A. INTRODUCTION

As described in **Chapter 02.0, "Project Alternatives,"** the Rehabilitation and Infill Alternative involves the rehabilitation and renovation of the existing buildings on the Project Sites as well as the development of three new buildings: two one-story retail buildings fronting 9th Avenue on the Fulton Houses Project Site; and one 24-story, 110-unit residential building with lower-level community facility space fronting W. 27th Drive on the Elliott-Chelsea Houses Project Site, which includes the demolition and relocation of the existing John Lovejoy Elliott Center (hereafter referred to as the Elliott Center). The development program for this alternative assumes a net increment of 110 DUs, of which 55 would be market-rate and 55 would be affordable units at various income bands including extremely low, low, moderate, and middle; approximately 7,150 gross square feet (gsf) of local retail space; and an approximately 10,030-gsf senior citizens health care center. This alternative would be as-of-right under zoning and as such would not require any discretionary land use approvals. The existing 2,056 NYCHA Section 9 dwelling units (DUs) would be rehabilitated and converted to Section 8 Project-Based Voucher (PBV) DUs under the Permanent Affordability Commitment Together (PACT)/ Rental Assistance Demonstration (RAD) program, and all other existing uses on the Project Sites (community facility/neighborhood center and daycare) would remain. Refer to **Table 05.22-1** below as well as **Chapter 02.0** for more details. As discussed in **Chapter 02.0,** the Rehabilitation and Infill Alternative is financially and logistically infeasible because there would not be enough market-rate units to financially support the PACT and affordable housing components of the Proposed Project. Nevertheless, in response to comments on the Draft Scope of Work (DSOW), this infeasible alternative is analyzed for information purposes below.

Table 05.22-1: Incremental Development in the Rehabilitation and Infill Alternative

Land Use	No-Action Alternative	Rehab. & Infill Alternative	Increment
Existing NYCHA DUs	2,056	0	-2,056
Future Section 8 Project-Based Voucher (PBV) DUs*	0	2,056	+2,056
Affordable DUs (Middle, Moderate, Low, and Extremely Low Income)	0	55	+55
Market-Rate DUs	0	55	+55
Total DUs	**2,056**	**2,166**	**+110**
Community facility / Neighborhood Center (gsf)	56,859	56,859	0
Daycare (gsf)	10,300	10,300	0
Medical Office (gsf)	0	10,030	+10,030
Local Retail (gsf)	0	7,150	+7,150
Supermarket (gsf)	0	0	0
Total Building Area (gsf)	1.9 million	2.1 million	+0.2 million
Accessory Parking Spaces	95	95	0
Building height (maximum)	232'	240'	+8'
Building stories (maximum)	25	25	0

Note:
***** Existing NYCHA DUs would be converted to Section 8 PBV DUs through the PACT Program and would be set aside for existing NYCHA residents. As such, while the classification of these DUs would change, the population served and number of units would be the same as under the No-Action Alternative.

B. METHODOLOGY

The methodologies used to assess and make impact determinations for the Rehabilitation and Infill Alternative are the same as those used for the four feasible alternatives analyzed in the technical analysis **Chapters 05.01 to 05.20**. Refer to the "Methodology" section of each chapter, which is incorporated by reference, for details. As with the feasible alternatives, impact determinations for the Rehabilitation and Infill Alternative are made on the basis of identifying the incremental changes added by this alternative to the future baseline condition, i.e., the No-Action Alternative. This is in accordance with the impact determination from the 2021 *City Environmental Quality Review Technical Manual* (*CTM)* and other applicable guidance and was also used for the four feasible alternatives. The impact determinations for this alternative are also presented in comparison to the impact determinations for the Rezoning Alternative to provide context for the reader. The Rezoning Alternative is used as a basis for comparison because the Rezoning Alternative has the potential to be the most impactful alternative considered in this EIS. In addition, the Rezoning Alternative has been identified as the Preferred Alternative and is referred to by the latter term for the remainder of this chapter.

