With Action Off-Street Public Parking Surplus/(Deficit)	**968**	**164**	**304**

As shown in **Table 4.9-18**, compared to the No-Action condition, under With-Action conditions, future off-street public parking demand would total 752, 1,644, and 1,504 spaces in the weekday early morning, midday and Saturday midday periods, respectively. With a future public parking supply of 1,720 in the weekday early AM and 1,808 in both the weekday midday and Saturday midday periods, the total With Action peak public parking demand would be accommodated in all three peak hours. Therefore, no potential for an off-street public parking shortfall is anticipated as a result of the proposed project.

ON-STREET PARKING

A comparison of estimated No-Action and With-Action parking demand and on-street parking space within a ¼-mile of the project site is provided in **Table 4.9-19**. As described above, approximately, 125 accessory parking spaces will be provided on site within a below-grade garage and some on-street demand from existing MDC staff could be accommodated in this garage.

Table 4.9-19
With Action On-Street Parking Capacity, Demand and Utilization

	Weekday Early AM	Weekday Midday	Saturday Midday
On-Street Capacity			
2027 No Action Supply	1,789	1,449	1,604
2027 No Action Parking Surplus/(Deficit)	986	(372)	(308)
On-Street Supply Displaced by Project	-50	-50	-50
2027 With Action Supply (No Action plus displaced)	**1,739**	**1,399**	**1,554**
On-Street Demand			
2027 No Action On-Street Demand	803	1,821	1,912
Displaced No-Action On-Street Demand Accommodated by On-Site Accessory Surplus	-24	-12	-28
Project Increment Parking Demand Accommodated On-Site	101	113	97
Project Increment Parking Demand Not Accommodated On-Site	1	11	4
2027 With Action Net On-Street Demand *(No Action plus project demand not accommodated On-Site minus existing demand accommodated On-Site)*	**780**	**1,820**	**1,888**
Utilization			
2027 With Action On-Street Parking Utilization	45%	130%	121%
2027 With Action On-Street Parking Surplus/(Deficit)	**959**	**(421)**	**(334)**

As shown in **Table 4.9-19**, compared to the No-Action condition, under With-Action conditions, future on-street public parking demand would total 780, 1,820, and 1,888 spaces in the weekday early morning, midday and Saturday midday periods, respectively. With a future on-street parking supply of 1,739 spaces in the weekday early AM, 1,399 spaces in the weekday midday, and 1,604 spaces in the Saturday midday period, the total With Action peak on-street parking demand would only be accommodated in the weekday early AM (there would be a surplus of 959 available spaces). In the weekday midday and Saturday midday, there would be the potential for a shortfall of 421 and 334 on-street spaces, respectively. It should be noted that this shortfall is primarily a result of increases in demand associated with No-Action developments and the potential for a shortfall would likely occur in the future even without the proposed project. This potential shortfall could be partially but, not fully accommodated by available off-street public parking capacity – there would be a net deficit of 257 and 30 total combined off-street and on-street parking spaces in the weekday midday and Saturday midday periods. However, as the project site is located in Parking Zone 1, per *CEQR Technical Manual* guidelines, shortfalls within this zone would not be considered a potential significant adverse impact as the site is served by alternative modes of transportation. Therefore, the proposed project is not expected to result in the potential for significant adverse parking impacts during the weekday AM, weekday midday and Saturday midday periods. ✷

A. INTRODUCTION

The potential for air quality impacts from the proposed project at the Manhattan Site is examined in this section. The proposed project would include natural gas-burning heat and hot water systems. Therefore, a stationary source analysis was conducted to evaluate potential future pollutant concentrations with the proposed heat and hot water systems.

The maximum projected hourly incremental traffic volumes generated by the proposed project at the Manhattan Site would not exceed the 2014 *City Environmental Quality Review* (*CEQR*) *Technical Manual* carbon monoxide (CO) screening threshold of 170 peak-hour vehicle trips at an intersection, as well as the particulate matter (PM) emission screening threshold discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. Therefore, a mobile source intersection analysis was not required. However, the proposed project would include an accessory parking garage. Therefore, an analysis was conducted to evaluate potential future pollutant concentrations near the ventilation outlets with the proposed parking garage.

In addition, the project site is located in a manufacturing district; therefore, potential effects of stationary source emissions from existing nearby industrial facilities on the proposed detention facility were assessed.

PRINCIPAL CONCLUSIONS

Analysis of the emissions and dispersion of nitrogen dioxide (NO_2) and PM less than 10 microns in diameter (PM_{10}) from the heating and hot water systems of the development under the proposed project indicate that these emissions would not result in a violation of National Ambient Air Quality Standards (NAAQS). In addition, the maximum predicted incremental concentrations of particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$) from the proposed project would be less than the applicable 24-hour and annual average criteria. To ensure that there is no potential for significant adverse impacts resulting from the proposed project due to heating and hot water system emissions, certain restrictions would be required.

The analysis of the parking facility to be developed as part of the proposed project at the Manhattan site determined that there would be no potential for significant adverse air quality impacts with respect to CO and PM emissions.

B. POLLUTANTS FOR ANALYSIS

Air quality is affected by air pollutants produced by both motor vehicles and stationary sources. Emissions from motor vehicles are referred to as mobile source emissions, while emissions from fixed facilities are referred to as stationary source emissions. Ambient concentrations of carbon monoxide (CO) are predominantly influenced by mobile source emissions. Particulate matter (PM), volatile organic compounds (VOCs), and nitrogen oxides (nitric oxide (NO) and nitrogen dioxide (NO_2), collectively referred to as NO_x) are emitted from both mobile and stationary

sources. Fine PM is also formed when emissions of NO_x, sulfur oxides (SO_x), ammonia, organic compounds, and other gases react or condense in the atmosphere. Emissions of sulfur dioxide (SO_2) are associated mainly with stationary sources, and some sources utilizing non-road diesel such as large international marine engines. On-road diesel vehicles currently contribute very little to SO_2 emissions since the sulfur content of on-road diesel fuel, which is federally regulated, is extremely low. Ozone is formed in the atmosphere by complex photochemical processes that include NO_x and VOCs. Ambient concentrations of CO, PM, NO_2, SO_2, ozone, and lead are regulated by the U.S. Environmental Protection Agency (USEPA) under the Clean Air Act (CAA),[1] and are referred to as 'criteria pollutants'; emissions of precursors to criteria pollutants, including VOCs, NO_x, and SO_2, are also regulated by USEPA.

CARBON MONOXIDE

CO, a colorless and odorless gas, is produced in the urban environment primarily by the incomplete combustion of gasoline and other fossil fuels. In urban areas, approximately 80 to 90 percent of CO emissions are from motor vehicles. CO concentrations can diminish rapidly over relatively short distances; elevated concentrations are usually limited to locations near crowded intersections, heavily traveled and congested roadways, parking lots, and garages. Consequently, CO concentrations must be analyzed on a local (microscale) basis.

A parking analysis was conducted to evaluate future CO concentrations with the operation of the proposed parking facility.

NITROGEN OXIDES, VOCS, AND OZONE

NO_x are of principal concern because of their role, together with VOCs, as precursors in the formation of ozone. Ozone is formed through a series of reactions that take place in the atmosphere in the presence of sunlight. Because the reactions are slow, and occur as the pollutants are advected downwind, elevated ozone levels are often found many miles from sources of the precursor pollutants. The effects of NO_x and VOC emissions from all sources are therefore generally examined on a regional basis. The contribution of any action or project to regional emissions of these pollutants would include any added stationary or mobile source emissions.

The proposed project would not have a significant effect on the overall volume of vehicular travel in the metropolitan area; therefore, no measurable impact on regional NO_x emissions or on ozone levels is predicted. An analysis of project-related emissions of these pollutants from mobile sources was therefore not warranted.

In addition to being a precursor to the formation of ozone, NO_2 (one component of NO_x) is also a criteria pollutant. Since NO_2 is mostly formed from the transformation of NO in the atmosphere, it has mostly been of concern farther downwind from large stationary point sources, and not a local concern from mobile sources. (NO_x emissions from fuel combustion are mostly in the form of NO at the source.) However, with the promulgation of the 2010 1-hour average standard for NO_2, local sources such as vehicular emissions may be of greater concern. The increases in NO_2 concentrations associated with mobile sources have not been analyzed explicitly due to limitations in guidance and modeling tools. However, any increase in NO_2 associated with the proposed project would be relatively small, as demonstrated below for CO and PM, due to the very small

[1] The Clean Air Act of 1970, as amended 1990 (42 U.S.C. §7401 et seq.).

increases in the number of vehicles. This increase would not be expected to significantly affect levels of NO_2 experienced near roadways.

The potential for impacts on local NO_2 concentrations from the fuel combustion for the heat and hot water systems associated with the proposed project were evaluated.

LEAD

Current airborne lead emissions are principally associated with industrial sources. Lead in gasoline has been banned under the CAA and would not be emitted from any other component of proposed project. Therefore, an analysis of this pollutant was not warranted.

RESPIRABLE PARTICULATE MATTER—PM_{10} AND $PM_{2.5}$

PM is a broad class of air pollutants that includes discrete particles of a wide range of sizes and chemical compositions, as either liquid droplets (aerosols) or solids suspended in the atmosphere. The constituents of PM are both numerous and varied, and they are emitted from a wide variety of sources (both natural and anthropogenic). Natural sources include: the condensed and reacted forms of naturally occurring VOCs; salt particles resulting from the evaporation of sea spray; wind-borne pollen, fungi, molds, algae, yeasts, rusts, bacteria, and material from live and decaying plant and animal life; particles eroded from beaches, soil, and rock; and particles emitted from volcanic and geothermal eruptions and from forest fires. Naturally occurring PM is generally greater than 2.5 micrometers in diameter. Major anthropogenic sources include the combustion of fossil fuels (e.g., vehicular exhaust, power generation, boilers, engines, and home heating), chemical and manufacturing processes, all types of construction, agricultural activities, as well as wood-burning stoves and fireplaces. PM also acts as a substrate for the adsorption (accumulation of gases, liquids, or solutes on the surface of a solid or liquid) of other pollutants, often toxic, and some likely carcinogenic compounds.

As described below, PM is regulated in two size categories: particles with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$) and particles with an aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}, which includes $PM_{2.5}$). $PM_{2.5}$ has the ability to reach the lower regions of the respiratory tract, delivering with it other compounds that adsorb to the surfaces of the particles, and is also extremely persistent in the atmosphere. $PM_{2.5}$ is mainly derived from combustion material that has volatilized and then condensed to form primary PM (often soon after the release from a source) or from precursor gases reacting in the atmosphere to form secondary PM.

All gasoline-powered and diesel-powered vehicles, especially heavy duty trucks and buses operating on diesel fuel, are a significant source of respirable PM, most of which is $PM_{2.5}$; PM concentrations may, consequently, be locally elevated near roadways.

A parking analysis was conducted to evaluate future PM concentrations with the operation of the proposed parking facility. The proposed project would include natural gas-fired heating and hot water systems; therefore, emissions of PM from the existing and proposed stationary sources were analyzed.

SULFUR DIOXIDE

SO_2 emissions are primarily associated with the combustion of sulfur-containing fuels (oil and coal). SO_2 is also of concern as a precursor to $PM_{2.5}$ and is regulated as a $PM_{2.5}$ precursor under the New Source Review permitting program for large sources. Due to the federal restrictions on

the sulfur content in diesel fuel for on-road and non-road vehicles, no significant quantities are emitted from vehicular sources. Vehicular sources of SO_2 are not significant; therefore, analysis of SO_2 from mobile and/or non-road sources was not warranted.

It is assumed that natural gas would be burned in the proposed heat and hot water systems. The sulfur content of natural gas is negligible; therefore, no analysis was undertaken to estimate the future levels of SO_2 with the proposed project.

AIR TOXICS

In addition to the criteria pollutants discussed above, non-criteria air pollutants, also called air toxics, may be of concern. Air toxics are those pollutants that are known or suspected to cause serious health effects in small doses. Air toxics are emitted by a wide range of human-made and naturally occurring sources. Emissions of air toxics from industries are regulated by USEPA.

As the proposed project is located within 400 feet of a manufacturing district, an analysis to examine the potential for impacts from industrial emissions was performed.

C. AIR QUALITY REGULATIONS, STANDARDS, AND BENCHMARKS

NATIONAL AND STATE AIR QUALITY STANDARDS

As required by the CAA, primary and secondary National Ambient Air Quality Standards (NAAQS) have been established[2] for six major air pollutants: CO, NO_2, ozone, respirable PM (both $PM_{2.5}$ and PM_{10}), SO_2, and lead. The primary standards represent levels that are requisite to protect the public health, allowing an adequate margin of safety. The secondary standards are intended to protect the nation's welfare, and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the environment. The primary standards are generally either the same as the secondary standards or more restrictive. The NAAQS are presented in **Table 4.10-1**. The NAAQS for CO, annual NO_2, and 3-hour SO_2 have also been adopted as the ambient air quality standards for New York State, but are defined on a running 12-month basis rather than for calendar years only. New York State also has standards for total suspended particles, settleable particles, non-methane hydrocarbons, 24-hour and annual SO_2, and ozone which correspond to federal standards that have since been revoked or replaced, and for the noncriteria pollutants beryllium, fluoride, and hydrogen sulfide.

Effective December 2015, USEPA reduced the 2008 ozone NAAQS, lowering the primary and secondary NAAQS from the current 0.075 ppm to 0.070. USEPA issued final area designations for the revised standard on April 30, 2018.

[2] USEPA. National Ambient Air Quality Standards. 40 CFR Part 50.

Table 4.10-1
National Ambient Air Quality Standards (NAAQS)

Pollutant	Primary		Secondary	
	ppm	µg/m^3	ppm	µg/m^3
Carbon Monoxide (CO)				
8-Hour Average	9 (1)	10,000	None	
1-Hour Average	35 (1)	40,000		
Lead				
Rolling 3-Month Average	NA	0.15	NA	0.15
Nitrogen Dioxide (NO_2)				
1-Hour Average (2)	0.100	188	None	
Annual Average	0.053	100	0.053	100
Ozone (O_3)				
8-Hour Average (3,4)	0.070	140	0.070	140
Respirable Particulate Matter (PM_{10})				
24-Hour Average (1)	NA	150	NA	150
Fine Respirable Particulate Matter ($PM_{2.5}$)				
Annual Mean (5)	NA	12	NA	15
24-Hour Average (6)	NA	35	NA	35
Sulfur Dioxide (SO_2)				
1-Hour Average (7)	0.075	196	NA	NA
Maximum 3-Hour Average (1)	NA	NA	0.5	1,300

Notes: ppm – parts per million (unit of measure for gases only)
µg/m^3 – micrograms per cubic meter (unit of measure for gases and particles, including lead)
NA – not applicable

All annual periods refer to calendar year.

Standards are defined in ppm. Approximately equivalent concentrations in µg/m^3 are presented.

1. Not to be exceeded more than once a year.
2. 3-year average of the annual 98th percentile daily maximum 1-hr average concentration.
3. 3-year average of the annual fourth highest daily maximum 8-hr average concentration.
4. USEPA has lowered the NAAQS down from 0.075 ppm, effective December 2015.
5. 3-year average of annual mean.
6. Not to be exceeded by the annual 98th percentile when averaged over 3 years.
7. 3-year average of the annual 99th percentile daily maximum 1-hr average concentration.

Source: 40 CFR Part 50: National Primary and Secondary Ambient Air Quality Standards.

Federal ambient air quality standards do not exist for noncriteria pollutants; however, the New York State Department of Environmental Conservation (NYSDEC) has issued standards for certain noncriteria compounds, including beryllium, gaseous fluorides, and hydrogen sulfide. NYSDEC has also developed guideline concentrations for numerous noncriteria pollutants. The

NYSDEC Division of Air Resources (DAR) guidance document DAR-1[3] contains a compilation of annual and short-term (1-hour) guideline concentrations for these compounds. The NYSDEC guidance thresholds represent ambient levels that are considered safe for public exposure. USEPA has also developed guidelines for assessing exposure to noncriteria pollutants. These exposure guidelines are used in health risk assessments to determine the potential effects to the public.

NAAQS ATTAINMENT STATUS AND STATE IMPLEMENTATION PLANS

The CAA, as amended in 1990, defines non-attainment areas (NAA) as geographic regions that have been designated as not meeting one or more of the NAAQS. When an area is designated as non-attainment by USEPA, the state is required to develop and implement a State Implementation Plan (SIP), which delineates how a state plans to achieve air quality that meets the NAAQS under the deadlines established by the CAA, followed by a plan for maintaining attainment status once the area is in attainment.

In 2002, USEPA re-designated New York City as in attainment for CO. Under the resulting maintenance plans, New York is committed to implementing site-specific control measures throughout the city to reduce CO levels, should unanticipated localized growth result in elevated CO levels during the maintenance period. The second CO maintenance plan for the region was approved by USEPA on May 30, 2014.

Manhattan had been designated as a moderate NAA for PM_{10}; on July 29, 2015, USEPA clarified that the designation only applied to the revoked annual standard.

The five New York City counties and Nassau, Suffolk, Rockland, Westchester, and Orange Counties had been designated as a $PM_{2.5}$ NAA (New York Portion of the New York–Northern New Jersey–Long Island, NY–NJ–CT NAA) were redesignated as in attainment for that standard effective April 18, 2014 and are now under a maintenance plan. USEPA lowered the annual average primary standard to 12 $\mu g/m^3$ effective March 2013. USEPA designated the area as in attainment for the new 12 $\mu g/m^3$ NAAQS effective April 15, 2015.

Effective June 15, 2004, USEPA designated Nassau, Rockland, Suffolk, Westchester, and the five New York City counties as a "moderate" NAA for the 1997 8-hour average ozone standard. In March 2008 USEPA strengthened the 8-hour ozone standards. USEPA designated these same areas as a "marginal" NAA for the 2008 ozone NAAQS, effective July 20, 2012. On April 11, 2016, as requested by New York State, USEPA reclassified the area as a "moderate" NAA. New York State began submitting SIP documents in December 2014. On July 19, 2017 NYSDEC announced that the New York Metropolitan Area is not projected to meet the July 20, 2018 attainment deadline and NYSDEC is therefore requesting that USEPA reclassify the New York Metropolitan Area to "serious" nonattainment, which would impose a new attainment deadline of July 20, 2021 (based on 2018-2020 monitored data). On November 18, 2018, EPA proposed reclassifying the NYMA from moderate to serious nonattainment. On April 30, 2018, USEPA designated the same area as a moderate NAA for the revised 2015 ozone standard.

New York City is currently in attainment of the annual-average NO_2 standard. USEPA has designated the entire state of New York as "unclassifiable/attainment" of the 1-hour NO_2 standard

[3] NYSDEC. DAR-1: Guidelines for the Evaluation and Control of Ambient Air Contaminants under Part 212. August 2016.

effective February 29, 2012. Since additional monitoring is required for the 1-hour standard, areas will be reclassified once three years of monitoring data are available.

USEPA has established a 1-hour SO_2 standard, replacing the former 24-hour and annual standards, effective August 23, 2010. Based on the available monitoring data, all New York State counties currently meet the 1-hour standard. In December 2017, USEPA designated most of the State of New York, including New York City, as in attainment for this standard.

DETERMINING THE SIGNIFICANCE OF AIR QUALITY IMPACTS

The State Environmental Quality Review Act (SEQRA) regulations and the *CEQR Technical Manual* state that the significance of a predicted consequence of a project (i.e., whether it is material, substantial, large or important) should be assessed in connection with its setting (e.g., urban or rural), its probability of occurrence, its duration, its irreversibility, its geographic scope, its magnitude, and the number of people affected.[4] In terms of the magnitude of air quality impacts, any action predicted to increase the concentration of a criteria air pollutant to a level that would exceed the concentrations defined by the NAAQS (see Error! Reference source not found.) would be deemed to have the potential for a significant adverse impact.

In addition, in order to maintain concentrations lower than the NAAQS in attainment areas, or to ensure that concentrations will not be significantly increased in NAAs, *de minimis* threshold levels have been defined for certain pollutants; any action predicted to increase the concentrations of these pollutants above the thresholds would be deemed to have the potential for a significant adverse impact, even in cases where violations of the NAAQS are not predicted.

CO DE MINIMIS CRITERIA

The *CEQR Technical Manual* defines *de minimis* criteria to assess the significance of the increase in mobile-source related CO concentrations that would result from proposed projects or actions. These criteria set the minimum change in CO concentration that defines a significant environmental impact. Significant increases of CO concentrations in New York City are defined as: (1) an increase of 0.5 ppm or more in the maximum 8-hour average CO concentration at a location where the predicted No Action 8-hour concentration is equal to or between 8 and 9 ppm; or (2) an increase of more than half the difference between baseline (i.e., No Action) concentrations and the 8-hour standard, when No Action concentrations are below 8.0 ppm.

$PM_{2.5}$ DE MINIMIS CRITERIA

For projects subject to CEQR, the *de minimis* criteria currently employed to determine the potential for significant adverse $PM_{2.5}$ impacts under CEQR are as follows:

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard;
- Annual average $PM_{2.5}$ concentration increments that are predicted to be greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a

[4] New York City. *CEQR Technical Manual*. Chapter 1, Section 222. March 2014; and New York State Environmental Quality Review Regulations. 6 NYCRR § 617.7

roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or

- Annual average $PM_{2.5}$ concentration increments that are predicted to be greater than 0.3 $\mu g/m^3$ at a discrete receptor location (elevated or ground level).

Actions under CEQR predicted to increase $PM_{2.5}$ concentrations by more than the above *de minimis* criteria will be considered to have the potential for a significant adverse impact.

D. METHODOLOGY FOR PREDICTING POLLUTANT CONCENTRATIONS

MOBILE SOURCES

Emissions from vehicles using the parking facility at the proposed detention facility at the Manhattan Site could potentially affect ambient levels of CO and PM at adjacent receptors. An analysis of the emissions from the outlet vents and their dispersion in the environment was performed, calculating pollutant levels in the surrounding area, using the methodology set forth in the *CEQR Technical Manual*. Emissions from vehicles entering, parking, and exiting the garage were estimated using the USEPA MOVES mobile source emission model, as referenced in the *CEQR Technical Manual*. For all arriving and departing vehicles, an average speed of 5 miles per hour was conservatively assumed for travel within the parking garage. In addition, all departing vehicles were assumed to idle for 1 minute before proceeding to the exit. Although specific development plans for the project have not yet been defined, at the minimum, the garage would be designed for a minimum airflow of one cubic foot per minute of fresh air per gross square foot of garage area, based on New York City Building Code requirements. To determine compliance with the NAAQS, CO concentrations were determined for the maximum 8-hour average period.

To determine pollutant concentrations, the outlet vents were analyzed as a "virtual point source" using the methodology in USEPA's *Workbook of Atmospheric Dispersion Estimates, AP-26*. This methodology estimates CO and PM concentrations at various distances from an outlet vent by assuming that the concentration in the garage is equal to the concentration leaving the vent, and determining the appropriate initial horizontal and vertical dispersion coefficients at the vent faces. It was assumed for the purpose of this analysis that all levels of the parking garage would be mechanically ventilated.

The CO concentrations were determined for the time periods when overall garage usage would be the greatest, considering the hours when the greatest number of vehicles would enter and exit the facility (PM concentrations were determined on a 24-hour and annual average basis). Traffic data for the parking garage analysis were derived from the trip generation analysis described in Section 4.9, "Transportation-Manhattan." Background and on-street concentrations were added to the modeling results to obtain the total ambient levels for CO. The 24-hour average $PM_{2.5}$ background concentration was used to determine the *de minimis* criteria threshold.

STATIONARY SOURCES

A stationary source analysis was conducted to evaluate potential impacts from the site's heat and hot water systems. In addition, an assessment was conducted to determine the potential for impacts due to industrial activities within the affected area, and from any nearby large or major emission sources.

HEAT AND HOT WATER SYSTEMS

An initial screening analysis was performed to assess the potential for air quality impacts associated with emissions from heat and hot water systems for the project site. The methodology described in the *CEQR Technical Manual* was used for the analysis, and considered impacts on sensitive uses (i.e., existing residences and proposed developments). To evaluate potential 1-hour average NO_2 and 24-hour and annual average PM impacts from the proposed project's heat and hot water systems, an additional screening analysis was performed using the USEPA AERSCREEN model.

Initial Screening Analysis

The methodology determines the threshold of development size below which the action would not have a significant adverse impact. The screening procedures utilize information regarding the type of fuel to be used, the maximum development size, and the heat and hot water systems' exhaust stack height, to evaluate whether a significant adverse impact may occur. Based on the distance from the development site to the nearest building of similar or greater height, if the maximum development size is greater than the threshold size shown in the *CEQR Technical Manual*, there is the potential for significant air quality impacts, and a refined dispersion modeling analysis would be required.

Since information on the heat and hot water systems' design was not available, the project site was evaluated with the nearest existing residential development of a similar or greater height analyzed as a potential receptor. The maximum gross floor area of the proposed detention facility was used as an input for the screening analysis.

It was assumed that natural gas would be used in the proposed detention facility's heat and hot water systems, and that the exhaust stack(s) would be located three feet above roof height (the default assumption in the *CEQR Technical Manual*).

AERSCREEN Analysis

Potential 1-hour average NO_2 and 24-hour and annual average $PM_{2.5}$ impacts from the proposed project's heat and hot water system's emissions were evaluated using the latest version of USEPA's AERSCREEN model (Version 16216). The AERSCREEN model predicts worst-case 1-hour average concentrations downwind from a point, area, or volume source. Concentrations over longer-period averages are estimated by multiplying the 1-hour results by persistence factors established by USEPA. AERSCREEN generates application-specific worst-case meteorology using representative minimum and maximum ambient air temperatures, and site-specific surface characteristics such as albedo, Bowen ratio, and surface roughness length.[5]

The model incorporates the Plume Rise Model Enhancements (PRIME) downwash algorithm, which is designed to predict concentrations in the "cavity region" (i.e., the area around a structure which under certain conditions may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). AERSCREEN uses the Building Profile Input Program for PRIME (BPIPPRM) to provide a detailed analysis of downwash influences on a direction-specific basis. AERSCREEN also incorporates AERMOD's complex terrain algorithms

5. Albedo is the fraction of the total incident solar radiation reflected by the ground surface. The Bowen ratio is the ratio of the sensible heat flux to the latent (evaporative) heat flux. The surface roughness length is related to the height of obstacles to the wind flow and represents the height at which the mean horizontal wind speed is zero based on a logarithmic profile.

and utilizes the AERMAP terrain processor to account for the actual terrain in the vicinity of the source on a direction-specific basis.

The AERSCREEN model was run both with and without the influence of building downwash, using urban diffusion coefficients that were based on a review of land-use maps of the area. Other model options were selected based on USEPA guidance.

Maximum 1-hour average NO_2 concentrations were estimated using an NO_2 to NO_x ratio of 0.8—the recommended default ambient ratio per USEPA guidance.[6]

Emission Rates and Stack Parameters

Annual emission rates for the proposed project's heating and hot water systems were calculated based on fuel consumption estimates, using energy intensity estimates based on type of development and size of the proposed detention facility (1,485,100 gross square feet [gsf], including below grade space) as recommended in the *CEQR Technical Manual*, and applying emission factors for natural gas-fired boilers.[7] $PM_{2.5}$ emissions include both the filterable and condensable components. The short-term emission rates (24-hour and less) were calculated by scaling the annual emissions to account for a 100-day heating season. The exhaust from the heat and hot water systems was assumed to be vented through a single stack located three feet above the roof of the building at a height of approximately 453 feet above grade.

To calculate the exhaust flow rate, the estimated fuel consumption of the proposed project's heating and hot water systems was multiplied by USEPA's fuel factor for natural gas[8] providing the exhaust flow rate at standard temperature; the flow rate was then corrected for the exhaust temperature. The exhaust velocity was then calculated based on the estimated stack diameter and calculated exhaust flow rate. Assumptions for stack diameter and exhaust temperature for the proposed systems were obtained from a survey of boiler exhaust data prepared and provided by New York City Department of Environmental Protection (DEP),[9] and were used to calculate the exhaust velocity.

The emission rates and exhaust stack parameters used in the modeling analyses are presented in **Table 2**.

Background Concentrations

To estimate the maximum expected pollutant concentration at a given location (receptor), the predicted impacts must be added to a background value that accounts for existing pollutant concentrations from other sources that are not directly accounted for in the model (see **Table 4.10-3**). To develop background levels, concentrations measured at the most representative NYSDEC

6. USEPA. *Memorandum: Clarification on the use of AERMOD Dispersion Modeling for Demonstrating Compliance with the NO_2 National Ambient Air Quality Standard*. September 30, 2014.
7. USEPA. *Compilation of Air Pollutant Emission Factors AP-42*. 5th Ed., V. I, Ch. 1.4. September 1998.
8. USEPA. *Standards of Performance for New Stationary Sources.* 40 CFR Chapter I Subchapter C Part 60. Appendix A-7, Table 19-2. 2013.
9. DEP. *Boiler Database*. E-mail communication from Mitchell Wimbish on August 11, 2017.

Table 4.10-2
Exhaust Stack Parameters and Emission Rates

Stack Parameter	Value
Stack Height (feet)	453
Stack Diameter (feet)(1)	5
Exhaust Velocity (meters/second)(1)	2.36
Exhaust Temperature (degrees Fahrenheit)(1)	307.8
Emission Rate (grams/second)	
NO_2 (1-hour average)	0.43
NO_2 (Annual average)	0.12
$PM_{2.5}$ (24-hour average)	0.032
$PM_{2.5}$ (Annual average)	0.0089

Note:
1. Stack parameter assumptions are based on boiler specifications for similar sized systems from boiler permit data provided by DEP.

Table 4.10-3
Maximum Background Pollutant Concentrations

Pollutant	Average Period	Location	Concentration ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
NO_2	1-hour	IS 52, Bronx	117.3	188
	Annual	IS 52, Bronx	38.9	100
$PM_{2.5}$	24-hour	Division Street, Manhattan	20.7	35
PM_{10}	24-hour	Division Street, Manhattan	44	150
SO_2	1-hour	IS 52, Bronx	20.8	196

Source: New York State Air Quality Report Ambient Air Monitoring System, NYSDEC, 2013–2017.

ambient monitoring station over the latest available five-year period (2013–2017) was used for the 1-hour and annual average NO_2 background. The $PM_{2.5}$ 24-hour average background concentration of 20.7 $\mu g/m^3$ (based on the 2015 to 2017 average of 98th percentile concentrations measured at the Division Street monitoring station) was used to establish the *de minimis* value for the 24-hour increment, consistent with the guidance provided in the *CEQR Technical Manual*. $PM_{2.5}$ annual average impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria, without considering the annual background. Therefore, the annual $PM_{2.5}$ background is not presented in the table.

Receptor Placement

Receptors (locations at which concentrations are projected by the air dispersion model) generally include operable windows in residential or other buildings, potential building air intakes, and publicly accessible open space locations. The nearest building of a similar or greater height is located more than 400 feet away from the project site. A receptor was modeled for the tallest building (325 feet tall) located within 400 feet of the project site, as well as for three buildings located adjacent to the project site, 75, 80, and 947 feet away that are 126, 202, 116, and 461 feet

tall, respectively. Other receptors at lower heights were included at the same distance, and the worst-case ground level concentration was also determined.

INDUSTRIAL SOURCES

The potential impacts of existing industrial operations on pollutant concentrations at the development site were evaluated. Potential industrial air pollutant emission sources within 400 feet of the proposed detention facility were surveyed for inclusion in the air quality impact analyses, as recommended in the 2014 *CEQR Technical Manual*.

Land use maps were reviewed to identify potential sources of emissions from manufacturing/industrial operations. A field survey was conducted on July 23, 2018 to identify buildings within 400 feet of the project site that have the potential for emitting air pollutants. A search of federal- and state-permitted facilities within the study area was conducted using the USEPA's Envirofacts database.[10] DEP's online permit search database was also used to identify any permitted industrial uses in the study area.[11]

No permitted activities were identified within the study area. No other sources of emissions were identified in the land use and field surveys; therefore, no potential for significant impacts on the proposed project are anticipated from industrial source emissions.

ADDITIONAL SOURCES

The *CEQR Technical Manual* requires an analysis of projects that may have the potential to result in a significant adverse impact due to certain types of new uses located near a "large" or "major" emissions source. Major sources are defined as those located at facilities that have a Title V or Prevention of Significant Deterioration air permit, while large sources are defined as those located at facilities that require a State Facility Permit. To assess the potential effects of these existing sources on the project site, a review of existing permitted facilities was conducted. Sources of information reviewed included the USEPA's Envirofacts database, [12] the NYSDEC Title V and State Facility Permit websites, the New York City Department of Buildings website, and DEP permit data.

One facility with a State Facility Permit was identified: the Manhattan Criminal Court at 100 Centre Street, which is within 1,000 feet of the project site. Therefore, an analysis was performed using the American meteorological Society (AMS)/USEPA Regulatory Model (AERMOD) dispersion model.[13]

AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources and source types. AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain, including updated treatment of the boundary layer theory and understanding of

[10] USEPA. Envirofacts. https://www3.epa.gov/enviro/. Accessed July 27, 2018.

[11] DEP. *NYC DEP CATS Information.* https://a826-web01.nyc.gov/dep.boilerinformationext. Accessed July 27, 2018.

[12] USEPA, Envirofacts Data Warehouse, http://oaspub.epa.gov/enviro/ef_home2.air.

turbulence and dispersion, and includes handling of the plume interaction with terrain. AERMOD is USEPA's preferred regulatory stationary source model.

AERMOD calculates pollutant concentrations from simulated sources (e.g., exhaust stacks) based on hourly meteorological data and surface characteristics, and has the capability to calculate pollutant concentrations at locations where the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. The analysis of potential impacts from exhaust stacks assumed stack tip downwash, urban dispersion and surface roughness length, and elimination of calms.

AERMOD also incorporates the algorithms from the PRIME model (described above for AERSCREEN), and BPIPPRM was used to determine the projected building dimensions for modeling with the building downwash algorithm enabled. The modeling of plume downwash accounts for all obstructions within a radius equal to five obstruction heights of the stack.

The analysis was prepared with downwash in order to assess the worst-case impacts at lower elevations and ground level, which would occur with downwash, consistent with the *CEQR Technical Manual* guidance.

For the analysis of the 1-hour average NO_2 concentration from the building's heating and hot water systems, AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was used to analyze chemical transformation within the model. PVMRM incorporates hourly background ozone concentrations to estimate NO_x transformation within the source plume. The model applied ozone concentrations measured in 2013–2017 at the nearest available NYSDEC ozone monitoring station—the Queens College monitoring station in Queens. An initial NO_2 to NO_x ratio of 10 percent at the source exhaust stack was assumed for boilers which is considered representative.

Five years of surface meteorological data collected at LaGuardia Airport (2013–2017) and concurrent upper air data collected at Brookhaven, New York were used in the analysis.

The Manhattan Criminal Court boiler stack is approximately 341 feet above grade. There are no intervening buildings between the Manhattan Criminal Court boiler stack and the proposed detention facility that would restrict or otherwise affect the plume exhaust in such a way as to limit the dispersion of the plume downwind from the boiler stack. Therefore, the AERMOD model was run with downwash only, rather than with and without downwash as per the *CEQR Technical Manual*. The facility emissions were calculated based on the actual fuel usage data for the Manhattan Criminal Court from 2015 to 2017, and applying USEPA's Compilations of Air Pollutant Emission Factors (AP-42)[14] emission factors for boilers. The 12-month period with the highest fuel usage was used for the air quality analysis. **Table 4.10-4** presents the emission rates and stack parameters used in the AERMOD analysis for the analyzed facility.

[14] USEPA, Compilations of Air Pollutant Emission Factors AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources, http://www.epa.gov/ttn/chief/ap42.

Table 4.10-4
Stack Parameters and Emission Rates from Manhattan Criminal Court Boilers

Parameter	Value
Stack Height (ft)[1]	341
Stack Diameter (ft)[2]	7.4
Exhaust Flow Rate (acfm) [3,4]	12,853
Exhaust Temperature (°F)[4]	400
Fuel Type	Fuel Oil/Natural Gas
NO_x Short Term Emission Rate (g/s)	0.999
NO_x Annual Emission Rate (g/s)	0.999
SO_2 Short Term Emission Rate (g/s)	0.0077
PM_{10} Short Term Emission Rate (g/s)	0.034
$PM_{2.5}$ Short Term Emission Rate (g/s)	0.034
$PM_{2.5}$ Annual Emission Rate (g/s)	0.034

Notes:
[1] The stack height is based on the NYSDEC State Facility Permit.
[2] The stack diameter is based on fuel consumption rates provided by the facility.
[2] acfm = actual cubic feet per minute.
[3] The stack exhaust flow rate is based off personal communication with the facility.
[4] The stack exhaust temperature is based off personal communication with the facility.

E. EXISTING CONDITIONS

The most recent concentrations of all criteria pollutants at NYSDEC air quality monitoring stations nearest to the project site are presented in **Table 4.10-5**. As shown, the recently monitored levels did not exceed the NAAQS. It should be noted that these values are somewhat different from the background concentrations used in the analyses. For most pollutants the concentrations presented in **Table 4.10-5** are based on recent measurements obtained in 2017, the most recent year for which data are available; the background concentrations are obtained from several years of monitoring data and represent a conservative estimate of the highest background concentrations for future conditions. There were no monitored violations of NAAQS at these monitoring sites in 2017.

F. THE FUTURE WITHOUT THE PROPOSED PROJECT

Absent the approvals, there would be no change on the project site, and the existing detention facility on the site would remain as in existing conditions. Accordingly, in the No Action condition, emissions in the area from heating and hot water systems would be similar to existing conditions which would be less than the proposed project.

Table 4.10-5
Representative Monitored Ambient Air Quality Data

Pollutant	Location	Units	Averaging Period	Concentration	NAAQS
CO	CCNY, Manhattan	ppm	8-hour	0.2	9
			1-hour	0.25	35
SO_2	IS 52, Bronx[1]	µg/m^3	3-hour	46.6	1,300
			1-hour	20.8	196
PM_{10}	Division Street, Manhattan	µg/m^3	24-hour	28	150
$PM_{2.5}$	Division Street, Manhattan[2]	µg/m^3	Annual	9.3	15
			24-hour	20.7	35
NO_2	IS 52, Bronx[3]	µg/m^3	Annual	32.5	100
			1-hour	117.3	188
Lead	IS 52, Bronx[4]	µg/m^3	3-month	0.0041	0.15
Ozone	CCNY, Manhattan[5]	ppm	8-hour	0.074	0.075

Notes:

(1) The 1-hour value is based on a three-year average (2015–2017) of the 99th percentile of daily maximum 1-hour average concentrations.

(2) Annual value is based on a three-year average (2015–2017) of annual concentrations. The 24-hour value is based on the three-year average of the 98th percentile of 24-hour average concentrations.

(3) The 1-hour value is based on a three-year average (2015–2017) of the 98th percentile of daily maximum 1-hour average concentrations.

(4) Based on the highest quarterly average concentration measured during 2015 to 2017.

(5) Based on the 3-year average (2015–2017) of the 4th highest daily maximum 8-hour average concentrations.

Source: NYSDEC, New York State Ambient Air Quality Data.

G. THE FUTURE WITH THE PROPOSED PROJECT

MOBILE SOURCES

Based on the methodology previously described, the maximum predicted CO and PM concentrations from the parking garage at the proposed project at the Manhattan Site were analyzed, assuming a near side sidewalk receptor on the same side of the street (7 feet), and a far side sidewalk receptor across Baxter Street (44 feet). All values are the highest predicted concentrations for any time period analyzed.

The maximum predicted 8-hour average CO concentration modeled is 1.54 ppm. This value includes a predicted concentration of 0.04 ppm from emissions within the parking facility and a background level of 1.5 ppm. The maximum predicted concentration is substantially below the applicable standard of 9 ppm, and the incremental concentration of 0.06 ppm is below the *de minimis* CO criterion of 3.8 ppm.

The maximum predicted 24-hour and annual average $PM_{2.5}$ increments from the vehicles using the garage are 0.12 µg/m^3 and 0.02 µg/m^3, respectively. These values are well below the respective $PM_{2.5}$ *de minimis* criteria of 7.2 µg/m^3 for the 24-hour average concentration and 0.3 µg/m^3 for the annual average concentration.

Therefore, the proposed parking garage would not have the potential to result in any significant adverse air quality impacts.

STATIONARY SOURCES

HEAT AND HOT WATER SYSTEMS

Initial Screening Analysis

The results of the initial screening analysis are presented in **Figure 4.10-1**. The distance to the nearest building of similar height was determined to be greater than 400 feet; therefore, this distance was used for the analysis, as recommended in the *CEQR Technical Manual*. As indicated by the figure, potential impacts would not occur at distances greater than 278 feet. Annual average NO_2 is the critical pollutant for this analysis. Potential for significant impacts would also not be expected for SO_2, PM_{10}, and CO.

AERSCREEN Analysis

The results of the AERSCREEN analysis for 1-hour NO_2 and 24-hour and annual average $PM_{2.5}$ are presented in **Table 0-**. As shown in the table, no exceedance of thresholds was identified in the AERSCREEN analysis.

Table 0-6
Maximum Modeled Pollutant Concentrations (µg/m³)

Pollutant	Averaging Period	Maximum Modeled Impact	Background	Total Concentration	Criterion
NO_2	1-hour	43.2 (1)	117.3	160.5	188 (2)
	Annual	1.48	38.9	40.38	100 (2)
$PM_{2.5}$	24-hour	2.5	N/A	2.5	7.2 (3)
	Annual	0.11	N/A	0.11	0.3 (4)

Notes:

N/A – Not Applicable

1. The 1-hour average NO_2 concentration is estimated using NO_2 to NO_x ratio of 0.8 as per USEPA guidance.
2. NAAQS.
3. $PM_{2.5}$ *de minimis* criteria—24-hour average, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 µg/m³.
4. $PM_{2.5}$ *de minimis* criteria—annual (discrete receptor).

To ensure that there is no potential for significant adverse impacts of $PM_{2.5}$ or NO_2 from the proposed detention center's heating and hot water system emissions, certain restrictions would be required that would be placed on the Manhattan Site. These restrictions were assumed in the analysis results presented in **Table 4.10-6**, and would avoid the potential for significant air quality impacts from stationary sources based on the very conservative assumptions used in the analysis.

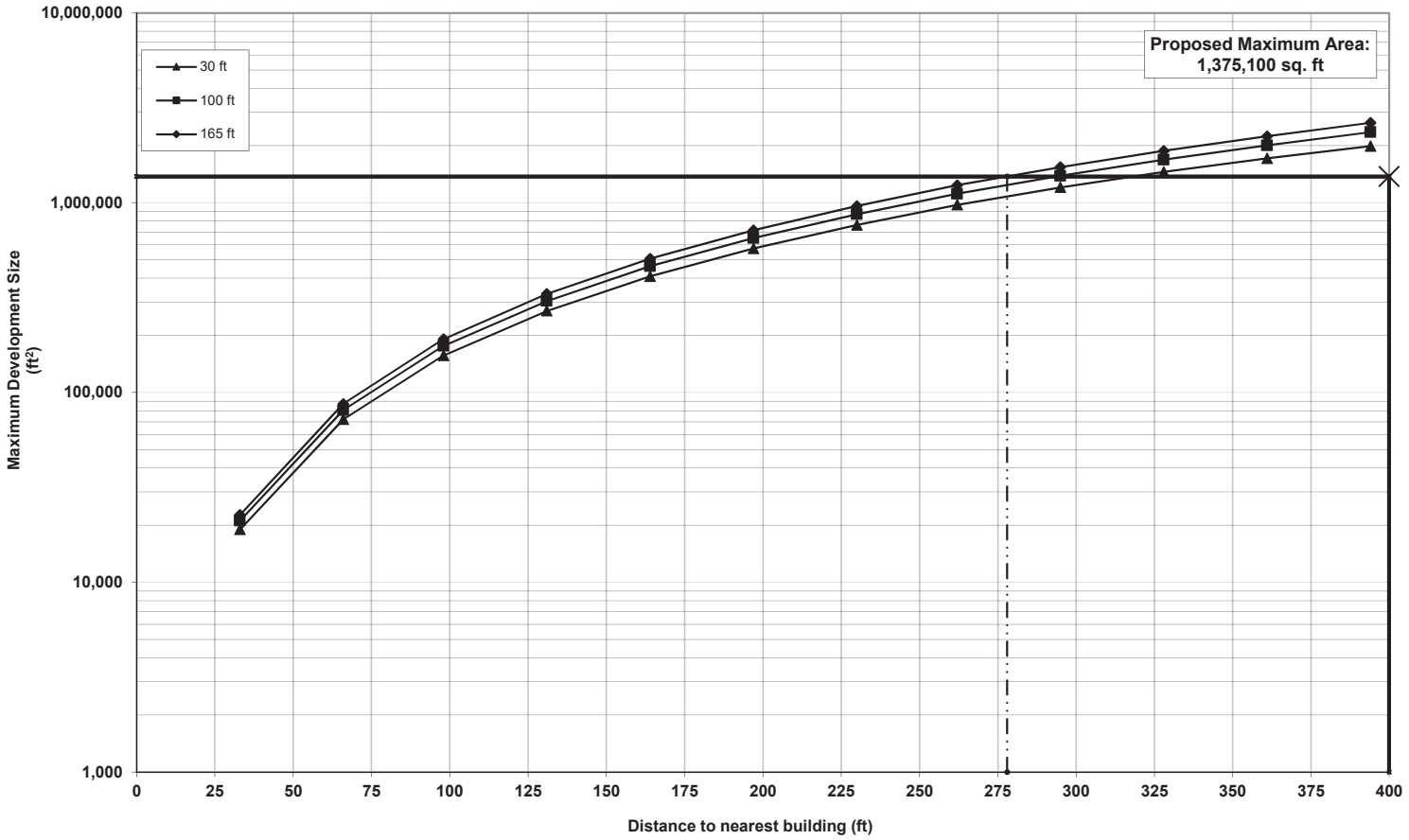
The restrictions would be as follows:

Manhattan Site

Any new development on the Manhattan Site (Block 198, Lot 1 and Block 167, Lot 1) must utilize only natural gas in any fossil fuel-fired heating and hot water equipment and locate heating and hot water exhaust stacks at least 453 feet above grade.

HVAC Screening Analysis
Site: Manhattan Site
Date: 2/22/2019
Pass

FIG App 17-7
NO_2 BOILER SCREEN
RESIDENTIAL DEVELOPMENT - NATURAL GAS



Stack Height: 453 ft
Distance to Nearest Building of Similar or Greater Height: 400 ft
Proposed Maximum SQFA: 1,375,100 sq. ft
Minimum Allowable Distance to Nearest Building: 278 ft

ADDITIONAL SOURCES

Potential stationary source impacts on the project site from the existing large source were determined using the AERMOD model. The maximum estimated concentrations of NO_2, SO_2, and PM_{10} from the modeling were added to the background concentrations to estimate total air quality concentrations on the proposed project, while $PM_{2.5}$ concentrations were compared with the $PM_{2.5}$ *de minimis* criteria. The results of the AERMOD analysis are presented in **Table 4.10-7**.

As shown in **Table 4.10-7**, the predicted pollutant concentrations for all of the pollutant time averaging periods shown are below their respective standards. Therefore, no potential for significant adverse air quality impacts on the proposed Manhattan Site from existing sources is predicted.

Table 4.10-7
Maximum Modeled Pollutant Concentrations on the Proposed Manhattan Site (µg/m³)—Manhattan Criminal Court

Pollutant	Averaging Period	Maximum Modeled Impact	Background	Total Concentration	NAAQS / *De Minimis*
NO_2	Annual[2]	2.48	38.9	41.4	100
	1-hour[1]	N/A	N/A	159.1	188
SO_2	1-hour	2.49	20.8	23.3	196
PM_{10}	24-hour	2.54	44	46.5	150
$PM_{2.5}$	24-hour	2.54	N/A	2.54	7.2[3]
	Annual	0.1	N/A	0.1	0.3[4]

Notes:
[1] Reported concentration is the maximum total 98th percentile concentration at any receptor using seasonal-hourly background concentrations.
[2] Annual NO_2 impacts were estimated using a NO_2/NO_x ratio of 0.75.
[3] $PM_{2.5}$ *de minimis* criteria— 24-hour average, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 µg/m³.
[4] $PM_{2.5}$ *de minimis* criteria—annual (discrete receptor), 0.3 µg/m³.

✷

A. INTRODUCTION

This section assesses the potential for noise effects of the proposed project at the Manhattan Site at 124-125 White Street. According to the guidelines established in the *City Environmental Quality Review* (*CEQR) Technical Manual*, an initial noise impact screening considers whether a proposed action would generate any mobile or stationary source noise, or be located in an area with high ambient noise levels. A noise analysis examines an action for its potential effects on sensitive noise receptors, and the effects of noise exposure on newly introduced residential, commercial, and institutional uses.

In terms of mobile sources, the number of vehicle trips generated by the proposed project would not have the potential to cause a significant noise impact (i.e., it would not result in a doubling of noise passenger car equivalents [Noise PCEs] which would be necessary to cause a 3 dBA increase in noise levels, see **Appendix G**). Therefore, significant adverse mobile source noise impacts are unlikely, and further assessment is not warranted.

In terms of stationary sources, the proposed project would include recreation yards that would be partially open to the outdoors and arranged vertically on the exterior of the structure. These recreation yards were evaluated for the potential to result in significant adverse noise impacts on nearby sensitive receptors.

This section includes an analysis of the level of building attenuation necessary to ensure that interior noise levels within the proposed building would satisfy applicable interior noise criteria, as well as an analysis of noise from the recreations yards at the Manhattan Site.

PRINCIPAL CONCULSIONS

The analysis finds that the proposed actions would not have the potential to result in any significant adverse noise impacts at nearby noise receptors.

The recreation areas to be included in the proposed project would have the potential to generate noise. An analysis of noise from proposed recreation areas at the Manhattan Site determined that any recreation yard less than 145 feet above grade along the proposed detention facility's north façade would be recessed at least 34 feet from the lot line to avoid the potential for significant adverse noise impacts. In addition, any recreation yard less than 240 feet above grade along the proposed detention facility's south façade would be recessed at least 5 feet from the southern boundary of the proposed zoning envelope. With these setbacks, the proposed recreation yards would not have the potential to result in significant adverse noise impacts at any noise receptors.

To meet 2014 *CEQR Technical Manual* interior noise level requirements, the analysis prescribes up to 28 dBA of building attenuation for the proposed building, with an alternate means of ventilation to allow for the maintenance of a closed window condition. With these measures, interior noise levels would be within the range considered acceptable for the proposed uses, and there would be no potential for significant adverse noise impact with respect to the proposed building.

B. ACOUSTICAL FUNDAMENTALS

Sound is a fluctuation in air pressure. Sound pressure levels are measured in units called decibels (dB). The particular character of the sound that we hear (e.g., a whistle compared with a French horn) is determined by the speed, or frequency, at which the air pressure fluctuates, or oscillates. Frequency defines the oscillation of sound pressure in terms of cycles per second. One cycle per second is known as 1 Hertz (Hz). People can hear over a relatively limited range of sound frequencies, generally between 20 Hz and 20,000 Hz, and the human ear does not perceive all frequencies equally well. High frequencies (e.g., a whistle) are more easily discernible and therefore more intrusive than many of the lower frequencies (e.g., the lower notes on the French horn).

A-WEIGHTED SOUND LEVEL (DBA)

In order to establish a uniform noise measurement that simulates people's perception of loudness and annoyance, the decibel measurement is weighted to account for those frequencies most audible to the human ear. This is known as the A-weighted sound level, or dBA, and is the descriptor of the noise levels most often used for community noise. As shown in **Table 4.11-1**, the threshold of human hearing is defined as 0 dBA; very quiet conditions (e.g., a library) are approximately 40 dBA; normal daily activity levels are between 50 dBA and 70 dBA; noisy levels are above 70 dBA; and loud, intrusive, and deafening levels approach 130 dBA.

Table 4.11-1
Common Noise Levels

Sound Source	(dBA)
Military jet, air raid siren	130
Amplified rock music	110
Jet takeoff at 500 meters	100
Freight train at 30 meters	95
Train horn at 30 meters	90
Heavy truck at 15 meters	80–90
Busy city street, loud shout	80
Busy traffic intersection	70–80
Highway traffic at 15 meters, train	70
Predominantly industrial area	60
Light car traffic at 15 meters, city or commercial areas, or residential areas close to industry	50–60
Background noise in an office	50
Suburban areas with medium-density transportation	40–50
Public library	40
Soft whisper at 5 meters	30
Threshold of hearing	0

Note: A 10 dBA increase in level appears to double the loudness, and a 10 dBA decrease halves the apparent loudness.
Sources: Cowan, James P. *Handbook of Environmental Acoustics,* Van Nostrand Reinhold, New York, 1994. Egan, M. David, *Architectural Acoustics*. McGraw-Hill Book Company, 1988.

In considering these values, it is important to note that the dBA scale is logarithmic, meaning that each increase of 10 dBA describes a doubling of perceived loudness. Thus, the background noise in an office, at 50 dBA, is perceived as twice as loud as a library at 40 dBA. For most people to perceive an increase in noise, it must be at least 3 dBA. At 5 dBA, the change will be readily noticeable.

NOISE DESCRIPTORS USED IN IMPACT ASSESSMENT

Because the sound pressure level unit of dBA describes a noise level at just one moment and very few noises are constant, other ways of describing noise over extended periods have been developed. One way of describing fluctuating sound is to describe the fluctuating noise heard over a specific period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level," L_{eq}, can be computed. L_{eq} is the constant sound level that, in a given situation and time period (e.g., 1 hour, denoted by $L_{eq(1)}$, or 24 hours, denoted as $L_{eq(24)}$), conveys the same sound energy as the actual time-varying sound. The Day-Night Sound Level, L_{dn}, refers to a 24-hour average noise level with a 10 dB penalty applied to the noise levels during the hours between 10 PM and 7 AM, due to increases sensitivity to noise levels during these hours. Statistical sound level descriptors such as L_1, L_{10}, L_{50}, L_{90}, and L_x, are used to indicate noise levels that are exceeded 1, 10, 50, 90, and x percent of the time, respectively.

The relationship between L_{eq} and levels of exceedance is worth noting. Because L_{eq} is defined in energy rather than straight numerical terms, it is not simply related to the levels of exceedance. If the noise fluctuates very little, L_{eq} will approximate L_{50} or the median level. If the noise fluctuates broadly, the L_{eq} will be approximately equal to the L_{10} value. If extreme fluctuations are present, the L_{eq} will exceed L_{90} or the background level by 10 or more decibels. Thus, the relationship between L_{eq} and the levels of exceedance will depend on the character of the noise. In community noise measurements, it has been observed that the L_{eq} is generally between L_{10} and L_{50}.

For purposes of the proposed actions, the 1-hour L_{eq} descriptor has been selected as the noise descriptor to be used in this noise impact evaluation, and the 1-hour L_{10} has been selected as the noise descriptor used to evaluate noise exposure at newly introduced noise receptors. These are the descriptors recommended by the *CEQR Technical Manual* for City environmental review.

C. NOISE STANDARDS AND CRITERIA

IMPACT DEFINITION

The determination of the potential for significant adverse noise impacts in this analysis is informed by the use of both absolute noise level limits and relative impact criteria. The *CEQR Technical Manual* states that "it is reasonable to consider 65 dBA $L_{eq(1)}$ as an absolute noise level that should not be significantly exceeded." Therefore, the determination of the potential for impacts first considers whether a projected noise increase would result in noise levels exceeding 65 dBA $L_{eq(1)}$. Where appropriate, this study also utilizes the following relative impact criteria to define a significant adverse noise impact, as recommended in the *CEQR Technical Manual*:

- If the No Action noise level is less than 60 dBA $L_{eq(1)}$, a 5 dBA $L_{eq(1)}$ or greater increase would be considered significant.
- If the No Action noise level is between 60 dBA $L_{eq(1)}$ and 62 dBA $L_{eq(1)}$, a resultant $L_{eq(1)}$ of 65 dBA or greater would be considered a significant increase.
- If the No Action noise level is equal to or greater than 62 dBA $L_{eq(1)}$, or if the analysis period is a nighttime period (defined in the CEQR criteria as being between 10:00 PM and 7:00 AM), the incremental significant impact threshold would be 3 dBA $L_{eq(1)}$.

NEW YORK CEQR TECHNICAL MANUAL NOISE STANDARDS

The *CEQR Technical Manual* sets external noise exposure standards; these standards are shown in **Table 4.11-2**. Noise exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable.

The *CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise level (see **Table 4.11-3**). Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower for residential uses and interior noise levels of 50 dBA or lower for office/administrative use and are determined based on exterior $L_{10(1)}$ noise levels.

Table 4.11-2

Noise Exposure Guidelines For Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	Ldn ≤ 60 dBA	**N/A**	60 < Ldn ≤ 65 dBA	**N/A**	(I) 65 < Ldn ≤ 70 dBA, (II) 70 ≤ Ldn	**N/A**	Ldn ≤ 75 dBA
Hospital, nursing home		$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 65$ dBA		$65 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
Residence, residential hotel, or motel	7 AM to 10 PM	$L_{10} \leq 65$ dBA		$65 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	10 PM to 7 AM	$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, outpatient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
Commercial or office		Same as Residential Day (7 AM–10 PM)		Same as Residential Day (7 AM–10 PM)		Same as Residential Day (7 AM–10 PM)		Same as Residential Day (7 AM–10 PM)	
Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Notes:

(i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more

[1] Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

[2] Tracts of land where serenity and quiet are extraordinarily important and serve an important public need, and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks, or portions of parks, or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.

[3] One may use FAA-approved L_{dn} contours supplied by the Port Authority of New York and New Jersey (PANYNJ), or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the PANYNY.

[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

Source: New York City Department of Environmental Protection (adopted policy 1983).

Table 4.11-3
Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise Level with Proposed Actions	$70 < L_{10} \leq 73$	$73 < L_{10} \leq 76$	$76 < L_{10} \leq 78$	$78 < L_{10} \leq 80$	$80 < L_{10}$
Attenuation[A]	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	36 + (L_{10}–80)[B] dBA

Notes:
[A] The above composite window-wall attenuation values are for residential dwelling units (DUs) or community facility uses. Office/administrative uses would be 5 dBA less in each category. All the above categories require a closed window condition and hence an alternate means of ventilation.
[B] Required attenuation values increase by 1 dBA increments for L_{10} values greater than 80 dBA.
Source: New York City Department of Environmental Protection.

D. NOISE PREDICTION METHODOLOGY

RECREATION YARD NOISE

The *CEQR Technical Manual* does not provide specific guidance for analysis of noise from recreation yards at detention facilities; however, a widely used and accepted method for screening noise impacts from playgrounds has been established. Due to the similar use of playgrounds and recreation yards (e.g., sports/exercise, socialization, etc.), playground noise level estimates serve as a conservative way to determine the potential for noise impacts from the proposed detention facility recreation yards. **Table 4.11-4** shows maximum hourly playground boundary noise levels based upon measurements made at a series of New York City school playgrounds for the New York City School Construction Authority (SCA).[1]

Table 4.11-4
Reference Playground Boundary Noise $L_{eq(1)}$ Noise Levels (dBA)

Early Childhood	Elementary Schools	Intermediate Schools	High Schools
71.5	71.4	71.0	68.2
Source: SCA Playground Noise Study, AKRF, Inc., October 23, 1992.			

The detention facility recreation yards would be partially enclosed with up to six noise-reflecting interior surfaces (floor/ground, ceiling, and walls), whereas the playgrounds studied were outdoors with only one noise-reflecting surface (ground). Therefore, noise levels within the recreation yards would be expected to be higher than the playground noise levels due to the reverberant build-up of noise within the partially enclosed space. To account for this reverberant build-up of noise, 7 dBA[2] has been added to the playground boundary noise levels from **Table 4.11-4**. The high school playground was selected as most similar to the recreation yards; consequently, the maximum recreation yard boundary noise emission level was determined as follows:

$$High\ School\ Playground\ L_{eq(1)} + \ Reverberant\ Noise\ Buildup = Recreation\ Yard\ L_{eq}$$

$$68.2\ dBA + 7.0\ dBA = 75.2\ dBA$$

[1] SCA Playground Noise Study, AKRF, Inc., October 23, 1992.

[2] 7 dBA is equivalent to a 5-fold increase in sound power resulting from the 5 additional reflective surfaces.

Geometric spreading and the consequent dissipation of sound energy with increasing distance from the recreation yard decreases noise levels at varying distances from the recreation yard boundary. Based upon measurements and acoustical principles, hourly noise levels were assumed to decrease by the following values at the specified distances from the recreation yard boundary: 4.8 dBA at 20 feet, 6.8 dBA at 30 feet, and 9.1 dBA at 40 feet. For all distances between 40 and 300 feet, a 4.5-dBA drop-off per doubling of distances from the recreation yard boundary was assumed.

Existing noise levels surrounding the Manhattan Site in each direction were determined by a program of noise level measurements. The measurements were conducted during the times of day that the recreation yards would potentially be in use (i.e., during daytime hours). Based on the above method and the minimum measured noise levels, the distance in each direction from the Manhattan Site at which recreation yard noise would result in noise level increases no greater than 3 dBA (i.e., "just noticeable" and not an impact per the *CEQR Technical Manual*) was determined.

The Manhattan Site would include recreation yards at housing unit floors, which would be at least 100 feet above grade based on preliminary conceptual designs. Sensitive receptors below the height of the proposed recreation yards would not have a line of sight to the yards and consequently were screened out due to anticipated building shielding.

The presence of any receptor(s) within the established screening distances and above the minimum height of the proposed recreation yards would indicate the need for further study of recreation area noise.

E. EXISTING NOISE LEVELS

SELECTION OF NOISE RECEPTOR LOCATIONS

Three receptor sites were selected for the noise analysis at the Manhattan Site (see **Table 4.11-5**). These receptors, due to their proximity to the development site, provide an effective and conservative representation of existing ambient noise levels at the Manhattan Site.

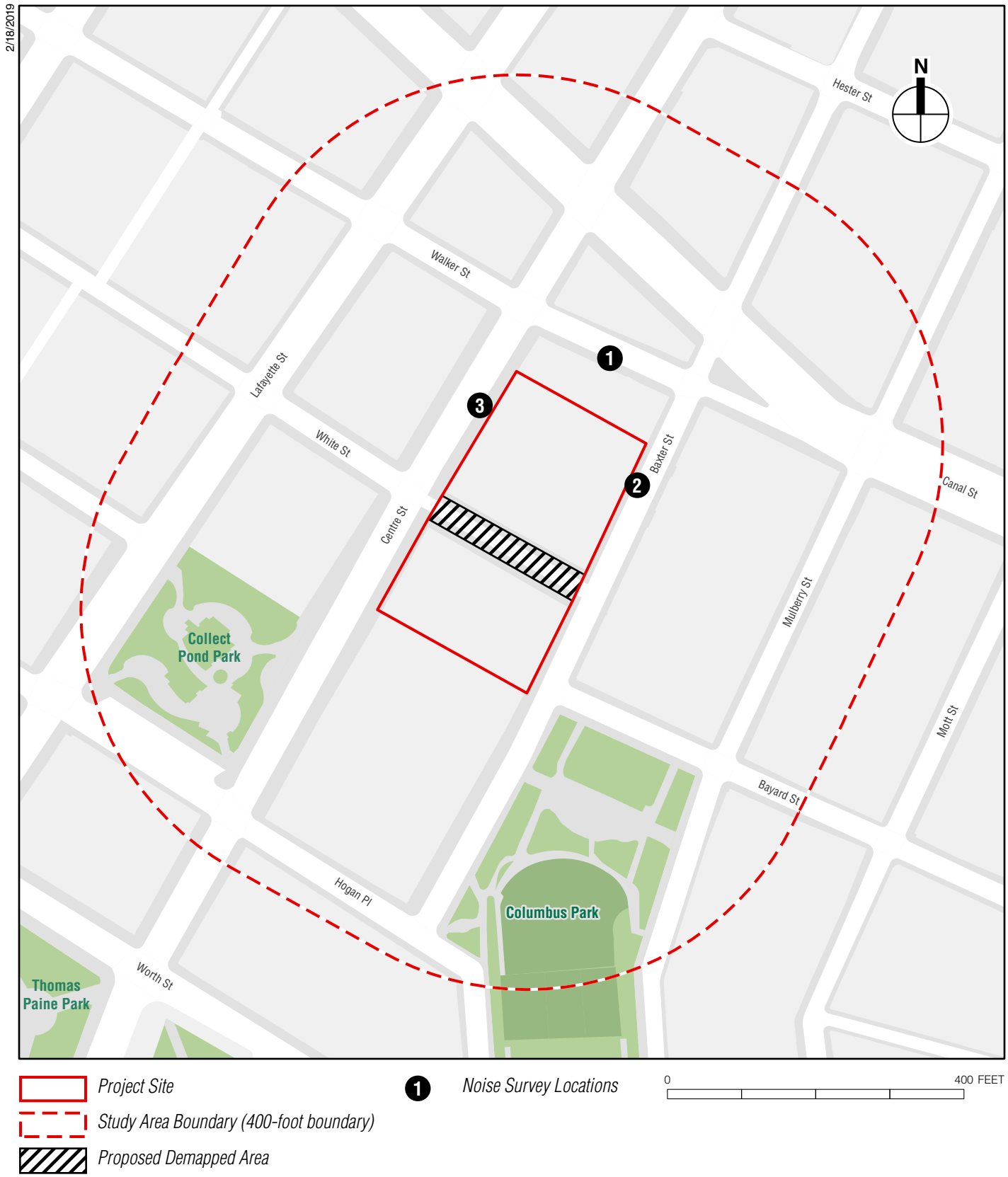
Table 4.11-5
Noise Receptor Locations

Site	Receptor #	Measurement Location	Represented Newly Introduced, Noise-Sensitive Receptor
Manhattan Site	M-1	Walker Street, between Centre Street and Baxter Street	North façade of jail
	M-2	Baxter Street, between Walker Street and White Street	East and south façade of jail
	M-3	Centre Street, between Walker Street and White Street	West façade of jail

Figure 4.11-1 shows the locations of the four noise receptor sites at the Manhattan Site. **Table 4.11-5** lists the noise receptor locations at the Manhattan Site and details which receptor represents each proposed building façade.

NOISE SURVEY PROCEDURES

At each noise receptor location, a 20-minute spot measurements was taken during each of the weekday AM, midday, and PM peak periods (7:30 to 8:30 AM, 12:30 to 1:30 PM, and 5:00 to 6:00 PM, respectively).



Noise Survey Locations
Manhattan Site - 124-125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.11-1

Measurements were performed using a Brüel & Kjær Sound Level Meter (SLM) Type 2270, Brüel & Kjær ½-inch microphone Type 4189, and a Brüel & Kjær Sound Level Calibrator Type 4231. The Brüel & Kjær SLM is a Type 1 instrument according to ANSI Standard S1.4-1983 (R2006). The SLM has a laboratory calibration date within one year of the date of the measurement, as is standard practice. The microphone was mounted at a height of approximately four feet above the ground and was mounted away from any large reflecting surfaces that could affect the sound level measurement. The SLM was calibrated before and after the reading with a Brüel & Kjær Type 4231 Sound Level Calibrator using the appropriate adaptor. Measurements at the location were made on the A-scale (dBA). The data were digitally recorded by the SLM and displayed at the end of the measurement period in units of dBA. Measured quantities included L_{eq}, L_1, L_{10}, L_{50}, and L_{90}. A windscreen was used during all sound measurements except for calibration. All measurement procedures were based on the guidelines outlined in ANSI Standard S1.13-2005.

NOISE SURVEY RESULTS

The results of the noise measurement program are shown below in **Table 4.11-6**.

In terms of *CEQR Technical Manual* noise exposure guidelines, Receptor M-1 is in the "marginally unacceptable" category, and Receptors M-2 and M-3 are in the "marginally acceptable" category.

Table 4.11-6
Existing Noise Levels at Manhattan Site—124-125 White Street in dBA

Receptor	Measurement Location	Time	L_{eq}	L_1	L_{10}	L_{50}	L_{90}
M-1	Walker Street, between Centre Street and Baxter Street	AM	64.9	75.1	67.4	62.0	58.7
		MD	67.5	77.1	70.6	64.7	61.5
		PM	64.6	72.8	66.5	62.6	60.3
M-2	Baxter Street, between Walker Street and White Street	AM	64.9	68.6	65.4	63.6	62.8
		MD	65.9	70.8	67.0	65.3	64.6
		PM	66.0	70.8	66.7	65.1	64.6
M-3	Centre Street, between Walker Street and White Street	AM	67.6	75.7	68.4	64.5	62.7
		MD	66.4	73.6	68.6	65.2	63.3
		PM	66.3	76.2	68.1	63.6	61.8
Note: Field noise measurements conducted by AKRF, Inc. on June 12, 2018							

F. THE FUTURE WITH THE PROPOSED PROJECT

NOISE FROM THE PROPOSED RECREATION YARDS

Screening distances for the Manhattan Site's proposed recreation yards were determined as previously described and are shown in **Table 4.11-7.** Noise level increases from the proposed recreation yards at any receptor outside of the screening distance would be less than 3 dBA (i.e., "just noticeable" and not an impact per *CEQR Technical Manual*).

Table 4.11-7
Recreation Yard Noise Screening Analysis

Location	Direction From Proposed Building	Minimum Measured L_{eq} in dBA	Screening Distance[1] (feet)	Receptors within Screening Distance?
M-1	North	64.6	34	Yes
M-2	East	64.9	32	No
	South		32	Yes
M-3	West	66.3	26	No

Notes: [1] Distance at which noise level increase would be less than 3 dBA, i.e., "just noticeable" per the *CEQR Technical Manual*.

As shown, a noise receptor is located within the screening distance to the north of the proposed detention facility. This receptor is senior housing at 125 Walker Street between Baxter and Center Streets, which has a height of approximately 145 feet above grade. To avoid the potential for significant adverse noise impacts at this receptor, any recreation yard less than 145 feet above grade along the proposed detention facility's north façade would be recessed at least 34 feet from the lot line shared between this receptor and the proposed detention facility. Any recreation yard above the height of the north-adjacent residential building would be shielded from the residential building such that there would not be any potential for significant adverse noise impacts. With this setback the recreation yards would avoid being within the screening distance from north-adjacent receptor(s).

An additional noise receptor is located 27 feet from the southern boundary of the proposed detention facility's zoning envelope. This receptor is the New York County Criminal Court located at 100 Centre Street, which has a height of approximately 240 feet above grade (not including the central tower). To avoid the potential for significant adverse noise impacts at this receptor, any recreation yard less than 240 feet above grade along the proposed detention facility's south façade would be recessed at least 5 feet from the southern boundary of the proposed zoning envelope. Any recreation yard above the height of the south-adjacent court building would be shielded from the court building such that there would not be any potential for significant adverse noise impacts. With this setback the recreation yards would avoid being within the screening distance from north-adjacent receptor(s).

NOISE ATTENUATION MEASURES

As shown in **Table 4.11-3**, the *CEQR Technical Manual* has set noise attenuation quantities for buildings based on exterior $L_{10(1)}$ noise levels in order to maintain interior noise levels of 45 dBA or lower for residential uses and interior noise levels of 50 dBA or lower for office/administrative uses. The results of the building attenuation analysis are summarized in **Table 4.11-8**.

The attenuation of a composite structure is a function of the attenuation provided by each of its component parts and how much of the area is made up of each part. Normally, a building façade consists of wall, glazing, and any vents or louvers associated with the building mechanical systems in various ratios of area. The proposed Manhattan Site detention facility would include acoustically rated windows and air conditioning (an alternate means of ventilation). The proposed building's façades, including these elements, would be designed to provide window/wall attenuation greater than or equal to that

Table 4.11-8
Window/Wall Attenuation Requirements (dBA)

Building Façade	Applicable Noise Receptor	Maximum L_{10}	Attenuation Required[1]
North	M-1	70.6	28
East and South	M-2	67.0	N/A[2]
West	M-3	68.6	N/A[2]

Notes:
(1) Attenuation values are shown for residential uses; office/administrative uses would require 5 dBA less attenuation.
(2) "N/A" indicates that the highest L_{10} is below 70 dBA. The *CEQR Technical Manual* does not specify minimum attenuation guidance for exterior L_{10} values below this level.

listed in **Table 4.11-5**, along with an alternative means of ventilation in all habitable spaces of the building (i.e., spaces other than corridors, mechanical spaces, storage spaces, stairwells, lobby, etc.).

The window-wall attenuation measures, including an alternate means of ventilation, would be required to maintain interior noise levels of 45 dBA or lower for residential uses and interior noise levels of 50 dBA or lower for office/administrative use as follows:

> **To ensure an acceptable interior noise environment, the detention facility will provide minimum composite building façade attenuation as shown in Table 4.11-8 to ensure an interior $L_{10(1)}$ noise level not greater than 45 dBA for detention facility housing units or 50 dBA for commercial or office uses. To maintain a closed-window condition, an alternate means of ventilation will also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.**

G. MECHANICAL SYSTEM

The building mechanical systems (i.e., heating, ventilation, and air conditioning systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code and the New York City Department of Buildings Code) and to avoid producing levels that would result in any potential significant increase in ambient noise levels. ✷

A. INTRODUCTION

This section assesses the proposed project's effect on public health. As defined by the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability, and premature death; and reducing inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on human health may occur as a result of a proposed project and, if so, to identify measures to mitigate such effects.

According to the *CEQR Technical Manual*, for most proposed projects, a public health analysis is not necessary. Where no significant unmitigated adverse impact is found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise, a public health analysis is not warranted. If an unmitigated significant adverse impact is identified in one of these analysis areas, the lead agency may determine that a public health assessment is warranted for that specific technical area. This assessment represents a distinct layer of inquiry; as its criteria are informed by public health considerations and are therefore different from the criteria that triggers the need to conduct a public health assessment.

As described in the relevant analyses of this EIS, the proposed project at the Manhattan Site would not result in unmitigated significant adverse impacts in any of the technical areas related to public health (hazardous materials, water quality, air quality, or noise). This analysis concludes that the proposed project would not result in a significant adverse public health impact.

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Section 4.13: Neighborhood Character-Manhattan

A. INTRODUCTION

This section assesses the proposed project's potential effects on neighborhood character. As defined in the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, neighborhood character is an amalgam of various elements that give a neighborhood its distinct "personality." These elements may include a neighborhood's land use, socioeconomic conditions, open space, shadows, historic and cultural resources, urban design and visual resources, transportation, and/or noise conditions, but not all of these elements contribute to neighborhood character in every case.

Under CEQR, an analysis of neighborhood character identifies the defining features of the neighborhood and then evaluates whether a proposed project has the potential to affect the defining features, either through the potential for a significant adverse impact or a combination of moderate effects in relevant technical analysis areas. To determine the effects of a proposed project on neighborhood character, the defining features of neighborhood character are considered together. According to the *CEQR Technical Manual*, neighborhood character impacts are rare, and it would be unusual that, in the absence of a significant adverse impact in any of the relevant technical areas, a combination of moderate effects to the neighborhood would result in an impact to neighborhood character. Moreover, a significant adverse impact identified in one of the technical areas that contributes to a neighborhood's character does not necessarily constitute a significant impact on neighborhood character, but rather serves as an indication that neighborhood character should be examined.

As described in Chapter 1, "Project Description," with the proposed project, the City would establish a system of four new, modern borough-based detention facilities to house a population of approximately 5,000 people. One facility will be located in each of the Bronx, Brooklyn, Manhattan, and Queens. The Manhattan Site is located at 124 and 125 White Street (Block 198, Lot 1 and part of Block 167, Lot 1)) in the Civic Center neighborhood of Manhattan Community District 1. The proposed project would redevelop the existing detention facilities with a new detention facility containing approximately 1,270,000 gross square feet (gsf) of above-grade floor area, including approximately 1,437 beds for people in detention; support space; community facility and/or retail space, and accessory parking.

This section includes a preliminary assessment of neighborhood character, which was prepared in conformance with the *CEQR Technical Manual* and describes the defining features of the existing neighborhood character and considers the potential effects of the proposed actions on these defining features. This assessment relies on the technical analyses presented in other sections of this EIS.

PRINCIPAL CONCLUSIONS

The proposed detention facility would introduce a new building form into the study area. However, it would not significantly affect any of the defining features of the neighborhood. There would be

no potential for significant adverse impacts to land use, zoning, and public policy, socioeconomic conditions, open space, shadows, urban design, and noise. While there would be the potential for significant adverse impacts to historic and cultural resources and transportation, the *CEQR Technical Manual* states that a significant adverse impact in one of the technical areas that contribute to neighborhood character is not automatically equivalent to a significant adverse impact on neighborhood character. Therefore these alone or in combination with other moderate effectswould not constitute neighborhood character impacts. The proposed project would result in the demolition of the Manhattan Detention Complex (MDC) South Tower at 125 White Street; however, this would not constitute a significant adverse impact to neighborhood character, as it is one of many civic and institutional buildings in the neighborhood, and it would be replaced with another institutional use of similar character (the proposed detention facility). In addition, a low level of vehicular traffic is not a defining feature of the neighborhood, and therefore, the changes in traffic due to the proposed project would not have the potential to result in significant adverse impacts on neighborhood character.

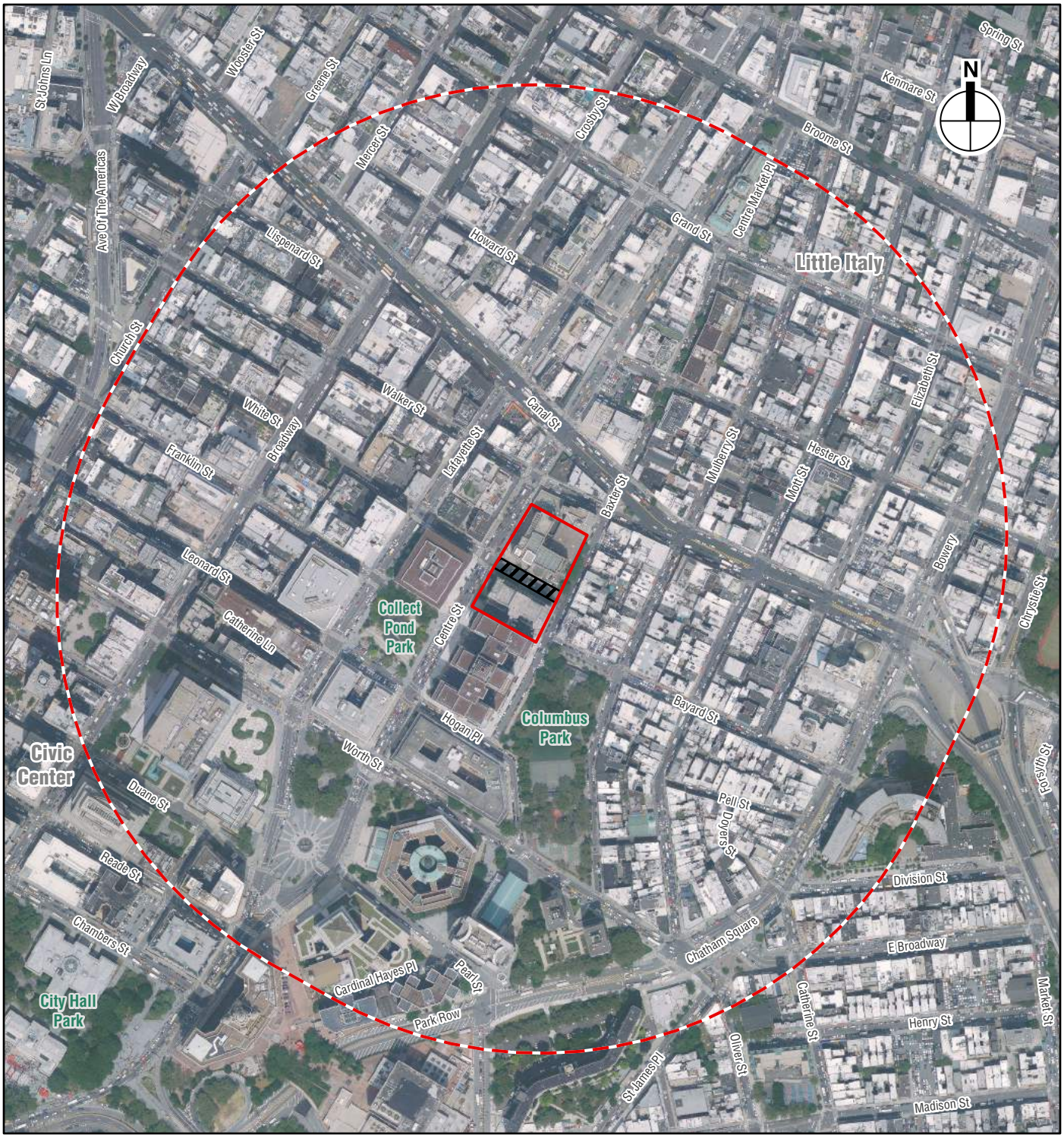
B. METHODOLOGY

According to the *CEQR Technical Manual*, an assessment of neighborhood character is generally needed when a proposed action has the potential to result in significant adverse impacts in any of the following technical areas: land use, socioeconomic conditions, open space, shadows, historic and cultural resources, urban design and visual resources, transportation, or noise. The *CEQR Technical Manual* states that even if a proposed action does not have the potential to result in significant adverse impacts in any specific technical area(s), an assessment of neighborhood character may be required if the project would result in a combination of moderate effects to several elements that may cumulatively affect neighborhood character. A "moderate" effect is generally defined as an effect considered reasonably close to the significant adverse impact threshold for a particular technical analysis area. The study area for the preliminary assessment of neighborhood character is defined as the area within ¼ mile of the project site, as shown in **Figure 4.13-1**, which is generally consistent with the study areas used for the technical areas that contribute to the defining elements of the neighborhood.

A preliminary assessment of neighborhood character determines whether changes expected in other technical analysis areas may affect a defining feature of neighborhood character. The preliminary assessment first identifies the defining features of the existing neighborhood character and then evaluates whether the proposed project or action has the potential to affect those defining features, either through the potential for a significant adverse impact or a combination of moderate effects in the relevant technical areas. The key elements that define neighborhood character, and their relationships to one another, form the basis of determining impact significance; in general, the more uniform and consistent the existing neighborhood context, the more sensitive it is to change. A neighborhood that has a more varied context is typically able to tolerate greater change without experiencing significant impacts.

If there is no potential for the proposed project or action to affect the defining features of neighborhood character, a detailed assessment is not warranted.

2/7/2019



Neighborhood Character Study Area
Manhattan Site - 124-125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.0-1

C. PRELIMINARY ASSESSMENT

DEFINING FEATURES

PROJECT SITE

The project site, located at 124 and 125 White Street (Block 198, Lot 1 and part of Block 167, Lot 1), contains the approximately 435,000-gsf MDC, which consists of a 14-story North Tower and a 13-story South Tower. The site is bisected by White Street, and bounded by 96 Baxter Street/125 Walker Street to the north, 100 Centre Street to the south, Centre Street to the west, and Baxter Street to the east. White Street is a 50-foot-wide one-lane street that bisects the site. A one-story-high enclosed bridge crosses White Street at the second story between 124 and 125 White Street. The bridge is clad in stone with glazed sections overlaid with a metal grille at the second floor level. Entrances to the North and South Towers are located beneath the pedestrian bridge on White Street. The two towers operate largely as one facility and are connected by two bridges and a tunnel on the cellar level to the Manhattan Criminal Courts Building at 100 Centre Street.

STUDY AREA

Land uses in the study area is characterized by a concentration of public institution uses, which are located on the lots surrounding the project site; commercial office buildings to the north and south; and mixed-use residential and commercial buildings in the northwestern and northeastern portions of the study area. Primary commercial arterial roads include Canal Street, which frames the northern boundary along the SoHo neighborhood, Broadway, which frames the western boundary alongside the Tribeca neighborhood, the Bowery, which forms the eastern boundary along the Chinatown neighborhood, and the Brooklyn Bridge ramp just south of the study area, which forms a boundary with the neighborhoods that constitute Downtown Manhattan. The broader neighborhood contains a wide range of uses, from industrial to residential, but the area around the project site contains a concentration of public institution and civic uses.

Taller, medium-density buildings line Broadway west of the project site and bordering the Tribeca neighborhood, and continue to include civic uses with multiple government buildings, such as the limestone-granite-clad Jacob K. Javits Federal Building, which rises to more than 41 stories behind a landscaped plaza, and the stone-clad Ted Weiss Federal Building, which rises to 32 stories.

The area to the south of the project site contains multiple commercial office buildings and court facilities for government agencies. To the southwest, in the area bounded by Broadway to the west, Worth Street to the north, and Chambers Street to the south, high-density office buildings house court facilities, government agencies, and civic and institutional uses including the Federal Bureau of Investigation (FBI), the Internal Revenue Service (IRS), New York City Police Department (NYPD), Department of Buildings (DOB), and Department of Records (DOR). Farther south, along the study area boundary, City Hall Park contains the Tweed Courthouse and City Hall. To the south of the project site, there is a complex of institutional and civic uses bounded by Park Row (which is closed to public traffic), Worth Street to the north, Centre Street to the west, and the approach to the Brooklyn Bridge. This complex contains New York State and federal court facilities, such as the New York County Supreme Court and the Thurgood Marshall U.S. Court House, the Metropolitan Correctional Center at 150 Park Row, a federal prison with approximately 800 inmates, the NYPD headquarters, the David Dinkins Municipal Building, and

the U.S. District Court for the Southern District of New York (the Daniel Patrick Moynihan U.S. Courthouse).

East of the project site, Columbus Park separates the Civic Center neighborhood from the Chinatown neighborhood to the east. Mulberry Street and the streets to the north and east are included within the boundaries of the Little Italy and Chinatown Historic District, a neighborhood typically characterized by older four- and five-story brick residential buildings with ground-floor commercial spaces. Many of the buildings within this area are situated on narrow lots.

The neighborhood in the immediate surrounding area is characterized primarily by institutional buildings along with public spaces within the Civic Center neighborhood. Parks and plazas and buildings with large footprints that are generally nine stories and taller and that contain office and court uses, dominate the neighborhood in the study area, with this area typically developed with stone-clad buildings that occupy entire blocks.

Farther from the project site, the neighborhood is characterized by large-scale municipal buildings and parks to the south, the commercial corridors of Canal Street and Broadway, and mixed-use buildings that line narrow streets in the Chinatown and Little Italy neighborhoods to the north and east of the study area. North of Worth Street, the study area is developed as an irregular grid, with Canal Street crossing at an angle from east to west, and narrow streets forming rectangular blocks. In the northern portion of the study area, Mulberry, Mott and Elizabeth Streets turn slightly west. South of Worth Street, the southern portion of the study area is characterized by wider streets and large superblocks that are developed with large stone-clad municipal buildings. Areas containing groupings of older, historic buildings are located to the east, west, and north of the project site.

With regard to socioeconomic conditions, the northern and eastern portions of the study area are located within Chinatown and Little Italy, neighborhoods that are primarily composed of small retail businesses serving the local community, area workers, and tourists. These businesses include restaurants, grocery stores, bakeries, and specialty stores such as souvenir shops. SoHo and Tribeca are located in the northern and western portions of the study area and include higher-end retail stores and some commercial office buildings. Civic Center's socioeconomic character is markedly different, and includes large office buildings and government buildings. Much of the commercial activity within the Civic Center neighborhood is concentrated in the area around City Hall, located south of the study area.

In addition to the existing MDC on the project site, another detention facility—the Federal Metropolitan Correction Center—is located south of the project site on Park Row. These two facilities contribute to the socioeconomic character of the study area, employing hundreds of employees and supporting other employment within the socioeconomic study area. Near the MDC there are multiple bail-bonding and related businesses that support the operation of the detention center and area courts. Overall, the study area's business activities primarily serve the local residential communities, tourism, and the area's office workers, including civil servants.

Open spaces within the study area include Collect Pond Park, west of the project site; Columbus Park to the southeast; Thomas Paine Park and Foley Square, southwest of the project site; and City Hall Park at the southern edge of the study area.

The MDC South Tower at 125 White Street on the project site is architecturally significant and S/NR-eligible, as well as NYCL-eligible. In addition, numerous architecturally significant resources, including civic and courthouse buildings, a firehouse, and a historic lamppost, are located within the study area. For the full inventory of historic resources near the project site, see Section 4.5, "Historic and Cultural Resources-Manhattan."

Within the study area, the project site is very well-served by public transit, including five subway stations, eight subway lines, and nine bus lines. The street network in the study area is generally setup in a grid with roads in successive alternating directions. Major roadways include Canal Street and Centre Street and traffic tends to flow to major bridges (Williamsburg, Manhattan, and Brooklyn Bridges) and waterfront highways (Route 9A and FDR Drive). The area has high levels of pedestrian and vehicular activity. With regard to noise, noise levels at the site are generally within the "marginally unacceptable" or "marginally acceptable" range.

Overall, the neighborhood character surrounding the Manhattan site is defined by a concentration of civic and institutional land uses and building typologies, interspersed with public spaces and parks. In general, the western and southern portions of the study area contain parks and civic buildings that are generally over nine stories and that occupy entire blocks. Farther to the west and to the east, the Tribeca and Chinatown neighborhoods have a lower-density, mixed-use character with a greater concentration of residential and commercial uses.

ASSESSMENT OF THE POTENTIAL TO AFFECT THE DEFINING FEATURES OF THE NEIGHBORHOOD

The sections below discuss the potential for changes resulting from the proposed project in the following technical areas that are considered in the neighborhood character assessment pursuant to the *CEQR Technical Manual*: land use, zoning, and public policy; socioeconomic conditions; open space; shadows; historic and cultural resources; urban design and visual resources; transportation; and noise. The assessment uses the findings from the respective sections of this EIS to identify whether the proposed actions would result in any potential for significant adverse impacts or moderate adverse effects in these technical areas and whether any such changes would have the potential to affect the defining features of neighborhood character. As described below, defining features of the study area's neighborhood character would not be affected either through the potential for any significant adverse impact or in combination with any other moderate effects in the relevant technical areas.

LAND USE, ZONING, AND PUBLIC POLICY

Defining features of the neighborhood would not be adversely affected due to potential effects of the proposed actions on land use, zoning, and public policy, either individually, or in combination with potential impacts in other relevant technical areas discussed in this section.

As described in Section 4.1, "Land Use, Zoning, and Public Policy-Manhattan," no potential for significant adverse impacts related to land use, zoning, or public policy would occur in the future with the proposed projects. The proposed project would maintain the same land uses on the project site with expanded new, modern detention facility with ground-floor retail and/or community facility space. The proposed project would be compatible with and supportive of surrounding institutional, civic, and government uses, particularly those to the southeast of the project site and the Manhattan Criminal Courts Building immediately to the south of the project site. The proposed project would represent the continuation of a detention facility use within the study area, a use that has been present in this area since 1838.

In addition, the proposed special permit would only allow modification of the zoning requirements for the detention facility on the project site and would not adversely affect zoning within the study area. While the proposed project would introduce a 450-foot-tall building, the facility would be in keeping with the current and proposed high-density uses in the study area, such as the Thurgood

Marshall Courthouse (590 feet tall), the U.S. District Court for the Southern District of New York (410 feet tall).

SOCIOECONOMIC CONDITIONS

Defining features of the neighborhood would not be adversely affected due to potential effects of the proposed actions on socioeconomic conditions, either singularly, or in combination with potential impacts in other relevant technical areas discussed in this section and in Section 4.2, "Socioeconomic Conditions-Manhattan."

The proposed project would not result in any direct residential displacement. The proposed project would also not introduce any residential dwelling units on the project site, so it would not result in indirect residential displacement. In addition, the proposed project would replace an existing detention facilityand would be located near another existing detention facility, so it would therefore not introduce a new economic activity or substantially change business conditions within the socioeconomic study area.

OPEN SPACE

Defining features of the neighborhood would not be adversely affected due to potential effects of the proposed actions on publicly accessible open space, either singularly, or in combination with potential impacts in other relevant technical areas discussed in this section.

The proposed project would not alter or eliminate any public open space resources on the project site. In addition, based on the analyses provided in Manhattan Site Sections 4.4, "Shadows," 4.10, "Air Quality," 4.11, "Noise," and 4.14, "Construction," study area open spaces would not have the potential to experience project-related significant adverse shadows, air quality, or noise impacts. Therefore, the proposed project would not have the potential to result in significant adverse impacts related to direct effects on open space.

Currently, the passive open space ratio in the study area for non-residential users is well above the guidelines indicated in the *CEQR Technical Manual*, and would remain well above the guidelines in both the No Action and With Action conditions. The proposed project would introduce new non-residents (i.e. workers and visitors) to the project site, and therefore increase demand on public open space resources within the study area. However, this increased demand as compared to the future without the proposed project would not result in the potential for an indirect significant adverse impact, and a sufficient amount of open space would remain within the study area.

SHADOWS

The proposed project would result in incremental shadow on three nearby plazas, two parks, and one historic resource with sunlight-sensitive features. The proposed project's incremental shadow would be of limited duration and extent. In no case would the incremental shadow result in the potential for significant adverse impacts to either the use or appreciation or the vegetation of any of the affected resources.

HISTORIC AND CULTURAL RESOURCES

Defining features of the neighborhood would not be adversely affected due to potential effects of the proposed project on historic and cultural resources, either singularly or in combination with potential impacts in other relevant technical areas.

Archaeological Resources

Based on a Phase 1A archaeological documentary site, the only portion of the project site or proposed relocation site that could be archaeologically sensitive is the Hogan Place streetbed. In the event that the streetbed would be disturbed, then additional studies, such as a Phase 1B archaeological testing or monitoring would be conducted.

Architectural Resources

LPC has determined that the MDC South Tower at 125 White Street, which comprises a portion of the Criminal Courts Building and Prison at 100 Centre Street, has previously been determined S/NR-eligible by SHPO. The demolition of 125 White Street would constitute a significant adverse impact on architectural resources, requiring that the Applicant develop, in consultation with LPC, appropriate measures to partially mitigate the adverse impact. The demolition of 125 White Street would not constitute a the potential for a significant adverse impact to neighborhood character, as it is one of many civic and institutional buildings in the neighborhood, and would be replaced with another institutional use of similar character (i.e., the proposed detention facility). Furthermore, the 100 Centre Street portion of the Criminal Courts Building and Prison at 100 Centre Street would remain and the neighborhood would continue to be defined by a concentration of civic and institutional uses.

In addition to the S/NR-eligible Criminal Courts Building and Prison, additional architectural resources have been identified in the study area. Construction-related activities in connection with the proposed project could have the potential to result in physical, construction-related impacts to architectural resources located within 90 feet of the project site in the study area. Therefore, to avoid inadvertent construction-related impacts, construction protection measures would be set forth in a Construction Protection Plan (CPP) that would be developed in consultation with LPC and implemented in coordination with a licensed professional engineer.

No other indirect impacts would occur to known architectural resources. No architectural resources have sunlight-dependent features that would be impacted by the proposed project, and the proposed project would not have the potential to significantly impact publicly accessible views to, or significantly alter, the historic setting of the other the architectural resources located in the study area.

URBAN DESIGN AND VISUAL RESOURCES

Defining features of the neighborhood would not be adversely affected due to potential effects of the proposed actions on urban design and visual resources, either singularly, or in combination with potential impacts in other relevant technical areas discussed in this section.

The proposed project would not result in a significant adverse impact to visual resources. The proposed project would not affect the characteristics of a visual resource or obstruct any significant public views of a visual resource. It is anticipated that the proposed detention facility would include two potential pedestrian bridges connecting the south façade of the proposed building to the third story and an upper story of the Manhattan Criminal Courts Building at 100 Centre Street, a historic building that is a visual resource in the study area. The Manhattan Criminal Courts Building is located immediately south of the project site and connected to the existing MDC South Tower on the project site by a pedestrian bridge and connectors above the service entrance at the former Bayard Street streetbed. The potential pedestrian bridges would alter the north façade of the Criminal Courts Building. However, the north facade of the Criminal Courts Building is not the building's principal façade, and this facade is also located close to the project site across the

narrow service entrance from the MDC South Tower so that its north façade is not prominenty visible.

In terms of urban design, the proposed detention facility is similar in height to the taller buildings within three blocks of the project site, including the 584-foot-tall 41-story Jacob K. Javits building and the 462-foot-tall U.S. Courthouse at 500 Pearl Street, as well as other taller buildings in the secondary study area, including the approximately 474-foot-tall Ted Weiss Federal Building, the approximately 533-foot-tall building at 7 Thomas Street, and the approximately 552-foot-tall Manhattan Municipal Building. The form of the proposed detention facility's tower would be compatible with the surrounding urban design, which includes towers in a variety of forms, such as the U-shaped Manhattan Municipal Building and the projecting wings and spine design of the Criminal Courts Building. The study area contains a mixture of building types and size, including the three- to four-story buildings of Little Italy and Chinatown Historic District, the porticoed municipal buildings on Centre Street, and buildings over 200 feet tall along Broadway and other locations, and the proposed detention facility would contribute to the variety of buildings that compose the urban design character of the study area.

As defining features in the surrounding study area would not be altered by the proposed project, the proposed project would not have the potential to result in neighborhood character impacts as a result of effects to urban design and visual resources.

TRANSPORTATION

Defining features of the neighborhood would not be adversely affected due to potential effects of the proposed project on transportation, either singularly, or in combination with potential impacts in other relevant technical areas discussed in this section. The proposed project would not result in the potential for significant adverse impacts to pedestrians or transit.

The proposed project would result in the potential for a significant adverse traffic impact at one study area intersection during the analyzed midday peak hour, specifically the northbound shared through-right lane group at the intersection of Centre Street and Walker Street. No potential significant adverse impacts are anticipated during the analyzed weekday AM and Saturday peak hours. Implementation of a signal timing change is being proposed and would provide mitigation for the anticipated traffic impact subject to review and approval by the New York City Department of Transportation (DOT).

The impacted intersection is detailed further in Section 4.9, "Transportation-Manhattan." Overall, as discussed above, low levels of vehicular traffic are not defining features of the neighborhood and therefore, the changes in traffic due to the proposed project would not result in the potential for significant adverse impacts on neighborhood character.

NOISE

The defining features of the neighborhood would not be adversely affected due to potential noise effects of the proposed actions, either singularly, or in combination with potential impacts in other relevant technical areas. The analysis presented in Section 4.11, "Noise-Manhattan," finds that the proposed actions would not result in the potential for any significant adverse noise impacts at nearby noise receptors. The proposed project would not generate sufficient traffic to have the potential to cause a significant noise impact (mobile source). It is assumed that the proposed buildings' mechanical systems (i.e., heating, ventilation, and air conditioning [HVAC] systems) would be designed to meet all applicable noise regulations and to avoid producing levels that

would result in the potential for any significant increase in ambient noise levels. In addition, a recreational yard analysis was conducted based on proposed rooftop recreation yards for the proposed detention facility. The proposed project would incorporate measures to avoid potential noise impacts from recreation yards on nearby sensitive receptors. Therefore, the proposed project would not have the potential to result in any significant adverse noise impacts related to building mechanical equipment (stationary sources). As a result, there would be no potential for noise-related impacts on neighborhood character. ✷

Section 4.14: Construction-Manhattan

A. INTRODUCTION

This section describes the anticipated construction plan for the Manhattan Site and assesses the potential for the proposed project to result in significant adverse construction impacts in accordance with the 2014 *City Environmental Quality Review (CEQR) Technical Manual*. As discussed in Chapter 1, "Project Description," the proposed project would result in the development of four new detention facilities at sites located in the Bronx, Brooklyn, Manhattan, and Queens. This analysis focuses on the potential construction impacts of the Manhattan Site, located at 124-125 White Street (the project site) in the Civic Center neighborhood of Manhattan. The site is the block bounded by Centre Street, 100 Centre Street, 96 Baxter Street, and Baxter Street. The site would also involve the demapping of above- and below-grade volumes of White Street between Centre Street and Baxter Street to facilitate the construction of the structure above the streetbed and a cellar below the streetbed.

The proposed project would redevelop the existing buildings with a new detention facility containing approximately 1,270,000 gsf of above-grade floor area, with a maximum zoning height of approximately 450 feet tall.

Construction at the Manhattan Site is anticipated to commence in 2022, occur over a period of approximately five years, and is expected to be complete by 2026.

This chapter provides a discussion of the governmental coordination and oversight related to construction, the anticipated construction schedule, activities likely to occur during construction, the types of equipment that are expected to be used, preliminary construction logistics (e.g., site access points and potential staging area locations), and construction workers and truck delivery estimates. Based on this information, potential impacts from construction activities are assessed with respect to transportation, air quality, noise and vibration, land use and neighborhood character, socioeconomic conditions, community facilities, open space, historic and cultural resources, and hazardous materials.

PRINCIPAL CONCLUSIONS

Construction of the proposed project—as is the case with most construction projects—would have the potential to result in temporary disruptions in the surrounding area. As described in detail below, construction activities at the proposed Manhattan Site would have the potential to result in = significant adverse impacts of architectural resources. Additional information for key technical areas is summarized below.

TRANSPORTATION

Traffic, transit, pedestrian and parking conditions during the period where construction worker vehicle and truck trips are anticipated to be highest were evaluated for the 6:00 to 7:00 AM and 3:00 to 4:00 midday peak hours. According to an assessment of conditions during peak construction activity, no potential for significant adverse transit or parking impacts are anticipated. In addition, no potential for significant adverse impacts to traffic due to traffic associated with

construction worker vehicles and trucks. Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which traffic operations would be disrupted as a result of street network access accommodations requested to facilitate the construction effort cannot be made at this time. As the design-build process is initiated, an updated assessment of traffic conditions would be made in coordination with the New York City Office of Construction Mitigation and Coordination (OCMC) and the New York City Department of Transportation (DOT) as necessary in order to identify feasible measures that could mitigate any potential disruptions. This assessment would be made as part of a Construction Transportation Monitoring Plan that would be initiated at the start of construction.

According to a preliminary assessment of construction generated pedestrian activity, five pedestrian elements were identified as potential impact locations. Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which pedestrian operations would be disrupted as a result of construction activity (construction worker related and due to potential public infrastructure access accommodations requested to facilitate the construction effort) cannot be made at this time. However, as the City is committed to a robust Construction Transportation Monitoring Plan during construction, an assessment of pedestrian conditions would be made in coordination with OCMC and DOT as necessary in order to identify feasible measures that could mitigate these potential disruptions. Mitigation measures to address potential impacts to pedestrian elements (sidewalks, corners and crosswalks) typically include signal timing changes, sidewalk and crosswalk widenings or the relocation of street furniture and obstructions. In the event it is found that measures fully mitigating such temporary impacts are infeasible, then unmitigable significant adverse impacts could potentially occur at the identified pedestrian elements.

AIR QUALITY

While construction would have the potential to cause temporary disruptions on the adjacent community, it is expected that such disruptions in any given area would be temporary and would not be ongoing for the full duration of the construction period, due to the phasing of construction activities. Measures would be taken to reduce pollutant emissions during construction as required by laws, regulations, and building codes. These measures would include dust suppression measures, idling restrictions, use of ultra-low sulfur diesel (ULSD) fuel, and best available technologies (BAT), and to the extent practicable the use of newer equipment that meets the United States Environmental Protection Agency (USEPA)'s Tier 4 emission standards and electrification of equipment. With these measures in place, construction activities at the Manhattan Site would not have the potential to result in any significant adverse air quality impacts.

NOISE AND VIBRATION

Construction of the proposed project would be expected to have the potential to result in elevated noise levels at nearby receptors, and noise due to construction would at times be noticeable. However, noise from construction would be intermittent and of limited duration, and total noise levels would be in the "marginally acceptable" or "marginally unacceptable" range. Consequently, noise associated with the construction of the proposed project would not have the potential to rise to the level of a significant adverse noise impact. In terms of vibration, construction of the proposed project would not have the potential to result in vibration at a level that could result in architectural or structural damage to adjacent buildings. In addition, construction would result in vibration at a level that would only have the potential to be noticeable or annoying for limited periods.

Therefore, there would be no potential for significant adverse vibration impacts from the proposed project.

HISTORIC AND CULTURAL RESOURCES

With the proposed project, the demolition of 125 White Street would result in the potential for a significant direct adverse impact on the Manhattan Criminal Courts Building and Prison at 100 Centre Street. The Applicant would be required to develop, in consultation with LPC, appropriate measures to partially mitigate the potential for adverse impact.

The proposed project would also result in the potential for significant adverse indirect impacts on the Criminal Courts Building at 100 Centre Street due to the proposed demolition of the Prison building (Manhattan Detention Complex [MDC] South Tower) at 125 White Street, which is a contributing element of the Criminal Courts Building and Prison architectural resource. As part of the mitigation measures that would be developed to partially mitigate the potential for adverse impact, consultation would be undertaken with LPC regarding the design of the new detention facility and how it would connect via pedestrian bridges to the north façade of 100 Centre Street.

B. GOVERNMENTAL COORDINATION AND OVERSIGHT

As shown in **Table 4.14-1**, construction oversight involves several City, state, and federal agencies. For projects in New York City, primary construction oversight lies with the New York City Department of Building (DOB), which oversees compliance with the New York City Building Code. The areas of oversight include installation and operation of equipment such as cranes, sidewalk bridges, safety netting, and scaffolding. DOB also enforces safety regulations to protect workers and the general public during construction. The New York City Department of Parks and Recreation (NYC Parks) has oversight on street tree protection and removal during construction. The New York City Department of Environmental Protection (DEP) enforces the *New York City Noise Code* and regulates water disposal into the sewer system. DEP will review and approve any needed Remedial Action Plans (RAPs) and associated Construction Health and Safety Plans (CHASPs) for the abatement of hazardous materials. The New York City Fire

Table 4.14-1
Summary of Primary Agency Construction Oversight

Agency	Areas of Responsibility
New York City	
Department of Building	Building Code, site safety, and public protection
Department of Parks & Recreation	Tree protection and removal
Department of Environmental Protection	Noise Code, RAPs/CHASPs, water and sewer connections, hazardous materials
Fire Department	Compliance with Fire Code, fuel tank installation
Department of Transportation	Lane and sidewalk closures, over dimensional vehicle
Landmarks Preservation Commission	Archaeological and architectural protection
New York State	
Department of Labor	Asbestos Workers
Department of Environmental Conservation	Hazardous materials and fuel/chemical storage tanks
United States	
Environmental Protection Agency	Air emissions, noise, hazardous materials, poisons (for rodent control)
Occupational Safety and Health Administration	Worker safety

Department (FDNY) has primary oversight of compliance with the *New York City Fire Code* and the installation of tanks containing flammable materials. DOT's OCMC reviews and approves any

traffic lane and sidewalk closures. In addition, any over dimensional vehicle used for construction will require a permit approved by DOT Bridges. The Landmarks Preservation Commission (LPC) approves Construction Protection Plans (CPPs) and monitoring measures established to prevent damage to historic structures.

At the state level, the New York State Department of Labor (DOL) licenses asbestos workers. The New York State Department of Environmental Conservation (NYSDEC) regulates disposal of hazardous materials, and construction and operation of bulk petroleum and chemical storage tanks. At the federal level, although USEPA has wide-ranging authority over environmental matters, including air emissions, noise, and hazardous materials, much of its responsibility is delegated to the state and City levels. The Occupational Safety and Health Administration (OSHA) sets standards for work site safety and construction equipment.

C. CONSTRUCTION SCHEDULE

Construction at the Manhattan Site is anticipated to commence in 2022 and occur over a period of approximately five years, with construction expected to be complete by 2026. The anticipated construction schedule for the Manhattan Site is presented in **Table 4.14-2** and **Figure 4.14-1**.

Table 4.14-2
Anticipated Construction Schedule
Manhattan Site

Construction Task	Approximate Start Date	Approximate Finish Date	Approximate Duration (months)
Detention Facility			
Demolition/Site Clearing[1]	March 2022	October 2023	20
Excavation	May 2023	March 2024	11
Foundation	June 2023	May 2024	12
Superstructure Construction	April 2024	April 2025	13
Enclosure	July 2024	July 2025	13
Interior Buildout	May 2024	December 2026	32

Note: [1]Includes site preparation, abatement, interior demolition, and exterior demolition activities
Source: Gilbane Building Company, 2019

Construction of the proposed building at the Manhattan Site would generally consist of the following primary construction stages, which may overlap at certain times: demolition/site clearing (prior to the construction of the proposed detention facility); excavation; foundation; superstructure construction; enclosure; and interior buildout. These construction stages are described in detail under "General Construction Tasks."

D. DESCRIPTION OF CONSTRUCTION ACTIVITIES

GENERAL CONSTRUCTION PRACTICES

HOURS OF WORK

Construction at the Manhattan Site would be carried out in accordance with New York City laws and regulations, which allow construction activities between 7:00 AM and 6:00 PM on weekdays, with most workers arriving between 6:00 AM and 7:00 AM. Normally work would end at 3:30 PM, but it can be expected that in order to complete certain critical tasks, the workday may occasionally be extended beyond normal work hours. Any extended workdays would generally last until approximately 6:00 PM and would not include all construction workers on-site, but only those involved in the specific task requiring additional work time.

Weekend or night work may also be occasionally required for certain construction activities, such as the erection of the tower crane or finishing a concrete pour for a floor deck. Appropriate work permits from DOB would be obtained for any necessary work outside of normal construction and no work outside of normal construction hours would be performed until such permits are obtained. The numbers of workers and pieces of equipment in operation for night or weekend work would typically be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend or night work would be less than that of a normal workday.

ACCESS, DELIVERIES, AND STAGING AREAS

Access to the project site during construction would be fully controlled. The work areas would be fenced off and limited access points for workers and construction-related trucks would be provided. Construction workers are generally prohibited from parking their vehicles on-site during the construction period.

Based on preliminary construction logistics, construction staging for the proposed detention facility would be located on both the east and west and sides of the project site along Baxter Street and Centre Street, respectively.

Maintenance and Protection of Traffic (MPT) plans would be developed for any required temporary sidewalk, lane, and/or street closures to ensure the safety of the public passing through the area and construction workers. Approval of these plans and implementation of the closures would be coordinated with DOT's OCMC. Measures specified in the MPT plans that are anticipated to be implemented would include parking lane closures, safety signs, safety barriers, and construction fencing.

PUBLIC SAFETY

A variety of measures would be employed to ensure public safety during the construction of the proposed building, including: sidewalk bridges to provide overhead protection; safety signs to alert the public about active construction work; safety barriers to ensure the safety of the public passing by the project construction areas; flag persons to control construction trucks entering and exiting the project site and/or to provide guidance for pedestrians and bicyclists safety; and safety nettings during the construction of the proposed building as the superstructure work advances upward to prevent debris from falling to the ground. All DOB safety requirements would be strictly followed and construction of at the Manhattan Site would be undertaken to ensure the safety of the community and the construction workers themselves.

RODENT CONTROL

Construction contracts at the Manhattan Site would include provisions for a rodent control program. Before the start of construction, the contractor would survey and bait the appropriate areas and provide for proper site sanitation. During construction, the contractor would carry out a maintenance program, as necessary. Measures that may be implemented during construction may include baiting the project site within fenced construction areas and providing covered trash receptacles that would be emptied daily to discourage rodents from nesting in them.

GENERAL CONSTRUCTION STAGES

Prior to the commencement of construction, the project site would be prepared for construction. Preparation of the construction work area would include the installation of public safety measures such as fencing, netting, and signs. The fencing would typically be a solid construction fence to minimize interference between passersby and the construction work. Worker and truck access

points would be established and portable toilets, construction trailers, and dumpsters for trash would be brought on site and installed. Existing street trees would be protected and all work would be performed in compliance with Local Law 3 of 2010 and the NYC Parks Tree Protection Protocol approved by the NYC Parks Manhattan Borough Forester, to minimize potential adverse impacts to existing trees that will remain in place.

Construction of the proposed building would consist of the following primary construction stages: demolition/site clearing (prior to the construction of the proposed detention facility); excavation; foundation; superstructure construction; enclosure; and interior buildout. These construction stages are discussed in further detail below.

DEMOLITION/SITE CLEARING

Prior to the construction of the proposed detention facility, occupants of MDC, which consists of a 9-story North Tower (124 White Street) and a 14-story South Tower (125 White Street) would be relocated off-site. Construction would then proceed with the demolition of the Manhattan Detention Complex on the project site. Demolition scaffolds would be erected around these buildings and the building would be abated of any hazardous materials. A New York City-certified asbestos investigator would inspect the building for asbestos-containing materials (ACM), and if present, those materials would be removed by a DOL-licensed asbestos abatement contractor prior to interior demolition. Asbestos abatement is strictly regulated by DEP, DOL, USEPA, and OSHA to protect the health and safety of construction workers and nearby residents, workers, and visitors. Depending on the extent and type of ACMs (if any), these agencies would be notified of the asbestos removal and may inspect the abatement area to ensure that work is being performed in accordance with applicable New York State and New York City regulations. Any activities with the potential to disturb lead-based paint (LBP) would be performed in accordance with applicable OSHA regulations (including federal OSHA regulation 29 CFR 1926.62—*Lead Exposure in Construction*). In addition, any suspected poly-chlorinated biphenyls (PCB)-containing equipment (such as fluorescent light ballasts) that would be disturbed would be evaluated prior to disturbance. Unless labeling or test data indicate the contrary, such equipment would be assumed to contain PCBs, and would be removed and disposed of at properly licensed facilities in accordance with all applicable regulatory requirements.

Prior to demolition, any economically salvageable materials that could be reused would typically be removed. Then the interior of the building would be deconstructed to the floor plates and columns before the structural elements and the exterior of the building are demolished and removed. Netting around the exterior of the building would be used to prevent falling materials. Hand tools and demolition excavators would be used for the demolition of the existing structures and bobcats would be used to load the debris into dump trucks. Demolition debris would typically be sorted prior to being disposed at landfills to maximize recycling opportunities.

EXCAVATION/FOUNDATION

During these stages of construction, a Support of Excavation (SOE) system would be installed to hold back soil around the excavation area. After the SOE is constructed, soil excavation activities would proceed with the use of excavators. The soil would be loaded onto dump trucks for transport to a licensed disposal facility or for reuse on any portion of the project site that needs fill. As the excavation becomes deeper, a temporary ramp may be built to provide access for the dump trucks to the excavation area. No blasting is anticipated for the construction at the Manhattan Site. Concrete trucks and pumps would be used to pour the foundation and the below-grade structures

including walls and columns. Excavation and foundation activities may also involve the use of, drill rigs, mobile cranes, a boom truck, generators, hand tools, and rebar benders.

SUPERSTRUCTURE CONSTRUCTION

The superstructure work would include the proposed building' framework, such as beams, slabs, and columns. Construction of the interior structure—or core—of the building would include elevator shafts; vertical risers for mechanical, electrical, and plumbing systems; electrical and mechanical equipment rooms; core stairs; and restroom areas. The shell is the exterior of the building. Cranes would be brought onto the construction area and would be used to lift structural components, façade elements, and other large materials. Superstructure activities would also require the use of rebar benders, a post tension jacking rig, concrete power float and buggy, a mobile concrete boom pump, a boom truck, a fork lift, a garbage packer truck, compressors, and generators. In addition, temporary construction elevators (hoists) would be used for the vertical movement of workers and materials during this stage of construction.

ENCLOSURE

The exterior façades of the proposed building would be installed during this stage of construction. The facade elements would arrive on trucks and be lifted into place for attachment by the crane or loaded and lifted by hoist for installation from each floor. Enclosure activities may also involve the use of boom lifts, welders, and hand tools. Depending on the design build plan, this stage of construction may also include the construction of the pedestrian bridges connecting the proposed detention facility to existing court facilities to the north.

INTERIOR BUILDOUT

Interior buildout activities would include the construction of interior partitions, installation of lighting fixtures, and interior finishes (e.g., flooring, painting, etc.), and mechanical and electrical work, such as the installation of elevators and lobby finishes. Final cleanup and touchup of the building and final building system (e.g., electrical system, fire alarm, security system for the proposed detention facility etc.) testing and inspections would be part of this stage of construction. Equipment used during this stage of construction would include hoists, welders, scissor lifts, a boom truck and fork lift, pallet jacks, a roustabout, and a variety of small handheld tools. Interior buildout activities would typically be the quietest period of construction in terms of its effect on the public, because most of the construction activities would occur inside the building with the façades substantially complete and the proposed building enclosed.

NUMBER OF CONSTRUCTION WORKERS AND MATERIAL DELIVERIES

Table 4.14-3 shows the estimated average daily numbers of workers and deliveries by calendar quarter for the construction period, during which the proposed building would be completed. The average number of workers throughout this construction period would be approximately 587 per day, while the peak number of workers by calendar quarter would be approximately 1,195 per day. The average number of truck trips throughout the construction period would be approximately 11 per day, and the peak number of deliveries by calendar quarter would be approximately 29 truck trips per day. As shown in **Table 4.14-3**, the peak level of construction workers and truck trips would not persist throughout the entire construction period. During non-peak periods, the number of construction workers and truck trips would be less, and sometimes much less, than the levels estimated for the peak period.

Table 4.14-3
Average Number of Daily Worker Vehicles and Trucks by Quarter

Year	2022				2023				2024				2025			
Quarter	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Workers	63	63	63	63	63	165	240	177	177	707	1,195	1,195	1,195	1,128	939	861
Trucks	6	6	6	6	6	19	29	25	13	11	12	12	12	9	6	5
Autos	9	9	9	9	9	23	34	25	25	100	169	169	169	160	133	122

Year	2026					
Quarter	1st	2nd	3rd	4th	Average	Peak
Workers	861	861	861	861	587	1,195
Trucks	5	5	5	5	11	29
Autos	122	122	122	122	83	169

Source: Gilbane Building Company, 2019.

E. THE FUTURE WITHOUT THE PROPOSED PROJECT

As described in Chapter 1, "Project Description," absent the proposed project, it is assumed that the project site would continue to be utilized as the Manhattan Detention Complex.

F. THE FUTURE WITH THE PROPOSED PROJECT

Construction at the Manhattan Site—as is the case with most large construction projects—would have the potential to result in some temporary disruptions in the surrounding area. The following analysis describes the potential for overall temporary effects on transportation, air quality, noise, and vibration, as well as consideration of other technical areas including land use and neighborhood character, socioeconomic conditions, community facilities and services, open space, historic and cultural resources, natural resources, and hazardous materials.

TRANSPORTATION

The construction transportation analysis assesses the potential for construction activities to result in significant adverse impacts to traffic, transit, pedestrians, and parking. The analysis is based on the peak worker and truck trips during construction of the proposed projects, which are developed based on several factors including worker modal splits, vehicle occupancy and trip distribution, truck passenger car equivalents (PCEs), and arrival/departure patterns.

The following sections evaluate the potential for the proposed projects' peak construction worker and truck trips to result in significant adverse impacts to traffic, transit, pedestrians and parking. While any potential impacts due to construction activity would be temporary, the following identifies locations where interim mitigation measures could be implemented to improve future conditions prior to completion of the proposed project.

An evaluation of construction sequencing and worker/truck projections was undertaken to assess potential transportation impacts. The average worker and truck trip projections were developed based on worker modal splits and vehicle occupancy, arrival and departure distributions, and truck PCEs.

CONSTRUCTION WORKER MODAL SPLITS AND VEHICLE OCCUPANCY

Construction worker modal splits and vehicle occupancy rates were based on survey data included in the 2012 *Seward Park Mixed-Use Development Project Final Generic EIS*. According to the

data, it is anticipated that approximately 28.9 percent of construction workers would commute to the project site using private autos and at an average occupancy of approximately 2.04 persons per vehicle. In addition, it is anticipated that approximately 56.6 percent of construction workers would utilize subway (includes commuter rail to subway transfers), 13.3 percent would take public transit and the remaining 1 percent would just walk to the project site.

DAILY WORKFORCE AND TRUCK DELIVERIES

To assess a reasonable worst-case analysis of potential transportation-related impacts during construction, the daily combined workforce and truck trip projections in the peak quarter were used as the basis for estimating peak-hour construction trips. It is expected that construction of the proposed projects would generate a peak of approximately 1,195 workers and 12 truck deliveries per day during the third quarter of 2024. These estimates of construction activities are discussed below.

TRAFFIC

Similar to other construction projects in New York City, most of the construction activities at the project site are expected to take place in the early morning and late midday periods, from 7:00 AM to 3:30 PM. While construction truck trips would occur throughout the day, most trucks would remain in the area for short durations, and construction workers would commute during the hours before and after the work shift. For analysis purposes, each truck delivery was assumed to result in two truck trips (one "in" and one "out") and would start arriving to the project site during the hour before each work shift. Construction truck deliveries typically peak during the hour before each shift (25 percent), overlapping with construction worker arrival traffic. For construction workers, the majority (approximately 80 percent) of the arrival and departure trips would generally occur during the hour before and after each work shift. In accordance with the *CEQR Technical Manual*, the traffic analysis assumed that each truck has a PCE of two while other vehicles have a PCE of one.

As shown in **Table 4.14-4**, the maximum construction-related traffic increments would be approximately 147 PCEs during the AM period (6:00-7:00 AM) and 137 PCEs during the midday period (3:00-4:00 PM). These incremental construction PCEs would exceed the CEQR Technical Manual threshold of 50 vehicle-trips.

TRAFFIC SCREENING

As described above, approximately 147 and 137 PCEs are anticipated during AM and midday peak hours during peak construction. To assess the potential for significant adverse impacts during construction, construction traffic was assigned to the surrounding roadway network, with trucks assigned to DOT-designated truck routes. Construction worker vehicles were assigned along direct routes to nearby public parking garages and trucks were assigned to/from site frontages. In addition, as the existing detention center located on the site would be demolished as part of the proposed project, existing traffic generated by the existing uses on the site would no longer be present during the construction period. To determine the number of displaced vehicle trips during the 6:00 to 7:00 AM and 3:00 to 4:00 PM midday peak hours, an estimate of existing trips was made in a similar manner as was done for the forecast of incremental project trips described in Section 4.9, "Transportation-Manhattan." According to this estimate, approximately 76 and 129 vehicle trips would no longer be present in the study area during the AM and midday peak hours. Overall, there would be a net increment in vehicle trips (in PCEs) of 71 and eight trips during the AM and midday peak hours during peak construction, respectively.

Table 4.14-4
Peak Construction Vehicle Trip Projections

Time	Worker Trips[1]		Auto Trips[2]		Truck Trips[3]		Total Construction Vehicle Trips		
	In	Out	In	Out	In	Out	In	Out	Total
6AM - 7AM	956	0	135	0	6	6	**141**	**6**	**147**
7AM - 8AM	239	0	34	0	3	3	37	3	40
8AM - 9AM	0	0	0	0	3	3	3	3	6
9AM - 10AM	0	0	0	0	2	2	2	2	4
10AM - 11AM	0	0	0	0	2	2	2	2	4
11AM - 12PM	0	0	0	0	2	2	2	2	4
12PM - 1PM	0	0	0	0	2	2	2	2	4
1PM - 2PM	0	0	0	0	1	1	1	1	2
2PM - 3PM	0	60	0	9	1	1	1	10	11
3PM - 4PM	0	956	0	135	1	1	**1**	**136**	**137**
4PM - 5PM	0	179	0	25	1	1	1	26	27
Total	**1195**	**1195**	**169**	**169**	**24**	**24**	**193**	**193**	**386**

Notes:
[1]Hourly worker trips are based on daily worker projections and an assumption that 80 percent of workers would arrive/depart in the same one hour in the morning arrival and evening departure periods.
[2]Auto trip forecasts are based on the hourly worker trip forecast and on modal splits and auto occupancy rates included in the 2012 *Seward Park Mixed-Use Development Project Final Generic EIS*.
[3]Truck Trips are in shown in passenger car equivalents (1 truck = 2 PCEs).

According to an assignment of construction vehicles and displaced vehicles (assigned to the site), no analyzed intersection is expected to attract 50 or more vehicle trips. As a result, per *CEQR Technical Manua*l thresholds, a detailed analysis of traffic is not warranted. Therefore, no potential for significant adverse traffic impacts are expected due to increases in traffic attributed to construction activity. .

It should be noted that a Construction Transportation Monitoring Plan would be initiated at the commencement of construction activity in order to proactively identify and manage potential street network disruptions. Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which traffic operations would be disrupted as a result of street network access accommodations requested to facilitate the construction effort cannot be made at this time. As the design-build process is initiated, an updated assessment of traffic conditions would be made in coordination with OCMC and DOT as necessary in order to identify feasible measures that could mitigate any potential disruptions.

TRANSIT

As presented above in **Table 4.14-3**, during the third quarter of 2024, it is estimated that approximately 1,195 daily construction workers would travel to and from the construction site each day. During anticipated peak arrival and departure periods (when 80 percent of workers are assumed to be traveling), approximately 956 construction workers would be traveling to and from the site. According to the survey data referenced in the 2012 *Seward Park Mixed-Use Development Project Final Generic EIS*, it is anticipated that approximately 70 percent of construction workers would commute to the project site using public transit. More specifically, 56.6 percent would ride the subway (includes commuter rail to subway transfers) and 13.3 percent would utilize public

bus. Based on these modal splits, it is estimated that approximately 541 constructions workers would take the subway and 127 would ride the bus during the peak hours in the AM and midday periods.

In addition, as the existing detention center located on the site would be demolished as part of the proposed project, existing transit trips generated by the site would no longer occur during the construction period. To determine the number of displaced transit trips during the 6:00 to 7:00 AM and 3:00 to 4:00 PM midday peak hours, an estimate of existing trips was made in a similar manner as was done for the forecast of incremental project trips described in Section 4.9. According to this estimate, approximately 71 and 136 subway trips would no longer occur in the AM and midday peak hours. In addition, approximately 17 and 36 bus trips would no longer occur in the AM and midday peak hours. In total, there would be a net increment of 470 subway trips and 110 bus trips during the AM peak hour during peak construction. During the midday peak hour, there would be a net increment of 405 subway trips and 91 bus trips. In total, 580 and 496 net incremental transit trips are anticipated during the AM and midday peak hours during peak construction.

As described in Section 4.9, the project site is served by multiple subway lines and bus routes. These include the Nos. 4, 5, 6 and N, Q, W, R, J, and Z subways lines serving three nearby subway stations, as well as 17 local or express bus routes. Transit analyses typically focus on the AM and PM commuter peak periods as it is during these periods that overall demand on the subway and bus systems is usually highest. Considering that peak net incremental transit trips (construction workers plus displaced trips) would be distributed among various subway lines and bus routes, station entrances and bus stops near the project site during periods outside the typical commuter peak hours of 8:00 to 9:00 AM and 5:00 to 6:00 PM, there would not be a potential for significant adverse transit impacts attributable to anticipated construction worker transit trips.

PEDESTRIANS

As presented above in **Table 4.13-3**, during the third quarter of 2024, it is estimated that approximately 1,195 daily construction workers would travel to and from the construction site each day. During anticipated peak arrival and departure periods (when 80 percent of workers are assumed to be traveling), approximately 956 construction workers would be traveling to and from the site. According to the survey data referenced in the 2012 *Seward Park Mixed-Use Development Project Final Generic EIS*, it is anticipated that approximately one percent of construction workers would just walk to the project site. As a result, it is estimated that approximately 11 walk-only trips would be generated by construction workers in each the AM and midday peak periods. In comparison, it is estimated that 4 and 132 walk-only pedestrian trips would be displaced from the existing street network during the same periods. Overall, there would be a net increment of seven walk-only trips during the AM peak hour during peak construction. During the midday peak hour, a net decrease of 121 walk-only trips hour during peak construction is anticipated.

However, total pedestrian trips include not just walk-only trips but, trips from subway stations, bus stops and off-street parking facilities as well. As described above 580 and 496 net incremental transit trips are anticipated during the AM and midday peak hours during peak construction. In addition, as it is assumed construction workers driving to the site would utilize off-street parking facilities, additional pedestrian trips would be generated from workers walking between these facilities and the project site. Based on the estimate of peak construction auto trips and the vehicle occupancy rate of 2.04 described above, it is anticipated that approximately 276 construction workers would walk to and from these facilities during the peak hours during peak construction. With the inclusion of net transit trips and construction worker walk trips from garages, it is

anticipated that there would a net increment of 863 and 651 pedestrian trips during the AM and midday peak hours during peak construction.

Although any potential impacts associated with construction worker trips and construction-related activity would be temporary, a preliminary assignment of these pedestrian trips was performed to identify where these trips would likely be concentrated. Based on likely travel patterns, it is anticipated, pedestrian trips would likely exceed the *CEQR Technical Manual* threshold of 200 or more trips during one or more peak hours at the following five locations:

1. East sidewalk on Centre Street between Walker Street and White Street
2. The southeast corner of the intersection of Centre Street and Walker Street
3. The northeast corner of the intersection of Centre Street and White Street
4. The southeast corner of the intersection of Centre Street and White Street
5. The southwest corner of the intersection of Centre Street and Worth Street

Increases in pedestrian activity along the sidewalk and corner elements identified above could potentially result in a degradation in level of service large enough to be deemed significant per *CEQR Technical Manual* impact criteria. Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which pedestrian operations would be disrupted as a result of construction activity (construction worker related and due to potential public infrastructure access accommodations requested to facilitate the construction effort) cannot be made at this time. However, as the City is committed to a robust Construction Transportation Monitoring Plan during construction, an assessment of pedestrian conditions would be made in coordination with OCMC and DOT as necessary in order to identify feasible measures that could mitigate these potential disruptions. Mitigation measures to address potential impacts to pedestrian elements (sidewalks, corners and crosswalks) typically include signal timing changes, sidewalk and crosswalk widenings or the relocation of street furniture and obstructions. In the event it is found that measures fully mitigating such temporary impacts are infeasible, then unmitigatable significant adverse impacts could potentially occur at the identified pedestrian elements.

PARKING

As presented above in **Table 4.14-3**, during the third quarter of 2024, it is estimated that approximately 1,195 daily construction workers would travel to and from the construction site each day. According to the survey data referenced in the 2012 *Seward Park Mixed-Use Development Project Final Generic EIS*, it is anticipated that approximately 28.9 percent of construction workers would commute to the project site using private autos. With an average vehicle occupancy rate of 2.04 persons per vehicle, construction workers are projected to generate a maximum parking demand of 169 spaces. As the existing detention center would be demolished as part of the proposed project, existing parking demand generated by the project site would no longer be present in the study area during construction. During the early AM (6:00-7:00) and midday (3:00-4:00) periods, existing demand is estimated to be 89 and 79 spaces, respectively. Therefore, it is anticipated net incremental parking demand (demand from construction workers minus displaced demand) during peak construction would total 80 and 90 spaces during the early morning and midday periods, respectively.

Based on the parking analysis presented in Section 4.9, "Transportation-Manhattan", it is anticipated there would be 1,981 available public parking spaces (off-street plus on-street) under the No Action condition during the weekday early morning period. During the weekday midday

period, there would a shortfall of 159 public parking spaces needed to accommodate No-Action demand. Conservatively assuming the parking utilization under the No Action condition in Section 4.9, net parking demand associated with construction activity would not exceed the number of available spaces within the study area during the early morning period. During peak construction, there would be a surplus of 1,892 (available No-Action spaces minus net incremental parking demand due to construction) in the early morning period. During the midday period, construction related demand would increase the anticipated future shortfall to 238 public parking spaces. However, per CEQR guidance, a shortfall within Parking Zone 1 would not constitute the potential for a significant adverse parking impact due to the availability of alternative modes of transportation. Therefore, construction related parking demand and activity would not result in the potential for a significant adverse parking impact.

AIR QUALITY

Construction of the proposed project would require use of both non-road construction equipment and on-road vehicles. Non-road construction equipment includes equipment operating on-site such as excavators, cranes, and loaders. On-road vehicles include construction delivery trucks, dump trucks, and construction worker vehicles arriving to and departing from the project site as well as operating on-site. Emissions from non-road construction equipment and on-road vehicles have the potential to affect air quality. In addition, emissions from dust-generating construction activities (i.e., truck loading and unloading operations) also have the potential to affect air quality. The *CEQR Technical Manual* lists several factors for consideration in determining whether a quantified on-site and/or off-site construction impact assessment for air quality is appropriate. These factors include the use of emission control measures, the duration and intensity of construction activities, the location of nearby sensitive receptors, and project-generated, construction-related vehicle trips.

EMISSION CONTROL MEASURES

Measures would be taken to reduce pollutant emissions during construction of the proposed project in accordance with all applicable laws, regulations, and building codes. These include the following dust suppression measures and idling restrictions:

- *Dust Control.* To minimize dust emissions from construction activities, a dust control plan including a robust watering program would be required as part of contract specifications. For example, all trucks hauling loose material would be equipped with tight-fitting tailgates and their loads securely covered prior to leaving the project site; and water sprays would be used for all demolition, excavation, and transfer of soils to ensure that materials would be dampened as necessary to avoid the suspension of dust into the air. Loose materials would be watered, stabilized with a chemical suppressing agent, or covered. All measures required by the DEP's *Construction Dust Rules* regulating construction-related dust emissions would be implemented.
- *Idling Restriction.* As required by local law, all stationary vehicles on roadways adjacent to the project site would be prohibited from idling for more than three minutes. The idling restriction excludes vehicles that are using their engines to operate a loading, unloading, or processing device (e.g., concrete-mixing trucks) or otherwise required for the proper operation of the engine.

Construction of the proposed project is subject to New York City Local Law 77, which requires the use of ULSD fuel and BAT for equipment at the time of construction.

- *Clean Fuel*. ULSD fuel would be used exclusively for all diesel engines throughout the project site.
- *Best Available Tailpipe Reduction Technologies*. Nonroad diesel engines with a power rating of 50 horsepower (hp) or greater and controlled truck fleets (i.e., truck fleets under long-term contract with the project) including but not limited to concrete mixing and pumping trucks would utilize the BAT for reducing particulate emissions. Diesel particulate filters (DPFs) have been identified as being the tailpipe technology currently proven to have the highest reduction capability. Construction contracts would specify that all diesel nonroad engines rated at 50 hp or greater would utilize DPFs, either installed by the original equipment manufacturer or retrofitted. Retrofitted DPFs must be verified by USEPA or the California Air Resources Board. Active DPFs or other technologies proven to achieve an equivalent reduction may also be used.

In addition, the following measures would be implemented to the extent practicable to further reduce air pollutant emissions during construction:

- *Utilization of Newer Equipment.* EPA's Tier 1 through 4 standards for non-road diesel engines regulate the emission of criteria pollutants from new engines, including PM, CO, NO_x, and hydrocarbons (HC). All diesel-powered non-road construction equipment with a power rating of 50 hp or greater would meet the Tier 4[1] emissions standard.

Diesel Equipment Reduction. Construction would minimize the use of diesel engines and utilize electric engines to the extent practicable. Equipment that could use electric engines in lieu of diesel engines includes, but may not be limited to, welders and rebar benders. Overall, this emissions control program that is above and beyond local law requirements is expected to substantially reduce air pollutant emissions during construction of the proposed project.

DURATION AND INTENSITY OF CONSTRUCTION ACTIVITIES

Construction of the proposed project, as is usually the case in New York City, would have the potential to result in temporary disruption to the surrounding area. The overall construction duration at the Manhattan Site is anticipated to be approximately five years. However, the most intense construction activities in terms of potential for air pollutant emissions (is anticipated to occur over a substantially shorter period of approximately 21 months. These peak periods of construction for air pollutant emissions would include exterior demolition activities which is anticipated to take approximately 9 months, and excavation and foundation activities, which is anticipated to take approximately 12 months. Even during these peak periods of construction, construction activity levels typically fluctuate throughout the day and from day to day during each construction stage. Furthermore, construction sources would move around the project site over the construction period such that the potential air pollutant concentration increments would not persist

[1] The first federal regulations for new non-road diesel engines were adopted in 1994, and signed by USEPA into regulation in a 1998 Final Rulemaking. The 1998 regulation introduces Tier 1 emissions standards for all equipment 50 hp and greater and phases in the increasingly stringent Tier 2 and Tier 3 standards for equipment manufactured in 2000 through 2008. In 2004, the USEPA introduced Tier 4 emissions standards with a phased-in period of 2008 to 2015. The Tier 1 through 4 standards regulate the USEPA criteria pollutants, including PM, hydrocarbons (HC), NO_x and carbon monoxide (CO. Prior to 1998, emissions from non-road diesel engines were unregulated. These engines are typically referred to as Tier 0.

in any single location and that the sources would not be immediately adjacent to a sensitive receptor location over the entire construction duration.

In addition to exterior demolitions, the demolition stage of construction would include abatement and interior demolition activities. Abatement and interior demolition activities would involve the use of hand tools and small nonroad equipment such as mini-excavators and are expected to result in much lower air emissions. Furthermore, these activities would occur within an enclosure building, thereby shielding sensitive receptors from construction activities. The other stages of construction, including superstructure construction, enclosure, and interior buildout would also result in lower air emissions since they would require fewer pieces of heavy-duty diesel equipment and would not involve soil disturbance that generates dust emissions. Similar to abatement and interior demolition, interior buildout activities would also generally occur within an enclosed building, thereby shielding nearby sensitive receptors from construction activities.

The approach and procedures for constructing the proposed building would generally be typical of the methods utilized in other building construction projects throughout New York City and therefore would not be considered out of the ordinary in terms of intensity. Overall, the potential for emissions associated with the construction of the proposed project would likely be lower than a typical project due to the emission control measures to be implemented during construction (see "Emission Control Measures").

LOCATION OF NEARBY SENSITIVE RECEPTORS

The area near the project site is characterized by public institution uses and mixed-use residential and commercial buildings. In addition, the block to the southeast of the project site contains Columbus Park, which includes multiple sports fields and a pavilion. The nearby sensitive receptor locations in the area are generally separated by Centre Street to the west and Baxter Street to the east. Such distances between the construction sources and nearby sensitive locations would result in enhanced dispersion of pollutants and therefore, potential concentration increments from on-site construction sources at these locations would be reduced.

Although there are sensitive receptors locations in proximity of the project site, as discussed under "Emission Control Measures," measures would be taken to reduce the potential for pollutant emissions during construction. For example, a watering program would be implemented to minimize potential dust emissions from construction activities and all measures required by the portion of DEP's *Construction Dust Rules* regulating construction-related dust emissions would be strictly followed. In addition, to further minimize air pollutant emissions during construction, emissions reduction measures including the use of BAT and the use of newer and cleaner equipment would be implemented. Furthermore, the construction areas would be fenced off, which would serve as a buffer between the potential emission sources and nearby sensitive receptor locations.

ON-ROAD SOURCES

Construction worker commuting trips and construction truck deliveries would generally occur during off-peak hours. In addition, when distributed over the transportation network, the construction trip increments would not concentrate at any single location. As discussed above in Transportation, according to an assignment of construction vehicles and displaced vehicles (assigned to the site), no intersection is expected to attract 50 or more vehicle trips and a detailed analysis of traffic is not warranted. Construction-generated traffic increments from the proposed project would also not exceed the *CEQR Technical Manual* CO screening threshold of 170 peak-hour trips at intersections in the area, or the fine particulate matter ($PM_{2.5}$) emissions screening

thresholds discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual.* Therefore, further mobile source analysis is not required.

CONCLUSION

Based on the analyses provided and implementation of the emissions reduction program described above, construction at the Manhattan Site would not result in the potential for significant adverse construction air quality impacts, and no further analysis is required.

NOISE

The potential for impacts on community noise levels during construction of the proposed project could result from construction equipment operation and construction trucks and worker vehicles traveling to and from the project site. Noise and vibration levels at a given location are dependent on the type and number of pieces of construction equipment operated, the acoustical utilization factor of the equipment (i.e., the percentage of time a piece of equipment is operating at full power), the distance from the construction site, and any shielding effects (from structures such as buildings, walls, or barriers). Noise levels caused by construction activities would vary widely, depending on the stage of construction and the location of the construction relative to receptor locations as described below. The most noise-intensive construction activities would not occur every day or every hour on those days that they would occur. During hours when the loudest pieces of construction equipment are not in use, receptors would experience lower construction noise levels. Construction noise levels would fluctuate during the construction period at each receptor, with the greatest levels of construction noise occurring for limited periods. The most substantial construction noise sources are expected to be impact equipment such as excavators with hydraulic break rams and paving breakers, as well as the movements of trucks.

Construction noise is regulated by the requirements of the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) and the DEP Notice of Adoption of Rules for Citywide Construction Noise Mitigation (also known as Chapter 28). These requirements mandate that specific construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. For weekend and after hour work, permits would be required, as specified in the New York City Noise Control Code. As required under the New York City Noise Control Code, a site-specific noise mitigation plan for the proposed project would be developed and implemented that may include source and path controls.

SOUND LEVEL DESCRIPTORS

Section 4.11, "Noise," defines the sound level descriptors. The $L_{eq(1)}$ is the noise descriptor recommended for use in the *CEQR Technical Manual* for vehicular traffic and construction noise impact evaluation, and is used to provide an indication of highest expected sound levels. The 1-hour L_{10} is the noise descriptor used in the *CEQR Technical Manual* noise exposure guidelines. The maximum 1-hour equivalent sound level ($L_{eq(1)}$) was selected as the noise descriptor used in the construction noise impact evaluation.

CONSTRUCTION NOISE ANALYSIS FUNDAMENTALS

Construction activities result in increased noise levels as a result of (1) the operation of construction equipment on-site; and (2) the movement of construction-related vehicles (i.e., worker automobiles, and material and equipment deliveries) on the roadways to and from the construction site. The effect of each of these noise sources was evaluated.

Noise from the on-site operation of construction equipment at a specific receptor location near a construction site is generally calculated by computing the sum of the noise produced by all pieces of equipment operating at the construction site. For each piece of equipment, the noise level at a receptor location is a function of the following:

- The noise emission level of the equipment (see **Table 4.14-5** for the noise levels for typical construction equipment);
- A usage factor, which accounts for the percentage of time the equipment is operating at full power;
- The distance between the piece of equipment and the receptor;
- Topography and ground effects; and
- Shielding.

Table 4.14-5
Typical Construction Equipment Noise Emission Levels (dBA)

Equipment List	Typical L_{max} Noise Level at 50 feet[1]	Project-Specific L_{max} Noise Level at 50 feet[2]
Auger Drill Rig	85	
Backhoe/Loader	80	
Compressor	80	
Concrete Pump	82	
Concrete Trowel	67[3]	
Concrete Vibrator	80	
Cranes	85	75
Dozer	85	
Excavator	85	
Forklift	85	
Generators	82	
Circular Saw	59	
Hoist	75	65
Man Lift	85	
Pump	77	
Rebar Bender	80	
Welding Machines	73	

Notes:
[1] Based on Citywide Construction Noise Mitigation, Chapter 28, DEP, 2007.
[2] Based on use of path controls, including portable noise barriers, enclosures, acoustical panels, and/or curtains, whichever are feasible and practical.
[3] Based on noise certifications for Columbia Manhattanville construction project.

Noise levels due to construction-related traffic are a function of the following:

- The noise emission levels of the type of vehicle (e.g., auto, light-duty truck, heavy-duty truck, bus, etc.);
- Volume of vehicular traffic on each roadway segment;
- Vehicular speed;
- The distance between the roadway and the receptor;
- Topography and ground effects; and
- Shielding.

CONSTRUCTION NOISE IMPACT CRITERIA

Chapter 22 of the *CEQR Technical Manual* breaks construction duration into "short-term" and "long-term" and states that construction noise is not likely to require analysis unless it "affects a sensitive receptor over a long period of time." Consequently, the construction noise analysis considers the potential for construction of a project to create high noise levels (the "intensity"), whether construction noise would occur for an extended period of time (the "duration"), and the locations where construction has the potential to produce noise ("receptors") in evaluating potential construction noise effects.

The noise impact criteria described in Chapter 19, Section 410 of the *CEQR Technical Manual* serve as a screening-level threshold for potential construction noise impacts. If construction of the proposed project would not result in any exceedances of these criteria at a given receptor, then that receptor would not have the potential to experience a construction noise impact. However, if construction of the proposed project would result in exceedances of these noise impact criteria, then further consideration of the intensity and duration of construction noise is warranted at that receptor. The screening level noise impact criteria for mobile and on-site construction activities are as follows:

- If the No Action noise level is less than 60 dBA $L_{eq(1)}$, a 5 dBA $L_{eq(1)}$ or greater increase would require further consideration.
- If the No Action noise level is between 60 dBA $L_{eq(1)}$ and 62 dBA $L_{eq(1)}$, a resultant $L_{eq(1)}$ of 65 dBA or greater would require further consideration.
- If the No Action noise level is equal to or greater than 62 dBA $L_{eq(1)}$, or if the analysis period is a nighttime period (defined in the CEQR criteria as being between 10PM and 7AM), the threshold requiring further consideration would be a 3 dBA $L_{eq(1)}$ or greater increase.

CONSTRUCTION NOISE ANALYSIS METHODOLOGY

The construction noise analysis consists of the following:

- Identification of sensitive noise receptor locations[1] near and on the project site.
- Determination of existing baseline noise levels at each noise receptor by measurements at each location during construction hours.
- Identification of noise reduction measures that would be employed during construction of the proposed project.
- Consideration of potential noise impacts from mobile sources.
- Analysis of potential noise impacts from operation of construction equipment at the project site over the course of the construction of the proposed project. Consistent with the noise impact criteria discussed above, the analysis looks first at the intensity of potential noise levels during construction, then assesses the potential duration of those noise levels, and finally makes a determination of the potential for impact.
    - Intensity of construction noise is assessed based on the assumption that with the construction noise control measures described above, maximum $L_{eq(1)}$ noise levels at a reference distance of approximately 50 feet from the construction site boundary would be approximately in the mid-70s dBA during excavation and foundation construction (given

[1] A sensitive receptor location is an area where human activity may be adversely affected by elevated noise levels, including residences, parks, churches, etc.

that the project would use drilled piles); mid-70s dBA during concrete work; and low 60s dBA during façade installation or interior fit-out (given that the project is committed to using quieter crane, hoist, and other key pieces of equipment).[1] The reference noise levels at 50 feet are then projected to the actual distances of the surrounding receptor areas from the construction site boundary.

- Duration of construction noise is assessed based on the preliminary construction schedule (see **Table 4.14-2**).

NOISE RECEPTOR LOCATIONS

The project site is bounded by Walker Street to the north, Baxter Street to the east, White Street to the south, and Centre Street to the west. The area surrounding the project site is a mix of predominantly commercial and institutional uses with residential buildings to the east.

The noise receptors closest to the proposed construction activities are listed in **Table 4.14-6**. The receptor areas and their distances from the proposed construction site are shown in **Appendix H**. These receptors are those nearest the proposed project construction and have the greatest potential to experience elevated noise levels as a result of construction. Other receptors located further from the project site would have less potential to experience noise associated with construction at the Manhattan Site.

Table 4.14-6
Construction Noise Receptor Areas

Receptor(s)	Land Use(s)	Approximate Distance and Direction from the Proposed Construction Work Area
96 Baxter Street; residential tower on the south side of Walker Street between Centre Street and Baxter Street; 13-story building	Residential	5 feet north of Construction Work Area
Residences on the east side of Baxter Street between Bayard Street and Walker Street; 6- or 7-story buildings	Commercial / Residential	55 feet east of Construction Work Area
Columbus Park on the south side of Bayard Street between Baxter Street and Mulberry Street	Open Space	80 feet southeast of Construction Work Area
New York County Criminal Court on the north side of Hogan Place and between Centre Street and Baxter Street; 24-story building	Courthouse	40 feet south of Construction Work Area
Collect Pond Park on the west side of Centre Street between Cobblehill Place and Leonard Street	Open Space	155 feet southwest of Construction Work Area
New York City Civil Court on the south side of White Street between Centre Street and Lafayette Street; 12-Story Building	Courthouse	125 feet west of Construction Work Area
Downtown Community Television Center on the north side of White Street between Centre Street and Lafayette Street; 3-Story Building	Institution	155 feet west of Construction Work Area

NOISE MEASUREMENT RESULTS

Noise levels were measured at locations surrounding the project site as described in Chapter 4.11, "Noise." Minimum baseline noise levels for each of the construction receptors were determined

[1] Based on detailed noise analyses prepared for several large-scale construction projects with comparable noise-control measure commitments, including East New York Rezoning (CEQR No. 15DC102K) and Halletts Point Rezoning (CEQR No. 09DCP084Q).

by taking the minimum measured noise level during construction hours (i.e., the AM or MD time period) from the nearest measurement location. The minimum baseline noise levels are shown below in **Table 4.14-7**.

Table 4.14-7
Baseline Noise Levels in dBA

Receptor	L_{eq}	L_{10}
96 Baxter Street Residential Tower	64.9	67.4
Baxter Street Residences	64.9	65.4
Columbus Park	64.9	65.4
New York County Criminal Court	64.9	65.4
Collect Pond Park	66.4	68.4
New York City Civil Court	66.4	68.4
Downtown Community Television Center	66.4	68.4

NOISE REDUCTION MEASURES

Construction of the proposed project would be required to follow the requirements of the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) for construction noise control measures. Additionally, the project sponsor has committed to additional noise control measures beyond the minimum required by code in order to reduce potential noise effects on the surrounding receptors. Specific noise control measures would be incorporated in noise mitigation plan(s) required under the New York City Noise Code. These measures would include a variety of source and path controls.

In terms of source controls (i.e., reducing noise levels at the source or during the most sensitive time periods), the following measures would be implemented:

- Equipment that meets the sound level standards specified in Subchapter 5 of the New York City Noise Control Code and Table 22-1 of the *CEQR Technical Manual* would be utilized from the start of construction. **Table 4.14-4** shows the noise levels for typical construction equipment and the mandated noise levels lower than the sound level standards for the equipment that would be used for construction of the proposed project;
- Since electric power is expected to be available throughout the project site, electrically powered equipment such as welders and saws would be used over diesel-powered versions of that equipment, to the extent feasible and practicable;
- Where feasible and practicable, the construction site would be configured to minimize back-up alarm noise. In addition, trucks would not be allowed to idle more than 3 minutes at the construction site based upon Title 24, Chapter 1, Subchapter 7, Section 24-163 of the New York City Administrative Code; and
- Contractors and subcontractors would be required to properly maintain their equipment and mufflers.

In terms of path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and sensitive receptors), the following measures for construction would be implemented to the extent feasible and practicable:

- Where logistics allow, noisy equipment, such as cranes, concrete pumps, concrete trucks, and delivery trucks, would be located away from and shielded from sensitive receptor locations;

- Noise barriers constructed from plywood or other materials surrounding the construction site would be utilized to provide shielding. The barriers would be at least 8 feet tall. Where logistics allow, truck deliveries would take place behind these barriers; and
- Path noise control measures (i.e., portable noise barriers, panels, enclosures, and acoustical tents, where feasible) would be required for certain dominant noise equipment to the extent feasible and practical (i.e., generators, compressors, and pumps).

MOBILE SOURCE CONSTRUCTION NOISE ANALYSIS

Throughout the construction period, vehicles (construction-related trucks and worker vehicles) would travel near the project site. Most of these vehicles are expected to use Centre Street and Worth Street, which are already heavily trafficked roadways. As described above, the amount of traffic generated by the construction of the proposed project would be low compared with existing traffic volumes on major feeder streets in the neighborhood. Additionally, the construction-related vehicles would be distributed amongst the different routes to and from the project site. Accordingly, construction-generated traffic on roadways to and from the project site would not have the potential to result in significant adverse construction noise impacts at locations away from the construction work area (i.e., at locations other than the areas specified above as receptors).

ON-SITE CONSTRUCTION NOISE ANALYSIS RESULTS

As discussed above, the on-site construction noise analysis looks at the potential intensity of noise levels during construction, assesses the potential duration of those noise levels, and then makes a determination of the potential for impact.

As described above, noise levels from each type of construction activity were projected at receptors throughout the study area based on distance and shielding provided by existing buildings or project elements already constructed. Receptors further from the construction work area than those identified in **Table 4.14-7** would experience construction noise levels no higher than the low to mid-60s dBA, which is considered "acceptable" according to *CEQR Technical Manual* noise evaluation criteria, and lower than measured noise levels throughout much of the study area. Consequently, receptors outside of these distances would not have the potential to experience significant adverse construction noise impacts. Noise receptors closer to the construction site are discussed further below.

The projected maximum potential noise levels during construction at each façade of the receptors described above are summarized in **Table 4.14-8**. The construction noise estimates for the full construction period are shown in **Appendix H**.

Table 4.14-8
Estimated Construction Noise Summary (in dBA)

Receptor Area	Existing		Worst-Case Construction Noise Levels		
	L_{eq}	L_{10}	L_{eq}	Increase	L_{10}
96 Baxter Street Residential Tower	64.9	67.4	71.0	7.1	75.0
Baxter Street Residences	64.9	65.4	66.9	4.3	70.8
Columbus Park	64.9	65.4	63.6	2.5	69.0
New York County Criminal Court	64.9	65.4	69.9	6.4	74.0
Collect Pond Park	66.4	68.4	58.2	0.9	66.3
New York City Civil Court	66.4	68.4	70.0	6.5	74.1
Downtown Community Television Center	66.4	68.4	68.1	5.1	72.7

96 Baxter Street Residential Tower

Intensity of Construction Noise

As shown in **Table 4.14-8**, 96 Baxter Street would potentially experience moderate levels of construction noise and readily noticeable increases in noise level at times during the most noise-intensive construction activities. With the construction noise control measures described above, maximum $L_{eq(1)}$ noise levels at this receptor would be in approximately the low 70s dBA at the façade. Consequently, the maximum noise levels predicted to be generated by on-site construction activities at this receptor would result in exceedances of the *CEQR Technical Manual* construction noise screening thresholds at times during the construction period.

Duration of Construction Noise from On-Site Sources

The maximum construction noise levels at this receptor, expected to be in the low 70s dBA and result in noise level increases up to approximately 7 dBA, would have the potential to occur during the approximately 20 months of peak demolition and excavation of the North Site. However, only approximately one quarter of the North Site is within 45 feet of this receptor, and demolition activity at a distance further than 45 feet would result in noise level increases that would be considered barely perceptible and would not exceed the *CEQR Technical Manual* construction noise screening thresholds, so the screening threshold exceedances with increases up to approximately 7 dBA would have the potential to occur over approximately 5 months. Additionally, construction would result in noise level increments up to approximately 5 dBA during foundation construction at the North Site (approximately 3 months). For the remaining months of construction of the proposed project, construction noise levels would not exceed the *CEQR Technical Manual* construction noise screening thresholds. Noise level increases due to construction of the proposed project would have the potential to exceed the CEQR construction noise screening thresholds for an estimated total of eight non-consecutive months.

Determination of Construction Noise Impacts

The maximum estimated levels of construction noise would have the potential to result in increases of not greater than 7 dBA, potential exceedances of the *CEQR Technical Manual* construction noise screening thresholds would have the potential to occur for a limited period of time (i.e., eight non-consecutive months), and potential total noise levels would be in the low 70s dBA, i.e., "marginally unacceptable" and typical for many locations in Manhattan proximate to heavily trafficked roadways. Consequently, noise resulting from construction of the proposed project would not have the potential to result in s a significant adverse impact at this receptor.

Baxter Street Residences

Intensity of Construction Noise

As shown in **Table 4.14-8**, Baxter Street residences between Walker Street and Bayard Street would potentially experience moderate levels of construction noise and readily noticeable increases in noise level at times during the most noise-intensive construction activities. With the construction noise control measures described above, maximum $L_{eq(1)}$ noise levels at this receptor would be in approximately the low 70s dBA at the façade. Consequently, the maximum noise levels predicted to be generated by on-site construction activities at this receptor would have the potential to result in exceedances of the *CEQR Technical Manual* construction noise screening thresholds at times during the construction period.

Duration of Construction Noise from On-Site Sources

The maximum construction noise levels at this receptor, expected to be in the low 70s dBA and result in noise level increases up to approximately 5 dBA, would potentially occur during the approximately 5 months of superstructure. Additionally, construction would result in noise level

increments of up to approximately 4 dBA during the 24 months of peak demolition and excavation of the North and South sites. For the remaining months of construction of the proposed project, construction noise levels would not exceed the *CEQR Technical Manual* construction noise screening thresholds. Noise level increases due to construction of the proposed project would have the potential to exceed the *CEQR Technical Manual* construction noise screening thresholds for an estimated total of 29 non-consecutive months.

Determination of Construction Noise Impacts

The maximum estimated levels of construction noise would result in increases of less than 6 dBA and would have the potential to occur for a relatively short period of time (i.e., 29 non-consecutive months), and during other portions of the construction period noise level increments would not exceed the *CEQR Technical Manual* construction noise screening thresholds. Based on the modest exceedances and limited duration of the screening thresholds, noise resulting from construction of the proposed project would have the potential to result in a significant adverse impact at this receptor.

Columbus Park

Intensity of Construction Noise

As shown in **Table 4.14-8**, Columbus Park would potentially experience readily noticeable daytime increases in noise levels at times during the most noise-intensive construction activities. With the construction noise control measures described above, maximum $L_{eq(1)}$ noise levels at this receptor would be in approximately the low 70s dBA. Consequently, the maximum construction noise levels predicted at this receptor would have the potential to result in exceedances of the *CEQR Technical Manual* construction noise screening thresholds at times during the construction period. Total noise levels at this receptor would potentially be in the "acceptable" to "marginally unacceptable" range.

Duration of Construction Noise from On-Site Sources

The maximum construction noise levels at this receptor, expected to be in the low 70s dBA and result in noise level increases up to approximately 7 dBA, would potentially occur during the approximately 5 months of superstructure construction. For the remaining months of construction of the proposed project, construction noise levels would not exceed the *CEQR Technical Manual* construction noise screening thresholds. Potential noise level increases due to construction of the proposed project would have the potential to exceed the CEQR construction noise screening thresholds for an estimated total of 5 consecutive months.

Determination of Construction Noise Impacts

Potential construction noise level increments are predicted to be no greater than 7 dBA, exceedances of the *CEQR Technical Manual* construction noise screening thresholds would have the potential to occur for a limited period of time (i.e., 5 months), and potential total noise levels would be in the low 70s dBA, i.e., "marginally unacceptable" and typical for many comparable locations in Manhattan. Consequently, noise resulting from construction of the proposed project would not have the potential to result in significant adverse impact at this receptor.

New York County Criminal Court

Intensity of Construction Noise

As shown in **Table 4.14-8**, the New York County Criminal Court located on Centre Street between White Street and Hogan Place would potentially experience readily noticeable daytime increases in noise levels at times during the most noise-intensive construction activities. With the construction noise control measures described above, maximum $L_{eq(1)}$ noise levels at this receptor

would be in approximately the low 70s dBA at the façade. Consequently, the maximum construction noise levels predicted at this receptor would have the potential to result in exceedances of the *CEQR Technical Manual* construction noise screening thresholds at times during the construction period. Total potential noise levels at this receptor would be in the "acceptable" to "marginally unacceptable" range.

Duration of Construction Noise from On-Site Sources

The maximum construction noise levels at this receptor, expected to be in the low 70s dBA and result in noise level increases up to approximately 6 dBA, would have the potential to occur during the approximately 23 months of demolition and excavation construction at the South Site. Additionally, construction would potentially result in noise level increments up to 5 dBA during superstructure construction (approximately 5 months) and approximately 4 dBA during foundation construction at the South Site (approximately 2 months). For the remaining months of construction of the proposed project, construction noise levels would not exceed the *CEQR Technical Manual* construction noise screening thresholds. Noise level increases due to construction of the proposed project would have the potential to exceed the CEQR construction noise screening thresholds for an estimated total of 30 consecutive months.

Determination of Construction Noise Impacts

Potential construction noise level increments are predicted to be no greater than 6 dBA, exceedances of the *CEQR Technical Manual* construction noise screening thresholds would potentially occur for a limited period of time (i.e., 30 months), and total noise levels would be in the low 70s dBA, i.e., "marginally unacceptable" and typical for many locations in Manhattan proximate to heavily trafficked roadways. Consequently, noise resulting from construction of the proposed project would not have the potential to result in a significant adverse impact at this receptor.

Collect Pond Park

Intensity of Construction Noise

As shown in **Table 4.14-8**, Collect Pond Park would potentially experience readily noticeable daytime increases in noise levels at times during the most noise-intensive construction activities. With the construction noise control measures described above, maximum $L_{eq(1)}$ noise levels at this receptor would be in approximately the high 60s dBA. Consequently, the maximum construction noise levels predicted at this receptor would have the potential to result in exceedances of the *CEQR Technical Manual* construction noise screening thresholds at times during the construction period. Potential total noise levels at this receptor would be in the "acceptable" to "marginally unacceptable" range.

Duration of Construction Noise from On-Site Sources

The maximum construction noise levels at this receptor, expected to be in the low 70s dBA and result in noise level increases up to approximately 3 dBA, would have the potential to occur during the approximately 5 months of superstructure construction. For the remaining months of construction of the proposed project, construction noise levels would not exceed the *CEQR Technical Manual* construction noise screening thresholds. Noise level increases due to construction of the proposed project would have the potential to exceed the CEQR construction noise screening thresholds for an estimated total of 5 consecutive months.

Determination of Construction Noise Impacts

Construction noise level increments are predicted to be no greater than 3 dBA, exceedances of the *CEQR Technical Manual* construction noise screening thresholds would have the potential to occur for a limited period of time (i.e., 5 months), and total noise levels would be in the high 60s dBA,

i.e., "marginally acceptable" and typical for many comparable locations in Manhattan. Consequently, noise resulting from construction of the proposed project would not have the potential to result in a significant adverse impact at this receptor.

New York City Civil Court

Intensity of Construction Noise

As shown in **Table 4.14-8**, the New York County Civil Court would potentially experience readily noticeable daytime increases in noise levels at times during the most noise-intensive construction activities. With the construction noise control measures described above, maximum $L_{eq(1)}$ noise levels at this receptor would be in approximately the low 70s dBA at the façade. Consequently, the maximum construction noise levels predicted at this receptor would have the potential to result in exceedances of the *CEQR Technical Manual* construction noise screening thresholds at times during the construction period.

Duration of Construction Noise from On-Site Sources

The maximum construction noise levels at this receptor, expected to be in the low 70s dBA and result in noise level increases up to approximately 7 dBA, would potentially occur during the approximately 23 months of demolition and excavation construction at the South Site. Additionally, construction would have the potential to result in noise level increments up to approximately 5 dBA during demolition at the North Site (approximately 1 month) and 4 dBA during foundation construction at the South Site (approximately 2 months) and superstructure construction (approximately 5 months). For the remaining months of construction of the proposed project, construction noise levels would not exceed the *CEQR Technical Manual* construction noise screening thresholds. Noise level increases due to construction of the proposed project would have the potential to exceed the CEQR construction noise screening thresholds for an estimated total of 31 consecutive months.

Determination of Construction Noise Impacts

Construction noise level increments are predicted to be no greater than 7 dBA, exceedances of the *CEQR Technical Manual* construction noise screening thresholds would have the potential to occur for a limited period of time (i.e., 31 months), and potential total noise levels would be in the low 70s dBA, i.e., "marginally unacceptable" and typical for many locations in Manhattan proximate to heavily trafficked roadways. Consequently, noise resulting from construction of the proposed project would not have the potential to result in a significant adverse impact at this receptor.

Downtown Community Television Center

As shown in **Table 4.14-8**, construction of the proposed project would not result in exceedances of the *CEQR Technical* Manual construction noise screening thresholds at the Downtown Community Television Center, this receptor would not have the potential to experience a significant adverse construction noise impact.

CONCLUSIONS

Construction of the proposed project would be expected to potentially result in elevated noise levels at nearby receptors, and noise due to construction would at times be noticeable. However, noise from construction would be intermittent and of limited duration, and potential total noise levels would be in the "marginally acceptable" or "marginally unacceptable" range. Consequently, noise associated with the construction of the proposed project would not have the potential to result in a significant adverse noise impact.

VIBRATION

Construction activities have the potential to result in vibration levels that may result in structural or architectural damage, and/or annoyance or interference with vibration-sensitive activities. Vibratory levels at a receiver are a function of the source strength (which is dependent upon the construction equipment and methods utilized), the distance between the equipment and the receiver, the characteristics of the transmitting medium, and the receiver building construction. Construction equipment operation causes ground vibrations that spread through the ground and decrease in strength with distance. Vehicular traffic, even in locations close to major roadways, typically does not result in perceptible vibration levels unless there are discontinuities in the roadway surface. With the exception of the case of fragile and possibly historically significant structures or buildings, construction activities generally do not reach the levels that can cause architectural or structural damage, but can achieve levels that may be perceptible and annoying in buildings very close to a construction site. An assessment has been prepared to quantify the potential for vibration impacts of construction activities on structures and residences near the project site.

CONSTRUCTION VIBRATION CRITERIA

For purposes of assessing the potential for structural or architectural damage, the determination of a significant impact was based on the vibration impact criterion used by the New York City Landmarks Preservation Commission (LPC) of a peak particle velocity (PPV) of 0.50 inches/second as specified in the DOB *Technical Policy and Procedure Notice* (*TPPN) #10/88*. For non-fragile buildings, vibration levels below 2.0 inches/second would not be expected to result in any structural or architectural damage.

For purposes of evaluating the potential for annoyance or interference with vibration-sensitive activities, vibration levels greater than 65 vibration decibels (VdB) would have the potential to result in significant adverse impacts if they were to occur for a prolonged period.

ANALYSIS METHODOLOGY

Table 4.14-9 shows vibration source levels for typical construction equipment. The source vibration levels shown in **Table 4.14-9** were projected to nearby receptors to estimate the potential effects of construction vibration.

CONSTRUCTION VIBRATION ANALYSIS RESULTS

The structures of most concern with regard to the potential for structural or architectural damage due to vibration are the New York County Criminal Court and the historic New York County Supreme Court due to their proximity to rock excavation activity. However, as a result of these structures' distances from the construction site, the potential for vibration levels at these buildings and structures would not be expected to exceed 0.5 in/sec PPV, including during pile/lagging installation activities, which would be the most vibration intensive activity associated with construction of the proposed project and would occur at least 58 feet from any of the existing structures. Additional receptors farther away from the project site would experience even less vibration than those listed above, which would not be expected to cause structural or architectural damage.

Table 4.14-9
Vibration Source Levels for Construction Equipment

Equipment		PPVref (in/sec)	Approximate Lv (ref) (VdB)
Pile Driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile Driver (Sonic)	Upper range	0.734	105
	Typical	0.170	93
Clam Shovel drop (slurry wall)		0.202	94
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson Drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06, May 2006.

In terms of potential vibration levels that would be perceptible and annoying, the equipment that would have the most potential for producing levels that exceed the 65 VdB limit are the vibratory hammers associated with pile/lagging installation. Pile installation would have the potential to produce perceptible vibration levels at receptor locations within a distance of approximately 550 feet depending on soil conditions. However, the operation would only occur for limited periods at a particular location and therefore would not have the potential to result in any significant adverse impacts.

CONCLUSIONS

Because construction of the proposed project would not have the potential to result in vibration at a level that could result in architectural or structural damage to adjacent buildings and because construction would result in vibration at a level that would have the potential to be noticeable or annoying only for limited periods of time, there would be no potential for significant adverse vibration impacts from the proposed project.

OTHER TECHNICAL AREAS

LAND USE AND NEIGHBORHOOD CHARACTER

According to the *CEQR Technical Manual,* a construction impact analysis for land use and neighborhood character is typically needed if construction would require continuous use of property for an extended duration, thereby having the potential to affect the nature of the land use and character of the neighborhood.

Land Use

Construction activities would affect land use on the project sites, but would not affect land use conditions and patterns outside of this area. As is typical with construction projects, during periods of peak activity there would be some potential for disruption to the nearby area. There would be construction trucks and construction workers coming to the area as well as trucks and other vehicles backing up, loading, and unloading. These potential for disruptions would be most pronounced within the immediate vicinity of the project site but would have more limited effects on land uses near the project site, as most construction activities would take place within the

project site or within portions of sidewalks and/or curb lanes immediately adjacent to the project site along Baxter Street and Centre Street. Overall, the temporary and localized nature of construction would not result in the potential for any significant adverse impacts on local land use patterns of the nearby area.

Neighborhood Character

Construction activities would adhere to the provisions of the New York City Building Code and other applicable regulations. In addition, throughout the construction period, measures would be implemented to control noise, vibration, and air emissions including dust. Construction fences would be erected around the perimeter of the project sites to reduce potentially undesirable views of construction areas, to buffer noise emitted from construction activities, and to protect the safety of pedestrians during construction. Access to surrounding residences and businesses would be maintained throughout the duration of the construction period. Overall, construction at the Manhattan Site is not expected to have the potential to result in significant adverse neighborhood character impacts in neighborhoods surrounding the project site.

SOCIOECONOMIC CONDITIONS

A preliminary assessment of direct and indirect business displacement is presented in Chapter 4.2, "Socioeconomic Conditions." Construction at the Manhattan Site would not significantly affect the operations of any other nearby businesses, nor would construction obstruct major thoroughfares used by customers or businesses. Sidewalk closures would not front any active businesses, and pedestrians would continue to have views of and access to businesses on surrounding blocks. Construction would have the potential to create direct benefits resulting from expenditures on labor, materials, and services, and indirect benefits near the proposed development site created by expenditures by material suppliers, construction workers, and other employees involved in the construction activity. Construction also would contribute to increased tax revenues for the City and State, including those from personal income taxes. Construction activities at the Manhattan Site would not have the potential to result in any significant adverse impacts on socioeconomic conditions.

COMMUNITY FACILITIES

According to the *CEQR Technical Manual*, construction impacts to community facilities are possible if a community facility were directly affected by construction (e.g., if construction would disrupt services provided at the facility or close the facility temporarily, etc.).

The proposed project would replace the existing MDC with a new detention facility but would not physically displace or alter any other existing community facilities (i.e., public schools, child care centers, libraries, health care facilities, or police and fire protection services facilities). Access to the surrounding government agencies would be maintained at all times during construction. Construction workers would not place any burden on public schools and would have minimal, if any, demands on libraries, child care facilities, and health care in the project area. Emergency vehicle access to the project site would be maintained throughout the construction period, and emergency services and response times are not expected to be materially affected by construction. Therefore, construction at the Manhattan Site would not have the potential to result in any significant adverse impacts on community facilities.

OPEN SPACE

No open space resources would be used for staging or other construction activities. The nearest open spaces resources are Columbus Park and Collect Pond Park to the southeast and southwest

the project site, respectively. Access to these open space resources and any other nearby open space resources would be maintained throughout the duration of the construction period. In addition, measures would be implemented to control air emissions, dust, noise, and vibration on the project site during construction. As discussed above, construction at the Manhattan site would not result in the potential for any significant adverse air quality or noise impacts on nearby open space resources.

HISTORIC AND CULTURAL RESOURCES

According to the *CEQR Technical Manual,* construction impacts to historical and cultural resources considers the potential for physical damage to archaeological resources and architectural resources, as identified in Section 3.5, "Historic and Cultural Resources."

Archaeological Resources

The study area for archaeological resources includes those areas that would be disturbed by subsurface excavation and, for the purposes of this analysis, includes the project site at 124 White Street (Block 198, Lot 1) and 125 White Street (Block 167, part of Lot 1). In a comment letter dated August 8, 2018, LPC determined that the Manhattan Site is potentially archaeologically significant and requested that an archaeological documentary study be prepared to further clarify these initial findings. Pursuant to LPC's request, a Phase 1A Archaeological Documentary Study ("Phase 1A Study") of was prepared by AKRF in October 2018 to determine the extent to which the study area may be archaeologically sensitive. At the time of the preparation of the Phase 1A Study, the Manhattan Site included 125 White Street (Block 167, part of Lot 1) as well as 80 Centre Street (Block 166, Lot 27) and the streetbed of Hogan Place, which have since been removed from the proposed project. A Supplemental Phase 1A Study was prepared by AKRF in December 2018 that assessed the archaeological sensitivity of 124 White Street (Block 198, Lot 1) and the streetbed of White Street between Centre Street and Baxter Street. This chapter addresses only the sensitivity determinations made for 124 and 125 White Street and the streetbed of White Street as described in the Phase 1A Study and the Supplemental Phase 1A Study.

Southern Portion of the Project Site: 125 White Street

The Phase 1A Study concluded that given the extensive disturbance associated with the construction of the existing building on the 125 White Street site, it is not sensitive for archaeological resources dating to either the precontact or historic periods. In a comment letter dated November 21, 2018, LPC concurred with the conclusions and recommendations of the Phase 1A Study. Therefore, no additional archaeological analysis is warranted for the southern portion of the project site on Block 167, Lot 1.

Northern Portion of the Project Site: 124 White Street

The Supplemental Phase 1A Study determined that the portion of the site at 124 White Street within the footprint of the existing MDC North Tower is not sensitive for archaeological resources. However, there is a slight chance that undisturbed deeply buried precontact resources could be present within the southwestern portion of the project site outside the footprint of the existing building, as this area may not have been fully disturbed as a result of the construction of buildings on the site in the 19th and 20th centuries, before the construction of the existing North Tower. Therefore, the southwestern portion of Block 198, Lot 1 was determined to have low sensitivity for archaeological resources associated with the precontact occupation of Manhattan. The sensitive soil deposits would be expected to be located beneath the depth of disturbance associated with the excavation of basements in the 19th and 20th centuries, which is expected to have extended to a depth of 10 feet below the ground surface or to an approximate elevation of 4 to 5

feet relative to the North American Vertical Datum of 1988 (NAVD88). The upper levels of the peat deposits presumed to represent the upper surface of the floor of the Collect Pond and its associated marshes is expected to be situated at depths ranging between 20 to 40 feet below the ground surface, or an elevation of -6 to -26 feet relative to NAVD88.

Demapping Area: White Street

The Supplemental Phase 1A Study determined that undisturbed portions of the streetbed of White Street were determined to have low to moderate sensitivity for archaeological resources associated with the precontact occupation of Manhattan and moderate sensitivity for resources associated with the historic period. Undisturbed areas in the streetbed were defined as locations where no utilities are present or where there is a space of 5 feet or more between the outer edges of or below existing utilities.

Recommendations for Additional Analysis

The Supplemental Phase 1A Study recommended that additional archaeological analysis in the form of the review of new soil borings, which would be completed as part of the project planning and design phase, be completed in order to determine the extent of disturbance in the southwestern corner of 124 White Street and the White Street streetbed. If the new soil borings reveal that intact peat deposits are not present within the southwestern corner of the site, then that portion of the project site would be considered to have been disturbed as a result of the construction of the existing buildings and no further archaeological analysis would be recommended for 124 White Street as the site would be unlikely to have potential precontact sensitivity and historic fill deposits would be assumed to have been disturbed.

In the event that the final project plans result in disturbance to undisturbed portions of the White Street streetbed, then the additional archaeological analysis in the form of Phase 1B archaeological testing or monitoring as recommended by the Supplemental Phase 1A Study would be completed in consultation with LPC. Prior to the start of any additional analysis, a Phase 1B Work Plan would be prepared and submitted to LPC for review and approval. In the event that archaeological testing or monitoring confirms the presence of archaeological resources within the areas of archaeological sensitivity as identified in the Phase 1A study, then additional archaeological investigations (e.g., a Phase 2 Investigation or a Phase 3 Data Recovery as described above) would be conducted in consultation with LPC. The presence of any significant archaeological resources would be determined through additional archaeological investigations and consultation with LPC. With the completion of the additional archaeological investigations necessary within the areas of archaeological sensitivity and LPC concurrence with the conclusions of those investigations, the proposed project would not result in significant adverse impacts on archaeological resources.

Architectural Resources

In the With Action condition, the site of the existing MDC North and South Towers at 124 and 125 White Street would be redeveloped with a new, approximately 450-foot-tall detention facility. 125 White Street, also known as the MDC South Tower, composes a portion of the Manhattan Criminal Courts Building and Prison at 100 Centre Street,[1] that has previously been determined

[1] Collectively, the structures at 100 Centre Street and 125 White Street are referred to as the Criminal Courts Building and Prison in the November 17, 2009 SHPO Resource Evaluation determining that it meets S/NR eligibility criteria. The term "Criminal Courts Building and Prison" has been used in this section for consistency.

S/NR-eligible by the New York State Historic Preservation Office (SHPO) and NYCL-eligible by LPC. The demolition of 125 White Street would constitute the potential for a significant direct adverse impact on the Criminal Courts Building and Prison, requiring that the Applicant develop, in consultation with LPC, appropriate measures to partially mitigate the adverse impact. These are discussed in more detail below.

In addition to the S/NR- and NYCL-eligible Criminal Courts Building and Prison, additional architectural resources have been identified in the study area. Construction-related activities in connection with the proposed project could have the potential to result in physical, construction-related impacts to architectural resources located within 90 feet of the project site in the study area. Therefore, to avoid inadvertent construction-related impacts, construction protection measures would be set forth in a CPP that would be developed in consultation with LPC and implemented in coordination with a licensed professional engineer. The CPP would describe the measures to be implemented to protect the Criminal Courts Building at 100 Centre Street and other affected architectural resources during construction of the proposed project. The CPP would follow the guidelines set forth in Section 522 of the *CEQR Technical Manual* and LPC's *New York City Landmarks Preservation Commission Guidelines for Construction Adjacent to a Historic Landmark* and *Protection Programs for Landmark Buildings*. The CPP would also comply with the procedures set forth in the New York City Department of Buildings (DOB)'s *Technical Policy and Procedure Notice (TPPN) #10/88*.

The proposed project would result in the potential for significant adverse indirect impacts on the Criminal Courts Building at 100 Centre Street due to the proposed demolition of the Prison building (MDC South Tower) at 125 White Street, which is a contributing element of the Criminal Courts Building and Prison architectural resource. As part of the mitigation measures that would be developed to partially mitigate the potential for adverse impact, consultation would be undertaken with LPC regarding the design of the new detention facility and how it would connect via pedestrian bridges to the north façade of 100 Centre Street. Potential measures to mitigate the potential for significant adverse impacts to historic and cultural resources are discussed in Section 4.15, "Mitigation-Manhattan."

HAZARDOUS MATERIALS

Given the age of the structures that would need to be demolished at the MDC South Tower, it is likely that they contain substances that are typical of older buildings (e.g., ACM, LBP, and/or PCBs). Since MDC North Tower was built in 1989, the potential for these materials to be present is lower, but some ACM could still be present. There are a variety of federal, state, and local regulatory requirements that would be followed prior to and during demolition to address disturbance and disposal of these materials. A detailed assessment of the potential risks related to the construction of the proposed project with respect to any hazardous materials is described in Section 4.7, "Hazardous Materials."

Construction of the new facilities would require extensive excavation of the Manhattan Site. The potential for impacts would be avoided by conducting subsurface investigations in accordance with Work Plans pre-approved by DEP and then preparing (also subject to DEP approval) a RAP and associated CHASP for implementation during the subsurface disturbance associated with construction. Occupancy permits would only be issued once DEP receives and approves a P.E. Certified Remedial Closure Report that documents that the RAP and CHASP were properly implemented.

With the implementation of applicable regulatory requirements and the measures required by the RAP/CHASP, the potential for significant adverse hazardous materials impacts from construction at the project sites would be avoided. Following construction, there would be no potential for significant adverse impacts relating to hazardous materials. ✷

A. INTRODUCTION

This section considers mitigation measures to address the potential for significant adverse impacts generated by the proposed project at the Manhattan Site. The potential for significant adverse impacts was identified in the technical areas of historic and cultural resources, transportation, and construction-period transportation. Measures have been examined to minimize or eliminate these anticipated impacts, and are discussed below.

Measures to further mitigate the potential for adverse impacts will be refined and evaluated between the Draft and Final EIS. Therefore, the Final EIS may include more complete information and commitments on all practicable mitigation measures to be implemented with the proposed project.

PRINCIPAL CONCLUSIONS

HISTORIC AND CULTURAL RESOURCES

Archaeological Resources

As described in Section 4.5, "Historic and Cultural Resources-Manhattan," the study area for archaeological resources includes those areas that would be disturbed by subsurface excavation and therefore includes the project site—including the Manhattan Detention Complex (MDC) North Tower at 124 White Street (Block 198, part of Lot 1) and the MDC South Tower at 125 White Street (Block 167, Lot 1)—and the Proposed Demapping Area (above- and below-grade volumes of White Street between Centre Street and Baxter Street).

The Supplemental Phase 1A Study recommended additional archaeological analysis within the streetbed of White Street and within the southwestern corner of Block 198, Lot 1. The Supplemental Phase 1A Study recommended that additional archaeological analysis in the form of the review of new soil borings, which would be completed as part of the project planning and design phase, be completed in order to determine the extent of disturbance in the southwestern corner of 124 White Street and the White Street streetbed. If the new soil borings reveal that intact peat deposits are not present within the southwestern corner of the site, then that portion of the project site would be considered to have been disturbed as a result of the construction of the existing buildings and no further archaeological analysis would be recommended for 124 White Street as the site would be unlikely to have potential precontact sensitivity and historic fill deposits would be assumed to have been disturbed. In the event that additional potentially intact peat deposits are identified, then additional archaeological analysis would be warranted in consultation with LPC. With the completion of the additional archaeological investigations necessary within the areas of archaeological sensitivity and LPC concurrence with the conclusions of those investigations, the proposed project would not result in the potential for significant adverse impacts on archaeological resources.

In the event that the final project plans result in disturbance to undisturbed portions of the White Street streetbed, then the additional archaeological analysis in the form of Phase 1B archaeological testing or monitoring as recommended by the Supplemental Phase 1A Study would be completed in consultation with LPC. The presence of any significant archaeological resources would be determined through additional archaeological investigations and consultation with LPC. With the completion of the additional archaeological investigations necessary within the areas of archaeological sensitivity and LPC concurrence with the conclusions of those investigations, the proposed project would not result in the potential for significant adverse impacts on archaeological resources.

Architectural Resources

As discussed in Section 4.5, "Historic and Cultural Resources-Manhattan," under the proposed project, the MDC South Tower (Prison building) at 125 White Street would be redeveloped with a new, approximately 450-foot-tall detention facility. The Prison building on the project site is part of the Criminal Courts Building at 100 Centre Street, which is S/NR-eligible. Therefore, demolition of 125 White Street would constitute a potential significant adverse impact on architectural resources. The Applicant will consult with LPC to develop and implement appropriate mitigation measures to partially mitigate the potential for significant adverse impact. Mitigation measures are expected to include Historic American Buildings Survey (HABS) documentation of the architectural resource including sufficient information about 100 Centre Street, to which it is connected.

To avoid the potential for direct, physical impacts to nearby historic buildings during construction of the proposed project, a Construction Protection Plan (CPP) would be developed in coordination with LPC and implemented in consultation with a licensed professional engineer. The CPP would describe the measures to be implemented to protect the Criminal Courts Building at 100 Centre Street and other affected architectural resources during construction of the proposed project. Additionally, two new pedestrian bridges would be built from the project site to the State/National Register (S/NR)-eligible Criminal Courts Building at 100 Centre Street. Therefore, the CPP would include those properties that are located within 90 feet of the project site and/or would be directly affected, including the Criminal Courts Building at 100 Centre Street, and the buildings of the S/NR-listed Chinatown and Little Italy Historic District as discussed in Section 4.5. In addition, consultation would be undertaken with LPC regarding the design of the new detention facility and how it would connect via pedestrian bridges to the northern façade of 100 Centre Street.

TRANSPORTATION

The proposed project would result, as detailed below, in the potential for a significant adverse impact to vehicular traffic at one analyzed intersection during the analyzed weekday midday peak hour. Mitigation measures that could address the potential for traffic impacts are discussed below. In addition, as discussed in Section 4.9, "Transportation-Manhattan," there is no anticipated potential for transit, pedestrian, or parking-related impacts likely as a result of the proposed project; therefore, those transportation modes are not discussed below.

Traffic

As described in Section 4.9, "Transportation-Manhattan", the proposed project would have the potential to result in a significant adverse traffic impact at one study area intersection during the analyzed midday peak hour, specifically the northbound shared through-right lane group at the intersection of Centre Street and Walker Street. No potential for significant adverse impacts are

anticipated during the analyzed weekday AM and Saturday peak hours. Implementation of a signal timing change is being proposed and would provide mitigation for the anticipated traffic impact. The proposed traffic engineering improvement is subject to review and approval by the New York City Department of Transportation (DOT). If this measure is deemed infeasible, other potential measures will be considered in consultation with DOT. In the absence of the application of mitigation measures, the impact would remain unmitigated.

As summarized in **Table 4.15-1,** the potential for a significant adverse impact anticipated during the analyzed weekday peak hour would be fully mitigated with implementation of the proposed mitigation measure.

Table 4.15-1
Summary of Lane Groups/Intersections with Potential for Significant Adverse Traffic Impacts

Net Increment	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts	Mitigated Lane Groups/ Intersections	Unmitigated Lane Groups/ Intersections
Weekday AM	8/4	8/4	0/0	0/0	0/0
Weekday Midday	8/4	7/3	1/1	1/1	0/0
Saturday	8/4	8/4	0/0	0/0	0/0

CONSTRUCTION

Construction Traffic

As described in Section 4.14, "Construction-Manhattan," traffic conditions during the period when construction-related traffic is anticipated to be highest were evaluated. The analysis determined that construction traffic associated with peak construction period activity would not have the potential to result in significant adverse traffic impacts.

A Construction Transportation Monitoring Plan (CTMP) will be developed by the Department of Design and Construction (DDC) prior to commencement of construction-related activities. The CTMP will include transportation data collection as well as traffic and pedestrian analyses. The data collection will include traffic and pedestrian counts, worker shift schedules, worker origin-destination and modal split survey data, parking surveys, and truck frequency data. A traffic management plan for the project would be developed as part of the CTMP in order to address the effect of construction-related activity on transportation systems and verify the need for implementing construction-related mitigation measures identified in this EIS or additional measures if warranted. The CTMP would be submitted to DOT and OCMC for review and approval and would be an on-going process for addressing the effects of construction.

Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which traffic operations would be disrupted as a result of street network access accommodations requested to facilitate the construction effort cannot be made at this time. As the design-build process is initiated, an updated assessment of traffic conditions around the project site would be made as part of the CTMP. DDC, through the CTMP, and, in coordination with DOT and OCMC, will identify feasible measures that could mitigate any potential disruptions.

Construction Pedestrians

According to a preliminary assessment of construction generated pedestrian activity, five pedestrian elements were identified as potential impact locations. Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which pedestrian operations would be disrupted as a result of construction activity cannot be made at this time. However, an assessment of pedestrian conditions would be included in the CTMP described above. In the event it is found that measures fully mitigating such temporary impacts are infeasible, then unmitigatable significant adverse impacts could occur at the identified pedestrian elements.

B. HISTORIC AND CULTURAL RESOURCES

ARCHAEOLOGICAL RESOURCES

As described in Section 4.5, "Historic and Cultural Resources-Manhattan," the study area for archaeological resources includes those areas that would be disturbed by subsurface excavation and therefore includes the project site—including the MDC North Tower at 124 White Street (Block 198, part of Lot 1) and the MDC South Tower at 125 White Street (Block 167, Lot 1)—and the Proposed Demapping Area (above- and below-grade volumes of White Street between Centre Street and Baxter Street). A Phase 1A Study of the portions of the project site where subsurface disturbance is proposed was prepared by AKRF in October 2018 to determine the extent to which it may be archaeologically sensitive.[1] At the time of the preparation of the Phase 1A Study, the Manhattan Site included 125 White Street (Block 167, part of Lot 1) as well as 80 Centre Street (Block 166, Lot 27) and the streetbed of Hogan Place, which have since been removed from the proposed project. A Supplemental Phase 1A Study was prepared by AKRF in December 2018 that assessed the archaeological sensitivity of 124 White Street (Block 198, Lot 1) and the streetbed of White Street between Centre Street and Baxter Street. This section addresses only the sensitivity determinations made for 124 and 125 White Street and the streetbed of White Street as described in the Phase 1A Study and the Supplemental Phase 1A Study. In a comment letter dated November 21, 2018 (see **Appendix D**), LPC concurred with the conclusions and recommendations of the Phase 1A Study. In a comment letter dated December 19, 2018 (see **Appendix D**), LPC also concurred with the conclusions and recommendations of the Supplemental Phase 1A Study.

The Phase 1A Study and Supplemental Phase 1A Study reached the following conclusions (explained in greater detail in Section 4.5):

- 125 White Street (Block 167, Lot 1): No archaeological sensitivity;
- 124 White Street (Block 198, part of Lot 1): the portion of the site at 124 White Street within the footprint of the existing MDC North Tower is not archaeologically sensitive for archaeological resources; however, there is a slight chance that undisturbed deeply buried precontact resources could be present within the southwestern portion of the project site

[1] AKRF (2018): "New York City Borough-Based Jails Manhattan Site: 80 Centre Street, 125 White Street, and the Streetbed of Hogan Place between Centre and Baxter Streets; Block 166, Lot 27 and Block 167, Part of Lot 1; New York, New York: Phase 1A Archaeological Documentary Study." Prepared for: New York City Department of Correction; East Elmhurst, NY.

outside the footprint of the existing building. Therefore, the southwestern portion of Block 198, Lot 1 was determined to have low sensitivity for archaeological resources associated with the precontact occupation of Manhattan.

- Demapping Area within White Street: undisturbed portions of the streetbed of White Street were determined to have low to moderate sensitivity for archaeological resources associated with the precontact occupation of Manhattan and moderate sensitivity for resources associated with the historic period. Undisturbed areas in the streetbed were defined as locations where no utilities are present or where there is a space of five feet or more between the outer edges of or below existing utilities.

The Phase 1A Study and Supplemental Phase 1A Study recommended additional archaeological analysis within the streetbed of White Street and within the southwestern corner of Block 198, Lot 1, as shown on Figure 4.5-11. The Supplemental Phase 1A Study recommended that additional archaeological analysis in the form of the review of new soil borings, which would be completed as part of the project planning and design phase, be completed in order to determine the extent of disturbance in the southwestern corner of 124 White Street and the White Street streetbed. If the new soil borings reveal that intact peat deposits are not present within the southwestern corner of the site, then that portion of the project site would be considered to have been disturbed as a result of the construction of the existing buildings and no further archaeological analysis would be recommended for 124 White Street as the site would be unlikely to have potential precontact sensitivity and historic fill deposits would be assumed to have been disturbed.

In the event that additional potentially intact peat deposits are identified, then additional archaeological analysis would be warranted in consultation with LPC. Given the potential depth of the deposits, it is possible that an alternative to traditional archaeological testing such as a geoarchaeological study of soil boring cores would be required to further examine these deposits. Prior to the start of any additional analysis, a Work Plan would be prepared and submitted to LPC for review and approval. In the event that the additional analysis confirms the presence of archaeological resources within the areas of archaeological sensitivity as identified in the Supplemental Phase 1A Study, then additional archaeological investigations would be conducted in consultation with LPC. With the completion of the additional archaeological investigations necessary within the areas of archaeological sensitivity and LPC concurrence with the conclusions of those investigations, the proposed project would not result in significant adverse impacts on archaeological resources.

In the event that the final project plans result in disturbance to undisturbed portions of the White Street streetbed, then the additional archaeological analysis in the form of Phase 1B archaeological testing or monitoring as recommended by the Supplemental Phase 1A Study would be completed in consultation with LPC. Prior to the start of any additional analysis, a Phase 1B Work Plan would be prepared and submitted to LPC for review and approval. In the event that archaeological testing or monitoring confirms the presence of archaeological resources within the areas of archaeological sensitivity as identified in the Phase 1A study, then additional archaeological investigations (e.g., a Phase 2 Investigation or a Phase 3 Data Recovery as described above) would be conducted in consultation with LPC. The presence of any significant archaeological resources would be determined through additional archaeological investigations and consultation with LPC. With the completion of the additional archaeological investigations necessary within the areas of archaeological sensitivity and LPC concurrence with the conclusions of those investigations, the proposed project would not result in the potential for significant adverse impacts on archaeological resources.

ARCHITECTURAL RESOURCES

As discussed in Section 4.5, "Historic and Cultural Resources-Manhattan," under the proposed project, the MDC South Tower at 125 White Street and MDC North Tower at 124 White Street would be redeveloped with a new, approximately 450-foot-tall detention facility. The MDC South Tower at 125 White Street is the "Prison building" of the Criminal Courts Building at 100 Centre Street, which is S/NR-eligible. Therefore, demolition of 125 White Street would constitute the potential for a significant adverse impact on architectural resources. The Applicant will consult with LPC to develop and implement appropriate mitigation measures to partially mitigate the potential for significant adverse impacts. Mitigation measures are expected to include HABS documentation of the architectural resource including sufficient information about 100 Centre Street, to which it is connected. The HABS would include a historical narrative, architectural description, historic photographs or drawings of the buildings if available, and archival black and white large format photographs. The HABS would be provided to LPC and to an appropriate local repository.

To avoid the potential for direct, physical impacts to nearby historic buildings during construction of the proposed project, a CPP would be developed in coordination with LPC and implemented in consultation with a licensed professional engineer. The CPP would be prepared as set forth in Section 522 of the New York City Environmental Quality Review (*CEQR) Technical Manual* and in compliance with the procedures included in the New York City Department of Building (DOB)'s Technical Policy and Procedure Notices (TPPN) #10/88 and LPC's *Guidelines for Construction Adjacent to a Historic Landmark* and *Protection Programs for Landmark Buildings*.

The CPP would include measures to be implemented during demolition and construction activities required to build the new detention facility on the project site. Additionally, two new pedestrian bridges would be built from the project site to the State/National Register (S/NR)-eligible Criminal Courts Building at 100 Centre Street. Therefore, the CPP would include those properties that are located within 90 feet of the project site and/or would be directly affected, including the Criminal Courts Building at 100 Centre Street, and the buildings of the S/NR-listed Chinatown and Little Italy Historic District as discussed in Section 4.5. The CPP would include provisions for preconstruction inspections, monitoring the buildings for cracks and movement, installation of physical protection as appropriate, and provisions for stopping work if monitoring thresholds are exceeded or damage occurs. In addition, consultation would be undertaken with LPC regarding the design of the new detention facility and how it would connect via pedestrian bridges to the northern façade of 100 Centre Street.

C. TRANSPORTATION

The proposed project would result in the potential for a significant adverse impact to vehicular traffic at one analyzed intersection. The mitigation measure that could address the potential for a traffic impact is discussed below.

TRAFFIC

As described in Section 4.9, the proposed project would result in the potential for significant adverse traffic impact at one study area intersection during the analyzed midday peak hour; specifically, the northbound shared through-right at Center Street and Walker Street. As demonstrated below, the potential for this impact could be mitigated through the implementation of a traffic signal timing modification.

The mitigation measure proposed herein is a standard measure that is routinely identified by the City and considered feasible for implementation. **Table 4.15-2** summarizes the recommended mitigation measure. Implementation of the recommended traffic engineering improvements, specifically traffic signal phasing and/or timing, is subject to review and approval by DOT. If this measure is deemed infeasible, other potential measures will be considered in consultation with DOT. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

Table 4.15-2
Proposed Traffic Mitigation Measures

Intersection	Signal Phase	No Action Signal Timing (Seconds)[1]			Proposed Signal Timing (Seconds)[1]			Recommended Mitigation
		AM	MD	SAT	AM	MD	SAT	
Center Street &	EB	45	45	45	45	45	45	- Transfer 4s of green time from EB to NB in midday.
Walker Street	NB	45	45	45	45	49	45	

Note :
[1]Signal timings shown indicate green plus yellow (including all red) for each phase.

Table 4.15-3 shows the v/c ratios, delays, and levels of service (LOS) for the lane groups at the potentially impacted intersection with implementation of the recommended mitigation measure and compares them with No Action and With Action conditions for the analyzed weekday midday peak hour. According to *CEQR Technical Manual* criteria, a potential impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation condition compared with the No Action condition is no longer deemed significant following the impact criteria described in Section 4.9. **Table 4.15-3** shows that the potential for a significant adverse impact would be fully mitigated during the analyzed weekday midday peak hour.

Table 4.15-3
Action-With-Mitigation Conditions at Potentially Impacted Intersections
Weekday AM Peak Hour

Intersection	No-Action Weekday Midday					With-Action Weekday Midday					Action-with-Mitigation Weekday Midday				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Center Street &	EB	LT	0.51	21.5	C	EB	LT	0.52	21.7	C	EB	LT	0.58	26.2	C
Walker Street (signalized)	NB	TR	0.98	55.5	E	NB	TR	1.09	88.0	F	NB	TR	0.99	54.9	D

Note:
- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
- Shading denotes potential significant adverse impact per *CEQR Technical Manual* criteria.

D. CONSTRUCTION

CONSTRUCTION TRAFFIC

As described in Section 4.14, "Construction-Manhattan," traffic conditions during the period when construction-related traffic is anticipated to be highest were evaluated. The analysis determined that construction traffic associated with peak construction period activity would not have the potential to result in significant adverse traffic impacts.

A Construction Transportation Monitoring Plan (CTMP) will be developed by the Department of Design and Construction (DDC) prior to commencement of construction-related activities. The

CTMP will include transportation data collection as well as traffic and pedestrian analyses. The data collection will include traffic and pedestrian counts, worker shift schedules, worker origin-destination and modal split survey data, parking surveys, and truck frequency data. A traffic management plan for the project would be developed as part of the CTMP in order to address the effect of construction-related activity on transportation systems and verify the need for implementing temporary mitigation measures identified in this EIS or additional measures if warranted. The CTMP would be submitted to DOT and OCMC for review and approval and would be an on-going process for addressing the effects of construction.

As the project will utilize a design-build model, the level of specificity necessary to quantify the extent to which traffic operations would be disrupted as a result of street network access accommodations requested to facilitate the construction effort cannot be made at this time. As the design-build process is initiated, an updated assessment of traffic conditions around the project site would be made as part of the CTMP. The CTMP, in coordination with DOT and OCMC, will identify feasible measures that could mitigate any potential disruptions.

CONSTRUCTION PEDESTRIANS

According to a preliminary assessment of construction generated pedestrian activity, five pedestrian elements were identified as potential impact locations. As the project will utilize a design-build model, the level of specificity necessary to quantify the extent to which pedestrian operations would be disrupted as a result of construction activity cannot be made at this time. However, an assessment of pedestrian conditions would be included in the CTMP described above. Mitigation measures to address potential impacts to pedestrian elements (sidewalks, corners and crosswalks) typically include signal timing changes, sidewalk and crosswalk widenings, or the relocation of street furniture and obstructions. In the event it is found that measures fully mitigating such temporary impacts are infeasible, then unmitigatable significant adverse impacts could occur at the identified pedestrian elements.

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Section 4.16: Unavoidable Adverse Impacts-Manhattan

A. INTRODUCTION

Unavoidable significant adverse impacts are defined as those that meet the following two criteria:

- There are no reasonably practicable mitigation measures to eliminate the impact; and
- There are no reasonable alternatives to the proposed actions that would meet the purpose and need for the actions, eliminate the impact, and not cause other or similar significant adverse impacts.

As described in Section 4.15, "Mitigation," a number of the potential impacts identified for the proposed project could be mitigated. However, as described below, in some cases, impacts from the proposed project would not be fully mitigated.

B. HISTORIC AND CULTURAL RESOURCES

ARCHITECTURAL RESOURCES

As discussed in Section 4.5, "Historic and Cultural Resources-Manhattan," under the proposed project, the MDC South Tower (Prison building) at 125 White Street would be redeveloped with a new, approximately 450-foot-tall detention facility. The Prison building on the project site is part of the Criminal Courts Building at 100 Centre Street, which is S/NR-eligible. Therefore, demolition of 125 White Street would constitute a potential significant adverse impact on architectural resources. The Applicant will consult with LPC to develop and implement appropriate mitigation measures to partially mitigate the potential for significant adverse impact. Mitigation measures are expected to include Historic American Buildings Survey (HABS) documentation of the architectural resource including sufficient information about 100 Centre Street, to which it is connected.