C. REHABILITATION AND INFILL ALTERNATIVE ANALYSIS

Land Use, Zoning, and Public Policy

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse impacts related to land use, zoning, and public policy as compared to the No-Action Alternative. The Rehabilitation and Infill Alternative would result in the rehabilitation of the existing buildings on the Project Sites as well as development of three new buildings (including the demolition and relocation of the existing Elliott Center), as compared to the staged replacement and demolition of all existing buildings on the Project Sites and the staged development of 15 new buildings in the Preferred Alternative. Similar to the Preferred Alternative, the Rehabilitation and Infill Alternative would result in the development of new affordable and market-rate residential units, commercial, and community facility spaces on the Project Sites. In total, the Rehabilitation and Infill Alternative would add an incremental 110 DUs (55 affordable units and 55 market-rate residential DUs), approximately 7,150 gsf of local retail space, and a new 10,030-gsf senior citizens health care center, as compared to the introduction of an incremental 3,454 residential DUs (1,038 affordable and 2,416 market-rate), an approximately 87,223 gsf community facility neighborhood center, 7,685 gsf of daycare, 13,785 gsf of medical office related uses, a 17,580 gsf supermarket, and 27,371 gsf of local retail space in the Preferred Alternative.

The Rehabilitation and Infill Alternative would not require any changes to existing zoning or change permitted land uses on site. Neither the Preferred Alternative nor the Rehabilitation and Infill Alternative would directly displace any land uses in a manner that would have a significant adverse impact on surrounding land uses, nor would either alternative generate land uses that would be incompatible with land uses, zoning, or public policies in the secondary study area. Moreover, both the Preferred Alternative and the Rehabilitation and Infill Alternative would promote the advancement of applicable NYC coastal zone policies, and would not hinder any other policies.

Socioeconomic Conditions

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse socioeconomic conditions impacts as compared to the No-Action Alternative. Under both alternatives, all existing NYCHA residents of the Project Sites would continue to live on-site under the Proposed Project. In the Preferred Alternative, there would be temporary periods of relocation for approximately 120 households across the Project Sites, as well as the Elliott-Center due to the phasing of new construction on the site. Comparatively, under the Rehabilitation and Infill Alternative, there may be periods of relocation for all existing households during rehabilitation activities. Under the Rehabilitation and Infill Alternative, day care and neighborhood space would not be required to be relocated and would be rehabilitated in place.

Both alternatives would incorporate United States Department of Housing and Urban Development (HUD)-approved Relocation Plans for the temporary relocations, adhering to the requirements of applicable statutes and regulations, including but not limited to the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended (URA) and implementing regulations at 49 Code of Federal Regulations (CFR) 24, Notice H 2016-17; Office of Public and Indian Housing (PIH) 2016-17, as amended, and the corresponding HUD Notice H-2019-09 PIH 2019-2023 (HA) REV-4 (September 5, 2019) as may be further amended from time to time (RAD Fair Housing, Civil Rights, and Relocation Notice); HUD Notice PIH-2024-40-2021-07 (HA), Demolition and/or Disposition of Public Housing Property, Eligibility for Tenant-Protection Vouchers, and Associated Requirements, (January 19, 2021, December 26, 2024) (Section 18); Section 18 of the US Housing Act of 1937, as amended and implementing regulation, 24 CFR Part 970. With these measures in place, neither the Rehabilitation and Infill Alternative nor the Preferred Alternative would result in significant adverse direct residential or business/institutional displacement impacts.

Both the Preferred Alternative and the Rehabilitation and Infill Alternative would introduce new affordable income-restricted housing units and are expected to expand housing options available to a range of household income levels in the study area, with the Preferred Alternative introducing 1,038 income-restricted units and the Rehabilitation and Infill Alternative introducing 55 income-restricted units. As the Rehabilitation and Infill Alternative would not increase the half-mile study area's population by more than five percent, it would not have the potential to introduce a substantial new population that could result in significant adverse impacts to residential real estate conditions in the study area per *CTM* guidance. As detailed in **Chapter 05.02, "Socioeconomic Conditions,"** there is already a readily observable trend toward higher incomes and more costly housing throughout the half-mile study area, and rents for market-rate housing area already above what is affordable to low- to middle-income households. This trend is expected to continue in the future without the Proposed Project. Both the Preferred Alternative and the Rehabilitation and Infill Alternative would increase the supply of market-rate housing, as well as affordable housing which would otherwise not exist absent either alternative. Therefore, both alternatives would serve to maintain a study area housing stock that is affordable to households with a wider range of incomes as compared to the No-Action Alternative, in which the trend of rising residential rents and market-rate development in the study area is expected to continue.