To avoid the potential for direct, physical impacts to nearby historic buildings during construction of the proposed project, a Construction Protection Plan (CPP) would be developed in coordination with LPC and implemented in consultation with a licensed professional engineer. The CPP would describe the measures to be implemented to protect the Criminal Courts Building at 100 Centre Street and other affected architectural resources during construction of the proposed project. Additionally, two new pedestrian bridges would be built from the project site to the State/National Register (S/NR)-eligible Criminal Courts Building at 100 Centre Street. Therefore, the CPP would include those properties that are located within 90 feet of the project site and/or would be directly affected, including the Criminal Courts Building at 100 Centre Street, and the buildings of the S/NR-listed Chinatown and Little Italy Historic District as discussed in Section 4.5. In addition, consultation would be undertaken with LPC regarding the design of the new detention facility and how it would connect via pedestrian bridges to the northern façade of 100 Centre Street.

C. TRANSPORTATION

The proposed project would result, as detailed below, in the potential for a significant adverse impact to vehicular traffic at one analyzed intersection during the analyzed weekday midday peak hour. Mitigation measures that could address these potential for traffic impacts are discussed below. In addition, as discussed in Section 4.9, "Transportation-Manhattan," there is no anticipated potential for transit, pedestrian, or parking-related impacts likely as a result of the proposed project; therefore, those transportation modes are not discussed below.

TRAFFIC

As described in Section 4.9, "Transportation-Manhattan", the proposed project would have the potential to result in a significant adverse traffic impact at one study area intersection during the analyzed midday peak hour, specifically the northbound shared through-right lane group at the intersection of Centre Street and Walker Street. No potential for significant adverse impacts are anticipated during the analyzed weekday AM and Saturday peak hours. Implementation of a signal timing change is being proposed and would provide mitigation for the anticipated traffic impact. The proposed traffic engineering improvement is subject to review and approval by the New York City Department of Transportation (DOT). If this measure is deemed infeasible, other potential measures will be considered in consultation with DOT. In the absence of the application of mitigation measures, the impact would remain unmitigated.

The potential for a significant adverse impact anticipated during the analyzed weekday peak hour would be fully mitigated with implementation of the proposed mitigation measure.

D. CONSTRUCTION

TRAFFIC CONSTRUCTION

As described in Section 4.14, "Construction-Manhattan," traffic conditions during the period when construction-related traffic is anticipated to be highest were evaluated. The analysis determined that construction traffic associated with peak construction period activity would not have the potential to result in significant adverse traffic impacts.

A Construction Transportation Monitoring Plan (CTMP) will be developed by the Department of Design and Construction (DDC) prior to commencement of construction-related activities. The CTMP will include transportation data collection as well as traffic and pedestrian analyses. The data collection will include traffic and pedestrian counts, worker shift schedules, worker origin-destination and modal split survey data, parking surveys, and truck frequency data. A traffic management plan for the project would be developed as part of the CTMP in order to address the effect of construction-related activity on transportation systems and verify the need for implementing construction-related mitigation measures identified in this EIS or additional measures if warranted. The CTMP would be submitted to DOT and OCMC for review and approval and would be an on-going process for addressing the effects of construction.

Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time, the level of specificity necessary to quantify the extent to which traffic operations would be disrupted as a result of street network access accommodations requested to facilitate the construction effort cannot be made at this time. As the design-build process is initiated, an updated assessment of traffic conditions around the project site would be made as part of the CTMP. DDC, through the

CTMP, and in coordination with DOT and OCMC, will identify feasible measures that could mitigate any potential disruptions.

PEDESTRIANS CONSTRUCTION

According to a preliminary assessment of construction generated pedestrian activity, five pedestrian elements were identified as potential impact locations. Because detailed plans for the proposed detention facility and detailed construction logistics, including any necessary street or sidewalk closures, are not known at this time the level of specificity necessary to quantify the extent to which pedestrian operations would be disrupted as a result of construction activity cannot be made at this time. However, an assessment of pedestrian conditions would be included in the CTMP described above. In the event it is found that measures fully mitigating such temporary impacts are infeasible, then unmitigatable significant adverse impacts could occur at the identified pedestrian elements.

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Chapter 6: Greenhouse Gas Emissions and Climate Change

A. INTRODUCTION

This chapter evaluates the greenhouse gas (GHG) emissions that would be generated by the operation of the proposed project, and the proposed project's consistency with the citywide GHG reduction goals. This chapter also evaluates the resilience of the proposed project to climate conditions throughout the lifetime of the project.

As discussed in the *City Environmental Quality Review* (*CEQR) Technical Manual*, global climate change is projected to have wide-ranging effects on the environment, including rising sea levels, increases in temperature, and changes in precipitation levels. Although this is occurring on a global scale, the environmental effects of climate change are also likely to be experienced at the local level. New York City's sustainable development policy, starting with PlaNYC, and continued and enhanced in OneNYC, established sustainability initiatives and goals for greatly reducing GHG emissions and for adapting to climate change in the City.

Per the *CEQR Technical Manual,* the citywide GHG reduction goal is currently the most appropriate standard by which to analyze a project under CEQR. The *CEQR Technical Manual* recommends that a GHG consistency assessment be undertaken for any project preparing an environmental impact statement expected to result in 350,000 square feet or more of development and other energy-intense projects. The proposed project would result in approximately 6 million gross square feet (gsf) of developed floor area. Accordingly, a GHG consistency assessment is provided.

PRINCIPAL CONCLUSIONS

GREENHOUSE GAS EMISSIONS

The building energy use and vehicle use associated with the proposed project sites would result in up to approximately 38 to 39 thousand metric tons of carbon dioxide equivalent (CO_2e) emissions per year.

The *CEQR Technical Manual* defines five goals by which a project's consistency with the City's emission reduction goal is evaluated: (1) efficient buildings; (2) clean power; (3) sustainable transportation; (4) construction operation emissions; and (5) building materials carbon intensity.

Specific energy efficiency measures and design elements that may be implemented have been evaluated, and are required at a minimum to achieve the energy efficiency requirements of the New York City Building Code. Furthermore, design elements that may be implemented as part of the proposed project would reduce the energy demand by up to 44 percent below this requirement. Therefore, the proposed project would support the goal identified in the *CEQR Technical Manual* of building efficient buildings.

The inclusion of a 200 to 400 ton capacity ground source heating and cooling system (Design Option 1) is under consideration for each of the project sites. The system would reduce on-site natural gas consumption required for heating through the use of ground source heat pumps (GSHP) to transfer heat to and from onsite ground bores. Furthermore, electric boilers would be used for supplemental heating in order to eliminate the demand for on-site natural gas consumption. Implementation of Design Option 1 could decrease net building energy GHG emissions by approximately 6.3 percent, representing approximately 3.4 percent of the total potential GHG emissions for the proposed project.

Additionally, the inclusion of a cogeneration system (Design Option 2) is under consideration for each of the project sites. If included, the system would produce electricity on-site while providing heat as a byproduct, and would reduce the electricity demand from the grid while burning natural gas on-site. The heat produced would offset some or all of the natural gas required to provide heat and hot water. Implementation of Design Option 2 could decrease net building energy GHG emissions by approximately 2.2 percent, representing approximately 1.2 percent of the total potential GHG emissions for the proposed project.

The proposed project would also support the other GHG goals by virtue of their proximity to public transportation, reliance on natural gas, commitment to construction air quality controls and the fact that as a matter of course, construction in New York City uses recycled steel and includes cement replacements. All of these factors demonstrate that the proposed project would support the GHG reduction goal.

Therefore, based on the commitment to energy efficiency and by virtue of location and nature, the proposed project would be consistent with all of the City's emissions reduction goals, as defined in the *CEQR Technical Manual*.

RESILIENCE TO CLIMATE CHANGE

The Bronx, Brooklyn, and Queens sites are not within projected future flood hazard areas and therefore are not evaluated for resilience to climate change.

The Manhattan Site is located within the Coastal Zone Boundary and is within projected future flood hazard areas identified by New York City.[1]

Based on conceptual plans, it is expected that the ground-floor elevation of the proposed project on the Manhattan Site would be approximately 18 feet NAVD88, which would be higher than the New York City Panel on Climate Change (NPCC)'s "high" future 2100 base flood elevation (BFE) of 16.25 feet. In addition, to the extent feasible, future design development for the building on the Manhattan Site would account for future flood levels and locate critical mechanical features such as heating, cooling, electrical, and telecommunication on building floors above NPCC's "high" future 2080s BFE of 14.8 feet or 2100 BFE of 16.25 feet. Those critical features that require an elevation below the BFE (such as water/sewer service and potentially other features conveyed below ground to a building's cellar level) could be dry-floodproofed either from the outset of the building's construction or at such time as the BFE reaches the proposed site, projected to be the 2080s or later. Similarly, vulnerable features (habitable space above the building's lowest floor, such as detention housing) would be located above the future BFEs by the 2080s or 2100. In addition, the proposed detention facilities would be equipped with emergency electrical generators

[1] NYC. *NYC Flood Hazard Mapper*. Accessed 6/13/2018.

and fuel storage to provide power for several days of power outages, as well as food supplies for seven days of operation. In the event of a power loss, the proposed facilities are intended to remain fully operational.

B. GREENHOUSE GAS EMISSIONS

POLLUTANTS OF CONCERN

GHGs are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds. The general warming of the Earth's atmosphere caused by this phenomenon is known as the "greenhouse effect." Water vapor, carbon dioxide (CO_2), nitrous oxide (N_2O), methane, and ozone are the primary GHGs in the Earth's atmosphere.

There are also a number of entirely anthropogenic GHGs in the atmosphere, such as halocarbons and other chlorine- and bromine-containing substances, which damage the stratospheric ozone layer (and contribute to the "ozone hole"). Since these compounds are being replaced and phased out due to the 1987 Montreal Protocol, there is no need to address them in GHG assessments for most projects. Although ozone itself is also a major GHG, it does not need to be assessed as such at the project level since it is a rapidly reacting chemical and efforts are ongoing to reduce ozone concentrations as a criteria pollutant (see Sections 2.11, 3.9, 4.10, and 5.10, "Air Quality"). Similarly, water vapor is of great importance to global climate change, but is not directly of concern as an emitted pollutant since the negligible quantities emitted from anthropogenic sources are inconsequential.

CO_2 is the primary pollutant of concern from anthropogenic sources. Although not the GHG with the strongest effect per molecule, CO_2 is by far the most abundant and, therefore, the most influential GHG. CO_2 is emitted from any combustion process (both natural and anthropogenic); from some industrial processes such as the manufacture of cement, mineral production, metal production, and the use of petroleum-based products; from volcanic eruptions; and from the decay of organic matter. CO_2 is removed ("sequestered") from the lower atmosphere by natural processes such as photosynthesis and uptake by the oceans. CO_2 is included in any analysis of GHG emissions.

Methane and N_2O also play an important role since the removal processes for these compounds are limited and because they have a relatively high impact on global climate change as compared with an equal quantity of CO_2. Emissions of these compounds, therefore, are included in GHG emissions analyses when the potential for substantial emission of these gases exists.

The *CEQR Technical Manual* lists six GHGs that could potentially be included in the scope of a GHG analysis: CO_2, N_2O, methane, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). This analysis focuses mostly on CO_2, N_2O, and methane. There are no significant direct or indirect sources of HFCs, PFCs, or SF_6 associated with the proposed project.

To present a complete inventory of all GHGs, component emissions are added together and presented as CO_2e emissions—a unit representing the quantity of each GHG weighted by its effectiveness using CO_2 as a reference. This is achieved by multiplying the quantity of each GHG emitted by a factor called global warming potential (GWP). GWPs account for the lifetime and

the radiative forcing[2] of each chemical over a period of 100 years (e.g., CO_2 has a much shorter atmospheric lifetime than SF_6, and therefore has a much lower GWP). The GWPs for the main GHGs discussed here are presented in **Table 6-1**.

Table 6-1
Global Warming Potential (GWP) for Major GHGs

Greenhouse Gas	100-year Horizon GWP
Carbon Dioxide (CO_2)	1
Methane (CH_4)	21
Nitrous Oxide (N_2O)	310
Hydrofluorocarbons (HFCs)	140 to 11,700
Perfluorocarbons (PFCs)	6,500 to 9,200
Sulfur Hexafluoride (SF_6)	23,900

Note: The GWPs presented above are based on the Intergovernmental Panel on Climate Change's (IPCC) Second Assessment Report (SAR) to maintain consistency in GHG reporting. The IPCC has since published updated GWP values that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. In some instances, if combined emission factors were used from updated modeling tools, some slightly different GWP may have been used for this study. Since the emissions of GHGs other than CO_2 represent a very minor component of the emissions, these differences are negligible.

Source: 2014 *CEQR Technical Manual.*

POLICY, REGULATIONS, STANDARDS, AND BENCHMARKS FOR REDUCING GHG EMISSIONS

Because of the growing consensus that GHG emissions resulting from human activity have the potential to profoundly impact the Earth's climate, countries around the world have undertaken efforts to reduce emissions by implementing both global and local measures addressing energy consumption and production, land use, and other sectors. Although the U.S. has not ratified the international agreements that set emissions targets for GHGs, in December 2015, the U.S. signed the international Paris Agreement[3] that pledges deep cuts in emissions, with a stated goal of reducing annual emissions to a level that would be between 26 and 28 percent lower than 2005 emissions by 2025.[4] On June 1st, 2017, The President announced that "the United States will withdraw from the Paris Climate Accord."[5]

Regardless of the Paris Agreement, the U.S. Environmental Protection Agency (USEPA) is required to regulate GHGs under the Clean Air Act and has begun preparing and implementing regulations. In coordination with the National Highway Traffic Safety Administration (NHTSA),

[2] *Radiative forcing* is a measure of the influence a gas has in altering the balance of incoming and outgoing energy in the Earth-atmosphere system and is an index of the importance of the gas as a GHG.

[3] Conference of the Parties, 21st Session. *Adoption of The Paris Agreement, decision -/CP.21*. Paris, December 12, 2015.

[4] United States of America. *Intended Nationally Determined Contributions (INDCs)* as submitted. March 31, 2015.

[5] Under the Agreement, countries are allowed to withdraw four years from the date the agreement entered into force—meaning the United States can officially withdraw on November 4, 2020. However, given the voluntary nature of the agreement, any action in the U.S. may or may not occur regardless of this status.

USEPA currently regulates GHG emissions from newly manufactured on-road vehicles. In addition, USEPA regulates transportation fuels via the Renewable Fuel Standard program, which will phase in a requirement for the inclusion of renewable fuels increasing annually up to 36.0 billion gallons in 2022. In 2015, USEPA also finalized rules to address GHG emissions from both new and existing power plants that would, for the first time, set national limits on the amount of carbon pollution that power plants can emit. The Clean Power Plan sets carbon pollution emission guidelines and performance standards for existing, new, and modified and reconstructed electric utility generating units. On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review. In October 2017, USEPA proposed to repeal the Clean Power Plan.

There are also regional and local efforts to reduce GHG emissions. In 2009, Governor Paterson issued Executive Order No. 24, establishing a goal of reducing GHG emissions in New York State by 80 percent, compared with 1990 levels, by 2050, and creating a Climate Action Council tasked with preparing a climate action plan outlining the policies required to attain the GHG reduction goal; an interim draft plan has been published.[6] The State is now seeking to achieve some of the emission reduction goals via local and regional planning and projects through its Cleaner Greener Communities and Climate Smart Communities programs. The State has also adopted California's GHG vehicle standards (which are at least as strict as the federal standards).

The New York State Energy Plan outlines the State's energy goals and provides strategies and recommendations for meeting those goals. The latest version of the plan was published in June 2015. The new plan outlines a vision for transforming the state's energy sector that would result in increased energy efficiency (both demand and supply), increased carbon-free power production and cleaner transportation, in addition to achieving other goals not related to GHG emissions. The 2015 plan also establishes new targets: (1) reducing GHG emissions in New York State by 40 percent, compared with 1990 levels, by 2030; (2) providing 50 percent of electricity generation in the state from renewable sources by 2030; and (3) increasing building energy efficiency gains by 600 trillion British thermal units (Btu) by 2030.

New York State has also developed regulations to cap and reduce CO_2 emissions from power plants to meet its commitment to the Regional Greenhouse Gas Initiative (RGGI). Under the RGGI agreement, the governors of nine northeastern and Mid-Atlantic States have committed to regulate the amount of CO_2 that power plants are allowed to emit, gradually reducing annual emissions to half the 2009 levels by 2020, and reducing an additional 30 percent from 2020 to 2030. The RGGI states and Pennsylvania have also announced plans to reduce GHG emissions from transportation, through the use of biofuel, alternative fuel, and efficient vehicles

Many local governments worldwide, including New York City, are participating in the Cities for Climate Protection™ campaign and have committed to adopting policies and implementing quantifiable measures to reduce local GHG emissions, improve air quality, and enhance urban livability and sustainability. New York City's long-term comprehensive plan for a sustainable and resilient New York City, which began as PlaNYC 2030 in 2007, and continues to evolve today as OneNYC, includes GHG emissions reduction goals, many specific initiatives that can result in emission reductions, and initiatives aimed at adapting to future climate change impacts. The goal to reduce citywide GHG emissions to 30 percent below 2005 levels by 2030 ("30 by 30") was

[6] New York State Climate Action Council. *New York State Climate Action Plan Interim Report*. November 2010.

codified by Local Law 22 of 2008, known as the New York City Climate Protection Act (the "GHG reduction goal")[7] The City has also announced a longer-term goal of reducing emissions to 80 percent below 2005 levels by 2050 ("80 by 50"), which was codified by Local Law 66 of 2014, and has published a study evaluating the potential for achieving that goal. More recently, as part of OneNYC, the City has announced a more aggressive goal for reducing emissions from building energy down to 30 percent below 2005 levels by 2025.

In December 2009, the New York City Council enacted four laws addressing energy efficiency in large new and existing buildings, in accordance with PlaNYC. The laws require owners of existing buildings larger than 50,000 square feet to conduct energy efficiency audits and retro-commissioning every 10 years, to optimize building energy efficiency, and to "benchmark" the building energy and water consumption annually, using an USEPA online tool. By 2025, commercial buildings over 50,000 square feet will also require lighting upgrades, including the installation of sensors and controls, more efficient light fixtures, and the installation of submeters, so that tenants can be provided with information on their electricity consumption. The legislation also creates a local New York City Energy Conservation Code, which along with the Energy Conservation Construction Code of New York State (as updated in 2016), requires equipment installed during a renovation to meet current efficiency standards.

To achieve the 80 by 50 goal, the City is convening Technical Working Groups to analyze the GHG reduction pathways from the building sector, power, transportation, and solid waste sectors to develop action plans for these sectors. The members of the Technical Working Groups will develop and recommend the data analysis, interim metrics and indicators, voluntary actions, and potential mandates to effectively achieve the City's emissions reduction goal. In 2016, the City published the building sector Technical Working Group report, which included commitments by the City to change to building energy code and take other measures aimed at substantially reducing GHG emissions.

For certain projects subject to CEQR (e.g., projects with 350,000 gsf or more of development or other energy intense projects), an analysis of the projects' contributions to GHG emissions is required to determine consistency with the City's reduction goal, which is currently the most appropriate standard by which to analyze a project under CEQR, and is therefore applied in this section.

A number of benchmarks for energy efficiency and green building design have also been developed (green building design considerations include factors such as material selection, which affects GHG emissions associated with materials extraction, production, delivery, and disposal.) For example, the LEED system is a benchmark for the design, construction, and operation of high-performance green buildings that includes energy efficiency components. Similarly, Envision is a voluntary system for benchmarking performance and resiliency of physical infrastructure projects. USEPA's Energy Star is a voluntary labeling program designed to identify and promote the construction of new energy efficient buildings, facilities, and homes and the purchase of energy efficient appliances, heating and cooling systems, office equipment, lighting, home electronics, and building envelopes. As mentioned above and discussed in more detail in the analysis below, City capital projects, such as the proposed project, also have green building design and energy requirements under the City's green building standards.

[7] Administrative Code of the City of New York, §24-803.

METHODOLOGY

Climate change is driven by the collective contributions of diverse individual sources of emissions to global atmospheric GHG concentrations. Identifying potential GHG emissions from a proposed action can help decision makers identify practicable opportunities to reduce GHG emissions and ensure consistency with policies aimed at reducing overall emissions. While the increments of criteria pollutants and toxic air emissions are assessed in the context of health-based standards and local impacts, there are no established thresholds for assessing the significance of a project's contribution to climate change. Nonetheless, prudent planning dictates that all sectors address GHG emissions by identifying GHG sources and practicable means to reduce them. Therefore, this section presents the total GHG emissions potentially associated with the proposed project overall, and identifies measures that would be implemented and measures that are still under consideration to limit emissions. (Note that this differs from most other technical areas in that it does not account for only the increment between the condition with and without the proposed project. The reason for that different approach is that to truly account for the incremental emissions only would require speculation regarding where people would live in a No Action condition if residential units are not built at this location, what energy use and efficiency might be like for those alternatives and other related considerations, and similar assumptions regarding commercial and other uses. The focus is therefore on the total emissions associated with the uses, and on the effect of measures to reduce those emissions.)

Estimates of potential GHG emissions associated with the proposed project are based on the methodology presented in the *CEQR Technical Manual*. Estimates of emissions of GHGs from the development have been quantified, including off-site emissions associated with use of electricity, on-site emissions from heat and hot water systems, and emissions from vehicle use associated with the proposed development. GHG emissions that would result from construction are discussed as well. As per the guidance, analysis of building energy is based on the average carbon intensity of electricity in 2008 and in some cases more recent data (see below), which will likely be lower in the 2027 build year and lower still in future years as the fraction of electricity generated from renewable sources continues to increase. Vehicular emission factors will also continue to decrease in future years as vehicle engine efficiency increases and emissions standards continue to decrease, resulting in lower emissions in future years. Since the methodology does not account for future years and other changes described above, it also does not explicitly address potential changes in future consumption associated with climate change, such as increased electricity for cooling, or decreased on-site fuel for heating. Overall, this analysis results in conservatively high estimates of potential GHG emissions.

CO_2 is the primary pollutant of concern from anthropogenic emission sources and is accounted for in the analysis of emissions from all development projects. GHG emissions for gases other than CO_2 are included where practicable or in cases where they comprise a substantial portion of overall emissions. The various GHG emissions are added together and presented as metric tons of carbon dioxide equivalent (CO_2e) emissions per year (see "Pollutants of Concern," above).

BUILDING OPERATIONAL EMISSIONS

Estimates of emissions from building electricity and fuel use were prepared using projections of energy consumption factors developed specifically for the proposed project by the project engineers. City capital projects, such as the proposed project, also have green building design and energy requirements under the City's green building standards. Under Local Law 31 of 2016, new

capital projects for city-owned property are required to be designed to use no more than 50 percent of the current New York City Energy Conservation Code.

The proposed project sites are anticipated to consume 36.2 and 10.4 thousand Btu per year per square foot of development (kBtu/ft^2-yr) of electricity and natural gas, respectively. Consistent with the requirements of Local Law 31, this would be 44 percent of the ASHRAE 90.1-2013—less than the required 50 percent. Since the electricity emissions represent the latest data (2015) and not the future build year (2027), future emissions are expected to be lower as efficiency and renewable energy use continue to increase with the objective of meeting state and city GHG reduction goals. Additionally, the inclusion of all-electric and cogeneration system design options are under consideration.

The ground source heating and cooling alternative (Design Option 1) would reduce the need for on-site natural gas combustion using on site boreholes to provide 200 to 400 tons of heating and cooling capacity. Furthermore, Design Option 1 would use electric boilers to provide supplemental heating to completely eliminate natural gas consumption at the proposed project sites. This would result in an increase to the projected electricity demand factors to 40.2 or 40.8 kBtu/ft^2-yr for the Bronx and Queens Sites or the Brooklyn and Manhattan Sites, respectively.

A second design option under consideration is the inclusion of a cogeneration system at each of the project sites (Design Option 2). If the cogeneration design option were implemented, the cogeneration systems would be sized to meet the buildings domestic hot water demand. Each system would produce electricity on-site while providing heat as a byproduct and would reduce the electricity demand factor to 28.2 kBtu/ft^2-yr. While cogeneration systems would reduce the peak electricity demand at each project site, the systems would increase the amount of on-site natural gas consumption. Furthermore, the heat produced by the cogeneration systems would offset some or all of the natural gas required to provide heat and hot water. The proposed project under the cogeneration alternative was projected to require 20.4 kBtu/ft^2-yr of natural gas.

In addition to the design of the proposed project, the projected GHG emissions of Design Option 1 and 2 have been analyzed.

MOBILE SOURCE EMISSIONS

The number of annual weekday and Saturday vehicle trips by mode (cars, taxis, and trucks) that would be generated by the proposed project was calculated using the transportation planning assumptions developed for the analysis and presented in Sections 2.10, 3.9, 4.9, and 5.9, "Transportation." The assumptions used in the calculation include average daily weekday and Saturday person trips and delivery trips by proposed use, the percentage of vehicle trips by mode, and the average vehicle occupancy. To calculate annual totals, the number of trips on Sundays was assumed to be the same as on Saturday. Travel distances shown in Table 18-6 and 18-7 and associated text of the *CEQR Technical Manual* were used in the calculations of annual vehicle miles traveled by cars, taxis, and trucks. Table 18-8 of the *CEQR Technical Manual* was used to determine the percentage of vehicle miles traveled by road type and the mobile GHG emissions calculator provided with the manual was used to estimate GHG emissions from all trips attributable to the proposed project.

Based on the latest fuel lifecycle model from Argonne National Laboratory,[8] emissions from producing and delivering fuel ("well-to-pump") are estimated to add an additional 25 percent to the GHG emissions from gasoline and 27 percent from diesel. Although upstream emissions (emissions associated with production, processing, and transportation) of all fuels can be substantial and are important to consider when comparing the emissions associated with the consumption of different fuels, fuel alternatives are not being considered for the proposed development, and as per the *CEQR Technical Manual* guidance, the well-to-pump emissions are not considered in the analysis. The assessment of tailpipe emissions only is in accordance with the *CEQR Technical Manual* guidance on assessing GHG emissions and the methodology used in developing the New York City GHG inventory, which is the basis of the GHG reduction goal.

The projected total annual vehicle miles traveled by roadway type, forming the basis for the GHG emissions calculations from mobile sources, are summarized in **Table 6-2**.

Table 6-2
Vehicle Miles Traveled per Year

Roadway Type	Passenger	Taxi	Truck
Manhattan			
Local	352,852	42,974	292,426
Arterial	769,858	93,761	638,021
Interstate/Expressway	481,162	58,600	398,763
Bronx, Brooklyn, and Queens			
Local	1,970,280	172,229	865,121
Arterial	4,039,074	353,070	1,773,499
Interstate/Expressway	3,842,046	335,847	1,686,987
Total	**11,455,272**	**1,056,480**	**5,654,816**

CONSTRUCTION EMISSIONS

A description of construction activities is provided in Sections 2.15, 3.14, 4.14, and 5.14, "Construction Impacts." Consistent with CEQR practice, emissions associated with construction have not been estimated explicitly for the proposed project, but analyses of similar projects have shown that construction emissions (both direct and emissions embedded in the production of materials, including on-site construction equipment, delivery trucks, and upstream emissions from the production of steel, rebar, aluminum, and cement used for construction) are equivalent to the total operational emissions over approximately 5 to 10 years.

EMISSIONS FROM SOLID WASTE MANAGEMENT

The proposed project would not fundamentally change the City's solid waste management system. Therefore, as per the *CEQR Technical Manual*, the GHG emissions from solid waste generation, transportation, treatment, and disposal are not quantified.

[8] Based on GREET1_2016 model from Argonne National Laboratory.

PROJECTED GHG EMISSIONS

BUILDING OPERATIONAL EMISISONS

The fuel consumption and electricity use, emission factors, and resulting GHG emissions associated with building energy uses are presented in detail in **Table 6-3**. The proposed project may include either ground source heating and cooling (Alternative 1) or a cogeneration system (Alternative 2) at each project site; therefore, emissions with the two alternatives are presented as a range in **Table 6-4**.

Table 6-3
Annual Building Operational GHG Emissions
(metric tons CO_2e)

Site	Natural Gas 53.196 Kg CO_2e/MMBtu[1]	Grid Electricity 76.405 Kg CO_2e/MMBtu[2]	Total Emissions
Bronx Site*	15,080 MMBtu	52,490 MMBtu	6,278
Brooklyn Site	14,560 MMBtu	50,680 MMBtu	4,647
Manhattan Site	14,352 MMBtu	49,956 MMBtu	4,580
Queens Site	17,732 MMBtu	61,721 MMBtu	5,659
		Total:	**21,164**

Notes:
*Natural gas and electricity energy consumption estimated for the Bronx Site do not include the proposed mixed-use building. Emissions for the mixed-use building were based on development square footage and are included in the total building emissions.
Totals may not sum due to rounding.
Per *CEQR Technical Manual* guidance, electricity emissions represent the latest data (2015) and not the build year (2027). Future emissions are expected to be lower.
Sources:
[1] *CEQR Technical Manual*
[2] The City of New York Mayor's Office of Long-Term Planning and Sustainability. *Inventory of New York City Greenhouse Gas Emissions in 2015*. September 2016. Note that this factor represents a correction of the factor presented in the 2014 *CEQR Technical Manual*.

MOBILE SOURCE EMISSIONS

The mobile-source-related GHG emissions from the proposed project are presented in detail in **Table 6-5**. In addition to the direct emissions included in the analysis, an additional approximately 25 percent would be emitted upstream, associated with fuel extraction, production, and delivery.

Table 6-4
Design Options—Total Annual Building Operational GHG Emissions (metric tons CO_2e)

Alternative	Natural Gas 53.196 Kg CO_2e/MMBtu[1]	Grid Electricity 76.405 Kg CO_2e/MMBtu[2]	Total Emissions
Proposed Project	61,724 MMBtu	214,847 MMBtu	21,164
Design Option 1—GSHP & Electric Boilers	0 MMBtu	240,255 MMBtu	19,822
Design Option 2—Cogeneration	121,074 MMBtu	167,367 MMBtu	20,694

Notes:
Totals may not sum due to rounding.
Per 2014 *CEQR Technical Manual* guidance, electricity emissions represent the latest data (2015) and not the future build year (2027). Future emissions are expected to be lower.
Sources:
[1] 2014 *CEQR Technical Manual*
[2] The City of New York Mayor's Office of Long-Term Planning and Sustainability. *Inventory of New York City Greenhouse Gas Emissions in 2015*. September 2016.Note that this factor represents a correction of the factor presented in the 2014 *CEQR Technical Manual*.

Table 6-5
Annual Mobile Source Emissions (metric tons CO_2e, 2021)

Site	Use	Passenger Vehicle	Taxi	Truck	Total
Bronx Site*	Detention Facility Staff	1,069	60	2,549	*3,677*
	Detention Facility Visitors	408	29	0	*437*
	Court	108	12	28	*148*
	Community Facility	29	93	30	*152*
	Local Retail	264	0	324	*588*
	Residential	231	17	320	*568*
	Subtotal	*2,110*	*211*	*3,251*	*5,572*
Brooklyn Site	Detention Facility Staff	944	94	2,549	*3,587*
	Detention Facility Visitors	284	18	0	*302*
	Local Retail	204	0	221	*425*
	Subtotal	*1,432*	*112*	*2,770*	*4,314*
Manhattan Site	Detention Facility Staff	641	28	2,631	*3,301*
	Detention Facility Visitors	184	29	0	*213*
	Local Retail	52	38	152	*242*
	Subtotal	877	96	2,783	*3,756*
Queens Site	Detention Facility Staff	1,111	55	2,549	*3,715*
	Detention Facility Visitors	503	18	0	*522*
	Community Facility	29	10	204	*242*
	Subtotal	*1,634*	*83*	*2,753*	*4,479*
Total		**6,062**	**502**	**11,557**	***18,121***

Note:
* Bronx Site includes the proposed mixed-use building adjacent to the proposed Bronx detention facility.
Source: AKRF, Inc., for the *NYC Borough-Based Jail System EIS*, 2018.

SUMMARY

A summary of GHG emissions by source type is presented in **Table 6-6**. The proposed project is not expected to fundamentally change the City's solid waste management system, and therefore emissions associated with solid waste are not presented.

Table 6-6
Summary of Annual GHG Emissions, 2021 (metric tons CO_2e)

Site	Building Operations	Mobile	Total
Bronx Site*	5,919 to 6,278	5,572	11,491 to 11,850
Brooklyn Site	4,364 to 4,647	4,314	8,678 to 8,961
Manhattan Site	4,302 to 4,580	3,756	8,058 to 8,336
Queens Site	5,237 to 5,659	4,479	9,716 to 10,138
Total	**19,822 to 21,164**	**18,121**	**37,943 to 39,285**

Note:
* Bronx Site includes the proposed mixed-use development adjacent to the proposed Bronx detention facility. The range of results and totals represent the range of emission associated with the various building alternatives included. See Table 6-4.
Source: AKRF, Inc., for the *NYC Borough-Based Jail System EIS*, 2018.

The operational emissions from building energy use include on-site emissions from fuel consumption as well as emissions associated with the production and delivery of the electricity to be used on-site.

ELEMENTS THAT WOULD REDUCE GHG EMISSIONS

In general, dense, mixed-use development with access to transit and existing roadways is consistent with sustainable land use planning and smart growth strategies to reduce the carbon footprint of new development. These features and other measures currently under consideration are discussed in this section, addressing the PlaNYC/OneNYC goals as outlined in the *CEQR Technical Manual*. The implementation of the various design measures and features described would result in development that is consistent with the City's emissions reduction goal, as defined in the *CEQR Technical Manual*.

BUILD EFFICIENT BUILDINGS

The proposed project is currently evaluating the specific energy efficiency measures and design elements that may be implemented, and are required at a minimum to achieve the energy efficiency requirements of the New York City Building code. In 2016, as part of the City's implementation of strategies aimed at achieving the OneNYC GHG reduction goals, the City adopted the 2016 New York City Energy Conservation Construction Code (NYCECCC), which substantially increased the stringency of the building energy efficiency requirements and adopted the ASHRAE 90.1-2013 standard as a benchmark. Furthermore, under Local Law 31 of 2016, new capital projects for city-owned property are required to be designed to use no more than 50% of the current New York City Energy Conservation Code.

In 2016, the City also published the findings of the Buildings Technical Working Group (TWG) convened by the City to identify the pathway to achieving the GHG reduction goals in the building

sector;[9] should the measures identified by the Buildings TWG or other measures not yet implemented be adopted by the City in the future, they may apply to the proposed projects similar to any new building (if prior to building approval) or existing building (after construction) and the proposed project would implement any measures required under such programs.

The proposed project would further increase energy efficiency at the proposed project sites through the implementation high performance architectural measures (including designs to exteriors, glazing, and water systems), HVAC improvements (including heat recovery, increased air handling temperature transfer efficiencies, improved insulation, and implementation of low pressure drop fan systems), and central plant improvements (including additional heat recovery, using high efficiency condensing boilers, and thermal energy storage). Therefore, the proposed project would support the goal identified in the *CEQR Technical Manual* of building efficient buildings.

USE CLEAN POWER

The proposed project would use natural gas, a lower carbon fuel, for the normal operation of the heat and hot water systems and, if implemented, for the cogeneration system. Furthermore, if implemented, the GSHP and electric boiler system would fully eliminate the demand for on-site natural gas consumption.

TRANSIT-ORIENTED DEVELOPMENT AND SUSTAINABLE TRANSPORTATION

The proposed project sites are located in areas well supported by many transit options: several subway options are located within a 10 minute-walk from the Bronx Site (the Cypress Avenue and East 143rd Street No. 6 subway stations), Brooklyn Site (Hoyt-Schermerhorn A/C/G subway station and Bergen Street F/G subway station), Manhattan Site (Canal Street R/W/N/Q6/J/Z subway station, City Hall R/W subway station, Chambers Street J/Z subway station, and Brooklyn Bridge City Hall Nos. 4/5/6 subway station), and Queens Site (Union Turnpike – Kew Gardens E/F subway station). Additionally, the sites are located within five blocks from the Bx17, Bx33, M9, M22, M55, M103, B25, B26, B38, B41, B45, B52, B57, B61, B63, B65, B103, Q10, Q20A Q37, Q44, Q46, and Q60 buses.

REDUCE CONSTRUCTION OPERATION EMISSIONS

Construction specifications would include an extensive diesel emissions reduction program, as described in detail in Sections 2.15, 3.13, 4.14, and 5.14, "Construction Impacts," including diesel particle filters for large construction engines and other measures. These measures would reduce particulate matter emissions; while particulate matter is not included in the list of standard GHGs ("Kyoto gases"), recent studies have shown that black carbon—a constituent of particulate matter—may play an important role in climate change.

USE BUILDING MATERIALS WITH LOW CARBON INTENSITY

Recycled steel would most likely be used for most structural steel since the steel available in the region is mostly recycled. Some cement replacements such as fly ash and/or slag may also be used, and concrete content would be optimized to the extent feasible.

[9] The City of New York. Technical Working Group Report: Transforming New York City Buildings for a Low-Carbon Future. 2016.

C. RESILIENCE TO CLIMATE CHANGE

The Waterfront Revitalization Program (WRP)[10] addresses climate change and sea-level rise. The WRP requires consideration of climate change and sea-level rise in planning and design of development within the defined Coastal Zone Boundary (the proposed project is within that zone). As set forth in more detail in the *CEQR Technical Manual*, the provisions of the WRP are also applied by the New York City Department of City Planning (DCP) and other city agencies when conducting environmental review.

The Bronx, Brooklyn, and Queens sites are not within projected future flood hazard areas and therefore are not evaluated for resilience to climate change. The Manhattan Site is within the Coastal Zone Boundary. The proposed project's consistency with WRP policies at the Manhattan Site is described in Section 4.1, "Land Use, Zoning, and Public Policy."

Furthermore, the Manhattan Site is within projected future flood hazard areas identified by New York City.[11] Therefore, the potential effects of global climate change on the sites are considered and measures that would be implemented as part of the project to improve resilience to climate change are identified.

DEVELOPMENT OF POLICY TO IMPROVE CLIMATE CHANGE RESILIENCE

In recognition of the important role that the federal government has to play to address adaptation to climate change, a federal executive order signed October 5, 2009 charged the Interagency Climate Change Adaptation Task Force, composed of representatives from more than 20 federal agencies, with recommending policies and practices that can reinforce a national climate change adaptation strategy. The 2011 progress report by the Task Force included recommendations to build resilience to climate change in communities by integrating adaptation considerations into national programs that affect communities, facilitating the incorporation of climate change risks into insurance mechanisms, and addressing additional cross-cutting issues, such as strengthening resilience of coastal, ocean, and Great Lakes communities.[12] In February 2013, federal agencies released Climate Change Adaptation Plans for the first time. The Federal Infrastructure Adaptation Plan and related Presidential executive orders that defined an appropriate approach to designing for future potential conditions have since been revoked, and no new guidance has been issue in their place to date.

The New York State Sea Level Rise Task Force was created to assess potential impacts on the state's coastlines from rising seas and increased storm surge. The Task Force prepared a report of its findings and recommendations including protective and adaptive measures.[13] The recommendations are to provide more protective standards for coastal development, wetlands protection, shoreline armoring, and post-storm recovery; to implement adaptive measures for habitats; integrate climate change adaptation strategies into state environmental plans; and amend

[10] City of New York Department of City Planning. *The New York City Waterfront Revitalization Program*. October 30, 2013. Approved by NY State Department of State, February 3, 2016.

[11] NYC. *NYC Flood Hazard Mapper*. Accessed 6/13/2018.

[12] The White House Council on Environmental Quality. *Progress Report of the Interagency Climate Change Adaptation Task Force: Federal Actions for a Climate Resilient Nation*. October 2011.

[13] New York State Sea Level Rise Task Force. *Report to the Legislature*. December 2010.

local and state regulations or statutes to respond to climate change. The Task Force also recommended the formal adoption of projections of sea-level rise.

The New York State Climate Action Plan Interim Report identified a number of policy options and actions that could increase the climate change resilience of natural systems, the built environment, and key economic sectors—focusing on agriculture, vulnerable coastal zones, ecosystems, water resources, energy infrastructure, public health, telecommunications and information infrastructure, and transportation.[14] New York State's Community Risk and Resiliency Act (CRRA)[15] requires that applicants for certain State programs demonstrate that they have taken into account future physical climate risks from storm surges, sea-level rise and flooding, and required NYSDEC to establish official State sea-level rise projections. In February 2017, NYSDEC adopted a rule (6 NYCRR Part 490) defining the existing projections for use. These projections provide the basis for State adaptation decisions and are available for use by all decision makers. CRRA applies to specific State permitting, funding and regulatory decisions, including smart growth assessments; funding for wastewater treatment plants; siting of hazardous waste facilities; design and construction of petroleum and chemical bulk storage facilities; oil and gas drilling, and State acquisition of open space. NYSDEC published draft implementation guidance on June 20, 2018, addressing sea level rise and increased precipitation.

In New York City, the Climate Change Adaptation Task Force is tasked with fostering collaboration and cooperation between public and private organizations working to build the resilience of the City's critical infrastructure against rising seas, higher temperatures, and changing precipitation patterns. The Task Force is composed of over 57 New York City and State agencies, public authorities, and companies that operate, regulate, or maintain critical infrastructure in New York City. Led by the Mayor's Office of Resilience and Recovery, the Task Force works together to assess risks, prioritize strategies, and examine how standards and regulations may need to be adjusted in response to a changing climate.

To assist the Task Force, the New York City Panel on Climate Change (NPCC) has prepared a set of climate change projections for the New York City region[16] which was subsequently updated,[17,18] and has suggested approaches to create an effective adaptation program for critical infrastructure. The NPCC includes leading climatologists, sea-level rise specialists, adaptation experts, and engineers, as well as representatives from the insurance and legal sectors. The climate change projections include a summary of baseline and projected climate conditions throughout the 21st century including heat waves and cold events, intense precipitation and droughts, sea-level rise, and coastal storm levels and frequency. NPCC projected that sea levels are likely to increase by up to 30 inches by the 2050s and up to 75 inches by the end of the century (more detailed ranges and timescales are available). In general, the probability of increased sea levels is

[14] NYSERDA. *New York State Climate Action Plan Interim Report*. November 2010.

[15] *Community Risk and Resiliency Act.* Chapter 355, NY Laws of 2014. April 9, 2013. Signed September 22, 2014.

[16] New York City Panel on Climate Change. *Climate Change Adaptation in New York City: Building a Risk Management Response*. Annals of the New York Academy of Sciences, May 2010.

[17] New York City Panel on Climate Change. *Climate Risk Information 2013: Observations, Climate Change Projections, and Maps*. June 2013.

[18] New York City Panel on Climate Change. *New York City Panel on Climate Change 2015 Report.* Ann. N.Y. Acad. Sci. 1336. 2015.

characterized as "extremely likely," but there is uncertainty regarding the probability the various levels projected and timescale. Intense hurricanes are characterized as "more likely than not" to increase in intensity and/or frequency, and the likelihood of changes in other large storms ("Nor'easters") is characterized as unknown. Therefore, the projections for future coastal storm surge levels for New York City include only sea-level rise at this time, and do not account for changes in storm frequency.

The New York City Green Code Task force has also recommended strategies for addressing climate change resilience in buildings and for improving storm water management.[19] Some of the recommendations call for further study, while others could serve as the basis for revisions to building code requirements. Notably, one recommendation was to amend the building code to expand floodplain requirements so as to include buildings in the projected future one-percent annual chance floodplain in the 2080s or later (the area that would potentially be flooded in a severe coastal storm with a probability of one percent of occurring in any given year) and to apply the standards up to future flood elevation levels.

While strategies and guidelines for addressing the effects of climate change are being developed on all levels of government, there are currently no specific requirements or accepted recommendations for development projects in New York City. However, the revisions to the WRP and accompanying guidance[20] require consideration of climate change and sea-level rise in planning and design of waterfront development. As set forth in more detail in the City's *CEQR Technical Manual*, the provisions of the WRP are applied by city agencies when conducting environmental review, and are described in detail in Section 4.1, "Land Use, Zoning, and Public Policy."

Climate change considerations and measures that would be implemented to increase climate resilience are discussed below. Additional climate change considerations may be incorporated into state and/or local laws prior to the development of the proposed project, and any development would be constructed to meet or exceed the codes in effect at the time of construction.

RESILIENCE OF THE PROPOSED PROJECT TO CLIMATE CHANGE

According to current flood hazard projections,[21] the Manhattan Site is not located within the current 1 percent chance ("100-year") flood area. The 1 percent flood elevation in the vicinity of the Manhattan Site is 10 feet NAVD88. Therefore, the official design flood elevation per the New York City building code within the flood area is one foot above this elevation—11 feet NAVD88. However, under the CEQR process, resilience considerations are accounted for throughout the lifetime of the use being evaluated. While buildings themselves may have a very long lifespan (80 years or more), major infrastructure components such as mechanical systems, emergency power systems, fuel storage, fire safety pumps, and electrical and communications connections are generally rated at up to 50 years prior to requiring major renovation or replacement. Therefore, while the furthest available projections (end of century) are considered here in general for the buildings, 2080s projections are used for systems resilience considerations.

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[19] New York City Green Codes Task Force. *Recommendations to New York City Building Code*. February 2010.

[20] NYC Planning. *The New York City Waterfront Revitalization Program: Climate Change Adaptation Guidance*. March 2017.

[21] FEMA. *Preliminary Flood Insurance Rate Map*. Panel 3604970184G and 3604970182G. 12/05/2013.

According to the above-cited NPCC data, by the 2050s, the 1 percent annual chance flood levels could reach 30 inches higher due to sea-level rise (per NPCC "High" scenario), to a flood elevation of approximately 12.5 feet NAVD88 at the Manhattan Site. By the 2080s sea level may rise by up to 58 inches, resulting in a 1 percent flood elevation of approximately 15 feet NAVD88. By the end of the century, the 1 percent flood levels could reach 75 inches higher (per NPCC "High" scenario), to approximately 16 feet NAVD88. Any design intended to accommodate these flood levels should generally account for an additional 1 foot of freeboard. Freeboard is generally applied to account for uncertainty in the flood projections and rounding to appropriate precision.

These flood areas and elevations are likely conservatively high, and may be revised in the near future. On October 17, 2016, the Federal Emergency Management Agency (FEMA) and New York City Mayor De Blasio announced plans to revise the FEMA flood maps based on a 2015 New York City appeal of FEMA's flood risk calculations for New York City and the region. While revised flood maps have not yet been produced, the appeal generally identified potential reductions of 2.0 to 2.5 feet in the area of the Manhattan Site. Therefore, it is possible that the revised FEMA current flood elevations would be lower, and the resulting future flood elevations, including sea-level rise, may be lower than those presented here.

The Manhattan Site is located in Lower Manhattan, where New York City has conceptual plans for providing storm flood resilience through coastal protections. New York City is currently in the process of planning and approving the Lower Manhattan Coastal Resiliency (LMCR) Project, a flood-proofing and park-building measure that extends from Montgomery Street, around Lower Manhattan to the north of Battery Park City. The City received funding through the U.S. Department of Housing and Urban Development's (HUD) National Disaster Resilience Competition (NDRC) to initiate LMCR and has begun working on the design and environmental review. The City is also currently designing the East Side Coastal Resiliency (ESCR) project, a similar effort starting at Montgomery Street northward to East 25th Street, and is currently in the preliminary design phase and undergoing environmental review. The City and the HUD have committed $760 million to ESCR. Through these projects, the City is proposing to install a flood protection system within city parkland and streets. The flood protection system would include a combination of berms, floodwalls, and possibly deployable systems with other infrastructure improvements to reduce flooding, and is being designed to accommodate the 1 percent annual chance flood elevation with 30 inches of sea-level rise—equivalent to the NPCC 2050s "High" scenario.[22] The third component of protecting Lower Manhattan would be the West Side, starting at West 57th Street to the north and connecting to LMCR's norther end at Battery Park City. This is the coastal area that would feed flood waters in potential future conditions to the Manhattan Site. There is currently no explicit implementation schedule or budget for this third segment of coastal protection for Lower Manhattan.

Overall, the proposed project at the Manhattan Site would be resilient to the potential conditions projected through 2100, and the design could be adaptive such that enhancements could be implemented in the future to further protect uses up to the potential flooding conditions projected for the end of the century if necessary, based on future adjustments to end-of-century potential flood elevations estimates. Based on conceptual plans, it is expected that the ground-floor elevation of the proposed project on the Manhattan Site would be approximately 18 feet NAVD88, which would be higher than NPCC's "high" future 2100 BFE of 16.25 feet. In addition, to the

[22] The City of New York. *ESCR: Project Area One - Conceptual Design Update.* Presentation, December 1 and 7, 2016.

extent feasible, future design development for the building on the Manhattan Site would account for future flood levels and locate critical mechanical features such as heating, cooling, electrical, and telecommunication on building floors above NPCC's "high" future 2080s BFE of 14.8 feet or 2100 BFE of 16.25 feet. Those critical features that require an elevation below the BFE (such as water/sewer service and potentially other features conveyed below ground to a building's cellar level) could be dry-floodproofed either from the outset of the building's construction or at such time as the BFE reaches the proposed site, projected to be the 2080s or later. Similarly, vulnerable features (habitable space above the building's lowest floor, such as detention housing) would be located above the future BFEs by the 2080s or 2100. In addition, the proposed detention facilities would be equipped with emergency electrical generators and fuel storage to provide power for several days of power outages, as well as food supplies for seven days of operation. In the event of a power loss, the proposed facilities are intended to remain fully operational in order to provide heating and cooling to staff and people in detention during inclement weather events.

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Chapter 7: Alternatives

A. INTRODUCTION

In accordance with the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, this chapter presents and analyzes alternatives to the proposed project. Alternatives selected for consideration in an EIS are generally those that are feasible and have the potential to reduce, eliminate, or avoid potential adverse impacts of a proposed project while meeting some or all of the goals and objectives of the project.

In addition to a comparative impact analysis, the alternatives in this chapter are assessed to determine to what extent they would meet the goals and objectives of the proposed project. As discussed in Chapter 1, "Project Description," the purpose of the proposed project is to develop a network of four modern detention facilities distributed in the four boroughs with the goal of creating humane facilities that provide appropriate conditions for those who work and are detained there, provide community assets in the neighborhoods, and allow the City to close the jails on Rikers Island.

In keeping with the City's foundational principles to build a safe and humane system in line with modern approaches to correctional practices, the City's proposal is designed to accomplish several objectives, which include: improving access to natural light and space for therapeutic programming; offering quality recreational, health, education, visitation and housing facilities; strengthening connections to families and communities by enabling people to remain closer to their loved ones; and enhancing well-being of uniformed staff and civilian staff alike through improved safety conditions.

This chapter considers two alternatives to the proposed project:

- A No Action Alternative, which is mandated by CEQR and SEQRA and is intended to provide the lead and involved agencies with an assessment of the expected environmental impacts of no action on their part. The No Action Alternative assumes that in the future without the proposed project, each of the proposed project sites would remain in their current condition. Therefore, under the No Action condition, the existing DOC borough facilities would not be rebuilt or closed and are assumed to remain at the current capacity of approximately 2,500 people in detention. It is assumed that the City would continue to implement strategies to reduce the number of people in jail to 5,000, but would use the current facilities.
- A No Unmitigated Significant Adverse Impacts Alternative, which considers several modifications to the proposed project to eliminate its unmitigated significant adverse impacts on historic and cultural resources, traffic, construction-period traffic, construction-period pedestrians, and construction-period noise.

PRINCIPAL CONCLUSIONS

The conclusion of the alternatives analysis is that the No Action Alternative and No Unmitigated Significant Adverse Impacts Alternatives would not substantively meet the goals and objectives

of the proposed project. Each of the alternatives is summarized briefly below, followed by a more detailed analysis in the following sections.

NO ACTION ALTERNATIVE

The No Action Alternative assumes the proposed project is not implemented and that each of the proposed project sites would remain in their current condition. Therefore, under the No Action condition, the existing DOC borough facilities would not be rebuilt or closed and are assumed to remain at the current capacity of approximately 2,500 people in detention. It is assumed that the City would continue to implement strategies to reduce the number of people in jail to 5,000, but would use the current facilities. At the Bronx Site, this alternative would avoid the proposed project's significant adverse impacts related to transportation, construction-period traffic, and construction-period noise. At the Brooklyn Site, this alternative would avoid the proposed project's significant adverse impacts related to historic and cultural resources, transportation, construction-period traffic, and construction-period noise. At the Manhattan Site, this alternative would avoid the proposed project's significant adverse impacts related to historic and cultural resources and transportation. At the Queens Site, this alternative would avoid the proposed project's significant adverse impacts related to transportation, construction-period traffic, and construction-period noise.

The No Action Alternative would not create any new detention capacity, nor would it create new humane detention facilities. Although the City is implementing strategies to ultimately reduce the average daily jail population to 5,000 persons, existing facilities apart from Rikers Island can accommodate only about 2,500 people and therefore this alternative would not allow the City to close the jails on Rikers Island. Furthermore, this alternative would not accomplish the objectives of the proposed project. It would not improve access to natural light and space for therapeutic programming; offer quality recreational, health, education, visitation and housing facilities; strengthen connections to families and communities; or enhance the well-being of uniformed staff and civilian staff.

Overall, the No Action Alternative would fail to meet the proposed project's principal goals.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS

The No Unmitigated Significant Adverse Impacts Alternative considers several modifications of the proposed project to eliminate its significant adverse impacts on historic and cultural resources, transportation, construction-period traffic, construction-period pedestrians, and construction-period noise. The alternative identified to eliminate the potential significant adverse impacts to the Brooklyn Central Courthouse due to the potential construction of pedestrian bridges could meet the goals and objectives of the proposed project. To eliminate the other unmitigated significant adverse impacts, the proposed project would have to be modified to a point that its principal goals and objectives would not be realized.

B. BRONX

NO ACTION ALTERNATIVE

The No Action Alternative assumes the proposed project is not implemented and that the NYPD Bronx Tow Pound will continue to operate on the Bronx Site.

LAND USE, ZONING, AND PUBLIC POLICY

In the No Action Alternative, the Bronx Site would continue to be occupied by the NYPD Bronx Tow Pound. The Bronx Site would remain underutilized and this alternative would not change the land use of the project site from the current parking use to institutional, community facility, residential, and retail uses, nor would it provide the increased street level activity at the site that would occur with the proposed project.

Unlike the proposed project, the No Action Alternative would not provide modern, safer detention facilities and would not advance the goals of *Smaller, Safer, Fairer*. It is expected that the City would continue to house some people in detention at Rikers Island under this alternative. The No Action Alternative, unlike the proposed project, would not result in the introduction of residential uses to the Port Morris Industrial Business Zone.

As with the proposed project, the No Action Alternative would not result in significant adverse impacts to land use, zoning, or public policy. However, the benefits of the proposed project, including the advancement of the goals of *Smaller, Safer, Fairer,* the introduction of active uses to the site, and the introduction of residential use, including affordable housing, would not be realized.

SOCIOECONOMIC CONDITIONS

The No Action Alternative, like the proposed project, would not result in any significant adverse socioeconomic impacts at the Bronx Site or within its socioeconomic study area. With the No Action Alternative, no new residential, commercial, or institutional uses would be added to the project site by the 2027 build year. With the No Action Alternative the project site would retain its current use as the NYPD's Bronx Tow Pound. The No Action Alternative would not result in indirect business displacement due to increased property values or rents, nor introduce a concentration of uses that would offset positive trends within the study area. The proposed project would introduce a mix of public facility, residential, and retail uses, and would promote positive trends within the study area by developing new community and retail facilities intended to serve both the existing community and new workers and residents introduced by the proposed project. Under the No Action Alternative, these potential benefits would not be realized.

COMMUNITY FACILITIES

Neither the No Action Alternative nor the proposed project would result in a significant adverse impact elementary schools, intermediate schools, or publicly funded child care centers. Public elementary schools and publicly funded child care facilities in the study area would operate over capacity irrespective of development on the project site. Public intermediate schools in the study area would operate under capacity irrespective of development on the project site.

As with the proposed project, pursuant to *CEQR Technical Manual* guidelines, detailed analyses of public high schools, public libraries, outpatient health facilities, and police and fire protection services are not warranted. The No Action Alternative would not result in any significant adverse impacts to these community facilities.

OPEN SPACE

As with the proposed project, the No Action Alternative would not remove any existing public open space resources on the Bronx Site, and would not result in any significant adverse impacts to open space as defined by the *2014 CEQR Technical Manual*. The No Action Alternative would

not introduce an incremental residential or non-residential population to the Bronx Site, and would therefore not introduce any new demand for public open space within the ½- and ¼-mile residential and non-residential study areas, which would be similar to future conditions with the proposed project. The ½-mile residential study area in the existing condition is underserved by total and active open space according to City guidelines, and would continue to be underserved under either the No Action Alternative or the proposed project. The ¼-mile non-residential study area in the existing condition is underserved by passive open space according to City guidelines, and would continue to be underserved with either the No Action Alternative or the proposed project. Neither the proposed project nor the No Action Alternative would result in any significant adverse impacts to open space.

SHADOWS

Under the No Action Alternative, the project site would remain unchanged from existing conditions, and therefore there would be no change with respect to existing shadows. The proposed project would result in the development of new structures on the site, which would result in incremental shadow on St. Mary's Park in winter and on two Greenstreets traffic medians in certain seasons, but in no case would the incremental shadow result in significant adverse impacts to either the use or the vegetation of those resources. Therefore, neither the No Action Alternative nor the proposed project at the Bronx Site would result in significant adverse shadows impacts.

HISTORIC AND CULTURAL RESOURCES

As the project site is not sensitive for archaeological resources, the No Action Alternative, like the proposed project, would not result in any significant adverse impacts on archaeological resources. In addition, there are no architectural resources on the project site or in the study area; therefore, the No Action Alternative, like the proposed project, would not result in adverse impacts to architectural resources.

URBAN DESIGN AND VISUAL RESOURCES

Like the proposed project, the No Action Alternative would not result in significant adverse impacts on the urban design, view corridors, or visual resources. Under the No Action Alternative, the project site would not be altered and the existing use on the site would remain unchanged. Under the proposed project, the Bronx Site would be developed with a building much larger and taller than the surrounding buildings in the study area, introducing a development of a scale out of context with the surrounding area. The proposed project would also introduce active ground-floor uses to the site and enhance the pedestrian experience. The No Action Alternative, like the proposed project, would not obstruct views to visual resources in the surrounding area.

HAZARDOUS MATERIALS

In the No Action Alternative, it is assumed that the project site would remain in its current condition. Broadly applicable regulatory programs, such as those for existing petroleum storage tanks, asbestos-containing materials, lead-based paint, polychlorinated biphenyls, etc. would continue to apply, but without the subsurface disturbance associated with the proposed project, the potential for exposure (to construction workers and the community) to any subsurface hazardous materials would not occur. As such, the No Action Alternative would not result in any significant adverse impacts related to hazardous materials.

WATER AND SEWER INFRASTRUCTURE

The No Action Alternative would not result in any increased demand on New York City's water supply from the existing conditions and would not result in any change in wastewater and sanitary sewage generation. Although there would be an increase in impervious surfaces under the proposed project, neither the No Action Alternative nor the proposed project would result in any significant adverse impacts on the City's water supply, wastewater, or stormwater conveyance and treatment infrastructure.

TRANSPORTATION

Under the No Action Alternative, vehicle, transit and pedestrian trips would be lower than with the proposed project. As the existing use on the project site would remain, no significant adverse transportation impacts identified as a result of the proposed project would occur under the No Action Alternative.

AIR QUALITY

As with the proposed project, the No Action Alternative would result in fewer vehicle trips and less mobile source pollution. Since no significant adverse mobile source air quality impacts are predicted due to the proposed project, neither the proposed project nor the No Action Alternative would result in a significant adverse impact related to mobile sources.

Under the No Action Alternative, stationary sources of emissions would be lower than with the proposed project. The restrictions on the type of fuel and stack height for heating and hot water systems that would be put in place for the proposed project would not be required with the No Action Alternative.

Neither the No Action Alternative nor the proposed project would result in significant adverse impacts to air quality.

NOISE

As with the proposed project, in the No Action Alternative, traffic volumes would increase slightly over existing conditions in the area due to background traffic growth. However, these increases in traffic would not result in substantial changes in noise levels, and noise levels under the No Action Alternative would be comparable to existing noise levels. Like the proposed project, the No Action Alternative would not result in any significant adverse impacts to noise.

PUBLIC HEALTH

The No Action Alternative, like the proposed project, would not result in any significant adverse public health impacts.

NEIGHBORHOOD CHARACTER

Under the No Action Alternative there would be no change to the project site and no change to neighborhood character. The proposed project would introduce a new detention facility and mixed-use building but would not affect the defining features of the neighborhood. Both the proposed project and the No Action Alternative would not result in significant adverse impacts to neighborhood character.

CONSTRUCTION

Under the No Action Alternative, no construction would occur on the project site. The NYPD Bronx Tow Pound would remain in its current condition. The No Action Alternative would not result in the additional vehicle or pedestrian trips generated by the proposed project's construction activities, and would not result in potential significant adverse impacts related to construction-period traffic and pedestrian conditions. The No Action Alternative would not result in increased pollutant emissions that would occur during construction of the proposed project. The No Action Alternative also would not result in increased noise levels that would be associated with the construction of the proposed project, and would not result in the potential significant adverse impacts from construction-period noise on the residential building at 359 Southern Boulevard. As with the proposed project, the No Action Alternative would not result in significant adverse construction impacts with respect to air quality, historic and cultural resources, hazardous materials, open space, socioeconomic conditions, community facilities, natural resources, and land use and neighborhood character.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

The No Action Alternative would not result in an increase in energy use, fuel consumption, or vehicle trips, and would therefore not result in the increase in greenhouse gas emissions that would result from the proposed project. However, the proposed project (which would not result in any significant adverse impacts related to greenhouse gas emissions) would be consistent with PlaNYC/OneNYC GHG emissions reduction goals, benefits that may not be realized under the No Action Alternative.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE

In order to identify a No Unmitigated Significant Adverse Impact Alternative, the full range of impacts identified for the proposed project was considered to determine what avoidance measures would be required for the different types of impacts. As discussed in Section 2.16, "Mitigation-Bronx," the proposed project is anticipated to have significant adverse impacts that may not be able to be mitigated in the areas of traffic, construction-period traffic, construction-period pedestrians, and construction-period noise. Therefore, those technical areas are considered below.

TRANSPORTATION (TRAFFIC)

For the proposed project, unmitigated potential significant adverse traffic impacts were identified at 9 lane groups at six analyzed intersections during the analyzed weekday AM peak hour, at 14 lane groups at eight analyzed intersections during the analyzed weekday midday peak hour, and at 7 lane groups at five analyzed intersections during the analyzed Saturday peak hour.

Multiple lane groups at intersections identified as incurring project generated unmitigated potential impacts are projected to operate at congested levels under the future No Action condition. These lane groups would be susceptible to significant adverse impacts from the addition of project-generated trips, and if impacts are identified at these intersections, they would be difficult to mitigate. For example, an increase of five vehicles along the eastbound shared through-right lane group at the intersection of East 138th Street and Bruckner Boulevard would result in an unmitigatable potential significant adverse impact during the weekday midday peak hour. An increase of this magnitude would be generated from a much smaller development program than is planned as part of the project. Therefore, no reasonable alternative could be developed to avoid

these potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

CONSTRUCTION TRAFFIC

During the proposed project's peak construction period, increases in traffic volumes associated with construction workers and truck vehicle trips would result in temporary unmitigated potential significant adverse traffic impacts to 6 lane groups at five analyzed intersections during the analyzed construction AM peak hour and 10 lane groups at six analyzed intersections during the analyzed construction midday peak hour.

Multiple lane groups at intersections identified as incurring project generated unmitigated potential impacts are projected to operate at congested levels under the future No Action condition. These lane groups would be susceptible to significant adverse impacts from the addition of construction activity related trips, and if impacts are identified at these intersections, they would be difficult to mitigate. For example, an increase of five vehicles along the eastbound shared through-right lane group at the intersection of East 138th Street and Bruckner Boulevard would result in an unmitigatable potential significant adverse impact during the construction midday peak hour. An increase of this magnitude would be generated from a relatively small number of construction workers or truck trips. To reduce the number of construction worker vehicle and/or truck trips to a level where unmitigatable impacts would be avoidable would require a substantial reduction in the proposed project's size and its construction scope or would likely include other measures that could lead to additional environmental impacts. Therefore, no reasonable alternative could be developed to avoid these temporary potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

CONSTRUCTION PEDESTRIANS

During the proposed project's peak construction period, increases in pedestrian volumes associated with construction workers, could result in unmitigated impacts at pedestrian elements around the project site. To reduce the number of construction worker trips to a level where unmitigatable impacts would be avoidable would require a substantial reduction in the proposed project's size and its construction scope. Therefore, no reasonable alternative could be developed to avoid these temporary potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

CONSTRUCTION (NOISE)

The detailed analysis of construction noise concluded that construction of the proposed project has the potential to result in noise levels that would exceed the *CEQR Technical Manual* impact criteria for an extended period of time at the residential building at 359 Southern Boulevard.

Construction noise levels of this magnitude for such an extended duration would constitute a significant adverse impact. Source or path controls beyond those already identified for the construction of the proposed project and as mitigation would not be effective in reducing the level of construction noise at the receptors that have the potential to experience significant adverse construction noise impacts. Therefore, no reasonable alternative could be developed to avoid temporary construction noise impacts without substantially compromising the proposed project's stated goals.

C. BROOKLYN

NO ACTION ALTERNATIVE

The No Action Alternative assumes the proposed project is not implemented and that the Brooklyn Detention Complex continues to operate on the Brooklyn Site.

LAND USE, ZONING, AND PUBLIC POLICY

Under both the proposed project and the No Action Alternative, the Brooklyn Site would be occupied by a detention facility use, although with the proposed project the detention facility would be larger and would provide approximately double the detainee capacity of the existing facility. The proposed project would also provide ground floor retail or community facility space which would serve to activate the ground floor of the site, which would not occur under the No Action Alternative. Both the proposed project and the No Action Alternative would be supportive of and compatible with existing institutional civic uses to the north, especially the Kings County Criminal Court, immediately to the north of the project site.

Unlike the proposed project, the No Action Alternative would not provide modern, safer detention facilities and would not advance the goals of *Smaller, Safer, Fairer*. It is expected that the City would continue to house some people in detention at Rikers Island under this alternative.

As with the proposed project, the No Action Alternative would not result in significant adverse impacts to land use, zoning, or public policy. However, the benefits of the proposed project, including the advancement of the goals of *Smaller, Safer, Fairer* and the introduction of active uses to the site would not be realized.

SOCIOECONOMIC CONDITIONS

As with the proposed project, the No Action Alternative would not result in any significant adverse socioeconomic impacts at the Brooklyn Site or within the Brooklyn socioeconomic study area. With the No Action Alternative, the existing Brooklyn Detention Complex would remain on the project site. While the proposed project would demolish the existing facility, the proposed project would include facilities similar to the existing Brooklyn Detention Complex. Therefore neither the No Action Alternative nor the proposed project would substantively change business conditions within the socioeconomic study area.

OPEN SPACE

As with the proposed project, the No Action Alternative would not remove any existing public open space resources on the Brooklyn Site and would not result in any significant adverse impacts to open space as defined by the *2014 CEQR Technical Manual*. The No Action Alternative would not introduce an incremental non-residential population to the Brooklyn Site, and therefore would not introduce any new demand for public open space within the ¼-mile non-residential study area, which would be similar to future conditions with the proposed project. The ¼-mile non-residential study area in the existing condition is undeserved by passive open space according to City guidelines, and would continue to be undeserved with either the No Action Alternative or the proposed project. Neither the proposed project nor the No Action Alternative would result in any significant adverse impacts to open space.

SHADOWS

Under the No Action Alternative, the project site would remain unchanged from existing conditions, and therefore there would be no change with respect to existing shadows. The proposed project would result in the development of a new structure on the site, which would result in incremental shadow on two nearby plazas, one park, and two historic buildings with sunlight-sensitive features, but in no case would the incremental shadow result in significant adverse impacts to either the use or appreciation or the vegetation of any of the affected resources. Therefore, neither the No Action Alternative nor the proposed project at the Brooklyn Site would result in significant adverse shadows impacts.

HISTORIC AND CULTURAL RESOURCES

As the project site is not sensitive for archaeological resources, the No Action Alternative, like the proposed project, would not result in any significant adverse impacts on archaeological resources.

The Brooklyn Central Courthouse, a known architectural resource, is located within 90 feet of the Brooklyn Site. Construction-related activities to demolish the existing detention facility on the project site and to build the proposed project could result in inadvertent adverse direct impacts to the Brooklyn Central Courthouse. Therefore, to avoid inadvertent construction-related impacts to this architectural resource, a Construction Protection Plan (CPP) would be prepared in consultation with LPC and implemented in coordination with a licensed professional engineer. Under the No Action Alternative, these potential inadvertent construction-related impacts would not occur. The No Action Alternative would also not result in the potential construction of new pedestrian bridges or tunnels from 275 Atlantic Street to the courthouse and would not directly affect the Brooklyn Central Courthouse. Therefore, while the proposed project would result in potential adverse impacts to the State Street façade of the Brooklyn Central Courthouse as a result of the construction of pedestrian bridges, the No Action Alternatives would not result in any such adverse impacts.

The proposed project would not result in any indirect impacts on architectural resources in the study area, with the exception of the potential construction of pedestrian bridges that would connect from the proposed detention facility to the State Street façade of the Brooklyn Central Courthouse, as described above. The No Action Alternative would not result in any indirect impacts to architectural resources in the study area.

URBAN DESIGN AND VISUAL RESOURCES

Like the proposed project, the No Action Alternative would not result in significant adverse impacts on the urban design, view corridors, or visual resources. Under the No Action Alternative, the project site would not be altered and the existing use on the site would remain unchanged. Under the proposed project, the Brooklyn Site would be developed with a building that would be taller than the existing buildings in the study area, but it would fit within the densely developed Downtown Brooklyn setting. Unlike the proposed project, the No Action Alternative would not result in the demolition of the Justice Mandala mural on the Brooklyn Site. The proposed project would also introduce active ground-floor uses to the site and enhance the pedestrian experience. The No Action Alternative, like the proposed project, would not obstruct views to visual resources in the surrounding area.

HAZARDOUS MATERIALS

In the No Action Alternative, it is assumed that the project site would remain in its current condition. Broadly applicable regulatory programs, such as those for existing petroleum storage tanks, asbestos-containing materials, lead-based paint, polychlorinated biphenyls, etc. would continue to apply, but without the subsurface disturbance associated with the proposed project, the potential for exposure (to construction workers and the community) to any subsurface hazardous materials would not occur. As such, the No Action Alternative would not result in any significant adverse impacts related to hazardous materials.

WATER AND SEWER INFRASTRUCTURE

The No Action Alternative would not result in any increased demand on New York City's water supply from the existing conditions and would not result in any change in wastewater and sanitary sewage generation. As compared with No Action Alternative, the proposed project would result in an increase in flows to the wastewater treatment plant during wet weather due to the increase in sanitary flow and impervious surfaces. A reduction in stormwater peak flows to the combined sewer system with the proposed project would be achieved with the incorporation of stormwater source control best management practices (BMPs) in accordance with the City's site connection requirements. Neither the No Action Alternative nor the proposed project would result in significant adverse impacts on the City's water supply, wastewater, or stormwater conveyance and treatment infrastructure.

TRANSPORTATION

Under the No Action Alternative, vehicle, transit and pedestrian trips would be lower than with the proposed project. As the existing use on the project site would remain, no significant adverse transportation impacts identified as a result of the proposed project would occur under the No Action Alternative.

AIR QUALITY

As with the proposed project, the No Action Alternative would result in fewer vehicle trips and less mobile source pollution. Since no significant adverse mobile source air quality impacts are predicted due to the proposed project, neither the proposed project nor the No Action Alternative would result in a significant adverse impact related to mobile sources.

Under the No Action Alternative, stationary sources of emissions would be lower than with the proposed project. The restrictions on the type of fuel and stack height for heating and hot water systems that would be put in place for the proposed project would not be required with the No Action Alternative.

Neither the No Action Alternative nor the proposed project would result in significant adverse impacts to air quality.

NOISE

As with the proposed project, in the No Action Alternative, traffic volumes would increase slightly over existing conditions in the area due to background traffic growth. However, these increases in traffic would not result in substantial changes in noise levels, and noise levels under the No Action alternative would be comparable to existing noise levels. Like the proposed project, the No Action Alternative would not result in any significant adverse impacts to noise.

PUBLIC HEALTH

The No Action Alternative, like the proposed project, would not result in any significant adverse public health impacts.

NEIGHBORHOOD CHARACTER

Under the No Action Alternative there would be no change to the project site and no change to neighborhood character. The proposed project would redevelop the Brooklyn Site with a new, larger detention facility but would not affect the defining features of the neighborhood. Both the proposed project and the No Action Alternative would not result in significant adverse impacts to neighborhood character.

CONSTRUCTION

Under the No Action Alternative, no construction would occur on the project site. The Brooklyn Detention Complex would remain in its current condition. The No Action Alternative would not result in the additional vehicle or pedestrian trips generated by the proposed project's construction activities, and would not result in potential significant adverse impacts related to construction-period traffic and pedestrian conditions. The No Action Alternative would not result in increased pollutant emissions that would occur during construction of the proposed project. The No Action Alternative also would not result in increased noise levels that would be associated with the construction of the proposed project, and would not result in the potential significant adverse impacts from construction-period noise on 239 State Street and the Kings County Criminal Court. As with the proposed project, the No Action Alternative would not result in significant adverse construction impacts with respect to air quality, historic and cultural resources, hazardous materials, open space, socioeconomic conditions, community facilities, natural resources, and land use and neighborhood character.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

The No Action Alternative would not result in an increase in energy use, fuel consumption, or vehicle trips, and would therefore not result in the increase in greenhouse gas emissions that would result from the proposed project. However, the proposed project (which would not result in any significant adverse impacts related to greenhouse gas emissions) would be consistent with PlaNYC/OneNYC GHG emissions reduction goals, benefits that may not be realized under the No Action Alternative.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE

In order to identify a No Unmitigated Significant Adverse Impact Alternative, the full range of impacts identified for the proposed project was considered to determine what avoidance measures would be required for the different types of impacts. As discussed in Section 3.15, "Mitigation-Brooklyn," the proposed project is anticipated to have significant adverse impacts that may not be able to be mitigated in the areas of traffic, construction-period traffic, construction-period pedestrians, and construction-period noise. Therefore, those technical areas are considered below.

HISTORIC AND CULTURAL RESOURCES

As described above, the potential construction of pedestrian bridges from the proposed detention facility at 275 Atlantic Street to the Brooklyn Central Courthouse at 120 Schermerhorn Street

across State Street could result in potential significant adverse impacts to the Brooklyn Central Courthouse. In the No Unmitigated Significant Adverse Impacts Alternative, the City of New York, through DOC, would have to incorporate a tunnel, rather than pedestrian bridges, under State Street between the proposed detention facility at 275 Atlantic Avenue and the Brooklyn Central Courthouse. This alternative could meet the goals and objectives of the proposed project.

TRANSPORTATION (TRAFFIC)

For the proposed project, unmitigated potential significant adverse traffic impacts were identified at 3 lane groups at two analyzed intersections during the analyzed weekday AM peak hour, at 14 lane groups at eight analyzed intersections during the analyzed weekday midday peak hour, and at 6 lane groups at five analyzed intersections during the analyzed Saturday peak hour.

Multiple lane groups at intersections identified as incurring project generated unmitigated potential impacts are projected to operate at congested levels under the future No Action condition. These lane groups would be susceptible to significant adverse impacts from the addition of project-generated trips, and if impacts are identified at these intersections, they would be difficult to mitigate. For example, an increase of four vehicles along the westbound through lane group at the intersection of Court Street and Atlantic Avenue would result in an unmitigatable potential significant adverse impact during the weekday midday peak hour. An increase of this magnitude would be generated from a much smaller development program than is planned as part of the project. Therefore, no reasonable alternative could be developed to avoid these potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

CONSTRUCTION TRAFFIC

During the proposed project's peak construction period, increases in traffic volumes associated with construction workers and truck vehicle trips would result in temporary unmitigated potential significant adverse traffic impacts to 10 lane groups at eight analyzed intersections during both the analyzed construction AM peak hour and midday peak hour.

Multiple lane groups at intersections identified as incurring project generated unmitigated potential impacts are projected to operate at congested levels under the future No Action condition. These lane groups would be susceptible to significant adverse impacts from the addition of construction activity related trips, and if impacts are identified at these intersections, they would be difficult to mitigate. For example, an increase of four vehicles along the westbound through lane group at the intersection of Court Street and Atlantic Avenue would result in an unmitigatable potential significant adverse impact during the construction midday peak hour. An increase of this magnitude would be generated from a relatively small number of construction workers or truck trips. To reduce the number of construction worker vehicle and/or truck trips to a level where unmitigatable impacts would be avoidable would require a substantial reduction in the proposed project's size and its construction scope or would likely include other measures that could lead to additional environmental impacts. Therefore, no reasonable alternative could be developed to avoid these temporary potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

CONSTRUCTION PEDESTRIANS

During the proposed project's peak construction period, increases in pedestrian volumes associated with construction workers, could result in unmitigated impacts at pedestrian elements

around the project site. To reduce the number of construction worker trips to a level where unmitigatable impacts would be avoidable would require a substantial reduction in the proposed project's size and its construction scope. Therefore, no reasonable alternative could be developed to avoid these temporary potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

CONSTRUCTION NOISE

The detailed analysis of construction noise concluded that construction of the proposed project has the potential to result in noise levels that would exceed the CEQR Technical Manual impact criteria for an extended period of time at the southern and western façades of 239 State Street and the southern and eastern façades of the Kings County Criminal Court.

Construction noise levels of this magnitude for such an extended duration would constitute a significant adverse impact. Source or path controls beyond those already identified for the construction of the proposed project and as mitigation would not be effective in reducing the level of construction noise at the receptors that have the potential to experience significant adverse construction noise impacts. Therefore, no reasonable alternative could be developed to avoid temporary construction noise impacts without substantially compromising the proposed project's stated goals.

D. MANHATTAN

NO ACTION ALTERNATIVE

The No Action Alternative assumes the proposed project is not implemented and that the Manhattan Detention Complex continues to operate on the Manhattan Site.

LAND USE, ZONING, AND PUBLIC POLICY

Under both the proposed project and the No Action Alternative, the Manhattan Site would be occupied by a detention facility use, although with the proposed project the detention facility would be larger and would provide greater detainee capacity than the existing facility in the No Action Alternative. The proposed project would also provide ground floor retail or community facility space which would serve to activate the ground floor of the site, which would not occur under the No Action Alternative. Both the proposed project and the No Action Alternative would be supportive of and compatible with existing institutional civic uses to the north, especially the Manhattan Criminal Court, immediately south of the project site.

Unlike the proposed project, the No Action Alternative would not provide modern, safer detention facilities and would not advance the goals of *Smaller, Safer, Fairer*. It is expected that the City would continue to house some people in detention at Rikers Island under this alternative. Portions of the Manhattan Site are located within the City's Coastal Zone and within the Preliminary Flood Insurance Rate Map (FIRM) 500-year floodplain. The No Action Alternative would not provide the resiliency measures that would be included with the proposed project to address future flood conditions.

As with the proposed project, the No Action Alternative would not result in significant adverse impacts to land use, zoning, or public policy. However, the benefits of the proposed project, including the advancement of the goals of *Smaller, Safer, Fairer,* the introduction of active uses to the site, and provision of flood resiliency measures would not be realized.

SOCIOECONOMIC CONDITIONS

As with the proposed project, the No Action Alternative would not result in any significant adverse socioeconomic impacts at the Manhattan Site or within the Manhattan socioeconomic study area. With the No Action Alternative, the existing retail tenants in the MDC North Tower would not be directly displaced as under the proposed project. However even if these businesses were permanently displaced from the Manhattan Site, their displacement would not constitute a significant adverse impact. The project site would contain a detention facility use under both the No Action Alternative and the proposed project and therefore neither the No Action Alternative nor the proposed project would introduce a new economic activity or substantially change business conditions within the socioeconomic study area.

OPEN SPACE

As with the proposed project, the No Action Alternative would not remove any existing public open space resources on the Manhattan project site, and would not result in any significant adverse impacts to open space as defined by the *2014 CEQR Technical Manual*. The No Action Alternative would not introduce an incremental non-residential population to the Manhattan Site, and therefore would not introduce any new demand for public open space within the ¼-mile non-residential study area, which would be similar to future conditions with the proposed project. The ¼-mile non-residential study area in the existing condition is sufficiently served by passive open space according to City guidelines, and would continue to be sufficiently served with either the No Action Alternative or the proposed project. Neither the proposed project nor the No Action Alternative would result in any significant adverse impacts to open space.

SHADOWS

Under the No Action Alternative, the project site would remain unchanged from existing conditions, and therefore there would be no change with respect to existing shadows. The proposed project would result in the development of a new structure on the site, which would result in incremental shadow on two nearby plazas, one park, one Greenstreet, and one historic resource with sunlight-sensitive features, but in no case would the incremental shadow result in significant adverse impacts to either the use or appreciation or the vegetation of any of the affected resources. Therefore, neither the No Action Alternative nor the proposed project at the Manhattan Site would result in significant adverse shadows impacts.

HISTORIC AND CULTURAL RESOURCES

The proposed project could result in disturbance to areas of archaeological sensitivity in the undisturbed portions of White Street and the southwestern corner of 124 White Street (the MDC North Tower). With the completion of the additional archaeological investigations necessary within the areas of archaeological sensitivity and LPC concurrence with the conclusions of those investigations, the proposed project would not result in significant adverse impacts on archaeological resources. The No Action Alternative would not result in disturbance to these areas are would also not result in significant adverse impacts on archaeological resources.

With the proposed project, the existing MDC North and South Towers at 124 and 125 White Street would be redeveloped with a new, approximately 450-foot-tall detention facility. 125 White Street, also known as the MDC South Tower, composes a portion of the Manhattan Criminal Courts Building and Prison at 100 Centre Street, that has previously been determined S/NR-eligible by the New York State Historic Preservation Office (SHPO) and NYCL-eligible by LPC.

The demolition of 125 White Street would constitute a significant direct adverse impact on the Criminal Courts Building and Prison. This impact would not occur with the No Action Alternative, however, the Applicant would develop, in consultation with LPC, appropriate measures to partially mitigate the adverse impact.

Construction-related activities in connection with the proposed project could result in physical, construction-related impacts to architectural resources located within 90 feet of the project site in the study area. Therefore, to avoid inadvertent construction-related impacts to this architectural resource, a Construction Protection Plan (CPP) would be prepared in consultation with LPC and implemented in coordination with a licensed professional engineer. Under the No Action Alternative, these potential inadvertent construction-related impacts would not occur.

The proposed project would result in significant adverse indirect impacts on the Criminal Courts Building at 100 Centre Street due to the proposed demolition of the Prison building (MDC South Tower) at 125 White Street, which is a contributing element of the Criminal Courts Building and Prison architectural resource. As part of the mitigation measures that would be developed to partially mitigate the adverse impact, consultation would be undertaken with LPC regarding the design of the new detention facility and how it would connect via pedestrian bridges to the north façade of 100 Centre Street. The No Action Alternative would not result in significant adverse indirect impacts to architectural resources.

URBAN DESIGN AND VISUAL RESOURCES

Like the proposed project, the No Action Alternative would not result in significant adverse impacts on the urban design, view corridors, or visual resources. Under the No Action Alternative, the project site would not be altered and the existing use on the site would remain unchanged. Under the proposed project, the Manhattan Site would be developed with a building that would be similar in height and form to existing buildings in the study area including the Manhattan Criminal Courts Building, the Jacob K. Javits building, and U.S. Courthouse at 500 Pearl Street, among others. Under both the proposed project and the No Action Alternative, pedestrian access to White Street would be maintained. The No Action Alternative, unlike the proposed project, would not enhance White Street with additional street furniture.

Both the proposed project and the No Action Alternative would not result in a significant adverse impact to visual resources. The proposed detention facility would include two potential pedestrian bridges connecting the south façade of the proposed building to the third story and an upper story of the Manhattan Criminal Courts Building. The pedestrian bridges would alter the north façade of the Manhattan Criminal Court Building. However, the north façade of the Manhattan Criminal Courts Building is not the building's principal façade, and this façade is also located close to the project site across the narrow service entrance across from 125 White Street so that its north façade is not prominently visible. These new bridges would not be constructed in the No Action Alternative.

HAZARDOUS MATERIALS

In the No Action Alternative, it is assumed that the project site would remain in its current condition. Broadly applicable regulatory programs, such as those for existing petroleum storage tanks, asbestos-containing materials, lead-based paint, polychlorinated biphenyls, etc. would continue to apply, but without the subsurface disturbance associated with the proposed project, the potential for exposure (to construction workers and the community) to any subsurface

hazardous materials would not occur. As such, the No Action Alternative would not result in any significant adverse impacts related to hazardous materials.

WATER AND SEWER INFRASTRUCTURE

The No Action Alternative would not result in any increased demand on New York City's water supply from the existing conditions and would not result in any change in wastewater and sanitary sewage generation. As compared with No Action Alternative, the proposed project would result in an increase in flows to the wastewater treatment plant during wet weather due to the increase in sanitary flow and impervious surfaces. A reduction in stormwater peak flows to the combined sewer system with the proposed project would be achieved with the incorporation of stormwater source control best management practices (BMPs) in accordance with the City's site connection requirements. Neither the No Action Alternative nor the proposed project would result in significant adverse impacts on the City's water supply, wastewater, or stormwater conveyance and treatment infrastructure.

TRANSPORTATION

Under the No Action Alternative, vehicle, transit and pedestrian trips would be lower than with the proposed project. As the existing use on the project site would remain, no significant adverse transportation impacts identified as a result of the proposed project would occur under the No Action Alternative.

AIR QUALITY

As with the proposed project, the No Action Alternative would result in fewer vehicle trips and less mobile source pollution. Since no significant adverse mobile source air quality impacts are predicted due to the proposed project neither the proposed project nor the No Action Alternative would result in a significant adverse impact related to mobile sources.

Under the No Action Alternative, stationary sources of emissions would be lower than with the proposed project. The restrictions on the type of fuel and stack height for heating and hot water systems that would be put in place for the proposed project would not be required with the No Action Alternative.

Neither the No Action Alternative nor the proposed project would result in significant adverse impacts to air quality.

NOISE

As with the proposed project, in the No Action Alternative, traffic volumes would increase slightly over existing conditions in the area due to background traffic growth. However, these increases in traffic would not result in substantial changes in noise levels, and noise levels under the No Action Alternative would be comparable to existing noise levels. Like the proposed project, the No Action Alternative would not result in any significant adverse impacts to noise.

PUBLIC HEALTH

The No Action Alternative, like the proposed project, would not result in any significant adverse public health impacts.

NEIGHBORHOOD CHARACTER

Under the No Action Alternative there would be no change to the project site and no change to neighborhood character. The proposed project would redevelop the Manhattan Site with a new, larger detention facility but would not affect the defining features of the neighborhood. Both the proposed project and the No Action Alternative would not result in significant adverse impacts to neighborhood character.

CONSTRUCTION

Under the No Action Alternative, no construction would occur on the project site. The Manhattan Detention Complex would remain in its current condition. The No Action Alternative would not result in the additional vehicle or pedestrian trips generated by the proposed project's construction activities, and would not result in potential significant adverse impacts related to construction-period traffic and pedestrian conditions. The No Action Alternative would not result in increased pollutant emissions that would occur during construction of the proposed project. The No Action Alternative also would not result in increased noise levels that would be associated with the construction of the proposed project, and would not result in the potential significant adverse impacts from construction-period noise on the Manhattan Criminal Courts Building. As noted above, the demolition of 125 White Street would constitute a significant direct adverse impact on the Criminal Courts Building and Prison (also known as the Manhattan Criminal Courts Building). This impact would not occur with the No Action Alternative As with the proposed project, the No Action Alternative would not result in significant adverse construction impacts with respect to air quality, hazardous materials, open space, socioeconomic conditions, community facilities, natural resources, and land use and neighborhood character.

CLIMATE CHANGE

The No Action Alternative would not result in an increase in energy use, fuel consumption, or vehicle trips, and would therefore not result in the increase in greenhouse gas emissions that would result from the proposed project. However, the proposed project (which would not result in any significant adverse impacts related to greenhouse gas emissions) would be consistent with PlaNYC/OneNYC GHG emissions reduction goals, benefits that may not be realized under the No Action Alternative.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE

In order to identify a No Unmitigated Significant Adverse Impact Alternative, the full range of impacts identified for the proposed project was considered to determine what avoidance measures would be required for the different types of impacts. As discussed in Section 4.15, "Mitigation-Manhattan," the proposed project is anticipated to have significant adverse impacts that may not be able to be mitigated in the areas of historic and cultural resources and construction-period pedestrians. Therefore, these technical areas are considered below.

HISTORIC AND CULTURAL RESOURCES

In the No Unmitigated Significant Adverse Impact Alternative, the MDC South Tower at 125 White Street, which is S/NR-eligible as part of the Manhattan Criminal Courts Building and Prison (New York County Criminal Court) at 100 Centre Street and has also been determined by the New York City Landmarks Preservation Commission (LPC) to be New York City Landmark (NYCL)-eligible, would not be demolished and would be retained. As described in greater detail in the

Alternatives Analysis for the Manhattan Detention Center South Tower prepared for LPC on March 20, 2019, the City of New York, through DOC, explored prudent and feasible alternatives to the demolition of the MDC South Tower at 125 White Street to avoid the significant adverse impact (see **Appendix J**). These included utilizing the existing MDC facility, including the South Tower at 125 White for the proposed Manhattan site of the proposed borough-based jail system; retaining 125 White Street and constructing a new building at the location of 124 White Street which is not a historic building, expanding 125 White Street with vertical or horizontal additions, and moving administrative uses off-site; and developing the detention facility at another site.

To avoid the significant adverse impact, the proposed detention facility would need to be developed at another location or developed on the 124-125 White Street site retaining the MDC South Tower.

Other sites for the proposed detention facility were considered in the vicinity of the New York County Criminal Court at 100 Centre Street. However, site requirements, including that the site be city-owned land, adjacent to court facilities, of a sufficient parcel size, and with access to public transportation, precluded the locating of the proposed detention facility to another site. Parcels in the vicinity of 100 Centre Street includes two parks – Columbus Park and Collect Pond Park, court facilities at the New York City Civil Court at 111 Centre Street, and city owned buildings at 125 Worth Street and 80 Centre Street. Due to lack of sufficient site size, lack of direct connection to the New York County Criminal Court at 100 Centre Street, and the need to relocate existing tenants at 125 Worth Street, this site was not a viable site. While the Louis J. Lefkowitz State Office Building at 80 Centre Street was also evaluated as a potential site for the proposed detention facility in Manhattan, this site was removed from consideration due to opposition expressed by the community through public scoping as part of City Environmental Quality Review (CEQR) process and the City's community engagement process, as well as challenges associated with relocating various existing offices at 80 Centre Street. In addition 125 Worth Street and 80 Centre Street are developed with historic buildings (both buildings have been determined National Register-eligible and LPC has also determined that 80 Centre Street is also NYCL-eligible), and, therefore, use of these sites would have also resulted in a significant adverse impact to historic resources.

Development of the detention facility at the 124-125 White Street site with retention of 125 White Street would prevent the project from fulfilling a number of significant project objectives including to roughly equally distribute the detention beds at all four proposed borough facilities and to create at the Manhattan site a modern, humane, and safe detention facility that provides sufficient space for effective and tailored programming, appropriate housing for those with medical, behavioral health and mental health needs, and the opportunity for a more stable reentry into the community. The MDC facility including the South Tower does not meet the requirements for a modern detention facility as proposed by the proposed project. In addition, it is not feasible to expand the MDC South Tower vertically or horizontally, or to construct a much larger structure at 124 White Street, or to allocate administrative uses at off-site locations in order to generate sufficient floor area to accommodate the proposed number of beds and facility programming. Vertical and horizontal expansions to the MDC South Tower with a sufficient viable floor area would also adversely impact the historic character of the MDC South Tower. Retention of 125 White Street and construction of another building at 124 White Street would perpetuate similar security/safety issues and inefficiencies as the current condition because it would have two separate buildings instead of one consolidated facility. These include the need to move a large number of people in detention between two buildings and with different uses allocated to two buildings or spread across two buildings.

Overall, the No Unmitigated Significant Adverse Impact Alternative would reduce the number of detention beds and/or proposed programming at the Manhattan site and retain a building—the MDC South Tower at 125 White Street—that does not meet the requirements for a modern detention facility as proposed by the proposed project, which would not fulfill the goals and objectives of the proposed project.

CONSTRUCTION PEDESTRIANS

During the proposed project's peak construction period, increases in pedestrian volumes associated with construction workers, could result in unmitigated impacts at pedestrian elements around the project site. To reduce the number of construction worker trips to a level where unmitigatable impacts would be avoidable would require a substantial reduction in the proposed project's size and its construction scope. Therefore, no reasonable alternative could be developed to avoid these temporary potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

E. QUEENS

NO ACTION ALTERNATIVE

The No Action Alternative assumes the proposed project is not implemented and the former Queens Detention Complex, which is currently used for court operations, continues to operate on the Queens Site. The existing public parking lot on the site would also remain in use.

LAND USE, ZONING, AND PUBLIC POLICY

In the No Action Alternative, the Queens Site would continue to be occupied by the Queens Detention Complex and public parking lot. The Queens Site would remain underutilized and this alternative would not reintroduce a detention facility use to this site, as would occur with the proposed project. Unlike the proposed project, this alternative would not activate this underutilized site or introduce active ground-floor uses.

Unlike the proposed project, the No Action Alternative would not provide modern, safer detention facilities and would not advance the goals of *Smaller, Safer, Fairer*. It is expected that the City would continue to house some people in detention at Rikers Island under this alternative.

As with the proposed project, the No Action Alternative would not result in significant adverse impacts to land use, zoning, or public policy. However, the benefits of the proposed project, including the advancement of the goals of *Smaller, Safer, Fairer* and the introduction of active uses to the site would not be realized.

SOCIOECONOMIC CONDITIONS

As with the proposed project, the No Action Alternative would not result in any significant adverse socioeconomic impacts at the Queens Site or within the Queens socioeconomic study area. With the No Action Alternative, the existing Queens Detention Complex would remain on the project site. Neither the No Action Alternative nor the proposed project would introduce a new economic activity or substantially change business conditions within the socioeconomic study area.

OPEN SPACE

As with the proposed project, the No Action Alternative would not remove any existing public open space resources on the Queens Site, and would not result in any significant adverse impacts to open space as defined by the 2014 *CEQR Technical Manual*. The No Action Alternative would not introduce an incremental non-residential population to the Queens Site, and therefore would not introduce any new demand for public open space within the ¼-mile non-residential study area, which would be similar to future conditions with the proposed project. The ¼-mile non-residential study area in the existing condition is sufficiently served by passive open space according to City guidelines, and would continue to be sufficiently served with either the No Action Alternative or the proposed project. Neither the proposed project nor the No Action Alternative would result in any significant adverse impacts to open space.

SHADOWS

Under the No Action Alternative, the project site would remain unchanged from existing conditions, and therefore there would be no change with respect to existing shadows. The proposed project would result in the development of a new structure on the site, which would result in incremental shadow on portions of the Queens Borough Hall grounds in the morning throughout the year, and on several other sunlight-sensitive resources in certain seasons, including portions of Willow Lake Preserve, Flushing Meadows-Corona Park between Union Turnpike and 78th Crescent, Queens Boulevard Malls, Newcombe Square, and the Hoover-Manton Playgrounds. The incremental shadow under the proposed project would not result in significant adverse impacts to either the use or appreciation or the vegetation of any of the affected resources. Therefore, neither the No Action Alternative nor the proposed project at the Queens Site would result in significant adverse shadows impacts.

HISTORIC AND CULTURAL RESOURCES

As the project site is not sensitive for archaeological resources, the No Action Alternative, like the proposed project, would not result in any significant adverse impacts on archaeological resources. In addition, neither the proposed project nor the No Action Alternative would affect the one architectural resource in the study area (Queens Borough Hall). Therefore, the No Action Alternative, like the proposed project, would not result in adverse impacts to architectural resources.

URBAN DESIGN AND VISUAL RESOURCES

Like the proposed project, the No Action Alternative would not result in significant adverse impacts on the urban design, view corridors, or visual resources. Under the No Action Alternative, the project site would not be altered and the existing use on the site would remain unchanged. Under the proposed project, the Queens Site would be developed with a building that would be taller than nearby surrounding buildings but comparable in height to buildings in the secondary urban design study area. The No Action Alternative, unlike the proposed project, would not activate an otherwise under-utilized pedestrian environment on the sidewalks that surround the project site. The No Action Alternative, like the proposed project, would not obstruct views to visual resources in the surrounding area.

HAZARDOUS MATERIALS

In the No Action Alternative, it is assumed that the project site would remain in its current condition. Broadly applicable regulatory programs, such as those for existing petroleum storage tanks, asbestos-containing materials, lead-based paint, polychlorinated biphenyls, etc. would continue to apply, but without the subsurface disturbance associated with the proposed project, the potential for exposure (to construction workers and the community) to any subsurface hazardous materials would not occur. As such, the No Action Alternative would not result in any significant adverse impacts related to hazardous materials.

WATER AND SEWER INFRASTRUCTURE

The No Action Alternative would not result in any increased demand on New York City's water supply from the existing conditions and would not result in any change in wastewater and sanitary sewage generation. As compared with No Action Alternative, the proposed project would result in an increase in flows to the wastewater treatment plant during wet weather due to the increase in sanitary flow and impervious surfaces. A reduction in stormwater peak flows to the combined sewer system with the proposed project would be achieved with the incorporation of stormwater source control best management practices (BMPs) in accordance with the City's site connection requirements. Neither the No Action Alternative nor the proposed project would result in significant adverse impacts on the City's water supply, wastewater, or stormwater conveyance and treatment infrastructure.

TRANSPORTATION

Under the No Action Alternative, vehicle, transit and pedestrian trips would be lower than with the proposed project. As the existing uses on the project site would remain, no significant adverse transportation impacts identified as a result of the proposed project would occur under the No Action Alternative.

AIR QUALITY

As with the proposed project, the No Action Alternative would result in fewer vehicle trips and less mobile source pollution than the proposed project. Since no significant adverse mobile source air quality impacts are predicted due to the proposed project, neither the proposed project nor the No Action Alternative would result in a significant adverse impact related to mobile sources.

Under the No Action Alternative, stationary sources of emissions would be lower than with the proposed project. The restrictions on the type of fuel and stack height for heating and hot water systems that would be put in place for the proposed project would not be required with the No Action Alternative.

Neither the No Action Alternative nor the proposed project would result in significant adverse impacts to air quality.

NOISE

As with the proposed project, in the No Action Alternative, traffic volumes would increase slightly over existing conditions in the area due to background traffic growth. However, these increases in traffic would not result in substantial changes in noise levels, and noise levels under the No Action Alternative would be comparable to existing noise levels. Like the proposed project, the No Action Alternative would not result in any significant adverse impacts to noise.

PUBLIC HEALTH

The No Action Alternative, like the proposed project, would not result in any significant adverse public health impacts.

NEIGHBORHOOD CHARACTER

Under the No Action Alternative there would be no change to the project site and no change to neighborhood character. The proposed project would redevelop the Queens Site with a new, larger detention facility but would not affect the defining features of the neighborhood. Both the proposed project and the No Action Alternative would not result in significant adverse impacts to neighborhood character.

CONSTRUCTION

Under the No Action Alternative, no construction would occur on the project site. The Queens Detention Complex would remain in its current condition. The No Action Alternative would not result in the additional vehicle or pedestrian trips generated by the proposed project's construction activities, and would not result in potential significant adverse impacts related to construction-period traffic and pedestrian conditions. The No Action Alternative would not result in increased pollutant emissions that would occur during construction of the proposed project. The No Action Alternative also would not result in increased noise levels that would be associated with the construction of the proposed project, and would not result in the potential significant adverse impacts from construction-period noise on the Queens County Criminal Court. As with the proposed project, the No Action Alternative would not result in significant adverse construction impacts with respect to air quality, historic and cultural resources, hazardous materials, open space, socioeconomic conditions, community facilities, natural resources, and land use and neighborhood character.

CLIMATE CHANGE

The No Action Alternative would not result in an increase in energy use, fuel consumption, or vehicle trips, and would therefore not result in the increase in greenhouse gas emissions that would result from the proposed project. However, the proposed project (which would not result in any significant adverse impacts related to greenhouse gas emissions) would be consistent with PlaNYC/OneNYC GHG emissions reduction goals, benefits that may not be realized under the No Action Alternative.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE

In order to identify a No Unmitigated Significant Adverse Impact Alternative, the full range of impacts identified for the proposed project was considered to determine what avoidance measures would be required for the different types of impacts. As discussed in Section 5.15, "Mitigation-Queens," the proposed project is anticipated to have significant adverse impacts that may not be able to be mitigated in the areas of traffic, construction-period traffic, construction-period pedestrians, and construction-period noise. Therefore, those technical areas are considered below.

TRANSPORTATION (TRAFFIC)

For the proposed project, unmitigated potential significant adverse traffic impacts were identified at 5 lane groups at four analyzed intersections during the analyzed weekday AM peak hour, at 2

lane groups at two analyzed intersections during the analyzed weekday midday peak hour, and at 3 lane groups at three analzyed intersections during the analyzed Saturday peak hour.

Multiple lane groups at intersections identified as incurring project generated unmitigated potential impacts are projected to operate at congested levels under the future No Action condition. These lane groups would be susceptible to significant adverse impacts from the addition of project-generated trips, and if impacts are identified at these intersections, they would be difficult to mitigate. For example, an increase of three vehicles along the westbound left lane group at the intersection of 78th Avenue and Queens Boulevard would result in an unmitigatable potential significant adverse impact during the weekday midday peak hour. An increase of this magnitude would be generated from a much smaller development program than is planned as part of the project. Therefore, no reasonable alternative could be developed to avoid these potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

CONSTRUCTION TRAFFIC

During the proposed project's peak construction period, increases in traffic volumes associated with construction workers and truck vehicle trips would result in temporary unmitigated potential significant adverse traffic impacts to 9 lane groups at six analyzed intersections during the analyzed construction AM peak hour and 2 lane groups at two analyzed intersections during the analyzed construction midday peak hour.

Multiple lane groups at intersections identified as incurring project generated unmitigated potential impacts are projected to operate at congested levels under the future No Action condition. These lane groups would be susceptible to significant adverse impacts from the addition of construction activity related trips, and if impacts are identified at these intersections, they would be difficult to mitigate. For example, an increase of three vehicles along the westbound left lane group at the intersection of 78th Avenue and Queens Boulevard would result in an unmitigatable potential significant adverse impact during the construction midday peak hour. An increase of this magnitude would be generated from a relatively small number of construction workers or truck trips. To reduce the number of construction worker vehicle and/or truck trips to a level where unmitigatable impacts would be avoidable would require a substantial reduction in the proposed project's size and its construction scope or would likely include other measures that could lead to additional environmental impacts. Therefore, no reasonable alternative could be developed to avoid these temporary potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

CONSTRUCTION PEDESTRIANS

During the proposed project's peak construction period, increases in pedestrian volumes associated with construction workers, could result in unmitigated impacts at pedestrian elements around the project site. To reduce the number of construction worker trips to a level where unmitigatable impacts would be avoidable would require a substantial reduction in the proposed project's size and its construction scope. Therefore, no reasonable alternative could be developed to avoid these temporary potential unmitigated significant adverse traffic impacts without substantially compromising the proposed project's stated goals.

CONSTRUCTION NOISE

The detailed analysis of construction noise concluded that construction of the proposed project has the potential to result in noise levels that would exceed the CEQR Technical Manual impact criteria for an extended period at the Queens County Criminal Court.

Construction noise levels of this magnitude for such an extended duration would constitute a significant adverse impact. Source or path controls beyond those already identified for the construction of the proposed project and as mitigation would not be effective in reducing the level of construction noise at the receptors that have the potential to experience significant adverse construction noise impacts. Therefore, no reasonable alternative could be developed to avoid temporary construction noise impacts without substantially compromising the proposed project's stated goals.

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Chapter 8: Growth-Inducing Aspects of the Proposed Project

A. INTRODUCTION

The term "growth-inducing aspects" generally refers to the potential for a proposed project to trigger additional development in areas outside the project site that would otherwise not have such development without the proposed project. The 2014 *City Environmental Quality Review (CEQR) Technical Manual* indicates that an analysis of the growth-inducing aspects of a proposed project is appropriate when the project:

- Adds substantial new land use, new residents, or new employment that could induce additional development of a similar kind or of support uses, such as retail establishments to serve new residential uses; and/or
- Introduces or greatly expands infrastructure capacity.

The proposed project would be limited to the four project sites and would not induce additional growth beyond the project sites. The following sections evaluate the growth-inducing aspects of the proposed project at each site.

B. BRONX SITE

The Bronx Site is located at 745 East 141st Street (Block 2574, Lot 1) in the Mott Haven neighborhood of the Bronx Community District 1. The proposed project would redevelop the eastern portion of the site with a new detention facility containing approximately 1,270,000-gross-square-feet (gsf) of above-grade floor area, including approximately 1,437 beds for people in detention; support space; community facility and/or retail space; and court/court-related facilities. This site would also provide approximately 575 accessory parking spaces.

With the proposed project, the western portion of the site (to a depth of 100 feet from Concord Avenue) would be rezoned from the existing M1-3 zoning district to a Special Mixed Use M1-4/R7X district to facilitate the development of a proposed building with approximately 209,025 gsf of floor area, with approximately 31,000 gsf of ground-floor retail and community facility use and approximately 235 affordable dwelling units.

The proposed project would change the land use of the Bronx Site from the current parking use to institutional, community facility, residential, and retail uses. The proposed project would be compatible with the predominantly industrial uses in the northern, southern, and eastern portions of the study area, and would be buffered from adjacent residential uses by the proposed mixed-use buildings on the western portion of the project site. Overall, the proposed project would be consistent with surrounding land uses.

As discussed in Section 2.2, "Socioeconomic Conditions-Bronx," While the proposed project would include a future mixed-use building with residential units, which could add a new population with a higher average household income as compared with existing study area households, there is a high concentration of rent-regulated housing as well as a readily

observable trend toward higher market rents in the study area. According to the 2012–2016 ACS, median gross rents have been increasing in the study area since 2010. The proposed project is not expected to accelerate these trends because all of the proposed DUs would be affordable to low-, moderate-, and/or middle-income residents, and would serve to maintain a more diverse range of household incomes within the study area.

The proposed project would result in a mix of public facility, affordable residential, and retail uses, all of which are currently found in the study area. The proposed project would also be the first justice and correction facility in the area, so it would not cause an undue concentration of similar facilities. Finally, the proposed project would promote positive trends within the study area by developing new, LEED-gold standard community and retail facilities. The proposed project would thus not substantially change business conditions within the socioeconomic study area.

The proposed project at the Bronx Site would not include the introduction or expansion of infrastructure capacity (e.g., sewers, central water supply) that would result in indirect development. The proposed project would involve the relocation of an existing sewer main at the Bronx Site, but any such infrastructure improvements would be made to support development of the proposed project.

C. BROOKLYN SITE

The Brooklyn Site is located at 275 Atlantic Avenue (Block 175, Lot 1) in the Downtown Brooklyn neighborhood of Brooklyn Community District 2. The proposed project would replace the existing Brooklyn Detention Complex with a new detention facility containing approximately 1,190,000 gsf of above-grade floor area, including approximately 1,437 beds for people in detention; support space; and community facility and/or retail space. This site would also provide approximately 292 accessory parking spaces.

The proposed project would not change the land use of the Brooklyn Site as it would remain as a detention facility. The proposed project would be compatible with the predominantly higher-density institutional and mixed-use buildings to the north of the study area and Downtown Brooklyn, and would be buffered from adjacent residential uses to the south by Atlantic Avenue. Overall, the proposed project would be consistent with surrounding land uses.

As discussed in Section 3.2, “Socioeconomic Conditions-Brooklyn,” the proposed project is located on the site of the existing Brooklyn Detention Complex, a public detention facility. While the proposed project includes the demolition of the existing facility, the proposed project would include facilities similar to those found in existing and No Action conditions. There are no private businesses on the site; therefore, the proposed project would not result in the displacement of any private businesses or employment associated with private businesses. As the proposed project is a replacement of the existing detention facility use, the economic activities associated with the proposed project would be similar to those found in the future without the proposed project. The proposed project would not substantially change business conditions within the socioeconomic study area.

The proposed project at the Brooklyn Site would not include the introduction or expansion of infrastructure capacity (e.g., sewers, central water supply) that would result in indirect development. Any proposed infrastructure improvements would be made to support development of the proposed project.

D. MANHATTAN SITE

The Manhattan Site is located at 125 White Street (Block 198, Lot 1 and Block 167, Lot 1) in the Civic Center neighborhood of Manhattan Community District 1. The proposed project would redevelop the existing office building with a new detention facility containing approximately 1,270,000 gsf of above-grade floor area, including approximately 1,437 beds for people in detention; support space; and community facility and/or retail space. This site would also provide approximately 125 accessory parking spaces. The community facility space would be located along Baxter Street. Loading functions and a sallyport would abut 100 Centre Street.

The proposed project would result in an expansion and increase in density of the existing detention facility use on the Manhattan Site. The proposed project would be compatible with the predominantly institutional and court uses surrounding the site. The facility would also be buffered from adjacent residential uses in the Chinatown neighborhood to the east. Overall, the proposed project would be consistent with surrounding land uses.

As discussed in Section 4.2, "Socioeconomic Conditions-Manhattan," the Manhattan Site is currently occupied by an existing detention facility. As the proposed project is a replacement of the existing detention facility use, the economic activities associated with the proposed project would be similar to those found in the future without the proposed project. The proposed project would not substantially change business conditions within the socioeconomic study area.

The proposed project at the Manhattan Site would not include the introduction or expansion of infrastructure capacity (e.g., sewers, central water supply) that would result in indirect development. Any proposed infrastructure improvements would be made to support development of the proposed project.

E. QUEENS SITE

The Queens Site is located at 126-02 82nd Avenue and 80-25 126th Street (Block 9653, Lot 1 ; Block 9657, Lot 1) in the Queens Civic Center area of the Kew Gardens neighborhood of Queens Community District 9. The proposed project would redevelop the existing Queens Detention Complex and adjacent parking lot with a new detention facility containing approximately 1,258,000 gsf of above-grade floor area, including approximately 1,437 beds for people in detention; support space; community facility space; and an adjacent public parking structure providing approximately 676 public spaces. This site would also provide approximately 605 accessory parking spaces within the detention facility. The proposed facility would also include centralized care space to provide centralized infirmary and maternity ward services for the proposed borough-based jail system.

The proposed project would not change the land use of the Queens Site as it would remain as a detention facility use. The proposed project would be compatible with the predominantly institutional uses surrounding the site, within the Queens Criminal Court complex. The facility would also be buffered from adjacent residential uses to the west by Queens Boulevard and to the residential uses to the east by the Van Wyck Expressway. The density would be consistent with the higher-density mixed-use buildings along Queens Boulevard. Overall, the proposed project would be consistent with surrounding land uses.

As discussed in Section 5.2, "Socioeconomic Conditions-Queens," the proposed project is located on the site of the existing Queens Detention Complex site, a disused public detention facility. There are no private businesses on the site. As the proposed project is a replacement of

the existing disused detention facility use, the economic activities associated with the proposed project would be similar to those found in the future without the proposed project. The proposed project would not substantially change business conditions within the socioeconomic study area.

The proposed project at the Queens Site would not include the introduction or expansion of infrastructure capacity (e.g., sewers, central water supply) that would result in indirect development. The proposed project would involve the relocation of two water mains at the Queens Site, but any such infrastructure improvements would be made to support development of the proposed project. ✷

Chapter 9: Irreversible and Irretrievable Commitments of Resources

A. INTRODUCTION

Resources, both natural and built, would be expended in the construction and operation of the proposed project. These resources include the materials used in construction; energy in the form of fuel and electricity consumed during construction and operation of the projects; and the human effort (i.e., time and labor) required to develop, construct, and operate various components of the projects.

The resources are considered irretrievably committed because their reuse for some purpose other than the proposed project would be highly unlikely. The proposed project constitutes an irreversible and irretrievable commitment of the project sites as land resources, thereby rendering land use for other purposes infeasible, at least in the near term.

These commitments of land resources and materials are weighed against the benefits of the proposed project. As described in Chapter 1, "Project Description," the proposed project would establish a system of four new, modern borough-based detention facilities to house a total population of 5,000 to no longer detain people in the jails at Rikers Island. One facility would be located in each of the Bronx, Brooklyn, Manhattan, and Queens. Each of the proposed facilities would provide approximately 1,420 to 1,450 beds to house people in detention, while allowing space for population-specific housing requirements, such as those related to safety, security, physical and mental health, among other factors, and fluctuations in the jail population.

The new buildings would be integrated into the neighborhoods, providing connections to courts and service providers and offering community benefits. The proposed project is intended to strengthen connections between people who are detained to families and communities by allowing people to remain closer to their loved ones, which allows better engagement of detained individuals with attorneys, social service providers, and community supports so that they will do better upon leaving and be less likely to return to jail. The detention facilities under proposed project are intended to provide sufficient space for effective and tailored programming, appropriate housing for those with medical, behavioral health and mental health needs, and the opportunity for a more stable reentry into the community. The community facility and/or retail space at each site is intended to provide useful community amenities, such as community facility programming or street-level retail space. ✷

APPENDIX A

Smaller Safer Fairer

SMALLER SAFER FAIRER

A roadmap to closing Rikers Island

NYC Criminal Justice

The City of New York
Office of the Mayor

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Letter from Mayor Bill de Blasio

New York City is at the forefront nationally of both ending mass incarceration and reducing crime. Our criminal justice reforms have resulted in a big city that is one of the safest in the nation and has the lowest rate of incarceration. In order to truly end the harms of mass incarceration, we cannot stop now. This is why we have made it the official policy of the City of New York to close the jails on Rikers Island.

For this administration, simply making the statement that we are going to close down Rikers Island is not enough. New Yorkers deserve a concrete and achievable plan to get the job done. That plan is detailed in this report.

We are not offering a quick fix. Rikers Island cannot be closed overnight. It would be much simpler for us to tell people what they want to hear and say we can achieve this goal quickly and easily, but we won't do that. Instead, we are realistic. It will require the work of many–city and state criminal justice agencies, elected officials, prosecutors, defenders, courts, program providers, New Yorkers and their communities–to ultimately close Rikers Island. This will be a long and difficult path.

The central challenge involved in closing Rikers Island is reducing the number of people in jail to a number that can be safely and effectively accommodated elsewhere. At the beginning of this Administration, it would have been impossible to even conceive of a Rikers population small enough to consider such a change. New Yorkers should be proud that we have already come far enough to contemplate the steps we are now going to take.

Thanks to the hard work of NYPD and communities across the city, we have driven crime down to historic lows. Last year was the safest in the modern recorded history of New York City. Overall crime is down nine percent since 2013. Some of the biggest reductions in the jail population have come from new city investments to ensure that low-risk people do not enter jail, and our efforts to work with every part of the criminal justice system to reduce case delay. These initiatives have come together to bring the city jail population down by 18 percent in just three years.

Today, in a city of 8.5 million people, there are about 9,400 people in custody on any given day in our entire jail system–down from a daily average of over 20,000 in the early 1990s. Of the total jail population only approximately 2,300 can be housed off of Rikers Island with the existing capacity in the Department of Correction's borough facilities. That's why none of this is possible without first reducing the number of people in our jails significantly.

For the first time in history, closing Rikers Island can be and is the official policy of the City of New York.

Under our plan, within five years we will bring the daily number of people in our jails down to 7,000. We will also establish a Justice Implementation Task Force, chaired by Elizabeth Glazer, Director of the Mayor's Office of Criminal Justice and Zachary Carter, Corporation Counsel of the City of New York. This Task Force will bring together all of the entities that affect the size of our jail population–including, the police, prosecutors, defenders, state courts, local and state corrections agencies and service providers–to help us identify and implement strategies that will ultimately reduce the daily jail population to 5,000 people. The Task Force will also examine other issues essential to the creation of a smaller, safer and fairer jail system, including improving safety and opportunity for people inside the jails and designing modern jail facilities that are well integrated into New York City's dense, urban communities. Regular meetings of this Task Force will ensure greater levels of accountability and coordination as we drive towards closure.

Once the jail population reaches 5,000, the City will be in a position to close Rikers Island for good. Doing so will depend on the desires of neighborhoods and their elected officials, as even a jail population of 5,000–significantly smaller than the jail population today–will still require identifying and developing appropriate sites for new jails as well as renovating existing facilities in the boroughs. We are committed to an open, ongoing conversation with New Yorkers and the City Council to work through these issues.

We also have a responsibility to those who are in our jails right now. They cannot afford to wait a decade. Even as we plan the end of Rikers Island we must do all we can to ensure that it is safer and fairer now. That isn't just the right thing to do. It is the smart thing to do. We are confident that upgrading the facilities and offering more and better support for incarcerated people will help us reduce the size of the jail population by curbing recidivism. Better facilities, programming and services will also allow us to provide safer working conditions and more professional development opportunities for corrections officers.

The plan we lay out in this report builds upon the work of many, including the Independent Commission on Closing Rikers Island convened by City Council Speaker Melissa Mark-Viverito and chaired by former Chief Judge of the State of New York Jonathan Lippman. We look forward to partnering with all New Yorkers to achieve the milestones laid out in our roadmap. Closing Rikers Island is an enormous undertaking with profound implications for our future. It is the right thing to do and together we can do it.

Mayor Bill de Blasio
City of New York

Executive Summary

Executive Summary

Our plan is to close Rikers Island and replace it with a smaller network of modern jails.

Our goal is a jail system that is smaller, safer, and fairer–one consistent with the overall criminal justice system we are building in New York City, in which crime continues to fall, the jail population drops significantly, and all New Yorkers are treated with dignity. Our newer system of jails will be focused on helping those incarcerated find a better path in life and maintain access to community supports. And it will ensure that officers have safer places to work and more support.

What follows is a credible path to that goal by continuing to reduce both crime and incarceration and by ensuring that the City's jails are humane productive places for those who work and are incarcerated there now. Specifically, this report includes 18 concrete strategies that will move the City toward a smaller jail population, safer facilities,and fairer culture inside jails.

This plan will not be easy. Historically, community opposition, land use requirements, and the high cost of acquiring and developing new land have prevented the City from siting new jails or even expanding existing jails. And it will not be fast. We estimate it will take at least a decade. In order to achieve our goal, we must have a jail population that is small enough to be housed safely off-Island. On an average day in 2017, there were approximately 9,400 people incarcerated in city jails with space for just 2,300 of these people in existing facilities in the boroughs. To close Rikers and replace it with a new, smaller network of jails, we will have to continue to bring the jail population down while ensuring that we sustain the City's historically low crime rate–which is down 76% from 1990.

We believe these obstacles are surmountable with the partnership of many. Through a Justice Implementation Task Force ("Implementation Task Force"), we will ensure the transparent partnership with New Yorkers across the City and with government, including the City Council and the State, required to close Rikers Island for good. The Implementation Task Force will ensure the effective execution of the strategies laid out in this report to ensure a correctional system that is:

This report is a concrete plan to create a correctional system with a smaller jail population, safer facilities, and fairer culture inside.

- **Smaller:** our goal is to reduce the average daily jail population by 25% to 7,000 in the next five years. To achieve this goal, the City will work with every part of the criminal justice system to implement strategies that:

  - Make it easier to pay bail;
  - Expand pre-trial diversion to allow more defendants to wait for trial in the community instead of in jail;
  - Replace short jail sentences with programs that reduce recidivism;
  - Reduce the number of people with behavioral health needs in city jails;
  - Reduce the number of state parole violators in city jails;
  - Reduce the number of women in city jails; and
  - Speed up case processing times.

  Fully implementing the strategies in this report to reduce the population to 7,000 will require the partnership of the entire criminal justice system, the health and education systems, and New Yorkers themselves in keeping crime low. With 7,000 individuals in city jails, New York City will be using jail almost exclusively for individuals facing serious charges or who pose a high risk, making further safe reductions difficult. But closing the jails on Rikers Island for good requires a daily jail population of 5,000 or fewer. To reach this goal, violent crime will have to decline in New York City and we will need to address the problem of chronic offending, which to date has been intractable nationwide and in which our shelter and health systems play an important role as well. As part of the Implementation Task Force, a Working Group on Safely Reducing the Size of the Jail Population will develop strategies to address these issues.

- **Safer:** our goal is to ensure that those who work and those who are incarcerated in city jails have safe and humane facilities as quickly as possible. We must start improving the conditions of our jails today. To achieve this goal, the City will:

  - Continue to make long-needed physical improvements to all city jails on-and off-Rikers Island using the more than $1 billion in funding that the Administration has already added to its capital plan over the last three years;
  - Triple the number of dedicated housing units designed for individuals with serious mental illness, which have been shown to reduce violence;
  - Improve officer safety by building a new training academy to ensure all corrections officers receive the best possible training; and
  - Enhance safety by implementing full camera coverage in all city jails by the end of 2017.

  A Design and Facilities Working Group, part of the Implementation Task Force, will convene design experts and neighborhood and community development leaders to help drive thoughtful design of new facilities and renovation of existing facilities.

- **Fairer:** our goal is to improve the culture inside city jails by increasing support and opportunity for corrections officers and everyone in the City's custody. The City has already invested over $90 million in professional development for corrections officers and in educational, vocational and recreational programming for incarcerated people to help reduce future returns to jail. To further improve the culture inside city jails, the City will:

  - Offer everyone in city custody five hours per day of education, vocational, and therapeutic programming by the end of 2018;
  - Provide everyone in city custody with reentry support and implement new programs for those who have served a city sentence, including support from trained, formerly incarcerated mentors and new transitional employment programs;
  - Foster connections to families and community by improving visiting;
  - Continue to develop and refine alternatives to punitive segregation that can safely house people who commit acts of violence; and
  - Better support correctional officers by offering peer mentoring for new recruits to reduce attrition and supportive services for staff to deal with distress and trauma.

  A Culture Change Working Group—part of the Implementation Task Force and comprised of corrections officers, formerly incarcerated individuals and their families, as well as representatives from government and non-profits that provide programming in jails—will guide implementation of the new strategies contained in this report to improve visits, programming, reentry, and support for officers and staff.

Ultimately, closing all the jails on Rikers Island will depend not only on reducing the size of the city jail population to 5,000, but also on the willingness of neighborhoods and their elected officials to identify appropriate new sites. We are committed
to an open, ongoing conversation with New Yorkers and the City Council to work through these issues. The Design and Facilities Working Group will partner with communities to address issues related to the complicated siting process, including looking at how jails can be designed to better integrate into New York City neighborhoods.

The City cannot accomplish these goals alone. It will require the work of many partners. We will need the NYPD to build on its success in keeping crime at historic lows through precision policing efforts. We will need continued investment in neighborhoods and in our people to keep New Yorkers from getting involved in the criminal justice system in the first place. We will need the active partnership of residents to help reduce and solve crimes. Courts will need the resources to manage case processing effectively and justly. We will need prosecutors and the defense bar to prioritize reducing case delay while promoting justice. We will need to provide incarcerated people with the quality programming that has a demonstrated effect on reducing recidivism. And we will need to support corrections staff to serve the public at the highest levels of integrity.

This plan outlines the commitment we are making to New Yorkers. We will need your help to achieve these goals and invite you to join us at **nyc.gov/rikers**

Smaller:
Safely reduce the City's jail population by 25% over the next 5 years

The Plan: Smaller

Our goal is to operate the smallest jail system possible without compromising public safety. This is a matter of justice: no one should be incarcerated who does not pose a risk, either to public safety or of not returning to court. It is also a matter of pragmatism: the smaller the jail population, the easier it becomes to close the aging, isolated facilities on Rikers Island and replace them with a smaller network of safe, humane and modern facilities.

In the last three years, New York City has made great strides toward this goal. Major crime has fallen by 9% and the size of the jail population has dropped by 18%, giving us the lowest incarceration rate of any big city. On an average day in the first quarter of 2017, there were roughly 9,400 people incarcerated in New York City. Our strategy to reduce the population further while maintaining safety has two phases:

1 First, over the next five years, we will work toward the goal of safely reducing the size of the jail population by an additional 25% to 7,000. Doing so will require full implementation of the strategies laid out below to reduce the number of people who enter jail and the length of time they stay – both of which necessitate the commitment of every part of the criminal justice system and the partnership of New Yorkers in keeping crime at historic lows.

2 Second, working with our partners in the criminal justice system, we will develop innovative ways to reduce the population further, with a goal of reaching 5,000. As the size of the jail population falls to 7,000, jail will increasingly be reserved only for individuals charged with serious crimes or who are a high risk of flight. Further reductions will require developing solutions to complicated problems like chronic recidivism and reaching a consensus as to the appropriate use of confinement for those charged with violent crimes (discussed in further detail below).

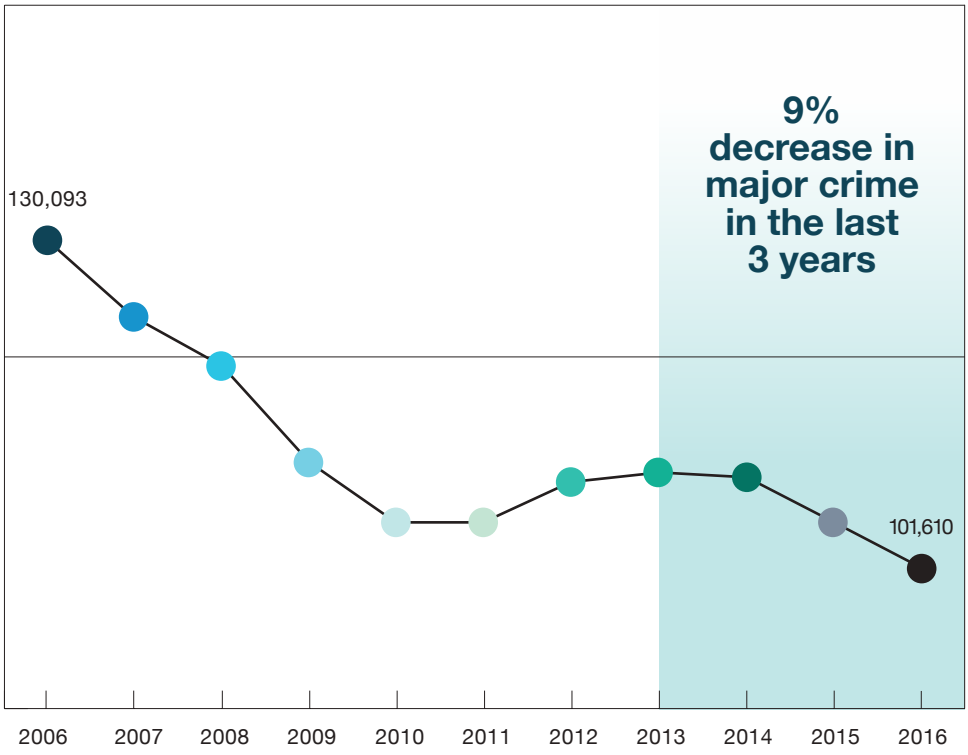
On the next pages are the concrete strategies that will move us toward these goals. To help shape further interventions and ensure effective implementation, this work will be guided by a Working Group on Safely Reducing the Size of the Jail Population, which will be part of the Implementation Task Force and comprised of experts and practitioners from inside and outside of city government.

For real-time updates on this work, please visit nyc.gov/rikers.

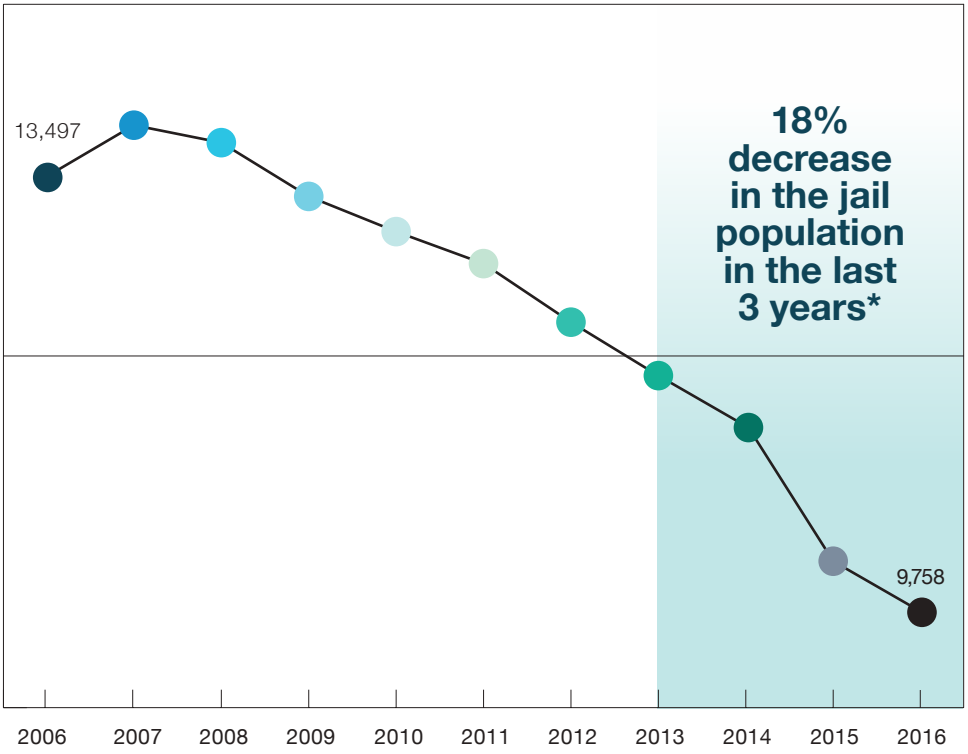
The data used throughout this section comes from city and state agencies. For a complete data breakdown of the current jail population and opportunities to reduce, please see the Justice Brief available at **www.nyc.gov/rikers.**

Both crime and the size of the jail population are falling in New York City

Major Crime in NYC



Average Daily Jail Population



*The average daily jail population has continued to decline. In 2017, the average daily population is 9,400.

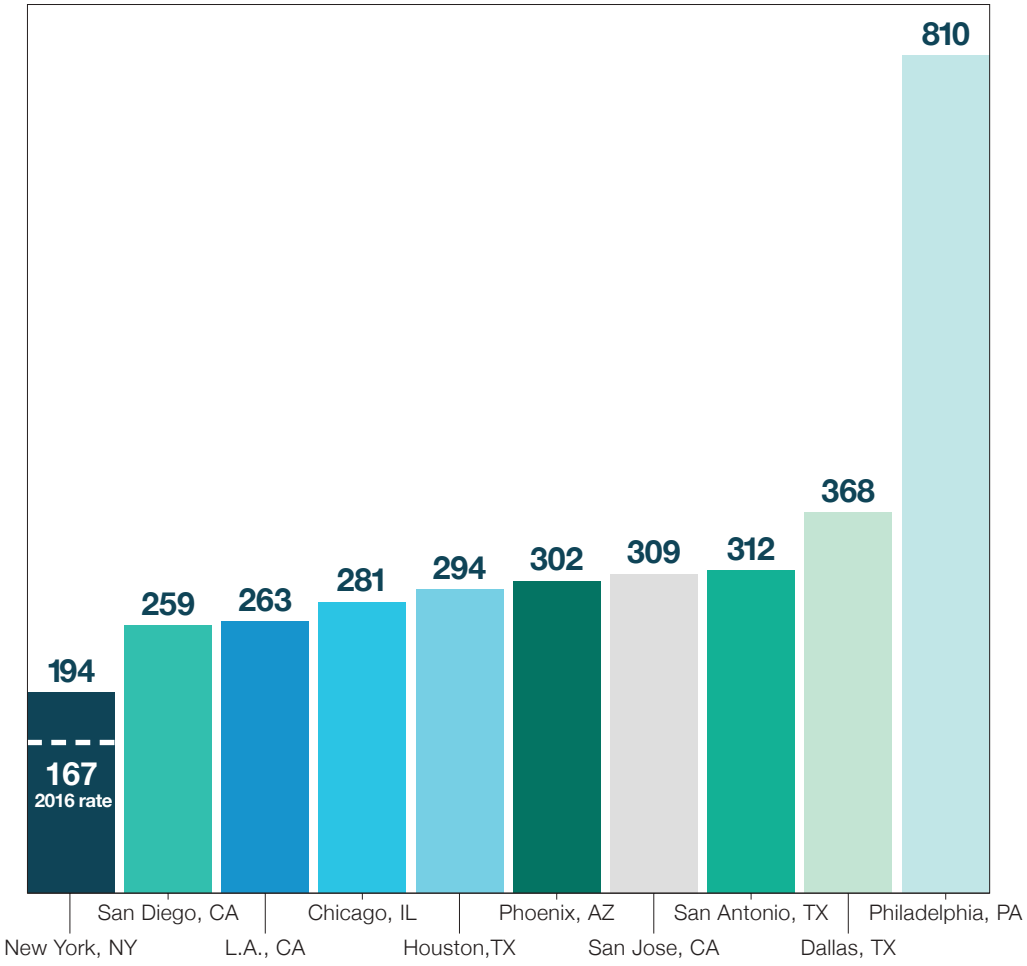
Sources: The City of New York, Mayor's Management Report (New York: Mayor's Office of Operations' Performance Management Team, 2016); New York Police Department CompStat Unit, Year-End Report 2016. *Major crime includes: murder, rape, robbery, assault, burglary, larceny, grand larceny automotive.

Current Context

The size of the jail population in New York City has been steadily declining for thirty years. While jail and prison populations around the country increased, New York City's jail population has fallen by half since 1990 even while major crime fell by 76%. This experience has shown that it is possible to have both more safety and less incarceration. In fact, New York has the lowest rate of incarceration among the largest cities in the country while retaining its status as one of the safest big cities.

New York City's use of jail is the lowest among large U.S. cities*

2014 incarceration rate per 100,000 people



The trends toward less crime and less use of jail have accelerated in New York City over the last three years. Because of deliberate efforts to rethink policing strategy, expand alternatives to jail, and reduce the time it takes cases to move to conclusion, fewer people are entering city jails and the number of people in city jails for longer than one year has declined. Steep declines in the number of people admitted to New York City jails are evident across a number of different categories, including those detained pretrial on misdemeanors (down 25%), those serving sentences (down 34%), and those detained on bail of $2000 or less (down 36%). After increasing for decades, the average length of time it takes a Supreme Court case to reach disposition has shrunk by 18 days over the last two years.

*The chart contains the top ten cities by population size in the United States, 2015.

Source: Vera Institute of Justice, "Jail incarceration rate", 2015; available at http://trends.vera.org/incarceration-rates.

New York City jail populations with the steepest declines over the last three years

Population	Decline	Reduction Strategy
Misdemeanor detainees	**5600** fewer jail admissions **(-25%)**	**Reduce number of people who enter jail** (Supervised Release, bail reform, enforcement strategy)
City-sentenced population*	**3900** fewer jail admissions **(-34%)**	**Reduce number of people who enter jail** (alternatives to incarceration)
Non-violent felony detainees	**2530** fewer jail admissions **(-13%)**	**Reduce number of people who enter jail** (Supervised Release, bail reform, enforcement strategy)
Mental health service users	**297** fewer in custody on an average day **(-7%)**	**Reduce number of people who enter jail** (diversion) and **reduce length of stay** (enhanced programming and services in custody to avoid decompensation and case delay)
Detainees with bail up to $2,000	**244** fewer in custody on an average day **(-36%)**	**Reduce number of people who enter jail** (Supervised Release, bail reform, enforcement strategy)
People in custody for longer than one year	**110** fewer in custody on an average day **(-8%)**	**Reduce length of stay** (shortening case processing times)
Adolescents (16-to-17) and young adults (18-to-21)	**64** fewer adolescents in custody on an average day **(-30%)**; **233** fewer young adults in custody on an average day **(-18%)**	**Reduce number of people who enter jail** (diversion) and **reduce length of stay** (shortening case processing times)

*These are individuals who have been convicted and are serving a sentence of one year or less. Sentences of longer than one year are served in State prison.

Source: Mayor's Office of Criminal Justice analysis of Department of Correction data.

A number of factors have driven these declines in New York City's jail population:

- **New Yorkers commit fewer crimes.** Every type of major crime has fallen in New York City in the last three years: violent crime is down 8%, property crime is down 10%, and shootings are down 10%.

- **The NYPD arrests fewer people.** Although not every arrest leads to jail–approximately 15% of arrests do–enforcement trends do affect the size of the jail population. Police in New York City have increasingly focused enforcement resources on violent crime, while de-escalating their activity around lower level offenses. This has led both to a steep reduction in arrests for misdemeanors (down 22% since 2013) and a greater emphasis on arrests for more serious offenses that could lead to jail. For instance, gun arrests are up 23% since 2013. However, because gun arrests are such a small proportion of arrests overall, the large reduction in misdemeanor and non-violent felony arrests have helped to drive down the overall jail population.

- **The City has expanded reliable, effective alternatives to jail.** New York City has multiple diversion options that judges can use instead of setting bail at arraignment or sentencing a defendant to jail. Approximately 4,000 people are diverted from city jails every year through these alternatives to incarceration. One of the newest and largest options, which started in March 2016, is called Supervised Release. Crafted by judges, prosecutors, and defenders, Supervised Release is a program that gives judges the option at arraignment to release low-and medium-risk defendants, with modest mechanisms such as weekly meetings with a social worker or text message reminders to ensure defendants return to court. To date, the program has served over 3,700 people with a 92% success rate in defendants returning to court.

- **Judges continue to allow a larger percentage of defendants than in any other city to wait for trial in the community instead of in jail.** Nearly 70% of all defendants are released without conditions (such as bail), known as released on recognizance ("ROR"). New York City's 70% ROR rate is more than double that in Washington, D.C., the next largest user of this form of pretrial release[1].

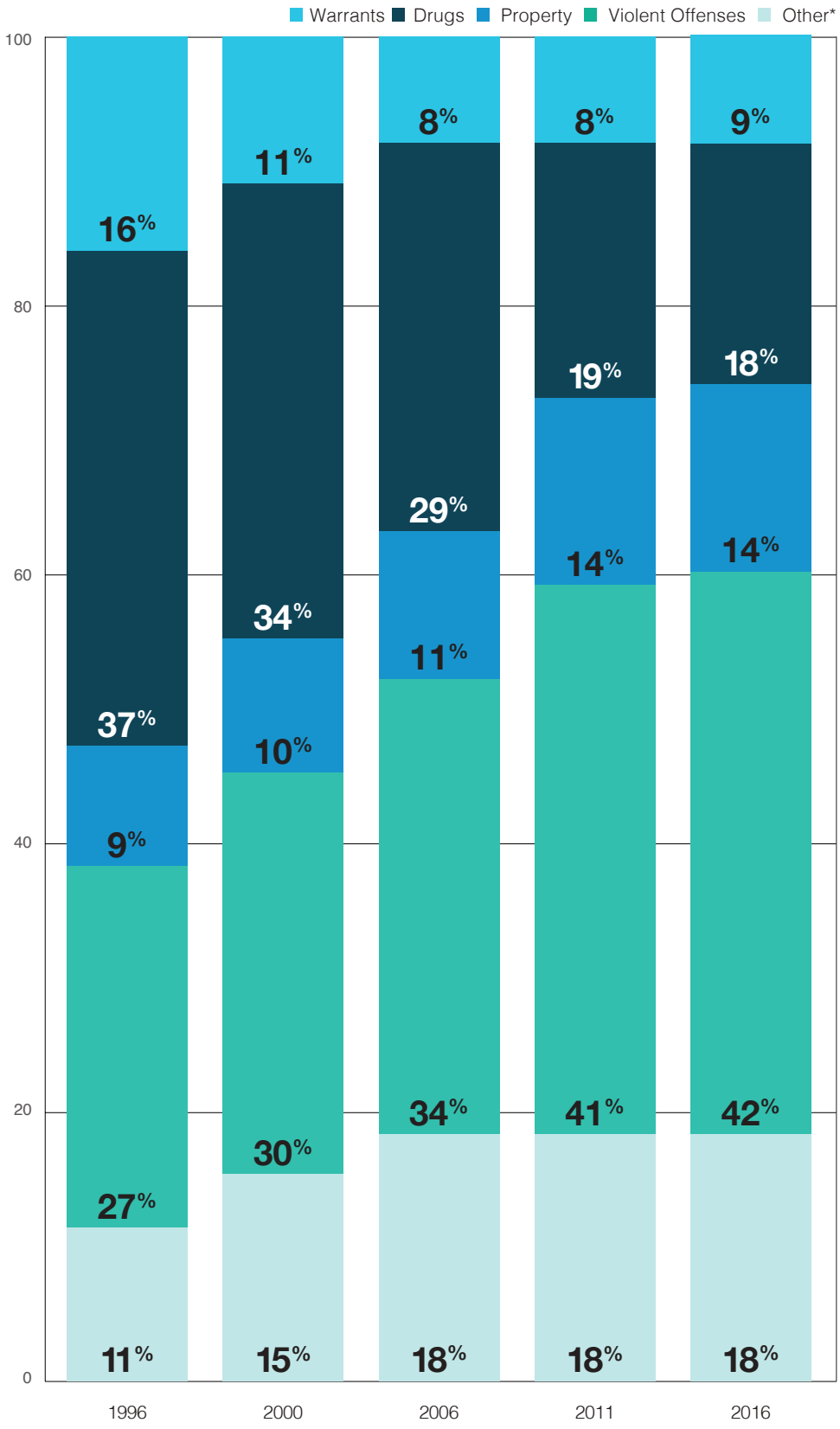
- **Every part of the criminal justice system is working together to reduce case delay.** After increasing for decades, the average length of a Supreme Court case in New York City has shrunk by 18 days since April 2015, when the Mayor's Office, the courts, the City's five district attorneys and the defense bar launched Justice Reboot, an initiative to reduce case delay in a lasting, systemic way.

Today, as a result of these efforts to reduce the use of jail for people charged with lower-level offenses or at low risk of failing to appear for court if released, a greater percentage of those in jail are facing serious charges or a higher risk of not returning to court. The percentage of the jail population held on violent offenses has increased 56% over the last twenty years, while those held on lower level offenses (in particular drug offenses) has dropped 51%. Today, 91% of the pretrial population in city jails is held on a felony charge (49% on violent felony charges), over half of the jail population is facing multiple cases—the resolution of which can delay discharge from Rikers—and 69% are at medium or high risk of failing to appear in court, the primary basis on which a New York State judge can hold a defendant.

1. Data reported to the Mayor's Office of Criminal Justice by the Pretrial Services Agency. Washington, D.C.: June 2016.

Fewer individuals in jail for drugs, more for violent offenses

Over the past 20 years, the composition of the jail population has shifted as it has decreased in size. Changes in police enforcement and an expansion of diversion programs have reduced the number of people held on misdemeanor and non-violent felony charges (such as drug possession). As the population has become smaller, a greater percentage are held on serious or violent charges or a judge has determined that they pose a high risk of missing a court appearance.



*Top other charges include larceny and criminal contempt.

Source: The Mayor's Office of Criminal Justice analysis of New York City Department of Correction data, 2016.

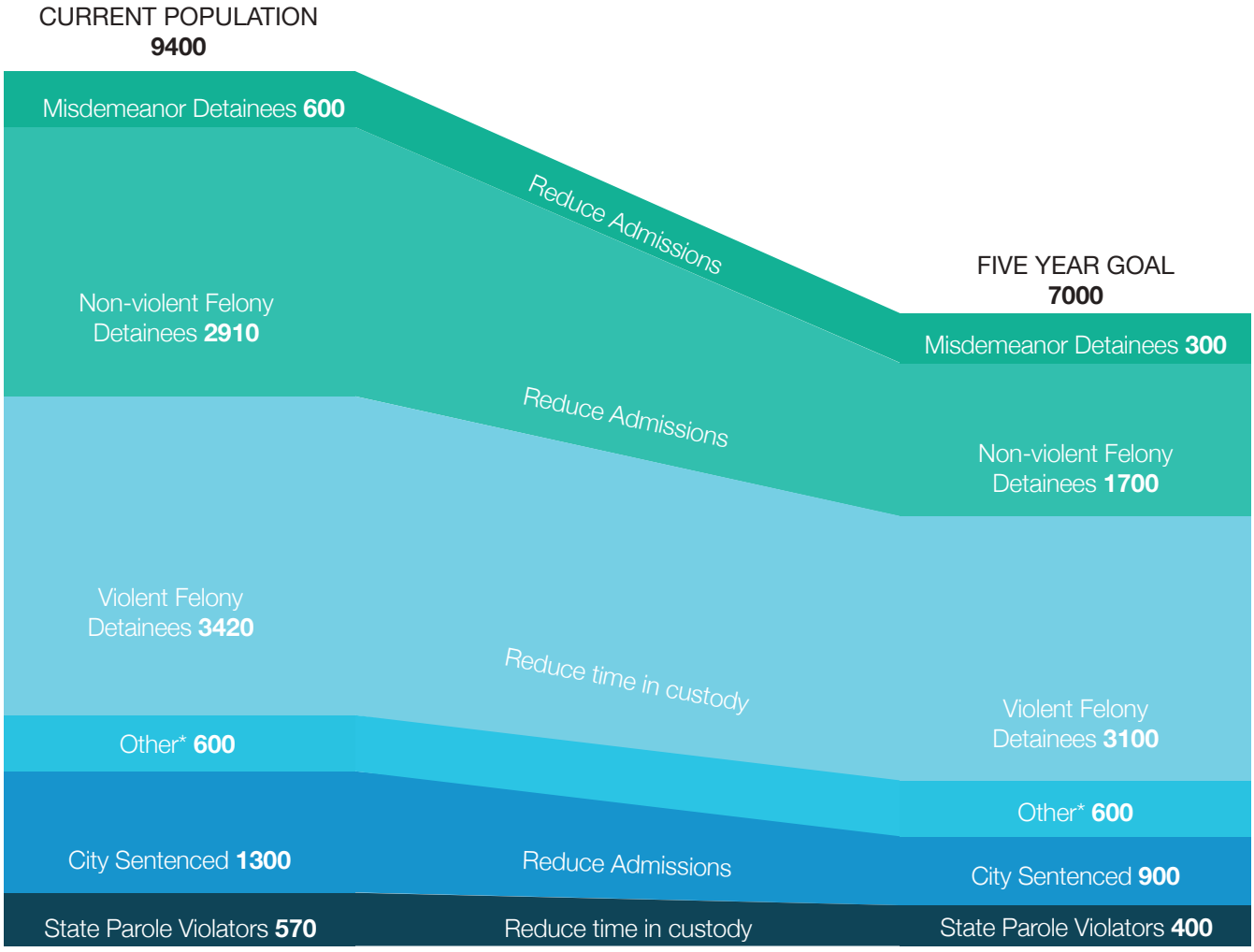
Although the majority of people in our jails are charged with serious crimes, have multiple cases or pose a medium or high risk of failing to appear in court, there are still opportunities to reduce the jail population safely. The strategies below will expand appropriate alternatives to jail for those who could be safely supervised in the community, make it easier to pay bail, and increase the speed at which cases are resolved (so that people can be released or start serving their sentences either in the jails or in prison). It will take the focused commitment of every part of the criminal justice system and the partnership of New Yorkers in keeping crime at historic lows to ensure that these strategies are successful. With that partnership, these strategies can reduce the average daily jail population by 25% over the next five years while protecting public safety.

At 7,000, our jails will consist primarily of those charged with violent offenses and chronic offenders. Thus, further reductions will require significant changes in how we prevent and address both kinds of behavior. A Working Group on Safely Reducing the Size of the Jail Population, which will be part of the Implementation Task Force, will be charged with developing concrete ways to achieve the eventual goal of reducing the size of the jail population to 5,000 (more below in Strategy 9).

Five Year Goal: Reduce the jail population by 25% to 7,000

Reducing the average daily jail population to 7,000 will be accomplished by (a) reducing the number of people who enter the jails, and (b) reducing the amount of time people spend in the jails. Admissions and length of stay are the two drivers of the size of the jail population. Please see Appendix A for additional information on how each population reduction was calculated.

The strategies in this section are projected to reduce the jail population by 25% over the next 5 years



STRATEGIES TO REDUCE THE NUMBER OF PEOPLE WHO ENTER JAIL

About half of the jail population turns over every nine days. These individuals, who only stay in jail for a short time, tend to be charged with lower-level offenses and most are able to make bail after a few days in jail. Others plead guilty and receive short jail sentences. With appropriate, evidence-based guidance and programming that judges and prosecutors can rely upon, it is possible, without sacrificing public safety, to divert from the jails some additional individuals who pose a lower risk, for the most part, misdemeanor and non-violent felony detainees and those serving a city sentence.

*Other includes those held on warrants and state holds.

Source: The Mayor's Office of Criminal Justice analysis of New York City Department of Correction data, 2016.

Projected reduction: approximately

710

over 5 years

Strategy 1: **Provide judges with modern tools that assess the likelihood a defendant will return to court, assisting decisions to release or detain while a criminal case is pending**

Providing better information to judges to assist in their assessment of a defendant's risk of flight will further reduce the jail population. The City's pretrial services agency interviews all arraigned individuals and provides an assessment to the courts on that person's likelihood of returning for future court dates. While this type of assessment has been in use in New York City since the 1960s, the City is currently working to update the instrument using more recent data and new technologies that will allow for more accurate assessments. An updated instrument that accurately reflects risk could reduce the average daily population in city jails by approximately 710 people in the five years following implementation.

New York City is also seeking to improve the tools available to judges to assess risk by continuing to advocate for a change in state law that would allow judges to consider a defendant's risk to public safety, and not just the risk that the defendant might fail to appear for future court appearances, when making bail decisions. Currently, New York is one of only four states that prohibit judges from considering public safety when making decisions about release, with a few narrow exceptions[2]. Allowing judges to consider danger when making bail decisions is a common sense reform. It would improve public safety by ensuring that judges take into account a defendant's risk to public safety, and not just the risk that he or she might fail to appear for court appearances.

For more information on how the population reduction projections in the section were calculated, please see Appendix A.

Why risk assessment matters

The goal of effective risk assessment instruments is to improve the criminal justice system's accuracy by ensuring we can separate the few individuals who should be detained from the many who should not. When used well, risk assessment instruments can improve both safety and fairness.

Risk assessment instruments are used across the country to evaluate defendants' likelihood of pretrial success, meaning their likelihood of attending all court dates and not getting re-arrested while awaiting trial in the community. These risk instruments are constructed by taking historical data and calculating what factors are most associated with missing a court appearance or getting re-arrested–for example, a past record of missing court dates–and building a model to predict future outcomes.

These models are validated by researchers to ensure they are accurate, and then they are assessed by policy-makers, practitioners and researchers to ensure they do not produce biased outcomes based on race and gender. Risk assessment has been used for decades in New York City, and through developing and validating more accurate tools while ensuring that we are avoiding biased outcomes, risk instruments will help New York City's criminal justice system to continue reducing unnecessary incarceration while protecting public safety.

2. New York is one of only four states that prohibit judges from considering public safety when making decisions about release, with a few narrow exceptions. NY CPL § 510.30. The City supports a change in state law to allow judges to consider public safety risk as well as a person's risk of flight.

Projected reduction: approximately

200

over 5 years

Strategy 2: **Reform the bail system by making it easier for people to pay bail**

Money bail can undermine fairness if low-risk defendants are held in jail because they cannot afford relatively small bail amounts. And it can undermine public safety if higher-risk individuals are able to post high bail amounts and secure release. For the last two years, New York City has been working to reduce reliance on money bail by expanding alternative-to-bail programs such as Supervised Release, a new program that allows judges to release lower risk defendants to a supervisory program in the community instead of setting bail. This new program, coupled with the efforts described below to make it easier to pay bail, has led to a 36% reduction in the number of people in jail on bail of $2,000 or less in the last three years. (Learn more about the City's efforts to reduce reliance on money bail at www.bail-lab.nyc). Taken together, the two strategies below could reduce the average daily jail population by 200 over the next five years:

Reduce inefficiencies in the bail payment process to allow those who can post bail to do so more easily:

- Approximately three-quarters of people who pay bail do so within seven days of arraignment. Often they end up at Rikers because they were not able to raise bail in time; they did not have access to cash or some other reason not associated with the merits of their case. To remedy these issues, the City is working to make it easier for defendants and their family members to pay the bail the judge has set. An online bail payment system and ATMs in every courthouse will be in place by late 2017. Additionally, the City is investing $490,000 per year to add 50% more "bail expediters" citywide, staff who can help families pay bail before their relative enters jail by interviewing defendants about who could help them post bail, contacting family members to let them know bail has been set, and helping to ensure that defendants are held at the courthouse while their contacts make the trip to court to post bail.

Help people charged with misdemeanors who pose a low or medium risk of flight post bail when it is unaffordable:

- For some defendants and their families, low amounts of bail can be out of reach financially, even though the judge may have intended it to be met. New York City has launched a charitable bail fund that expands the availability of this resource from the Bronx and Brooklyn to all five boroughs. Created by the City Council with public funds, it pays bail of $2,000 or below for an estimated 1,000 low-and medium-risk misdemeanor defendants annually. Three programs that perform the same service have been in place in the Bronx and Brooklyn since 2012 and defendants bailed under this program return to court on time in 97% of cases.

For more information on how the population reduction projections in the section were calculated, please see Appendix A.

Projected reduction: approximately

500

over 5 years

Strategy 3: **Expand diversion programs that allow low-and medium-risk defendants to remain in the community while their case is pending**

New York City has multiple diversion options that judges can use instead of setting bail at arraignment. Currently, judges divert to city-funded programs approximately 4,000 New Yorkers from jail every year. One of the newest options, which started in March 2016, is called "Supervised Release," a new citywide alternative to jail program that allows individuals to wait for trial in the community, working and living with their families. To date, the program effectively diverted over 3,700 people from jail, 92% of who successfully returned to court. Beginning in June, the City is investing an additional $2.3 million per year to enhance Supervised Release's capacity to serve people with behavioral health needs, including additional masters-level clinical social workers and peers, as well as increasing by 10% the number of people who can be diverted from jail through Supervised Release every year.

Projected reduction: approximately

300

over 5 years

For more information on how the population reduction projections in the section were calculated, please see Appendix A.

Strategy 4: **Replace short jail sentences with programs that reduce recidivism**

Beginning in July 2017, the City will start a new $5 million per year program that could dramatically reduce jail sentences of less than thirty days. Over the course of a year, there are approximately 9,000 admissions to jail on these short sentences. Many of these individuals have had multiple, short stays in jail over the course of their adult lives—a pattern often exacerbated by homelessness and behavioral health needs. Beginning in the summer of 2017, judges will have the option to assign individuals to short-term programs that can include community service, vocational training, case management, and health treatment. Programs will be specifically tailored to individuals' risks and needs and will help address some of the issues—such as chronic homelessness or substance use—that could be leading to repeated jail stays, providing instead a pathway to stability and self-sufficiency. The City will closely evaluate the program to ensure effectiveness. New York City is the first jurisdiction in the country to launch a program explicitly to reduce these short jail sentences.

Projected reduction: approximately

50+

over 5 years

Other strategies in this section will further reduce the number of people with behavioral health needs in city jails. This projection is solely for a program specifically serving this population.

In the three years since the Mayor's Task Force on Behavioral Health and the Criminal Justice System launched, the number of individuals with a mental health diagnosis in city jails has dropped by 7%.

For more information on how the population reduction projections in the section were calculated, please see Appendix A.

Strategy 5: **Reduce the number of individuals with mental illness and substance use disorders held in the jails through continued implementation of the Mayor's Action Plan on Behavioral Health and the Criminal Justice System**

In December 2014, Mayor de Blasio announced the Mayor's Action Plan on Behavioral Health and the Criminal Justice System, 24 interlocking strategies to reduce the number of people with behavioral health needs cycling through the criminal justice system. These strategies included reducing arrests and diversion to treatment where appropriate, ensuring that those who do enter the criminal justice system are treated in a therapeutic way, and that the City provides support for individuals to live stable lives in their communities to prevent future returns to jail. Before the launch of this Action Plan, the number of people with behavioral health needs in city jails had been increasing for years—despite the decline in overall jail population. In the three years since this concerted effort began, the number of individuals with a mental health diagnosis in city jails has dropped by 7%.

The City will continue these efforts, training more police officers on how to intervene effectively in situations where people are in crisis, opening community-based drop off centers that provide short-term case management as an alternative to arrest, and offering permanent supportive housing. To date, 102 individuals have been placed in supportive housing. These individuals are among the highest users of jail in New York City, are chronically homeless and are dealing with severe behavioral health issues. Collectively, these individuals have served over 36,000 days in jail and spent over 22,000 days in shelter over the last five years. Permanent housing, coupled with supportive services to help these individuals stabilize, will save the City an estimated $1.6 million annually through reduced hospital visits, shelter admissions, and trips to jail. These efforts are expected to reduce the average daily jail population by 50. Other strategies in this section—including Supervised Release, the new program offering alternatives to short jail sentences, and efforts to reduce case delay—will also contribute to further declines in the number of people with behavioral health needs in city jails.

New Resources for Behavioral Health Citywide

Both in New York City and across the country, a relatively small number of people consume a disproportionate share of shelter, jail and emergency room resources. These individuals tend to be chronically homeless, struggle with severe behavioral health issues, and return to jail frequently on lower-level charges. This problem of frequent use remains a large, unsolved issue that jurisdictions nationwide are working to solve, one prominent example being through the federal Data-Driven Justice Initiative.

New York City has launched several city-wide initiatives, including ThriveNYC and HealingNYC, which broadly expand services for people with behavioral health needs and aim to help the population that frequently cycles between jail and shelter.

ThriveNYC is an unprecedented commitment of over $850 million for 54 initiatives to improve the mental health of NYC. The focus on prevention, including a new network of school-based services, will keep people from going down a path toward instability that so often leads to cycles of arrest and incarceration. Closing treatment gaps, expanding services like supportive housing, building our mental health workforce, and creating NYC Well–a single point of entry for New Yorkers who need any kind of connection to behavioral health services–will improve the health of our city.

HealingNYC, which launched in March 2017, is a comprehensive, $38 million initiative to prevent opioid overdose and includes several programs that specifically target people in the criminal justice system. Through HealingNYC, the City is committed to locating more evidence-based substance use treatment services, like Medication Assisted Treatment, in jails while increasing reentry planning to serve the approximately 1700 individuals with substance use disorders in the jails on an average day. These new and expanded programs will not only reduce the risk of drug overdose for people leaving jail (a leading cause of death for people recently released from jail), but will help put incarcerated people with behavioral health disorders on a stable path toward recovery—making them less likely to return to jail. Tools of the criminal justice system should not be the default response to people in crisis, and the City is dedicated to targeting initiatives that get people the public health services they need to avoid incarceration and ultimately thrive.

Projected reduction: approximately

20+

over 5 years

Other strategies in this section will further reduce the number of women in city jails. This projection is solely for a new program specifically serving women.

Strategy 6: **Reduce the number of women in city jails by providing programs inside and outside of the jails focused on their unique needs**

There are approximately 630 women in custody on an average day. A limited survey of women in New York City jail found a high need for employment upon release and also that women in jail are often caregivers, and many have experienced domestic violence[3]. Additionally, approximately 75% of women in jail use mental health services while in custody, compared to 42% for the jailed population as a whole. The most common diagnoses are depression, anxiety, adjustment disorder, and personality disorders.

Similar to the overall jail population, 50% of women who enter custody leave within one week. Forty-three percent of women detained pretrial face either misdemeanor or non-violent felony charges (compared to 37% for the overall jail population). The City's strategies to reduce the use of jail for individuals facing misdemeanors and non-violent felonies—including Supervised Release and bail reform, mentioned earlier in this section—will help to reduce the number of women in city jails.

In addition to bringing down the number of women in the jails through broader population reduction strategies, the City also plans to implement a new program tailored specifically to homeless women. Rolling out in the summer of 2017 and back by a three-year investment of $7 million, the new program will be focused on the approximately 510 women who are admitted to city jails every year who report they are homeless–some of whom could be diverted from jail if their housing needs are addressed. This new program will offer transitional housing to women who are homeless to make it easier for them to participate in alternative to jail programs, many of which require permanent housing as a requirement for eligibility. This program is projected to divert 250 women from jail per year; given the relatively short jail stays of this population, this will reduce the average daily jail population in city jails by approximately 20.

In addition to these targeted programs to reduce the number of women who enter jail, the City has an array of programs for women in custody. There are currently more than 25 programs operating in the Rose M. Singer Center (RMSC), the jail where all women are housed, including:

- Seeking Safety, an evidence-based, trauma-informed therapy that has been proven effective for women with behavioral health needs;
- Manhattan College, which allows women with a high school diploma or GED the opportunity to earn credits toward a college degree while incarcerated;
- Single Stop, a partnership with the Center for Urban and Community Services that assists women serving a sentence in jail with public benefits and other civil legal matters;
- Steps to End Family Violence, which offers workshops that promote healing and social change and provides real assistance for women with custody issues; and
- HOUR children-parenting class, which focuses on women with children, including those women who have babies with them in the RMSC nursery.

For more information on how the population reduction projections in the section were calculated, please see Appendix A.

3. Internal surveys conducted by the Department of Correction and the Mayor's Office of Criminal Justice, 2016.

These programs address the unique needs of women, laying the foundation for future stability and reducing the number of women who return to jail. Also, moving forward, women leaving jail after serving a city sentence will qualify for the City's new transitional employment program as well as an array of supportive services to help prevent future returns to jail.

Finally, as part of the Implementation Task Force, the City will work with partners inside and outside of government to develop additional strategies tailored to the issues facing women in the criminal justice system.

Projected reduction: approximately

170

over 5 years

Strategy 7: **Reduce the number of State technical parole violators in New York City jails**

New York State technical parole violators constitute 6% of the average daily population in city jails, approximately 570 individuals on any given day. Technical parole violators have violated a condition of their State parole (such as failing to show up for a meeting or failing to update an address), not committed a new criminal act. Even though 70% of the technical parole violators are ultimately returned to state prison after their parole hearing process is completed, state law still requires them to be housed locally, to the extent practicable, at an average annual cost to New York City of tens of millions of dollars.

To reduce the number of state parolees in city jails, the City is recommending that the State:

- **Reduce the number of State technical parole violators who enter city jails:**
  - **Expand funding for alternative to jail programs.** The State currently funds one parolee diversion program for state parole violators in New York City at Edgecombe Correctional Facility. The State's investment in available diversion programs for state parolees should be expanded.
  - **Change state law to allow for immediate, safe diversion from jail.** Current state law requires that everyone arrested on a parole violation be immediately jailed. The City is calling on the State to replace this law with a risk-driven system in which those who pose a high risk are detained and those who pose a lower risk have an opportunity to remain in the community by being assigned to an alternative to jail program.
  - This change to state law, coupled with an expanded investment in alternative to jail programs for State technical parole violators, could prevent 480 of the 4,000 yearly admissions to jail for state technical parole violators, reducing the average daily jail population by 70.
- **Reduce the length of time state parolees spend in city custody:** State parole violators spend an average of 55 days in city custody. The State should take steps to reduce the length of time it takes to process a parole violation and the length of time it takes to transfer an individual from city jails back to state prison after the parole hearing. These strategies could reduce the number of people in city jails by 100.

For more information on how the population reduction projections in the section were calculated, please see Appendix A.

The average length of a Supreme Court case in New York City has fallen by 18 days in the last two years.

STRATEGIES TO REDUCE THE AMOUNT OF TIME PEOPLE SPEND IN JAIL

The length of time that people spend in jail, particularly for pretrial detainees who make up 74% of the jail population, is a significant driver of the size of the jail population. In 2016, pretrial detainees spent an average of 57 days in custody, with those detained on misdemeanors staying an average of 22 days and those detained on violent felonies staying an average of 111 days in jail. Those detained on homicide charges stay an average of 390 days, far longer than any other charge.

The City is particularly focused on reducing the length of time that detainees spend in jail not just because it will reduce the size of the jail population but because long periods of pretrial detention present problems of justice and safety. As cases drag on, delays can be compounded by the turnover of attorneys and the disappearance of witnesses, making cases more difficult to resolve. Most importantly, victims of serious crime should not have to wait long periods of time to see justice served, individuals who are innocent of any crime should be swiftly returned to their communities and those who are guilty of serious crimes should be sent to state prisons to serve their sentences.

Reducing length of stay in jail requires significant cooperation and coordination among a number of different entities, including the courts, Mayoral agencies, state corrections, district attorneys and defense attorneys. The City will continue to work with all the relevant actors to reduce further the length of time people spend in the jails while their cases are resolved.

Projected reduction: approximately

450

over 5 years

For more information on how the population reduction projections in the section were calculated, please see Appendix A.

Strategy 8: **Speed up case processing times**

The single largest driver of the jail population is the length of time people are held pretrial. In April of 2015, the Mayor and then Chief Judge of the State of New York Jonathan Lippman launched "Justice Reboot," an initiative to reduce case delay by addressing systemic causes. Over the last two years, this effort has regularly brought together leadership from the courts, Mayoral agencies, district attorneys' offices and the defense bar to identify and resolve causes of delay. After increasing for decades, the average length of a Supreme Court case in New York City has fallen by 18 days in the last two years.

With the full participation of every part of the criminal justice system to continue reducing the time between court appearances and ensuring that each court appearance is used productively, case delay for felony cases could be reduced by an additional 20 days over the next five years. Doing so would result in 450 fewer people in city jails.

Eventual goal:

Reduce the jail population to 5,000

Strategy 9: **Develop additional strategies to reduce the jail population further from 7,000 to 5,000**

Once the jail population reaches 7,000 through implementation of the strategies laid out above, jail will be increasingly reserved in New York City for individuals who are facing very serious charges or who pose a high risk of flight. We project that in five years, the pretrial population will be: 61% individuals facing violent felony charges (3100 individuals), 33% individuals facing non-violent felony charges (1700), and 6% individuals facing misdemeanor charges (300). Some individuals charged with low-level crimes are deemed high-risk because they have a history of chronic offending and/or a history of prior failures to appear in court. Given this, further reductions to the size of the jail population will require developing new approaches for both those facing violent felony charges and chronic offenders.

Because of this composition, further safe reductions to the size of the jail population will become increasingly difficult: we will need to develop strategies to reduce the number of admissions and time spent in jail by both violent and chronic offenders. There are some additional strategies for that effort:

- **Developing reliable alternative to jail programs for individuals charged with felonies.** Other jurisdictions have experimented with more intensive community supervision models for higher risk populations, including elements such as electronic monitoring, home confinement, or mandated outpatient treatment. New York City could explore whether these approaches, as well as others, could safely divert defendants facing felony charges from jail. For every four defendants charged with a felony who are diverted from jail, the average yearly population in city jails could be reduced by one.
- **Significantly reducing violent felony case processing times.** Strategy 8 focuses on reducing the length of time it takes to process all felony cases, which could help to reduce the jail population to 7,000 over the next five years. Reducing beyond 7,000 will require focusing specifically on shortening case processing times for violent felony cases, as these cases tend to be the most complex and protracted. For every 10% reduction in the length of homicide cases, the jail population could reduce by approximately 50. However, speeding up violent felony case processing times will require developing new strategies as well as sustained coordinated effort from the court system, the City, defense attorneys, and district attorneys. It will also require New Yorkers to show up as jurors, grand jurors and witnesses, as lapses in attendance are a driver of court delay and thus of the jail population.

For more information on how the population reduction projections in the section were calculated, please see Appendix A.

- **Pursuing effective strategies to reduce chronic offending.** In New York City, a small segment of the population frequently cycles between jail, shelter and hospitals. These individuals tend to have severe behavioral health needs. To reduce this number, we will need to identify solutions for the high utilizers of shelters, jail, and hospitals–an issue that jurisdictions across the country have yet to entirely solve.

Each of these steps would require a seismic shift in culture and expectations by New Yorkers and the justice system. While research has demonstrated that individuals charged with more serious offenses often have the lowest re-offending rates and typically return for their court appearances[4], will judges and prosecutors be confident enough to release these individuals while they await trial? And while there is broad agreement that jail is not the right response for chronic low-level offending, we do not yet have, but are dedicated to developing, interventions that work and that judges can rely on as alternatives to jail.

One key focus of the Working Group on Safely Reducing the Size of the Jail Population, part of the Implementation Task Force, will be to develop specific strategies to address these issues and help to reduce the population from 7,000 to 5,000. This work will happen alongside implementation of the strategies we have already developed to reduce the jail population to 7,000 over the next five years and will bring together criminal justice agencies, defense attorneys, prosecutors, the courts, nonprofit service providers, state government and New Yorkers.

4. Durose, Matthew R., et al. "Recidivism of Prisoners Released in 30 States in 2005: Patterns from 2005 to 2010." Bureau of Justice Statistics (BJS). April 22, 2014.

Safer:
Ensure safe, humane and safe and human facilities for staff and for incarcerated individuals as quickly as possible

The Plan: Safer

Our goal is to ensure safe, humane and productive environments for staff and incarcerated individuals as quickly as possible."

The physical conditions in jails have a profound effect on safety and on whether jails are places of isolation and despair or opportunity and hope[5]. The City's goal is to make safe and humane housing a reality for every person in the city jails. While violence is decreasing in city jails, much more needs to be done to achieve this goal.We are committed to the goal of closing Rikers Island altogether. But that will take time as we work toward lowering the number of people incarcerated in city jails. While we drive this important work forward, we must improve now both the infrastructure and conditions for the people who work and are incarcerated in the City's jail facilities both on and off the Island. Better conditions inside of the jails, including better physical spaces for housing, improved programming and visits, are not just a matter of safety and fairness, they also play a role in the City's goal of reducing the population, by contributing to recidivism reduction. To achieve the short and long term goals for jails, the City will:

1 First, continue the work already begun to make long-overdue improvements to the conditions in jails on Rikers Island while also renovating existing facilities off-Island utilizing the more than $1 billion in funding the Administration has added to the Department of Correction's capital plan over the last three years. Doing so is the fastest way to ensure that the tens of thousands of people who move through our jails each year are adequately housed and that those who work in our jails have decent conditions, even while the City works toward the longer-term goal of closing Rikers completely.

2 Additionally, beginning now, undertake a cooperative planning process with New Yorkers, elected officials, and many others to identify appropriate sites for additional jails. A working group of the Implementation Task Force will work with neighborhoods and their elected officials on these issues.

The strategies below chart a plan to provide safe housing and working conditions for all, dedicated housing units specifically designed for the needs of some special populations, the installation of key technology infrastructure, and the construction of sufficient space to improve culture through expanded programming and staff development.

A Design and Facilities Working Group, part of the Implementation Task Force, will be convened to serve as an advisory body with design experts and neighborhood and community development leaders. This Working Group will help to drive thoughtful design of new facilities and renovation of existing facilities.

5. See, e.g., Wener, Richard E. *The Environmental Psychology of Prisons and Jails: creating humane spaces in secure settings.* New York, NY: Cambridge University Press, 2014.

Strategy 10: **Ensure that all individuals in city custody are housed in safe, secure and humane facilities by making necessary repairs to the jails**

Over the next five years, the City will bring existing facilities, including facilities on Rikers Island, to a state of good repair. As part of these investments in the lives of the people working and incarcerated in the jails over the next decade, the City will make necessary improvements to program areas in the jails in order to accommodate new reentry and educational programs (see Fairer section for more). The City will also conduct needed renovations to maximize fire safety, expand the availability of air conditioning, continue efforts around compliance with the Americans with Disabilities Act, conduct necessary replacements and repairs of heating and ventilation systems, showers and bathrooms, food service, and healthcare facilities. This work will not only materially improve conditions for the people incarcerated in these facilities but will maximize housing, preparing the City for the necessary consolidation of a shrinking jail population into a smaller number of jails and place the City on a path to closing Rikers Island.

The City's Investments in Safer Jails

More needs to be done to reduce violence and provide a safe environment for those incarcerated and those who work every day on Rikers Island and in borough facilities.
In March 2015, the Department of Correction began implementation of a 14-point reform plan targeting the root causes of violence in New York City's jails–many of which relate to physical design and conditions.
Since then, violence indicators have consistently dropped: Uses of Force (UOF) resulting in serious injury have decreased by 35%, and UOF resulting in minor injury decreased 18%. Fewer incarcerated people and fewer corrections officers are experiencing serious injury in facilities stemming from fights or assaults. Through the 14-Point Anti-Violence Plan, DOC has made the following important changes to create safer environments in city jails:

- **Keeping weapons and drugs out of Rikers:** DOC has increased contraband finds by 37% through revamped processes for conducting searches, including during visits and in housing areas. The City will continue to advocate for a change in state law to allow for the use of state-of-the-art body scanners that can adequately detect the most dangerous weapons brought into facilities.

- **Infrastructure and housing improvements:** DOC began 'restarting' housing units in 2015 by transforming them into cleaner and calmer housing areas with less violence, more programming, and improved officer training. Since that time, the proportion of incarcerated individuals housed in these units has increased from 4% of the population to 12% across dozens of units in four facilities. Incarcerated individuals who enter restarted units consistently demonstrate decreased rates of violence during their time there (see page 41 for more information about Restart).

- **Transformation of organizational culture:** DOC has designed and implemented a new recruitment, hiring, and staff selection plan, resulting in three back to back record-breaking recruit classes. To guarantee DOC leadership and staff are held accountable, DOC has re-imagined the investigations division and improved intelligence gathering. To ensure targeted training is working and accountability is taken seriously, all DOC staff are on track to have evaluations on record by the end of 2017 as part of a newly designed staff performance management plan. Because safety and security in every jail is vital, DOC has relaunched TEAMS, which is modeled on NYPD's CompStat, that tracks safety metrics and holds management accountable for safety within each facility.

- **Modern, robust training:** Training in the Academy, as well as in-service training for Corrections Officers, has been expanded to make sure all officers are trained on the new Use of Force policy, conflict resolution and crisis intervention, safe crisis management, de-escalation, and defensive tactics.

Strategy 11: **Complete the movement of all 16- and 17- year-olds from Rikers Island to a newly designed facility**

The City is committed to ensuring that as few young people are in detention as possible in New York City. Since 2014, the number of adolescents in the custody of DOC has been reduced from 489 to an average daily population of 150 in 2017. This reduction of 339 has been driven by providing case expediting services, case review and reentry services at the point of intake.

In addition to reducing the number of young people in custody, the City is also committed to providing developmentally appropriate detention facilities for this population. In the summer of 2016, the City began work to move 16- and 17-year-olds off of Rikers Island through beginning a design process for a more developmentally appropriate facility for young adults. With the recent passage of Raise the Age legislation in New York state, the City will continue its commitment to transition 16- and 17- year-olds off of Rikers Island when the law takes effect in 2018. The City is currently working to design and develop age-appropriate facilities that prioritize education, vocational programming, provide therapeutic services, and have space for outdoor recreation. Providing educational, vocational and therapeutic services to individuals while they are incarcerated has been shown to prevent future returns to jail[6].

Strategy 12: **Expand dedicated housing designed for the unique needs of individuals with serious mental illness**

Since 2015, the City has opened intensive therapeutic housing units in the jails for people with serious mental health disorders, known as Clinical Alternatives to Punitive Segregation (CAPS) and Program to Accelerate Clinical Effectiveness (PACE) units. In PACE units, health and security staff train and work together to engage and stabilize patients. To date there is one CAPS unit and four PACE units, which have dramatically improved the level of clinical care and coordination between health and security staff for incarcerated individuals with the most severe mental illness. By early fiscal year 2018, the City will create a PACE unit for women in Rose M. Singer Center (RMSC), the women's facility on Rikers Island, and a PACE unit in George Motchan Detention Center (GMDC), where young adults are housed. By 2020, the City will triple the number of PACE units to a total of 12, bringing more intensive interventions and related clinical and safety benefits to additional people with serious mental illness.

The enhanced staffing and clinical care available in these units has led to the lowest incidence of verified injuries per incarcerated individual of any housing unit in city jails. Since inception, PACE has served over 1,000 individuals and CAPS has served over 1,300 people. The use of force rates in PACE and CAPS units are lower: use of force rates are 67% lower for individuals in CAPS and 74% lower for individuals in PACE, compared to projected use of force rates had these same individuals been housed with the general jail population. The PACE units serve patients returning from inpatient hospitalization, those who may require hospitalization, those with complex diagnostic challenges, and those returning from court-based competency evaluations.

6. Davis, Lois M., Robert Bozick, Jennifer L. Steele, Jessica Saunders and Jeremy N. V. Miles. "Evaluating the Effectiveness of Correctional Education: A Meta-Analysis of Programs That Provide Education to Incarcerated Adults." Santa Monica, CA: RAND Corporation, 2013.

Approximately 11% of the New York City jail population has been diagnosed with a serious mental illness, and almost one third of the population has some kind of psychiatric diagnosis. Even more incarcerated individuals have some kind of behavioral health need. The City has many strategies in place to reduce the number of people with behavioral health needs in city jails (see Strategy 5). A key piece of this strategy is ensuring that those who do enter jail have access to high-quality therapeutic spaces and clinical care while incarcerated. This has been shown to reduce violent incidents and can help provide a foundation for future stability and prevent returns to jail[7].

Expanding dedicated units for those with mental health needs will also help to reduce the average length of stay for this population. Currently, those with mental health needs spend approximately twice as long in city jails as those without mental health needs–129 days versus 67 days, on average. The enhanced staffing and clinical care available in dedicated mental health units has led improved mental health outcomes, including fewer incidents of self-harm, and fewer overall violent incidents which can reduce length of stay.

Strategy 13: **Use technology to reduce violence and support more efficient and effective Department of Correction operations**

Technology will play a key role in the modernization of our jails and in making available the kind of information that will ensure they are safe and productive environments. Planned technology improvements include security cameras and state of the art contraband detectors, wireless-enabled tablets that will enable self-paced learning and give incarcerated people direct access to the grievance system.

7. Andrews, D.A., Ivan Zinger, Robert D. Hoge, James Bonta, Paul Gendreau, and Francis T. Cullen. "Does Correctional Treatment Work? A Clinically Relevant And Psychologically Informed Meta-Analysis." *Criminology* 28, no. 3 (August 1990): 369-404.

Strategy 13a: **Expand the use of a technology tool to ensure incarcerated individuals get to medical and court appointments on time and help reduce violence**

In order to ensure that incarcerated people are transported to programming, health care appointments, visits with family, and court on time, it is important to have real-time and reliable information about where individuals are located within correctional facilities. This has been a challenge both in New York City and in jurisdictions across the country. Other correctional systems have had success with Radio-Frequency Identification (RFID) wristbands, similar to hospital wristbands, which contain a unique identification code that incarcerated people can scan to "check in" at various locations around the jail. These hypoallergenic, tamper-resistant, and water-resistant wristbands can also help in other ways, including speeding up discharge by improving validation of an individual's identity and enhancing safety by making it easier to enforce necessary separation of specific individuals.

An RFID system has been used in the Robert N. Davoren Center (RNDC), the facility that houses adolescents and older males, and in the Queens courts since early October 2016. By the end of 2018, the City will expand the RFID system to all facilities.

Strategy 13b: **Improve the system for submission, tracking and responding to incarcerated individuals' grievances**

A well-functioning grievance system is essential to ensuring that DOC can fully and swiftly respond to individuals' concerns about all manner of issues in the jails, including those related to basic needs (e.g., delays in obtaining essential items, such as toothpaste, toilet paper and laundered clothing), requests for assistance (e.g., help in conducting legal research related to a criminal case), and the need for accommodation (e.g., to address a person's physical limitations). Such a system provides an outlet for concerns and issues and thus has a role in reducing the tensions that lead to violence in the jails. In order to improve the grievance process, DOC, working with the Board of Correction, developed a new grievance resolution model which streamlines the tracking of grievances, prioritizes and escalates the most serious concerns (e.g., medical access and requests for protective custody) and seeks to resolve transparently all issues raised by people through the grievance process.

DOC is currently building on the new grievance resolution model by piloting a digital system for tracking and responding to grievances. By the end of fiscal year 2017, the digital grievance system will be operational in the model housing units (called "Restarts") in one jail facility, the George R. Vierno Center (GRVC), which houses approximately 630 adolescent and adult men. This system should improve transparency in the grievance process by providing incarcerated people, in their own housing units, with real-time tracking of their grievances and the response from DOC staff. It will also assist DOC in tracking the number, type, and resolution of grievances submitted to ensure accountability and allow for better identification of systemic issues requiring resolution (e.g., broader issues with providing necessary services or supplies to a particular housing area). Assuming the digital grievance tracking pilot is successful, DOC will expand it throughout the jails.

Strategy 13c: **Reduce violence through full camera coverage by the end of 2017**

DOC has invested over $64 million in full camera coverage in every jail on and off Rikers Island so that all housing units on Rikers Island now have complete coverage. Coverage will be complete in all city facilities by the end of the year. This camera footage deters violence, improves intelligence, and enables DOC to quickly respond to incidents, leading to increased accountability for jail staff and incarcerated people alike.

Strategy 14: **Improve officer safety through investment in a new training academy and full headcount at DOC**

The City is committed to providing corrections officers with the appropriate training, equipment and supports to ensure they are safe and prepared to do the difficult job of serving in the jails. The City has made large-scale investments in DOC's emergency response strategy and in professional development for DOC staff, creating a college program specifically for employees and partnering with Columbia University's Senior Leadership Management Institute.

The City has also invested in the investigation and prosecution of crimes committed in the jails, to ensure accountability and reduce violence and will continue its commitment to make the job of corrections officers as safe as possible and to ensure safety for all incarcerated individuals.

Supporting Effective Prosecution of Violence in the Jails

A new partnership between the City and the Bronx District Attorney, along with heightened internal investigations within the City's Department of Correction, are helping to address violence as well as enhance accountability for both corrections staff and incarcerated individuals.

Enhanced prosecution
The Department of Correction's partnership with the Bronx District Attorney's Office is vital to ensuring prosecution of people who commit crimes on Rikers Island and preventing violence in the City's jails. In the fall of 2016, with an additional $1.842 million allocated by Mayor de Blasio in the city budget, the Bronx District Attorney's Office officially opened its new prosecution bureau on Rikers Island. For the first time, the Bronx District Attorney has a physical presence on Rikers, consisting of investigators, administrators, and assistant district attorneys who investigate and prosecute crimes committed by incarcerated people and visitors to Rikers Island. The Bureau ensures faster prosecutions of crimes and expanded investigations of gang violence and the smuggling of contraband, two of the major drivers of violence in the jails.

Enhanced internal investigations
The Department of Correction has recently enhanced its multi-pronged internal investigation strategy to include assigning a dedicated team to each individual jail and creating an Immediate Action Committee to review force incidents soon after they occur, in order to immediately correct bad practice and identify troubling trends. This approach has led to:

- The Investigation Division resolving 1,800 cases involving corrections officers in 2016, a 183.8% increase over the 634 cases closed in 2013. In 2013, only 93 cases resulted in criminal charges; in 2016, the number of cases resulting in criminal charges increased to 276.
- The DOC Trials and Litigation Division imposing discipline in 744 cases in 2016, an increase of 120% from the 338 cases in 2013. This resulted in 108 suspensions and 94 terminations of corrections Officers.

Strategy 14a: **Provide corrections officers with a new training academy and a revamped, modern training curriculum**

The City recognizes the need for more, and more thorough, training for staff at every level. To achieve the goal of providing the best possible training, in keeping with modern day best correctional practices, the City has allocated $100 million for a new Department of Correction Training Academy.

While the new Training Academy is being constructed, DOC will continue implementing strategies to improve training. The overarching goal is to provide training that equips all recruits with the tools necessary to become successful officers, and ongoing professional development opportunities for in-service staff to promote career satisfaction.

To drive toward this goal, DOC is already implementing and will build upon the following:

Comprehensive and enhanced Academy training.
DOC's new recruit Academy is longer by several weeks now than it was even a few years ago, deepening new recruit training in de-escalation and tactical skills.

- In November 2016, nearly 3,000 officers and captains, including over 700 recruits, completed 24 hours of DOC's new defensive tactical and de-escalation training, called START (Special Tactics and Responsible Techniques), designed to promote jail safety.
- De-escalation training for all DOC recruits in the Academy is integrated into safe crisis management, conflict resolution, and suicide prevention, where multiple de-escalation techniques are taught and reiterated.
- All recruits receive 35 hours of training (much of it provided by licensed psychologists) to effectively interact with incarcerated individuals who have behavioral health needs.

Enhanced skill-based training for in-service officers.
More opportunities for specific skill-based training are offered to all recruits and are being rolled out for staff already on the job.

- *Limiting use of force and expanding de-escalation training:* All staff will be trained in the new Use of Force policy by September 2017.
- *Specialized training in mental health:* Mental Health First Aid assists staff with identifying signs and symptoms of mental illness and de-escalating potentially violent situations. Crisis Intervention Teams' (CIT) training, which about 400 officers have already received, is a 40-hour specialized training for in-service staff. CIT training is a joint venture between DOC and Correctional Health Services, providing corrections officers and mental health clinicians, who work together every day in our jails, joint training on the best practices for responding to crises and reducing violence. Any officer working with individuals with mental health needs receives additional crisis management skills training.

- *Specialized training for officers working with adolescents and young adults:* Officers working with adolescents and young adults get Safe Crisis Management training, which provides information on youth brain development, crisis prevention, and trauma-informed care practices, as well as the nationally known evidence-based Dialectical Behavior Therapy that helps individuals increase their emotional and cognitive regulation and improve coping skills.
- *Improving responses to violent incidents:* Staff in the Emergency Services Units (ESU) who respond to violent incidents have received specialized training designed to reduce these officers' injuries and minimize use of force. In September 2016, the Mayor announced improvements to ESU that increase their effectiveness. ESU teams, once centrally-located, are now stationed within key facilities on Rikers to drastically decrease the time it takes to respond to incidents, providing critical assistance to facility staff. These teams focus on the facilities with the most significant violence issues.

Strategy 14b: **Increase stability and safety through adequate staffing levels, steady staffing models, and higher staff ratios**

DOC is in the process of completing the hiring and training needed to bring DOC staffing to full head count. The Department will then be able to increase officer-to-incarcerated individual ratios in order to implement population management best practices and improve culture inside jails. Specifically, it will enable the Department to steadily assign the same staff members to the same posts in all housing units. This practice provides staff with more insights into how a particular housing area operates, helps both to develop rapport with incarcerated individuals and identify issues before violence erupts. Steady assignment of staff also means that DOC can provide even more tailored training for staff typically assigned to work with difficult populations, including the most violent incarcerated individuals and those with mental illness. Further, operating at full headcount, DOC will be able to improve efficiency, including by significantly reducing overtime and providing in-service staff training in a timely and comprehensive manner without affecting operations.

Fully staffed, DOC will be able to appropriately supervise the various populations with adequate staff-to-incarcerated individual ratios depending on each population's unique needs. For example, younger populations like adolescents and young adults require higher staff numbers than general population adults, and more violent adolescent and young adults require even higher staff ratios, sometimes reaching as high as 1–to–1 or 1–to–2 staff per young person. In addition, the high classification adult populations, or adults most likely to be violent, require a robust staff to incarcerated individual ratio to maintain safety and security for both staff and other incarcerated individuals.

DOC is training recruit classes of record size to achieve the goals above. In November 2016, over 700 new officers joined DOC's ranks. Approximately 900 recruits graduated in May 2017, and will be followed by a class of over 1300 recruits. A full headcount will allow the Department to promote a culture of safety in the jails by ensuring a targeted approach to staffing the various populations in its custody.

Fairer:
Provide staff and incarcerated individuals with paths to success

The Plan: Fairer

Provide staff and incarcerated individuals with paths to success

The culture inside jails–whether one of fairness and accountability or isolation and instability–can can have profound effects on safety inside and on the likelihood that those discharged from jail achieve stability on the outside. Educational and therapeutic programming–instead of idle isolation–can reduce violence and the likelihood that detainees will return to jail in the future. And professional development opportunities for staff can support them to serve the public at the highest levels of integrity.

To make the culture inside jails fairer, the City is pursuing four goals:

1. Preventing future returns to jail by providing incarcerated individuals with support to lay a foundation for future stability;

2. Improving visits to reduce isolation and support more effective reintegration;

3. Replacing overly punitive population management strategies with evidence-driven approaches that enhance safety and fairness; and

4. Expanding professional development opportunities and supportive services for correctional officers.

The work described below builds on the City's investment over the last three years of $52.5 million in programming for those who are incarcerated and $39 million in professional development for staff. Each investment and reform is made in order to support a culture in which each person is treated with dignity and respect and jails become places of calm and order.

A Culture Change Working Group, part of the Implementation Task Force, will be convened to shape this work as well as ensure effective implementation. This Working Group, which will be comprised of corrections officers, formerly incarcerated individuals and their families, as well as representatives from government and non-profits that provide programming in jails, will focus on topics including visits, programming, reentry, and support for corrections officers and staff.

Strategy 15: **Prevent returns to jail by laying a foundation for future stability**

When Mayor de Blasio took office, individuals detained in city jails had access to an average of less than one hour per day of programming. Idle time can lead to violence. It can foster conditions that encourage crime instead of inhibit it.[8] Conversely, programming that is wisely designed and connected to life upon release can lift people up and set them on a path of productivity and advancement.[9]

The City is building a system in which every person who enters city jails will be provided with new tools and services that will help to promote a stable future. By addressing vocational, educational, therapeutic and other needs in an individualized way, time inside jail can be used productively to lay a foundation that can prevent future interaction with the criminal justice system. This new system will begin with expanded risk and needs assessment on the first day that someone enters jail, offer five hours every day of programming that addresses an individual's unique needs, and continue with support—including new employment and educational programs—after someone leaves jail and returns to the community.

Supporting Productive Futures for Young Adults

A recently launched program for young adults, managed in partnership with the Friends of Island Academy, serves as a model for providing comprehensive programming and reentry services to the entire jail population. Through this program, 16-to-21-year olds are interviewed at admission to understand with greater depth their unique needs; they are matched with programming while inside that addresses these needs; encouraged to form connections to educational, therapeutic and other community-based supports while in jail; and then supported for up to a year after leaving jail to assist with successful reentry. This model has proven to reduce reoffending and encourage instead positive, productive outcomes.

Strategy 15a: **Offer everyone in city custody five hours per day of educational, vocational, and therapeutic programming to lay the foundation for future stability and prevent returns to jail**

By the end of 2017, the City will offer everyone confined in a New York City jail a minimum of five hours of structured programming daily. Activities will include vocational training, group and individual counseling, art therapy, pet therapy, recreation, and more. People enrolled in post-secondary courses will receive assistance so that they do not fall behind in their studies while they are in jail, and efforts will be made to engage individuals who are not currently enrolled in school. To ensure that these gains count in the community, transition specialists will help people transfer school credits earned in jail to their neighborhood schools and leverage vocational and educational achievements to land jobs or internships after release. Transitional specialists will also help people apply for available public benefits and connect them with housing and employment assistance, counseling, and any other needed services.

8. Pierson, Anthony, Keith Price, and Susan Coleman. "Prison Labor." *PB&J: Politics, Bureaucracy, and Justice* 4, no. 1 (2014): 12-23; Saylor, William, and Gerald Gaes. PREP study links UNICOR work experience with successful post-release outcome. Report. Office of Research and Evaluation, Federal Bureau of Prisons, Department of Justice. 1-13; Rooney, Kevin D. Improved Prison Work Programs Will Benefit Correctional Institutions and Inmates. Report. 9. Davis, Lois M., Robert Bozick, Jennifer L. Steele, Jessica Saunders and Jeremy N. V. Miles. "Evaluating the Effectiveness of Correctional Education: A Meta-Analysis of Programs That Provide Education to Incarcerated Adults". Santa Monica, CA: RAND Corporation, 2013. Report to the Attorney General, U.S. General Accounting Office. Washington, D.C., 1982.

Strategy 15b: **Offer everyone in city custody dedicated reentry planning before discharge as well as support after returning to the community**

Also by the end of 2017, the City will build on the five hours of in-custody programming to ensure that everyone in city jails is offered reentry support, beginning on the first day that individuals are admitted to jail and continuing after returning to the community. Reentry service plans will be individualized and offered based on the needs of the individual. A network of non-profit organizations with deep expertise in helping individuals involved in the criminal justice system stabilize will provide a range of services inside the jails, as well as support in the community after individuals leave jail. Programming and support will include educational, rehabilitative, and vocational training and services, as well as educational assistance for high school equivalency tests and training for industry-recognized credentials.

Strategy 15c: **Implement a new technology tool that will ensure continuity of stabilizing support**

To facilitate effective in-custody programing and in-community reentry support, the City is developing state-of-the-art program and case management technology. This new tool will help counselors to assess the risks and needs of every person who enters city custody and match individuals to the right combination of therapeutic, vocational and educational programming while they are in jail. The tool will track how people are doing in programs and whether programs are effectively addressing an individual's risk and needs. The network of non-profits that provide reentry services to individuals after they leave city jails will have access to this technology, allowing this network to connect people to appropriate, available supports such as health care, benefits, employment, and education to continue building on the foundation laid while in jail.

Strategy 15d: **Prevent returns to jail by expanding the network of available reentry services in the community**

By the end of 2017, the City will have in place a new program, Jails to Jobs, to offer the opportunity for paid, transitional employment to everyone who leaves jail after serving a city sentence. The Jails to Jobs program includes five components:

- *Peer Navigators:* Everyone leaving city jails after serving a sentence will be paired with a Peer Navigator from a new public health-informed program in which peers who have successfully stabilized after incarceration help those who are recently released to achieve this same stability.
- *Transitional employment:* Everyone leaving city jails after serving a sentence will be offered paid, short-term transitional employment to help with securing a long-term job. Research has shown that connecting those recently released from prison to short-term transitional jobs can reduce recidivism by 22%[10].
- *Career advancement support:* Additionally, the City will continue its partnership with the City University of New York to offer 500 people per year who leave City jails after serving a sentence educational subsidies to support getting certificates and other credentials that promote career advancement, including the opportunity to become a certified peer and join the Peer Navigators for the Jails to Jobs program. This subsidy will be the equivalent of one semester of education at CUNY and can be used toward a degree or certificate program that can qualify individuals for higher paid employment in the long term.
- *Trained workforce providers:* All City-funded workforce professionals will be trained on issues and laws related to working with people with criminal records, including the Fair Chance Act, legislation signed by Mayor de Blasio that prohibits discrimination based on a person's arrest record or criminal conviction.
- *Jails to Jobs* will be folded into the larger network of non-profit reentry providers in New York City. These providers will help individuals in securing longer-term employment as well as provide them with connection to housing, health care, benefits, and other supports that can help to build a stable future.

10. Millenky, M., Levshin, V., Redcross, C., Rudd, T. "More than a Job: Final Results from the Evaluation of the Center for Employment Opportunities (CEO) Transitional Jobs Program." Report. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2012; Bloom, Dan, Cindy Redcross, Janine Zweig, Gilda Azurdia. 2007. "Transitional Jobs for Ex-Prisoners: Early Impacts from a Random Assignment Evaluation of the Center for Employment Opportunities (CEO) Prisoner Reentry Program." Working Paper. New York: MDRC.

Strategy 16: **Foster connections to families and community by improving visits**

Maintaining community connections is vital for people who are incarcerated. Established research has shown that incarcerated people's ability to maintain community connections, including through visits, is key to breaking the cycle of recidivism[11]. DOC has been working to improve visits through construction and renovations to visit areas, staff training on department policy and community engagement, and revamped protocols that encourage families with children under six to visit. A Visit Working Group comprised of several organizations including Brooklyn Defenders, Jail Action Coalition, the Osborne Association, the Board of Correction, and the Department of Correction uniform and non-uniform staff meets regularly to discuss ways to improve the visit process. Several recommendations have already been put in place.

For instance, in the Central Visit House, DOC has separated the bail payment and package drop-off windows to increase efficiency, which reduces the time it takes go through the visit process. DOC has installed information kiosks with look-up systems so that visitors can easily determine which facility they must go to in order to visit a loved one, hired dedicated visit greeters to answer questions, and instituted streamlined registration. DOC is in the process of updating the Visitor Handbook in order to issue a new one for the first time since 2013.

DOC will seek to expand opportunities for meaningful visits, working with the Board of Correction to increase the maximum visit length to up to two hours. But more improvements are needed to maximize the ability for people who are incarcerated to have contact with families and obtain all of the benefits that come along with having strong community supports. The Visit Working Group will become part of the City's Implementation Task Force to continue to work toward achieving these goals.

Strategy 16a: **Create expedited transportation to Rikers Island through dedicated buses that transport visitors from more convenient locations**

To reduce the time and inconvenience of visiting someone in jail, the City is piloting an express shuttle bus service to Rikers Island from major public transit hubs in Manhattan and Brooklyn. These buses will transport passengers directly to Rikers Island and back, bypassing many of the difficulties inherent in traveling to the Island, drastically reducing travel time and increasing the feasibility of visitors going to see their incarcerated family member or friend. Once established by the end of 2017, these routes and timetables will provide an expedited process for visitors arriving via the shuttle buses, saving people valuable time on transportation that can now be used visiting with loved ones. The buses will operate regularly throughout the visiting hours, ensuring visitors won't miss a shuttle.

11. Duwe, Grant, and Valerie Clark. "Blessed Be the Social Tie That Binds: The Effects of Prison Visitation on Offender Recidivism." *Criminal Justice Policy Review* 24, no. 3 (December 2011): 271-96.

Strategy 16b: **Renovate the Central Visits facility to allow for better initial screening and reduce the need for additional searches that slow the visit process**

Recognizing that people's experiences during visits are as important as the visiting policies themselves, DOC will transform the physical experience through immediate renovations to the Central Visit House and a strong effort to improve facility visit areas. There will be new seating, construction, and painting to bring the Central Visit facility to a state of good repair. DOC will also increase signage, phones, and on-site staff to resolve issues as quickly as possible. Combining these renovations and new technology will allow DOC to create a more robust screening process at a single point of entry, significantly reducing the number of searches and wait times throughout the process while increasing security. Dedicated staff in visiting areas, including on-site supervisors, will receive training on the visiting policies and other relevant directives to prioritize a safe, positive visiting experience and a relationship of mutual respect between visitors and staff. DOC, working with the Board of Correction, will overhaul the visiting process to maintain security while creating a process and environment that values the quality of visits.

Strategy 17: **Continue to create alternatives to punitive segregation to improve safety and fairness**

In the last three years, the City has taken bold steps to reduce the reliance on punitive segregation. New York City is the first jurisdiction in the country to announce a complete end to solitary confinement for individuals under 22 years of age and has ended the practice entirely for women. The City has also placed significant restrictions on the use of punitive segregation for those who are still eligible, including allowing its use only for serious, violent infractions, and limiting the length of time someone can be held in punitive segregation to 30 consecutive days or a total of 60 days in six months, with a few limited exceptions.

Further, DOC has created viable alternatives to punitive segregation such as the Clinical Alternative to Punitive Segregation (CAPS) program which places individuals with serious mental health diagnoses in a housing unit that offers therapeutically appropriate strategies for addressing violence. DOC has also created dedicated housing units for adolescents and young adults, who are no longer eligible for punitive segregation, to address the root causes of violent behavior with higher staff-to-incarcerated-individual ratios and targeted programming options. DOC will continue to work to develop and refine alternative housing options to punitive segregation that can safely house people who commit acts of violence while incarcerated without subjecting them to extensive periods of isolation. These alternatives will build on the incentive-based, phased approach that has already proven effective at both managing problematic behavior and encouraging positive development.

Model Facilities: Restart Units

Many reforms in the 14 Point Anti-Violence Reform Agenda are incorporated into DOC's model facilities or "Restart units"-housing units that have been transformed, through focused implementation of key reforms, into clean, calm housing areas with low levels of violence and expanded programming offerings. Currently, DOC has such units in four facilities including George R. Vierno Center (GRVC, which houses adolescent and adult men), Anna M. Kross Center (AMKC, which houses women), George Motchan Detention Center (GMDC, which houses men) and Otis Bantum Correctional Center (OBCC, which houses detained and sentenced men). DOC is rapidly expanding the number of such units for people in general population housing. These units have demonstrated that instituting a comprehensive suite of reforms can effectively reduce violence by simultaneously addressing multiple drivers of violence. Over 1,000 people in DOC custody are in Restarts. As of December 2016, people who entered Restart units had over 30% fewer assaults on staff and 50% lower Use of Force rates (instances in which corrections officers use force), both for uses of force without injury and those with minimal injury. In fact, there are almost no uses of force that result in serious injury in Restarts. For example, there are units in AMKC that have gone over 200 days without any incident, the longest any unit has gone without violence since before such numbers were tracked.