Additionally, like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse socioeconomic conditions impacts related to indirect

business/institutional displacement or significant adverse impacts on a specific industry. Neither alternative would exceed CEQR's 200,000-sf incremental screening threshold for indirect business/institutional displacement, and neither is expected to affect conditions within a specific industry. Moreover, neither alternative would affect a substantial number of workers or residents who are dependent on the goods and services provided by affected businesses, nor result in the loss or substantial diminishment of a particularly important product or service within the City. Furthermore, neither the Preferred Alternative nor the Rehabilitation and Infill Alternative includes any citywide regulatory changes that would result in significant adverse impacts to the economic and operational conditions of certain types of businesses or processes. As such, neither project would have the potential to result in significant adverse impacts on specific industries or indirect business/institutional displacement.

Community Facilities and Services

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in any significant adverse impacts to community facilities or services as compared to the No-Action Alternative. As detailed above, the temporary relocation of community facilities during construction of the Preferred Alternative as well as the renovations of the Rehabilitation and Infill Alternative would not result in significant adverse direct impacts. Under both alternatives, the existing community facilities would be temporarily relocated, but would remain open and operational at nearby temporary location(s) during renovation and there would be no significant adverse disruption in services. In the Preferred Alternative, the Elliott Center would be relocated and temporary space(s) on- and off-site (identified and designed in coordination with the Hudson Guild leadership team) would be provided to house its existing programming. It is expected that similar measures would be carried out during the construction of the Rehabilitation and Infill Alternative. Under both alternatives, Elliott Center would remain operational throughout the construction process with only minimal disruption, closing only to transfer and relocate services to new space on the Project Sites.

Additionally, like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in any indirect effects to public schools, early childhood programs, libraries, fire, police, or health services. The net increment of 110 residential units that would be introduced in the Rehabilitation and Infill Alternative would generate approximately four elementary school students, one middle school student, and two high school students based on CEQR student generation rates (see **Chapter 05.03, "Community Facilities and Services"**). Therefore, the Rehabilitation and Infill Alternative would not result in more than 50 or more elementary/middle school students or 150 or more high school students, and therefore does not have the potential to result in significant adverse impacts to public schools. The incremental approximately 55 affordable residential units of the alternative is less than the CEQR analysis threshold of 170 incremental affordable DUs, and as such, the alternative would not result in significant adverse impacts to early childhood education.

The Rehabilitation and Infill Alternative would result in a less than one percent increase in the average number of residential units served at the nearby Muhlenberg, Jefferson Market, and Andrew Heiskill library branches. As the alternative would not generate a five percent increase in the average number of residential units served per branch (equivalent to a 901-unit increase in

Manhattan), it would not have the potential to result in significant adverse impacts to libraries. Moreover, as the alternative would not create a sizeable new neighborhood where none existed before, it would not have the potential to result in significant adverse impacts to police, fire, or health care services.

Open Space

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in any significant adverse impacts to open space as compared to the No-Action Alternative. Neither alternative would encroach on public open space, or result in the loss of public open space, or cause changes in open space such that it no longer serves the same user population. The Rehabilitation and Infill Alternative would not result in direct effects to open spaces as a result of shadows, air quality, or operational noise on open space resources. Both the Preferred Alternative and the Rehabilitation and Infill Alternative would result in a net decrease of private open space on the Project Sites as a result of the construction of new buildings on the sites. Under the Rehabilitation and Infill Alternative, this decrease would be less due to the construction of fewer new buildings. The Rehabilitation and Infill Alternative would improve the existing open space amenities for building tenants, whereas the Preferred Alternative would result in a complete overhaul of private open spaces on the Project Sites, resulting in less private open space acreage but qualitatively improved amenities. Neither of these alternatives would result in significant adverse direct open space impacts pursuant to CEQR.