Key components of these reformed housing units include:

- **Reclassification:** Incarcerated people are classified by security risk, using a new tool that includes reviews of behavior, age and gang affiliation in order to minimize potential violence and target programming.
- **Added programming:** Incarcerated people in Restarts receive five hours a day of programming, including weekends, to reduce idleness and violence and help ensure success once they leave jail.
- **Staffing:** Restart units have steady staffing, meaning officers are assigned consistently to one unit, and in turn act as a team. Additionally, there are higher staffing ratios. Steady teams and higher ratios mean officers are familiar with one another, those housed in the units, and the rules and expectations of Restart units.
- **Additional training:** Officers receive an additional eight hours of training, including training on expectations, management protocols, and de-escalation and engagement skills. This training has become standard for new recruits.
- **Repairs:** Restart units are painted and their infrastructure repaired. Each housing unit contains three televisions with transmitters that allow for incarcerated individuals to quietly listen to TV through headsets, which greatly contributes to the reduction in fights.

For people housed in general population housing, Restart units have been shown to work. They reduce violence and increase programming participation.

Strategy 18: **Expand supportive services for correctional officers**

This Administration has increased support services for DOC staff to fulfill the 14 Point Anti-Violence Reform Agenda's mission to improve leadership development and culture. Through several initiatives, DOC is expanding training to help staff deal with stress and other effects of their demanding jobs. DOC is currently offering peer mentoring for new recruits to reduce attrition and supportive services for staff to deal with distress and trauma. Additionally, the City will implement the DOC Injury Treatment Service, so officers who are injured on the job will have a dedicated clinic inside every facility by the end of 2018.

In 2016, DOC started the Correction Assistance Response for Employees (CARE) Unit, a division that addresses the needs of uniformed and non-uniformed staff by providing continuous support and resources to staff who may be experiencing personal or family issues. The City is expanding the staffing, scope, and work of the CARE Units to include trauma debriefing, as well as support on issues such as domestic violence, high anxiety, family crisis, PTSD, job related stressors, terminal illness, financial difficulties, and substance use. The CARE Unit also provides referrals to community resources as an additional source for employees to obtain further assistance when coping with unexpected situations. For example, CARE provides bereavement related services, including a family liaison that assists with obtaining deceased employee's benefits. The victim service staff provides support for employees affected by criminal acts on-and off-duty, accompanies staff members to physical therapy and doctors visits, and coordinates service referrals for staff members who have been victims of domestic violence, rape and sexual assault, stalking, or other kinds of abuse. CARE conducts incident response for employees involved in on-duty use of force incidents, accidents, illness, or other traumatic events, and coordinates psychiatric referrals. This Unit also coordinates military support, the Employee Assistance Program, and religious outreach.

The Future of Rikers Island

We are continuing to dramatically reduce the size of our jail population.

We are improving the culture in our jails.

We are ensuring safe and humane conditions as quickly as possible.

And we are creating a future where people are no longer incarcerated on Rikers Island.

With crime and incarceration at historic lows–and a concrete plan to reduce both even further–New York City can credibly commit to closing Rikers Island. This is the right thing to do: the aging, isolated facilities on Rikers Island exacerbate security threats, have limited space for programming and staff development, and are cut off from the neighborhoods to which those released will ultimately return. Closing the jails on Rikers Island and replacing them with a smaller, safer, and fairer correctional system is the next key piece of the City's larger work to create a safer and fairer city for all New Yorkers.

For the thousands of people detained and thousands of corrections employees who work in our jails every year, the City's plan prioritizes moving with urgency–both to improve conditions now and to move with creativity and efficiency toward the long-term goal of closing the jails on Rikers Island for good.

To ensure effective progress and navigate the inevitable obstacles that will arise, the Implementation Task Force will guide work toward a correctional system that is:

- **Smaller:** The Population Working Group will help achieve our goal of ensuring that no one who could safely remain in the community enters jail and that those in custody are not there longer than needed.
- **Safer:** A Design and Facilities Working Group will help drive thoughtful renovations to existing facilities and development of new facilities, creating environments that foster opportunity and hope instead of isolation and despair.
- **Fairer:** The Culture Change Working Group will ensure that incarcerated people have access to stabilizing services and staff have support to serve the public at the highest levels of integrity.

Ultimately, closing all the jails on Rikers Island will depend not only on reducing the size of the city jail population to 5,000, but on the willingness of neighborhoods and their elected officials to identify appropriate new sites. The Design and Facilities Working Group will partner with New Yorkers, the City Council, and others to address issues related to the complicated siting process.

As the population declines and we are able to close the jails on Rikers Island, we will repurpose the newly freed up space on the Island. One possible plan would be to move municipal functions such as fleet storage from the boroughs to Rikers Island, freeing up space in neighborhoods across the City that could be used for new affordable housing. The Implementation Task Force will work with New Yorkers and experts to solicit ideas and develop a plan.

Beginning today, real-time updates on our progress and opportunities to get involved in work that will affect the long-term safety and vibrancy of our city are available at **nyc.gov/rikers**.

Appendix

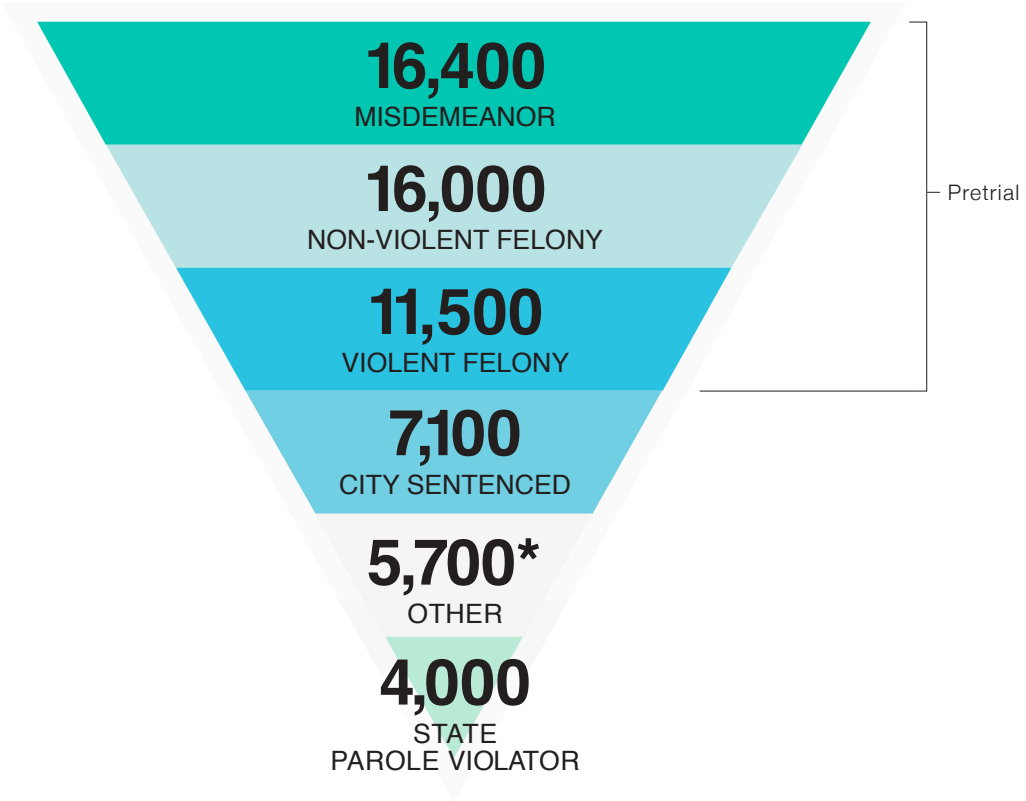
HOW TO MEASURE REDUCTIONS IN JAIL USE

When people talk about reducing jail populations, they usually refer to two metrics: how many people enter jail each year (admissions) and how many people are in jail on any given day (average daily population).

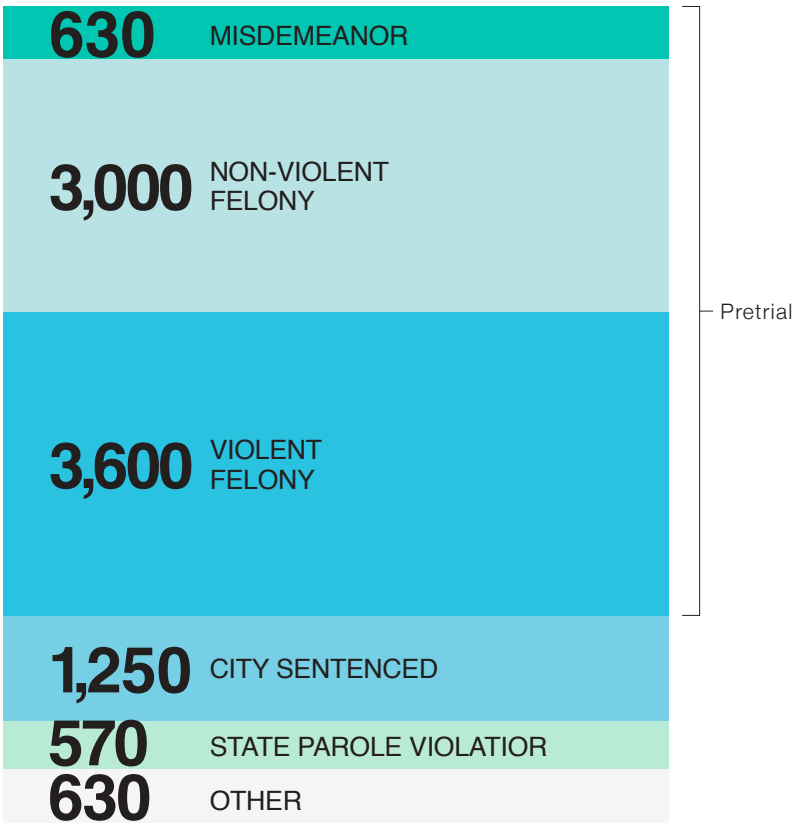
Admissions are always a much bigger number than average daily population. For example, in New York City, there were 61,000 admissions in 2016 but the average daily jail population was 9,680. This is because some people are in and out in a short period of time while some stay much longer.

One jail "bed" could be used by 365 people OR by one person over the course of a year.

There were approximately **61,000 admissions** to New York City Jails **in 2016**



But because some **people only stay** a few days**,** the **average daily population** on any given day was **9,680**



*Other includes warrants and state holds.
Sources: The Mayor's Office of Criminal Justice analysis of New York City Department of Correction data, 2016.

WHAT IS A "BED"?

We measure the effect of our jail population reduction strategies by estimating their effect on the number of beds.

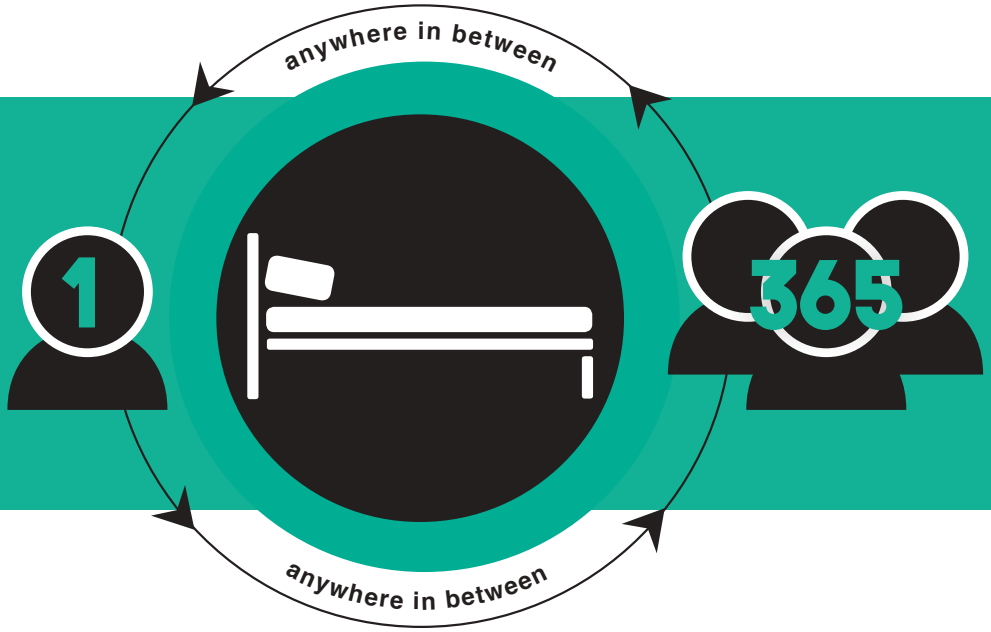
The daily jail population is a measure of beds occupied on any given day.

To reduce the jail population, we need to reduce the number of beds occupied. Specifically, to close Rikers Island, we will need to shrink the size of the jail population so that just 5,000 beds are occupied on any given day.

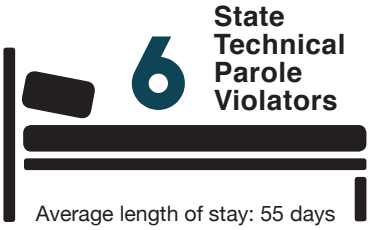
If one person is in jail for 365 days, that equals one bed.

If two people are in jail, each for six months, that is also one bed.

If 365 people are in jail for one day each, that is also one bed.



To save 1 bed annually, the system would need to divert or release, on average:



How are beds calculated?

([number of individuals affected] * [their average length of stay])/365 = # beds

There is not a 1 to 1 correlation between people diverted from the system and beds reduced.

For example: 3,300 people served annually by Supervised Release would not translate to 3,300 beds saved in city jails. Using an average 15-day stay for misdemeanors and 50-day stay for felonies (calculated using eligibility requirements for Supervised Release), the estimated bed savings is 330 in one year. Over five years, as more people are diverted, the total estimated bed savings is 500.

Both reducing admissions and length of stay affect bed days, to varying degrees.

Interventions that aim to keep people out of city jails all together tend to focus on populations that cycle in and out of jail quickly. This means that more people would have to be diverted in order to save one bed.

Interventions that aim to reduce length of stay tend to focus on individuals with more complex cases who spend months or years in city custody.

MAYOR'S OFFICE OF CRIMINAL JUSTICE 5 YEAR PROJECTION CALCULATIONS FOR JAIL POPULATION REDUCTION

By reducing admissions and length of stay, we can shrink the number of people held in jail on any given day. This will require that all partners in the criminal justice system continue to work toward a common goal of reducing unnecessary incarceration.

Improved Risk Assessment

(Projected reduction: 710 beds)

RESPONSIBLE PARTIES: CITY, STATE COURTS, DISTRICT ATTORNEYS, DEFENSE COUNSEL

Assumes that 4,700 individuals will be reclassified as lower risk of flight in the first year, with smaller, ongoing reductions after that.

Assumes a 15% detention rate for reclassified individuals and accounts for natural reductions in population.

Assumes people diverted would otherwise stay an average of 20 days on misdemeanor charges and 84 days on felony charges (calculated using estimated lengths of stay for eligible population).

Reform the Bail System

(Projected reduction: 200 beds)

RESPONSIBLE PARTIES: CITY, STATE COURTS

Expected to divert 1,500 people in the first year, with smaller, ongoing returns after that.

Assumes that people diverted though bail fund would otherwise stay an average of 15 days, and that expediting bail would speed up the bail payment process by one day (calculated using estimated lengths of stay for eligible population).

Supervised Release

(Projected reduction: 500 beds)

RESPONSIBLE PARTIES: CITY, STATE COURTS, DISTRICT ATTORNEYS, DEFENSE COUNSEL

Assumes 3,300 people will be diverted annually.

Assumes people diverted would otherwise stay an average of 15 days on misdemeanor charges and 50 days on felony charges (calculated using eligibility requirements for Supervised Release).

Divert Short Jail Sentences

(Projected reduction: 300 beds)

RESPONSIBLE PARTIES: CITY, STATE COURTS, DISTRICT ATTORNEYS, DEFENSE COUNSEL

Assumes 1,700 people will be diverted annually who would otherwise receive a short city sentence of, on average, 15 days (calculated using estimated lengths of stay for eligible population).

Reduce Length of Stay

(Projected reduction: 620 beds cumulative)

RESPONSIBLE PARTIES: CITY, STATE COURTS, DISTRICT ATTORNEYS, DEFENSE COUNSEL

Assumes a 20% reduction in case length for non-homicide violent felony cases (from 111 days to 89 days).Projected reduction: 450.

Assumes a 20% reduction in length of stay for state technical parole violation cases (from 55 to 44 days). Projected reduction: 170.

Office of the Mayor

APPENDIX B

Illustrative Renderings

Appendix B: Illustrative Renderings Appendix

This appendix presents illustrative renderings of the proposed detention facilities in each borough. These renderings are illustrative only, which means they provide conceptual examples for how the detention facilities could appear. The final design and appearance for the proposed detention facilities would be determined through the design/build process and may differ from the illustrative buildings presented in this appendix.

Bronx Site - Illustrative Rendering 1
Corner of Southern Boulevard & East 142nd Street

Bronx Site - Illustrative Rendering 2
Corner of Concord Avenue & East 141st Street

Brooklyn Site - Illustrative Rendering 1
Corner of Atlantic Avenue & Smith Street

Brooklyn Site - Illustrative Rendering 2
Corner of Atlantic Avenue & Boerum Place

Manhattan Site - Illustrative Rendering 1
Corner of Canal & Centre Streets

Manhattan Site - Illustrative Rendering 2
Corner of White & Centre Streets

Queens Site - Illustrative Rendering 1
126th Street Looking South East

Queens Site - Illustrative Rendering 2
82nd Avenue Looking North East

APPENDIX C

Proposed Project Population Estimates
Existing/No Action and With Action Conditions

Appendix C

Bronx Site - 745 East 141st
Street Population Estimates

	Existing/No-Action			
		Existing Use	**Count**	**Source / Notes**
		NYPD Tow Pound	0	Minimal employment. Assumes no employment for conservative analysis.
	With-Action			
		Proposed Use	**Count**	**Source**
		Detainee Beds	1,437	DOC.
		Uniformed Staff	290	Peak shift from DOC staffing plan (Wednesday 7AM and 5AM overlapping shift).
		Non-Uniformed Staff	144	DOC. Assumed to all be day shift.
		Authorized Visitors	639	Survey data collected at Manhattan and Brooklyn Detention Complexes. Includes contract staff, attorneys, service providers.
Bronx		Detainee Visitors	216	Visitor registration data from existing Manhattan and Brooklyn Detention Complexes.
		Clinical/Medical Staff	90	Correctional Health Services data. Assumed to all be day shift.
		Retail / Community Facility Staff	66	Assumes 3 employees per 1,000 gsf for retail (13k gsf) and 1 employee per 1,000 gsf for CF (27k gsf)
		Retail Staff - Mixed Use Bldg	62	Assumes 3 employees per 1,000 gsf for retail (15.5k gsf) and 1 employee per 1,000 gsf for CF (15.5k gsf)
		Parole Court Staff	55	MOCJ estimate, based on current Rikers Parole Court operations.
		Parole Court Visitors	175	MOCJ estimate.
		Residents	700	Based on 2.98 persons per household. 2012-2016 ACS data for community district.
		Total Staff	**707**	
		Total Visitors	**1,030**	
		Total Residents	**700**	

Brooklyn Site - 275 Atlantic Avenue
Population Estimates

	Existing/No-Action			
		Existing Use	**Count**	**Source / Notes**
		Detainee Beds	815	DOC.
		Uniformed Staff	115	Peak shift from existing Brooklyn Detention Complex staffing.
		Non-uniformed Staff	15	Survey data collected at Brooklyn Detention Complex.
		Clinical/Medical Staff	52	Survey data collected at Brooklyn Detention Complex.
		Authorized Visitors	326	Survey data collected at Brooklyn Detention Complex. Includes contract staff, attorneys, service providers.
		Detainee Visitors	122	Visitor registration data from existing Brooklyn Detention Complex.
		Total Staff	**182**	
		Total Visitors	**448**	
	With-Action			
Brooklyn		**Proposed Use**	**Count**	**Source**
		Detainee Beds	1,437	DOC.
		Uniformed Staff	290	Peak shift from DOC staffing plan (Wednesday 7AM and 5AM overlapping shift).
		Non-Uniformed Staff	144	DOC. Assumed to all be day shift.
		Authorized Visitors	639	Survey data collected at Manhattan and Brooklyn Detention Complexes. Includes contract staff, attorneys, service providers.
		Detainee Visitors	216	Visitor registration data from existing Manhattan and Brooklyn Detention Complexes.
		Clinical/Medical Staff	90	Correctional Health Services. Assumed to all be day shift.
		Retail Staff	90	Assumes 3 employees per 1,000 gsf.
		Total Staff	**614**	
		Total Visitors	**855**	
		Total Residents	**0**	
		Incremental Staff	**432**	
		Incremental Visitors	**407**	

Manhattan Site - 124/125 White Street
Population Estimates

	Existing/No-Action			
		Existing Use	**Count**	**Source / Notes**
		Detainee Beds	898	DOC.
		Uniformed Staff	160	Peak shift from existing Manhattan Detention Complex staffing.
		Non-uniformed Staff	26	Survey data collected at Manhattan Detention Complex.
		Clinical/Medical Staff	55	Survey data collected at Manhattan Detention Complex.
		Authorized Visitors	359	Survey data collected at Manhattan Detention Complex. Includes contract staff, attorneys, service providers.
		Detainee Visitors	135	Visitor registration data from existing Manhattan Detention Complex.
		Retail Staff	28	Standard employment density ratios for retail and restaurants.
		Total Staff	**269**	
		Total Visitors	**494**	
	With-Action			
Manhattan		**Proposed Use**	**Count**	**Source**
		Detainee Beds	1,437	DOC.
		Uniformed Staff	290	Peak shift from DOC staffing plan (Wednesday 7AM and 5AM overlapping shift).
		Non-Uniformed Staff	144	DOC. Assumed to all be day shift.
		Authorized Visitors	639	Survey data collected at Manhattan and Brooklyn Detention Complexes. Includes contract staff, attorneys, service providers.
		Detainee Visitors	216	Visitor registration data from existing Manhattan and Brooklyn Detention Complexes.
		Clinical/Medical Staff	90	Correctional Health Services. Assumed to all be day shift.
		Retail Staff	60	Assumes 3 employees per 1,000 gsf.
		Total Staff	**584**	
		Total Visitors	**855**	
		Incremental Staff	**315**	
		Incremental Visitors	**361**	

Queens Site - 126-02 82nd Avenue
Population Estimates

	Existing/No-Action			
		Existing Use	**Count**	**Source / Notes**
		Detention Facility and Public Parking Staff	0	Minimal employment. Assumes no employment for conservative analysis.
	With-Action			
		Proposed Use	**Count**	**Source**
		Detainee Beds	1,437	DOC.
		Uniformed Staff	290	Peak shift from DOC staffing plan (Wednesday 7AM and 5AM overlapping shift).
		Non-Uniformed Staff	144	DOC. Assumed to all be day shift.
		Authorized Visitors	639	Survey data collected at Manhattan and Brooklyn Detention Complexes. Includes contract staff, attorneys, service providers.
		Detainee Visitors	216	Visitor registration data from existing Manhattan and Brooklyn Detention Complexes.
		Clinical/Medical Staff	110	Correctional Health Services. Assumed to all be day shift. Higher than other sites because of centralized care facility.
Queens		Community Facility Staff	25	Assumes 1 employee per 1,000 gsf.
		Total Staff	**569**	
		Total Visitors	**855**	

APPENDIX D

Cultural Resources Correspondence

ENVIRONMENTAL REVIEW

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 7/9/2018

Comments: REVISED OF THIS DATE

The LPC is in receipt of the draft EAS dated 7/3/18 and the Draft Scope of Work (DSOW) dated 7/11/18. The DSOW appears acceptable for historic and cultural resources.

Properties with no Architectural significance:
1) ADDRESS: 100 BAXTER STREET, BBL: 1001980001, PROPERTY NAME: MANHATTAN SITE
2) ADDRESS: , BBL: , PROPERTY NAME: MANHATTAN SITE STREETBED DEMAPPING LEONARD STREET
3) ADDRESS: , BBL: , PROPERTY NAME: MANHATTAN SITE STREETBED DEMAPPING WHITE STREET
4) ADDRESS: 275 ATLANTIC AVENUE, BBL: 3001750001, PROPERTY NAME: BROOKLYN SITE
5) ADDRESS: 125-01 QUEENS BOULEVARD, BBL: 4096530001, PROPERTY NAME: QUEENS SITE
6) ADDRESS: , BBL: , PROPERTY NAME: QUEENS SITE STREETBED DEMAPPING 82 AVENUE
7) ADDRESS: 80-25 126 STREET, BBL: 4096570001, PROPERTY NAME: QUEENS SITE
8) ADDRESS: 320 CONCORD AVENUE, BBL: 2025740001, PROPERTY NAME: BRONX SITE
9) ADDRESS: 217 EAST 161 STREET, BBL: 2024540001, PROPERTY NAME: BRONX SITE
10) ADDRESS: , BBL: , PROPERTY NAME: BRONX SITE STREETBED DEMAPPING EAST 162 STREET
11) ADDRESS: 231 EAST 161 STREET, BBL: 2024440001, PROPERTY NAME: BRONX SITE
12) ADDRESS: 231 EAST 161 STREET, BBL: 2024440001, PROPERTY NAME: BRONX SITE

Properties with Architectural Significance:

1) ADDRESS: 100 CENTRE STREET, BBL: 1001670001, PROPERTY NAME: MANHATTAN SITE, S/NR ELIGIBLE.
2) ADDRESS: 80 CENTRE STREET, BBL: 1001660027, PROPERTY NAME: MANHATTAN SITE, S/NR ELIGIBLE.

Properties with Architectural significance in the project study area:

Project Site: 275 Atlantic Avenue, Brooklyn

1) 110 Schermerhorn Street – Friends Meeting House – LPC designated and S/NR listed.
2) 290-312 State Street Houses – LPC designated and S/NR listed.
3) 120 Schermerhorn Street, S/NR eligible.

Projec t Site: 124 and 125 White Street, Manhattan

1) 87 Lafayette Street - Fire Engine Co. 31 – LPC designated and S/NR listed
2) Chinatown and Little Italy Historic District, S/NR listed
3) 94-100 Lafayette Street – LPC designated and S/NR eligible.
4) 100 Centre St. S/NR eligible.
5) 70-76 Lafayette Street – Ahrens Building – LPC designated and S/NR eligible.
6) 254-260 Canal St., S/NR listed.
7) Tribeca East Historic District, LPC designated and S/NR eligible.

Projec t Site: 80 Centre Street, Manhattan:

1) 60 Centre Street – New York County Courthouse – LPC designated (exterior and interior)
2) 100 Centre St., S/NR eligible
3) Chinatown and Little Italy Historic District, S/NR listed.
4) 25 Mott Street – Zion English Lutheran Church now Church of the Transfiguration (RC) – LPC designated and a contributing building in the Chinatown and Little Italy S/NR listed Historic District.
5) 346 Broadway/80 Leonard Street – New York Life Insurance Building – LPC designated (exterior and interior) and S/NR listed .
6) 26 Federal Plaza and James L. Watson Court of International Trade, S/NR eligible.

Properties with no Archaeological significance:

Portions of the project site appear to be disturbed by 20th century construction of building(s) on the front and rear portions of the lot(s). Portions of these lot(s) not built in the 20th century appear to have low archeological potential. There are no further archeological concerns for the following Borough, Block and Lot location(s) within the study area:

2024440001	231 EAST 161 STREET
2024440001	231 EAST 161 STREET
	East 162 Street
2024540001	217 EAST 161 STREET
2025740001	320 CONCORD AVENUE
4096570001	80-25 126 STREET
	82 Avenue
4096530100	
4096530001	125-01 QUEENS BOULEVARD
3001750001	275 ATLANTIC AVENUE

Properties with Archaeological significance:

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 18th & 19th Century occupation for the following Borough, Block and Lot location(s) within the study area/s:

	Leonard Street

	White Street
1001660027	80 CENTRE STREET
1001670001	100 CENTRE STREET
1001980001	100 BAXTER STREET

Accordingly, the Commission recommends that an archaeological documentary study be performed for these location(s) to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2012). Portions of the project site appear to be disturbed by 20th century construction of building(s) on the front and rear portions of the lot(s).

Gina Santucci

8/08/2018

SIGNATURE DATE

Gina Santucci, Environmental Review Coordinator

File Name: 33498_FSO_GS_008018.doc

ENVIRONMENTAL REVIEW

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 10/19/2018

Comments: LPC is in receipt of the DEIS chapters for the Bronx, Queens and Brooklyn sites dated 8/24/18. The LPC is in receipt of Section 4.5, the revised DEIS chapter for Historic and Cultural Resources—Manhattan, dated 10/19/18.

The LPC is also in receipt of the Construction Impacts Chapter of 11/14/18 and the Mitigation Chapter of 11/18/18.

Comments are as follows.

The Construction Impacts Chapters for the Bronx, Brooklyn, and Queens are acceptable. The Manhattan Chapter is acceptable with the determinations for 80 Centre St. and 100 Centre St. amended to include both LPC eligibility and S/NR eligibility.

ARCHITECTURE

The DEIS chapters of 8/24/18 for the Bronx, Queens and Brooklyn appear acceptable for architectural resources.

Regarding the DEIS chapter for Manhattan dated 10/19/18, LPC has determined that project site 80 Centre St., the Louis J. Lefkowitz State Office Building; 100 Centre St., Prison of the Criminal Courts and Prison Building; and study area buildings 196 Park Row, Chatham Towers and 125 Worth St., the City of New York Building, all appear LPC eligible.

a. Page 4.5-10, Table 4.5-1 shall be amended to include NYC landmark designation eligibility for 80 Centre St., 125 White St., 125 Worth St., and 100 Centre St. /125 White St, and Chatham Towers, 196 Park Row.

b. Pages 4.5-18-19, starting at the fourth paragraph at the bottom of 4.5-18 shall read as follows:

Demolition of the LPC and S/NR-eligible Louis J. Lefkowitz State Office Building on the project site would result in significant impacts on architectural resources and require that the Applicant consult with LPC to develop and implement appropriate mitigation measures to partially mitigate the significant adverse impacts."

The Mitigation Chapter appears acceptable for the Bronx, Queens and Brooklyn. The Manhattan chapter is acceptable with the following changes in language on page 4.15-4.

"As discussed in Chapter 4.5, "Historic and Cultural Resources-Manhattan," the Louis J. Lefkowitz State Office Building at 80 Centre Street would be redeveloped with a new, approximately 432.5-foot-tall detention facility. The Louis J. Lefkowitz State Office Building on the project site is LPC eligible and S/NR-eligible. Therefore, demolition of this building would constitute a significant adverse impact on architectural resources. The Applicant will consult with LPC to develop and implement appropriate mitigation measures to partially mitigate the significant adverse impact. Mitigation measures are expected to include Historic American Buildings Survey (HABS) documentation of the architectural resource. The HABS would include a historical narrative, architectural description, historic photographs or drawings of the buildings if available, and archival black and white large format photographs. The HABS would be provided to LPC and to an appropriate local repository. Further mitigation for demolition of the LPC and S/NR-eligible Louis J. Lefkowitz State Office Building would include design consultation with LPC for the new building, which will include the retention of all façades of the building up to the top of the seventh floor, which constitutes the visible and ornamented streetwalls of the building. The Applicant would employ all appropriate structural, bracing, and protective measures to insure that the facades remain structurally sound and protected during construction."

ARCHAEOLOGY

Pertaining to archaeological resources, the LPC concurs with the chapters pertaining to the Bronx, Queens, and Manhattan sites. However, for the Brooklyn site we note that page 3.5.2 states that, "language is pending for the streetbed...pending LPC review." Please submit that review request to LPC.

The LPC is also in receipt of the, "Phase IA Archaeological Documentary Study for the New York City Borough-Based Jails for the Manhattan Site: 80 Centre Street, 125 White Street, and the Streetbed of Hogan Place between Centre and Baxter Streets," prepared by AKRF and dated October 2018. The LPC concurs that Hogan Street may contain potentially significant archaeological resources and that if work related to his project occurs in that area that archaeology will be needed which should be completed as per the LPC's Guidelines for Archaeological Work in New York City 2018. Please submit a hard copy of the report to LPC for our archives.

Regarding the Mitigation Chapter, we note that the Manhattan chapter discusses the findings of the Phase IA Archaeological Assessment completed by AKRF. The LPC has reviewed this report and concurred with its conclusions that the Manhattan project is unlikely to impact archaeological resources unless the project scope changes for the work within Hogan Place. If it does, the revised plans should be submitted to LPC for review and further archaeology may be needed.

Gina Santucci 11/21/18

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33498Final_FSO_GS_11212018.doc

NYC Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

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http://nyc.gov/landmarks

ARCHAEOLOGY

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 11/28/2018

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

This document only contains Archaeological review findings. If your request also requires Architecture review, the findings from that review will come in a separate document.

ADDRESS: 275 ATLANTIC AVENUE, BBL: 3001750001, PROPERTY NAME: BROOKLYN SITE- STATE STREET STREETBED

Comments: The APE for the Brooklyn Jail now includes work within State Street between Smith and Boerum Place. There are no archaeological concerns for this new area.

11/30/2018

SIGNATURE DATE
Amanda Sutphin, Director of Archaeology

File Name: 33498_FSO_ALS_11302018.doc

NYC Landmarks Preservation Commission

1 Centre Street
9th Floor North
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ARCHAEOLOGY

Final Sign-Off (Multiple Sites)

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 12/19/2018

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

This document only contains Archaeological review findings. If your request also requires Architecture review, the findings from that review will come in a separate document.

Comments: The LPC is in receipt of the, "Supplemental Phase IA Archaeological Documentary Study for New York City Borough-Based Jails Manhattan Site Alternative: 124 White Street, Block 198, Lot 1 and streetbed of White St between Baxter and Centre St, New York," prepared by AKRF, Inc and dated December 2018.

The LPC concurs with the recommendations that if work will extend into Block 198 Lot 1 and within undisturbed areas within White Street streetbed that additional archaeological analysis may be needed.

Please submit a bound copy of the report to the LPC for our archives.

12/19/2018

SIGNATURE DATE
Amanda Sutphin, Director of Archaeology

File Name: 33498_FSO_ALS_12192018.doc

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

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Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 1/18/2019

The LPC is in receipt of draft Historic Resource chapters for the Bronx, Brooklyn and Queens dated 1/18/19. The text appears acceptable.

Gina Santucci 2/15/2019

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33498_FSO_GS_02152019.doc

Landmarks Preservation Commission

-Gina Santucci
Director of Environmental Review
gsantucci@lpc.nyc.gov
http://nyc.gov/landmarks

1 Centre St., 9N
New York, NY 10007

+1 212 669 7822 tel
+1 212 669 7818 fax

To: William Wong, MOEC
Date: 2/20/19
Subject: 18DOC001Y Borough Based NYC Jail System--Manhattan
NOTE: Please respond to items with "X" only as indicated below

The above mentioned project(s) need additional information before they can be reviewed. In order to expedite your project, it is preferable to send electronic documents and images to gsantucci@lpc.nyc.gov. Original Adobe files are preferred. No www links will be accepted. The maximum transmission per email accepted by our email system is 10MB.

(X) Regarding potential significant adverse impacts to the S/NR eligible Manhattan Criminal Courts Building and Prison at 100 Centre St., specifically that wing at 125 White St., the LPC requests an Alternatives Analysis as per the CEQR Technical Manual: 2014, Chapter 9, "Historic and Cultural Resources", Section 620, "Architectural Resource Alternatives."

() Provide a scope of work for the project, including any changes, demolition, or alteration of standing structures.

( ) see above IS THERE ANY NEW INGROUND EXCAVATION IN PREVIOUSLY UNEXCAVATED AREAS?

() Site plans and sections with corresponding description of **existing and proposed** conditions **ONLY IF INGROUND CONSTRUCTION IS PROPOSED; IF NO INGROUND CONSTRUCTION IS PROPOSED A STATEMENT AS SUCH SHOULD BE PROVIDED FOR EACH BLOCK AND LOT.**

() Scaled (1"=20') drawings of existing and proposed conditions in plan and section. **Send plans only if there is inground construction.**

() 400' radius map measured from the edge of the site(s) on a **Sanborn Map** or equivalent. The subject site(s) should be clearly marked on the map. To get a map of your site use the following www addresses:
http://www.oasisnyc.net/map.aspx
http://maps.nyc.gov/doitt/nycitymap/

( ) Original photographs of full building **façade** or streetscape for all project sites or projected and potential soft sites. All photographs to be keyed to a site map and/or the 400' radius map, and to be labeled with the address and block/lot. **AERIAL PHOTOS, SUCH AS GOOGLE, BING, AND OTHERS ARE NOT ACCEPTABLE.**

Please label all photos with address and bbl.

() Block and lot numbers. A table listing Blocks and Lots within the project site is required. If Block and Lot numbers are not applicable, ie. project is only in a streetbed or sidewalk, use the nearest block and lot. To get to the block and lot numbers, use the use the following www addresses:
http://gis.nyc.gov/doitt/mp/Portal.do
http://www.oasisnyc.net/OASISMap.htm

( ) Site plan showing locations of soil borings and soil boring logs if applicable.

() Multi-address submissions (over 5) should contain a master list of project addresses organized by BBL in Excel format as shown in Figure 1 on the next page. Only include lots that need review. Do not include lists of historic sites in the project or project study area. The basic rules are:

1. Delete the blank rows at the bottom of the report.
2. The values for Borough need to be the two character borough code.
3. The values for Block and Lot must be formatted as Number.
4. Only one address per line; no aka's.
5. **Use one file for each borough, no tabs.**
6. **Do not use filters.**
7. **Do not fill the project ID row.**
8. **The project ID row must be Row 1.**
9. No page breaks.
10. No page numbers.
11. No read-only files.
12. **Only bbls AND ADDRESSES that exist in PLUTO AND MATCH VERBATIM IN AGENCY REQUEST TABLE will be reviewed.**

FORMAT EXACTLY LIKE THIS!!!! LEAVE X COORD AND Y COORD CELLS BLANK BUT KEEP THE HEADING.

Project ID					
Borough	Block	Lot	Address	X-Coord	Y-Coord
MN	1788	1	2265 3 Avenue		
BX	2677	70	919 Prospect Avenue		
BK	1009	35	252 9 Street		
QN	3450	43	1683 Madison Street		
SI	5900	120	1281 Arthur Kill Road		

Figure 1, Example of proper Excel format for batch entry.

(x) Other: **Electronic transmission preferred.**

A timely response on the part of the applicant will ensure quick processing of the request. Due to the high volume of projects received by the Environmental Review staff, project analysis may take from 2 to 4 weeks. Please take this into account when deciding when to submit the ER request. Additionally, please note that your message is not a substitute for compliance with NEPA, SEQRA, and/or CEQR, or for the NYC Landmarks Law. Prior to commencing any work, the proper Environmental Review sign-offs and/or LPC permits are required.

NYC Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 2/19/2019

The LPC is in receipt of the Mitigation Chapters for Brooklyn, dated 2/15, and Manhattan, dated 2/19.

In order to complete the review of the Mitigation Chapters for architectural properties, LPC requested on 2/20/19 that the applicant provide an Alternatives Analysis as per the CEQR Technical Manual: 2014, Chapter 9, "Historic and Cultural Resources", Section 620, "Architectural Resource Alternatives" and is still waiting for receipt of this document.

The Mitigation Chapters for Brooklyn and Manhattan appear acceptable for archaeological resources.

Additionally, please confirm whether or not the Department of Correction is using State or Federal funding for this project, as SHPO coordination may be required.

Gina Santucci

3/1/2019

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33498_FSO_GS_03012019.doc

NYC Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

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ENVIRONMENTAL REVIEW

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 2/6/2019

Comments:

The LPC is in receipt of the Historical and Cultural Resources chapter for Manhattan dated 2/4/19.

ARCHITECTURE

125 White St., which is a portion of 100 Centre St., (Criminal Courts Building and Prison) appears both LPC and S/NR eligible. The text should be corrected accordingly.

ARCHAEOLOGY

The text for archaeology appears acceptable.

Gina Santucci 3/4/19

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33498_FSO_ALS_02082019.doc

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ENVIRONMENTAL REVIEW

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 3/6/2019

Comments:

The LPC is in receipt of the revised Historic and Cultural Resources chapter of 3/6/19. The text appears acceptable.

Additionally, please confirm whether or not the Department of Correction is using State or Federal funding for this project, as SHPO coordination may be required.

Gina Santucci 3/7/2019

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33498_FSO_GS_03072019.doc

NYC Landmarks Preservation Commission

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ENVIRONMENTAL REVIEW

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 3/11/2019

The LPC is in receipt of the revised Historic and Cultural Resources chapter for Bronx, Brooklyn, and Queens dated 3/4/19. The text appears acceptable.

Gina Santucci 3/14/2019

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33498_FSO_GS_03152019.doc

NYC Landmarks Preservation Commission

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ENVIRONMENTAL REVIEW

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 3/11/2019

The LPC is in receipt of the Manhattan Construction chapter dated 3/4/19.

The text appears acceptable.

Gina Santucci 3/15/2019

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33498CM_FSO_GS_03152019.doc

Landmarks Preservation Commission

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9th Floor North
New York, NY 10007

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ENVIRONMENTAL REVIEW

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 3/11/2019

The LPC is in receipt of the revised Mitigation chapters for Bronx, Brooklyn, Manhattan and Queens dated 3/4/19.

For Bronx, Brooklyn, and Queens the text appears acceptable. LPC will comment on the Manhattan chapter upon completion of the Alternatives Analysis.

Gina Santucci 3/15/2019

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33498M_FSO_GS_03152019.doc

Landmarks Preservation Commission

1 Centre Street
9th Floor North
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ENVIRONMENTAL REVIEW

Final Sign-Off (Multiple Sites)

Project number: DEPT. OF CORRECTION / 18DOC001Y
Project: BOROUGH BASED NYC JAIL SYSTEM
Date received: 3/4/2019

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

Properties with no Architectural or Archaeological significance:
1) ADDRESS: 100 BAXTER STREET, BBL: 1001980001, PROPERTY NAME: MANHATTAN SITE
2) ADDRESS: , BBL: , PROPERTY NAME: MANHATTAN SITE STREETBED
3) ADDRESS: 275 ATLANTIC AVENUE, BBL: 3001750001, PROPERTY NAME: BROOKLYN SITE
4) ADDRESS: 125-01 QUEENS BOULEVARD, BBL: 4096530001, PROPERTY NAME: QUEENS SITE
5) ADDRESS: , BBL: , PROPERTY NAME: QUEENS SITE STREETBED
6) ADDRESS: 80-25 126 STREET, BBL: 4096570001, PROPERTY NAME: QUEENS SITE
7) ADDRESS: 320 CONCORD AVENUE, BBL: 2025740001, PROPERTY NAME: BRONX SITE
8) ADDRESS: 217 EAST 161 STREET, BBL: 2024540001, PROPERTY NAME: BRONX SITE
9) ADDRESS: , BBL: , PROPERTY NAME: BRONX SITE STREETBED
10) ADDRESS: 231 EAST 161 STREET, BBL: 2024440001, PROPERTY NAME: BRONX SITE
11) ADDRESS: 231 EAST 161 STREET, BBL: 2024440001, PROPERTY NAME: BRONX SITE
12) ADDRESS: 82 AVENUE, BBL: 4096530100
13) ADDRESS: 10-01 HAZEN STREET, BBL: 2026050040, PROPERTY NAME: RIKERS ISLAND

Properties with Architectural significance:
1) ADDRESS: , BBL: , PROPERTY NAME: MANHATTAN SITE STREETBED DEMAPPING, LPC FINDINGS: ELIGIBLE NYC LANDMARK EXTERIOR, STATE/NATIONAL REGISTER FINDINGS: ELIGIBLE FOR NATIONAL REGISTER LIST
2) ADDRESS: 100 CENTRE STREET, BBL: 1001670001, PROPERTY NAME: MANHATTAN SITE, LPC FINDINGS: ELIGIBLE NYC LANDMARK EXTERIOR, STATE/NATIONAL REGISTER FINDINGS: ELIGIBLE FOR NATIONAL REGISTER LIST, COMMENTS: CRIMINAL COURT BUILDING AND PRISON (TOMBS) INCLUDING 125 WHITE ST., PRISON WING.

NYC Landmarks Preservation Commission

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New York, NY 10007

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Fax (212)-669-7960
http://nyc.gov/landmarks

3) ADDRESS: 80 CENTRE STREET, BBL: 1001660027, LPC FINDINGS: ELIGIBLE NYC LANDMARK EXTERIOR, STATE/NATIONAL REGISTER FINDINGS: ELIGIBLE FOR NATIONAL REGISTER LIST, COMMENTS: Hi Gina!

The building was determined eligible – attached is the resource evaluation and the USN is 06101.007738; I'm not sure why it didn't map in CRIS because the USN has the full address, but it's mapped now!

Thanks,
Linda Mackey
Historic Preservation Specialist / Survey & Evaluation Unit
CLG Representative, Eastern New York

Properties with Archaeological significance:

Properties with Architectural and Archaeological significance:

Comments:

Gina Santucci 3/15/2019

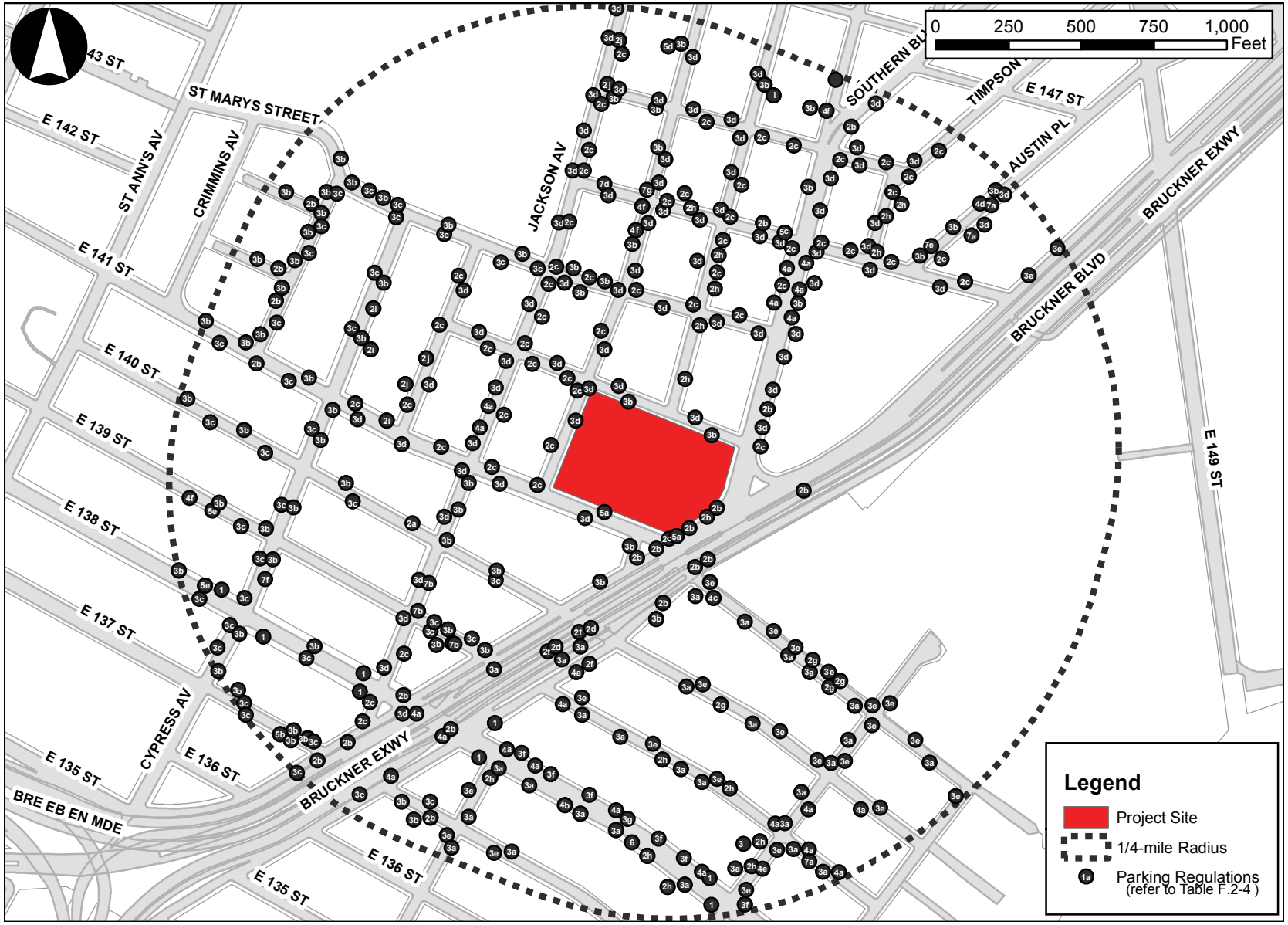
SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 33498_FSO_GS_03152019.doc

APPENDIX F

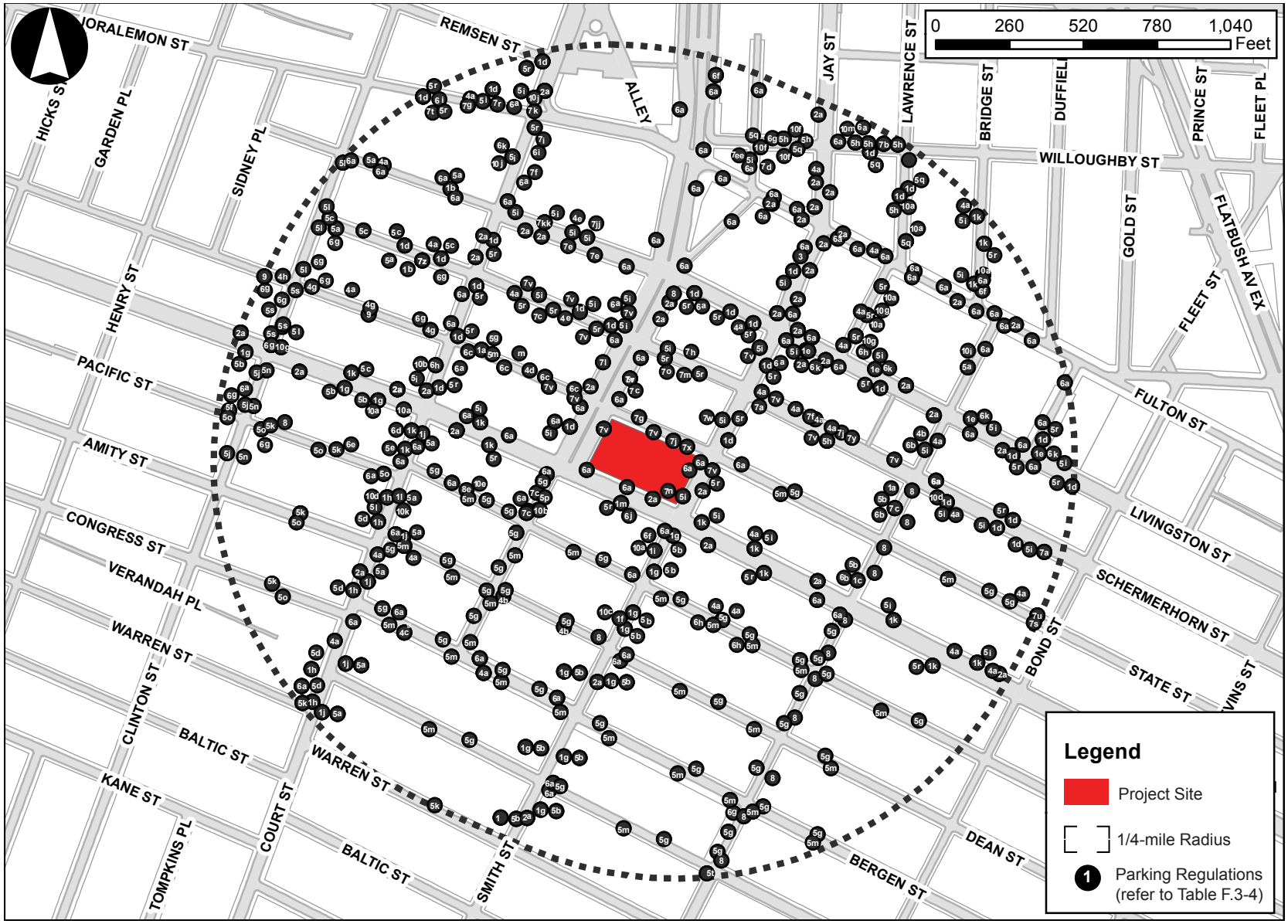
Transportation

3.18.19



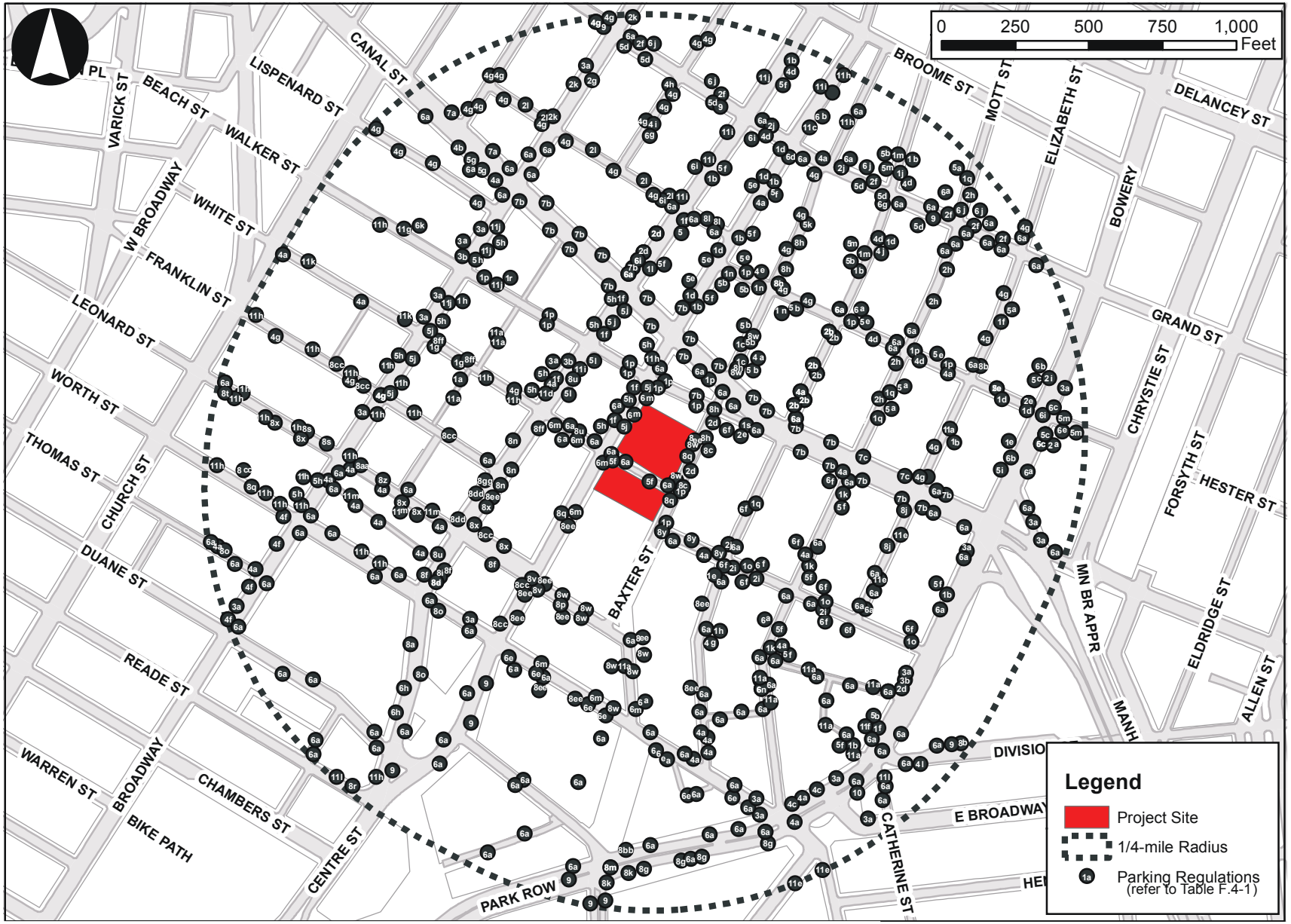
Bronx Site - 745 East 141st Street
Study Area On-Street Parking Regulations
Figure F.2-1

3.18.19



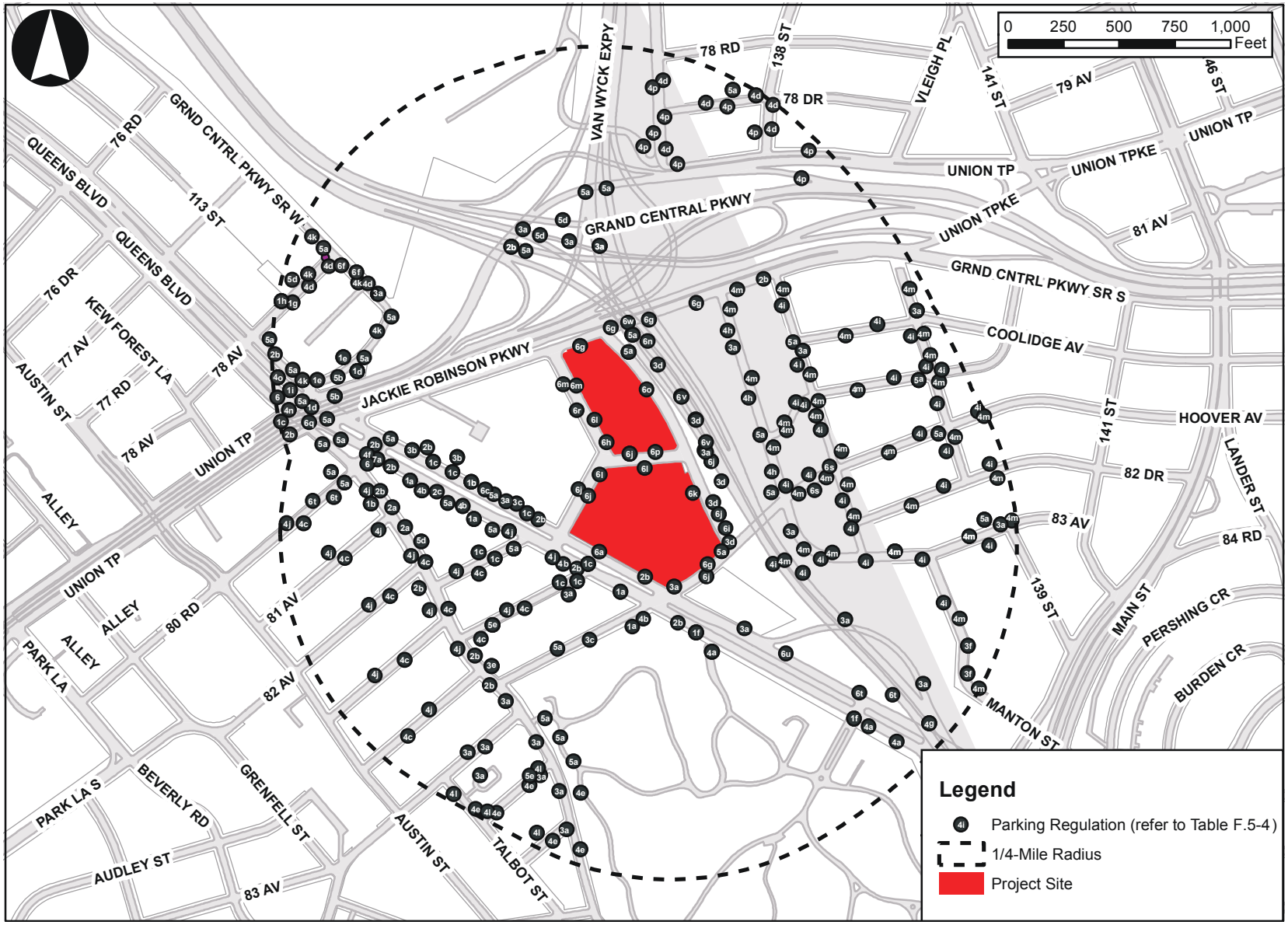
Brooklyn Site - 275 Atlantic Avenue
Study Area On-Street Parking Regulations
Figure F.3-1

3.18.19



Manhattan Site - 124-125 White Street
Study Area On-Street Parking Regulations
Figure F.4-1

3.18.19



Queens Site - 126-02 82nd Avenue
Study Area On-Street Parking Regulations
Figure F.5-1

Table F.2-1 Existing Intersection Level of Service Analysis
Bronx

Intersection	Existing Weekday AM					Existing Weekday Midday					Existing Saturday				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
East 141st Street &	EB	LTR	0.74	29.2	C	EB	LTR	0.76	29.8	C	EB	LTR	0.32	13.5	B
Jackson Avenue	WB	LTR	0.96	46.0	D *	WB	LTR	0.87	32.3	C	WB	LTR	0.56	16.9	B
(signalized)	NB	LTR	0.30	13.3	B	NB	LTR	0.35	13.8	B	NB	LTR	0.24	12.3	B
	SB	LTR	0.28	12.9	B	SB	LTR	0.30	13.1	B	SB	LTR	0.29	13.0	B
East 140th Street &	EB	LTR	0.49	19.6	C	EB	LTR	0.59	24.4	C	EB	LTR	0.24	13.2	B
Jackson Avenue	SB	LT	0.02	7.6	A	SB	LT	0.03	7.7	A	SB	LT	0.01	7.6	A
(two-way stop-controlled)															
East 139th Street &	WB	LTR	0.47	19.9	B	WB	LTR	0.45	19.5	B	WB	LTR	0.58	22.1	C
Jackson Avenue	NB	LTR	0.17	8.3	A	NB	LTR	0.20	8.6	A	NB	LTR	0.21	8.6	A
(signalized)	SB	TR	0.39	10.7	B	SB	TR	0.37	10.4	B	SB	TR	0.29	9.4	A
East 138th Street &	EB	LT	0.47	16.0	B	EB	LT	0.55	17.5	B	EB	LT	0.52	16.7	B
Jackson Avenue	EB	R	0.05	10.5	B	EB	R	0.08	10.7	B	EB	R	0.03	10.2	B
(signalized)	WB	LTR	0.36	14.2	B	WB	LTR	0.33	13.5	B	WB	LTR	0.30	13.1	B
	SB	LTR	0.67	49.8	D	SB	LTR	0.55	44.4	D	SB	LTR	0.57	44.4	D
East 141st Street &	SB	LR	0.12	13.3	B	SB	LR	0.08	12.3	B	SB	LR	0.08	10.9	B
Concord Avenue															
(two-way stop-controlled)															
Southern Boulevard &	EB	R	0.52	30.5	C	EB	R	0.46	28.9	C	EB	R	0.38	27.3	C
Bruckner Boulevard SB	WB	LT	0.44	29.2	C	WB	LT	0.37	27.8	C	WB	LT	0.26	25.7	C
(signalized)	SB	T	0.71	22.9	C	SB	T	0.69	22.3	C	SB	T	0.53	19.4	B
East 141st Street &	EB	TR	0.30	38.1	D	EB	TR	0.41	40.8	D	EB	TR	0.25	37.0	D
Bruckner Boulevard SB	WB	LT	0.42	41.0	D	WB	LT	0.43	41.9	D	WB	LT	0.38	40.0	D
(signalized)	SB	TR	0.78	16.2	B	SB	TR	0.77	15.7	B	SB	TR	0.51	11.0	B
East 141st Street &	EB	L	0.46	45.4	D	EB	L	0.62	53.6	D	EB	L	0.34	40.4	D
Bruckner Boulevard NB	WB	T	0.46	42.6	D	WB	T	0.38	39.8	D	WB	T	0.35	38.9	D
(signalized)	WB	R	0.48	45.3	D	WB	R	1.07	121.1	F *	WB	R	0.39	41.1	D
	NB (Main)	T	0.18	8.2	A	NB (Main)	T	0.29	9.0	A	NB (Main)	T	0.28	8.9	A
	NB (Local)	T	0.49	11.4	B	NB (Local)	T	0.73	16.7	B	NB (Local)	T	0.40	10.3	B
Wales Avenue &	EB	R	0.05	10.1	B	EB	R	0.04	10.7	B	EB	R	0.02	10.0	A
Bruckner Boulevard															
(two-way stop-controlled)															
East 140th Street &	EB	TR	0.52	46.8	D	EB	TR	0.74	58.0	E *	EB	TR	0.30	41.0	D
Bruckner Boulevard SB	SB (Main)	L	1.06	167.2	F *	SB (Main)	L	1.07	268.6	F *	SB (Main)	L	1.07	207.6	F *
(signalized)	SB (Main)	T	0.74	33.2	C	SB (Main)	T	0.66	25.5	C	SB (Main)	T	0.39	10.0	B
	SB (Local)	T	0.95	32.7	C *	SB (Local)	T	1.03	71.1	E *	SB (Local)	T	0.63	13.6	B
East 140th Street &	EB	LT	0.57	27.0	C	EB	LT	0.60	31.3	C	EB	LT	0.46	27.5	C
Bruckner Boulevard NB	NB (Main)	T	0.22	20.5	C	NB (Main)	T	0.32	18.9	B	NB (Main)	T	0.34	19.3	B
(signalized)	NB (Local)	TR	0.70	30.0	C	NB (Local)	TR	0.90	40.2	D *	NB (Local)	TR	0.55	23.1	C
East 139th Street &	NB	R	0.04	9.9	A	NB	R	0.05	10.1	B	NB	R	0.03	9.7	A
Bruckner Boulevard NB															
(two-way stop-controlled)															
East 138th Street &	EB	TR	0.78	56.7	E *	EB	TR	0.82	57.0	E *	EB	TR	0.57	41.8	D
Bruckner Boulevard SB	WB	LT	1.07	122.0	F *	WB	LT	1.06	129.1	F *	WB	LT	0.56	35.9	D
(signalized)	SB (Main)	T	0.93	55.9	E *	SB (Main)	T	0.78	34.7	C	SB (Main)	T	0.44	15.3	B
	SB (Local)	TR	0.92	34.9	C *	SB (Local)	TR	0.99	50.3	D *	SB (Local)	TR	0.54	17.0	B
East 138th Street &	EB	L	0.93	86.2	F *	EB	L	0.85	72.9	E *	EB	L	0.94	79.7	E *
Bruckner Boulevard NB	EB	LT	0.62	49.0	D	EB	LT	0.84	63.3	E *	EB	LT	0.31	28.7	C
(signalized)	WB	T	0.95	87.6	F *	WB	T	0.91	80.0	F *	WB	T	0.52	43.1	D
	WB	R	0.52	45.8	D	WB	R	1.07	116.6	F *	WB	R	0.34	39.3	D
	NB (Main to Main)	T	0.19	16.9	B	NB (Main to Main)	T	0.35	26.0	C	NB (Main to Main)	T	0.27	13.2	B
	NB (Main to Ramp/Local)	T	1.07	85.5	F *	NB (Main to Ramp/Local)	T	1.07	96.4	F *	NB (Main to Ramp/Local)	T	0.99	58.6	E *
	NB (Local to Local)	T	0.79	27.7	C	NB (Local to Local)	T	1.06	75.3	E *	NB (Local to Local)	T	0.57	19.0	B
	NB (Local)	R	0.12	11.9	B	NB (Local)	R	0.13	12.1	B	NB (Local)	R	0.10	11.7	B
	NB (Local to Ramp)	T	1.07	138.6	F *	NB (Local to Ramp)	T	1.07	135.5	F *	NB (Local to Ramp)	T	1.06	205.2	F *
East 137th Street &	WB	R	0.01	12.3	B	WB	R	0.03	13.2	B	WB	R	0.01	10.7	B
Bruckner Boulevard NB															
(two-way stop-controlled)															
East 136th Street &	WB	R	0.01	13.1	B	WB	R	0.04	16.1	C	WB	R	0.01	10.8	B
Bruckner Boulevard NB															
(two-way stop-controlled)															
East 141st Street &	WB	LTR		8.4	A	WB	LTR		8.6	A	WB	LTR		7.71	A
Walnut Avenue	NB	LTR		9.3	A	NB	LTR		10.9	B	NB	LTR		8.33	A
(all-way stop-controlled)	SB	LTR		7.5	A	SB	LTR		7.7	A	SB	LTR		7.17	A
East 140th Street &	EB	LTR	0.42	12.3	B	EB	LTR	0.38	12.9	B	EB	LTR	0.31	10.7	B
Walnut Avenue	WB	LR	0.02	11.2	B	WB	LR	0.05	12.0	B	WB	LR	0.02	10.1	B
(two-way stop-controlled)	SB	LT	0.00	7.5	A	SB	LT	0.00	7.8	A	SB	LT	0.00	7.4	A

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes congested lane group.

Table F.2-2 No-Action Intersection Level of Service Analysis
Bronx

Intersection	No-Action Weekday AM					No-Action Weekday Midday					No-Action Saturday				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
East 141st Street &	EB	LTR	0.84	40.2	D	EB	LTR	0.84	42.8	D	EB	LTR	0.34	14.0	B
Jackson Avenue	WB	LTR	0.99	53.8	D *	WB	LTR	0.91	37.6	D *	WB	LTR	0.57	17.3	B
(signalized)	NB	LTR	0.33	13.6	B	NB	LTR	0.38	14.2	B	NB	LTR	0.25	12.4	B
	SB	LTR	0.33	13.6	B	SB	LTR	0.34	13.7	B	SB	LTR	0.34	13.8	B
East 140th Street &	EB	LTR	0.61	27.1	D	EB	LTR	0.76	41.2	E *	EB	LTR	0.30	15.3	C
Jackson Avenue	SB	LT	0.02	7.7	A	SB	LT	0.03	7.9	A	SB	LT	0.01	7.6	A
(two-way stop-controlled)															
East 139th Street &	WB	LTR	0.48	20.1	C	WB	LTR	0.45	19.6	B	WB	LTR	0.59	22.4	C
Jackson Avenue	NB	LTR	0.19	8.5	A	NB	LTR	0.22	8.8	A	NB	LTR	0.22	8.7	A
(signalized)	SB	TR	0.41	11.0	B	SB	TR	0.40	10.8	B	SB	TR	0.31	9.5	A
East 138th Street &	EB	LT	0.50	16.6	B	EB	LT	0.58	18.4	B	EB	LT	0.54	17.1	B
Jackson Avenue	EB	R	0.05	10.5	B	EB	R	0.08	10.8	B	EB	R	0.03	10.2	B
(signalized)	WB	LTR	0.37	14.3	B	WB	LTR	0.34	13.6	B	WB	LTR	0.31	13.1	B
	SB	LTR	0.72	53.2	D	SB	LTR	0.62	47.7	D	SB	LTR	0.60	45.7	D
East 141st Street &	SB	LR	0.14	13.5	B	SB	LR	0.09	12.4	B	SB	LR	0.08	11.0	B
Concord Avenue															
(two-way stop-controlled)															
Southern Boulevard &	EB	R	0.54	30.9	C	EB	R	0.49	29.4	C	EB	R	0.38	27.4	C
Bruckner Boulevard SB	WB	LT	0.48	30.0	C	WB	LT	0.39	28.2	C	WB	LT	0.26	25.7	C
(signalized)	SB	T	0.67	22.0	C	SB	T	0.66	21.8	C	SB	T	0.52	19.1	B
East 141st Street &	EB	TR	0.33	38.8	D	EB	TR	0.44	41.7	D	EB	TR	0.29	37.8	D
Bruckner Boulevard SB	WB	LT	0.45	41.8	D	WB	LT	0.54	46.2	D	WB	LT	0.52	44.7	D
(signalized)	SB	TR	0.74	15.0	B	SB	TR	0.75	15.4	B	SB	TR	0.50	10.9	B
East 141st Street &	EB	L	0.52	48.3	D	EB	L	0.73	65.1	E *	EB	L	0.41	43.3	D
Bruckner Boulevard NB	WB	T	0.48	43.2	D	WB	T	0.43	41.0	D	WB	T	0.42	40.6	D
(signalized)	WB	R	0.52	47.1	D	WB	R	1.24	181.1	F *	WB	R	0.48	43.8	D
	NB (Main)	T	0.19	8.3	A	NB (Main)	T	0.30	9.2	A	NB (Main)	T	0.29	9.0	A
	NB (Local)	T	0.42	10.5	B	NB (Local)	T	0.43	10.7	B	NB (Local)	T	0.26	8.8	A
Wales Avenue &	EB	R	0.05	10.3	B	EB	R	0.04	11.7	B	EB	R	0.02	10.7	B
Bruckner Boulevard															
(two-way stop-controlled)															
East 140th Street &	EB	TR	0.54	47.4	D	EB	TR	0.76	59.6	E *	EB	TR	0.33	41.5	D
Bruckner Boulevard SB	SB (Main)	L	1.12	186.6	F *	SB (Main)	L	1.15	295.7	F *	SB (Main)	L	1.19	250.7	F *
(signalized)	SB (Main)	T	0.69	31.3	C	SB (Main)	T	0.62	24.4	C	SB (Main)	T	0.37	9.8	A
	SB (Local)	T	0.90	25.9	C *	SB (Local)	T	1.02	68.9	E *	SB (Local)	T	0.62	13.5	B
East 140th Street &	EB	LT	0.60	27.8	C	EB	LT	0.63	32.3	C	EB	LT	0.52	28.7	C
Bruckner Boulevard NB	NB (Main)	T	0.24	20.8	C	NB (Main)	T	0.33	19.2	B	NB (Main)	T	0.36	19.5	B
(signalized)	NB (Local)	TR	0.61	27.5	C	NB (Local)	TR	0.53	22.9	C	NB (Local)	TR	0.37	19.8	B
East 139th Street &	NB	R	0.04	9.8	A	NB	R	0.05	10.3	B	NB	R	0.03	9.5	A
Bruckner Boulevard NB															
(two-way stop-controlled)															
East 138th Street &	EB	TR	0.83	61.3	E *	EB	TR	0.99	86.9	F *	EB	TR	0.82	60.1	E *
Bruckner Boulevard SB	WB	LT	1.13	137.6	F *	WB	LT	1.13	151.0	F *	WB	LT	0.74	49.7	D
(signalized)	SB (Main)	T	0.72	31.4	C	SB (Main)	T	0.57	19.8	B	SB (Main)	T	0.44	17.4	B
	SB (Local)	TR	0.92	36.7	D *	SB (Local)	TR	0.93	37.9	D *	SB (Local)	TR	0.56	19.7	B
East 138th Street &	EB	L	0.84	68.9	E *	EB	L	0.78	63.9	E *	EB	L	1.00	98.0	F *
Bruckner Boulevard NB	EB	LT	0.59	51.8	D	EB	LT	0.87	74.4	E *	EB	LT	0.42	45.7	D
(signalized)	WB	T	1.85	462.8	F *	WB	T	1.65	371.7	F *	WB	T	1.17	174.3	F *
	WB	R	1.24	216.8	F *	WB	R	2.86	915.4	F *	WB	R	0.82	92.7	F *
	NB (Main to Main)	T	0.19	14.4	B	NB (Main to Main)	T	0.28	15.3	B	NB (Main to Main)	T	0.30	15.5	B
	NB (Main to Ramp/Local)	T	1.07	83.2	F *	NB (Main to Ramp/Local)	T	0.74	36.2	D	NB (Main to Ramp/Local)	T	1.11	100.1	F *
	NB (Local to Local)	T	0.68	25.1	C	NB (Local to Local)	T	0.55	19.8	B	NB (Local to Local)	T	0.30	16.0	B
	NB (Local)	R	0.13	13.9	B	NB (Local)	R	0.14	14.1	B	NB (Local)	R	0.10	13.7	B
	NB (Local to Ramp)	T	1.10	150.8	F *	NB (Local to Ramp)	T	1.09	141.8	F *	NB (Local to Ramp)	T	1.08	211.3	F *
East 137th Street &	WB	R	0.01	11.7	B	WB	R	0.02	11.0	B	WB	R	0.01	9.8	A
Bruckner Boulevard NB															
(two-way stop-controlled)															
East 136th Street &	WB	R	0.01	12.6	B	WB	R	0.03	13.1	B	WB	R	0.01	10.0	A
Bruckner Boulevard NB															
(two-way stop-controlled)															
East 141st Street &	WB	LTR		8.47	A	WB	LTR		8.70	A	WB	LTR		7.86	A
Walnut Avenue	NB	LTR		9.70	A	NB	LTR		11.54	B	NB	LTR		8.80	A
(all-way stop-controlled)	SB	LTR		7.52	A	SB	LTR		7.71	A	SB	LTR		7.24	A
East 140th Street &	EB	LTR	0.47	13.0	B	EB	LTR	0.45	14.1	B	EB	LTR	0.39	11.6	B
Walnut Avenue	WB	LR	0.02	11.2	B	WB	LR	0.06	12.1	B	WB	LR	0.02	10.1	B
(two-way stop-controlled)	SB	LT	0.00	7.5	A	SB	LT	0.00	7.8	A	SB	LT	0.00	7.4	A

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes congested lane group.

Table F.2-3 With-Action Intersection Level of Service Analysis
Bronx

	With-Action Weekday AM						With-Action Weekday Midday						With-Action Saturday					
Intersection	**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**		**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**		**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**	
East 141st Street &	EB	LTR	0.92	53.0	D	*	EB	LTR	0.98	65.6	E	*	EB	LTR	0.42	15.4	B	
Jackson Avenue	WB	LTR	1.21	130.9	F	*	WB	LTR	1.41	212.7	F	*	WB	LTR	0.89	35.7	D	
(signalized)	NB	LTR	0.35	13.9	B		NB	LTR	0.40	14.6	B		NB	LTR	0.26	12.6	B	
	SB	LTR	0.36	14.0	B		SB	LTR	0.37	14.1	B		SB	LTR	0.37	14.2	B	
East 140th Street &	EB	LTR	0.92	77.3	F	*	EB	LTR	2.05	554.4	F	*	EB	LTR	0.62	40.6	E	*
Jackson Avenue	SB	LT	0.03	8.1	A		SB	LT	0.06	9.1	A		SB	LT	0.02	8.4	A	
(two-way stop-controlled)																		
East 139th Street &	WB	LTR	0.49	20.2	C		WB	LTR	0.46	19.7	B		WB	LTR	0.60	22.6	C	
Jackson Avenue	NB	LTR	0.19	8.5	A		NB	LTR	0.23	8.8	A		NB	LTR	0.22	8.7	A	
(signalized)	SB	TR	0.52	12.8	B		SB	TR	0.61	14.6	B		SB	TR	0.45	11.4	B	
East 138th Street &	EB	LT	0.50	16.6	B		EB	LT	0.59	18.5	B		EB	LT	0.54	17.2	B	
Jackson Avenue	EB	R	0.05	10.5	B		EB	R	0.08	10.8	B		EB	R	0.03	10.2	B	
(signalized)	WB	LTR	0.37	14.3	B		WB	LTR	0.34	13.7	B		WB	LTR	0.31	13.2	B	
	SB	LTR	0.91	74.9	E	*	SB	LTR	0.98	87.7	F	*	SB	LTR	0.88	67.8	E	*
East 141st Street &	SB	LR	0.19	15.6	C		SB	LR	0.25	19.6	C		SB	LR	0.18	14.5	B	
Concord Avenue																		
(two-way stop-controlled)																		
Southern Boulevard &	EB	R	0.55	31.1	C		EB	R	0.49	29.5	C		EB	R	0.39	27.5	C	
Bruckner Boulevard SB	WB	LT	0.51	30.8	C		WB	LT	0.45	29.4	C		WB	LT	0.29	26.2	C	
(signalized)	SB	T	0.69	22.5	C		SB	T	0.68	22.1	C		SB	T	0.53	19.3	B	
East 141st Street &	EB	TR	0.52	43.8	D		EB	TR	0.97	89.9	F	*	EB	TR	0.64	48.8	D	*
Bruckner Boulevard SB	WB	LT	1.01	97.8	F	*	WB	LT	1.24	191.2	F	*	WB	LT	1.07	123.5	F	*
(signalized)	SB	TR	0.77	15.9	B		SB	TR	0.77	15.9	B		SB	TR	0.52	11.1	B	
East 141st Street &	EB	L	1.02	144.4	F	*	EB	L	1.18	188.0	F	*	EB	L	0.61	58.7	E	*
Bruckner Boulevard NB	WB	T	1.07	117.1	F	*	WB	T	0.75	54.9	D	*	WB	T	0.69	50.5	D	*
(signalized)	WB	R	0.60	51.4	D		WB	R	1.59	332.0	F	*	WB	R	0.60	49.8	D	*
	NB (Main)	T	0.19	8.3	A		NB (Main)	T	0.30	9.2	A		NB (Main)	T	0.29	9.0	A	
	NB (Local)	T	0.42	10.5	B		NB (Local)	T	0.43	10.7	B		NB (Local)	T	0.26	8.8	A	
Wales Avenue &	EB	R	0.09	10.9	B		EB	R	0.20	16.9	C		EB	R	0.10	12.6	B	
Bruckner Boulevard																		
(two-way stop-controlled)																		
East 140th Street &	EB	TR	0.56	48.3	D		EB	TR	0.79	62.7	E		EB	TR	0.36	42.2	D	
Bruckner Boulevard SB	SB (Main)	L	1.12	186.6	F		SB (Main)	L	1.15	295.7	F		SB (Main)	L	1.19	250.7	F	
(signalized)	SB (Main)	T	0.75	33.6	C		SB (Main)	T	0.71	26.8	C		SB (Main)	T	0.42	10.3	B	
	SB (Local)	T	0.91	27.5	C		SB (Local)	T	1.05	78.8	E	*	SB (Local)	T	0.64	13.9	B	
East 140th Street &	EB	LT	0.60	27.8	C		EB	LT	0.63	32.3	C		EB	LT	0.52	28.7	C	
Bruckner Boulevard NB	NB (Main)	T	0.24	20.8	C		NB (Main)	T	0.33	19.2	B		NB (Main)	T	0.36	19.5	B	
(signalized)	NB (Local)	TR	0.75	32.0	C		NB (Local)	TR	0.65	25.8	C		NB (Local)	TR	0.45	21.0	C	
East 139th Street &	NB	R	0.04	10.1	B		NB	R	0.06	11.4	B		NB	R	0.03	10.0	A	
Bruckner Boulevard NB																		
(two-way stop-controlled)																		
East 138th Street &	EB	TR	0.91	71.4	E	*	EB	TR	1.17	146.0	F	*	EB	TR	0.95	76.8	E	*
Bruckner Boulevard SB	WB	LT	1.19	161.7	F	*	WB	LT	1.27	206.8	F	*	WB	LT	0.81	58.4	E	*
(signalized)	SB (Main)	T	0.80	37.0	D		SB (Main)	T	0.66	21.8	C		SB (Main)	T	0.50	18.4	B	
	SB (Local)	TR	0.93	38.8	D		SB (Local)	TR	0.97	43.5	D		SB (Local)	TR	0.59	20.2	C	
East 138th Street &	EB	L	0.95	87.3	F	*	EB	L	1.02	107.3	F	*	EB	L	1.19	159.5	F	*
Bruckner Boulevard NB	EB	LT	0.63	53.9	D		EB	LT	0.97	93.8	F	*	EB	LT	0.47	47.0	D	
(signalized)	WB	T	1.85	462.8	F		WB	T	1.65	371.7	F		WB	T	1.17	174.3	F	
	WB	R	1.24	216.8	F		WB	R	2.86	915.4	F		WB	R	0.82	92.7	F	
	NB (Main to Main)	T	0.19	14.4	B		NB (Main to Main)	T	0.28	15.3	B		NB (Main to Main)	T	0.30	15.5	B	
	NB (Main to Ramp/Local)	T	1.11	98.0	F	*	NB (Main to Ramp/Local)	T	0.96	62.7	E	*	NB (Main to Ramp/Local)	T	1.14	110.4	F	*
	NB (Local to Local)	T	0.86	35.4	D		NB (Local to Local)	T	0.67	23.4	C		NB (Local to Local)	T	0.39	17.4	B	
	NB (Local)	R	0.13	13.9	B		NB (Local)	R	0.14	14.1	B		NB (Local)	R	0.10	13.7	B	
	NB (Local to Ramp)	T	1.10	150.8	F		NB (Local to Ramp)	T	1.09	141.8	F		NB (Local to Ramp)	T	1.08	211.3	F	
East 137th Street &	WB	R	0.01	12.4	B		WB	R	0.02	11.4	B		WB	R	0.01	10.1	B	
Bruckner Boulevard NB																		
(two-way stop-controlled)																		
East 136th Street &	WB	R	0.01	13.3	B		WB	R	0.03	13.6	B		WB	R	0.01	10.2	B	
Bruckner Boulevard NB																		
(two-way stop-controlled)																		
East 141st Street &	WB	LTR		8.99	A		WB	LTR		9.13	A		WB	LTR		8.16	A	
Walnut Avenue	NB	LTR		13.34	B		NB	LTR		15.60	C		NB	LTR		9.97	A	
(all-way stop-controlled)	SB	LTR		7.75	A		SB	LTR		7.91	A		SB	LTR		7.38	A	
East 140th Street &	EB	LTR	0.69	19.6	C		EB	LTR	0.67	21.4	C		EB	LTR	0.51	13.5	B	
Walnut Avenue	WB	LR	0.02	11.7	B		WB	LR	0.06	12.5	B		WB	LR	0.02	10.3	B	
(two-way stop-controlled)	SB	LT	0.00	7.7	A		SB	LT	0.00	7.9	A		SB	LT	0.00	7.4	A	

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes significant adverse impact per *CEQR Technical Manual* criteria.

Table F.2-4 Parking Regulations Code Definitions
Bronx

Parking Sign Regulation	Code
BUS STOP	1
NO PARKING 8AM-6PM EXCEPT SUNDAY	2a
NO PARKING ANYTIME	2b
NO PARKING MONDAY & THURSDAY 11AM-12:30PM (STREET CLEANING)	2c
NO PARKING MONDAY- FRIDAY 4PM-7PM	2d
NO PARKING MONDAY- FRIDAY 6AM-6PM	2e
NO PARKING MONDAY- FRIDAY 7AM-10AM	2f
NO PARKING MONDAY- FRIDAY 7AM-3PM	2g
NO PARKING MONDAY- FRIDAY 8AM-6PM	2h
NO PARKING SCHOOL DAYS 7AM-4PM	2i
NO PARKING SCHOOL DAYS 7AM-4PM EXCEPT AUTHORIZED VEHICLES (DEPT OF EDUCATION)	2j
NO PARKING FRIDAY MIDNIGHT-3AM (STREET CLEANING)	3a
NO PARKING MONDAY & THURSDAY 11:30AM-1PM (STREET CLEANING)	3b
NO PARKING TUESDAY & FRIDAY 11:30AM-1PM (STREET CLEANING)	3c
NO PARKING TUESDAY & FRIDAY 11AM-12:30PM (STREET CLEANING)	3d
NO PARKING TUESDAY MIDNIGHT-3AM (STREET CLEANING)	3e
NO PARKING TUESDAY MIDNIGHT-3AM (STREET CLEANING) (BACK IN 90 DEGREE PARKING ONLY)	3f
NO PARKING TUESDAY MIDNIGHT-3AM (STREET CLEANING) (PARALLEL PARKING ONLY)	3g
NO STANDING ANYTIME	4a
NO STANDING MONDAY- FRIDAY 6AM-6PM	4b
NO STANDING MONDAY- FRIDAY 7AM-4PM	4c
NO STANDING MONDAY- FRIDAY 7AM-5PM	4d
NO STANDING MONDAY- FRIDAY 9AM-4PM	4e
NO STANDING SCHOOL DAYS 7AM-4PM	4f
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (POLICE VEHICLES)	5a
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (AMBULETTE)	5b
NO STANDING MONDAY WEDNESDAY FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (LICENSED APPLICANTS NYS ROAD TEST)	5c
NO STANDING SCHOOL DAYS 7AM-4PM EXCEPT AUTHORIZED VEHICLES (DEPT OF EDUCATION)	5d
NO STANDING SCHOOL DAYS 7AM-4PM EXCEPT AUTHORIZED VEHICLES (SCHOOL FACULTY)	5e
NO STOPPING ANYTIME	6
TRUCK LOADING ONLY	7a
TRUCK LOADING ONLY 5AM-4PM EXCEPT SUNDAY	7b
TRUCK LOADING ONLY 7AM-4PM EXCEPT SUNDAY	7c
TRUCK LOADING ONLY 7AM-5PM	7d
TRUCK LOADING ONLY 7AM-5PM EXCEPT SUNDAY	7e
TRUCK LOADING ONLY 7AM-7PM EXCEPT SUNDAY	7f
TRUCK LOADING ONLY MONDAY- FRIDAY 7AM-5PM	7g

Table F.2-5 Construction With-Action Intersection Level of Service Analysis
Bronx

	Construction With-Action AM						Construction With-Action Midday					
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
East 141st Street &	EB	LTR	1.00	68.7	E	*	EB	LTR	0.93	53.7	D	*
Jackson Avenue	WB	LTR	1.11	89.5	F	*	WB	LTR	1.84	405.8	F	*
(signalized)	NB	LTR	0.39	14.6	B		NB	LTR	0.38	14.3	B	
	SB	LTR	0.45	16.0	B		SB	LTR	0.35	13.9	B	
East 140th Street &	EB	LTR	1.62	352.3	F	*	EB	LTR	2.59	808.5	F	*
Jackson Avenue	SB	LT	0.03	9.1	A		SB	LT	0.05	9.4	A	
(two-way stop controlled)												
East 139th Street &	WB	LTR	0.48	20.1	C		WB	LTR	0.45	19.6	B	
Jackson Avenue	NB	LTR	0.19	8.6	A		NB	LTR	0.23	8.8	A	
(signalized)	SB	TR	0.47	11.9	B		SB	TR	0.77	20.5	C	
East 138th Street &	EB	LT	0.50	16.6	B		EB	LT	0.59	18.5	B	
Jackson Avenue	EB	R	0.06	10.6	B		EB	R	0.08	10.8	B	
(signalized)	WB	LTR	0.37	14.3	B		WB	LTR	0.34	13.7	B	
	SB	LTR	0.81	61.8	E	*	SB	LTR	1.26	183.6	F	*
East 141st Street &	SB	LR	0.22	19.7	C		SB	LR	0.19	21.3	C	
Concord Avenue												
(two-way stop controlled)												
Southern Boulevard &	EB	R	0.54	30.9	C		EB	R	0.49	29.4	C	
Bruckner Boulevard SB	WB	LT	0.48	30.0	C		WB	LT	0.39	28.2	C	
(signalized)	SB	T	0.72	23.2	C		SB	T	0.67	21.8	C	
East 141st Street &	EB	TR	0.38	39.9	D		EB	TR	0.68	51.5	D	*
Bruckner Boulevard SB	WB	LT	0.94	78.9	E	*	WB	LT	0.69	57.0	E	*
(signalized)	SB	TR	0.79	16.7	B		SB	TR	0.76	15.5	B	
East 141st Street &	EB	L	1.03	148.7	F	*	EB	L	0.76	69.6	E	*
Bruckner Boulevard NB	WB	T	1.09	123.6	F	*	WB	T	0.46	41.9	D	
(signalized)	WB	R	0.52	47.1	D		WB	R	1.24	181.1	F	
	NB (Main)	T	0.19	8.3	A		NB (Main)	T	0.30	9.2	A	
	NB (Local)	T	0.42	10.5	B		NB (Local)	T	0.43	10.7	B	
Wales Avenue &	EB	R	0.05	10.3	B		EB	R	0.21	13.1	B	
Bruckner Boulevard												
(two-way stop controlled)												
East 140th Street &	EB	TR	0.54	47.4	D		EB	TR	0.76	59.6	E	
Bruckner Boulevard SB	SB (Main)	L	1.12	186.6	F		SB (Main)	L	1.15	295.7	F	
(signalized)	SB (Main)	T	0.71	31.9	C		SB (Main)	T	0.66	25.4	C	
	SB (Local)	T	0.90	25.9	C		SB (Local)	T	1.08	87.2	F	*
East 140th Street &	EB	LT	0.60	27.8	C		EB	LT	0.63	32.3	C	
Bruckner Boulevard NB	NB (Main)	T	0.24	20.8	C		NB (Main)	T	0.33	19.2	B	
(signalized)	NB (Local)	TR	0.74	31.6	C		NB (Local)	TR	0.54	23.1	C	
East 139th Street &	NB	R	0.04	10.0	B		NB	R	0.05	9.9	A	
Bruckner Boulevard NB												
(two-way stop controlled)												
East 138th Street &	EB	TR	0.85	63.5	E		EB	TR	1.33	210.8	F	*
Bruckner Boulevard SB	WB	LT	1.15	143.2	F	*	WB	LT	1.41	266.6	F	*
(signalized)	SB (Main)	T	0.75	34.4	C		SB (Main)	T	0.61	20.6	C	
	SB (Local)	TR	0.92	36.7	D		SB (Local)	TR	0.99	48.9	D	*
East 138th Street &	EB	L	0.87	72.3	E		EB	L	1.23	178.4	F	*
Bruckner Boulevard NB	EB	LT	0.60	52.3	D		EB	LT	1.06	117.6	F	*
(signalized)	WB	T	1.85	462.8	F		WB	T	1.65	371.7	F	
	WB	R	1.24	216.8	F		WB	R	2.86	915.4	F	
	NB (Main to Main)	T	0.19	14.4	B		NB (Main to Main)	T	0.28	15.3	B	
	NB (Main to Ramp/Local)	T	1.15	115.4	F	*	NB (Main to Ramp/Local)	T	0.93	56.6	E	*
	NB (Local to Local)	T	0.78	29.5	C		NB (Local to Local)	T	0.56	20.0	B	
	NB (Local)	R	0.13	13.9	B		NB (Local)	R	0.14	14.1	B	
	NB (Local to Ramp)	T	1.10	150.8	F		NB (Local to Ramp)	T	1.09	141.8	F	
East 137th Street &	WB	R	0.01	12.1	B		WB	R	0.02	11.0	B	
Bruckner Boulevard NB												
(two-way stop controlled)												
East 136th Street &	WB	R	0.01	12.9	B		WB	R	0.03	13.1	B	
Bruckner Boulevard NB												
(two-way stop controlled)												
East 141st Street &	WB	LTR		8.96	A		WB	LTR		8.74	A	
Walnut Avenue	NB	LTR		13.06	B		NB	LTR		11.80	B	
(all-way stop controlled)	SB	LTR		7.74	A		SB	LTR		7.73	A	
East 140th Street &	EB	LTR	0.68	19.1	C		EB	LTR	0.47	14.5	B	
Walnut Avenue	WB	LR	0.02	11.7	B		WB	LR	0.06	12.1	B	
(two-way stop controlled)	SB	LT	0.00	7.6	A		SB	LT	0.00	7.8	A	

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes significant adverse impact per *CEQR Technical Manual* criteria.

Table F.3-1 Existing Intersection Level of Service Analysis
Brooklyn

	Existing Weekday AM						Existing Weekday Midday						Existing Saturday					
Intersection	**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**		**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**		**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**	
Columbia Street &	EB	T	0.07	9.3	A		EB	T	0.15	25.1	C		EB	T	0.16	25.3	C	
Atlantic Avenue	WB	L	0.51	21.0	C		WB	L	0.98	81.3	F	*	WB	L	1.07	120.0	F	*
(signalized)	WB	LT	0.18	14.6	B		WB	LT	0.46	31.8	C		WB	LT	0.37	29.2	C	
	NB	LR	0.57	34.7	C		NB	LR	0.30	16.2	B		NB	LR	0.39	17.6	B	
	NB	R	0.47	32.5	C		NB	R	0.28	15.9	B		NB	R	0.47	19.5	B	
BQE NB Off-Ramp &	EB	L	0.50	30.3	C		EB	L	0.42	32.5	C		EB	L	0.71	48.6	D	
Atlantic Avenue	EB	T	0.10	0.9	A		EB	T	0.10	3.2	A		EB	T	0.14	3.3	A	
(signalized)	WB	R	0.47	15.2	B		WB	R	0.60	18.0	B		WB	R	0.61	18.1	B	
	WB	T	0.78	18.8	B		WB	T	0.61	12.8	B		WB	T	0.47	10.1	B	
	NB	L	0.18	48.5	D		NB	L	0.23	49.3	D		NB	L	0.31	50.7	D	
Hicks Street &	EB	LT	0.42	30.1	C		EB	LT	0.47	26.6	C		EB	LT	0.58	29.1	C	
Atlantic Avenue	WB	TR	0.59	30.2	C		WB	TR	0.57	24.1	C		WB	TR	0.54	23.4	C	
(signalized)	NB	L	0.58	28.4	C		NB	L	0.57	34.5	C		NB	L	0.53	33.1	C	
	NB	LT	0.71	33.0	C		NB	LT	1.00	75.9	E	*	NB	LT	0.89	53.9	D	
	NB	R	0.29	22.3	C		NB	R	0.39	29.9	C		NB	R	0.63	37.0	D	
Henry Street &	EB	TR	0.29	9.9	A		EB	TR	0.35	16.3	B		EB	TR	0.49	17.3	B	
Atlantic Avenue	WB	LT	0.43	16.5	B		WB	LT	0.43	17.5	B		WB	LT	0.48	17.5	B	
(signalized)	SB	LTR	0.56	36.6	D		SB	LTR	0.95	67.4	E	*	SB	LTR	0.69	41.7	D	
Clinton Street &	EB	LT	0.49	23.0	C		EB	LT	0.67	32.1	C		EB	LT	0.82	31.2	C	
Atlantic Avenue	WB	TR	0.56	27.8	C		WB	TR	0.61	29.0	C		WB	TR	0.53	19.3	B	
(signalized)	NB	LTR	0.86	49.3	D		NB	LTR	0.79	43.6	D		NB	LTR	1.07	105.7	F	*
Court Street &	EB	TR	0.44	21.8	C		EB	TR	0.77	50.8	D		EB	TR	0.62	24.7	C	
Atlantic Avenue	WB	L	0.32	19.0	B		WB	L	0.55	39.3	D		WB	L	0.45	26.8	C	
(signalized)	WB	T	0.70	26.0	C		WB	T	1.06	156.2	F	*	WB	T	0.68	21.5	C	
	SB	LTR	0.44	35.5	D		SB	LTR	0.42	31.4	C		SB	LTR	0.87	58.5	E	*
Boerum Place &	EB	L	0.49	20.5	C		EB	L	0.54	25.5	C		EB	L	0.79	33.8	C	
Atlantic Avenue	EB	TR	0.83	57.6	E	*	EB	TR	1.07	220.7	F	*	EB	TR	1.06	199.7	F	*
(signalized)	WB	LT	0.61	38.1	D		WB	LT	0.92	68.5	E	*	WB	LT	0.84	50.9	D	
	WB	R	1.07	64.5	E	*	WB	R	0.84	20.5	C		WB	R	0.86	22.9	C	
	SB	L	0.43	28.6	C		SB	L	0.65	33.4	C		SB	L	0.58	30.9	C	
	SB	T	0.22	25.7	C		SB	T	0.82	53.4	D		SB	T	0.51	30.7	C	
	SB	R	0.51	38.9	D		SB	R	1.05	115.0	F	*	SB	R	0.78	57.5	E	*
Smith Street &	EB	LT	0.78	26.0	C		EB	LT	0.73	21.7	C		EB	LT	0.83	29.4	C	
Atlantic Avenue	WB	TR	1.07	75.6	E	*	WB	TR	0.79	26.4	C		WB	TR	0.84	29.5	C	
(signalized)	NB	L	0.64	39.4	D		NB	L	1.06	126.4	F	*	NB	L	0.74	52.8	D	
	NB	TR	1.07	109.9	F	*	NB	TR	0.87	71.7	E	*	NB	TR	1.05	108.6	F	*
State Street &	EB	LTR	0.28	33.3	C		EB	LTR	0.87	61.5	E	*	EB	LTR	0.73	48.4	D	
Boerum Place	NB	TR	0.47	13.6	B		NB	TR	0.38	12.4	B		NB	TR	0.39	12.6	B	
(signalized)	SB	LT	0.40	12.8	B		SB	LT	0.78	20.9	C		SB	LT	0.61	16.1	B	
State Street &	EB	LT	0.22	22	C		EB	LT	0.59	32.5	C		EB	LT	0.37	24.3	C	
Smith Street	NB	TR	0.67	19.6	B		NB	TR	0.65	31.2	C		NB	TR	0.55	15.9	B	
(signalized)																		
Boerum Place &	WB	LTR	0.63	44.3	D		WB	LTR	0.96	82.7	F	*	WB	LTR	0.72	49.8	D	
Schermerhorn Street	NB	L	0.14	11.0	B		NB	L	0.38	19.3	B		NB	L	0.46	20.6	C	
(signalized)	NB	T	0.46	13.3	B		NB	T	0.37	12.4	B		NB	T	0.40	12.7	B	
	SB	TR	0.31	11.7	B		SB	TR	0.55	14.7	B		SB	TR	0.46	13.4	B	
Smith Street &	WB	TR	0.57	30.3	C		WB	TR	1.07	148.1	F	*	WB	TR	0.93	62.8	E	*
Schermerhorn Street	NB	L	0.18	21.7	C		NB	L	0.35	28.4	C		NB	L	0.21	22.1	C	
(signalized)	NB	TR	0.99	71.2	E	*	NB	TR	0.79	51.8	D		NB	TR	0.79	40.6	D	
	SB	L	0.33	38.8	D		SB	L	0.93	87.9	F	*	SB	L	0.64	50.4	D	
	SB	R	0.26	37.9	D		SB	R	0.65	55.3	E	*	SB	R	0.29	38.7	D	

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes congested lane group.

Table F.3-2 No-Action Intersection Level of Service Analysis
Brooklyn

	No-Action Weekday AM						No-Action Weekday Midday						No-Action Saturday					
Intersection	**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**		**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**		**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**	
Columbia Street &	EB	T	0.08	9.3	A		EB	T	0.15	25.2	C		EB	T	0.16	25.3	C	
Atlantic Avenue	WB	L	0.68	27.5	C		WB	L	1.39	232.1	F	*	WB	L	1.26	195.6	F	*
(signalized)	WB	LT	0.19	14.7	B		WB	LT	0.53	34.1	C		WB	LT	0.39	29.7	C	
	NB	LR	0.60	35.8	D		NB	LR	0.32	16.5	B		NB	LR	0.41	17.9	B	
	NB	R	0.52	33.9	C		NB	R	0.33	16.7	B		NB	R	0.52	20.5	C	
BQE NB Off-Ramp &	EB	L	0.55	35.3	D		EB	L	0.48	40.0	D		EB	L	0.79	57.8	E	*
Atlantic Avenue	EB	T	0.11	0.9	A		EB	T	0.12	3.2	A		EB	T	0.15	3.3	A	
(signalized)	WB	R	0.55	16.8	B		WB	R	0.71	21.5	C		WB	R	0.67	20.0	B	
	WB	T	0.85	23.0	C		WB	T	0.69	15.0	B		WB	T	0.51	10.7	B	
	NB	L	0.18	48.5	D		NB	L	0.23	49.4	D		NB	L	0.31	50.8	D	
Hicks Street &	EB	LT	0.56	33.2	C		EB	LT	0.61	29.9	C		EB	LT	0.67	31.7	C	
Atlantic Avenue	WB	TR	0.69	33.2	C		WB	TR	0.66	26.6	C		WB	TR	0.60	24.8	C	
(signalized)	NB	L	0.65	31.0	C		NB	L	0.69	39.7	D		NB	L	0.59	34.9	C	
	NB	LT	0.80	38.8	D		NB	LT	1.18	136.2	F	*	NB	LT	0.97	68.3	E	*
	NB	R	0.47	26.0	C		NB	R	0.75	44.2	D		NB	R	0.79	46.6	D	
Henry Street &	EB	TR	0.38	10.7	B		EB	TR	0.52	19.0	B		EB	TR	0.57	18.8	B	
Atlantic Avenue	WB	LT	0.63	20.5	C		WB	LT	0.61	21.2	C		WB	LT	0.59	19.8	B	
(signalized)	SB	LTR	0.87	61.8	E	*	SB	LTR	1.20	149.5	F	*	SB	LTR	0.84	55.1	E	*
Clinton Street &	EB	LT	0.78	34.2	C		EB	LT	1.17	128.3	F	*	EB	LT	1.02	62.0	E	*
Atlantic Avenue	WB	TR	0.84	38.8	D		WB	TR	0.84	39.5	D		WB	TR	0.62	21.4	C	
(signalized)	NB	LTR	0.90	54.9	D	*	NB	LTR	0.85	49.4	D		NB	LTR	1.13	125.3	F	*
Court Street &	EB	TR	0.52	23.2	C		EB	TR	1.04	92.2	F	*	EB	TR	0.71	27.3	C	
Atlantic Avenue	WB	L	0.36	21.2	C		WB	L	0.60	44.5	D		WB	L	0.51	32.2	C	
(signalized)	WB	T	0.99	57.8	E	*	WB	T	1.42	297.3	F	*	WB	T	0.81	28.6	C	
	SB	LTR	0.57	38.8	D		SB	LTR	0.52	33.7	C		SB	LTR	0.94	69.4	E	*
Boerum Place &	EB	L	0.64	26.1	C		EB	L	0.79	40.5	D		EB	L	0.92	51.2	D	*
Atlantic Avenue	EB	TR	0.97	81.0	F	*	EB	TR	1.49	385.8	F	*	EB	TR	1.25	270.5	F	*
(signalized)	WB	LT	0.79	44.9	D		WB	LT	1.55	305.2	F	*	WB	LT	1.09	106.3	F	*
	WB	R	1.09	72.7	E	*	WB	R	0.84	20.8	C		WB	R	0.82	19.0	B	
	SB	L	0.44	28.8	C		SB	L	0.66	33.8	C		SB	L	0.59	31.1	C	
	SB	T	0.22	25.8	C		SB	T	0.85	55.7	E	*	SB	T	0.53	31.1	C	
	SB	R	0.41	18.8	B		SB	R	0.72	33.3	C		SB	R	0.53	22.1	C	
Smith Street &	EB	LT	0.92	39.4	D	*	EB	LT	0.96	43.2	D	*	EB	LT	1.01	56.0	E	*
Atlantic Avenue	WB	TR	1.19	123.4	F	*	WB	TR	0.91	35.0	D	*	WB	TR	0.91	35.3	D	*
(signalized)	NB	L	0.67	41.1	D		NB	L	1.16	162.1	F	*	NB	L	0.79	57.8	E	*
	NB	TR	1.22	165.3	F	*	NB	TR	1.24	181.4	F	*	NB	TR	1.27	183.1	F	*
State Street &	EB	LTR	0.33	34.3	C		EB	LTR	1.06	104.5	F	*	EB	LTR	0.83	57.8	E	*
Boerum Place	NB	TR	0.49	13.9	B		NB	TR	0.40	12.7	B		NB	TR	0.41	12.8	B	
(signalized)	SB	LT	0.43	13.2	B		SB	LT	0.83	23.4	C		SB	LT	0.64	16.8	B	
State Street &	EB	LT	0.27	22.7	C		EB	LT	0.73	38.5	D		EB	LT	0.46	26.0	C	
Smith Street	NB	TR	0.73	22.4	C		NB	TR	0.87	44.5	D		NB	TR	0.65	18.4	B	
(signalized)																		
Boerum Place &	WB	LTR	0.74	51.3	D		WB	LTR	1.35	218.9	F	*	WB	LTR	0.98	86.9	F	*
Schermerhorn Street	NB	L	0.16	11.3	B		NB	L	0.43	22.0	C		NB	L	0.49	22.7	C	
(signalized)	NB	T	0.47	13.6	B		NB	T	0.40	12.6	B		NB	T	0.41	12.8	B	
	SB	TR	0.34	11.9	B		SB	TR	0.57	15.1	B		SB	TR	0.48	13.6	B	
Smith Street &	WB	TR	0.66	34.4	C		WB	TR	1.53	330.7	F	*	WB	TR	1.27	173.5	F	*
Schermerhorn Street	NB	L	0.19	21.8	C		NB	L	0.41	30.5	C		NB	L	0.23	22.6	C	
(signalized)	NB	TR	1.15	123.6	F	*	NB	TR	1.42	243.8	F	*	NB	TR	1.08	97.5	F	*
	SB	L	0.50	43.7	D		SB	L	1.32	215.9	F	*	SB	L	0.87	72.8	E	*
	SB	R	0.26	38.1	D		SB	R	0.65	55.8	E	*	SB	R	0.30	39.1	D	

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes congested lane group.

Table F.3-3 With-Action Intersection Level of Service Analysis
Brooklyn

	With-Action Weekday AM						With-Action Weekday Midday						With-Action Saturday					
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Columbia Street &	EB	T	0.08	9.3	A		EB	T	0.15	25.2	C		EB	T	0.16	25.3	C	
Atlantic Avenue	WB	L	0.77	32.8	C		WB	L	1.74	386.4	F	*	WB	L	1.47	285.0	F	*
(signalized)	WB	LT	0.20	14.7	B		WB	LT	0.59	36.4	D		WB	LT	0.41	30.0	C	
	NB	LR	0.60	35.8	D		NB	LR	0.32	16.5	B		NB	LR	0.41	17.9	B	
	NB	R	0.52	33.9	C		NB	R	0.33	16.7	B		NB	R	0.52	20.5	C	
BQE NB Off-Ramp &	EB	L	0.59	39.1	D		EB	L	0.55	47.5	D	*	EB	L	0.86	70.3	E	*
Atlantic Avenue	EB	T	0.11	0.9	A		EB	T	0.12	3.2	A		EB	T	0.15	3.3	A	
(signalized)	WB	R	0.60	18.1	B		WB	R	0.81	26.3	C		WB	R	0.74	22.5	C	
	WB	T	0.85	23.0	C		WB	T	0.69	15.0	B		WB	T	0.51	10.7	B	
	NB	L	0.18	48.5	D		NB	L	0.23	49.4	D		NB	L	0.31	50.8	D	
Hicks Street &	EB	LT	0.69	37.2	D		EB	LT	0.69	32.8	C		EB	LT	0.74	34.4	C	
Atlantic Avenue	WB	TR	0.73	34.7	C		WB	TR	0.74	29.2	C		WB	TR	0.66	26.3	C	
(signalized)	NB	L	0.65	31.0	C		NB	L	0.69	39.7	D		NB	L	0.59	34.9	C	
	NB	LT	0.80	38.8	D		NB	LT	1.18	136.2	F		NB	LT	0.97	68.3	E	
	NB	R	0.47	26.0	C		NB	R	0.76	44.7	D		NB	R	0.79	46.8	D	
Henry Street &	EB	TR	0.44	11.4	B		EB	TR	0.56	19.8	B		EB	TR	0.60	19.5	B	
Atlantic Avenue	WB	LT	0.67	21.6	C		WB	LT	0.69	23.5	C		WB	LT	0.66	21.6	C	
(signalized)	SB	LTR	0.87	61.8	E		SB	LTR	1.21	151.5	F		SB	LTR	0.84	55.4	E	
Clinton Street &	EB	LT	0.91	47.4	D	*	EB	LT	1.32	187.6	F	*	EB	LT	1.09	86.9	F	*
Atlantic Avenue	WB	TR	0.88	42.5	D		WB	TR	0.93	48.5	D	*	WB	TR	0.67	22.8	C	
(signalized)	NB	LTR	0.90	54.9	D		NB	LTR	0.86	50.7	D		NB	LTR	1.14	129.3	F	*
Court Street &	EB	TR	0.60	24.9	C		EB	TR	1.14	126.4	F	*	EB	TR	0.75	28.7	C	
Atlantic Avenue	WB	L	0.39	23.6	C		WB	L	0.66	50.5	D	*	WB	L	0.54	35.4	D	
(signalized)	WB	T	1.05	75.4	E	*	WB	T	1.59	374.0	F	*	WB	T	0.90	37.3	D	
	SB	LTR	0.57	38.8	D		SB	LTR	0.53	33.8	C		SB	LTR	0.95	70.1	E	
Boerum Place &	EB	L	0.68	28.0	C		EB	L	0.87	50.5	D	*	EB	L	0.96	61.0	E	*
Atlantic Avenue	EB	TR	1.17	145.6	F	*	EB	TR	1.64	451.0	F	*	EB	TR	1.32	298.4	F	*
(signalized)	WB	LT	0.83	48.3	D		WB	LT	1.80	415.3	F	*	WB	LT	1.17	136.0	F	*
	WB	R	1.09	74.1	E		WB	R	0.87	23.5	C		WB	R	0.82	19.4	B	
	SB	L	0.48	29.5	C		SB	L	0.68	34.3	C		SB	L	0.61	31.6	C	
	SB	T	0.22	25.8	C		SB	T	0.85	55.7	E		SB	T	0.53	31.1	C	
	SB	R	0.51	21.1	C		SB	R	0.97	68.6	E	*	SB	R	0.71	29.8	C	
Smith Street &	EB	DefL	2.73	854.7	F													
Atlantic Avenue	EB	T	1.09	86.8	F													
(signalized)	EB	LT	n/a	238.2	F	*	EB	LT	1.39	206.3	F	*	EB	LT	1.44	232.0	F	*
	WB	TR	1.23	140.5	F	*	WB	TR	0.95	40.3	D		WB	TR	0.94	39.4	D	
	NB	L	0.68	41.6	D		NB	L	1.21	182.3	F	*	NB	L	0.80	59.8	E	
	NB	TR	1.23	167.0	F		NB	TR	1.25	183.3	F		NB	TR	1.27	184.6	F	
State Street &	EB	LTR	0.33	34.3	C		EB	LTR	1.09	115.6	F	*	EB	LTR	0.86	61.4	E	
Boerum Place	NB	TR	0.50	14.0	B		NB	TR	0.42	12.9	B		NB	TR	0.42	12.9	B	
(signalized)	SB	LT	0.48	13.8	B		SB	LT	0.89	27.6	C		SB	LT	0.69	17.9	B	
State Street &	EB	LT	0.31	23.3	C		EB	LT	0.79	43.3	D		EB	LT	0.50	26.9	C	
Smith Street	NB	TR	0.83	28.2	C		NB	TR	1.15	118.3	F	*	NB	TR	0.81	25.5	C	
(signalized)																		
Boerum Place &	WB	LTR	0.88	66.0	E	*	WB	LTR	1.68	363.3	F	*	WB	LTR	1.24	172.6	F	*
Schermerhorn Street	NB	L	0.17	11.5	B		NB	L	0.44	22.9	C		NB	L	0.51	23.8	C	
(signalized)	NB	T	0.47	13.6	B		NB	T	0.40	12.6	B		NB	T	0.42	12.8	B	
	SB	TR	0.35	12.2	B		SB	TR	0.58	15.3	B		SB	TR	0.49	13.8	B	
Smith Street &	WB	TR	0.66	34.4	C		WB	TR	1.53	330.7	F		WB	TR	1.27	173.5	F	
Schermerhorn Street	NB	L	0.33	24.2	C		NB	L	0.77	48.9	D	*	NB	L	0.46	27.7	C	
(signalized)	NB	TR	1.20	142.5	F	*	NB	TR	1.58	310.2	F	*	NB	TR	1.16	124.2	F	*
	SB	L	0.50	43.7	D		SB	L	1.32	215.9	F		SB	L	0.87	72.8	E	
	SB	R	0.26	38.1	D		SB	R	0.65	55.8	E		SB	R	0.30	39.1	D	

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes significant adverse impact per *CEQR Technical Manual* criteria.

Table F.3-4 Parking Regulations Code Definitions
Brooklyn

Parking Sign Regulation	Code
1 HOUR METERED PARKING 10AM-7PM EXCEPT SUNDAY	1a
1 HOUR METERED PARKING 8AM-7PM EXCEPT SUNDAY	1b
1 HOUR METERED PARKING 9AM-4PM EXCEPT SUNDAY	1c
1 HOUR METERED PARKING 9AM-7PM EXCEPT SUNDAY	1d
1 HOUR METERED PARKING SATURDAY 9AM-7PM	1e
2 HOUR METERED PARKING 10AM-7PM EXCEPT SUNDAY	1f
2 HOUR METERED PARKING 7:30AM-7PM EXCEPT SUNDAY	1g
2 HOUR METERED PARKING 8:30AM-7PM EXCEPT SUNDAY	1h
2 HOUR METERED PARKING 8AM-7PM EXCEPT SUNDAY	1j
2 HOUR METERED PARKING 9AM-7PM EXCEPT SUNDAY	1k
2 HOUR METERED PARKING MONDAY- FRIDAY 4PM-7PM & SATURDAY 8AM-7PM	1l
2 HOUR METERED PARKING MONDAY- FRIDAY 9AM-4PM & SATURDAY 9AM-7PM	1m
BUS STOP	2a
BUS STOP (ACCESS-A-RIDE)	2b
FOR-HIRE VEHICLES ONLY	3
NO PARKING 7:30AM-8AM EXCEPT SUNDAY (STREET CLEANING)	5a
NO PARKING 7AM-4PM EXCEPT SUNDAY	4b
NO PARKING 7AM-7:30AM EXCEPT SUNDAY (STREET CLEANING)	5b
NO PARKING 8:30AM-9AM EXCEPT SUNDAY (STREET CLEANING)	5c
NO PARKING 8AM-8:30AM EXCEPT SUNDAY (STREET CLEANING)	5d
NO PARKING 8AM-9AM EXCEPT SUNDAY (STREET CLEANING)	5e
NO PARKING 9AM-10:30AM (STREET CLEANING)	5f
NO PARKING ANYTIME	4a
NO PARKING MONDAY 8:30AM-10AM (STREET CLEANING)	5g
NO PARKING MONDAY- FRIDAY 7AM-4PM	4c
NO PARKING MONDAY- FRIDAY 7AM-7PM	4d
NO PARKING MONDAY- FRIDAY 8AM-6PM	4e
NO PARKING MONDAY WEDNESDAY FRIDAY 3AM-6AM (STREET CLEANING)	5h
NO PARKING MONDAY WEDNESDAY FRIDAY MIDNIGHT-3AM (STREET CLEANING)	5i
NO PARKING SUNDAY 8AM-5PM	4f
NO PARKING THURSDAY 9:30AM-11AM (STREET CLEANING)	5j
NO PARKING THURSDAY 9AM-10:30AM (STREET CLEANING)	5k
NO PARKING TUESDAY 11:30AM-1PM (STREET CLEANING)	5l
NO PARKING TUESDAY 8:30AM-10AM (STREET CLEANING)	5m
NO PARKING TUESDAY 9:30AM-11AM (STREET CLEANING)	5n
NO PARKING TUESDAY 9AM-10:30AM (STREET CLEANING)	5o
NO PARKING TUESDAY FRIDAY 8:30AM-10AM (STREET CLEANING)	5p
NO PARKING TUESDAY THURSDAY SATURDAY 3AM-6AM (STREET CLEANING)	5q
NO PARKING TUESDAY THURSDAY SATURDAY MIDNIGHT-3AM (STREET CLEANING)	5r
NO PARKING WEDNESDAY 11:30AM-1PM (STREET CLEANING)	5s
NO PARKING WEDNESDAY 8AM-6PM	4g
NO PARKING WEDNESDAY 8AM-6PM	4h
NO PARKING WEDNESDAY 9:30AM-11AM (STREET CLEANING)	5t
NO STANDING 3PM-7PM EXCEPT SUNDAY	6e
NO STANDING 4PM-7PM EXCEPT SUNDAY	6b
NO STANDING 7AM-MIDNIGHT EXCEPT SUNDAY	6c
NO STANDING 8AM-10PM ALL DAYS	6d
NO STANDING ANYTIME	6a
NO STANDING ANYTIME (TAXI STAND)	6f
NO STANDING ANYTIME EXCEPT AUTHORIZED (COMMUTER VANS ONLY)	7a
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (BLIND PERSONS LOADING ZONE)	7b
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (DEPT OF CORRECTION VEHICLES)	7c
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (DEPT OF FINANCE)	7d
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (DISTRICT ATTORNEY)	7e
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (MTA)	7f
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (NYPD COURT SECTION)	7g
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (NYSJ)	7h
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (POLICE DEPT)	7i
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (POLICE VEHICLES ONLY)	7j
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (PRESS NYP PLATES ONLY)	7k
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (TRANSIT POLICE)	7l
NO STANDING FIRE ZONE	6g
NO STANDING MONDAY- FRIDAY 6AM-8PM EXCEPT AUTHORIZED VEHICLES (NYSJ)	7m
NO STANDING MONDAY- FRIDAY 7AM-4PM	6h
NO STANDING MONDAY- FRIDAY 7AM-4PM EXCEPT AUTHORIZED VEHICLES (DEPT OF CORRECTION VEHICLES) (PARALLEL PARKING ONLY)	7n
NO STANDING MONDAY- FRIDAY 7AM-6PM	6i
NO STANDING MONDAY- FRIDAY 7AM-6PM EXCEPT AUTHORIZED VEHICLES (SCHOOL FACULTY)	7o
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (CITY CLERK)	7p
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DEPT OF BUILDINGS)	7q
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DEPT OF HOUSING PRESERVATION & DEVELOPMENT)	7r
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DEPT OF LABOR)	7s
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYPD COURT SECTION)	7t
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYSDHCR)	7u
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYSJ)	7v
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYSJ) (PARALLEL PARKING ONLY)	7w
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (POLICE VEHICLES ONLY)	7x
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (SUPREME COURT ADMINISTRATIVE SERVICES)	7y
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (US OFFICE OF HEARING AND APPEALS JUDGES), OTHER TIMES NO STANDING	7z
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (WORKERS' COMPENSATION BOARD)	7aa
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES	7bb
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (AMBULANCE)	7cc
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (APPELLATE DIVISION)	7dd
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (BOARD OF ELECTIONS)	7ee
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (BOROUGH PRESIDENT)	7ff
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (COMMUNITY BOARD)	7gg
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DEPT OF TRANSPORTATION)	7hh
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DISTRICT ATTORNEY)	7ii
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (HRA)	7jj
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (PUBLIC ADMINISTRATOR VEHICLES)	7kk
NO STANDING MONDAY-FRIDAY 4PM-7PM	6j
NO STANDING MONDAY-FRIDAY 7AM-7PM	6k
NO STANDING SCHOOL DAYS 7AM-4PM EXCEPT AUTHORIZED VEHICLES (DEPT OF EDUCATION)	7ll
NO STANDING SCHOOL DAYS 7AM-4PM EXCEPT AUTHORIZED VEHICLES (SCHOOL FACULTY)	7mm
NO STOPPING ANYTIME	8
PARKING PERMITTED WEDNESDAY 8AM-6PM	9
TRUCK LOADING ONLY	10a
TRUCK LOADING ONLY 3AM-7AM EXCEPT SUNDAY	10b
TRUCK LOADING ONLY 7AM-10AM EXCEPT SUNDAY	10c
TRUCK LOADING ONLY 7AM-3PM EXCEPT SUNDAY	10d
TRUCK LOADING ONLY 7AM-4PM ALL DAYS	10e
TRUCK LOADING ONLY 7AM-6PM EXCEPT SUNDAY	10f
TRUCK LOADING ONLY 7AM-7PM EXCEPT SUNDAY	10g
TRUCK LOADING ONLY 8AM-4PM EXCEPT SUNDAY	10h
TRUCK LOADING ONLY MONDAY- FRIDAY 7AM-10AM	10i
TRUCK LOADING ONLY MONDAY- FRIDAY 7AM-7PM	10j
TRUCK LOADING ONLY MONDAY- FRIDAY 8AM-4PM	10k
TRUCK LOADING ONLY TUESDAY FRIDAY 4PM-10PM	10l
TRUCK LOADING ONLY MONDAY THURSDAY FRIDAY 10AM-4PM	10m

Table F.3-5 Construction With-Action Intersection Level of Service Analysis
Brooklyn

	Construction With-Action AM						Construction With-Action Midday					
Intersection	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Columbia Street &	EB	T	0.08	9.3	A		EB	T	0.15	25.2	C	
Atlantic Avenue	WB	L	0.73	30.8	C		WB	L	1.86	435.9	F	*
(signalized)	WB	LT	0.20	14.7	B		WB	LT	0.62	37.6	D	
	NB	LR	0.78	46.0	D	*	NB	LR	0.32	16.5	B	
	NB	R	0.88	59.2	E	*	NB	R	0.33	16.7	B	
BQE NB Off-Ramp &	EB	L	0.56	35.6	D		EB	L	0.60	54.2	D	*
Atlantic Avenue	EB	T	0.23	1.2	A		EB	T	0.13	3.2	A	
(signalized)	WB	R	0.55	16.9	B		WB	R	0.89	33.4	C	
	WB	T	0.85	23.0	C		WB	T	0.78	18.9	B	
	NB	L	0.18	48.5	D		NB	L	0.23	49.4	D	
Hicks Street &	EB	LT	0.94	58.0	E	*	EB	LT	0.65	31.8	C	
Atlantic Avenue	WB	TR	0.69	33.3	C		WB	TR	0.87	36.3	D	
(signalized)	NB	L	0.65	31.0	C		NB	L	0.69	39.7	D	
	NB	LT	0.80	38.8	D		NB	LT	1.18	136.2	F	
	NB	R	0.47	26.0	C		NB	R	0.75	44.2	D	
Henry Street &	EB	TR	0.58	13.5	B		EB	TR	0.50	18.7	B	
Atlantic Avenue	WB	LT	0.66	21.4	C		WB	LT	0.79	27.1	C	
(signalized)	SB	LTR	0.87	61.8	E		SB	LTR	1.20	149.5	F	
Clinton Street &	EB	LT	1.13	106.1	F	*	EB	DefL	1.47	295.3	F	
Atlantic Avenue							EB	T	1.08	96.3	F	
(signalized)							EB	LT	n/a	137.0	F	*
	WB	TR	0.84	39.1	D		WB	TR	1.06	80.2	F	*
	NB	LTR	0.90	54.9	D		NB	LTR	0.85	49.4	D	
Court Street &	EB	TR	0.78	30.7	C		EB	TR	1.00	80.8	F	
Atlantic Avenue	WB	L	0.46	30.4	C		WB	L	0.59	42.9	D	
(signalized)	WB	T	0.99	59.4	E		WB	T	1.88	500.7	F	*
	SB	LTR	0.57	38.8	D		SB	LTR	0.52	33.7	C	
Smith Street &	EB	LT	0.98	50.5	D	*	EB	LT	0.93	36.3	D	
Atlantic Avenue	WB	TR	1.25	149.0	F	*	WB	TR	0.91	35.0	D	
(signalized)	NB	L	0.73	44.8	D		NB	L	1.18	169.6	F	*
	NB	TR	1.23	168.6	F	*	NB	TR	1.25	183.3	F	
Hoyt Street &	EB	T	0.46	16.0	B		EB	T	0.59	14.5	B	
Atlantic Avenue	EB	R	0.17	13.4	B		EB	R	0.42	14.3	B	
(signalized)	WB	T	1.09	80.9	F	*	WB	T	0.77	25.8	C	
	SB	LTR	0.63	38.3	D		SB	LTR	1.23	164.1	F	*
Bond Street &	EB	T	0.62	18.9	B		EB	T	0.76	18.8	B	
Atlantic Avenue	WB	TR	1.10	88.1	F	*	WB	TR	0.79	26.6	C	
(signalized)	NB	LTR	0.82	45.0	D		NB	LTR	1.06	100.0	F	
Nevins Street &	EB	T	0.57	21.5	C		EB	T	0.80	24.8	C	
Atlantic Avenue	EB	R	0.15	16.3	B		EB	R	0.38	18.2	B	
(signalized)	WB	LT	1.24	141.8	F	*	WB	LT	1.25	159.0	F	
	SB	LTR	0.53	40.0	D		SB	LTR	1.17	148.4	F	*
Third Avenue &	EB	TR	0.59	21.3	C		EB	TR	0.96	41.0	D	
Atlantic Avenue	WB	T	1.24	146.9	F	*	WB	T	1.12	96.0	F	
(signalized)	WB	R	0.54	27.2	C		WB	R	0.50	24.7	C	
	NB	LTR	0.58	36.0	D		NB	LTR	0.76	44.4	D	
Smith Street &	EB	LTR	0.63	28.7	C		EB	LTR	1.64	329.8	F	*
Livingston Street	WB	LTR	0.72	32.6	C		WB	LTR	0.71	33.6	C	
(signalized)	NB	LT	0.74	31.4	C		NB	LT	0.67	28.8	C	
	NB	R	0.32	24.1	C		NB	R	0.20	19.2	B	
	SB	L	0.54	33.4	C		SB	L	0.60	34.0	C	
	SB	TR	1.03	91.1	F	*	SB	TR	0.71	31.7	C	
Boerum Place &	EB	LTR	0.82	73.2	E	*	EB	L	1.46	283.1	F	*
Livingston Street	WB	LT	0.65	48.9	D	*	EB	TR	1.26	187.1	F	*
(signalized)	WB	R	0.93	91.3	F		WB	LT	0.56	48.9	D	*
	NB	L	0.27	28.9	C		WB	R	1.01	121.1	F	
	NB	TR	0.88	41.8	D		NB	L	0.33	33.2	C	
	SB	L	0.49	25.1	C		NB	TR	0.73	34.2	C	
	SB	TR	0.40	14.6	B		SB	L	0.51	23.0	C	
							SB	TR	0.53	16.5	B	
Adams Street &	EB	TR	0.45	38.4	D		EB	TR	0.60	41.2	D	
Tillary Street	WB	L	0.86	81.5	F	*	WB	L	1.02	109.0	F	
(signalized)	WB	T	0.32	36.5	D		WB	T	0.66	43.6	D	
	WB	R	0.99	75.5	E		WB	R	1.05	92.2	F	
	NB	TR	1.11	102.4	F		NB	TR	1.04	81.3	F	*
	SB	L	0.57	39.5	D		SB	L	0.57	39.6	D	
	SB	T	0.59	22.4	C		SB	T	0.66	24.1	C	
Jay Street &	EB	L	0.22	42.6	D		EB	L	0.17	41.7	D	
Tillary Street	EB	TR	0.65	34.7	C		EB	TR	0.91	47.5	D	
(signalized)	WB	L	0.53	51.3	D	*	WB	L	0.57	51.8	D	
	WB	TR	0.62	33.8	C		WB	TR	0.88	44.3	D	
	NB	L	0.74	66.2	E	*	NB	L	0.94	110.6	F	
	NB	T	0.28	36.8	D		NB	T	0.58	44.3	D	
	NB	R	0.85	48.6	D		NB	R	0.97	71.0	E	*
	SB	L	0.35	40.6	D		SB	L	1.01	137.2	F	*
	SB	TR	0.84	70.1	E	*	SB	TR	1.13	140.2	F	

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes significant adverse impact per *CEQR Technical Manual* criteria.

Table F.4-1 Parking Regulations Code Definitions
Manhattan

Parking Sign Regulation	Code
1 HOUR METERED PARKING 10AM-7PM EXCEPT SUNDAY	1a
1 HOUR METERED PARKING 7:30AM-7PM EXCEPT SUNDAY	1b
1 HOUR METERED PARKING 8:30AM-7PM EXCEPT SUNDAY	1c
1 HOUR METERED PARKING 8AM-7PM EXCEPT SUNDAY	1d
1 HOUR METERED PARKING 9AM-4PM EXCEPT SUNDAY	1e
1 HOUR METERED PARKING 9AM-7PM EXCEPT SUNDAY	1f
1 HOUR METERED PARKING MONDAY- FRIDAY 8AM-7PM	1g
1 HOUR METERED PARKING SATURDAY 9AM-10PM	1h
2 HOUR METERED PARKING 6PM-10PM EXCEPT SUNDAY	1j
2 HOUR METERED PARKING 7:30AM-10PM EXCEPT SUNDAY	1k
2 HOUR METERED PARKING 7:30AM-7PM EXCEPT SUNDAY	1l
2 HOUR METERED PARKING 8:30AM-10PM EXCEPT SUNDAY	1m
2 HOUR METERED PARKING 8:30AM-7PM EXCEPT SUNDAY	1n
2 HOUR METERED PARKING 8AM-10PM EXCEPT SUNDAY	1o
2 HOUR METERED PARKING 8AM-7PM EXCEPT SUNDAY	1p
2 HOUR METERED PARKING 9AM-10PM EXCEPT SUNDAY	1q
2 HOUR METERED PARKING SATURDAY 8AM-7PM	1r
5 HOUR METERED PARKING 7PM-MIDNIGHT EXCEPT SUNDAY	1s
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY 10AM-4PM EXCEPT SUNDAY	2a
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY 7AM-10AM EXCEPT SUNDAY & 2 HOUR METERED PARKING 10AM-10PM EXCEPT SUNDAY	2b
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY 7AM-4PM EXCEPT SUNDAY	2c
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY 7AM-7PM EXCEPT SUNDAY	2d
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY 8AM-7PM EXCEPT SUNDAY	2e
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY 9AM-7PM EXCEPT SUNDAY	2f
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY MONDAY-FRIDAY 7AM-6PM & 2 HOUR METERED PARKING SATURDAY 8AM-10PM	2g
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY OTHERS NO STANDING 7AM-6PM EXCEPT SUNDAY & 2 HOUR METERED PARKING 6PM-10PM EXCEPT SUNDAY	2h
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY OTHERS NO STANDING 8AM-6PM EXCEPT SUNDAY	2i
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY OTHERS NO STANDING 8AM-6PM EXCEPT SUNDAY & 2 HOUR METERED PARKING 6PM-10PM EXCEPT SUNDAY	2j
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY OTHERS NO STANDING MONDAY-FRIDAY 7AM-6PM & 2 HOUR METERED PARKING SATURDAY 8AM-10PM	2k
3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY OTHERS NO STANDING MONDAY-FRIDAY 8AM-6PM & 2 HOUR METERED PARKING SATURDAY 8AM-6PM	2l
BUS STOP	3a
BUS STOP (PRIVATE BUS)	3b
NO PARKING ANYTIME	4a
NO PARKING (TAXI STAND)	4b
NO PARKING 7AM-7PM EXCEPT SUNDAY	4c
NO PARKING 8AM-6PM EXCEPT SUNDAY	4d
NO PARKING - AMBULANCE ONLY	4e
NO PARKING - CONSTRUCTION	4f
NO PARKING MONDAY- FRIDAY 8AM-6PM	4g
NO PARKING MONDAY- FRIDAY 8AM-6PM MOTORCYLCE PARKING ONLY	4h
NO PARKING 8:30AM-9AM EXCEPT SUNDAY (STREET CLEANING)	5a
NO PARKING 8AM-8:30AM EXCEPT SUNDAY (STREET CLEANING)	5b
NO PARKING TUESDAY THURSDAY SATURDAY MIDNIGHT-3AM (STREET CLEANING)	5c
NO PARKING 3AM-6AM EXCEPT SUNDAY (STREET CLEANING)	5d
NO PARKING 7:30AM-8AM EXCEPT SUNDAY (STREET CLEANING)	5e
NO PARKING 7AM-7:30AM EXCEPT SUNDAY (STREET CLEANING)	5f
NO PARKING 8AM-6PM MON THRU FRI EXCEPT AUTHORIZED VEHICLES (DEPT OF CORRECTION VEHICLES)	5f
NO PARKING MONDAY & FRIDAY 8AM-11AM (STREET CLEANING)	5g
NO PARKING MONDAY THURSDAY 2AM-6AM (STREET CLEANING)	5h
NO PARKING MONDAY WEDNESDAY FRIDAY MIDNIGHT-3AM (STREET CLEANING)	5i
NO PARKING TUESDAY & FRIDAY 2AM-6AM (STREET CLEANING)	5j
NO PARKING TUESDAY & FRIDAY 7:30AM-8AM (STREET CLEANING)	5k
NO PARKING TUESDAY & THURSDAY 2AM-6AM (STREET CLEANING)	5l
NO PARKING TUESDAY THURSDAY SATURDAY 3AM-6AM (STREET CLEANING)	5m
NO STANDING ANYTIME	6a
NO STANDING 4PM-7PM EXCEPT SUNDAY	6b
NO STANDING 7AM-10AM & 4PM-7PM EXCEPT SUNDAY	6c
NO STANDING 7AM-7PM ALL DAYS	6d
NO STANDING 7AM-7PM EXCEPT SUNDAY	6e
NO STANDING 7AM-8AM EXCEPT SUNDAY	6f
NO STANDING 8AM-10PM EXCEPT SUNDAY	6g
NO STANDING (SECURITY CHECKPOINT)	6h
NO STANDING HOTEL LOADING ZONE	6i
NO STANDING MIDNIGHT-7AM ALL DAYS	6j
NO STANDING MONDAY- FRIDAY 4PM-7PM	6k
NO STANDING MONDAY- FRIDAY 7AM-10AM & 4PM-7PM	6l
NO STANDING MONDAY-FRIDAY 7AM-7PM	6m
NO STANDING SCHOOL DAYS 7AM-6PM	6n
NO STANDING 1PM-7PM ALL DAYS &3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY OTHERS NO STANDING 7AM-1PM EXCEPT SUNDAY & 5 HOUR METERED PARKING 7PM-MIDNIGHT EXCEPT SUNDAY	7a
NO STANDING 7AM-10AM & 4PM-7PM ALL DAYS & 3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY 10AM-4PM EXCEPT SUNDAY & 5 HOUR METERED PARKING 7PM-MIDNIGHT EXCEPT SUNDAY	7b
NO STANDING 7AM-10AM & 4PM-7PM EXCEPT SUNDAY & 3 HOUR METERED PARKING COMMERCIAL VEHICLES ONLY 10AM-4PM EXCEPT SUNDAY & 5 HOUR METERED PARKING 7PM-MIDNIGHT EXCEPT SUNDAY	7c
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (AWM)	8a
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (SPECIAL NARCOTICS PROSECUTOR)	8aa
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (COMMUTER VANS ONLY)	8b
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (U.S. MARSHALS PERMIT)	8bb
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (DEPT OF CORRECTION VEHICLES)	8c
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DEPT OF HEALTH & MENTAL HYGIENE)	8cc
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (DEPT OF HEALTH & MENTAL HYGIENE COMMISSIONER ONLY)	8d
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (FAMILY COURT)	8dd
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (DEPT OF SANITATION COMMISSIONER ONLY)	8e
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (NYSJ)	8ee
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (DEPT OF SANITATION)	8f
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (POLICE DEPT)	8ff
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (FLEO)	8g
NO STANDING MONDAY THURSDAY FRIDAY 8AM-6PM EXCEPT CITY OWNED VEHICLES	8gg
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (JUDGES AND AUTHORIZED COURT OFFICIALS)	8h
NO STANDING SCHOOL DAYS 7AM-5PM EXCEPT AUTHORIZED VEHICLES (DEPT OF EDUCATION)	8hh
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (NYC HEALTH & HOSPITALS CORP COMMISSIONER ONLY)	8i
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (POLICE DEPT VEHICLES)	8j
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (PRISON VANS ONLY)	8k
NO STANDING EXCEPT AUTHORIZED VEHICLES (COMMUTER VANS ONLY)	8l
NO STANDING EXCEPT AUTHORIZED VEHICLES (DEPT OF GENERAL SERVICES PERMIT ONLY)	8m
NO STANDING MONDAY- FRIDAY 3AM-7PM EXCEPT AUTHORIZED VEHICLES (DEPT OF SANITATION)	8n
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (AWM)	8o
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (CRIMINAL COURT ADMINISTRATIVE JUDGE)	8p
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (CRIMINAL COURT JUDGES)	8q
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DEPT OF CITY ADMINISTRATIVE SERVICES)	8r
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DEPT OF HEALTH & MENTAL HYGIENE)	8s
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DEPT OF HOMELESS SERVICES)	8t
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DEPT OF SANITATION)	8u
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DEPUTY CHIEF ADMINISTRATIVE JUDGE)	8v
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DISTRICT ATTORNEY)	8w
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYC HEALTH & HOSPITALS CORP)	8x
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYSJ)	8y
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (PROBATION VEHICLES)	8z
NO STOPPING ANYTIME	9
TAXI RELIEF STAND 1 HOUR LIMIT	10
TRUCK LOADING ONLY	11a
TRUCK LOADING ONLY 7AM-10AM EXCEPT SUNDAY	11b
TRUCK LOADING ONLY 7AM-4PM EXCEPT SUNDAY	11c
TRUCK LOADING ONLY 7AM-7PM EXCEPT SUNDAY	11d
TRUCK LOADING ONLY 8AM-6PM EXCEPT SUNDAY	11e
TRUCK LOADING ONLY 8AM-7PM EXCEPT SUNDAY	11f
TRUCK LOADING ONLY MONDAY- FRIDAY 7AM-4PM	11g
TRUCK LOADING ONLY MONDAY- FRIDAY 7AM-7PM	11h
TRUCK LOADING ONLY MONDAY- FRIDAY 8AM-6PM	11i
TRUCK LOADING ONLY MONDAY- FRIDAY 8AM-7PM	11j
TRUCK LOADING ONLY MONDAY- FRIDAY 9AM-6PM	11k
TRUCK LOADING ONLY MONDAY THURSDAY FRIDAY 7AM-7PM	11l
TRUCK LOADING ONLY MONDAY THURSDAY FRIDAY 8AM-6PM	11m

Table F.5-1 Existing Intersection Level of Service Analysis
Queens

Intersection	Existing Weekday AM						Existing Weekday Midday						Existing Saturday					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Queens Boulevard &	WB	LTR	0.58	42.1	D		WB	LTR	0.90	59.9	E	*	WB	LTR	0.76	29.9	C	
78th Avenue	NB (Main)	T	0.96	32.1	C	*	NB (Main)	T	0.47	19.9	B		NB (Main)	T	0.51	26.3	C	
(signalized)	SB (Main)	T	0.23	16.3	B		SB (Main)	T	0.67	23.8	C		SB (Main)	T	0.67	29.1	C	
	NB (Service)	T	0.94	43.6	D	*	NB (Service)	T	0.51	22.7	C		NB (Service)	T	0.67	34.2	C	
	SB (Service)	TR	0.20	16.2	B		SB (Service)	TR	0.63	24.1	C		SB (Service)	TR	0.50	26.7	C	
Queens Boulevard &	EB	LT	0.46	56.4	E	*	EB	LT	0.44	53.3	D		EB	LT	0.40	43.4	D	
Union Turnpike	EB	R	0.79	79.0	E	*	EB	R	0.71	68.2	E	*	EB	R	0.75	59.9	E	*
(signalized)	WB	R	1.04	159.8	F	*	WB	R	0.43	15.4	B		WB	R	0.34	18.0	B	
	NB	T	0.78	30.5	C		NB	T	0.55	45.8	D		NB	T	0.45	27.8	C	
	NB	R	0.47	3.6	A		NB	R	0.50	12.9	B		NB	R	0.40	9.6	A	
	SB (Main)	L	0.95	85.2	F	*	SB (Main)	L	1.06	120.8	F	*	SB (Main)	L	1.07	112.4	F	*
	SB (Main)	T	0.37	26.5	C		SB (Main)	T	0.77	26.4	C		SB (Main)	T	1.06	137.9	F	*
	SB (Service to local)	T	0.39	27.7	C		SB (Service to local)	T	0.82	32.8	C		SB (Service to local)	T	0.69	36.9	D	
	SB (Service to Main)	T	0.11	22.8	C		SB (Service to Main)	T	0.39	17.4	B		SB (Service to Main)	T	0.62	33.7	C	
Queens Boulevard &	EB	L	0.62	57.4	E	*	EB	L	0.40	45.6	D		EB	L	0.22	33.1	C	
Hoover Avenue/83rd	EB	TR	0.57	49.8	D		EB	TR	0.72	57.5	E	*	EB	TR	0.38	35.9	D	
Avenue	WB	LTR	1.02	111.4	F	*	WB	LTR	0.82	76.3	E	*	WB	LTR	0.35	35.6	D	
(signalized)	NB	L	0.64	84.5	F	*	NB	L	0.70	85.2	F	*	NB	L	0.83	107.5	F	*
	NB	TR	0.98	54.4	D	*	NB	TR	0.44	32.5	C		NB	TR	0.51	25.8	C	
	SB	L	0.63	85.1	F	*	SB	L	0.49	71.9	E	*	SB	L	0.67	85.1	F	*
	SB	TR	0.34	28.9	C		SB	TR	0.91	50.7	D	*	SB	TR	1.00	56.4	E	*
132nd Street & Hoover Avenue (two-way stop-controlled)	SB	LR	0.06	11.8	B		SB	LR	0.06	10.2	B		SB	LR	0.04	10.0	B	
132nd Street & Union Turnpike (two-way stop-controlled)	NB	R	0.04	12.0	B		NB	R	0.09	10.7	B		NB	R	0.02	9.3	A	
134th Street & Union Turnpike (two-way stop-controlled)	NB	R	0.89	46.9	E	*	NB	R	0.40	13.1	B		NB	R	0.37	12.0	B	
126th Street & Union Turnpike (uncontrolled)	Intersection is uncontrolled in the Existing Condition						Intersection is uncontrolled in the Existing Condition						Intersection is uncontrolled in the Existing Condition					

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes congested lane group.

Table F.5-2 No-Action Intersection Level of Service Analysis
Queens

Intersection	No-Action Weekday AM						No-Action Weekday Midday						No-Action Saturday					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Queens Boulevard &	WB	L	1.46	278.1	F	*	WB	L	2.15	582.2	F	*	WB	L	2.06	521.5	F	*
78th Avenue	WB	TR	0.32	48.3	D		WB	TR	0.61	59.6	E	*	WB	TR	0.17	27.8	C	
(signalized)	NB (Main)	T	1.00	39.3	D	*	NB (Main)	T	0.49	20.2	C		NB (Main)	T	0.52	26.6	C	
	SB (Main)	T	0.23	16.4	B		SB (Main)	T	0.69	24.5	C		SB (Main)	T	0.69	29.7	C	
	NB (Service)	T	0.82	27.2	C		NB (Service)	T	0.44	20.4	C		NB (Service)	T	0.57	29.7	C	
	SB (Service)	TR	0.41	20.0	C		SB (Service)	TR	1.31	181.3	F	*	SB (Service)	TR	1.02	78.5	E	*
Queens Boulevard &	EB	LT	0.47	56.8	E	*	EB	LT	0.46	53.8	D		EB	LT	0.41	43.7	D	
Union Turnpike	EB	R	0.82	82.9	F	*	EB	R	0.74	71.3	E	*	EB	R	0.78	62.5	E	*
(signalized)	WB	R	1.08	172.3	F	*	WB	R	0.45	15.7	B		WB	R	0.35	18.2	B	
	NB	T	0.81	31.7	C		NB	T	0.57	46.3	D		NB	T	0.46	28.0	C	
	NB	R	0.49	3.8	A		NB	R	0.52	13.4	B		NB	R	0.42	9.8	A	
	SB (Main)	L	0.98	92.3	F	*	SB (Main)	L	1.10	134.2	F	*	SB (Main)	L	1.10	125.4	F	*
	SB (Main)	T	0.38	26.8	C		SB (Main)	T	0.80	27.7	C		SB (Main)	T	1.10	151.3	F	*
	SB (Service to local)	T	0.44	29.2	C		SB (Service to local)	T	0.94	48.3	D	*	SB (Service to local)	T	0.79	43.3	D	
	SB (Service to Main)	T	0.12	22.9	C		SB (Service to Main)	T	0.42	17.9	B		SB (Service to Main)	T	0.66	35.6	D	
Queens Boulevard &	EB	L	0.65	59.8	E	*	EB	L	0.42	46.2	D		EB	L	0.23	33.3	C	
Hoover Avenue/83rd	EB	TR	0.60	50.8	D		EB	TR	0.75	59.3	E	*	EB	TR	0.39	36.1	D	
Avenue	WB	LTR	1.09	133.5	F	*	WB	LTR	0.89	87.6	F	*	WB	LTR	0.37	36.0	D	
(signalized)	NB	L	0.66	86.2	F	*	NB	L	0.73	87.4	F	*	NB	L	0.86	113.0	F	*
	NB	TR	1.02	63.0	E	*	NB	TR	0.48	33.3	C		NB	TR	0.53	26.1	C	
	SB	L	0.66	87.6	F	*	SB	L	0.51	72.8	E	*	SB	L	0.69	87.4	F	*
	SB	TR	0.36	29.1	C		SB	TR	0.94	54.8	D	*	SB	TR	1.04	66.3	E	*
132nd Street & Hoover Avenue (two-way stop-controlled)	SB	LR	0.07	12.0	B		SB	LR	0.06	10.2	B		SB	LR	0.04	10.1	B	
132nd Street & Union Turnpike (two-way stop-controlled)	NB	R	0.05	12.2	B		NB	R	0.10	10.7	B		NB	R	0.02	9.3	A	
134th Street & Union Turnpike (two-way stop-controlled)	NB	R	0.93	55.1	F	*	NB	R	0.42	13.4	B		NB	R	0.40	12.5	B	
126th Street & Union Turnpike (uncontrolled)	Intersection is uncontrolled in the No-Action Condition						Intersection is uncontrolled in the No-Action Condition						Intersection is uncontrolled in the No-Action Condition					

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes congested lane group.

Table F.5-3 With-Action Intersection Level of Service Analysis
Queens

	With-Action Weekday AM						With-Action Weekday Midday						With-Action Saturday					
Intersection	**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**		**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**		**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**	
Queens Boulevard &	WB	L	1.60	341.8	F	*	WB	L	2.22	616.9	F	*	WB	L	2.10	540.7	F	*
78th Avenue	WB	TR	0.32	48.3	D		WB	TR	0.61	59.6	E		WB	TR	0.17	27.8	C	
(signalized)	NB (Main)	T	1.02	44.0	D		NB (Main)	T	0.50	20.5	C		NB (Main)	T	0.54	26.9	C	
	SB (Main)	T	0.25	16.6	B		SB (Main)	T	0.70	24.8	C		SB (Main)	T	0.70	30.0	C	
	NB (Service)	T	0.82	27.2	C		NB (Service)	T	0.44	20.4	C		NB (Service)	T	0.57	29.7	C	
	SB (Service)	TR	0.41	20.0	C		SB (Service)	TR	1.31	181.3	F		SB (Service)	TR	1.04	82.4	F	
Queens Boulevard &	EB	LT	0.62	62.0	E	*	EB	LT	0.53	55.8	E		EB	LT	0.48	45.2	D	
Union Turnpike	EB	R	0.82	82.9	F		EB	R	0.74	71.3	E		EB	R	0.78	62.5	E	
(signalized)	WB	R	1.10	180.7	F	*	WB	R	0.46	15.8	B		WB	R	0.36	18.3	B	
	NB	T	0.81	31.9	C		NB	T	0.58	46.5	D		NB	T	0.47	28.2	C	
	NB	R	0.49	3.8	A		NB	R	0.52	13.4	B		NB	R	0.42	9.8	A	
	SB (Main)	L	1.19	161.1	F	*	SB (Main)	L	1.17	163.7	F	*	SB (Main)	L	1.19	159.0	F	*
	SB (Main)	T	0.36	26.4	C		SB (Main)	T	0.78	26.8	C		SB (Main)	T	1.08	146.2	F	
	SB (Service to local)	T	0.44	29.2	C		SB (Service to local)	T	0.94	48.3	D		SB (Service to local)	T	0.79	43.3	D	
	SB (Service to Main)	T	0.12	22.9	C		SB (Service to Main)	T	0.42	17.9	B		SB (Service to Main)	T	0.66	35.6	D	
Queens Boulevard &	EB	L	0.68	62.1	E		EB	L	0.45	47.7	D		EB	L	0.27	34.4	C	
Hoover Avenue/83rd	EB	TR	0.60	50.8	D		EB	TR	0.75	59.3	E		EB	TR	0.39	36.1	D	
Avenue	WB	LTR	1.51	301.2	F	*	WB	LTR	1.82	440.6	F	*	WB	LTR	0.86	67.8	E	*
(signalized)	NB	L	0.66	86.2	F		NB	L	0.65	80.8	F		NB	L	0.80	102.4	F	
	NB	TR	1.11	94.5	F	*	NB	TR	0.54	34.6	C		NB	TR	0.57	27.0	C	
	SB	L	0.66	87.6	F		SB	L	0.51	72.8	E		SB	L	0.69	87.4	F	
	SB	TR	0.35	29.0	C		SB	TR	0.94	54.5	D		SB	TR	1.04	65.7	E	
132nd Street &	SB	LR	0.19	13.2	B		SB	LR	0.23	11.0	B		SB	LR	0.17	10.3	B	
Hoover Avenue	EB	LT	0.10	8.2	A		EB	LT	0.05	7.7	A		EB	LT	0.05	7.6	A	
(two-way stop-controlled)																		
132nd Street &	NB	R	0.20	14.5	B		NB	R	0.34	12.7	B		NB	R	0.18	10.3	B	
Union Turnpike																		
(two-way stop-controlled)																		
134th Street &	NB	R	0.98	65.6	F	*	NB	R	0.48	15.6	C		NB	R	0.43	13.7	B	
Union Turnpike																		
(two-way stop-controlled)																		
126th Street &	NB	R	0.04	12.1	B		NB	R	0.03	10.3	B		NB	R	0.01	9.3	A	
Union Turnpike																		
(two-way stop-controlled)																		

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes significant adverse impact per *CEQR Technical Manual* criteria.

Table F.5-4 Parking Regulations Code Definitions
Queens

Parking Sign Regulation	Code
1 HOUR METERED PARKING 10AM-7PM EXCEPT SUNDAY	1a
1 HOUR METERED PARKING 9AM-10PM EXCEPT SUNDAY	1b
1 HOUR METERED PARKING 9AM-7PM EXCEPT SUNDAY	1c
2 HOUR METERED PARKING 10AM-7PM EXCEPT SUNDAY	1d
2 HOUR METERED PARKING 9AM-7PM EXCEPT SUNDAY	1e
6 HOUR METERED PARKING 7:30AM-7PM EXCEPT SUNDAY	1f
2 HOUR METERED PARKING 8:30AM-7PM EXCEPT SUNDAY	1g
2 HOUR METERED PARKING MONDAY-FRIDAY 9AM-4PM SATURDAY 9AM-7PM	1h
1 HOUR METERED PARKING 8:30AM-7PM EXCEPT SUNDAY	1i
BUS LAYOVER	2a
BUS STOP	2b
BUS STOP (ACCESS-A-RIDE)	2c
NO PARKING 7AM-7:30AM EXCEPT SUNDAY (STREET CLEANING)	4a
NO PARKING 9:30AM-10AM EXCEPT SUNDAY (STREET CLEANING)	4b
NO PARKING ANYTIME	3a
NO PARKING FRIDAY 10AM-11:30AM (STREET CLEANING)	4c
NO PARKING FRIDAY 8:30AM-10AM (STREET CLEANING)	4d
NO PARKING FRIDAY NOON-1:30PM (STREET CLEANING)	4e
NO PARKING MONDAY & THURSDAY 8AM-11AM (STREET CLEANING)	4f
NO PARKING MONDAY 7AM-7:30AM (STREET CLEANING)	4g
NO PARKING MONDAY- FRIDAY 7AM-9AM	3b
NO PARKING MONDAY- FRIDAY 8AM-6PM	3c
NO PARKING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES	3d
NO PARKING SCHOOL DAYS 7AM-4PM	3e
NO PARKING SCHOOL DAYS 7AM-5PM	3f
NO PARKING THURSDAY 10:30AM TO NOON (STREET CLEANING) (BACK IN 60 DEGRE PARKING ONLY)	4h
NO PARKING THURSDAY 10:30AM-NOON (STREET CLEANING)	4i
NO PARKING THURSDAY 10AM-11:30AM (STREET CLEANING)	4j
NO PARKING THURSDAY 8:30AM-10AM (STREET CLEANING)	4k
NO PARKING THURSDAY NOON-1:30PM (STREET CLEANING)	4l
NO PARKING WEDNESDAY 10:30AM-NOON (STREET CLEANING)	4m
NO PARKING 8:30AM-9AM EXCEPT SUNDAY (STREET CLEANING)	4n
NO PARKING TUESDAY 8:30AM-10AM (STREET CLEANING)	4o
NO PARKING WEDNESDAY 8:30AM-10AM (STREET CLEANING)	4p
NO STANDING ANYTIME (TAXI STAND)	5c
NO STANDING 7AM-10AM EXCEPT SUNDAY	5b
NO STANDING ANYTIME	5a
NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (NYSJ)	6a
NO STANDING ANYTIME EXCEPT CITY OWNED VEHICLES	6b
NO STANDING ANYTIME EXCEPT CITY OWNED VEHICLES (BACK IN 90 DEGREE PARKING ONLY)	6c
NO STANDING ANYTIME EXCEPT CITY OWNED VEHICLES (BOROUGH PRESIDENT VEHICLES)	6d
NO STANDING ANYTIME EXCEPT CITY OWNED VEHICLES (BOROUGH PRESIDENT VEHICLES) (BACK IN 90 DEGREE PARKING ONLY)	6e
NO STANDING ANYTIME EXCEPT VEHICLES WITH NYP LICENSE -PLATES	6f
NO STANDING EXCEPT CITY OWNED VEHICLES (PARALLEL PARKING ONLY)	6f
NO STANDING MONDAY- FRIDAY 4PM-7PM	5d
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DISTRICT ATTORNEY NYSJ)	6g
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (DISTRICT ATTORNEY NYSJ) (BACK IN 90 DEGREE PARKING ONLY)	6h
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYPD COURT SECTION)	6i
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYSJ)	6j
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYSJ) (BACK IN 60 DEGREE PARKING ONLY)	6k
NO STANDING MONDAY- FRIDAY 7AM-7PM EXCEPT AUTHORIZED VEHICLES (NYSJ) (BACK IN 90 DEGREE PARKING ONLY)	6l
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (BOROUGH PRESIDENT VEHICLES) (BACK IN 90 DEGREE PARKING ONLY)	6m
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DEP)	6n
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DEPT OF CITY ADMINISTRATIVE SERVICES & PROBATION VEHICLES)	6o
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DEPT OF CORRECTION VEHICLES)	6p
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DEPT OF TRANSPORTATION)	6q
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DEPT OF TRANSPORTATION) (BACK IN 90 DEGREE PARKING ONLY)	6r
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DISTRICT ATTORNEY SUPREME COURT CRIMINAL COURT)	6s
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (DISTRICT ATTORNEY)	6t
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (NYCPD COURT DIVISION)	6u
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (QUEENS DA SQUAD DISTRICT ATTORNEY)	6v
NO STANDING MONDAY- FRIDAY 8AM-6PM EXCEPT AUTHORIZED VEHICLES (YOUTH COUNCIL VEHICLES)	6w
NO STANDING SCHOOL DAYS 7AM-4PM	5e
NO STOPPING ANYTIME	6
TRUCK LOADING ONLY MONDAY- FRIDAY 7AM-3PM	7a
TRUCK LOADING ONLY MONDAY- FRIDAY 7AM-7PM	7b

Table F.5-5 Construction With-Action Intersection Level of Service Analysis
Queens

	Construction With-Action AM						Construction With-Action Midday					
Intersection	**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**		**Approach**	**Lane Group**	**V/C Ratio**	**Delay (sec/veh)**	**LOS**	
Queens Boulevard &	WB	L	1.58	331.3	F	*	WB	L	2.15	582.2	F	
78th Avenue	WB	TR	0.32	48.3	D		WB	TR	0.61	59.6	E	
(signalized)	NB (Main)	T	1.05	54.3	D	*	NB (Main)	T	0.50	20.4	C	
	SB (Main)	T	0.30	17.2	B		SB (Main)	T	0.70	24.6	C	
	NB (Service)	T	0.82	27.2	C		NB (Service)	T	0.44	20.4	C	
	SB (Service)	TR	0.41	20.0	C		SB (Service)	TR	1.31	181.3	F	
Queens Boulevard &	EB	LT	0.67	64.7	E	*	EB	LT	0.46	53.8	D	
Union Turnpike	EB	R	0.87	90.1	F	*	EB	R	0.78	75.5	E	*
(signalized)	WB	R	1.14	198.7	F	*	WB	R	0.45	15.7	B	
	NB	T	0.82	32.0	C		NB	T	0.60	46.9	D	
	NB	R	0.50	3.9	A		NB	R	0.53	13.7	B	
	SB (Main)	L	1.42	256.8	F	*	SB (Main)	L	1.13	148.1	F	*
	SB (Main)	T	0.36	26.4	C		SB (Main)	T	0.78	26.8	C	
	SB (Service to local)	T	0.44	29.2	C		SB (Service to local)	T	0.94	48.3	D	
	SB (Service to Main)	T	0.12	22.9	C		SB (Service to Main)	T	0.42	17.9	B	
Queens Boulevard &	EB	L	0.76	72.7	E	*	EB	L	0.45	47.6	D	
Hoover Avenue/83rd	EB	TR	0.60	50.8	D		EB	TR	0.75	59.3	E	
Avenue	WB	LTR	1.52	306.2	F	*	WB	LTR	2.18	603.5	F	*
(signalized)	NB	L	0.66	86.2	F		NB	L	0.65	80.8	F	
	NB	TR	1.14	107.6	F	*	NB	TR	0.49	33.5	C	
	SB	L	0.66	87.6	F		SB	L	0.51	72.8	E	
	SB	TR	0.36	29.1	C		SB	TR	0.95	55.4	E	
132nd Street &	SB	LR	0.13	13.0	B		SB	LR	0.29	11.6	B	
Hoover Avenue	EB	LT	0.02	8.1	A		EB	LT	0.01	7.7	A	
(two-way stop controlled)												
132nd Street &	NB	R	0.05	12.7	B		NB	R	0.15	13.6	B	
Union Turnpike												
(two-way stop controlled)												
134th Street &	NB	R	0.98	66.7	F	*	NB	R	0.59	21.6	C	
Union Turnpike												
(two-way stop controlled)												
126th Street &	NB	R	1.84	456.6	F	*	NB	R	0.10	22.1	C	
Union Turnpike												
(two-way stop controlled)												
Queens Boulevard &	EB	LR	0.40	55.1	E		EB	LR	0.46	50.8	D	
77th Avenue	WB	LTR	0.77	72.4	E	*	WB	LTR	1.08	126.9	F	
(signalized)	NB (Main)	L	0.27	48.9	D		NB (Main)	L	1.06	145.7	F	
	NB (Main)	T	0.98	34.2	C		NB (Main)	T	0.60	25.6	C	
	SB (Main)	T	0.37	29.2	C		SB (Main)	T	1.04	71.0	E	
	NB (Service)	L	0.47	82.0	F		NB (Service)	L	0.29	75.6	E	
	NB (Service)	T	0.83	27.7	C		NB (Service)	T	0.55	19.6	B	
	SB (Service)	TR	0.39	31.1	C		SB (Service)	TR	1.32	194.7	F	
Queens Boulevard &	WB	LR	0.08	32.6	C		WB	LR	0.18	34.3	C	
82nd Avenue	NB	TR	1.25	154.2	F	*	NB	TR	0.54	34.5	C	
(signalized)	SB	L	0.37	70.1	E		SB	L	0.32	65.1	E	
	SB	T	0.32	17.6	B		SB	T	0.77	27.6	C	
Union Turnpike EB &	EB	LT	0.88	35.6	D		EB	LT	1.02	60.7	E	
Park Lane	EB	R	0.02	17.7	B		EB	R	0.06	18.1	B	
(signalized)	NB	TR	0.60	32.3	C		NB	TR	0.76	37.6	D	
	SB	DefL	0.52	17.2	B		SB	DefL	0.81	30.2	C	
	SB	T	0.42	15.1	B		SB	T	0.63	19.3	B	
Union Turnpike WB &	WB	L	0.54	12.1	B		WB	L	0.77	18.7	B	
Park Lane/Markwood	WB	LT	0.57	11.0	B		WB	LT	0.58	11.2	B	
Road	NB	L	0.30	27.8	C		NB	L	0.61	37.7	D	
(signalized)	SB	TR	0.32	28.4	C		SB	TR	0.68	38.0	D	

- Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
- Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes significant adverse impact per *CEQR Technical Manual* criteria.

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TECHNICAL MEMORANDUM

TO: Hilary Semel, Esq., Director, MOEC

FROM: Jacoub Reda, Philip Habib & Associates

DATE: March 21, 2019

PROJECT: NYC Borough-Based Jails System EIS (PHA No. 1820E) [CEQR No. 18DOC001Y]

RE: Transportation Planning Factors and Travel Demand Forecast

This memorandum summarizes the transportation planning factors to be used for the analysis of traffic, transit, pedestrian, and parking conditions for the *NYC Borough-Based Jail System EIS*. Estimates of the peak travel demand generated by the proposed project are provided, along with a discussion of trip assignment methodologies and study area definitions.

PROJECT OVERVIEW

The New York City Department of Correction (DOC) is proposing to establish a system of borough-based detention facilities to house the city's municipal adult detained persons population (the "Borough-Based Jail System," or the proposed project). The proposed project would involve the replacement of existing detention facilities and/or construction of new facilities at sites in Manhattan, Brooklyn, Queens, and the Bronx. The proposed project is intended to facilitate the relocation of the DOC's detained persons population from Rikers Island and the eventual closure of existing detention facilities on Rikers Island.

DOC, in conjunction with the Mayor's Office of Criminal Justice (MOCJ) and the New York City Office of Management and Budget (OMB) is currently undertaking a master planning study for the Borough-Based Jail System. This study is assessing four potential sites— one each in Manhattan, Brooklyn, Queens, and the Bronx—to determine their ability and capacity to provide detention facilities fulfilling the programmatic requirements of the DOC. These sites are described below.

ANALYSIS FRAMEWORK

In total, the proposed project would result in the development of four detention facilities, one each in Manhattan, Brooklyn, Queens, and the Bronx. In addition to core detention functions, other uses complementary to the detention facilities or to the local community are contemplated for each site and to be conservative these uses are identified herein and included in the travel demand forecast. These include a local retail space in Manhattan; a parole violation hearing court, community center space, local retail space and residential development in the Bronx; a centralized infirmary/maternity ward and community center space in Queens; and local retail space in Brooklyn. The potential sites described below serve as the basis for developing a travel demand forecast and technical transportation analysis.

The following are the potential sites for borough-based detention facilities under the proposed project – see **Figures 1 through 4** for site location references:

- 124 and 125 White Street, Manhattan: The Manhattan site consists of the existing Manhattan Detention Complex at 124 and 125 White Street in Community District 1. This site occupies both sides of White Street between Centre and Baxter streets; this block of White Street is officially named John J. Clavin Place. There is an aerial walkway above White Street connecting the North Tower and South Tower of the detention complex. The proposed project is expected to require demapping of above- and below-grade volumes along White Street between Centre Street and Baxter Street.

- 275 Atlantic Avenue, Brooklyn: The Brooklyn site consists of the existing Brooklyn House of Detention at 275 Atlantic Avenue in the Community District 2. The site occupies the entire block bounded by Atlantic Avenue, Smith Street, State Street, and Boerum Place. There is a tunnel below State Street that connects this site to the Brooklyn Central Courts Building at 120 Schermerhorn Street. The proposed project is expected to include the demapping of above- and below-grade volumes along State Street between Boerum Place and Smith Street.

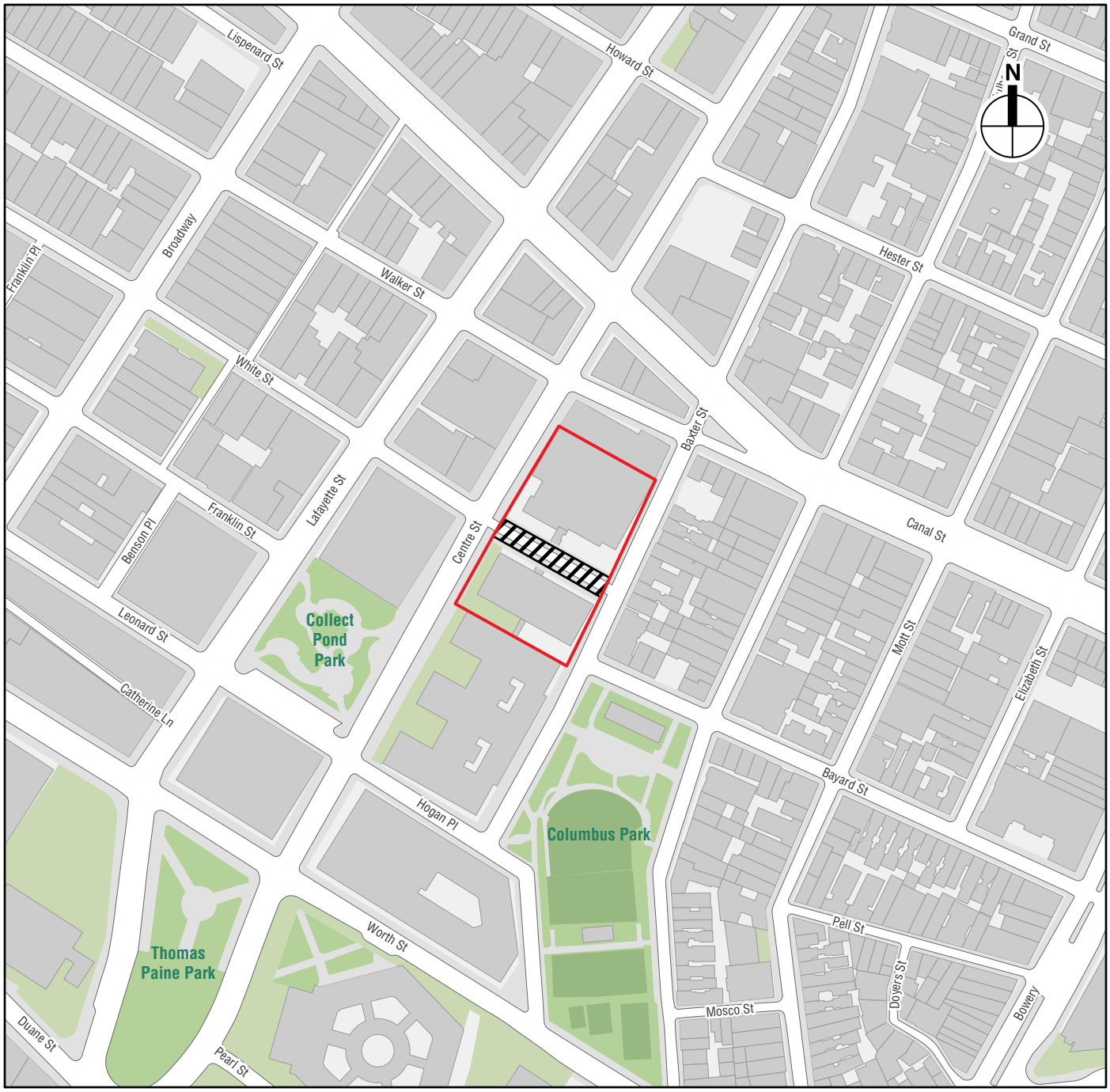
- 126-02 82nd Avenue, Queens: The Queens site consists of the existing Queens House of Detention at 126-02 82nd Avenue, Kew Gardens, Community District 9. The existing House of Detention, which is not currently utilized for the detention of persons, occupies an irregularly-shaped parcel in the area bounded by 132nd Street, 82nd Avenue, Queens Boulevard, and Hoover Avenue. The Queens site will also include adjacent areas to the north, including the bed of 82nd Avenue (which would require a demapping) and Queens Borough Hall Municipal Parking Field on the block bound by the Union Turnpike service road, 132nd Street, 82nd Avenue, and 126th Street. The existing Queens House of Detention building is not to be confused with the similarly named Queens Detention Facility, a federal jail in Jamaica near JFK Airport.

- 745 East 141st Street, Bronx: The Bronx site is located in the Mott Haven neighborhood of the Bronx and consists of the full-block parcel currently occupied by the New York City Police Department (NYPD)'s Bronx Tow Pound. The block is bound by E. 142nd Street, Southern Boulevard, Bruckner Boulevard, E. 141st Street, and Concord Avenue in Community District 1.

Analysis Periods

While most DOC staffers would be uniformed officers, some non-uniformed DOC employees – e.g., administrative personnel, kitchen aides, maintenance crews, etc., and medical/infirmary personnel staffed by Correctional Health Services (CHS) – would be expected to travel to and from each project site. In addition, the facilities would also welcome third-party programming aides, lawyers and other visitors to the site. It should be noted that, unlike DOC daily staff, programming aides arrive unpredictably as they are not assigned directly to a specific facility. As detention centers operate 24-hours a day, uniformed officers, the primary staffing group, are mostly divided into three shifts that start at 7 AM, 3 PM, and 11 PM. The non-uniformed staff would have their own schedule but, the majority of these persons are expected to work day shifts. Medical staff are also generally divided into three shifts but, with start times one hour later than those of uniformed staff (e.g. first shift starts at 8 AM instead of 7 AM, etc.) It is anticipated that travel demand associated with the proposed project would be highest during the shift

1/22/2019



0 500 FEET

Project Site

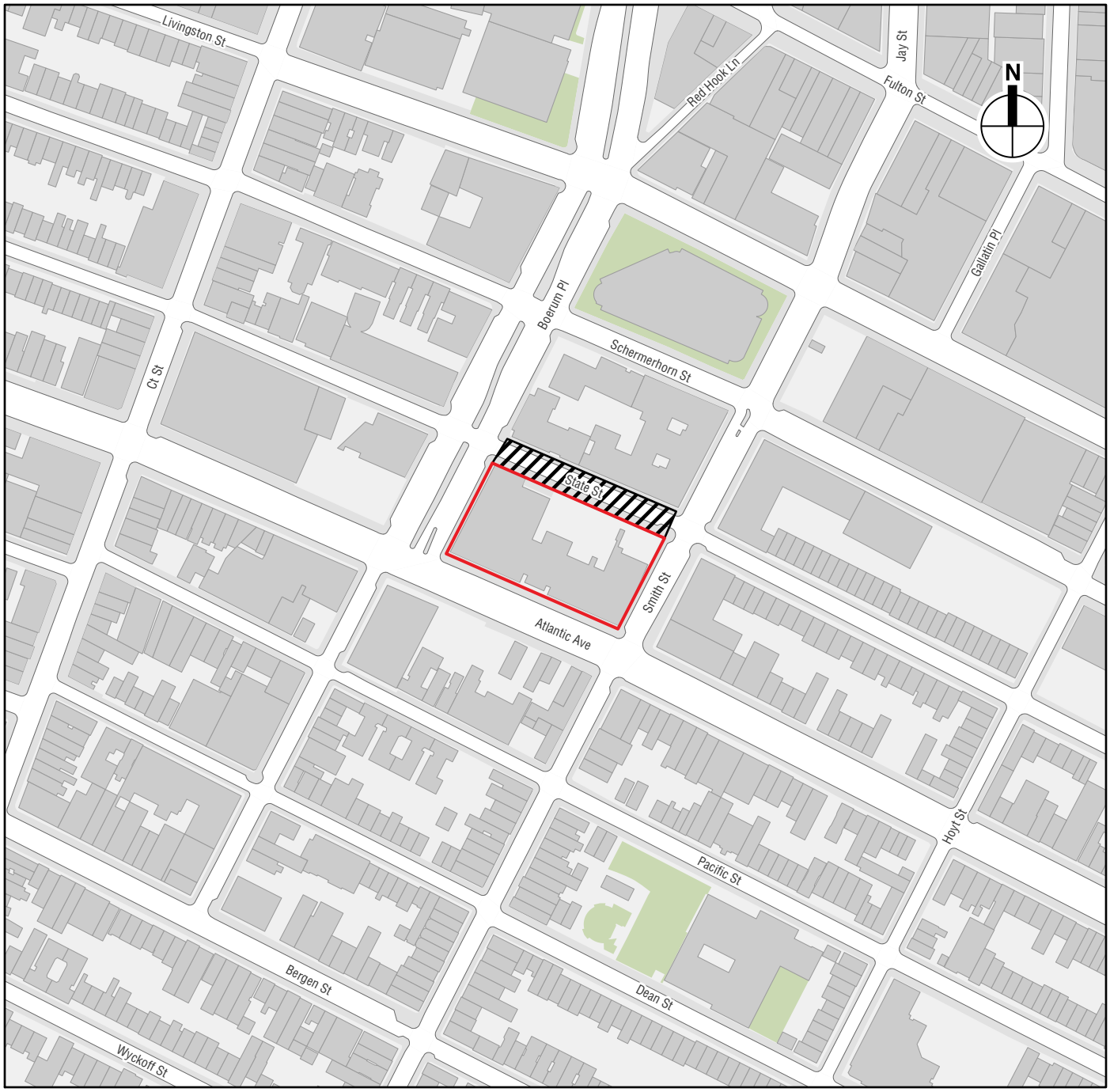
Proposed Demapped Area

Manhattan Site
Project Location - 124-125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 1

11/19/2018



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Project Site

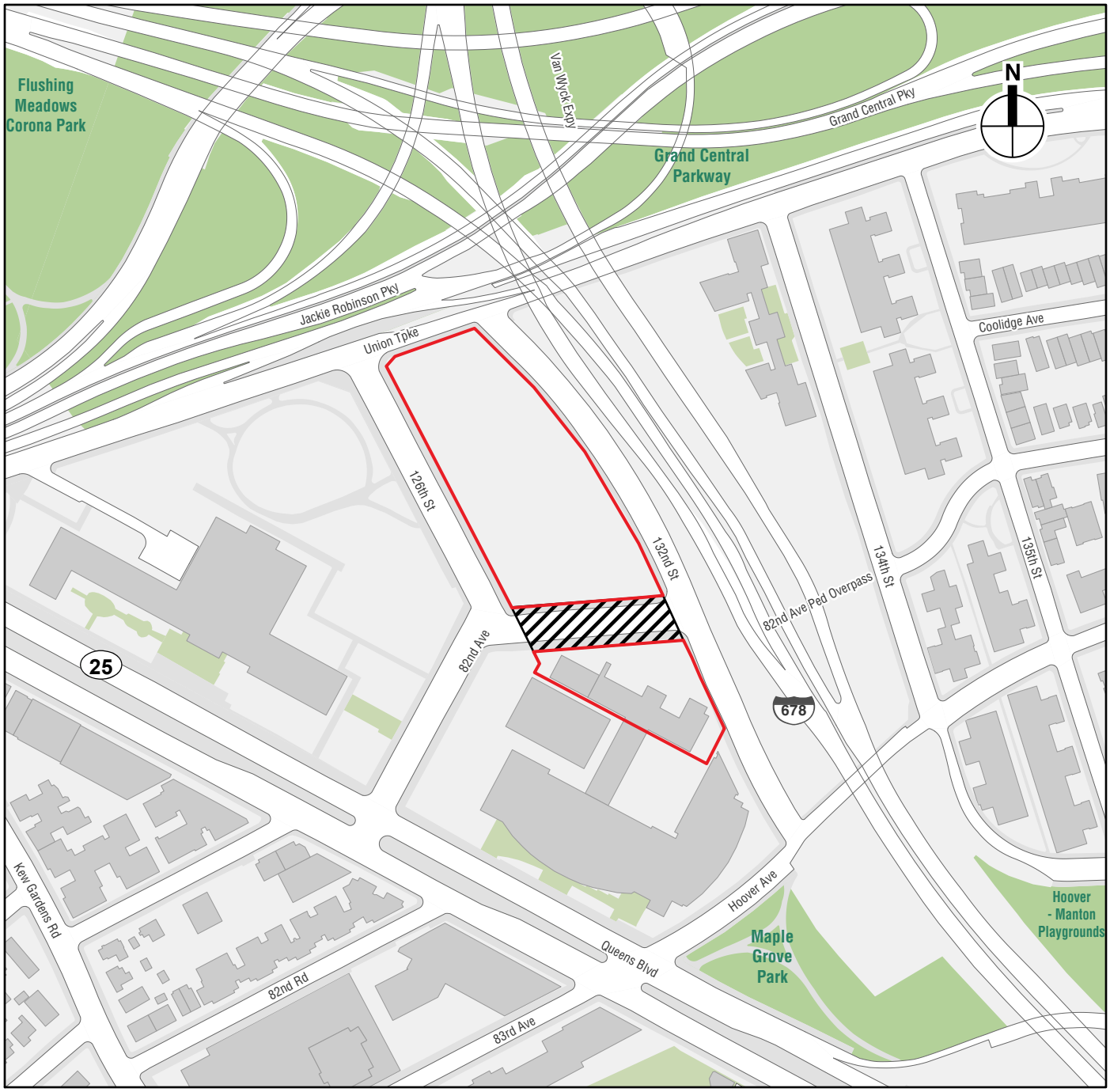
Proposed Demapped Area

Brooklyn Site
Project Location - 275 Atlantic Avenue

BOROUGH-BASED NYC JAIL SYSTEM

Figure 2

1/24/2019



0 500 FEET

Project Site

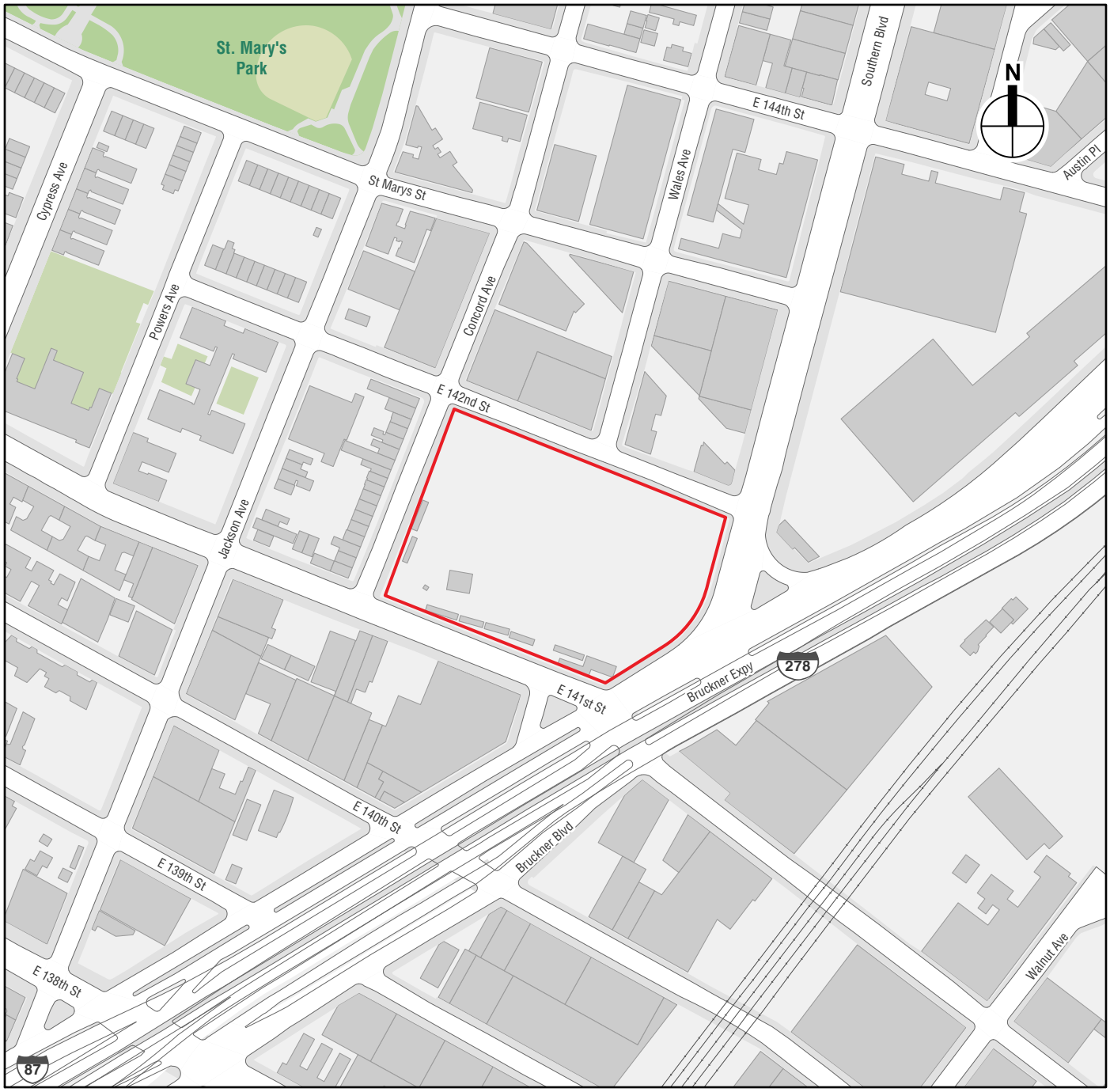
Proposed Demapped Area

Queens Site
Project Location - 126-02 82nd Avenue

BOROUGH-BASED NYC JAIL SYSTEM

Figure 3

1/22/2019



0 500 FEET

Project Site

Bronx Site
Project Location - 745 East 141st Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4

overlap periods for uniformed officers as they would comprise the majority of staff on each site. Consequently, the transportation analyses focus on three daytime peak periods—an early weekday AM peak hour (6:30 AM to 7:30 AM) to reflect the peak hour during the shift change period that would occur around the start of the 7 AM morning shift, and the weekday midday (2:45 PM to 3:45 PM) and Saturday (2:45 PM to 3:45 PM) peak hours to reflect the peak hour during the shift change period that would occur around the start of the 3 PM to 11 PM work shift. Transit (subway and bus) analyses typically examine conditions during the weekday AM and PM commuter peak periods, as it is during these times that overall transit demand (and the potential for significant adverse impacts) is generally greatest. The transportation analysis will assume a nine year build period, with the project being completed in 2027.

Analysis Thresholds

The *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. The preliminary analysis begins with a trip generation (Level 1) analysis to estimate the numbers of person and vehicle trips attributable to the proposed project. According to the *CEQR Technical Manual*, if the proposed project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that the proposed project would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

TRANSPORTATION PLANNING FACTORS

The transportation planning factors used to forecast incremental travel demand for the new facilities are summarized in **Table 1** and **Table 2** and discussed below. Factors are shown for the weekday AM, midday, and PM peak hours; and Saturday peak hour.

Table 1
Transportation Planning Factors

Land Use:	Uniformed Staff	Non-Uniformed Staff	Clinic Staff	Authorized Visitors	Other Visitors	Bronx Court Staff	Bronx Court Visitors
Size/Units:						55 Staff	175 Visitors
Trip Generation:	(1)	(1)	(1)	(1)	(3)	(5)	(5)
Weekday	2.00	2.00	2.00	0.89	0.3	4.7	2.5
Saturday	2.00	2.00	2.00	0.19	0.3	0.0	0.0
	trips/employee	trips/employee	trips/employee	trips/bed	trips/bed	trips/employee	trips/visitor
Temporal Distribution:	(1)	(1)	(1)	(1)	(3)	(5)	(5)
AM	29.1%	36.6%	3.3%	5.2%	0.5%	0.0%	0.0%
Midday	29.8%	39.0%	10.3%	4.4%	9.6%	12.5%	12.5%
PM	0.0%	0.0%	0.0%	8.2%	9.0%	8.2%	8.2%
Saturday	29.0%	39.0%	10.3%	4.3%	11.7%	0.0%	0.0%
	(2)	(2)	(2)	(2)	(2)	(5,6)	(7)
Modal Splits:	All Periods	All Periods	All Periods	All Periods	All Periods	AM MD	All Periods
Auto						46.1% 1.0%	20.0%
Taxi						1.7% 1.0%	2.0%
Subway	See Table 2	See Table 2	See Table 2	See Table 2	See Table 2	24.2% 8.0%	65.0%
Bus						19.9% 7.0%	11.0%
Walk/Ferry/Other						8.1% 83.0%	2.0%
						100.0% 100.0%	100.0%
	(1)	(1)	(1)	(1)	(3)	(5)	(5)
In/Out Splits:	In Out	In Out	In Out	In Out	In Out	In Out	In Out
AM	65.0% 35.0%	100.0% 0.0%	100.0% 0.0%	60.8% 39.2%	100.0% 0.0%	83.0% 17.0%	83.0% 17.0%
Midday	37.0% 63.0%	0.0% 100.0%	100.0% 0.0%	73.1% 26.9%	47.6% 52.4%	70.0% 30.0%	70.0% 30.0%
PM	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	31.8% 68.3%	55.3% 44.7%	25.0% 75.0%	25.0% 75.0%
Saturday	43.0% 57.0%	0.0% 100.0%	100.0% 0.0%	71.4% 28.6%	26.9% 73.1%	0.0% 100.0%	0.0% 100.0%
Vehicle Occupancy:	(2)	(2)	(2)	(2)	(4)	(5)	(7)
Auto	See Table 2	See Table 2	See Table 2	See Table 2	1.50	1.20	1.50
Taxi					1.00	1.20	1.00
Truck/bus							
Trip Generation:	(1)					(5)	
Weekday	0.06					0.14	
Saturday	0.06					0.00	
	per bed					per 1,000 sf	
	(1)					(5)	
AM	2.9%					8.0%	
Midday	5.9%					11.0%	
PM	9.8%					2.0%	
Saturday	5.9%					0.0%	
	In Out					In Out	
All	55.0% 45.0%					50.0% 50.0%	

Table 1
Transportation Planning Factors (continued)

Land Use:	Bronx Community Center	Queens Community Center	Manhattan Local Retail	Brooklyn Local Retail	Bronx Local Retail	Bronx Residential
Size/Units:	42,500 gsf	25,000 gsf	14,700 gsf	30,000 gsf	28,500 gsf	235 DU
Trip Generation:	(8)	(8)	(8)	(8)	(8)	(8)
Weekday	44.7	44.7	205.0	205.0	205.0	8.075
Saturday	26.1	26.1	240.0	240.0	240.0	9.60
	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per DU
Temporal Distribution:	(8)	(8)	(8,11)	(8,11)	(8,11)	(15)
AM	4.0%	4.0%	0.0%	0.0%	0.0%	4.0%
Midday	9.0%	9.0%	19.0%	19.0%	19.0%	5.8%
PM	5.0%	5.0%	10.0%	10.0%	10.0%	5.8%
Saturday	9.0%	9.0%	10.0%	10.0%	10.0%	6.8%
	(9)	(10)	(12)	(13)	(9)	(16)
Modal Splits:	All Periods	All Periods	All Periods	All Periods	All Periods	All Periods
Auto	4.0%	5.0%	2.0%	11.0%	8.0%	15.4%
Taxi	9.0%	1.0%	3.0%	0.0%	0.0%	0.7%
Subway	12.0%	3.0%	6.0%	3.0%	1.0%	63.6%
Bus	5.0%	6.0%	6.0%	2.0%	12.0%	10.4%
Walk/Ferry/Other	70.0%	85.0%	83.0%	84.0%	79.0%	9.9%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	(9)		(10)		(12)		(14)		(9)		(15)	
In/Out Splits:	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	60.0%	40.0%	61.0%	39.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	22.5%	77.5%
Midday	53.0%	47.0%	55.0%	45.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	53.7%	46.3%
PM	50.0%	50.0%	29.0%	71.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	61.0%	39.0%
Saturday	34.0%	66.0%	49.0%	51.0%	50.0%	50.0%	55.0%	45.0%	50.0%	50.0%	51.2%	48.8%

Vehicle Occupancy:	(9)	(10)	(12)	(14)	(9)	(16)
Auto	1.40	1.65	1.65	2.00	1.65	1.11
Taxi	1.40	1.40	1.40	2.00	1.40	1.11
Truck/bus						
Trip Generation:	(9)	(10)	(8)	(8)	(8)	(8)
Weekday	0.04	0.29	0.35	0.35	0.35	0.06
Saturday	0.04	0.29	0.04	0.04	0.04	0.02
	per 1,000 sf	per 1,000 sf	per 1,000sf	per 1,000 sf	per 1,000 sf	per DU
	(9)	(10)	(8)	(8)	(8)	(8)
AM	8.0%	9.6%	8.0%	8.0%	8.0%	12.0%
Midday	11.0%	11.0%	11.0%	11.0%	11.0%	2.0%
PM	1.0%	1.0%	2.0%	2.0%	2.0%	2.0%
Saturday	0.0%	0.0%	11.0%	11.0%	11.0%	9.0%

	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
All	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Table 1
Transportation Planning Factors (continued)

Notes :

(1) Trip generation rate, temporal distribution, and in/out splits assumes DOC & CHS staff do not typically leave facility during their 8-hour work shifts. DOC & CHS temporal distribution and in/out splits are derived from DOC & CHS staff schedule and information for existing Manhattan and Brooklyn jails. Authorized Visitor rates are derived from day-time count data collected at the Manhattan and Brooklyn jails in July 2018. Rates were determined by discounting expected trips made by DOC & CHS staff from the count data. Authorized Visitor Saturday trip generation rate based on similar ratio between weekday and saturday rates for office use provided in Table 16-2 of the 2014 City Environmental Quality (CEQR) Technical Manual (3.9 trips/18 trips = 0.22 ratio).
(2) Refer to Table 2.
(3) Based on Manhattan and Brooklyn House of Detention average hourly weekday and weekend visitation data for 2017 provided by DOC.
(4) Based on survey data collected at Manhattan and Brooklyn Houses of Detention, May and June 2018.
(5) Based on 330 Jay Street FEIS, 1999.
(6) Based on 2010 census reverse journey to work data for Bronx County Census Tract 19, 27.02, 31, 33, 35, 37, 39 and 41.
(7) Modal split and vehicle occupancy rates for Bronx Court Visitors assumed to be similar to Other Visitors.
(8) Based on 2014 City Environmental Quality Review (CEQR) Technical Manual. Community Center rates are based on Health Club rates included in the CEQR Technical Manual.
(9) Based on Spofford Campus FEIS, 2018.
(10) Based on Downtown Jamaica Redevelopment Plan FEIS, 2007.
(11) Based on Number 7 Extension Hudson Yards Rezoning and Development Program FGEIS, Appendix S.1, 2003.
(12) Based on Two Bridges LSRD FEIS, 2018.
(13) Based on DOT survey of local retail in Downtown Brooklyn.
(14) Based on Atlantic Yards Arena and Redevelopment FSEIS, 2014.
(15) Based on DOT city-wide survey of residential use.
(16) Based on 2012-2016 five-year census journey to work data for Bronx County Census Tract 19, 27.02, 31, 33, 35, 37, 39 and 41.

Table 2
Staff/Visitor Mode Split and Vehicle Occupancy Rates

	Uniformed Staff	Non-Uniformed Staff	Clinic Staff	Authorized Visitors	Other Visitors
Brooklyn					
	(1)	(4)	(4)	(4)	(1)
Modal Splits:	All Periods	All Periods	All Periods	All Periods	All Periods
Auto	77.4%	31.0%	31.0%	31.0%	10.0%
Taxi	5.3%	0.3%	0.3%	0.3%	2.5%
Subway	13.4%	43.6%	43.6%	43.6%	72.8%
Bus	1.3%	15.9%	15.9%	15.9%	8.6%
Walk/Ferry/Other	2.6%	9.2%	9.2%	9.2%	6.1%
	100.0%	100.0%	100.0%	100.0%	100.0%
Vehicle Occupancy:	(1)	(4), (5)	(4), (5)	(4), (5)	
Auto	1.15	1.22	1.22	1.22	
Taxi	1.00	1.42	1.42	1.42	
Bronx					
	(2)	(6)	(6)	(6)	(2)
Modal Splits:	All Periods	All Periods	All Periods	All Periods	All Periods
Auto	85.0%	46.1%	46.1%	46.1%	20.0%
Taxi	3.0%	1.7%	1.7%	1.7%	2.0%
Subway	10.0%	24.2%	24.2%	24.2%	65.0%
Bus	1.0%	19.9%	19.9%	19.9%	11.0%
Walk/Ferry/Other	1.0%	8.1%	8.1%	8.1%	2.0%
	100.0%	100.0%	100.0%	100.0%	100.0%
Vehicle Occupancy:	(1)	(6), (7)	(6), (7)	(6), (7)	
Auto	1.15	1.32	1.32	1.32	
Taxi	1.00	1.40	1.40	1.40	
Queens					
	(2)	(8)	(8)	(8)	(2)
Modal Splits:	All Periods	All Periods	All Periods	All Periods	All Periods
Auto	85.0%	52.9%	52.9%	52.9%	20.0%
Taxi	3.0%	0.6%	0.6%	0.6%	2.0%
Subway	10.0%	22.5%	22.5%	22.5%	65.0%
Bus	1.0%	14.1%	14.1%	14.1%	11.0%
Walk/Ferry/Other	1.0%	9.9%	9.9%	9.9%	2.0%
	100.0%	100.0%	100.0%	100.0%	100.0%
Vehicle Occupancy:	(1)	(8), (9)	(8), (9)	(8), (9)	
Auto	1.15	1.19	1.19	1.19	
Taxi	1.00	1.40	1.40	1.40	
Manhattan					
	(3)	(3)	(3)	(3)	(3)
Modal Splits:	All Periods	All Periods	All Periods	All Periods	All Periods
Auto	52.7%	20.0%	20.0%	20.0%	10.3%
Taxi	3.7%	6.7%	6.7%	6.7%	5.1%
Subway	32.8%	60.0%	60.0%	60.0%	84.6%
Bus	7.8%	13.3%	13.3%	13.3%	0.0%
Walk/Ferry/Other	3.0%	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%
Vehicle Occupancy:	(3)	(10), (11)	(10), (11)	(10), (11)	
Auto	1.18	1.36	1.36	1.36	
Taxi	1.00	1.40	1.40	1.40	

Notes :

(1) Based on survey data collected at Brooklyn House of Detention, May and June 2018.
(2) Based on survey data collected at Manhattan and Brooklyn Houses of Detention, May and June 2018; modal splits adjusted to reflect non-CBD area.
(3) Based on survey data collected at Manhattan House of Detention, May and June 2018.
(4) Based on 2010 census reverse journey to work data for Kings County Census Tract 9, 37, 41, 43, 45, 69 and 71.
(5) Taxi occupancy rate based on Atlantic Yards Arena and Redevelopment FSEIS, 2014.
(6) Based on 2010 census reverse journey to work data for Bronx County Census Tract 19, 27.02, 31, 33, 35, 37, 39 and 41.
(7) Taxi occupancy rate based on Special Hunts Point Rezoning EAS, 2008.
(8) Based on 2010 census reverse journey to work data for Queens County Census Tract 138, 140, 142.01, 142.02, 212, 214, 220.01, 216, 383.02, 769.02, 773 and 775.
(9) Taxi occupancy rate based on Briarwood Plaza Special Permit Application EAS, 2010.
(10) Based on 2010 census reverse journey to work data for New York County Census Tract 15.01,16, 25, 27, 29, 31, 41 and 45.
(11) Taxi occupancy rate based on Hudson Square Rezoning FEIS, 2013.

Daily Detention Facility Staff – Uniformed and non-uniformed DOC staff and medical/clinic staff

The daily detention facility staff consists of uniformed DOC staff (correctional officers and upper management), non-uniformed DOC staff (civilian), and CHS staff (medical/clinic personnel). As shown in **Table 1**, staff trip generation rates were based on the assumption that staff typically do not leave during shift periods due to the facility's high security level, strict schedules, presence of an on-site cafeteria, etc. Temporal distribution patterns and in/out splits were derived from existing staff schedule information for existing Brooklyn and Manhattan detention centers, provided by DOC and CHS. Generally, entire shift changes do not occur within a one-hour period. This is particularly true for uniformed staff as officers scheduled to start at a certain time arrive to work before officers they are replacing head home. However, to be conservative, it is assumed scheduled uniform staff shift change trips occur in the same hour.

As shown in **Table 2**, the uniformed DOC staff modal splits and vehicle occupancy rates were determined based on survey data collected at the Manhattan and Brooklyn Houses of Detention in May 2018 – see attached **Appendix** for a memo presenting the survey data results and further detailing the proposed factors used in the travel demand forecast.