Additionally, neither alternative would result in indirect open space impacts. The incremental 110 residential DUs that would be introduced as a result of the Rehabilitation and Infill Alternative would result in a decrease of approximately 0.31 percent in the total open space ratio of the study area as compared to the No-Action Alternative, which is below the CEQR threshold of two or more percent that would indicate potential open space impacts. Therefore, like the Preferred Alternative, the Rehabilitation and Infill Alternative would not have the potential to result in any significant adverse indirect open space impacts.

Shadows

The new 24-story building that would be constructed on the Elliott-Chelsea Houses Project Site in the Rehabilitation and Infill Alternative would cast incremental shadows on portions of three sunlight-sensitive resources: the High Line, Church of the Holy Apostles, and Chelsea Park. However, the incremental shadows on the High Line and the Church of the Holy Apostles would be limited in duration and/or size, and would not affect the public use or enjoyment of these resources. Nevertheless, the new building could potentially result in significant adverse shadows on portions of Chelsea Park to the north, similar to but less than those under the Preferred Alternative.

Moreover, it should be noted that the anticipated two one-story retail buildings to be constructed on the Fulton Houses Project Site in the Rehabilitation and Infill Alternative would not be taller than 50 feet, which pursuant to CEQR guidance, does not require detailed shadows analysis as they are unlikely to result in significant adverse impacts. Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not cause any sunlight-sensitive vegetation to receive

less than six to eight hours during the growing season, and therefore, no vegetation would be threatened by project-generated shadows in either alternative.

Historic and Cultural Resources

Similar to the Preferred Alternative, the Rehabilitation and Infill Alternative would result in an adverse direct impact to historic architectural resources. The Elliott-Chelsea Houses Project Site, which is eligible for listing on the State/National Registers of Historic Places (S/NR). In the Rehabilitation and Infill Alternative, the residential buildings comprising the Elliott-Chelsea Houses Project Site would be renovated rather than demolished as proposed in the Preferred Alternative. However, the campus of the S/NR-eligible Elliott-Chelsea Houses would be negatively impacted through both the demolition of the Elliott Center structure on the Elliott-Chelsea Houses Project Site (a direct impact) and construction of the new 24-story building on W. 27th Drive within private open space on the campus (an indirect contextual impact). As the current site plan, in which buildings are placed in a designed landscape, is a significant feature of the Elliott-Chelsea Houses Project Site, the introduction of a new building to the Elliott-Chelsea Houses portion of the Project Site would remove an open space feature of the resource and alter the site plan, setting of the historic buildings, and relationship of the historic buildings to each other. While the majority of the existing S/NR-eligible buildings on the campus would be preserved, the demolition of the Elliott Center building and the construction of a new residential building in the Rehabilitation and Infill Alternative would constitute adverse effects to the historic resource.

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in any significant adverse indirect, contextual, construction-related, or shadows impacts to historic architectural off-site resources, or any direct impacts to archaeological resources. Both alternatives would be subject to NYC Department of Building's (DOB's) *TPPN #10/88*, requiring a construction protection plan to be reviewed and approved by the New York City Landmarks Preservation Commission (LPC) prior to the commencement of any construction on the Project Sites. Additionally, neither alternative would significantly alter the context or setting of nearby historic architectural resources or cast shadows on sunlight-sensitive historic features that would diminish the qualities that make the surrounding landmarks and historic districts historically and architecturally significant.