For Manhattan, the non-uniformed and clinical/medical staff modal splits were based on survey data collected at the Manhattan House of Detention in May 2018, and the vehicle occupancy rates were based on 2010 reverse journey to work data for the sites' underlying and neighboring census tracts - tracts 15.01, 16, 25, 27, 29, 31, 41 and 45. The non-uniformed staff and clinical/medical staff modal splits and auto occupancies for the Bronx, Queens and Brooklyn were based on 2010 reverse journey to work data for the following census tracts – Brooklyn tracts 9, 37, 41, 43, 45, 69 and 71; Queens tracts 138, 140, 142.01, 142.02, 212, 214, 220.01, 216, 383.02, 769.02, 773 and 775; and Bronx tracts 19, 27.02, 31, 33, 35, 37, 39 and 41. Taxi occupancy rates were based on *Atlantic Yards Arena and Redevelopment FSEIS* (2014) for Brooklyn, *Special Hunts Point Rezoning EAS* (2008) for the Bronx, *Briarwood Plaza Special Permit Application EAS* (2010) for Queens, and *Hudson Square Rezoning FEIS* (2013) for Manhattan. Truck and bus trip generation rates, temporal distribution and in/out splits are based on count data collected in July 2018 at the existing Brooklyn and Manhattan Houses of Detention.

Authorized Visitors

Authorized visitors include lawyers, third-party contracted programming staff, medical deliveries, biomedical and environmental services providers, etc. To determine appropriate transportation planning factors for authorized visitors, a count of inbound and outbound trips at the main entrance and sally ports at the existing Manhattan and Brooklyn detention centers was conducted in July 2018 during the 6:00 AM to 6:00 PM period on a Wednesday. As persons on official business or affiliated with the DOC share the same entrance into these facilities, it is difficult to explicitly observe authorized visitors; and DOC and CHS staff separately. However, as we know the current number of daily DOC and CHS staff and the work schedule for these employees, data on authorized visitors was reasonably derived by discounting the predictable daily staff trips from the total inbound and outbound trips observed. It is assumed that the arrival patterns for authorized visitors on a Saturday is similar to that of a weekday. However, as many of these visitors likely originate from businesses and service providers that are open during the typical Monday through Friday period, it is assumed that the number of trips on a Saturday when compared to the number on a weekday is similar to the Saturday versus weekday trip generation rates shown in the 2014 *CEQR Technical Manual*.

The derived trip generation rate, temporal distribution and in/out splits for authorized visitors are shown in **Table 1**. Modal splits, and auto and taxi occupancy rates were based on factors from the same data sources assigned to the non-uniformed staff and clinical/medical staff - reverse journey to work census data and applicable FEIS and EAS reports.

Other Visitors (Family & Friends)

Trip generation rates and temporal distribution patterns for family/friends, referred to as "Other Visitors", visiting persons who are detained were based on, DOC provided, 2017 average hourly weekday (Wednesday and Thursday) and weekend visitor registration data for the existing Manhattan and Brooklyn Houses of Detention. In/out split rates were also derived from the 2017 registration data from Manhattan and Brooklyn, with the "in split" being based on the hour of registration and the "out split" being based on the assumption that visitors complete their stay within 2 hours. Modal splits and auto/taxi occupancy rates were based on the May and June 2018 collected mode-share survey data. For Queens and the Bronx, the modal splits selected were based on the assumed Brooklyn factors and include an adjustment to account for each site's relatively lower transit accessibility.

Parole Violations Court

Trip generation rates, temporal distribution, in/out splits and vehicle (auto and taxi) occupancy rates for the court-related spaces included in the programs for the Bronx site were based on the *330 Jay Street FEIS* (1999). Weekday midday mode-splits for court staff were also based on the *330 Jay Street FEIS*. The weekday AM modal split for Bronx parole court staff is assumed to be similar to that of non-uniformed DOC staff and medical/clinic staff expected at the Bronx site. Modal splits for court visitors were assumed to be similar to those used for "other visitors". Truck generation rates, temporal distribution, and in/out split factors were based on the *330 Jay Street FEIS*.

Local Retail

The trip generation rates; and weekday midday and Saturday temporal distributions for the local retail component of the proposed Bronx, Brooklyn and Manhattan sites were based on the 2014 *CEQR Technical Manual*. The weekday early AM temporal distribution was based on data from the *Number 7 Extension Hudson Yards Rezoning and Development Program, Appendix S.1* (2003). The modal splits, directional in/out splits and vehicle occupancy rates for the Bronx and Manhattan sites were based on *Spofford Campus FEIS* (2018) and *Two Bridges LSRD FEIS* (2018), respectively. The modal splits, directional in/out splits and the vehicle occupancy rates for the Brooklyn site were based on the results of a DOT survey of local retail in Downtown Brooklyn and *Atlantic Yards Arena and Redevelopment FSEIS,* respectively. For all three sites, truck trip generation rates and temporal distributions were based on the 2014 *CEQR Technical Manual*. Lastly, a 25 percent linked-trip credit for local retail use is assumed for each site.

Community Center

The trip generation rates and the temporal distributions for the community center component of the proposed Bronx and Queens sites were based on the 2014 *CEQR Technical Manual* rates for a Health Club. The modal and directional in/out splits and the vehicle occupancy rates were based on the following references: *Spofford Campus FEIS* for the Bronx and *Downtown Jamaica Redevelopment Plan FEIS* (2007) for Queens. The truck trip generation rates, temporal distributions and in/out splits also based on *Spofford Campus FEIS* and *Downtown Jamaica Redevelopment Plan FEIS*.

Residential

The person-trip generation rates; and truck trip generation rates and temporal distributions for the residential component of the proposed Bronx site were based on the 2014 *CEQR Technical Manual*. Temporal distributions and in/out splits were based on the results of a DOT city-wide survey of residential use. Modal splits and vehicle occupancy rates were based on 2012-2016 five-year journey to work data for the following Bronx census tracts – 19, 27.02, 31, 33, 35, 37, 39 and 41.

FUTURE NO-ACTION & WITH-ACTION ASSUMPTIONS

In the absence of the project, it is anticipated that Rikers Island would continue operating as the city's main detention center and the existing Manhattan and Brooklyn detention centers would remain in use with no change in operation. In addition, it is assumed the Queens facility would not be reopened as a fully functioning detention facility and the Bronx site would remain a tow-pound. Therefore, for planning purposes, it is assumed that travel demand to and from the sites under the No-Action condition would be similar to existing conditions.

In the future 2027 With-Action condition, the proposed jail system would accommodate an average of 5,000 person across the system. As the population level of persons in detention vary at any given time, additional beds would be provided across the system to ensure the population can be accommodated during periods of higher than average detention rates. Therefore, for analysis purposes it is assumed that each site would include a maximum bed count of 1,510 beds.

Table 3 provides a comparison of the anticipated bed count and staffing and visitor levels under the No-Action and With-Action scenarios. A comparison of gross square footage of community center and local retail uses as well as the number of proposed dwelling units are also provided in **Table 3**. For the future No-Action scenario (same as existing conditions), the number of uniformed staff, non-uniformed staff, clinical/medical staff, parole court staff and visitors are based on data provided by DOC, CHS and City Hall. For the With-Action scenario, future detention facility staffing levels were also based on projections provided by DOC and CHS.

The number of parole violations court staff and visitors is based on daily staffing information and visitor log data from late June and early July 2018 for the existing justice center on Rikers Island. As the parole violations court would be relocated to the proposed Bronx site, future operations and staffing is expected to remain the same as it is on Rikers. However, the number of visitors is expected to be higher in the future as the court would be located in an area that is well served by transit. According to the provided visitor data, on average, the facility attracted 53 visitors a day. For planning purposes, the travel demand forecast assumed an average of 175 future visitors, or one per case heard by a judge (there are seven judges and each hears approximately 25 cases a day).

Table 3
2027 No-Action and With-Action Bed Count, Staffing, Community/Retail Space and Dwelling Units

		No-Action	With-Action	Increment
124-125 White Street, Manhattan	**Beds**	898	1,510	**+612**
	Uniformed Staff (Weekdays)	323	642	**+319**
	Uniformed Staff (Saturday)	272	544	**+272**
	Non-Uniformed Staff	26	144	**+118**
	Clinical/Medical Staff	55	90	**+35**
	Local Retail (sf)	5,300	20,000	**+14,700**
275 Atlantic Avenue, Brooklyn	**Beds**	815	1,510	**+695**
	Uniformed Staff (Weekdays)	228	642	**+414**
	Uniformed Staff (Saturday)	189	544	**+355**
	Non-Uniformed Staff	15	144	**+129**
	Clinical/Medical Staff	52	90	**+38**
	Local Retail (sf)	0	30,000	**+30,000**
126-02 82nd Avenue, Queens	**Beds**	0	1,510	**+1,510**
	Uniformed Staff (Weekdays)	0	642	**+642**
	Uniformed Staff (Saturday)	0	544	**+544**
	Non-Uniformed Staff	0	144	**+144**
	Clinical/Medical Staff	0	110	**+110**
	Community Center (sf)	0	25,000	**+25,000**
745 East 141st Street Avenue, Bronx	**Beds**	0	1,510	**+1,510**
	Uniformed Staff (Weekdays)	0	642	**+642**
	Uniformed Staff (Saturday)	0	544	**+544**
	Non-Uniformed Staff	0	144	**+144**
	Clinical/Medical Staff	0	90	**+90**
	Parole Court Staff	0	55	**+55**
	Parole Court Visitors	0	175	**+175**
	Community Center (sf)	0	42,500[1]	**+42,500[1]**
	Local Retail (sf)	0	28,500[1]	**+28,500[1]**
	Residential (DUs)	0	235	**+235**

Note: [1] The planned community center and local retail spaces would be located in two buildings. The detention center facility includes 27,000 and 13,000 gsf of community center space and local retail space, respectively. The remaining 15,500 gsf of community center space and 15,500 gsf of local retail space is assumed to be within the proposed mixed-use building on the site.

At the Manhattan site, the portion of White Street between Centre Street and Baxter Street would be demapped as part of the project in order to allow the future building to occupy space above and below the street. While this demapped portion of White Street would no longer allow vehicular traffic, the street will continue functioning as a pedestrian corridor. As a result of the closure to traffic, existing traffic turning onto and off of White Street would be diverted and rerouted.

As the Queens site includes the portion of 82nd Avenue between 126th Street and 132nd Street, this section of 82nd Avenue will be demapped as part of the project. In connection with this demapping and closing of 82nd Avenue, changes in traffic operations on the adjoining streets are proposed in order to improve circulation and facilitate access to the site. As part of the project, 126th Street would be converted to two-way operation to match existing operations on 82nd Avenue. This street direction conversion effectively turns 126th Street into a new extension of 82nd Avenue. The conversion of 126th Street from one-way eastbound to two-way would allow vehicles leaving the Queens County Criminal Court campus to turn-

right onto Union Turnpike. 132nd Street would also be converted to two-way operation. Under existing conditions, 132nd Street carries traffic one-way eastbound between 82nd and Hoover Avenues; and one-way westbound between 82nd Avenue and Union Turnpike. Converting the two street segments to two-way operation would allow vehicles to turn onto 132nd Street from the T-intersections at either end of the street. These proposed operational street changes will be reflected in the With-Action condition analyses.

LEVEL 1 AND 2 SCREENING

According to the 2014 *CEQR Technical Manual* guidelines, a two-tier screening process is used to determine whether quantified analyses of any technical areas of transportation system are necessary. A Level 1 screening is typically necessary if a proposed project has the potential to exceed either 50 vehicle trips, 200 transit trips, or 200 pedestrian trips during any given peak hour. If these thresholds are exceeded, a Level 2 screening assessment is required in order to determine if there would be 50 vehicle trips, 50 bus trips, 200 subway/rail trips, or 200 pedestrian trips assigned to an individual transportation element (intersections, bus routes, subway stations, etc.) during any analysis peak hour. If any Level 2 screening thresholds are exceeded, then detailed analysis would be warranted. Based on the planning factors shown in **Table 1** and **Table 2**, a preliminary travel demand forecast (Level 1 screening) was prepared for the incremental differences between the 2027 No-Action and With-Action conditions for each site. Also discussed below is the Level 2 screening assessment for each site which identifies locations that would exceed *CEQR Technical Manual* thresholds and that which would require an impact analysis.

Manhattan Site (124-125 White Street)

Travel Demand Forecast

A summary of the incremental travel demand forecast for the Manhattan site is provided in **Table 4**. The full travel demand forecast for all staff and visiting persons is included in the attached **Appendix**. The full forecast includes in and out trips by auto, subway, public bus, and walk/other modes as well as estimated in/out vehicle, taxi, and bus/truck trips.

Table 4
Travel Demand Forecast Summary

	Manhattan Site			
Trips	**Weekday AM**	**Weekday Midday**	**Weekday PM**	**Saturday**
Vehicle	120	145	24	123
Subway	134	180	56	151
Bus	29	56	20	41
Walk-only	6	362	188	225
Pedestrian[1]	169	598	264	417

Notes: [1]Includes walk-only trips and the walking portions of trips to and from subway stations and bus stops.

Traffic

Based on the factors outlined above and as shown in **Table 4**, the site would generate approximately 120, 145, 24 and 123 vehicle trips during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. As the site would generate more than 50 incremental vehicle trips during the weekday AM, weekday midday, and Saturday peak periods, a more detailed analysis is warranted.

The street network in the Manhattan Civic Center is generally setup in a grid with roads in successive alternating directions. Traffic entering and exiting the area proximate to the site, i.e., the "study area", would be dispersed along the corridors that provide direct access to the three major bridges in the area – the Williamsburg, Manhattan, and Brooklyn Bridges – and to the two Lower Manhattan waterfront highways – Route 9a and the FDR Drive.

Figure 5, shows the net future change in vehicle trips as a result of the project, during the weekday AM, weekday midday, weekday PM and Saturday peak periods. As shown in **Figure 5**, traffic would concentrate along Baxter Street and Centre Street, the east and west frontages of the site. Staff vehicles and vehicles associated with the local retail use were assigned to the east frontage on Baxter Street. Loading vehicles, DOC transport buses, visitor vehicles, and staff drop-off/pickup trips were assigned to the west frontage on Centre Street. With looking at incremental trips generated by the site in isolation, the following two intersections are expected to exceed the 50 vehicles per hour threshold: Baxter Street and Walker Street; and Mulberry Street and Bayard Street. However, as the closure of White Street would result in diversion of some traffic at intersections neighboring the site, there is a potential that a net increase in vehicles would exceed the 50 vehicles per hour threshold at addition intersections. With the inclusion of diverted traffic, two additional intersections would exceed the threshold: Centre Street and Leonard Street/Hogan Place; and Centre Street and Walker Street.

Subway & Bus

Based on the factors outlined above and as shown in **Table 4**, the site would generate approximately 134 and 56 subway trips during the weekday AM and PM peak periods, respectively. As the site would not generate more than 200 incremental subway trips during the commuter peak periods, a more detailed analysis is not warranted.

According to the travel demand forecast, the site would generate approximately 29 and 20 incremental bus trips during the weekday AM and PM peak periods. As the site would not generate more than 50 incremental bus trips during the commuter peak periods, a more detailed analysis is not warranted.

Pedestrians

Based on the factors outlined above and as shown in **Table 4**, the site would generate approximately 6, 362, 188 and 225 walk-only trips during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. In addition to walk-only trips, subway and bus trips also include walk portions of the trip. Therefore, the project would generate an incremental increase of 169, 598, 264 and 417 pedestrian trips (walk-only plus transit trips) during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. As the total incremental pedestrian trips would exceed the CEQR threshold of 200 or more pedestrian trips during the weekday midday, weekday PM and Saturday peak periods, a more detailed analysis is warranted.

As presented above, the site would generate more than 200 pedestrian trips during the weekday midday, weekday PM and Saturday peak periods. These trips would be concentrated along sidewalks, corners and crosswalks along corridors providing access to the future detention facility entrances and local retail entrances. It is anticipated that subway rider pedestrian trips would concentrate on pedestrian elements along Centre Street en route to and from the site. Trips associated with pedestrians that would utilize one of 17 bus routes would be well dispersed across the study area. The majority of pedestrian trips in the

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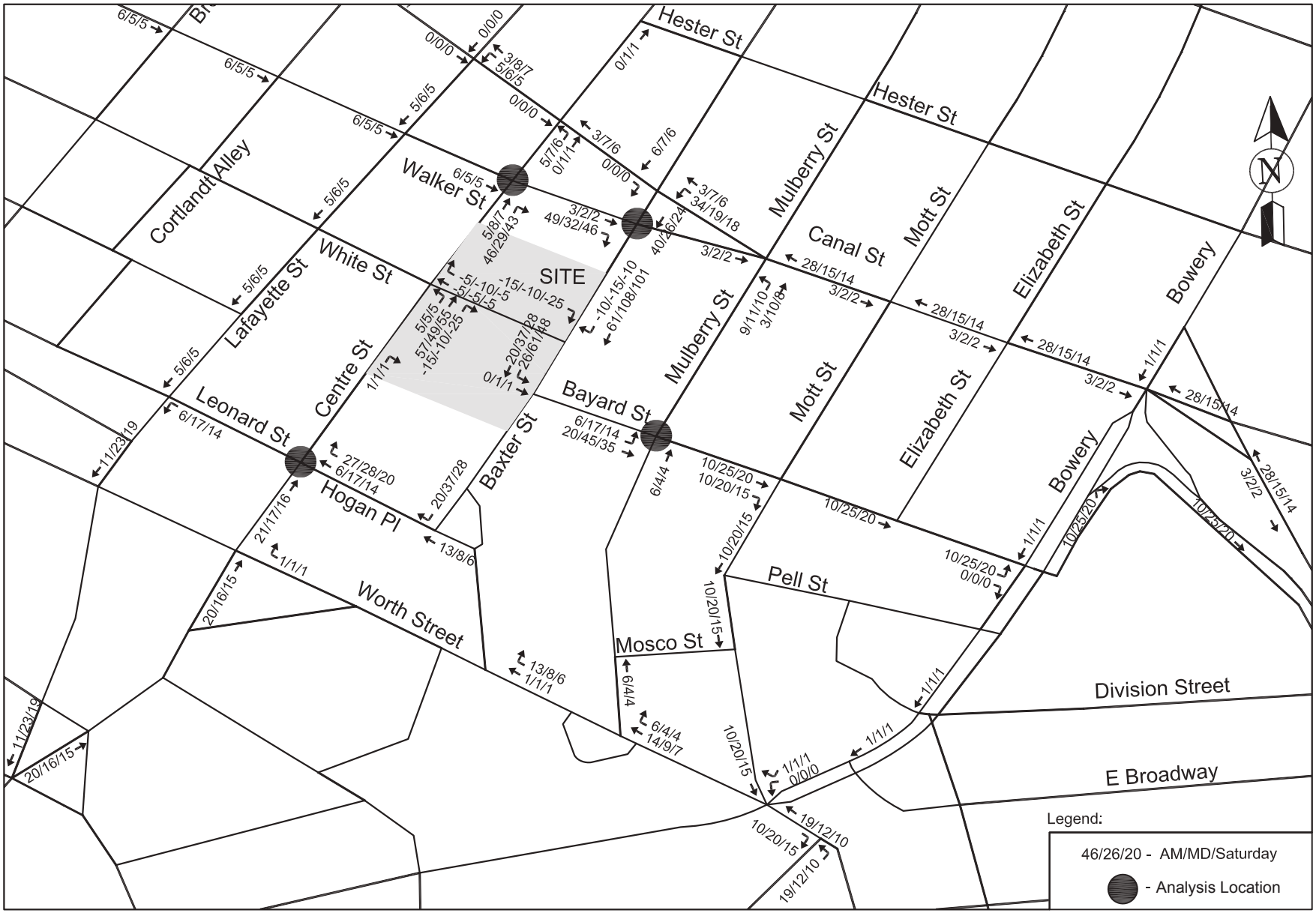

Manhattan Site - 124-125 White Street
Peak Hour Project Increment Traffic Volumes

Figure 5

weekday midday, weekday PM and Saturday peak periods would be generated by the local retail use and these trips would be well dispersed further from the site and then concentrate towards on-site retail entrances. However, as the facility would include two separate entrances (one for staff and another for visitors) and include local retail entrances on both the east and west sides of the site as well as within the proposed White Street pedestrian corridor, not all trips would concentrate at one entrance location. Therefore, it is unlikely that a pedestrian corner, crosswalk, or sidewalk element would attract more than 200 incremental pedestrian trips in any analysis peak hour.

Brooklyn Site (275 Atlantic Avenue)

Travel Demand Forecast

A summary of the incremental travel demand forecast for the Brooklyn site is provided in **Table 5**. The full travel demand forecast for all staff and visiting persons is included in the attached **Appendix**. The full forecast includes in and out trips by auto, subway, public bus, and walk/other modes as well as estimated in/out vehicle, taxi, and bus/truck trips.

Table 5
Travel Demand Forecast Summary

	Brooklyn Site			
Trips	**Weekday AM**	**Weekday Midday**	**Weekday PM**	**Saturday**
Vehicle	217	278	45	217
Subway	92	133	50	110
Bus	23	45	20	34
Walk-only	18	757	392	403
Pedestrian[1]	133	935	462	547

Notes: [1]Includes walk-only trips and the walking portions of trips to and from subway stations and bus stops.

Traffic

Based on the factors outlined above and as shown in **Table 5**, the site would generate approximately 217, 278, 45 and 217 vehicle trips during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. As the site would generate more than 50 incremental vehicle trips during the weekday AM, weekday midday and Saturday peak periods, a more detailed analysis is warranted.

The street network in the Downtown Brooklyn area around the site is generally setup in a grid with roads in successive alternating directions. Traffic entering and exiting the area proximate to the site, i.e., the "study area", would generally utilize the corridors that provide direct access to the Brooklyn-Queens Expressway(BQE), the Brooklyn Bridge, and neighborhoods to the east.

Figure 6, shows the traffic assignment of vehicle trips for the site, during the weekday AM, weekday midday, and Saturday peak periods. As shown in **Figure 6**, traffic would be concentrated along Atlantic Avenue in both directions as it provides access to the BQE and is the main east-west corridor in the study area. Additionally, Boerum Place would carry some traffic as it provides a direct connection to/from the Brooklyn Bridge. Vehicles were generally assigned to the east frontage of the site, where the proposed

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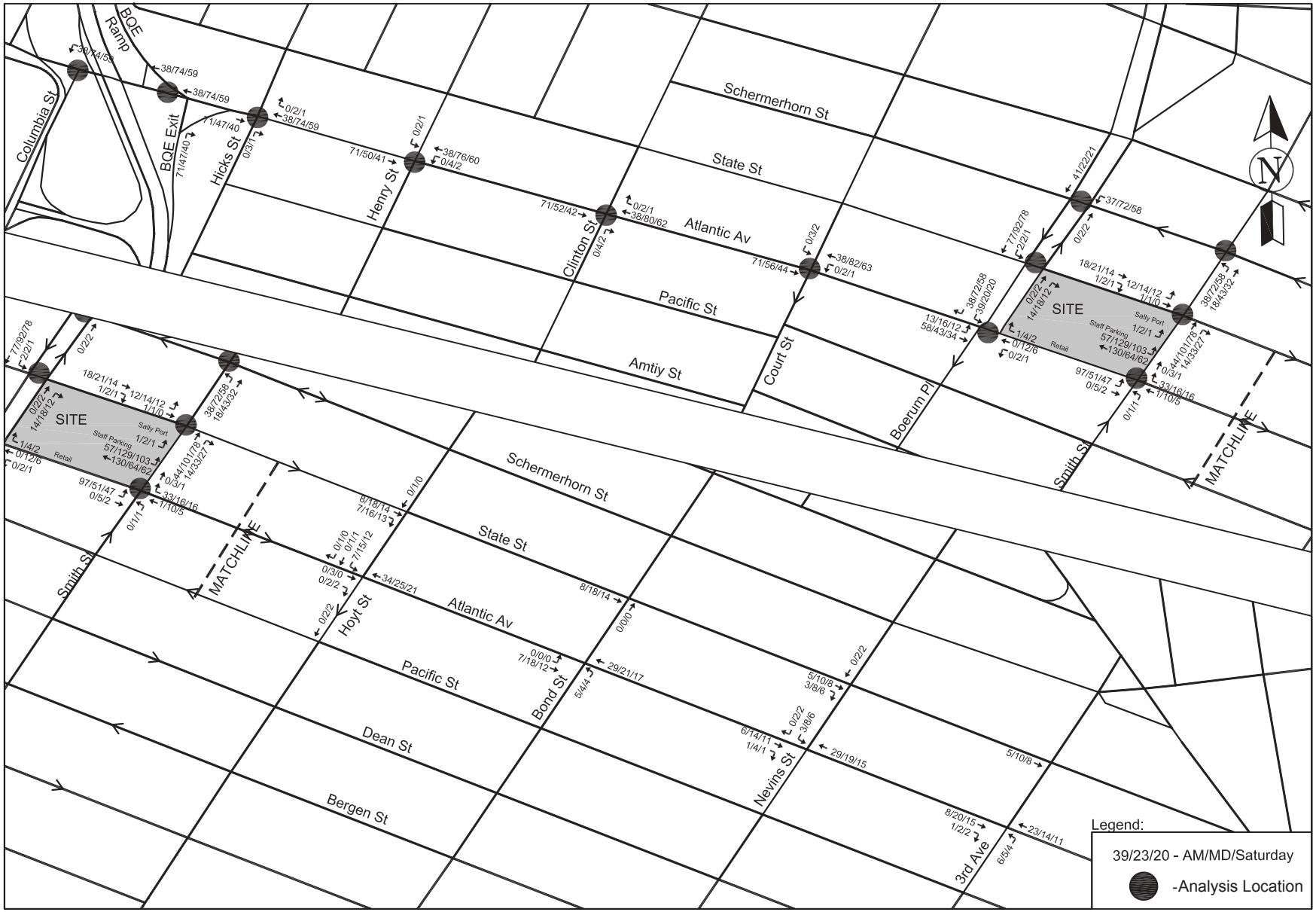


Brooklyn Site - 275 Atlantic Avenue
Peak Hour Project Increment Traffic Volumes

Figure 6

staff parking garage entrance will be located. Based on this assignment, the following twelve intersections are expected to exceed the 50 vehicles per hour threshold:

1. Columbia Street and Atlantic Avenue
2. BQE NB Ramp/Exit and Atlantic Avenue
3. Hicks Street and Atlantic Avenue
4. Henry Street and Atlantic Avenue
5. Clinton Street and Atlantic Avenue
6. Court Street and Atlantic Avenue
7. Boerum Place and Atlantic Avenue
8. Smith Street and Atlantic Avenue
9. Boerum Place and State Street
10. Smith Street and State Street
11. Smith Street and Schermerhorn Street
12. Boerum Place and Schermerhorn Street

Subway & Bus

Based on the factors outlined above and as shown in **Table 5**, the site would generate approximately 92 and 50 subway trips during the weekday AM and PM peak periods, respectively. As the site would not generate more than 200 incremental subway trips during the commuter peak periods, a more detailed subway analysis is not warranted.

According to the travel demand forecast, the site would generate approximately 23 and 20 incremental bus trips during the weekday AM and PM peak periods. As the site would not generate more than 50 incremental bus trips during the commuter peak periods, a detailed analysis is not warranted.

Pedestrians

Based on the factors outlined above and as shown in **Table 5**, the site would generate approximately 18, 757, 392 and 403 walk-only trips during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. In addition to walk-only trips, subway and bus trips also include walk portions of the trip. Therefore, the site would generate an incremental increase of 133, 935, 462 and 547 pedestrian trips (walk-only plus transit trips) during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. As the total incremental pedestrian trips would exceed the CEQR thresholds during the weekday midday, weekday PM and Saturday peak periods, a more detailed analysis is warranted.

As presented above, the site would generate more than 200 pedestrian trips during the weekday midday, weekday PM and Saturday peak periods. These trips would be concentrated along sidewalks, corners and crosswalks along corridors providing access to the future detention facility entrances and local retail entrances. Subway riders are expected to utilize elements along corridors connecting the site to nearby subway station entrances. As there are multiple subway entrances in proximity to the site—Bergen Street (F/G); Hoyt-Schermerhorn (A/G); Hoyt Street (2/3); Jay Street-Metrotech (A/C/F/R); and Borough Hall (4/5)—the pedestrian trips associated with subway riders are not expected to exceed the CEQR thresholds during any of the peak periods. Trips associated with pedestrians that would primarily walk or utilize one of several bus routes would be well dispersed across the study area. The majority of pedestrian trips would be walk-only trips and would be generated by the local retail use. At the site, these local retail walk trips

would be concentrated along the Atlantic Avenue frontage and on the sidewalk spaces around the southern corners of the site.

Although the incremental weekday PM and Saturday pedestrian trips would exceed the CEQR Level 1 threshold, when the number of frontages and entrances are considered, the concentration of pedestrians would be unlikely to exceed the Level 2 threshold on any pedestrian street element. Overall, the following seven pedestrian elements are likely to exceed the CEQR threshold in the weekday midday peak period and therefore necessitate a detailed quantitative analysis:

Corners

1. Southeast corner of Boerum Place and State Street
2. Southwest corner of Smith Street and State Street
3. Northeast corner of Boerum Place and Atlantic Avenue
4. Northwest corner of Smith Street and Atlantic Avenue

Sidewalks

1. East sidewalk of Boerum Place between State Street and Atlantic Avenue
2. West sidewalk of Smith Street between State Street and Atlantic Avenue
3. North sidewalk of Atlantic Avenue between Boerum Place and Smith Street

Queens Site (126-01 82nd Street)

Travel Demand Forecast

A summary of the incremental travel demand forecast for the Queens site is provided in **Table 6**. The full travel demand forecast for all staff and visiting persons is included in the attached **Appendix**. The full forecast includes in and out trips by auto, subway, public bus, and walk/other modes as well as estimated in/out vehicle, taxi, and bus/truck trips.

Table 6
Travel Demand Forecast Summary

	Queens Site			
Trips	**Weekday AM**	**Weekday Midday**	**Weekday PM**	**Saturday**
Vehicle	385	410	66	336
Subway	85	117	54	102
Bus	32	40	23	34
Walk-only	59	108	60	68
Pedestrian[1]	176	265	137	204

Notes: [1]Includes walk-only trips and the walking portions of trips to and from subway stations and bus stops.

Traffic

Based on the factors outlined above and as shown in **Table 6**, the site would generate approximately 385, 410, 66 and 336 vehicle trips during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. As the site would generate more than 50 incremental vehicle trips during all peak periods, a more detailed analysis is warranted.

Several major corridors serve the street network around the Site. These include the Grand Central Parkway, Union Turnpike, Jackie Robinson Parkway, Van Wyck Expressway, and Queens Boulevard. Traffic entering and exiting the area proximate to the site, i.e., the "study area", would be dispersed along these corridors. As Queens Boulevard provides a connection to/from these other corridors, much of the traffic is expected to concentrate on this street.

Figure 7, provides the traffic assignment of vehicle trips for the site, during the weekday AM, weekday midday, and Saturday peak periods. As shown in **Figure 7**, traffic would be concentrated along Queens Boulevard, Union Turnpike Eastbound (EB), 132nd Street, 126th Street, 82nd Avenue and Hoover Avenue. For this assignment, vehicles were assigned assuming a parking/vehicle access entrance for staff along the east frontage of the site (on 132nd Street) and a visitor parking garage entrance along the north side of the site on Union Turnpike (EB), between 126th and 132nd Streets. Based on this assignment, the following seven intersections are expected to exceed the 50 vehicle per hour threshold:

1. Queens Boulevard and 78th Avenue
2. Queens Boulevard and Union Turnpike (EB)
3. Queens Boulevard and Hoover Avenue/83rd Avenue
4. Union Turnpike and 126th Street
5. Union Turnpike and 132nd Street
6. Union Turnpike and 134th Street
7. Hoover Avenue and 132nd Street

Although the 66 incremental weekday PM vehicle trips in the would exceed the CEQR Level 1 threshold, when the number of frontages and arrival/departure options are considered, the concentration of vehicles would unlikely exceed the Level 2 threshold at any one intersection. Therefore, the quantitative traffic analysis will focus on the weekday AM, weekday midday and Saturday peak hours.

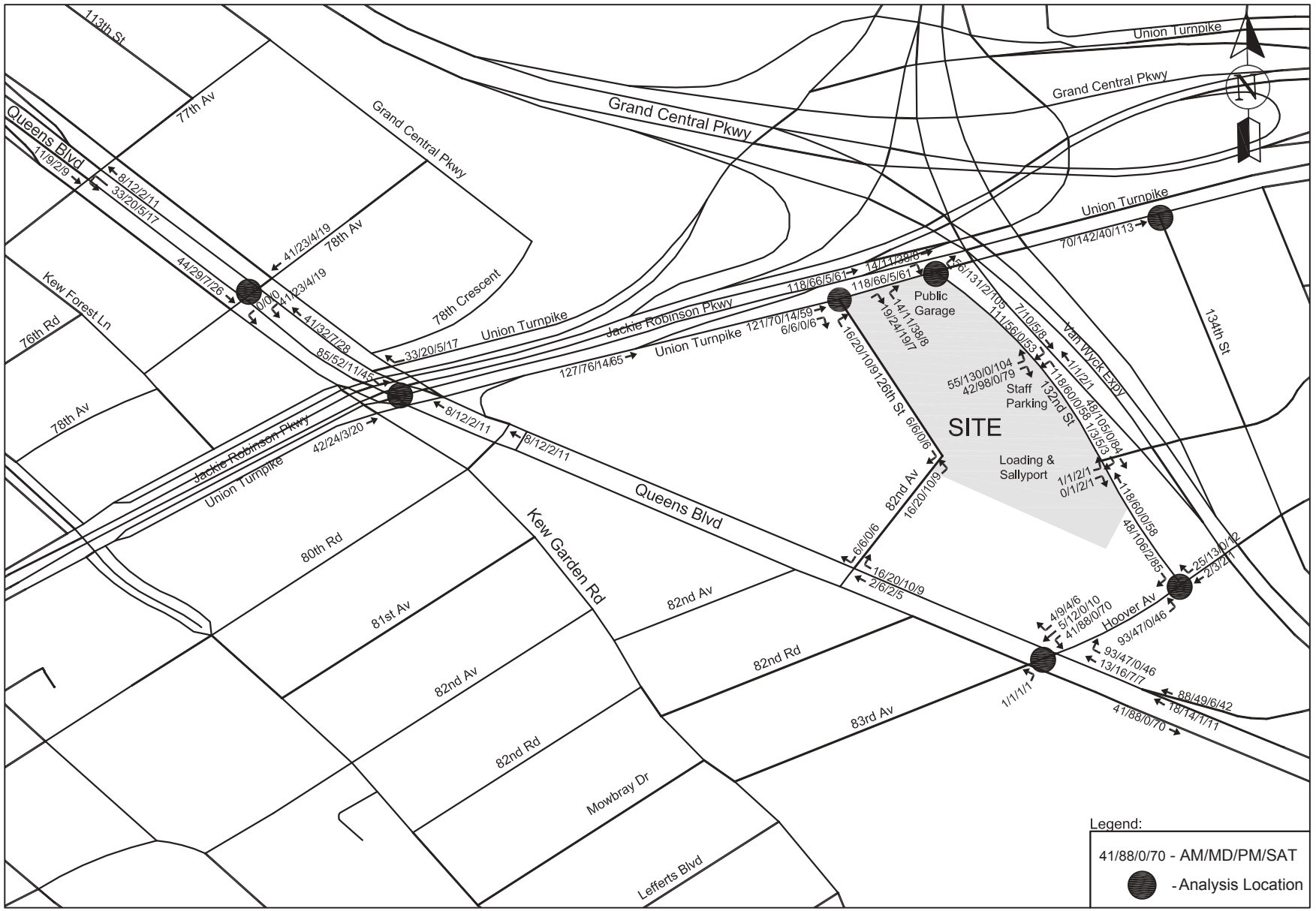
Subway & Bus

Based on the factors outlined above and as shown in **Table 6**, the site would generate approximately 85 and 54 subway trips during the weekday AM and PM peak periods, respectively. As the site would not generate more than 200 incremental subway trips during the commuter peak periods, a more detailed analysis is not warranted.

According to the travel demand forecast, the site would generate approximately 32 and 23 incremental bus trips during the weekday AM and PM peak periods. As the site would not generate more than 50 incremental bus trips during the commuter peak periods, a detailed analysis is not warranted.

Pedestrians

Based on the factors outlined above and as shown in **Table 6**, the site would generate approximately 59, 108, 60 and 68 walk-only trips during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. In addition to walk-only trips, subway and bus trips also include walk portions of the trip. Therefore, the site would generate an incremental increase of 176, 265, 137 and 204 pedestrian trips (walk-only plus transit trips) during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. As the total incremental pedestrian trips would exceed the CEQR threshold of 200 or more pedestrian trips during the weekday midday and Saturday peak periods, a more detailed analysis is warranted.



Queens Site - 126-02 82nd Avenue
Peak Hour Project Increment Traffic Volumes

Figure 7

As presented above, the site would generate more than 200 pedestrian trips during the weekday midday and Saturday peak periods. These trips would be concentrated along sidewalks, corners and crosswalks along corridors providing access to future detention facility entrances and community space entrances. Subway riders are expected to utilize elements along corridors connecting the site to nearby staircase entrances to the Kew Gardens Subway Station. Trips associated with bus riders would concentrate along Queens Boulevard and Kew Gardens Road. Walk-only trips would be well dispersed within the study area as these trips are localized. At the site, pedestrian entrances would be located along 126th Street. However, as there would be separate entrances for staff, visitors, and community space patrons; not all trips would concentrate at one entrance location. Therefore, it is unlikely that a pedestrian corner, crosswalk or sidewalk space would attract more than 200 incremental pedestrian trips in any analysis peak hour.

Bronx Site (745 East 141st Street)

Travel Demand Forecast

A summary of the incremental travel demand forecast for the Bronx site is provided in **Table 7**. The full travel demand forecast for persons traveling to and from the site is included in the attached **Appendix**. The full forecast includes in and out trips by auto, subway, public bus, and walk/other modes as well as estimated in/out vehicle, taxi, and bus/truck trips.

Table 7
Travel Demand Forecast Summary

Trips	Bronx Site			
	Weekday AM	Weekday Midday	Weekday PM	Saturday
Vehicle	394	479	123	382
Subway	142	252	168	215
Bus	50	174	103	121
Walk-only	78	834	436	505
Pedestrian[1]	270	1,260	707	841

Notes: [1]Includes walk-only trips and the walking portions of trips to and from subway stations and bus stops.

Traffic

Based on the factors outlined above and as shown in **Table 7**, the site would generate approximately 394, 479, 123 and 382 vehicle trips during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. As the site would generate more than 50 incremental vehicle trips during all peak periods, a more detailed analysis is warranted.

The majority of vehicles entering and exiting the area proximate to the site, i.e., the "study area", would likely utilize the Major Deegan Expressway and the Bruckner Expressway. Off these major corridors, drivers would utilize the Bruckner Boulevard and East 141st Street, which provide direct access to the site.

Figure 8, provides the preliminary traffic assignment of vehicle trips for the site, during the weekday AM, weekday midday, weekday PM and Saturday peak periods. As shown in **Figure 8**, traffic would be concentrated along East 141st Street and Bruckner Boulevard. Detention facility staff vehicles were

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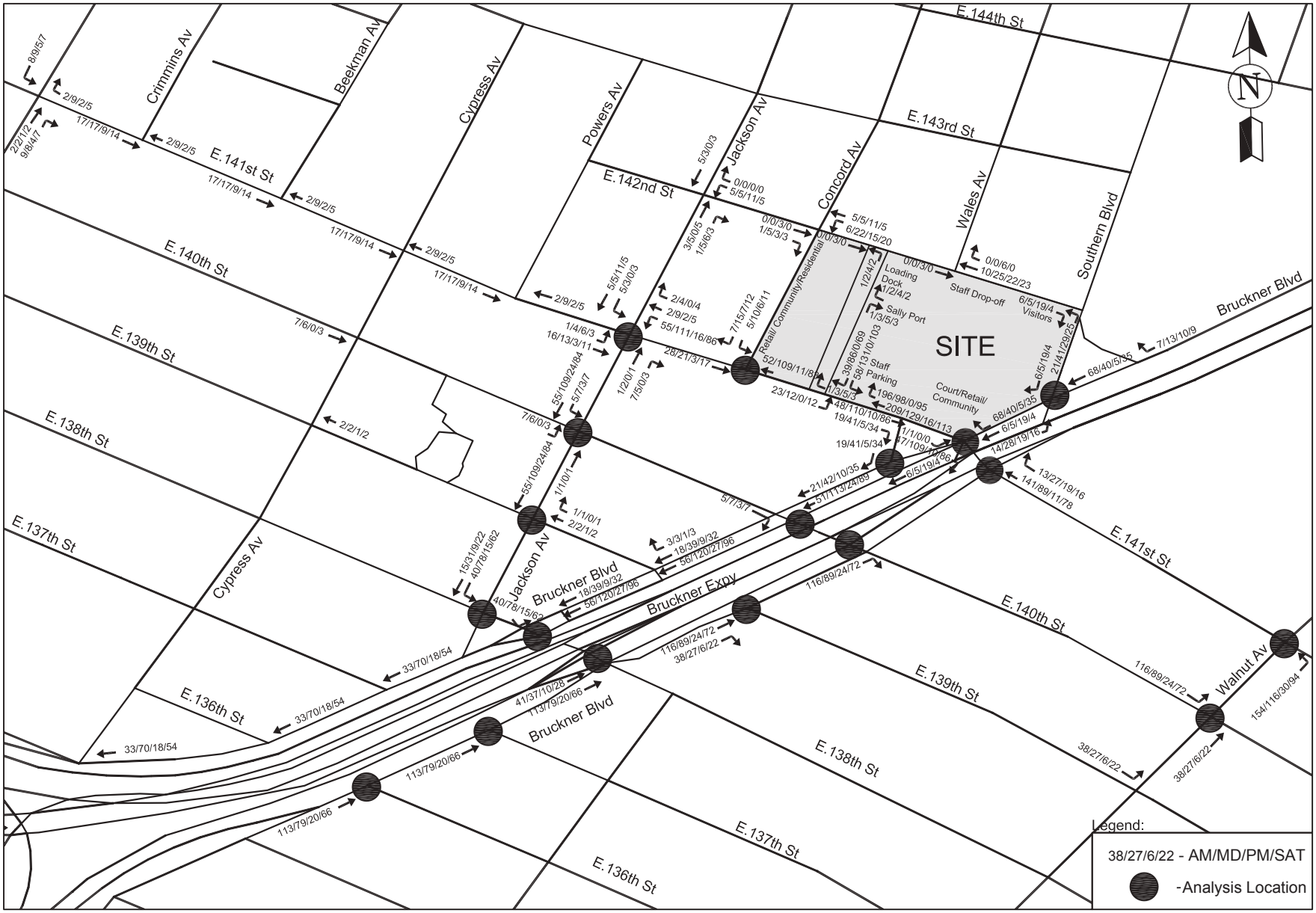

Bronx Site - 745 East 141st Street
Peak Hour Project Increment Traffic Volumes
Figure 8

assigned to the south frontage of the site along East 141st Street where an entrance to a below grade parking garage would be located. Vehicles associated with the parole court, community center space and local retail spaces in the detention facility building were also assigned to East 141st Street. Vehicles associated with the mixed-use community development, which includes the residential program as well as addition community center and local retail space, were assigned to the Concord Avenue frontage. Detention facility visitors and staff being picked or dropped off were assigned to entrances on East 142nd Street. Based on this assignment, the following eighteen intersections are expected to exceed the 50 vehicle per hour threshold:

1. Southern Boulevard and Bruckner Boulevard
2. Bruckner Boulevard (NB) and 141st Street
3. Bruckner Boulevard (SB) and 141st Street
4. Bruckner Boulevard (SB) and Wales Avenue
5. Bruckner Boulevard (NB) and 140th Street
6. Bruckner Boulevard (SB) and 140th Street
7. Bruckner Boulevard (NB) and 139th Street
8. Bruckner Boulevard (NB) and 138th Street
9. Bruckner Boulevard (SB) and 138th Street
10. Bruckner Boulevard (NB) and 137th Street
11. Bruckner Boulevard (NB) and 136th Street
12. Walnut Avenue and 141st Street
13. Walnut Avenue and 140th Street
14. Concord Avenue and 141st Street
15. Jackson Avenue and 141st Street
16. Jackson Avenue and 140th Street
17. Jackson Avenue and 139th Street
18. Jackson Avenue and 138th Street

Although the 114 incremental weekday PM vehicle trips in the would exceed the CEQR Level 1 threshold, when the number of frontages, entrances and arrival/departure options are considered, the concentration of vehicles would unlikely exceed the Level 2 threshold at any one intersection. Therefore, the quantitative traffic analysis will focus on the weekday AM, weekday midday and Saturday peak hours.

Subway & Bus

Based on the factors outlined above and as shown in **Table 7**, the site would generate approximately 142 and 168 subway trips during the weekday AM and PM peak periods, respectively. As the site would not generate more than 200 incremental subway trips during the commuter peak periods, a more detailed analysis is not warranted.

According to the travel demand forecast, the site would generate approximately 50 and 103 incremental bus trips during the weekday AM and PM peak periods. As the site would not generate more than 50 incremental bus trips during the morning commuter period, a detailed weekday AM analysis is not warranted. Of the 103 incremental PM bus trips, approximately 47 would be in the inbound direction and 56 in the outbound direction. There are two MTA bus routes operating within a quarter mile radius of the site – the Bx17 and Bx33 bus routes. As the bus trips would be distributed along these routes and in both inbound/outbound directions, it is unlikely 50 trips would be added to a particular route in one direction. Therefore, a more detailed analysis of the evening commuter period is not warranted.

Pedestrians

Based on the factors outlined above and as shown in **Table 7**, the site would generate approximately 78, 834, 436 and 505 walk-only trips during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. In addition to walk-only trips, subway and bus trips also include walk portions of the trip. Therefore, the site would generate an incremental increase of 270, 1,260, 707 and 841 pedestrian trips (walk-only plus transit trips) during the weekday AM, weekday midday, weekday PM and Saturday peak periods, respectively. As the total incremental pedestrian trips would exceed the CEQR threshold of 200 or more pedestrian trips during all peak periods, a more detailed analysis is warranted.

As presented above, the site would generate more than 200 pedestrian trips during all peak periods. These trips would be concentrated along sidewalks, corners and crosswalks along corridors providing access to the site's entrances. These pedestrian entrances include two for the detention facility (one for staff and another for visitors), entrances along the Concord Avenue frontage of the proposed mixed-use development, one for the included parole violations court and an entrance to the community/local retail space within the detention facility building. Subway riders are expected to utilize elements along corridors connecting the site to subway stair entrances at 143rd Street to the north of the site and at East 138th Street to the south. Trips associated with walk-only pedestrians would be well dispersed across the study area. Bus riders would walk to/from BX17 or BX33 stops located south of the site on 138th Street and west of the site on St. Ann's Avenue. Overall, along the site's block frontages, pedestrian trips are anticipated to concentrate on Concord Avenue and East 141st Street.

Although the incremental weekday AM and weekday PM pedestrian trips would exceed the CEQR Level 1 threshold, when the number of frontages and entrances are considered, the concentration of pedestrians would be unlikely to exceed the Level 2 threshold on any pedestrian street element. Overall, the following six pedestrian elements are expected to exceed the CEQR threshold in the weekday midday and/or Saturday peak period and therefore necessitate a detailed quantitative analysis:

Corners

1. Northwest corner of Bruckner Boulevard and East 141st Street
2. Northeast corner of East 141st Street and Jackson Avenue
3. Southeast corner of East 141st Street and Jackson Avenue

Sidewalks

1. North sidewalk of East 141st Street between Concord Avenue and Bruckner Boulevard
2. East sidewalk of Concord Avenue between East 141st Street and East 142nd Street

APPENDIX

Travel Demand Forecasts by Site
&
DOC Staff and Visitors Mode-Share Memo

Incremental Travel Demand Forecast - Manhattan

Land Use:		Uniformed Staff		Non-uniformed Staff		Clinic Staff		Authorized Visitors		Other Visitors		Manhattan Local Retail		Total	
Size/Units:	**Weekday**	319		118		35		612 beds				14,700 gsf			
	Saturday	272		118		35									
Peak Hour Trips:															
	AM	186		86		2		28		1		0		303	
	Midday	190		92		7		24		18		428		759	
	PM	0		0		0		45		17		226		288	
	Saturday	158		92		7		5		21		266		549	
Person Trips:															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	63	34	17	0	1	0	3	2	0	0	0	0	84	36
	Taxi	4	2	6	0	0	0	1	1	0	0	0	0	11	3
	Subway	41	22	52	0	1	0	10	7	1	0	0	0	105	29
	Bus	9	5	11	0	0	0	3	1	0	0	0	0	23	6
	Walk/Ferry/Other	4	2	0	0	0	0	0	0	0	0	0	0	4	2
	Total	121	65	86	0	2	0	17	11	1	0	0	0	227	76
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	37	64	0	18	1	0	4	1	1	1	4	4	47	88
	Taxi	3	4	0	6	0	0	1	0	0	0	6	6	10	16
	Subway	23	39	0	56	5	0	11	4	8	8	13	13	60	120
	Bus	5	9	0	12	1	0	2	1	0	0	13	13	21	35
	Walk/Ferry/Other	2	4	0	0	0	0	0	0	0	0	178	178	180	182
	Total	70	120	0	92	7	0	18	6	9	9	214	214	318	441
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	3	6	1	1	2	2	6	9
	Taxi	0	0	0	0	0	0	1	2	0	0	3	3	4	5
	Subway	0	0	0	0	0	0	9	18	8	7	7	7	24	32
	Bus	0	0	0	0	0	0	2	4	0	0	7	7	9	11
	Walk/Ferry/Other	0	0	0	0	0	0	0	0	0	0	94	94	94	94
	Total	0	0	0	0	0	0	15	30	9	8	113	113	137	151
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	36	47	0	18	1	0	0	0	1	2	3	3	41	70
	Taxi	3	3	0	6	0	0	0	0	0	1	4	4	7	14
	Subway	22	30	0	56	5	0	3	2	5	12	8	8	43	108
	Bus	5	7	0	12	1	0	0	0	0	0	8	8	14	27
	Walk/Ferry/Other	2	3	0	0	0	0	0	0	0	0	110	110	112	113
	Total	68	90	0	92	7	0	3	2	6	15	133	133	217	332
Vehicle Trips :															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	53	29	13	0	1	0	2	1	0	0	0	0	69	30
	Taxi	4	2	4	0	0	0	1	1	0	0	0	0	9	3
	Taxi Balanced	4	4	4	4	0	0	2	2	0	0	0	0	10	10
	Truck/Bus	1	0	0	0	0	0	0	0	0	0	0	0	1	0
	Total	58	33	17	4	1	0	4	3	0	0	0	0	80	40
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	31	54	0	13	1	0	3	1	1	1	2	2	38	71
	Taxi	3	4	0	4	0	0	1	0	0	0	4	4	8	12
	Taxi Balanced	6	6	4	4	0	0	1	1	0	0	6	6	17	17
	Truck/Bus	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	Total	38	61	4	17	1	0	4	2	1	1	8	8	56	89
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	2	4	1	1	1	1	4	6
	Taxi	0	0	0	0	0	0	1	1	0	0	2	2	3	3
	Taxi Balanced	0	0	0	0	0	0	2	2	0	0	3	3	5	5
	Truck/Bus	2	2	0	0	0	0	0	0	0	0	0	0	2	2
	Total	2	2	0	0	0	0	4	6	1	1	4	4	11	13
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	31	40	0	13	1	0	0	0	1	1	2	2	35	56
	Taxi	3	3	0	4	0	0	0	0	0	1	3	3	6	11
	Taxi Balanced	5	5	4	4	0	0	0	0	1	1	5	5	15	15
	Truck/Bus	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	Total	37	46	4	17	1	0	0	0	2	2	7	7	51	72

Note:
25% linked trip credit taken for local retail use

Land Use:		Uniformed Staff	Non-uniformed Staff	Clinic Staff	Authorized Visitors	Other Visitors	Brooklyn Local Retail	Total
Size/Units:	**Weekday**	414	129	38	695 beds		30,000 gsf	
	Saturday	355	129	38				
Peak Hour Trips:								
	AM	241	94	3	32	1	0	371
	Midday	247	101	8	27	20	876	1,279
	PM	0	0	0	51	19	460	530
	Saturday	206	101	8	6	24	460	805

Person Trips:

		Uniformed Staff		Non-uniformed Staff		Clinic Staff		Authorized Visitors		Other Visitors		Brooklyn Local Retail		Total	
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	121	65	29	0	1	0	6	4	0	0	0	0	157	69
	Taxi	8	4	0	0	0	0	0	0	0	0	0	0	8	4
	Subway	22	12	41	0	2	0	8	6	1	0	0	0	74	18
	Bus	2	1	15	0	0	0	3	2	0	0	0	0	20	3
	Walk/Ferry/Other	4	2	9	0	0	0	2	1	0	0	0	0	15	3
	Total	157	84	94	0	3	0	19	13	1	0	0	0	274	97
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	71	120	0	31	3	0	6	2	1	1	48	48	129	202
	Taxi	5	8	0	0	0	0	0	0	0	0	0	0	5	8
	Subway	12	22	0	44	3	0	9	3	6	8	13	13	43	90
	Bus	1	2	0	17	1	0	3	1	1	1	9	9	15	30
	Walk/Ferry/Other	2	4	0	9	1	0	2	1	1	1	368	368	374	383
	Total	91	156	0	101	8	0	20	7	9	11	438	438	566	713
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	5	11	1	1	25	25	31	37
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	0	0	0	7	15	8	6	7	7	22	28
	Bus	0	0	0	0	0	0	3	6	0	1	5	5	8	12
	Walk/Ferry/Other	0	0	0	0	0	0	1	3	1	1	193	193	195	197
	Total	0	0	0	0	0	0	16	35	10	9	230	230	256	274
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	69	90	0	31	2	0	1	1	1	2	27	23	100	147
	Taxi	5	6	0	0	0	0	0	0	0	0	0	0	5	6
	Subway	12	16	0	44	4	0	2	1	5	12	8	6	31	79
	Bus	1	2	0	17	1	0	1	0	1	2	5	4	9	25
	Walk/Ferry/Other	2	3	0	9	1	0	0	0	0	1	213	174	216	187
	Total	89	117	0	101	8	0	4	2	7	17	253	207	361	444

Vehicle Trips :

		Uniformed Staff		Non-uniformed Staff		Clinic Staff		Authorized Visitors		Other Visitors		Brooklyn Local Retail		Total	
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	105	57	24	0	1	0	5	3	0	0	0	0	135	60
	Taxi	8	4	0	0	0	0	0	0	0	0	0	0	8	4
	Taxi Balanced	10	10	0	0	0	0	0	0	0	0	0	0	10	10
	Truck/Bus	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	Total	116	68	24	0	1	0	5	3	0	0	0	0	146	71
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	62	104	0	25	2	0	5	2	1	1	24	24	94	156
	Taxi	5	8	0	0	0	0	0	0	0	0	0	0	5	8
	Taxi Balanced	12	12	0	0	0	0	0	0	0	0	0	0	12	12
	Truck/Bus	1	1	0	0	0	0	0	0	0	0	1	1	2	2
	Total	75	117	0	25	2	0	5	2	1	1	25	25	108	170
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	4	9	1	1	13	13	18	23
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck/Bus	2	2	0	0	0	0	0	0	0	0	0	0	2	2
	Total	2	2	0	0	0	0	4	9	1	1	13	13	20	25
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	60	78	0	25	2	0	1	1	1	1	14	12	78	117
	Taxi	5	6	0	0	0	0	0	0	0	0	0	0	5	6
	Taxi Balanced	10	10	0	0	0	0	0	0	0	0	0	0	10	10
	Truck/Bus	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	Total	71	89	0	25	2	0	1	1	1	1	14	12	89	128

Note:
25% linked trip credit taken for local retail use

Land Use:		Uniformed Staff		Non-uniformed Staff		Clinic Staff		Authorized Visitors		Other Visitors		Queens Community Center		Total	
Size/Units:	**Weekday**	642		144		110		1,510 beds				25,000 gsf			
	Saturday	544		144		110									
Peak Hour Trips:															
	AM	374		105		7		70		2		45		603	
	Midday	383		112		23		59		43		101		721	
	PM	0		0		0		110		41		56		207	
	Saturday	316		112		23		13		53		59		576	
Person Trips:															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	207	111	55	0	3	0	22	15	0	0	1	1	288	127
	Taxi	7	4	1	0	0	0	0	0	0	0	0	0	8	4
	Subway	25	14	24	0	2	0	10	6	2	0	1	1	64	21
	Bus	2	1	15	0	1	0	6	4	0	0	2	1	26	6
	Walk/Ferry/Other	2	1	10	0	1	0	4	3	0	0	23	15	40	19
	Total	243	131	105	0	7	0	42	28	2	0	27	18	426	177
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	121	205	0	59	13	0	23	8	4	5	3	2	164	279
	Taxi	4	7	0	1	0	0	0	0	0	0	1	0	5	8
	Subway	15	25	0	25	5	0	10	4	14	16	2	1	46	71
	Bus	1	2	0	16	3	0	6	2	2	2	3	3	15	25
	Walk/Ferry/Other	1	2	0	11	2	0	4	2	0	0	47	39	54	54
	Total	142	241	0	112	23	0	43	16	20	23	56	45	284	437
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	18	40	5	4	1	2	24	46
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	0	0	0	8	17	15	13	0	1	23	31
	Bus	0	0	0	0	0	0	5	11	2	2	1	2	8	15
	Walk/Ferry/Other	0	0	0	0	0	0	4	7	0	0	14	35	18	42
	Total	0	0	0	0	0	0	35	75	22	19	16	40	73	134
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	115	153	0	59	13	0	5	2	3	8	1	2	137	224
	Taxi	4	5	0	1	0	0	0	0	0	1	0	0	4	7
	Subway	14	19	0	25	5	0	2	1	9	25	1	1	31	71
	Bus	1	2	0	16	3	0	1	1	2	4	2	2	9	25
	Walk/Ferry/Other	1	2	0	11	2	0	1	0	0	1	24	26	28	40
	Total	135	181	0	112	23	0	9	4	14	39	28	31	209	367
Vehicle Trips :															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	180	97	46	0	3	0	18	13	0	0	1	1	248	111
	Taxi	7	4	1	0	0	0	0	0	0	0	0	0	8	4
	Taxi Balanced	11	11	1	1	0	0	0	0	0	0	0	0	12	12
	Truck/Bus	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	Total	192	109	47	1	3	0	18	13	0	0	1	1	261	124
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	105	178	0	50	11	0	19	7	3	3	2	1	140	239
	Taxi	4	7	0	1	0	0	0	0	0	0	1	0	5	8
	Taxi Balanced	11	11	1	1	0	0	0	0	0	0	1	1	13	13
	Truck/Bus	3	2	0	0	0	0	0	0	0	0	0	0	3	2
	Total	119	191	1	51	11	0	19	7	3	3	3	2	156	254
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	15	34	3	3	1	1	19	38
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck/Bus	5	4	0	0	0	0	0	0	0	0	0	0	5	4
	Total	5	4	0	0	0	0	15	34	3	3	1	1	24	42
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	100	133	0	50	11	0	4	2	2	5	1	1	118	191
	Taxi	4	5	0	1	0	0	0	0	0	1	0	0	4	7
	Taxi Balanced	9	9	1	1	0	0	0	0	1	1	0	0	11	11
	Truck/Bus	3	2	0	0	0	0	0	0	0	0	0	0	3	2
	Total	112	144	1	51	11	0	4	2	3	6	1	1	132	204

Land Use:		Uniformed Staff	Non-uniformed Staff	Clinic Staff	Authorized Visitors	Other Visitors	Bronx Court Staff	Bronx Court Visitors	Bronx Community Center	Bronx Local Retail	Residential	Total
Size/Units:	**Weekday**	642	144	90	1,510 beds		55 Staff	175 Visitors	42,500 gsf	28,500 gsf	235 DU	
	Saturday	544	144	90			10,000 gsf					
Peak Hour Trips:												
	AM	374	105	6	70	2	0	0	76	0	76	709
	Midday	382	112	19	59	43	32	55	172	832	108	1,814
	PM	0	0	0	110	41	21	36	96	438	108	850
	Saturday	316	112	19	13	53	0	0	100	512	152	1,277

Person Trips:

		Uniformed Staff		Non-uniformed Staff		Clinic Staff		Authorized Visitors		Other Visitors		Bronx Court Staff		Bronx Court Visitors		Bronx Community Center		Bronx Local Retail		Residential		Total	
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	207	111	48	0	4	0	20	13	0	0	0	0	0	0	2	1	0	0	3	9	284	134
	Taxi	7	4	2	0	0	0	1	0	0	0	0	0	0	0	4	3	0	0	0	0	14	7
	Subway	25	14	25	0	1	0	10	8	2	0	0	0	0	0	5	4	0	0	11	37	79	63
	Bus	2	1	21	0	1	0	8	5	0	0	0	0	0	0	2	2	0	0	2	6	36	14
	Walk/Ferry/Other	2	1	9	0	0	0	3	2	0	0	0	0	0	0	32	21	0	0	2	6	48	30
	Total	243	131	105	0	6	0	42	28	2	0	0	0	0	0	45	31	0	0	18	58	461	248
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	120	205	0	52	8	0	21	7	4	5	0	0	8	3	4	3	33	33	10	8	208	316
	Taxi	4	7	0	2	0	0	1	0	0	0	0	0	1	0	8	7	0	0	0	0	14	16
	Subway	15	25	0	27	5	0	10	4	14	16	2	1	25	11	11	10	4	4	36	32	122	130
	Bus	1	2	0	22	4	0	9	3	2	2	2	1	4	2	5	4	50	50	6	5	83	91
	Walk/Ferry/Other	1	2	0	9	2	0	3	1	0	0	18	8	1	0	63	57	329	329	6	5	423	411
	Total	141	241	0	112	19	0	44	15	20	23	22	10	39	16	91	81	416	416	58	50	850	964
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	16	35	5	4	2	7	2	4	2	2	18	18	11	6	56	76
	Taxi	0	0	0	0	0	0	1	1	0	0	0	0	0	1	4	4	0	0	0	0	5	6
	Subway	0	0	0	0	0	0	8	18	15	12	2	4	6	18	6	6	2	2	42	27	81	87
	Bus	0	0	0	0	0	0	7	15	2	3	2	3	1	3	2	2	26	26	7	4	47	56
	Walk/Ferry/Other	0	0	0	0	0	0	3	6	0	0	0	1	0	1	34	34	173	173	6	5	216	220
	Total	0	0	0	0	0	0	35	75	22	19	6	15	9	27	48	48	219	219	66	42	405	445
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	116	153	0	52	8	0	4	2	3	8	0	0	0	0	1	3	20	20	12	11	164	249
	Taxi	4	5	0	2	0	0	0	0	0	1	0	0	0	0	3	6	0	0	1	1	8	15
	Subway	14	18	0	27	5	0	2	1	9	25	0	0	0	0	4	8	3	3	49	47	86	129
	Bus	1	2	0	22	4	0	2	1	2	4	0	0	0	0	2	3	31	31	8	8	50	71
	Walk/Ferry/Other	1	2	0	9	2	0	1	0	0	1	0	0	0	0	24	46	202	202	8	7	238	267
	Total	136	180	0	112	19	0	9	4	14	39	0	0	0	0	34	66	256	256	78	74	546	731

Vehicle Trips :

		Uniformed Staff		Non-uniformed Staff		Clinic Staff		Authorized Visitors		Other Visitors		Bronx Court Staff		Bronx Court Visitors		Bronx Community Center		Bronx Local Retail		Residential		Total	
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	180	97	36	0	3	0	15	10	0	0	0	0	0	0	1	1	0	0	3	8	238	116
	Taxi	7	4	1	0	0	0	1	0	0	0	0	0	0	0	3	2	0	0	0	0	12	6
	Taxi Balanced	11	11	1	1	0	0	1	1	0	0	0	0	0	0	5	5	0	0	0	0	18	18
	Truck/Bus	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
	Total	192	109	37	1	3	0	16	11	0	0	0	0	0	0	6	6	0	0	4	9	258	136
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	104	178	0	39	6	0	16	5	3	3	0	0	5	2	3	2	20	20	9	7	166	256
	Taxi	4	7	0	1	0	0	1	0	0	0	0	0	1	0	6	5	0	0	0	0	12	13
	Taxi Balanced	11	11	1	1	0	0	1	1	0	0	0	0	1	1	11	11	0	0	0	0	25	25
	Truck/Bus	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	4	3
	Total	118	191	1	40	6	0	17	6	3	3	0	0	6	3	14	13	21	21	9	7	195	284
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	12	27	3	3	2	6	1	3	1	1	11	11	10	5	40	56
	Taxi	0	0	0	0	0	0	1	1	0	0	0	0	0	1	3	3	0	0	0	0	4	5
	Taxi Balanced	0	0	0	0	0	0	2	2	0	0	0	0	1	1	6	6	0	0	0	0	9	9
	Truck/Bus	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4
	Total	5	4	0	0	0	0	14	29	3	3	2	6	2	4	7	7	11	11	10	5	54	69
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	101	133	0	39	6	0	3	2	2	5	0	0	0	0	1	2	12	12	11	10	136	203
	Taxi	4	5	0	1	0	0	0	0	0	1	0	0	0	0	2	4	0	0	1	1	7	12
	Taxi Balanced	9	9	1	1	0	0	0	0	1	1	0	0	0	0	6	6	0	0	2	2	19	19
	Truck/Bus	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2
	Total	113	144	1	40	6	0	3	2	3	6	0	0	0	0	7	8	12	12	13	12	158	224

Note:

25% linked trip credit taken for local retail use

Philip Habib & Associates
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MEMORANDUM

From: Philip Habib & Associates
Re: DOC Staff and Visitor Factors
Date: July 30th, 2018

The following memorandum summarizes the results of a staff and visitor mode-choice study conducted at the Manhattan and Brooklyn Houses of Detention in May 2018. This study was conducted to facilitate the selection of transportation planning factors to be used as part of the travel demand forecast for the *Borough Based NYC Jails EIS*. Also presented in this memorandum are the proposed mode-choice and vehicle occupancy factors for uniformed staff, non-uniformed staff, and visitors of detained persons (family/friends) for each projected jail site. These factors are based on the results of the mode-choice survey study, AASHTO CTPP Reverse-Journey-to-Work data, and professional judgement.

Survey Data Collection

The staff survey data collection was conducted by the New York City Department of Correction (NYCDOC) on Wednesday, May 30th, 2018 at both the Manhattan and Brooklyn Houses of Detention. The Manhattan House of Detention, or Detention Complex, is located at 125 White Street in the Civic Center neighborhood of Lower Manhattan. The Brooklyn House of Detention is located at 275 Atlantic Avenue in Downtown Brooklyn. Staff members were asked to volunteer responses to a questionnaire on how they traveled to work – see attached Appendix for a sample of the questionnaire. Responders were also asked to identify themselves as uniformed or non-uniformed and to indicate their work shift times. In total, 365 responses were returned by NYCDOC – 288 from Manhattan and 77 from Brooklyn.

In addition, PHA staff interviewed visitors at both detention facilities on Thursday, May 31st, 2018. Visitors were also interviewed on Sunday, June 3rd at the Brooklyn facility. Visitors were surveyed as they waited on line at the security entrance or while they waited in the visitor waiting area. Visitors were asked to identify how many people were in their party, where they were coming from, and how they arrived to each facility. A sample of the visitor survey questionnaire is included in the attached Appendix. In total, 96 responses were collected – 27 from Manhattan and 69 from Brooklyn.

Survey Data Correction

Staff Data

Most staffers that responded to the survey indicated the use of one mode. However, some responses contained multiple selections. So as to not over count mode usages, the following general corrections/modifications were made to the staff data:

(1) If both an auto/taxi and non-auto/taxi use was selected but, a vehicle group size value was not provided, it was assumed the staffer typically utilized the non-auto/taxi mode. However, if a vehicle group size was also provided, and the use of a private auto was selected, the staffer was characterized as an auto user. Yet, if additional information was provided that indicates the staffer may have utilized a long-distance mode, i.e., Metro-North Railroad, Long Island Rail Road, express bus, ferry, it was assumed the staffer drove during the first leg of their trip and not the last. These long distance staffers were included as non-auto/taxi users.

(2) If a user indicated taking a ferry or a commuter rail, it was conservatively assumed they rode a subway to travel between the ferry/rail stop and their place of work.

(3) If both subway and bus modes were selected and no additional information was provided, e.g. transit route/station, it was assumed the staffer was a subway user at final destination.

(4) If both auto and taxi were selected, it was assumed the staffer typically utilizes private auto.

(5) Staffers that were dropped off were included under taxi.

Visitor Data

For calculation purposes the following minor modifications were made to the visitor data:

(1) One Brooklyn response was omitted as mode-choice information was not provided by the visitor.

(2) A mother carrying a one-year old child was included as one person. In addition, she was included as a taxi rider and not a private auto user as she was dropped off by a family member.

Survey Results

Staff Summary

In total, responses from 358 staffers were utilized in the study. Table 1 summarizes the staff mode-choice splits for uniformed and non-uniformed staff at each location. It should be noted that responses for non-uniformed staff at the Brooklyn facility were not provided. As shown in Table 1, the auto and subway mode share rates at Brooklyn were 77.4 and 13.4 percent, respectively. For Manhattan staff, the auto mode share was 52.7 and 20 percent for uniformed and non-

uniformed staff, respectively. The subway mode share rate for uniformed and non-uniformed Manhattan staff was 32.8 and 60 percent, respectively.

Although the sample size of non-uniformed staff in Manhattan is small (15 staffers responded), these values are similar to values calculated from census data for the areas around the site. According to AASHTO CTPP Reverse-Journey-to-Work 2006-2010 data for New York County Census Tracts 15.01, 16, 25, 27, 29, 31, 41, and 45; the auto, subway, and bus shares are 19.0, 60.8, and 11.7 percent, respectively. With the increase in popularity of ride-hail apps and shared riding, i.e., Uber and Lyft, it is not surprising that taxi usage (0.6 percent according to RJTW data versus 6.7 percent according to the survey) would increase at the expense of other modes.

Table 1
Staff Mode-Choice Data

Location	Staff	Auto	Taxi	Subway	Bus	Walk/ Bike/ Other	Total	Vehicle Occupancy Rate	
Brooklyn	**Uniformed**	58	4	10	1	2	75	**Auto**	1.15
		77.4%	5.3%	13.4%	1.3%	2.6%	100%	**Taxi**	1.0
Manhattan	**Uniformed**	141	10	88	21	8	268	**Auto**	1.18
		52.7%	3.7%	32.8%	7.8%	3.0%	100%	**Taxi**	1.1
	Non-Uniformed	3	1	9	2	---	15	**Auto**	1.5
		20.0%	6.7%	60.0%	13.3%	0%	100%	**Taxi**	1.0

Visitor Summary

In total, data on 120 visitors was utilized in the study – 95 responses were included but, 18 responses were provided by parties of 2 or 3 visitors. Table 2 summarizes the visitor mode-choice at each location and in total. Table 3 summarizes the auto and taxi user and occupancy rate data. As shown in Table 2, subway mode share rates were very high at both facilities with utilization rates of 72.8 and 84.6 percent for Brooklyn and Manhattan, respectively. Auto mode share rates were very similar between the two facilities with approximately ten percent of visitors driving to either location.

Table 2
Visitor Mode-Choice Data

Location	Auto	Taxi	Subway	Bus	Walk/Bike/Other	Total
Brooklyn	8	2	59	7	5	81
	10.0%	**2.5%**	**72.8%**	**8.6%**	**6.1%**	**100%**
Manhattan	4	2	33	-	-	39
	10.3%	**5.1%**	**84.6%**	**-**	**-**	**100%**
Total	12	4	92	7	5	120
	10.0%	**3.3%**	**76.8%**	**5.8%**	**4.1%**	**100%**

Table 3
Visitor Auto/Taxi Occupancy Data

Location	Auto Users	Taxi Users	Auto Vehicles	Taxi Vehicles	Auto Occupancy Rate	Taxi Occupancy Rate
Brooklyn	8	2	6	2	1.33	1.0
Manhattan	4	2	2	2	2.0	1.0
Total	**12**	**4**	**8**	**4**	**1.5**	**1.0**

Proposed Planning Factors

Shown in Table 4 are the proposed mode-choice planning factors to be utilized in the estimation of a travel demand forecast for each projected jail location. For Brooklyn and Manhattan, the proposed mode-choice factors for uniformed staff and visitors are based on the results of the staff and visitor survey study. As data on non-uniformed Brooklyn staff was not provided by NYCDOC, the proposed mode-choice factors are based on the AASHTO CTPP Reverse-Journey-to-Work (RJTW) data for Brooklyn Census Tracts 9, 37, 41, 43, 45, 69, and 71. For Manhattan, non-uniformed staff mode-choice factors are based on the survey study results.

For both the Queens site and the tow pound site at 320 Concord Avenue in the Bronx, the uniformed staff and visitor mode-choice factors are based on adjusted Brooklyn factors. These factors were adjusted as these sites are not located in a Central Business District and are less transit accessible. As similarly done for the Brooklyn site, the proposed non-uniformed staff mode-choice factors for the Queens and Bronx sites are based on RJTW data. For Queens, the factors are based on data from Queens County Census Tracts 138, 140, 142.01, 142.02, 212, 214, 216, 220.01, 383.02, 769.02, 773, and 775. 320 Concord Avenue site factors are based on data for Bronx County Census Tracts 19, 27.02, 31, 33, 35, 37, 39, and 41.

For the Brooklyn and Manhattan site, proposed auto and taxi occupancy rates for uniformed staff are based on the survey data collected at each existing facility. For the Queens and Bronx sites, the auto and taxi occupancy rates are based on the Brooklyn survey data.

For all locations, the vehicle occupancy rates for uniformed and non-uniformed staff are based on RJTW data. For all locations, the auto and taxi occupancy rates are based on the combined visitor data results from the Brooklyn and Manhattan surveys.

Table 4
Proposed Mode-Choice Planning Factors

	Uniformed	Non-Uniformed	Visitors
Brooklyn	from Brooklyn survey	RJTW[1]	from Brooklyn survey
Auto	77.4%	31.0%	10.0%
Taxi	5.3%	0.3%	2.5%
Subway	13.4%	43.6%	72.8%
Bus	1.3%	15.9%	8.6%
Walk/Bike/Other	2.6%	9.2%	6.1%
	from Brooklyn survey	RJTW[1]	from surveys
Auto Occ./Taxi Occ.	1.15/1.0	1.22/--	1.5/1.0
Manhattan	from Manhattan survey	from Manhattan survey	from Manhattan survey
Auto	52.7%	20.0%	10.3%
Taxi	3.7%	6.7%	5.1%
Subway	32.8%	60.0%	84.6%
Bus	7.8%	13.3%	0.0%
Walk/Bike/Other	3.0%	0.0%	0.0%
	from Manhattan survey	RJTW[2]	from surveys
Auto Occ./Taxi Occ.	1.18/1.0	1.36/--	1.5/1.0
Queens	assumption	RJTW[3]	assumption
Auto	85.0%	52.9%	20.0%
Taxi	3.0%	0.6%	2.0%
Subway	10.0%	22.5%	65.0%
Bus	1.0%	14.1%	11.0%
Walk/Bike/Other	1.0%	9.9%	2.0%
	from Brooklyn survey	RJTW[3]	from surveys
Auto Occ./Taxi Occ.	1.15/1.0	1.19/--	1.5/1.0
Bronx	assumption	RJTW[4]	assumption
Auto	85.0%	46.1%	20.0%
Taxi	3.0%	1.7%	2.0%
Subway	10.0%	24.2%	65.0%
Bus	1.0%	19.9%	11.0%
Walk/Bike/Other	1.0%	8.1%	2.0%
	from Brooklyn survey	RJTW[4]	from surveys
Auto Occ./Taxi Occ.	1.15/1.0	1.32/--	1.5/1.0

[1] Based on AASHTO CTPP RJTW data for Kings County Census Tracts 9, 37, 41, 43, 45, 69, and 71.
[2] Based on AASHTO CTPP RJTW data for New York County Census Tracts 15.01, 16, 25, 27, 29, 31, 41, and 45.
[3] Based on AASHTO CTPP RJTW data for Queens County Census Tracts 138, 140, 142.01, 142.02, 212, 214, 216, 220.01, 383.02, 769.02, 773, and 775.
[4] Based on AASHTO CTPP RJTW data for Bronx County Census Tracts 19, 27.02, 31, 33, 35, 37, 39, and 41.

APPENDIX

House of Detention Staff Transportation Mode-Choice Survey

Location (**MN** or **BK**): _____
Day (**WKDY** or **SAT**)**:** _____

- **Staff Type:** ____ Uniformed ____ Non-Uniformed

- **Shift:** _____ to _____

- **How did you travel to work today?**
  ___ Private auto
  ___ Taxi (service?) _____
  ___ Subway (line/station?) _____
  ___ Bus (line/route?) _____
  ___ Bike
  ___ Walk-only
  ___ Other (please specify) _____

- **If you traveled by car/taxi**, how many staffers were in the vehicle (including yourself)?
  ___ 1
  ___ 2
  ___ 3
  ___ 4
  ___ 5 or more

House of Detention Visitor Transportation Mode-Choice Survey

Location (**MN** or **BK**): _____
Date & **Time:** _____

- **How large is your party/group?**
  - ___ 1 person
  - ___ 2 people
  - ___ 3 people

- **Where are you coming from?** (ZIP CODE/Neighborhood) _____

- **How did you travel to the facility today?**
  - ___ Private auto
  - ___ Taxi (service?) _____
  - ___ Subway (line/station?) _____
  - ___ Bus (line/route?) _____
  - ___ Bike
  - ___ Walk-only
  - ___ Other (please specify) _____

- **If you traveled by car/taxi**, how many visitors were in the vehicle (including yourself)?
  - ___ 1
  - ___ 2
  - ___ 3 or more

APPENDIX G

Noise

BRONX SITE

Bronx Proportional Modeling

Build Year	2027

Vehicle Classifications

Receptor Site 1		Concord Ave				
	Autos	**Med.**	**Hvy**	**Bus**	Total	Total / Hour (Traffic Dept.)
Weekday AM	25	0	0	4	29	50
Percentages	86.2%	0.0%	0.0%	13.8%		
Weekday MD	29	1	0	1	31	35
Percentages	93.5%	3.2%	0.0%	3.2%		
Saturday	28	1	0	0	29	45
Percentages	96.6%	3.4%	0.0%	0.0%		

Receptor Site 2		E 142nd Street				
	Autos	**Med.**	**Hvy**	**Bus**	Total	Total / Hour (Traffic Dept.)
Weekday AM	56	0	0	12	68	138
Percentages	82.4%	0.0%	0.0%	17.6%		
Weekday MD	76	3.5	3.5	8	91	173.5
Percentages	83.5%	3.8%	3.8%	8.8%		
Saturday	83	3	3	0	89	163
Percentages	93.3%	3.4%	3.4%	0.0%		

RECEPTOR NOISE LEVEL CALCULATION FOR YEAR			2027	PROPRIETARY INFORMATION - NOT FOR CIRCULATION													
			EXISTING CONDITIONS						2027 No Build		2027 BUILD						
Receptor Location	Site	Hour	Volume	%Auto	%Medium	%Heavy	%Bus	PCEs	Volume	PCEs	P-G Autos	P-G Medium	P-G Heavy	P-G Bus	Total PCE's	Doubling?
Concord Ave	1	Weekday AM	50	86.2%	0.0%	0.0%	13.8%	167	56	187	12	0	0	0	199	NO
		Weekday MD	35	93.5%	3.2%	0.0%	3.2%	68	42	81	21	0	0	0	102	NO
		Saturday	45	96.6%	3.4%	0.0%	0.0%	64	45	64	17	0	0	0	81	NO
142nd Street	2	Weekday AM	138	82.4%	0.0%	0.0%	17.6%	550	138	550	27	0	0	0	577	NO
		Weekday MD	174	83.5%	3.8%	3.8%	8.8%	820	174	820	46	0	0	0	866	NO
		Saturday	163	93.3%	3.4%	3.4%	0.0%	482	163	482	29	0	0	0	511	NO

BROOKLYN SITE

Brooklyn Proportional Modeling

Build Year	2027

Vehicle Classifications

Receptor Site 1	State Street					
	Autos	Med.	Hvy	Bus	Total	Total / Hour (Traffic Dept.)
Weekday AM	62	0	0	0	62	90
Percentages	100.0%	0.0%	0.0%	0.0%		
Weekday MD	209	4	3	2	218	230
Percentages	95.9%	1.8%	1.4%	0.9%		
Saturday	121	1	0	0	122	155
Percentages	99.2%	0.8%	0.0%	0.0%		

Receptor Site 2	Smith Street					
	Autos	Med.	Hvy	Bus	Total	Total / Hour (Traffic Dept.)
Weekday AM	327	12	9	34	382	425
Percentages	85.6%	3.1%	2.4%	8.9%		
Weekday MD	271	3.5	3.5	21	299	320
Percentages	90.6%	1.2%	1.2%	7.0%		
Saturday	327	2	1	14	344	380
Percentages	95.1%	0.5%	0.4%	4.1%		

Receptor Site 3	Atlantic Avenue					
	Autos	Med.	Hvy	Bus	Total	Total / Hour (Traffic Dept.)
Weekday AM	1496	46	33	45	1620	1970
Percentages	92.3%	2.9%	2.0%	2.8%		
Weekday MD	1420	58	13	46	1536	1975
Percentages	92.4%	3.7%	0.8%	3.0%		
Saturday	1629	24	11	37	1701	2015
Percentages	95.8%	1.4%	0.6%	2.2%		

Receptor Site 4	Boerum Place					
	Autos	Med.	Hvy	Bus	Total	Total / Hour (Traffic Dept.)
Weekday AM	534	2	2	21	559	1755
Percentages	95.5%	0.4%	0.3%	3.8%		
Weekday MD	1073	18	1	26	1118	1995
Percentages	96.0%	1.6%	0.1%	2.3%		
Saturday	892	6	1	9	908	1900
Percentages	98.2%	0.7%	0.1%	1.0%		

RECEPTOR NOISE LEVEL CALCULATION FOR YEAR			2027	PROPRIETARY INFORMATION - NOT FOR CIRCULATION													
			EXISTING CONDITIONS						2027 No Build		2027 BUILD						
Receptor Location	Site	Hour	Volume	%Auto	%Medium	%Heavy	%Bus	PCEs	Volume	PCEs	P-G Autos	P-G Medium	P-G Heavy	P-G Bus	Total PCE's	Doubling?
State Street	1	Weekday AM	90	100.0%	0.0%	0.0%	0.0%	90	107	107					107	NO
		Weekday MD	230	95.9%	1.8%	1.4%	0.9%	462	271	544					544	NO
		Saturday	155	99.2%	0.8%	0.0%	0.0%	170	184	202					202	NO
Smith Street	2	Weekday AM	425	85.6%	3.1%	2.4%	8.9%	1701	470	1882	70		0		1952	NO
		Weekday MD	320	90.6%	1.2%	1.2%	7.0%	919	430	1235	147		2		1476	NO
		Saturday	380	95.1%	0.5%	0.4%	4.1%	734	453	875	116		1		1038	NO
Atlantic Avenue	3	Weekday AM	1970	92.3%	2.9%	2.0%	2.8%	5405	2156	5915	98		0		6013	NO
		Weekday MD	1975	92.4%	3.7%	0.8%	3.0%	4607	2229	5200	73		1		5320	NO
		Saturday	2015	95.8%	1.4%	0.6%	2.2%	3685	2175	3978	58		0		4036	NO
Boerum Place	4	Weekday AM	1755	95.5%	0.4%	0.3%	3.8%	3204	723	1320	76		0		1396	NO
		Weekday MD	1995	96.0%	1.6%	0.1%	2.3%	3276	1291	2120	91		1		2258	NO
		Saturday	1900	98.2%	0.7%	0.1%	1.0%	2462	1033	1339	77		1		1463	NO

MANHATTAN SITE

Manhattan 2 Proportional Modeling

Build Year	2027

Vehicle Classifications

Receptor Site 1		Walker Street				
	Autos	**Med.**	**Hvy**	**Bus**	Total	Total / Hour (Traffic Dept.)
Weekday AM	181	13	7	4	205	210
Percentages	88.3%	0.1	0.0	2.0%		
Weekday MD	203	11	1	1	216	210
Percentages	94.0%	13.0%	0.6%	0.5%		
Saturday	90	1	0	0	91	115
Percentages	98.9%	1.1%	0.0%	0.0%		

Receptor Site 2		Baxter Street				
	Autos	**Med.**	**Hvy**	**Bus**	Total	Total / Hour (Traffic Dept.)
Weekday AM	62	6	0	0	68	120
Percentages	91.2%	8.8%	0.0%	0.0%		
Weekday MD	65	4	0	1	70	135
Percentages	92.9%	5.7%	0.0%	1.4%		
Saturday	82	3	0	1	86	135
Percentages	95.3%	3.5%	0.0%	1.2%		

Receptor Site 3		Centre Street				
	Autos	**Med.**	**Hvy**	**Bus**	Total	Total / Hour (Traffic Dept.)
Weekday AM	541	13	0	3	557	570
Percentages	97.1%	2.3%	0.0%	0.5%		
Weekday MD	449	16	0	2	467	450
Percentages	96.1%	3.4%	0.0%	0.4%		
Saturday	512	8	0	2	522	475
Percentages	98.1%	1.5%	0.0%	0.4%		

RECEPTOR NOISE LEVEL CALCULATION FOR YEAR			2027	PROPRIETARY INFORMATION - NOT FOR CIRCULATION													
			EXISTING CONDITIONS						2027 No Build		2027 BUILD						
Receptor Location	Site	Hour	Volume	%Auto	%Medium	%Heavy	%Bus	PCEs	Volume	PCEs	P-G Autos	P-G Medium	P-G Heavy	P-G Bus	Total PCE's	Doubling?
Walker	1	Weekday AM	210	88.3%	6.5%	3.3%	2.0%	758	277	999	6	0	0	0	1005	NO
		Weekday MD	210	94.0%	13.0%	0.6%	0.5%	631	259	778	5	0	0	0	783	NO
		Saturday	115	98.9%	1.1%	0.0%	0.0%	130	172	195	5	0	0	0	200	NO
Baxter	2	Weekday AM	120	91.2%	8.8%	0.0%	0.0%	247	125	257	51	0	0	0	308	NO
		Weekday MD	135	92.9%	5.7%	0.0%	1.4%	260	133	257	93	0	0	0	350	NO
		Saturday	135	95.3%	3.5%	0.0%	1.2%	218	126	204	91	0	0	0	295	NO
Centre	3	Weekday AM	570	97.1%	2.3%	0.0%	0.5%	782	667	915	51	0	0	0	966	NO
		Weekday MD	450	96.1%	3.4%	0.0%	0.4%	668	526	781	37	0	0	0	818	NO
		Saturday	475	98.1%	1.5%	0.0%	0.4%	593	566	707	50	0	0	0	757	NO

QUEENS SITE

Queen Proportional Modeling

Build Year	2027

Vehicle Classifications

Receptor Site 1	82nd Ave					
	Autos	Med.	Hvy	Bus	Total	Total / Hour (Traffic Dept.)
Weekday AM	2	0	0	0	2	6
Percentages	100.0%	0.0%	0.0%	0.0%		
Weekday MD	0	0	0	1	1	3
Percentages	0.0%	0.0%	0.0%	100.0%		
Saturday	0	0	0	0	0	0
Percentages	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		

Receptor Site 2	126th Street					
	Autos	Med.	Hvy	Bus	Total	Total / Hour (Traffic Dept.)
Weekday AM	15	0	0	0	15	20
Percentages	100.0%	0.0%	0.0%	0.0%		
Weekday MD	49	0	0	0	49	45
Percentages	100.0%	0.0%	0.0%	0.0%		
Saturday	22	0	0	0	22	20
Percentages	100.0%	0.0%	0.0%	0.0%		

Receptor Site 3	Union Turnpike					
	Autos	Med.	Hvy	Bus	Total	Total / Hour (Traffic Dept.)
Weekday AM	421	3	2	34	460	600
Percentages	91.5%	0.7%	0.4%	7.4%		
Weekday MD	1186	14	8	37	1245	1285
Percentages	95.3%	1.1%	0.7%	3.0%		
Saturday	706	0	0	8	714	740
Percentages	98.9%	0.0%	0.0%	1.1%		

Receptor Site 4	132nd Street					
	Autos	Med.	Hvy	Bus	Total	Total / Hour (Traffic Dept.)
Weekday AM	14	0	0	1	15	20
Percentages	93.3%	0.0%	0.0%	6.7%		
Weekday MD	43	0	0	0	43	55
Percentages	100.0%	0.0%	0.0%	0.0%		
Saturday	18	0	0	0	18	15
Percentages	100.0%	0.0%	0.0%	0.0%		

Receptor Site 4*	Van Wyck SB + 132nd Street					
	Autos	Med.	Hvy	Bus	Total	Total / Hour (Traffic Dept.)
Weekday AM	3231	790	388	136	4545	4457
Percentages	71.1%	17.4%	8.5%	3.0%		
Weekday MD	4927	658	160	80	5825	4390
Percentages	84.6%	11.3%	2.7%	1.4%		
Saturday	4097	724	274	108	5203	4439
Percentages	78.7%	13.9%	5.3%	2.1%		

*The dominant noise source at Receptor Site 4 is the Van Wyck Expressway, due to direct line of site and high traffic volume

RECEPTOR NOISE LEVEL CALCULATION FOR YEAR			2027	PROPRIETARY INFORMATION - NOT FOR CIRCULATION													
			EXISTING CONDITIONS						2027 No Build		2027 BUILD						
Receptor Location	Site	Hour	Volume	%Auto	%Medium	%Heavy	%Bus	PCEs	Volume	PCEs	P-G Autos	P-G Medium	P-G Heavy	P-G Bus	Total PCE's	Doubling?
82nd Ave	1	Weekday AM	6	100.0%	0.0%	0.0%	0.0%	6	67	67					0	NO
		Weekday MD	3	0.0%	0.0%	0.0%	100.0%	54	109	1962					0	NO
		Saturday	0	0.0%	0.0%	0.0%	0.0%	0	57	0					0	YES
126th St	2	Weekday AM	20	100.0%	0.0%	0.0%	0.0%	20	25	25	22	0	0	0	47	NO
		Weekday MD	45	100.0%	0.0%	0.0%	0.0%	45	57	57	26	0	0	0	83	NO
		Saturday	20	100.0%	0.0%	0.0%	0.0%	20	21	21	15	0	0	0	36	NO
Union Turnpike/GCP	3	Weekday AM	600	91.5%	0.7%	0.4%	7.4%	1509	683	1717	131	0	0	1	1866	NO
		Weekday MD	1285	95.3%	1.1%	0.7%	3.0%	2501	1403	2730	74	0	0	3	2858	NO
		Saturday	740	98.9%	0.0%	0.0%	1.1%	881	787	937	66	0	0	3	1057	NO
132nd St + Van Wyck SB	4	Weekday AM	4477	71.1%	17.4%	8.5%	3.0%	33671	4477	33671	172	0	0	2	33879	NO
		Weekday MD	4445	84.6%	11.3%	2.7%	1.4%	17126	4445	17126	193	0	0	4	17391	NO
		Saturday	4454	78.7%	13.9%	5.3%	2.1%	24250	4454	24250	162	0	0	4	24484	NO

CONSTRUCTION NOISE EVALUATION

Receiver Number	Receiver Area	Survey Site	Increment Threshold	Months (Timeline)		Jul 2022 - Oct 2022				Oct 2022 - Mar 2023				Mar 2023 - May 2024				May 2024 - Jul 2024				Jul 2024 - Aug 2024				Aug 2024 - Nov2024				Nov 2024 - Jul 2025				Aug 2025 - Jan 2026			
				Leq	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10
1	New York City Homeless Shelter	4	3	63.7	67.5	51.0	63.9	0.2	67.7	45.1	63.8	0.1	67.6	45.1	63.8	0.1	67.6	55.1	64.3	0.6	68.1	55.1	64.3	0.6	68.1	55.1	64.3	0.6	68.1	55.1	64.3	0.6	68.1	41.1	63.7	0.0	67.5
2	325 Concord Ave	4	3	63.7	67.5	70.9	71.7	8.0	74.7	57.6	64.7	1.0	68.5	57.6	64.7	1.0	68.5	62.6	66.2	2.5	70.0	62.6	66.2	2.5	70.0	62.6	66.2	2.5	70.0	62.6	66.2	2.5	70.0	48.6	63.8	0.1	67.6
3	337 Concord Ave	4	3	63.7	67.5	70.9	71.7	8.0	74.7	57.6	64.7	1.0	68.5	57.6	64.7	1.0	68.5	62.6	66.2	2.5	70.0	62.6	66.2	2.5	70.0	62.6	66.2	2.5	70.0	62.6	66.2	2.5	70.0	48.6	63.8	0.1	67.6
4	349 Concord Ave	4	3	63.7	67.5	70.9	71.7	8.0	74.7	57.6	64.7	1.0	68.5	57.6	64.7	1.0	68.5	62.6	66.2	2.5	70.0	62.6	66.2	2.5	70.0	62.6	66.2	2.5	70.0	62.6	66.2	2.5	70.0	48.6	63.8	0.1	67.6
5	359 Southern Blvd	1	3	67.2	70.3	72.2	73.4	6.2	76.4	69.2	71.3	4.1	74.4	69.2	71.3	4.1	74.4	74.2	75.0	7.8	78.0	74.2	75.0	7.8	78.0	74.2	75.0	7.8	78.0	74.2	75.0	7.8	78.0	60.2	68.0	0.8	71.1
5B	359 Southern Blvd North Façade	1	3	67.2	70.3	62.2	68.4	1.2	71.5	59.2	67.8	0.6	70.9	59.2	67.8	0.6	70.9	64.2	69.0	1.8	72.1	64.2	69.0	1.8	72.1	64.2	69.0	1.8	72.1	64.2	69.0	1.8	72.1	50.2	67.3	0.1	70.4
6	334 Jackson Ave	4	3	63.7	67.5	55.0	64.2	0.5	68.0	47.6	63.8	0.1	67.6	47.6	63.8	0.1	67.6	57.6	64.7	1.0	68.5	57.6	64.7	1.0	68.5	57.6	64.7	1.0	68.5	57.6	64.7	1.0	68.5	43.6	63.7	0.0	67.5

Receiver Number	Receiver Area	Survey Site	Increment Threshold	Months (Timeline)		Jan 2026 - Feb 2026				Feb 2026 - Jun 2026				Jun 2026 - Jul 2026				Jul 2026 - Aug 2026				Aug 2024 - Sep 2026				Sep 2026 - Feb 2027				Feb 2027 - Apr 2027				Apr 2027-Aug 2027			
				Leq	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10
1	New York City Homeless Shelter	4	3	63.7	67.5	48.0	63.8	0.1	67.6	48.0	63.8	0.1	67.6	58.0	64.7	1.0	68.5	58.0	64.7	1.0	68.5	58.0	64.7	1.0	68.5	44.0	63.7	0.0	67.5	29.0	63.7	0.0	67.5	29.0	63.7	0.0	67.5
2	325 Concord Ave	4	3	63.7	67.5	67.9	69.3	5.6	72.3	67.9	69.3	5.6	72.3	72.9	73.4	9.7	76.4	72.9	73.4	9.7	76.4	72.9	73.4	9.7	76.4	58.9	64.9	1.2	68.7	43.9	63.7	0.0	67.5	43.9	63.7	0.0	67.5
3	337 Concord Ave	4	3	63.7	67.5	67.9	69.3	5.6	72.3	67.9	69.3	5.6	72.3	72.9	73.4	9.7	76.4	72.9	73.4	9.7	76.4	72.9	73.4	9.7	76.4	58.9	64.9	1.2	68.7	43.9	63.7	0.0	67.5	43.9	63.7	0.0	67.5
4	349 Concord Ave	4	3	63.7	67.5	67.9	69.3	5.6	72.3	67.9	69.3	5.6	72.3	72.9	73.4	9.7	76.4	72.9	73.4	9.7	76.4	72.9	73.4	9.7	76.4	58.9	64.9	1.2	68.7	43.9	63.7	0.0	67.5	43.9	63.7	0.0	67.5
5	359 Southern Blvd	1	3	67.2	70.3	53.8	67.4	0.2	70.5	53.8	67.4	0.2	70.5	58.8	67.8	0.6	70.9	58.8	67.8	0.6	70.9	58.8	67.8	0.6	70.9	45.2	67.2	0.0	70.3	45.2	67.2	0.0	70.3	29.8	67.2	0.0	70.3
5B	359 Southern Blvd North Façade	1	3	67.2	70.3	43.8	67.2	0.0	70.3	43.8	67.2	0.0	70.3	48.8	67.3	0.1	70.4	48.8	67.3	0.1	70.4	48.8	67.3	0.1	70.4	35.2	67.2	0.0	70.3	35.2	67.2	0.0	70.3	19.8	67.2	0.0	70.3
6	334 Jackson Ave	4	3	63.7	67.5	52.0	64.0	0.3	67.8	52.0	64.0	0.3	67.8	62.0	65.9	2.2	69.7	62.0	65.9	2.2	69.7	62.0	65.9	2.2	69.7	48.0	63.8	0.1	67.6	33.0	63.7	0.0	67.5	33.0	63.7	0.0	67.5

CONSTRUCTION NOISE LEVELS

BBJ - Bronx				1	New York City Homeless Shelter		2	325 Concord Ave		3	337 Concord Ave		4	349 Concord Ave		5	359 Southern Blvd		6	334 Jackson Ave	
Construction Noise Level Estimates				Distance	493.66	10	Distance	207.29	5	Distance	207.29	5	Distance	207.29	5	Distance	54.84	5	Distance	369.68	10
Analysis Period (Month)	Duration (months)	Activity	Leq @ 50 Feet	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec
Jul 2022 - Oct 2022	2.8	Demolition	78	493.66	10	48.1	207.29	5	60.6	207.29	5	60.6	207.29	5	60.6	54.84	5	72.2	369.68	10	50.6
		Demolition - Phase II	78	353.92	10	51.0	63.65	5	70.9	63.65	5	70.9	63.65	5	70.9	322.41	5	56.8	224.17	10	55.0
			Total		**51.0**			**70.9**			**70.9**			**70.9**			**72.2**			**55.0**	
Oct 2022 - Mar 2023	5.0	Excavation	75	493.66	10	45.1	207.29	5	57.6	207.29	5	57.6	207.29	5	57.6	54.84	5	69.2	369.68	10	47.6
			Total		**45.1**			**57.6**			**57.6**			**57.6**			**69.2**			**47.6**	
Mar 2023 - May 2024	14.0	Foundation	75	493.66	10	45.1	207.29	5	57.6	207.29	5	57.6	207.29	5	57.6	54.84	5	69.2	369.68	10	47.6
			Total		**45.1**			**57.6**			**57.6**			**57.6**			**69.2**			**47.6**	
May 2024 - Jul 2024	1.9	Foundation - Phase I	75	493.66	10	45.1	207.29	5	57.6	207.29	5	57.6	207.29	5	57.6	54.84	5	69.2	369.68	10	47.6
		Superstructure - Phase I	75	493.66	0	55.1	207.29	0	62.6	207.29	0	62.6	207.29	0	62.6	54.84	0	74.2	369.68	0	57.6
			Total		**55.1**			**62.6**			**62.6**			**62.6**			**74.2**			**57.6**	
Jul 2024 - Aug 2024	1.0	Superstructure - Phase I	75	493.66	0	55.1	207.29	0	62.6	207.29	0	62.6	207.29	0	62.6	54.84	0	74.2	369.68	0	57.6
			Total		**55.1**			**62.6**			**62.6**			**62.6**			**74.2**			**57.6**	
Aug 2024 - Nov2024	2.7	Superstructure - Phase I	75	493.66	0	55.1	207.29	0	62.6	207.29	0	62.6	207.29	0	62.6	54.84	0	74.2	369.68	0	57.6
		Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
			Total		**55.1**			**62.6**			**62.6**			**62.6**			**74.2**			**57.6**	
Nov 2024 - Jul 2025	9.0	Superstructure - Phase I	75	493.66	0	55.1	207.29	0	62.6	207.29	0	62.6	207.29	0	62.6	54.84	0	74.2	369.68	0	57.6
		Enclosure - Phase I	61	493.66	0	41.1	207.29	0	48.6	207.29	0	48.6	207.29	0	48.6	54.84	0	60.2	369.68	0	43.6
		Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
			Total		**55.1**			**62.6**			**62.6**			**62.6**			**74.2**			**57.6**	
Aug 2025 - Jan 2026	5.3	Enclosure - Phase I	61	493.66	0	41.1	207.29	0	48.6	207.29	0	48.6	207.29	0	48.6	54.84	0	60.2	369.68	0	43.6
		Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
			Total		**41.1**			**48.6**			**48.6**			**48.6**			**60.2**			**43.6**	
Jan 2026 - Feb 2026	1.3	Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
		Excavation - Phase II	75	353.92	10	48.0	63.65	5	67.9	63.65	5	67.9	63.65	5	67.9	322.41	5	53.8	224.17	10	52.0
			Total		**48.0**			**67.9**			**67.9**			**67.9**			**53.8**			**52.0**	
Feb 2026 - Jun 2026	4.0	Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
		Foundation - Phase II	75	353.92	10	48.0	63.65	5	67.9	63.65	5	67.9	63.65	5	67.9	322.41	5	53.8	224.17	10	52.0
			Total		**48.0**			**67.9**			**67.9**			**67.9**			**53.8**			**52.0**	
Jun 2026 - Jul 2026	1.0	Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
		Superstructure - Phase II	75	353.92	0	58.0	63.65	0	72.9	63.65	0	72.9	63.65	0	72.9	322.41	0	58.8	224.17	0	62.0
			Total		**58.0**			**72.9**			**72.9**			**72.9**			**58.8**			**62.0**	
Jul 2026 - Aug 2026	1.0	Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
		Superstructure - Phase II	75	353.92	0	58.0	63.65	0	72.9	63.65	0	72.9	63.65	0	72.9	322.41	0	58.8	224.17	0	62.0
		Interior - Phase II	46	353.92	0	29.0	63.65	0	43.9	63.65	0	43.9	63.65	0	43.9	322.41	0	29.8	224.17	0	33.0
			Total		**58.0**			**72.9**			**72.9**			**72.9**			**58.8**			**62.0**	
Aug 2024 - Sep 2026	1.0	Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
		Superstructure - Phase II	75	353.92	0	58.0	63.65	0	72.9	63.65	0	72.9	63.65	0	72.9	322.41	0	58.8	224.17	0	62.0
		Enclosure - Phase II	61	353.92	0	44.0	63.65	0	58.9	63.65	0	58.9	63.65	0	58.9	322.41	0	44.8	224.17	0	48.0
		Interior - Phase II	46	353.92	0	29.0	63.65	0	43.9	63.65	0	43.9	63.65	0	43.9	322.41	0	29.8	224.17	0	33.0
			Total		**58.0**			**72.9**			**72.9**			**72.9**			**58.8**			**62.0**	
Sep 2026 - Feb 2027	4.5	Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
		Enclosure - Phase II	61	353.92	0	44.0	63.65	0	58.9	63.65	0	58.9	63.65	0	58.9	322.41	0	44.8	224.17	0	48.0
		Interior - Phase II	46	353.92	0	29.0	63.65	0	43.9	63.65	0	43.9	63.65	0	43.9	322.41	0	29.8	224.17	0	33.0
			Total		**44.0**			**58.9**			**58.9**			**58.9**			**45.2**			**48.0**	
Feb 2027 - Apr 2027	2.0	Interior - Phase I	46	493.66	0	26.1	207.29	0	33.6	207.29	0	33.6	207.29	0	33.6	54.84	0	45.2	369.68	0	28.6
		Interior - Phase II	46	353.92	0	29.0	63.65	0	43.9	63.65	0	43.9	63.65	0	43.9	322.41	0	29.8	224.17	0	33.0
			Total		**29.0**			**43.9**			**43.9**			**43.9**			**45.2**			**33.0**	
Apr 2027-Aug 2027	4.5	Interior - Phase II	46	353.92	0	29.0	63.65	0	43.9	63.65	0	43.9	63.65	0	43.9	322.41	0	29.8	224.17	0	33.0
			Total		**29.0**			**43.9**			**43.9**			**43.9**			**29.8**			**33.0**	

Construction Activity Reference L_{eq}

Activity	Leq @ 50 feet
Demolition	78
Excavation	75
Foundation	75
Superstructure	75
Enclosure	61
Interior	46

RECEPTOR DISTANCES


1
2
3
4
5
6
JACKSON AVENUE
CONCORD AVENUE
WALES AVENUE
EAST 142ND ST.
EAST 141ST ST.
EAST 140TH ST.
SOUTHERN BLVD.
BRUCKNER BLVD.
278

Housing (Phase II)

1

2

3

4

5

6

322.41 ft

54.84 ft

353.92 ft

493.66 ft

369.68 ft

224.17 ft

63.65 ft

207.29 ft

0.99 in

Measure

100ft

CONSTRUCTION NOISE EVALUATION

		Duration	6					3				2				3				2				4				10				7				6				6			
		Months (Timeline)	May 2022 - Jan 2024					Feb 2024 - Aug 2024				Sep 2024 - Jan 2025				Feb 2025 - May 2025				Jun 2025				Jul 2025 - mid Aug 2025				mid Aug 2025 - Sep 2025				Oct 2025 - Jul 2026				Aug 2026 - Dec 2026				Jan 2027 - Jun 2027			
Receiver Area	Survey Site	Increment Threshold	Leq	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const	Total L	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10
233 Pacific St	3	3	70.7	73.5	57.9	70.9	0.2	73.7	64.9	71.7	1.0	74.5	64.9	71.7	1.0	74.5	64.9	71.7	1.0	74.5	64.9	71.7	1.0	74.5	64.9	71.7	1.0	74.5	35.9	70.7	0.0	73.5	64.9	71.7	1.0	74.5	50.9	70.7	0.0	73.5	35.9	70.7	0.0	73.5
66 Boerum Pl	4	3	69.0	70.3	60.0	69.5	0.5	70.8	57.0	69.3	0.3	70.6	57.0	69.3	0.3	70.6	57.0	69.3	0.3	70.6	57.0	69.3	0.3	70.6	57.0	69.3	0.3	70.6	38.0	69.0	0.0	70.3	57.0	69.3	0.3	70.6	43.0	69.0	0.0	70.3	38.0	69.0	0.0	70.3
68 Boerum Pl	4	3	69.0	70.3	60.0	69.5	0.5	70.8	57.0	69.3	0.3	70.6	57.0	69.3	0.3	70.6	57.0	69.3	0.3	70.6	57.0	69.3	0.3	70.6	57.0	69.3	0.3	70.6	38.0	69.0	0.0	70.3	57.0	69.3	0.3	70.6	43.0	69.0	0.0	70.3	38.0	69.0	0.0	70.3
205 State St	4	3	69.0	70.3	69.7	72.4	3.4	73.7	66.7	71.0	2.0	72.3	66.7	71.0	2.0	72.3	66.7	71.0	2.0	72.3	66.7	71.0	2.0	72.3	65.8	70.7	1.7	72.0	36.8	69.0	0.0	70.3	65.8	70.7	1.7	72.0	51.8	69.1	0.1	70.4	36.8	69.0	0.0	70.3
239 State St	1	3.5	61.5	63.4	78.0	78.1	16.6	81.1	70.9	71.4	9.9	74.4	70.9	71.4	9.9	74.4	70.9	71.4	9.9	74.4	70.9	71.4	9.9	74.4	69.0	69.7	8.2	72.7	69.0	69.7	8.2	72.7	69.0	69.7	8.2	72.7	55.0	62.4	0.9	64.3	40.0	61.5	0.0	63.4
239 State St (North and West)	1	3.5	61.5	63.4	68.0	68.9	7.4	71.9	60.9	64.2	2.7	66.1	60.9	64.2	2.7	66.1	60.9	64.2	2.7	66.1	60.9	64.2	2.7	66.1	59.0	63.4	1.9	65.3	59.0	63.4	1.9	65.3	59.0	63.4	1.9	65.3	45.0	61.6	0.1	63.5	30.0	61.5	0.0	63.4
Kings County Criminal Court	1	3.5	61.5	63.4	78.0	78.1	16.6	81.1	70.9	71.4	9.9	74.4	70.9	71.4	9.9	74.4	70.9	71.4	9.9	74.4	70.9	71.4	9.9	74.4	69.0	69.7	8.2	72.7	69.0	69.7	8.2	72.7	69.0	69.7	8.2	72.7	55.0	62.4	0.9	64.3	46.0	61.6	0.1	63.5
Kings County Criminal Court (North a	1	3.5	61.5	63.4	68.0	68.9	7.4	71.9	60.9	64.2	2.7	66.1	60.9	64.2	2.7	66.1	60.9	64.2	2.7	66.1	60.9	64.2	2.7	66.1	59.0	63.4	1.9	65.3	59.0	63.4	1.9	65.3	59.0	63.4	1.9	65.3	45.0	61.6	0.1	63.5	36.0	61.5	0.0	63.4
The Boerum - 265 State St	2	3	67.9	70.4	71.7	73.2	5.3	76.2	68.7	71.3	3.4	73.8	68.7	71.3	3.4	73.8	68.7	71.3	3.4	73.8	68.7	71.3	3.4	73.8	66.7	70.4	2.5	72.9	37.7	67.9	0.0	70.4	66.7	70.4	2.5	72.9	52.7	68.0	0.1	70.5	39.7	67.9	0.0	70.4
267 State St	1	3.5	61.5	63.4	56.4	62.7	1.2	64.6	58.4	63.2	1.7	65.1	63.4	65.6	4.1	67.5	63.4	65.6	4.1	67.5	63.4	65.6	4.1	67.5	63.4	65.6	4.1	67.5	34.4	61.5	0.0	63.4	63.4	65.6	4.1	67.5	49.4	61.8	0.3	63.7	34.4	61.5	0.0	63.4
85 Smith St	2	3	67.9	70.4	65.1	69.7	1.8	72.2	62.1	68.9	1.0	71.4	62.1	68.9	1.0	71.4	62.1	68.9	1.0	71.4	62.1	68.9	1.0	71.4	62.1	68.9	1.0	71.4	43.1	67.9	0.0	70.4	62.1	68.9	1.0	71.4	48.1	67.9	0.0	70.4	43.1	67.9	0.0	70.4
310 Atlantic Ave	3	3	70.7	73.5	56.0	70.8	0.1	73.6	53.0	70.8	0.1	73.6	53.0	70.8	0.1	73.6	53.0	70.8	0.1	73.6	53.0	70.8	0.1	73.6	53.0	70.8	0.1	73.6	34.0	70.7	0.0	73.5	53.0	70.8	0.1	73.6	39.0	70.7	0.0	73.5	34.0	70.7	0.0	73.5
296 Atlantic Ave	3	3	70.7	73.5	67.0	72.2	1.5	75.0	59.0	71.0	0.3	73.8	69.0	72.9	2.2	75.7	69.0	72.9	2.2	75.7	69.0	72.9	2.2	75.7	69.0	72.9	2.2	75.7	40.0	70.7	0.0	73.5	69.0	72.9	2.2	75.7	55.0	70.8	0.1	73.6	40.0	70.7	0.0	73.5
284 Atlantic Ave	3	3	70.7	73.5	62.9	71.4	0.7	74.2	59.9	71.0	0.3	73.8	59.9	71.0	0.3	73.8	59.9	71.0	0.3	73.8	59.9	71.0	0.3	73.8	59.9	71.0	0.3	73.8	40.9	70.7	0.0	73.5	59.9	71.0	0.3	73.8	45.9	70.7	0.0	73.5	40.9	70.7	0.0	73.5
278 Atlantic Ave	3	3	70.7	73.5	67.9	72.5	1.8	75.3	59.9	71.0	0.3	73.8	69.9	73.3	2.6	76.1	69.9	73.3	2.6	76.1	69.9	73.3	2.6	76.1	69.9	73.3	2.6	76.1	40.9	70.7	0.0	73.5	69.9	73.3	2.6	76.1	55.9	70.8	0.1	73.6	40.9	70.7	0.0	73.5

CONSTRUCTION NOISE LEVELS

BBJ				1	233 Pacific St		2	66 Boerum Pl		3	68 Boerum Pl		4	205 State St		5	239 State St		6	Kings County Criminal Court		7	The Boerum - 265 State St		8	267 State St		9	85 Smith St		10	310 Atlantic Ave		11	296 Atlantic Ave		12	284 Atlantic Ave		13	278 Atlantic Ave	
Construction Noise Level Estimates				Distance	160		Distance	125		Distance	125		Distance	130		Distance	50		Distance	50		Distance	90		Distance	190		Distance	70		Distance	200		Distance	100		Distance	90		Distance	90	
Analysis Period (Month)	Duration (months)	Activity	Leq @ 50 Feet	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec
May 2022 - Jan 2024	20	Demolition	78	160	10	57.9	125	10	60.0	125	10	60.0	130	0	69.7	50	0	78.0	50	0	78.0	103	0	71.7	190	10	56.4	70	10	65.1	200	10	56.0	100	5	67.0	90	10	62.9	90	5	67.9
		Total			**57.9**			**60.0**			**60.0**			**69.7**			**78.0**			**78.0**			**71.7**			**56.4**			**65.1**			**56.0**			**67.0**			**62.9**			**67.9**	
Feb 2024 - Aug 2024	7	Excavation	75	160	0	64.9	125	10	57.0	125	10	57.0	130	0	66.7	80	0	70.9	80	0	70.9	103	0	68.7	190	5	58.4	70	10	62.1	200	10	53.0	100	10	59.0	90	10	59.9	90	10	59.9
		Total			**64.9**			**57.0**			**57.0**			**66.7**			**70.9**			**70.9**			**68.7**			**58.4**			**62.1**			**53.0**			**59.0**			**59.9**			**59.9**	
Sep 2024 - Jan 2025	5	Excavation	75	160	0	64.9	125	10	57.0	125	10	57.0	130	0	66.7	80	0	70.9	80	0	70.9	103	0	68.7	190	5	58.4	70	10	62.1	200	10	53.0	100	10	59.0	90	10	59.9	90	10	59.9
		Foundation	75	160	0	64.9	125	10	57.0	125	10	57.0	130	0	66.7	80	0	70.9	80	0	70.9	103	0	68.7	190	0	63.4	70	10	62.1	200	10	53.0	100	0	69.0	90	10	59.9	90	0	69.9
		Total			**64.9**			**57.0**			**57.0**			**66.7**			**70.9**			**70.9**			**68.7**			**63.4**			**62.1**			**53.0**			**69.0**			**59.9**			**69.9**	
Feb 2025 - May 2025	4	Foundation	75	160	0	64.9	125	10	57.0	125	10	57.0	130	0	66.7	80	0	70.9	80	0	70.9	103	0	68.7	190	0	63.4	70	10	62.1	200	10	53.0	100	0	69.0	90	10	59.9	90	0	69.9
		Total			**64.9**			**57.0**			**57.0**			**66.7**			**70.9**			**70.9**			**68.7**			**63.4**			**62.1**			**53.0**			**69.0**			**59.9**			**69.9**	
Jun 2025	1	Foundation	75	160	0	64.9	125	10	57.0	125	10	57.0	130	0	66.7	80	0	70.9	80	0	70.9	103	0	68.7	190	0	63.4	70	10	62.1	200	10	53.0	100	0	69.0	90	10	59.9	90	0	69.9
		Superstructure	75	160	0	64.9	125	0	67.0	125	0	67.0	145	0	65.8	100	0	69.0	100	0	69.0	130	0	66.7	190	0	63.4	70	10	62.1	200	10	53.0	100	0	69.0	90	10	59.9	90	0	69.9
		Total			**64.9**			**57.0**			**57.0**			**66.7**			**70.9**			**70.9**			**68.7**			**63.4**			**62.1**			**53.0**			**69.0**			**59.9**			**69.9**	
Jul 2025 - mid Aug 2025	1.5	Superstructure	75	160	0	64.9	125	10	57.0	125	10	57.0	145	0	65.8	100	0	69.0	100	0	69.0	130	0	66.7	190	0	63.4	70	10	62.1	200	10	53.0	100	0	69.0	90	10	59.9	90	0	69.9
		Total			**64.9**			**57.0**			**57.0**			**65.8**			**69.0**			**69.0**			**66.7**			**63.4**			**62.1**			**53.0**			**69.0**			**59.9**			**69.9**	
mid Aug 2025 - Sep 2025	1.5	Superstructure	75	160	0	64.9	125	10	57.0	125	10	57.0	145	0	65.8	100	0	69.0	100	0	69.0	130	0	66.7	190	0	63.4	70	10	62.1	200	10	53.0	100	0	69.0	90	10	59.9	90	0	69.9
		Interior	46	160	0	35.9	125	0	38.0	125	0	38.0	145	0	36.8	100	0	40.0	100	0	40.0	130	0	37.7	190	0	34.4	70	0	43.1	200	0	34.0	100	0	40.0	90	0	40.9	90	0	40.9
		Total			**35.9**			**38.0**			**38.0**			**36.8**			**69.0**			**69.0**			**37.7**			**34.4**			**43.1**			**34.0**			**40.0**			**40.9**			**40.9**	
Oct 2025 - Jul 2026	10	Superstructure	75	160	0	64.9	125	10	57.0	125	10	57.0	145	0	65.8	100	0	69.0	100	0	69.0	130	0	66.7	190	0	63.4	70	10	62.1	200	10	53.0	100	0	69.0	90	10	59.9	90	0	69.9
		Enclosure	61	160	0	50.9	125	10	43.0	125	10	43.0	145	0	51.8	100	0	55.0	100	0	55.0	130	0	52.7	190	0	49.4	70	10	48.1	200	10	39.0	100	0	55.0	90	10	45.9	90	0	55.9
		Interior	46	160	0	35.9	125	0	38.0	125	0	38.0	145	0	36.8	100	0	40.0	100	0	40.0	130	0	37.7	190	0	34.4	70	0	43.1	200	0	34.0	100	0	40.0	90	0	40.9	90	0	40.9
		Total			**64.9**			**57.0**			**57.0**			**65.8**			**69.0**			**69.0**			**66.7**			**63.4**			**62.1**			**53.0**			**69.0**			**59.9**			**69.9**	
Aug 2026 - Dec 2026	5	Enclosure	61	160	0	50.9	125	10	43.0	125	10	43.0	145	0	51.8	100	0	55.0	100	0	55.0	130	0	52.7	190	0	49.4	70	10	48.1	200	10	39.0	100	0	55.0	90	10	45.9	90	0	55.9
		Interior	46	160	0	35.9	125	0	38.0	125	0	38.0	145	0	36.8	100	0	40.0	50	0	46.0	103	0	39.7	190	0	34.4	70	0	43.1	200	0	34.0	100	0	40.0	90	0	40.9	90	0	40.9
		Total			**50.9**			**43.0**			**43.0**			**51.8**			**55.0**			**55.0**			**52.7**			**49.4**			**48.1**			**39.0**			**55.0**			**45.9**			**55.9**	
Jan 2027 - Jun 2027	6	Interior	46	160	0	35.9	125	0	38.0	125	0	38.0	145	0	36.8	100	0	40.0	50	0	46.0	103	0	39.7	190	0	34.4	70	0	43.1	200	0	34.0	100	0	40.0	90	0	40.9	90	0	40.9
		Total			**35.9**			**38.0**			**38.0**			**36.8**			**40.0**			**46.0**			**39.7**			**34.4**			**43.1**			**34.0**			**40.0**			**40.9**			**40.9**	

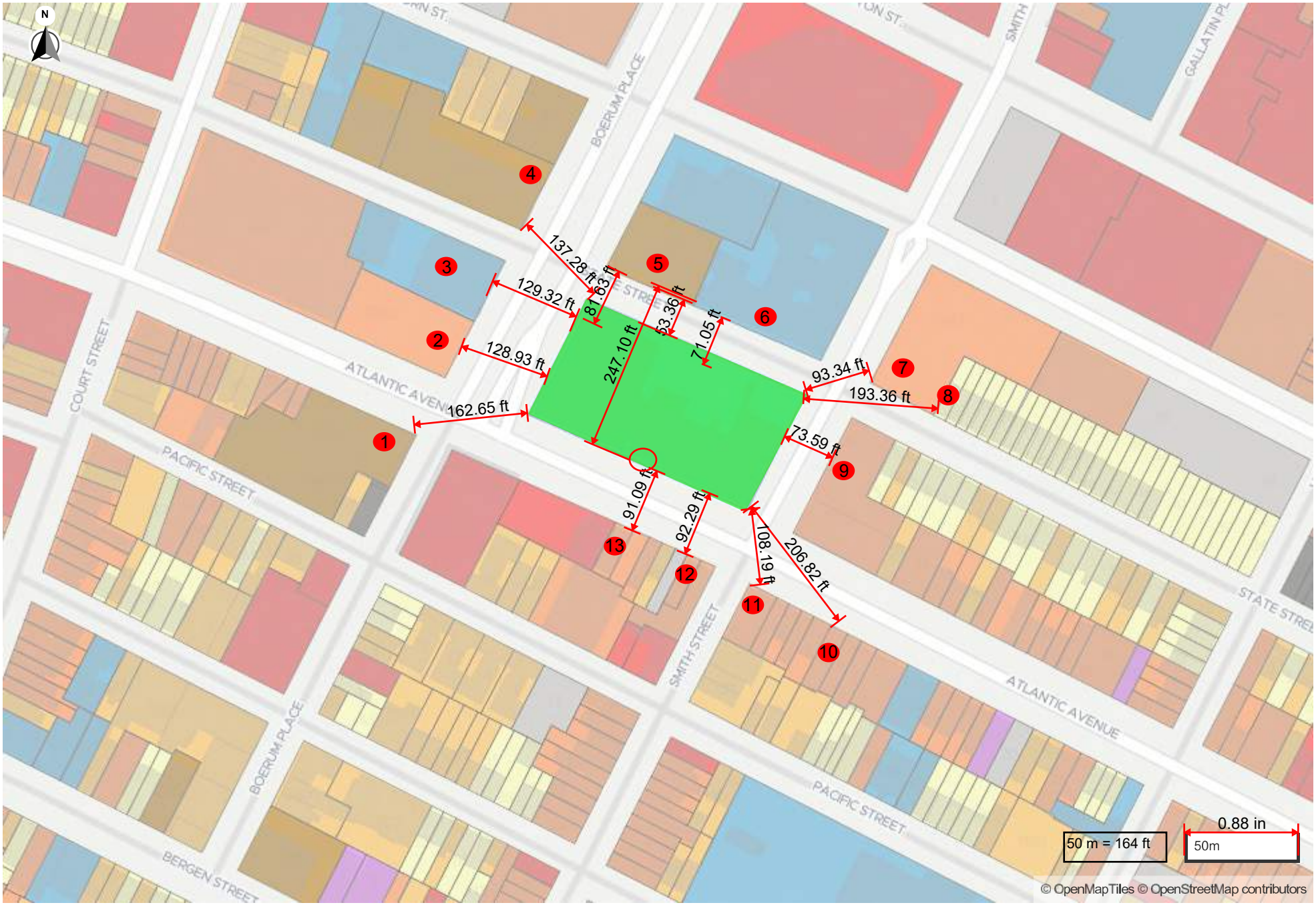
Construction Activity Reference L_{eq}

Activity	Leq @ 50 feet
Demolition	78
Excavation	75
Foundation	75
Superstructure	75
Enclosure	61
Interior	46

RECEPTOR DISTANCES

ZoLa

New York City's Zoning & Land Use Map



NOISE SURVEY RESULTS

180612 001

	Start time	Elapsed time	LAeq [dB]	LAS1 [dB]	LAS10 [dB]	LAS50 [dB]	LAS90 [dB]	LASmin [dB]	LASmax [dB]
Value			64.9	75.1	67.4	62.0	58.7	57.3	79.6
Time	07:03:59 AM	0:20:01							
Date	06/12/2018								

180612 002

	Start time	Elapsed time	LAeq [dB]	LAS1 [dB]	LAS10 [dB]	LAS50 [dB]	LAS90 [dB]	LASmin [dB]	LASmax [dB]
Value			64.9	68.6	65.4	63.6	62.8	62.2	86.6
Time	07:27:43 AM	0:20:03							
Date	06/12/2018								

180612 004

	Start time	Elapsed time	LAeq [dB]	LAS1 [dB]	LAS10 [dB]	LAS50 [dB]	LAS90 [dB]	LASmin [dB]	LASmax [dB]
Value			67.6	75.7	68.4	64.5	62.7	61.3	89.2
Time	08:24:49 AM	0:20:01							
Date	06/12/2018								

180612 005

	Start time	Elapsed time	LAeq [dB]	LAS1 [dB]	LAS10 [dB]	LAS50 [dB]	LAS90 [dB]	LASmin [dB]	LASmax [dB]
Value			67.5	77.1	70.6	64.7	61.5	59.5	81.5
Time	12:06:41 PM	0:20:00							
Date	06/12/2018								

180612 006

	Start time	Elapsed time	LAeq [dB]	LAS1 [dB]	LAS10 [dB]	LAS50 [dB]	LAS90 [dB]	LASmin [dB]	LASmax [dB]
Value			65.9	70.8	67.0	65.3	64.6	64.2	75.5
Time	12:32:06 PM	0:20:01							
Date	06/12/2018								

180612 007

	Start time	Elapsed time	LAeq [dB]	LAS1 [dB]	LAS10 [dB]	LAS50 [dB]	LAS90 [dB]	LASmin [dB]	LASmax [dB]
Value			66.4	73.6	68.6	65.2	63.3	61.6	80.2
Time	12:57:29 PM	0:20:00							
Date	06/12/2018								

180612 008

	Start time	Elapsed time	LAeq [dB]	LAS1 [dB]	LAS10 [dB]	LAS50 [dB]	LAS90 [dB]	LASmin [dB]	LASmax [dB]
Value			64.6	72.8	66.5	62.6	60.3	58.8	81.2
Time	04:30:01 PM	0:20:01							
Date	06/12/2018								

180612 009

	Start time	Elapsed time	LAeq [dB]	LAS1 [dB]	LAS10 [dB]	LAS50 [dB]	LAS90 [dB]	LASmin [dB]	LASmax [dB]
Value			66.0	70.8	66.7	65.1	64.6	64.2	80.9
Time	04:55:16 PM	0:20:00							
Date	06/12/2018								

180612 010

	Start time	Elapsed time	LAeq [dB]	LAS1 [dB]	LAS10 [dB]	LAS50 [dB]	LAS90 [dB]	LASmin [dB]	LASmax [dB]
Value			66.3	76.2	68.1	63.6	61.8	60.4	85.1
Time	05:21:43 PM	0:20:01							
Date	06/12/2018								

CONSTRUCTION NOISE EVALUATION

				Duration		1			12			2			3			1.5			0.5			3			0.5			2			2			3			4			15		
Receiver			Increment	Months (Timeline)		Period 1			Period 2			Period 3			Period 4			Period 5			Period 6			Period 7			Period 8			Period 9			Period 10			Period 11			Period 12			Period 13		
Number	Receiver Area	Survey Site	Threshold	Leq	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10
1	96 Baxter	1	3	64.9	67.4	71.0	72.0	7.1	75.0	71.0	72.0	7.1	75.0	71.0	72.0	7.1	75.0	71.0	72.0	7.1	75.0	71.0	72.0	7.1	75.0	68.0	69.7	4.8	72.7	48.7	65.0	0.1	67.5	45.7	65.0	0.1	67.5	60.4	66.2	1.3	68.7	60.4	66.2	1.3	68.7	46.4	65.0	0.1	67.5	39.0	64.9	0.0	67.4
2	Baxter Street Residences	2	3	64.6	66.5	66.9	68.9	4.3	70.8	66.9	68.9	4.3	70.8	66.9	68.9	4.3	70.8	66.9	68.9	4.3	70.8	66.9	68.9	4.3	70.8	66.9	68.9	4.3	70.8	66.9	68.9	4.3	70.8	63.9	67.3	2.7	69.2	68.6	70.1	5.5	73.1	68.6	70.1	5.5	73.1	54.6	65.0	0.4	66.9	44.9	64.6	0.0	66.5
3	Columbus Park	2	3	64.6	66.5	56.0	65.2	0.6	67.1	63.6	67.1	2.5	69.0	63.6	67.1	2.5	69.0	63.6	67.1	2.5	69.0	63.6	67.1	2.5	69.0	63.6	67.1	2.5	69.0	63.6	67.1	2.5	69.0	60.6	66.1	1.5	68.0	70.6	71.6	7.0	74.6	70.6	71.6	7.0	74.6	56.6	65.2	0.6	67.1	41.6	64.6	0.0	66.5
4	NY County Criminal Court	2	3	64.6	66.5	56.6	65.2	0.6	67.1	69.9	71.0	6.4	74.0	69.9	71.0	6.4	74.0	69.9	71.0	6.4	74.0	69.9	71.0	6.4	74.0	69.9	71.0	6.4	74.0	69.9	71.0	6.4	74.0	66.9	68.9	4.3	70.8	68.2	69.8	5.2	72.8	68.2	69.8	5.2	72.8	54.2	65.0	0.4	66.9	47.9	64.7	0.1	66.6
5	Collect Pond Park	3	3	64.6	65.4	53.0	64.9	0.3	65.7	58.2	65.5	0.9	66.3	58.2	65.5	0.9	66.3	58.2	65.5	0.9	66.3	58.2	65.5	0.9	66.3	58.2	65.5	0.9	66.3	58.2	65.5	0.9	66.3	55.2	65.1	0.5	65.9	65.2	67.9	3.3	68.7	65.2	67.9	3.3	68.7	51.2	64.8	0.2	65.6	36.2	64.6	0.0	65.4
6	NYC Civil Court	3	3	64.6	65.4	68.5	70.0	5.4	73.0	70.0	71.1	6.5	74.1	70.0	71.1	6.5	74.1	70.0	71.1	6.5	74.1	70.0	71.1	6.5	74.1	70.0	71.1	6.5	74.1	70.0	71.1	6.5	74.1	67.0	69.0	4.4	69.8	67.0	69.0	4.4	69.8	67.0	69.0	4.4	69.8	53.0	64.9	0.3	65.7	38.0	64.6	0.0	65.4
7	Downtown Community TV Center	3	3	64.6	65.4	58.1	65.5	0.9	66.3	58.1	65.5	0.9	66.3	58.1	65.5	0.9	66.3	58.1	65.5	0.9	66.3	58.1	65.5	0.9	66.3	58.1	65.5	0.9	66.3	56.7	65.3	0.7	66.1	56.7	65.3	0.7	66.1	53.7	64.9	0.3	65.7	63.7	67.2	2.6	68.0	63.7	67.2	2.6	68.0	49.7	64.7	0.1	65.5	34.7	64.6	0.0	65.4

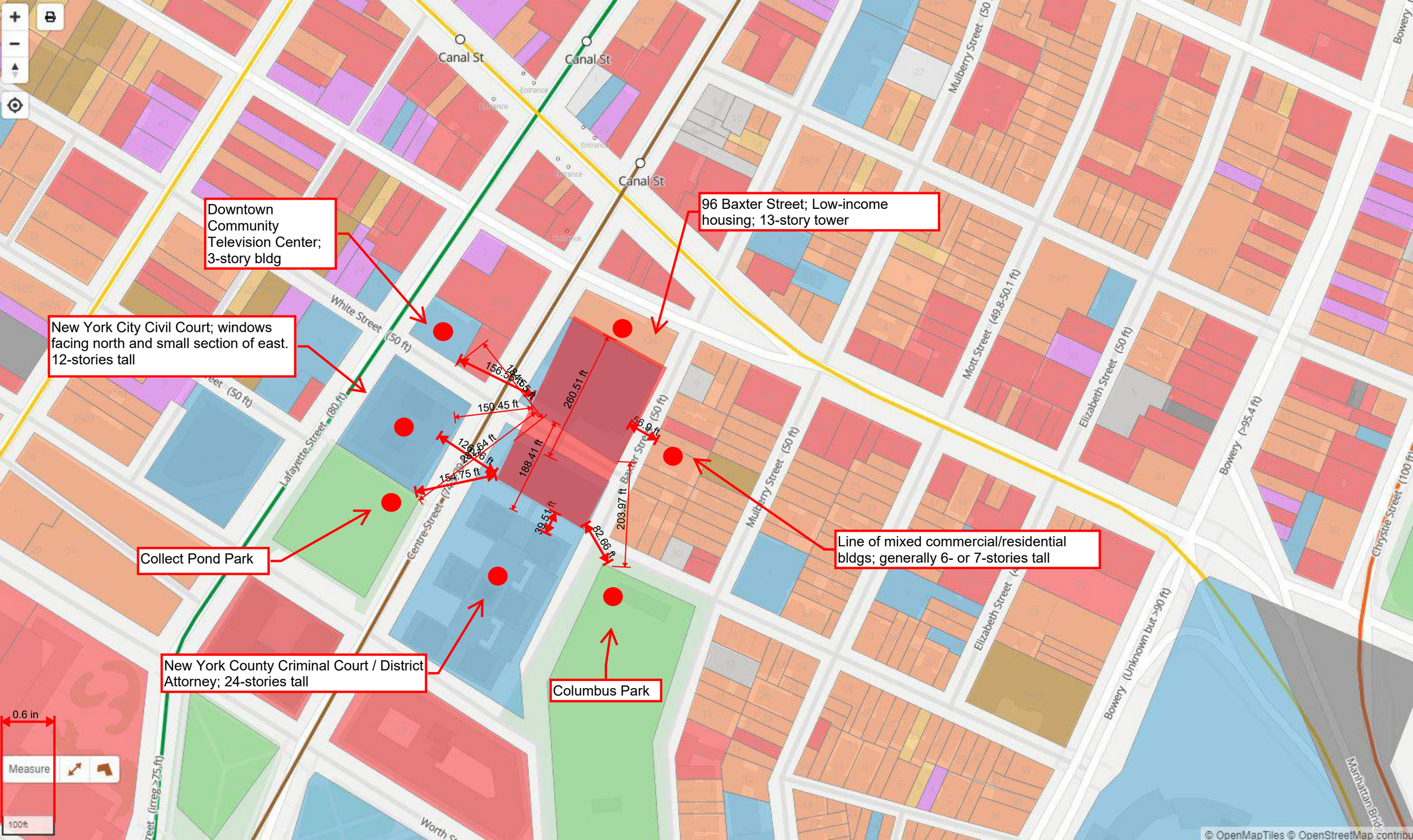
CONSTRUCTION NOISE LEVELS

Borough Jails - Manhattan					1	96 Baxter		2	Baxter Street		3	Columbus Park		4	NY County Criminal		5	Collect Pond Park		6	NYC Civil Court		7	Downtown Community	
Construction Noise Level Estimates					[Distance / Shielding]	20	15	[Distance / Shielding]	57	10	[Distance / Shielding]	83	10	[Distance / Shielding]	185	10	[Distance / Shielding]	155	10	[Distance / Shielding]	126	0	[Distance / Shielding]	184	10
Analysis Period (Month)	Duration (months)	Activity		Leq @ 50 Feet	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec
Period 1	1	Demolition	North Site	78	20	15	71.0	57	10	66.9	200	10	56.0	185	10	56.6	280	10	53.0	150	0	68.5	156	10	58.1
			Total		71.0			66.9			56.0			56.6			53.0			68.5			58.1		
Period 2	12	Demolition	North Site	78	20	15	71.0	57	10	66.9	200	10	56.0	185	10	56.6	280	10	53.0	150	0	68.5	156	10	58.1
		Demolition	South Site	78	260	15	48.7	57	10	66.9	83	10	63.6	40	10	69.9	155	10	58.2	126	0	70.0	184	10	56.7
			Total		71.0			66.9			63.6			69.9			58.2			70.0			58.1		
Period 3	2	Excavation	North Site	78	20	15	71.0	57	10	66.9	200	10	56.0	185	10	56.6	280	10	53.0	150	0	68.5	156	10	58.1
		Demolition	South Site	78	260	15	48.7	57	10	66.9	83	10	63.6	40	10	69.9	155	10	58.2	126	0	70.0	184	10	56.7
			Total		71.0			66.9			63.6			69.9			58.2			70.0			58.1		
Period 4	3	Excavation	North Site	78	20	15	71.0	57	10	66.9	200	10	56.0	185	10	56.6	280	10	53.0	150	0	68.5	156	10	58.1
		Foundation	North Site	75	20	15	68.0	57	10	63.9	200	10	53.0	185	10	53.6	280	10	50.0	150	0	65.5	156	10	55.1
		Demolition	South Site	78	260	15	48.7	57	10	66.9	83	10	63.6	40	10	69.9	155	10	58.2	126	0	70.0	184	10	56.7
			Total		71.0			66.9			63.6			69.9			58.2			70.0			58.1		
Period 5	1.5	Excavation	North Site	78	20	15	71.0	57	10	66.9	200	10	56.0	185	10	56.6	280	10	53.0	150	0	68.5	156	10	58.1
		Foundation	North Site	75	20	15	68.0	57	10	63.9	200	10	53.0	185	10	53.6	280	10	50.0	150	0	65.5	156	10	55.1
		Excavation	South Site	78	260	15	48.7	57	10	66.9	83	10	63.6	40	10	69.9	155	10	58.2	126	0	70.0	184	10	56.7
			Total		71.0			66.9			63.6			69.9			58.2			70.0			58.1		
Period 6	0.5	Excavation	North Site	78	20	15	71.0	57	10	66.9	200	10	56.0	185	10	56.6	155	10	58.2	150	0	68.5	156	10	58.1
		Foundation	North Site	75	20	15	68.0	57	10	63.9	200	10	53.0	185	10	53.6	155	10	55.2	150	0	65.5	156	10	55.1
		Excavation	South Site	78	260	15	48.7	57	10	66.9	83	10	63.6	40	10	69.9	155	10	58.2	126	0	70.0	184	10	56.7
		Foundation	South Site	75	260	15	45.7	57	10	63.9	83	10	60.6	40	10	66.9	155	10	55.2	126	0	67.0	184	10	53.7
			Total		71.0			66.9			63.6			69.9			58.2			70.0			58.1		
Period 7	3	Foundation	North Site	75	20	15	68.0	57	10	63.9	200	10	53.0	185	10	53.6	155	10	55.2	150	0	65.5	156	10	55.1
		Excavation	South Site	78	260	15	48.7	57	10	66.9	83	10	63.6	40	10	69.9	155	10	58.2	126	0	70.0	184	10	56.7
		Foundation	South Site	75	260	15	45.7	57	10	63.9	83	10	60.6	40	10	66.9	155	10	55.2	126	0	67.0	184	10	53.7
			Total		68.0			66.9			63.6			69.9			58.2			70.0			56.7		
Period 8	0.5	Excavation	South Site	78	260	15	48.7	57	10	66.9	83	10	63.6	40	10	69.9	155	10	58.2	126	0	70.0	184	10	56.7
		Foundation	South Site	75	260	15	45.7	57	10	63.9	83	10	60.6	40	10	66.9	155	10	55.2	126	0	67.0	184	10	53.7
			Total		48.7			66.9			63.6			69.9			58.2			70.0			56.7		
Period 9	2	Foundation	South Site	75	260	15	45.7	57	10	63.9	83	10	60.6	40	10	66.9	155	10	55.2	126	0	67.0	184	10	53.7
			Total		45.7			63.9			60.6			66.9			55.2			67.0			53.7		
Period 10	2	Superstructure	Not Specified	75	48	15	60.4	105	0	68.6	83	0	70.6	110	0	68.2	155	0	65.2	126	0	67.0	184	0	63.7
		Interior	Not Specified	46	20	15	39.0	57	0	44.9	83	0	41.6	40	0	47.9	155	0	36.2	126	0	38.0	184	0	34.7
			Total		60.4			68.6			70.6			68.2			65.2			67.0			63.7		
Period 11	3	Superstructure	Not Specified	75	48	15	60.4	105	0	68.6	83	0	70.6	110	0	68.2	155	0	65.2	126	0	67.0	184	0	63.7
		Enclosure	Not Specified	61	48	15	46.4	105	0	54.6	83	0	56.6	110	0	54.2	155	0	51.2	126	0	53.0	184	0	49.7
		Interior	Not Specified	46	20	15	39.0	57	0	44.9	83	0	41.6	40	0	47.9	155	0	36.2	126	0	38.0	184	0	34.7
			Total		60.4			68.6			70.6			68.2			65.2			67.0			63.7		
Period 12	4	Enclosure	Not Specified	61	48	15	46.4	105	0	54.6	83	0	56.6	110	0	54.2	155	0	51.2	126	0	53.0	184	0	49.7
		Interior	Not Specified	46	20	15	39.0	57	0	44.9	83	0	41.6	40	0	47.9	155	0	36.2	126	0	38.0	184	0	34.7
			Total		46.4			54.6			56.6			54.2			51.2			53.0			49.7		
Period 13	15	Interior	Not Specified	46	20	15	39.0	57	0	44.9	83	0	41.6	40	0	47.9	155	0	36.2	126	0	38.0	184	0	34.7
			Total		39.0			44.9			41.6			47.9			36.2			38.0			34.7		

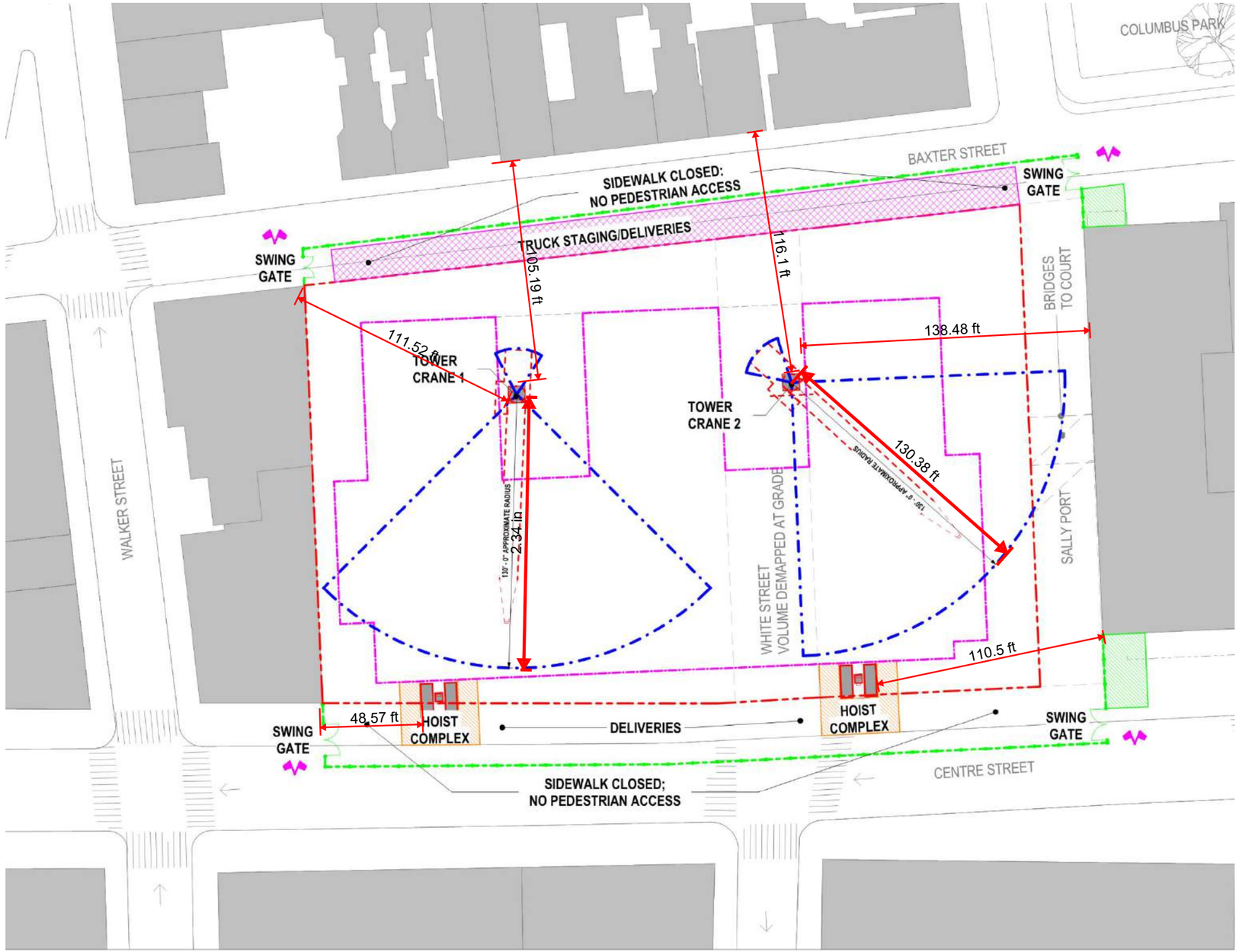
Construction Activity Reference L_{eq}

Activity	Leq @ 50 feet
Demolition	78
Excavation	75
Foundation	75
Superstructure	75
Enclosure	61
Interior	46

RECEPTOR DISTANCES


Canal St
Canal St
Canal St
Mulberry Street (50 ft)
Mott Street (49.8-50.1 ft)
Elizabeth Street (50 ft)
Bowery (~95.4 ft)
White Street (50 ft)
Lafayette Street (80 ft)
Centre Street (74-90 ft)
Baxter Street (50 ft)
Mulberry Street (50 ft)
Elizabeth Street (4
Bowery (Unknown but >90 ft)
Chrystie Street (100 ft)
Worth St
Manhattan Bridge
Downtown Community Television Center; 3-story bldg
96 Baxter Street; Low-income housing; 13-story tower
New York City Civil Court; windows facing north and small section of east. 12-stories tall
Collect Pond Park
New York County Criminal Court / District Attorney; 24-stories tall
Columbus Park
Line of mixed commercial/residential bldgs; generally 6- or 7-stories tall
156.35 ft
184.51 ft
150.45 ft
260.51 ft
56.9 ft
126.64 ft
24.6 ft
154.75 ft
188.41 ft
39.51 ft
82.66 ft
203.97 ft
0.6 in
Measure
100ft
© OpenMapTiles © OpenStreetMap contribu

MANHATTAN DETENTION CENTER – 80 CENTRE STREET



CONSTRUCTION NOISE EVALUATION

			Duration			7				1				1				1				1				1				1				5			
			Months (Timeline)			Jan 2022- Jul 2022				Aug 2022				Sep 2022				Oct 2022				Nov 2022				Dec 2022				Jan 2023				Feb 2023 - Jun 2023			
Receiver Number	Receiver Area	Survey Site	Increment Threshold	Leq	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10
1	Queens Borough Hall	2	4	61.0	62.9	52.3	61.5	0.5	63.4	52.3	61.5	0.5	63.4	52.3	61.5	0.5	63.4	52.3	61.5	0.5	63.4	59.3	63.2	2.2	65.1	52.3	61.5	0.5	63.4	49.3	61.3	0.3	63.2	20.3	61.0	0.0	62.9
2	Queens County Criminal Court	1	4.6	60.4	63.0	69.9	70.4	10.0	73.4	69.9	70.4	10.0	73.4	69.9	70.4	10.0	73.4	69.9	70.4	10.0	73.4	69.9	70.4	10.0	73.4	69.9	70.4	10.0	73.4	52.9	61.1	0.7	63.7	23.9	60.4	0.0	63.0

			Duration			4				9				5				2				1				1				8				9				5			
			Months (Timeline)			Sep 2023 - Dec 2023				Jan 2024 - Sep 2024				Oct 2024 - Feb 2025				Mar 2025 - Apr 2025				May 2025				Jun 2025				Jul 2025 - Feb 2026				Mar 2026 - Nov 2026				Dec 2026 - Apr 2027			
Receiver Number	Receiver Area	Survey Site	Increment Threshold	Leq	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10	Const Leq	Total Leq	Leq Inc	L10
1	Queens Borough Hall	2	4	61.0	62.9	49.3	61.3	0.3	63.2	49.3	61.3	0.3	63.2	49.3	61.3	0.3	63.2	59.3	63.2	2.2	65.1	59.3	63.2	2.2	65.1	59.3	63.2	2.2	65.1	59.3	63.2	2.2	65.1	45.3	61.1	0.1	63.0	30.3	61.0	0.0	62.9
2	Queens County Criminal Court	1	4.6	60.4	63.0	66.9	67.8	7.4	70.8	66.9	67.8	7.4	70.8	66.9	67.8	7.4	70.8	66.9	67.8	7.4	70.8	66.9	67.8	7.4	70.8	66.9	67.8	7.4	70.8	66.9	67.8	7.4	70.8	52.9	61.1	0.7	63.7	37.9	60.4	0.0	63.0

CONSTRUCTION NOISE LEVELS

BBJ - Queens				1	Queens Borough Hall		2	Queens County	
Construction Noise Level Estimates				[Distance / Shielding]	303.83	10	[Distance / Shielding]	127.31	0
Analysis Period (Month)	Duration (months)	Activity	Leq @ 50 Feet	Distance	Shielding?	Leq @ Rec	Distance	Shielding?	Leq @ Rec
Jan 2022- Jul 2022	7	Demolition - Phase II	78	303.83	10	52.3	127.31	0	69.9
		Total		**52.3**			**69.9**		
Aug 2022	1	Demolition - Phase II	78	303.83	10	52.3	127.31	0	69.9
		Demolition - Phase I	78	303.83	10	52.3	638.76	0	55.9
		Total		**52.3**			**69.9**		
Sep 2022	1	Demolition - Phase II	78	303.83	10	52.3	127.31	0	69.9
		Excavation - Phase I	75	303.83	10	49.3	638.76	0	52.9
		Foundation - Phase I	75	303.83	10	49.3	638.76	0	52.9
		Total		**52.3**			**69.9**		
Oct 2022	1	Demolition - Phase II	78	303.83	10	52.3	127.31	0	69.9
		Foundation - Phase I	75	303.83	10	49.3	638.76	0	52.9
		Total		**52.3**			**69.9**		
Nov 2022	1	Demolition - Phase II	78	303.83	10	52.3	127.31	0	69.9
		Superstructure - Phase I	75	303.83	0	59.3	638.76	0	52.9
		Total		**59.3**			**69.9**		
Dec 2022	1	Demolition - Phase II	78	303.83	10	52.3	127.31	0	69.9
		Superstructure - Phase I	75	303.83	0	59.3	638.76	0	52.9
		Enclosure - Phase I	61	303.83	0	45.3	638.76	0	38.9
		Interior - Phase I	46	303.83	0	30.3	638.76	0	23.9
		Total		**59.3**			**69.9**		
Jan 2023	1	Superstructure - Phase I	75	303.83	0	59.3	638.76	0	52.9
		Enclosure - Phase I	61	303.83	0	45.3	638.76	0	38.9
		Interior - Phase I	46	303.83	0	30.3	638.76	0	23.9
		Total		**59.3**			**52.9**		
Feb 2023 - Jun 2023	5	Interior - Phase I	46	303.83	0	30.3	638.76	0	23.9
		Total		**30.3**			**23.9**		
Sep 2023 - Dec 2023	4	Excavation - Phase II	75	303.83	10	49.3	127.31	0	66.9
		Total		**49.3**			**66.9**		
Jan 2024 - Sep 2024	9	Excavation - Phase II	75	303.83	10	49.3	127.31	0	66.9
		Foundation - Phase II	75	303.83	10	49.3	127.31	0	66.9
		Total		**49.3**			**66.9**		
Oct 2024 - Feb 2025	5	Foundation - Phase II	75	303.83	10	49.3	127.31	0	66.9
		Total		**49.3**			**66.9**		
Mar 2025 - Apr 2025	2	Foundation - Phase II	75	303.83	10	49.3	127.31	0	66.9
		Superstructure - Phase II	75	303.83	0	59.3	127.31	0	66.9
		Total		**59.3**			**66.9**		
May 2025	1	Superstructure - Phase II	75	303.83	0	59.3	127.31	0	66.9
		Total		**59.3**			**66.9**		
Jun 2025	1	Superstructure - Phase II	75	303.83	0	59.3	127.31	0	66.9
		Interior - Phase II	46	303.83	0	30.3	127.31	0	37.9
		Total		**59.3**			**66.9**		
Jul 2025 - Feb 2026	8	Superstructure - Phase II	75	303.83	0	59.3	127.31	0	66.9
		Enclosure - Phase II	61	303.83	0	45.3	127.31	0	52.9
		Interior - Phase II	46	303.83	0	30.3	127.31	0	37.9
		Total		**59.3**			**66.9**		
Mar 2026 - Nov 2026	9	Enclosure - Phase II	61	303.83	0	45.3	127.31	0	52.9
		Interior - Phase II	46	303.83	0	30.3	127.31	0	37.9
		Total		**45.3**			**52.9**		
Dec 2026 - Apr 2027	5	Interior - Phase II	46	303.83	0	30.3	127.31	0	37.9
		Total		**30.3**			**37.9**		

Construction Activity Reference L_{eq}

Activity	Leq @ 50 feet
Demolition	78
Excavation	75
Foundation	75
Superstructure	75
Enclosure	61
Interior	46

RECEPTOR DISTANCES

Parking Lot (Phase 1)

303.83 ft

638.76 ft

127.31 ft

1

2

0.81 in

Measure

200ft

APPENDIX I

New York City
Waterfront Revitalization Program
Consistency Assessment Form

FOR INTERNAL USE ONLY
Date Received: _____

WRP No. _____
DOS No. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)* which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: New York City Department of Correction

Name of Applicant Representative: Howard Fiedler

Address: 75-20 Astoria Boulevard

Telephone: 718-546-0700 Email: Howard.Fiedler@doc.nyc.gov

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The City of New York, through the New York City Department of Correction (DOC), is proposing to implement a borough-based jail system (the "proposed project") as part of the City's continued commitment to create a modern, humane and safe justice system. The proposed project would develop four new detention facilities to house individuals who are in the City's correctional custody with one located in each of the Bronx, Brooklyn, Manhattan, and Queens. The Manhattan Site, located at 124-124 White Street is located within the City's Coastal Zone. At the Manhattan Site, the proposed project would redevelop the existing detention facilities with a new detention facility containing approximately 1,270,000 gross square feet (gsf) of above-grade floor area, including support space; community facility and/or retail space; and approximately 125 accessory parking spaces.

2. Purpose of activity

The purpose of the proposed project is to develop a network of four modern detention facilities distributed in the four boroughs with the goal of creating humane facilities that provide appropriate conditions for those who work and are detained there, provide community assets in the neighborhoods, and allow the City to end the use of Rikers Island as a detention facility. Independent of the proposed project the City is implementing strategies to reduce the average daily jail population to 7,000 persons over the next three years, with the ultimate goal to reduce the total number of people in custody to 5,000. Since existing facilities apart from Rikers Island can accommodate only about 2,500 people, the City needs to create sufficient detention capacity at new facilities to facilitate the end of the use of Rikers Island as a detention facility.

C. PROJECT LOCATION

Borough: Manhattan Tax Block/Lot(s): Block 198, Lot 1 and part of Block 167, Lot 1

Street Address: 124-125 White Street

Name of water body (if located on the waterfront): _____

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

☑ City Map Amendment	☐ Zoning Certification	☐ Concession
☐ Zoning Map Amendment	☐ Zoning Authorizations	☐ UDAAP
☑ Zoning Text Amendment	☑ Acquisition – Real Property	☐ Revocable Consent
☑ Site Selection – Public Facility	☐ Disposition – Real Property	☐ Franchise
☐ Housing Plan & Project	☐ Other, explain: _____	
☑ Special Permit		

(if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Board of Standards and Appeals ☐ Yes ☑ No

☐ Variance (use)
☐ Variance (bulk)
☐ Special Permit
(if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

☐ Legislation	☐ Funding for Construction, specify: _____
☐ Rulemaking	☐ Policy or Plan, specify: _____
☑ Construction of Public Facilities	☐ Funding of Program, specify: _____
☐ 384 (b) (4) Approval	☐ Permits, specify: _____
☐ Other, explain: _____	

State Actions/Approvals/Funding

☐ State permit or license, specify Agency: _____ Permit type and number: _____
☐ Funding for Construction, specify: _____
☐ Funding of a Program, specify: _____
☐ Other, explain: _____

Federal Actions/Approvals/Funding

☐ Federal permit or license, specify Agency: _____ Permit type and number: _____
☐ Funding for Construction, specify: _____
☐ Funding of a Program, specify: _____
☐ Other, explain: _____

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

E. LOCATION QUESTIONS

1.	Does the project require a waterfront site?	☐ Yes	☑ No
2.	Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters?	☐ Yes	☑ No
3.	Is the project located on publicly owned land or receiving public assistance?	☑ Yes	☐ No
4.	Is the project located within a FEMA 1% annual chance floodplain? *(6.2)*	☐ Yes	☑ No
5.	Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)*	☑ Yes	☐ No
6.	Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).*	☐ Yes	☑ No

- ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)
- ☐ Special Natural Waterfront Area (SNWA) (*4.1*)
- ☐ Priority Maritime Activity Zone (PMAZ) (*3.5*)
- ☐ Recognized Ecological Complex (REC) (*4.4*)
- ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* ***Part I*** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* ***Part II*** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		Promote	Hinder	N/A
1	**Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**	☑	☐	☐
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	☐	☐	☑
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	☐	☐	☑
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	☑	☐	☐
1.4	In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	☐	☐	☑
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	☐	☐	☑

		Promote	Hinder	N/A
2	**Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.**	☐	☐	☑
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	☐	☐	☑
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	☐	☐	☑
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	☐	☐	☑
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	☐	☐	☑
3	**Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**	☐	☐	☑
3.1.	Support and encourage in-water recreational activities in suitable locations.	☐	☐	☑
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	☐	☐	☑
3.3	Minimize conflicts between recreational boating and commercial ship operations.	☐	☐	☑
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	☐	☐	☑
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	☐	☐	☑
4	**Protect and restore the quality and function of ecological systems within the New York City coastal area.**	☐	☐	☑
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	☐	☐	☑
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	☐	☐	☑
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	☐	☐	☑
4.5	Protect and restore tidal and freshwater wetlands.	☐	☐	☑
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	☐	☐	☑
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	☐	☐	☑
4.8	Maintain and protect living aquatic resources.	☐	☐	☑

		Promote	Hinder	N/A
5	**Protect and improve water quality in the New York City coastal area.**	☐	☐	☑
5.1	Manage direct or indirect discharges to waterbodies.	☐	☐	☑
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	☐	☐	☑
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	☐	☐	☑
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	☐	☐	☑
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	☐	☐	☑
6	**Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**	☑	☐	☐
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	☑	☐	☐
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in *New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms*) into the planning and design of projects in the city's Coastal Zone.	☑	☐	☐
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	☐	☐	☑
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	☐	☐	☑
7	**Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**	☑	☐	☐
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	☑	☐	☐
7.2	Prevent and remediate discharge of petroleum products.	☑	☐	☐
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	☑	☐	☐
8	**Provide public access to, from, and along New York City's coastal waters.**	☐	☐	☑
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	☐	☐	☑
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	☐	☐	☑
8.3	Provide visual access to the waterfront where physically practical.	☐	☐	☑
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	☐	☐	☑

		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☐	☐	☑
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☐	☐	☑
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☐	☐	☑
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☐	☐	☑
9.2	Protect and enhance scenic values associated with natural resources.	☐	☐	☑
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☐	☐	☑
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☐	☐	☑
10.2	Protect and preserve archaeological resources and artifacts.	☐	☐	☑

G. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Connor Lacefield

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Applicant/Agent's Signature:

Date: 3/1/19

APPENDIX J

Alternatives Analysis for the Manhattan Detention Center South Tower-125 White Street, New York, NY

NYC Borough-Based Jail System

Alternatives Analysis for the Manhattan Detention Center South Tower

125 White Street, New York, NY

18DOC001Y

March 21, 2019

I. INTRODUCTION

The City of New York, through the New York City Department of Correction (DOC) and the Mayor's Office of Criminal Justice (MOCJ), is proposing to implement a borough-based jail system (the proposed project) as part of the City's continued commitment to create a modern, humane, and safe justice system. The proposed project would develop four new detention facilities to house individuals who are in the City's correctional custody with one located in each of the Bronx, Brooklyn, Manhattan, and Queens. The sites under consideration consist of the following.

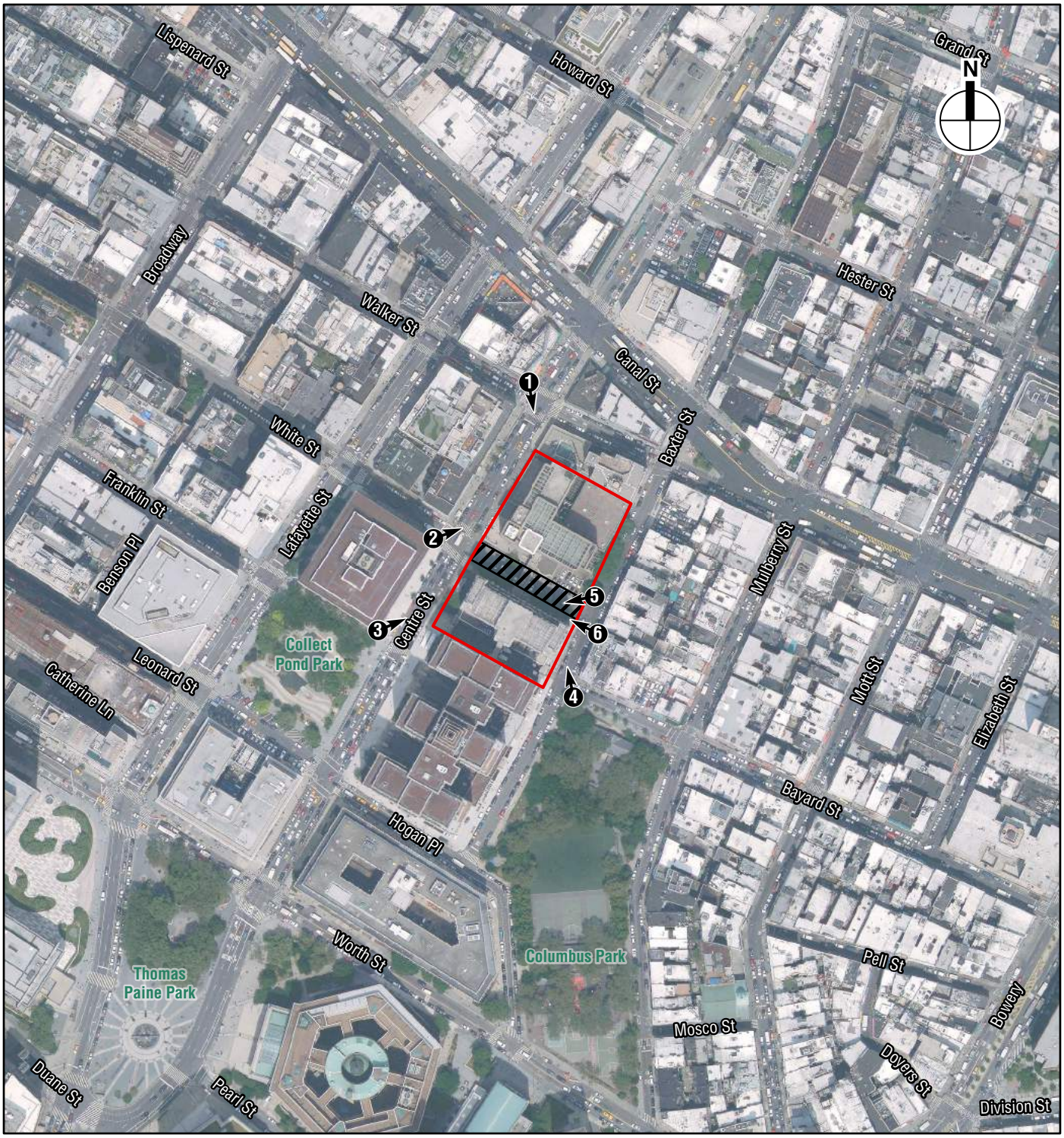
- Bronx Site—745 East 141st Street
- Brooklyn Site—275 Atlantic Avenue
- Manhattan Site—124-125 White Street
- Queens Site—126-02 82nd Avenue

Each of the proposed facilities would provide approximately 1,437 beds to house people in detention, with the intent to roughly distribute the beds equally at all four borough facilities. In total, the proposed project would provide approximately 5,748 beds to accommodate an average daily population of 5,000 people in a system of four borough-based jails, while allowing space for population-specific housing requirements, such as those related to safety, security, physical and mental health, among other factors, and fluctuations in the jail population.

The proposed Manhattan Site includes 125 White Street, also known as the Manhattan Detention Center (MDC) South Tower, which is part of the Manhattan Criminal Courts Building and Prison (New York County Criminal Court) at 100 Centre Street (see **Figures 1-5**).[1] The Manhattan Criminal Courts Building and Prison has previously been determined National Register-eligible by the New York State Historic Preservation Office (SHPO) and has also been determined by the New York City Landmarks Preservation Commission (LPC) to appear New York City Landmark eligible (LPC March 4, 2019 comment letter). The demolition of 125 White Street would constitute a significant direct adverse impact on the Criminal Courts Building and Prison, requiring that appropriate measures to partially mitigate the adverse impact be developed in consultation with LPC.

[1] Collectively, the structures at 100 Centre Street and 125 White Street are referred to as the Criminal Courts Building and Prison in the November 17, 2009 SHPO Resource Evaluation determining that it meets S/NR eligibility criteria. The term "Criminal Courts Building and Prison" has been used in this section for consistency.

3/17/2019



Project Site

Proposed Demapped Area

Photograph View and Reference Number

0 200 FEET

Aerial Map
Manhattan Site - 124-125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 1

South view of the Manhattan Detention Complex on Centre Street, showing the existing North Tower and the South Tower on the east side of Centre Street **1**

Northwest view of the Manhattan Detention Complex from Centre Street, showing the south and west façades of the North Tower **2**

Existing Conditions
Manhattan Site - 124-125 White Street

3 Northeast view of the Manhattan Detention Complex from Centre Street, showing the west façade of the South Tower, the sallyport entrance and a portion of 100 Centre Street

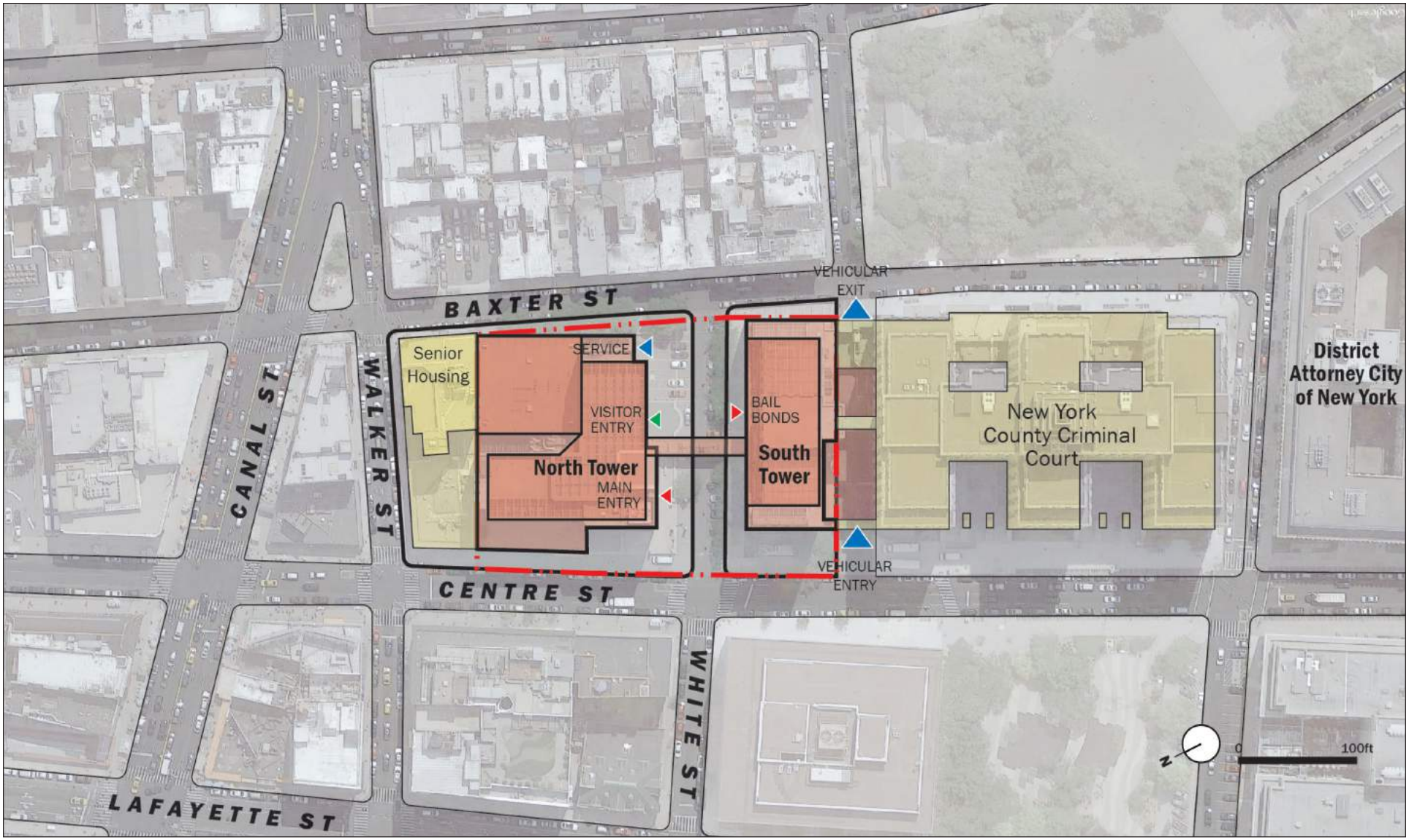
4 Northwest view of the Manhattan Detention Complex from Bayard Street and the north side of Columbus Park, showing the South Tower, the pedestrian bridges connecting the tower to the Manhattan Criminal Court Building, and the sallyport entrance

Existing Conditions
Manhattan Site - 124-125 White Street

South view of the Manhattan Detention Complex from Baxter and White Streets, showing the north façade of the South Tower with the pedestrian bridge over White Street **5**

West view of the Manhattan Detention Complex on White Street, currently used for parking and as entries to the North and South Towers, and pedestrain bridge connecting the North and South Towers **6**

Existing Conditions
Manhattan Site - 124-124 White Street



Existing Manhattan Detention Complex (MDC) Site Plan

In a comment letter dated February 20, 2019 LPC has requested that an Alternatives Analysis be prepared that explores alternatives to avoid the significant adverse impact. This Alternatives Analysis presents an analysis of alternatives to demolition that have been considered.[2] As presented below, the City of New York through DOC have explored all prudent and feasible alternatives to the demolition of the MDC South Tower at 125 White Street to avoid the significant adverse impact, and have determined it is not feasible to retain, adaptively reuse, or incorporate the MDC South Tower at 125 White Street into the proposed project.

II. PROJECT PURPOSE AND NEED

New York City's jail population has fallen by half since 1990, and declined by approximately 30 percent since Mayor de Blasio took office. Given the City's success in reducing both crime and the number of people in jail, coupled with the current physical and operational deficiencies at the Rikers Island Correctional Facility (Rikers Island), the City committed to closing the jails on Rikers Island.

Currently, the majority of the people held in the City's jail system are held at Rikers Island. Rikers Island is a 413-acre City-owned property located in the East River and is part of the Bronx, although it is accessed from Queens. It has a capacity for approximately 11,300 people in detention in eight active jail facilities. Most facilities on Rikers Island were built more than 40 years ago and create serious challenges to the safe and humane treatment of those in detention. In addition, the Island's isolation limits accessibility to both staff and visitors, as described in the report, *A More Just New York City*, issued by the Independent Commission on New York City Criminal Justice and Incarceration Reform (also referred to as the Lippman Commission).

The 2017 report *Smaller, Safer, Fairer*[3] provides the City's roadmap for creating a smaller, safer, and fairer criminal justice system. Central to this effort is the City's goal to provide a system of modern borough-based detention facilities while reducing the number of people in the City's jails to a total average daily population of 5,000 persons.

Under the proposed project, all individuals in DOC's custody would be housed in the new borough-based detention facilities and the City would no longer detain people at Rikers Island. Each proposed facility location is City-owned property, but requires a number of discretionary actions that are subject to the City's Uniform Land Use Review Procedures (ULURP) including, but not limited to, site selection for public facilities, zoning approvals, and for certain sites, changes to the City map.

A guiding urban design principle for the proposed project is neighborhood integration. This includes promoting safety and security, designing dignified environments, leveraging community assets, and providing added value and benefits to the surrounding neighborhoods. The new buildings would be integrated into the neighborhoods, providing connections to courts and service providers and also offering community benefits. The proposed project is intended to strengthen connections between people who are detained to families and communities through allowing people to remain closer to their loved ones, which allows better engagement of incarcerated individuals with attorneys, social service providers, and community supports so that they will do

[2] Information for the preparation of this Alternatives Analysis has been provided by Perkins Eastman including information summarized from *Master Plan for the Borough Based NYC Jail System*, June 2018.

[3] New York City Mayor's Office of Criminal Justice. *Smaller, Safer, Fairer: A Roadmap to Closing Rikers Island*. Available: https://rikers.cityofnewyork.us/the-plan/. Last accessed August 12, 2018.

better upon leaving and be less likely to return to jail. In addition, the proposed project would implement streetscape improvements at each site. The specific improvements at each site would vary, but in general would include sidewalk improvements, new benches, landscaping features, improved lighting, and signage and wayfinding features.

Each facility would be designed to integrate with the surrounding neighborhood urban design while also achieving efficient and viable floorplans that optimize access to program space, outdoor space, and natural light. The borough facilities would be designed to be self-sufficient buildings, with smaller housing units that allow officers to better supervise as a result of the improved floorplans. The proposed project contemplates implementing new borough-based facilities that provide sufficient space for effective and tailored programming, appropriate housing for those with medical, behavioral health and mental health needs, and the opportunity for a more stable reentry into the community. Additionally, the facilities would provide a normalized environment of operations that supports the safety and well-being of both staff and those who are detained in the City's correctional custody.

The proposed project would ensure that each borough facility has ample support space for quality educational programming, recreation, therapeutic services, publicly accessible community space, and staff parking. The support space would also include a public-service-oriented lobby, visitation space, space for robust medical screening for new admissions, medical and behavior health exams, health/mental health care services, medical clinics and therapeutic units, and administrative space. The community space is intended to provide useful community amenities, such as community facility programming and/or street-level retail space. Recreation space would be provided in each facility for staff and people who are detained.

III. MANHATTAN DETENTION FACILITY

DETENTION FACILITY REQUIREMENTS AND DESIGN OBJECTIVES

The proposed detention facilities must be consistent with a number of requirements and standards for adult detention and correctional facilities including, but not limited to, the New York City Board of Correction Minimum Standards, New York State Commission of Correction Minimum Standards for Local Correctional Facilities, Prison Elimination Rape Act Standards, and American with Disabilities Act Accessibility Guidelines (ADA). In addition, a number of criteria were established for site selection and a space program developed for the detention facilities.

SITE SELECTION

To meet project's goals and objectives, site selection criteria was established and included the following:

- Proximity to courthouses to reduce delays in cases and the time people stay in jail.
- Accessibility to public transportation so family members, lawyers, and service providers can easily visit.
- Sufficient size to fit an equitable distribution of the City's jail population across four boroughs, with space to provide a humane safe, and supportive environment.
- City-owned land that would allow for development of the new jail and could accommodate a new facility while enhancing and supporting the existing community.

In addition, sites with direct adjacency that provide a direct, secure connection to a courthouse also preclude the need for daily bus transports of people in detention between the courthouse and detention facility.

FACILITY PROGRAMMING

An Architectural Space Program (the "Program") was developed as part of an interactive process with DOC and other involved agencies and stakeholders (including formerly incarcerated individuals, their families, and other jail visitors) and that reflects review and application of relevant professional standards. These standards, as listed above, include numerous quantitative (square footage) and performance requirements for adult detention and correctional facilities. The Program includes, but is not limited to:

- Public entrance and lobby
- Visitation
- DOC administration
- Support agencies and service providers
- Central control
- Emergency response
- Staff support
- Intake, admissions, and transport
- Release
- Housing units
- Health clinic
- Detainee program and services
- Food services
- Laundry
- Building Support
- Community space

Design criteria were also established including for housing units and cell design. The housing unit (a standardized module consisting of a certain number of cells with a common dayroom, support spaces, and recreation yard where people in detention "live" during their time in detention) size was established by DOC to not exceed 32 beds, with 32 beds the maximum acceptable unit size for achieving greater security for people in detention and staff, and a less stressful, direct supervision general population housing unit environment. Other design criteria include daylight in every cell, consistent cell design type, single occupancy cell design, inclusion of a certain percentage of therapeutic housing units, optimal proportion of housing units to ensure clear sight lines, and optimal daylight orientation for the day rooms. In addition, it was established that each housing unit would have direct access to outdoor recreation (people in detention are entitled to an hour of outdoor recreation daily). Direct access to outdoor recreation from each housing unit is more efficient, decreases the need for transport of people in detention through the facility, and results in a more safe and controlled environment. These criteria are compliant with DOC and National Design standards and with Justice Design Task Force guidelines.[4]

[4] The justice implementation task force on design was established by the Mayor's Office of Criminal Justice, composed of correctional design experts and criminal justice advocates, to shape the strategy for developing the proposed program for the borough-based jail system.

Other design criteria were established for the public facing portions of the facility, including having comfortable and spacious visitation spaces with daylight for family members; public entrances that are accessible, welcoming, and appropriately located; enhancing the surrounding streetscape; and with a neighborhood facing community use on the first floor. A set aside for community facility space of at least 20,000 sf was established for each site, which could include retail or community amenity space. The actual uses would depend on input from neighborhood groups and local government officials, neighborhood context, site constraints, as well as policy decisions by the Mayor's Office.

In addition, other important design criteria were established for functional adjacencies in terms of uses and programs, internal organization including having an efficient internal organization that includes a clear separation of secure and non-secure circulation and that minimizes unnecessary detainee circulation, as well as providing employee parking at each borough facility.

PROPOSED MANHATTAN FACILITY

As shown in **Table 1**, the proposed project would redevelop the site of 124-125 White Street with a new detention facility containing approximately 1,270,000 gsf of above-grade floor area, including approximately 1,437 beds for people in detention; support space; and community facility and/or retail space. This site would also provide approximately 125 on-site, underground, accessory parking spaces. As the site would be directly adjacent to the New York County Criminal Court at 100 Centre Street, no new court/court-related facilities would be necessary.

Table 1
Program Components at the Manhattan Site

Housing for People in Detention[1]	Support Services[2]	Community Facility Space and/or Retail	Centralized Care Services[4]	Court/Court-Related Facilities	Parking	Residential Use	Maximum Zoning Height (in feet)[3]
910,000 gsf *(1,437 beds)*	340,000 gsf	20,000 gsf *(community and/or retail)*	0	0	*125 (accessory)*	0	450

Notes:

1) Includes beds for the general population as well as for mentally ill persons who are detained (i.e., "therapeutic units").

2) Support services include public entrance and lobby, visitation space, space for quality educational programming and services for people in detention, health services and therapeutic unit support, and administrative space.

3) Maximum height is based on conceptual designs for each facility and does not include possible rooftop mechanical penthouses. Actual building height above grade would include an additional 40 feet at each location for rooftop mechanical space.

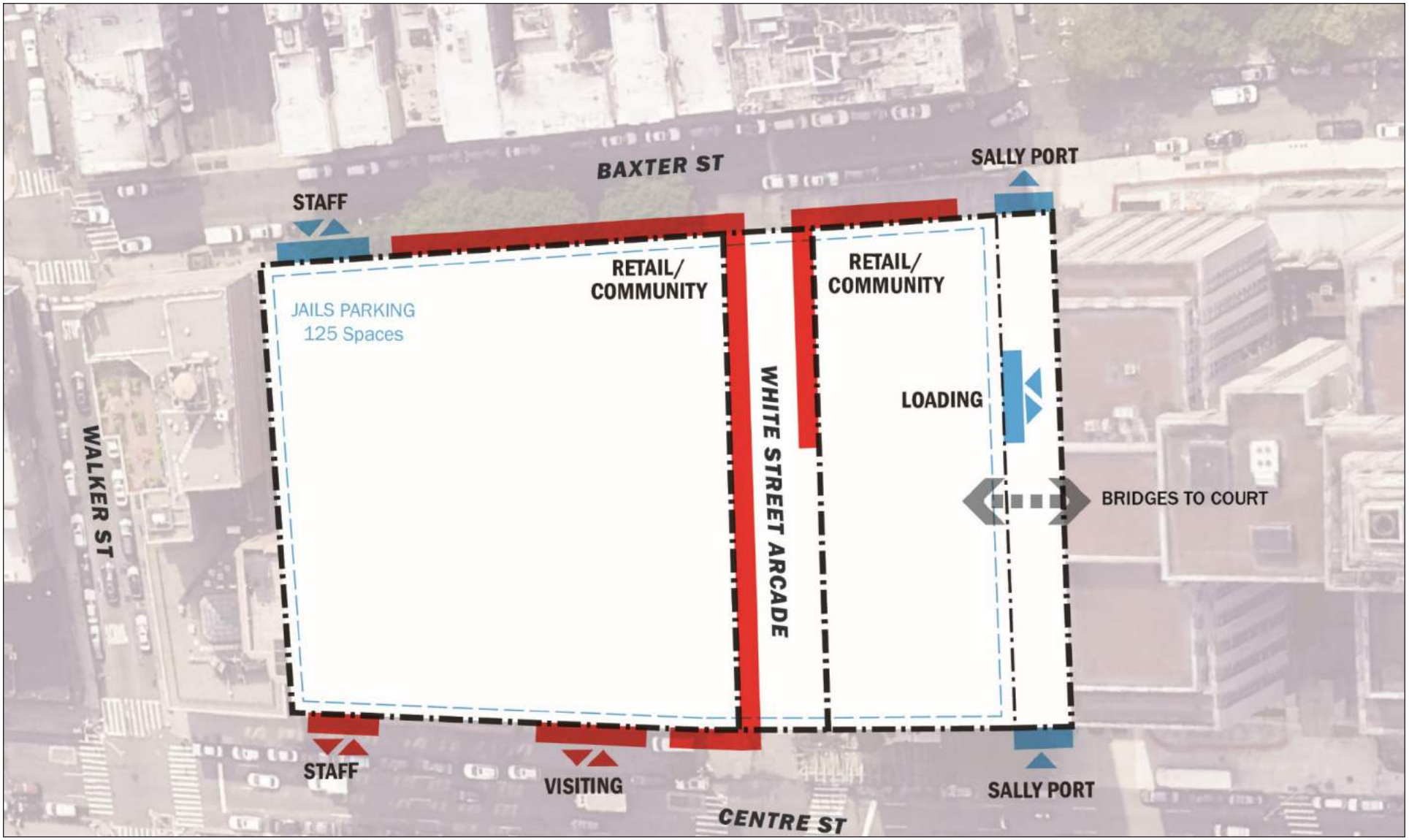
4) Centralized infirmary and maternity ward services for the entire borough-based jail system to be provided at Queens Site.

Source: Perkins Eastman.

The retail/community facility space would be located along Baxter Street and White Street. Loading functions and a sallyport would be re-established and abut 100 Centre Street (see **Figures 6 and 7**). Furthermore, the proposed project would be connected to the New York County Criminal Court at 100 Centre Street at the ground level and via upper level pedestrian bridges, with the expectation that the pedestrian bridges would attach to 100 Centre Street at the same points as is the current condition of the pedestrian bridges connecting the South Tower at 125 White Street and 100 Centre Street. The pedestrian bridges would facilitate the movement of staff and people in detention in a secure, enclosed environment. With the proposed project, White Street would function as a pedestrian-only right-of-way between Baxter Street and Centre Street. The maximum zoning height would be approximately 450 feet tall (see **Figure 8**).

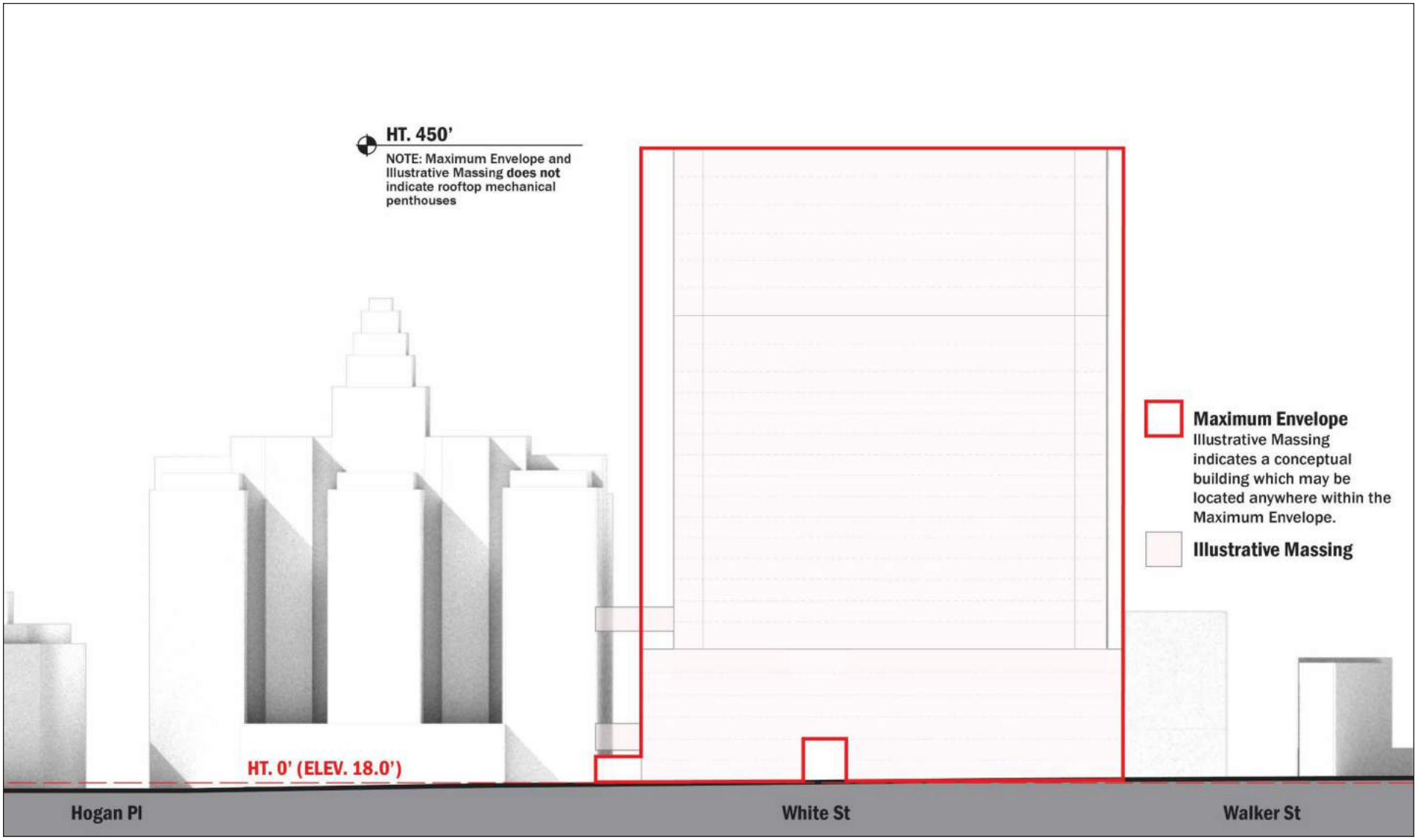
Source: Perkins Eastman

Proposed Site Plan
Manhattan Site - 124-125 White Street
Figure 6



Source: Perkins Eastman

Proposed Access/Circulation Plan
Manhattan Site - 124-125 White Street



Source: Perkins Eastman

Proposed Elevation
Manhattan Site - 124-125 White Street

IV. EXISTING CONDITIONS – 124/125 WHITE STREET SITE

The site at 124-125 White Street (Block 198, Lot 1 and part of Block 167, Lot 1) is occupied by the MDC and is generally bounded by Centre Street, Hogan Place (the extension of Leonard Street) Walker Street, and Baxter Street (see **Figure 5**).

The MDC consists of a 9-story North Tower (124 White Street) with five mezzanine levels and the 13-story South Tower (125 White Street) with a subcellar, cellar, and eight mezzanine levels (see **Figures 2-4**). The buildings combined have approximately 439,000 gross square feet (gsf) with 898 beds for people in detention. The existing capacity of the South Tower at 125 White Street is approximately 390 persons.

The North Tower contains 222,900 gsf and the South Tower contains approximately 212,370 gsf. The two towers operate largely as one facility with the South Tower at 125 White Street connected to the New York County Court at 100 Centre Street by bridges and a tunnel on the cellar level (see **Figure 3**). An aerial walkway above White Street connects the North Tower and South Tower of the detention complex (see **Figure 4**). White Street has to accommodate pedestrian access as well as parking for DOC, resulting in a highly congested area, and there is no parking for visitors at either the North or South Towers.

The complex houses men in detention who cannot make bail or sentence is three years or less or facing sentence in Manhattan. There is no access for people with disabilities (non ADA). The North Tower was opened in 1990 and is not a historic resource. The South Tower, formerly the Manhattan House of Detention was built between 1938 and 1941, and was remodeled in the 1980s, primarily in its interior. Between the South Tower and 100 Centre Street there is a sallyport that serves 100 Centre Street and the MDC North and South Towers.

Due to the intensive year round use of the North and South Towers and growth of staff needs, the buildings have been renovated and adapted for uses that are different from those intended by the original design. This has led to undersized areas constrained in access and circulation and overcrowding. The elevators in both buildings (five in the North Tower and four in the South Tower) are undersized with small cabs and are utilized to transport staff, persons in detention, supplies, and food, which are uses that would have separate and dedicated elevators in typical modern facilities.

The MDC's location on two city blocks and in two separate buildings poses several safety and security issues and inefficiencies with respect to access and internal circulation. These include needing to move people in detention from the South Tower to the North Tower where visitation occurs, moving people from the main Intake/processing area located in the South Tower to the Health Services-Clinic located in the North Tower for medical screening, staff offices are scattered between the two buildings with the staff roll-call (muster) no longer occurring in a dedicated room but on the bridge over White Street, staff locker rooms are scattered around the two buildings including within the secured perimeter, there is only one mosque which is located in the North Tower, there is only one gymnasium/auditorium which is located in the North Tower, and different sections of the food service and maintenance areas are located in both buildings which requires movement of staff and foodstuffs/materials through the tunnel between the two buildings.

The current configuration results in the need to move a large number of people in detention vertically through the buildings and across the aerial walkway to connect to spaces in the North and South Towers. This includes trips up and down elevators or on narrow stairs which poses

concerns with respect security and accidents, and generates additional detainee movement that requires escort.

In addition, the housing units in both the North and South Towers use a split-level design requiring the use of short flights of stairs to access cells and other housing and support spaces. This also creates greater opportunities for falls and security and control issues, creates challenges with elderly people in detention and those with medical issues, and precludes the ability to house disabled and wheelchair bound people in detention. None of the cells are ADA compliant. This design also impacts sightlines from the control room officer to the dayrooms and cells.

V. ALTERNATIVES ANALYSIS

ALTERNATIVE A: REUSE EXISTING MDC BUILDINGS

To avoid the potential for an adverse impact to a historic resource, retention and reuse of existing MDC facilities including the South Tower at 125 White Street was considered.

An assessment and investigation of the existing MDC facilities determined that the proposed goals of the NYC Borough-Based Jail System cannot be fulfilled through the renovation of, or modifications to, the existing buildings. It is not feasible to accommodate the necessary housing, programs, services, and support functions due to the current floor area and configuration of the existing facilities. As described above, the MDC North and South Towers have a combined gsf of approximately 435,000, with the South Tower only containing 212,370 gsf, and the proposed program contains approximately 1,270,000 gsf of above-grade floor area. There are a total of 898 beds in the MCD facility, of which approximately 390 are located in the South Tower, but with a total of approximately 1,437 beds required for the proposed project at the Manhattan Site.

The MDC facility requires significant upgrades, renovation, and replacement to meet the New York City Building Code and Local Laws' requirements. Modernization of mechanical, electrical, plumbing fire alarm and fire safety, security, conveying, food service and kitchen systems are needed in varying degrees in each building, and are required to meet the goals of a safe, modern, and efficient detention facility. Specifically with respect to the South Tower at 125 White Street, in order to fit in the outdoor recreation per housing unit and the housing unit programs, approximately 40 percent of the existing building capacity would be lost. As described above, this would substantially reduce the number of individuals in the building, which already consists of a lower number (390 persons) than the North Tower. Furthermore, 125 White Street does not possess sufficient floorplate size to provide the direct outdoor access to each housing unit, and the floorplate size is also insufficient to provide the desired detainee programming elements within the housing units.

In addition, even if substantial renovations were made at the South Tower to fully reconfigure the interior to address issues including non-ADA compliance, there are a number of issues posed under the Reuse Existing MDC Buildings Alternative by the MDC facility being located on two separate city blocks and in two different buildings which would be resolved by having a new unified detention facility.

Overall, the existing facilities cannot be renovated to meet the needs of the contemporary facilities envisioned. The existing facilities are limited with regard to capacity and inefficient in design. Facility layouts are outdated and do not provide for the quality of life sought in more modern detention facilities, with regard to space needs, daylight, and social spaces. Therefore, it has been determined that reuse of the existing MDC facility would not meet the goals and objectives of the proposed project and would not be feasible.

ALTERNATIVE B: RETAIN 125 WHITE STREET, BUILD ON 124 WHITE STREET, BUILD IN WHITE STREET, RELOCATE ADMINISTRATIVE USES TO OTHER SITES

As the South Tower at 125 White Street is a historic resource, this alternative considers the feasibility of retaining 125 White Street and constructing a new building in the location of the North Tower at 124 White Street, building in or over White Street as an addition to 125 White Street, and locating support/administrative uses at other sites.

Retention of 125 White Street would require construction of a much taller building at 124 White Street, and substantial renovations to the South Tower to meet the requirements of the New York City Building Code and Local Laws' requirements. It is anticipated that the building that would need to be constructed on the site of the North Tower to provide the sufficient floor area to meet the project's programming and design requirements if 125 White Street were to be retained would be approximately 600 feet tall, which would make the building a very large structure incompatible with the immediately surrounding area. As described above, each borough facility is to be designed to integrate with the surrounding neighborhood urban design while also achieving efficient and viable floorplans to meet the project's goals and objectives. Therefore, a substantially taller structure that is not compatible with the surrounding area would not be feasible.

In considering whether there could be a vertical expansion of the South Tower to reduce the height of a new building on the site of the North Tower, any sort of a substantial vertical addition to the South Tower would significantly adversely impact the South Tower's historic appearance and original design.

A horizontal expansion is not feasible. The South Tower is bounded by Baxter Street to the east, Centre Street to the west, and the Manhattan Criminal Courts Building at 100 Centre Street to the south. Therefore, any horizontal expansion would need to occur the north, in and/or above White Street. Any substantial addition to generate a sufficient amount of floor area to make the addition worthwhile to construct would significantly alter the South Tower by altering and removing the north façade from view and changing the overall original design of the building. In addition, removal of the windows on the north façade of the South Tower would create issues with respect to providing natural light to housing units. The South Tower is designed with cells built along the north (White Street) side of the building, with floors 4 through 12 either fully or half filled with cells along this wall. The South Tower is already designed with relatively narrow windows and removing windows along the long north façade would reduce natural light and constrain design with respect to the placement of housing units within the building.

It would also not be practicable to locate/relocate administrative functions to an off-site location or locations in the surrounding area, if such space were available, to generate a lower building height of a new building at 124 White Street. These administrative functions are directly related to the internal jail functions/jail support and cannot be located offsite.

Overall, this alternative would perpetuate similar inefficiencies and issues as the current condition because it would have two separate buildings instead of one consolidated facility, construction of a much taller out-of-scale building at 124 White Street would be inconsistent with the goals and objectives of the proposed project to integrate the facilities with the surrounding urban design, and substantial vertical expansion or a horizontal expansion of the South Tower at 125 White Street would adversely impact the historic appearance and character of the building.

Therefore, an alternative that retains 125 White Street would not meet the goals and objectives of the proposed project and would not be feasible.

ALTERNATIVE C: DEVELOP FACILITY AT ANOTHER SITE

A number of sites that meet the site selection criteria described above are located in the vicinity of 100 Centre Street, where the court facilities are located. Two sites are parks, Collect Pond Park and Columbus Park, which would not be appropriate to redevelop with new detention facilities. North of Collect Pond Park, the New York City Civil Court at 111 Centre Street is a 12-story, building that contains courthouse facilities and would also not allow for a direct connection to 100 Centre Street. Sites at 125 Worth Street and 80 Centre Street were considered and discarded. The site at 125 Worth Street, which contains city offices, is an approximately 40,000-square-foot site. Development of a detention facility at this site to meet the proposed programming requirements, due to its relatively small footprint, would yield a very tall, approximately 700-foot-tall building and an inefficient layout. As the building is 50 percent occupied, alternative locations would need to be provided for the existing tenants if the site were to be utilized. In addition, the site is non-contiguous to 100 Centre Street; as described above, direct adjacency to court facilities is an important factor in site consideration, as otherwise the facility must include booking and arraignment process space and/or bus transports of people in detention would be required between the courthouse at 100 Centre Street and the detention facility.

The Louis J. Lefkowitz State Office Building at 80 Centre Street was also evaluated as a potential site for the proposed detention facility in Manhattan. This site was removed from consideration for several reasons. In response to community opposition to the 80 Centre Street site expressed through the public scoping as part of City Environmental Quality Review (CEQR) process and the City's community engagement process, the City decided not to site the proposed Manhattan detention facility at 80 Centre Street. In addition as set forth in the Mayor's press release regarding the decision to not pursue the 80 Centre Street location, it is crucial that Rikers Island be closed and that transition to a smaller, safer borough-based jail system occur as quickly as possible. There were challenges associated with relocating various offices at 80 Centre Street that would make siting a jail there far more complicated and more costly than had been originally anticipated. In addition, as set forth in a statement issued by the Mayor's press team regarding the decision to not pursue 80 Centre Street, meeting with the community made it clear that the existing MDC site at 124 and 125 White Streets better addressed their needs without the costly challenges created by using 80 Centre Street.[5] One of the community's primary concerns were the extent of the shadows that would fall on Columbus Park if 80 Centre Street was redeveloped as the detention facility.

Both sites at 125 Worth Street and 80 Centre Street are developed with historic buildings; both buildings have been determined National Register-eligible and LPC has also determined that 80 Centre Street is also NYCL-eligible. Therefore, selection of either of these sites would not have reduced or eliminated the potential for an adverse impact on historic resources, as the demolition of either building would also constitute a significant adverse impact.

VI. CONCLUSION

The City of New York, through DOC, has evaluated the potential for reusing, renovating, and expanding the South Tower of the MDC at 125 White Street as part of the proposed Manhattan site of the proposed borough-based jail system. However, as outlined above, the building does

[5] "Mayor Nixes High-Rise Chinatown Jail at 80 Centre Street," posted on November 29, 2018 at https://www.boweryboogie.com/2018/11/mayor-nixes-high-rise-chinatown-jail-at-80-centre-street/

not meet the requirements for a modern detention facility as proposed by the proposed project. In addition, it is not feasible to expand the building vertically or horizontally, or to construct a much larger structure at 124 White Street, or to allocate administrative uses at off-site locations. Due to certain site requirements, including city-owned land, adjacency to court facilities, sufficient parcel size, and access to public transportation, there are no other feasible sites for construction of the detention facility in the vicinity of the New York County Court at 100 Centre Street. Therefore, it has been determined that it is not feasible to retain the South Tower at 125 White Street, which is a contributing portion of the National Register-eligible and NYCL-eligible Manhattan Criminal Courts Building and Prison historic resource. The City of New York through DOC would consult with LPC regarding appropriate measures to partially mitigate this significant adverse impact on historic resources.