Urban Design and Visual Resources

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse urban design or visual resource impacts as compared to the No-Action Alternative. However, the alternative would not facilitate the urban design benefits anticipated in the Preferred Alternative, such as uniform street walls with active streetscapes. The Rehabilitation and Infill Alternative would retain and renovate the existing buildings on the Project Sites, many of which are setback from the street with inactive ground-floors, resulting in an unengaging pedestrian experience in the vicinity of these blocks. The new one-story retail buildings on 9th Avenue on the Fulton Houses Project Site and the 24-story residential building with lower-level community facility space on W. 27th Drive on the Elliott-Chelsea Houses Project Site in the Rehabilitation and Infill Alternative would partially ameliorate this condition, but not with the

same benefits as expected in the Preferred Alternative. The Rehabilitation and Infill Alternative would improve the existing open space amenities for building tenants, and the visual urban experience for passing pedestrians, whereas the Preferred Alternative would result in a complete overhaul of private open spaces on the Project Sites, resulting in less private open space acreage but qualitatively improved amenities and urban design conditions.

Natural Resources

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse natural resource impacts as compared to the No-Action Alternative. The Project Sites and immediate environs are an urbanized environment, and no natural resources are present on or near them. As detailed in **Chapter 05.08, "Natural Resources,"** there is one candidate endangered/threatened species identified as occurring in or near both of the Project Sites and one endangered species identified as occurring in or near the Fulton Houses Project Site. However, as the Project Sites do not provide critical habitats for either of these species, the Rehabilitation and Infill Alternative, like the Preferred Alternative, would not jeopardize either species or adversely modify critical habitats.

Hazardous Materials

Similar to the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse hazardous materials impacts as compared to the No-Action Alternative. Investigation and testing of the Project Sites prior to repair and renovation work—or prior to construction in the case of three infill buildings— as well as radon assessments per HUD requirements, would occur under both alternatives. As discussed in **Chapter 05.09, "Hazardous Materials,"** the radon assessment for the Project Sites indicated that the sites are low risk for radon. A Phase I environmental site assessment has already been completed for the Project Sites, and remedial investigation reports (Phase IIs), Remedial Action Plans (RAPs), and Construction Health and Safety Plans (CHASPs) have been completed for the first two development sites under all feasible alternatives. Phase II investigations would be conducted for the remaining infill building locations prior to construction and RAPs, with CHASPs to protect workers during construction, would be implemented to the extent warranted based on the Phase II investigations as required and will be obligations of the Permanent Affordability Commitment Together (PACT) Partner that will be memorialized in legally binding documents. With the implementation of these measures in the Rehabilitation and Infill Alternative, similar to the Preferred Alternative, no significant adverse impacts arising from hazardous materials would occur.

Water and Sewer Infrastructure

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse impacts to water supply or sewer infrastructure as compared to the No-Action Alternative. As detailed above, the alternative would introduce an incremental 110 DUs, 7,150 gsf of local retail space, and a 10,030-gsf senior health care center to the Project Sites. Based on the CEQR rates detailed in **Chapter 05.10, "Water and Sewer Infrastructure,"** these additional spaces would generate an incremental water demand of approximately 24,213 gpd, a negligible percentage of the one billion gallons of water supplied daily to NYC by DEP. As changes of this

magnitude would not be large enough to have a significant adverse impact on the City's water system pursuant to CEQR, the incremental demand would not adversely affect the City's water supply or system water pressure. The Rehabilitation and Infill Alternative would have the potential to result in an increase of up to approximately 21,246 gallons per day (gpd) of sewage flow (approximately 0.02 percent), a negligible percentage of the average daily flow of the North River Wastewater Resource Recovery Facility (WRRF). Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in an exceedance of the plant's permitted capacity. Additionally, in both alternatives, the combined stormwater (i.e., wet-weather) flows from the Project Sites would increase. However, the Project Sites are located in an area that is well-served by combined sewer infrastructure that can sufficiently handle wastewater flows of both the Preferred Alternative and the Rehabilitation and Infill Alternative. Moreover, under both alternatives, construction would be required to comply with DEP's Unified Stormwater Rule, Therefore, neither alternative would have the potential to result in significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure.

Solid Waste and Sanitation Services

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse impacts to solid waste and sanitation services as compared to the No-Action Alternative. The Rehabilitation and Infill Alternative would result in an increase of approximately 3.3 tons per week of solid waste, as compared to approximately 78.4 tons per week generated by the Preferred Alternative. Neither of these increases would reach the level of impact significance, as they would both be considered negligible relative to the approximately 12,260 tons of solid waste handled by the New York City Department of Sanitation (DSNY) every day and the 13,000 tons per day handled by private carters. As such, similar to the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in an increase in solid waste that could overburden available waste management capacity. It would also not conflict with, or require any amendment to, the City's solid waste management objectives as stated in the New York City Solid Waste Management Plan (SWMP).

Energy

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse impacts on energy systems as compared to the No-Action Alternative. The incremental development associated with both alternatives is expected to create an increased demand on energy systems, including electricity and gas. It is estimated that the Rehabilitation and Infill Alternative would result in an increase of approximately 22.9 billion British Thermal Units (BTU), as compared to an increase of approximately 416.6 billion BTU in the Preferred Alternative. However, these increases represent a very small fraction of the City's energy demand, which is estimated at approximately 166.6 trillion BTU. Moreover, both alternatives would be required to comply with 2020 New York City Energy Conservation Code (NYCECC), which governs performance requirements of heating, ventilation, and air conditioning (HVAC) systems as well as exterior building envelopes of new buildings. Although it would not result in significant adverse impacts on energy systems, the existing buildings on the Project Sites that would remain in the Rehabilitation and Infill Alternative would nevertheless not have the benefits of the electrified building heat and hot water systems of the Preferred Alternative, and no green roofs

would be added to these buildings under the Rehabilitation and Infill Alternative. Nevertheless, it is expected that the three new buildings in the Rehabilitation and Infill Alternative would have electric building systems for heat and hot water.

Transportation

Unlike the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in any significant adverse transportation impacts as compared to the No-Action Alternative. In total, across the three non-contiguous blocks that would contain new development, the Rehabilitation and Infill Alternative would result in peak hour person trips of 227, 243, 271, and 299 people in the weekday AM, midday, PM, and Saturday peak hours, respectively (refer to **Table 05.22-2b** for the travel demand; **Table 05.22-2a** summarizes the transportation planning factors used to forecast the travel demand). When assigned to the specific blocks of development, these increments would be below all the CEQR thresholds for impacts for traffic, transit (bus and subway), pedestrians, and parking. This reflects the geographic distribution of the new uses introduced under this alternative, which disperses the project-generated trips across the Project Sites. The residential and community facility uses on the Elliott-Chelsea Houses Project Site would generate approximately 156, 133, 130, and 136 pedestrian trips in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Similarly, the local retail uses on the Fulton Houses Project Site, split between two buildings located two blocks apart, would generate 58, 96, 130, and 152 pedestrian trips, in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. These pedestrian volumes, which include trips by other modes with a pedestrian component, are below the applicable screening analysis threshold of 200 or more pedestrian trips occurring at any sidewalk, crosswalk, or corner area. This is in contrast to the Preferred Alternative which, as detailed further in **Chapter 05.13, "Transportation,"** would result in significant adverse impacts to vehicular traffic at 11 intersections and pedestrian conditions at six sidewalks and two crosswalks.

Air Quality

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse impacts related to mobile source air quality as compared to the No-Action Alternative. Similar to the Preferred Alternative, the Rehabilitation and Infill Alternative would not generate traffic volumes that exceed the CEQR carbon monoxide (CO) screening threshold, and as such, no significant mobile source impacts are expected. Additionally, like the Preferred Alternative, the maximum concentration increments of particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) from mobile sources in the Rehabilitation and Infill Alternative are projected to be lower than the corresponding CEQR *de minimis* criteria. Moreover, there would be no significant adverse air quality impacts related to parking facilities in either alternative. Additionally, like the Preferred Alternative, the Rehabilitation and Infill Alternative does not include a transportation or industrial component, and as such, would not result in any new stationary source of pollutants or adversely affect the State Implementation Plan (SIP). In terms of industrial sources, no businesses of concern were found to have New York State Department of Environmental Conservation (NYSDEC) air permits or DEP certificates of operation within the study area, and no other potential sources of concern were identified for the Project Sites.

Table 05.22-2a
Transportation Planning Factors - Rehabilitation and Infill Alternative

Land Use:	Residential (Market-Rate and Affordable)	Local Retail	Medical Office
Trip Generation:	(1)	(1)	(1)
Weekday	8.18	329.0	74.6
Saturday	9.08	358.0	37.0
	per DU	per 1,000 gsf	per 1,000 sf
Temporal Distribution:	(1)	(1)	(1)
AM	9.3%	4.8%	11.0%
MD	5.6%	8.0%	12.6%
PM	8.5%	10.9%	8.5%
Saturday	8.4%	11.7%	16.6%
	(2)	(5)	(7)
Modal Splits:	All Periods	Weekday SAT	All Periods
Auto	6.7%	4.0% 4.0%	1.0%
Taxi	3.2%	1.0% 1.0%	5.0%
Subway	52.2%	1.0% 1.0%	60.0%
Bus	4.7%	1.0% 1.0%	5.0%
Bike	3.4%	1.0% 1.0%	4.0%
Walk/Other	29.8%	92.0% 92.0%	25.0%
	100.0%	100.0% 100.0%	100.0%
	(7)	(7)	(7)
In/Out Splits:	In Out	In Out	In Out
AM	22% 78%	52% 48%	62% 38%
MD	50% 50%	50% 50%	53% 47%
PM	62% 38%	50% 50%	39% 61%
Saturday	55% 45%	50% 50%	54% 46%
Vehicle Occupancy:	(2)(3)	(5)	(7)
Auto	1.15	1.20	1.53
Taxi	1.40	1.20	1.53
Truck Trip Generation:	(1)	(1)	(10)
	Weekday Weekend	Weekday Weekend	Weekday Weekend
	0.06 0.02	0.35 0.04	0.29 0.29
	per DU	per 1,000 gsf	per 1,000 sf
	(1)	(1)	(10)
AM	12.0%	8.0%	3.0%
MD	9.0%	11.0%	11.0%
PM	2.0%	2.0%	1.0%
Saturday	9.0%	11.0%	0.0%
	In Out	In Out	In Out
All Periods	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%

Notes :

(1) *2021 City Environmental Quality Review (CEQR) Technical Manual.*

(2) Modal split and vehicle occupancy data based on 2015 -2019 ACS journey-to-work data for Manhattan census tracts 83, 89, 93, 97, and 99.

(3) Source: Inwood Rezoning *FEIS* (2018).

(5) Based on NYCDOT Local Retail Mode Choice Surveys.

(7) Based on data provided by NYCDOT.

(10) Source: *Soho Noho Rezoning FEIS* (2021).

Table 05.22-2b
Travel Demand Forecast - Rehabilitation and Infill Alternative

Land Use:		Residential (Market-Rate and Affordable)		Local Retail		Medical Office		TOTAL	
Size/Units:		110	DU	7,150	gsf	10,300	gsf		
Peak Hour Person Trips:									
	AM	84		58		85		227	
	MD	50		96		97		243	
	PM	76		130		65		271	
	Saturday	84		152		63		299	
Person Trips:									
		In	Out	In	Out	In	Out	In	Out
AM	**Auto**	1	4	2	1	1	0	4	5
	Taxi	1	2	0	0	3	2	4	4
	Subway	10	34	0	0	31	19	41	52
	Bus	1	3	0	0	3	2	4	5
	Bike	1	2	0	0	2	1	3	3
	Walk/Other	6	20	28	27	13	8	47	55
	Total	20	65	30	28	53	32	103	124
			1						
		In	Out	In	Out	In	Out	In	Out
MD	**Auto**	2	2	2	2	1	0	5	4
	Taxi	1	1	0	0	3	2	4	3
	Subway	13	13	0	0	31	27	44	40
	Bus	1	1	0	0	3	2	4	3
	Bike	1	1	0	0	2	2	3	3
	Walk/Other	7	6	46	46	13	11	66	63
	Total	25	24	48	48	53	44	126	116
			-1						-1
		In	Out	In	Out	In	Out	In	Out
PM	**Auto**	3	2	2	2	0	0	5	4
	Taxi	2	1	0	0	1	2	3	3
	Subway	25	15	0	0	15	25	40	40
	Bus	2	1	0	0	1	2	3	3
	Bike	2	1	0	0	1	2	3	3
	Walk/Other	14	9	63	63	6	10	84	82
	Total	48	29	65	65	24	41	138	135
			1						2
		In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	3	3	3	3	0	0	6	6
	Taxi	1	1	0	0	2	1	3	2
	Subway	23	20	0	0	21	18	44	37
	Bus	2	2	0	0	2	1	4	3
	Bike	2	1	0	0	1	1	3	2
	Walk/Other	14	11	73	73	9	7	96	91
	Total	45	38	76	76	35	28	156	141
			-1						-2
Vehicle Trips :									
		In	Out	In	Out	In	Out	In	Out
AM	**Auto (Total)**	1	3	2	1	1	0	4	4
	Taxi	1	1	0	0	2	1	3	2
	Taxi Balanced	2	2	0	0	2	2	4	4
	Truck	0	0	0	0	0	0	0	0
	Total	3	5	2	1	3	2	8	8
		In	Out	In	Out	In	Out	In	Out
MD	**Auto (Total)**	2	2	2	2	1	0	5	4
	Taxi	1	1	0	0	2	1	3	2
	Taxi Balanced	2	2	0	0	2	2	4	4
	Truck	0	0	0	0	0	0	0	0
	Total	4	4	2	2	3	2	9	8
		In	Out	In	Out	In	Out	In	Out
PM	**Auto (Total)**	3	2	2	2	0	0	5	4
	Taxi	1	1	0	0	1	1	2	2
	Taxi Balanced	2	2	0	0	2	2	4	4
	Truck	0	0	0	0	0	0	0	0
	Total	5	4	2	2	2	2	9	8
		In	Out	In	Out	In	Out	In	Out
Saturday	**Auto (Total)**	3	3	3	3	0	0	6	6
	Taxi	1	1	0	0	1	1	2	2
	Taxi Balanced	2	2	0	0	2	2	4	4
	Truck	0	0	0	0	0	0	0	0
	Total	5	5	3	3	2	2	10	10

Notes: 50% credit applied to local retail trips to account for pass-by trips.
50% of taxis inbound with passengers are assumed to depart with outbound passengers.

Therefore, like the Preferred Alternative, no significant adverse air quality impacts would occur from industrial sources in the Rehabilitation and Infill Alternative.

The proposed upgrades to the Project Sites in the Rehabilitation and Infill Alternative would be expected to result in better building quality for residents as a result of improvements to building systems, the mitigation of indoor vapors (if determined to be present based on a soil vapor survey), removal of lead-based paint, asbestos hazards and sources of mold, in addition to compliance with Home Ventilating Institute (HVI) performance standards.

Improvements to building systems in the Rehabilitation and Infill Alternative would be expected to include some or all of the following: rehabilitation of building envelopes; replacement of roofs; electrical infrastructure upgrades; replacing heating, cooling, hot water, and ventilation systems; and abatement of mold and water infiltration.

Therefore, this alternative is expected to improve indoor air quality for tenants of the buildings comprising the Project Sites. However, the rehabilitated buildings at the Elliott-Chelsea Houses Project Site would continue to be served by two fossil fuel-fired boiler plants operated by NYCHA; therefore, the emissions reductions that would be realized through the shutdown of the NYCHA boiler plants in the Preferred Alternative or Non-Rezoning Alternative would not occur.

Greenhouse Gas Emissions

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse impacts to greenhouse gas emissions (GHG) or climate change as compared to the No-Action Alternative. Under the Rehabilitation and Infill Alternative, the existing boiler plants at the Elliott-Chelsea Houses Project Site would continue to be operational, with greater GHG emissions than under the Preferred Alternative as the rehabilitated buildings would have less efficient systems and would continue to rely on fossil fuels for heating and hot water. As such, this alternative would not contribute to meeting the City and State's GHG reduction benchmarks of 80 percent and 85 percent, respectively, to the same extent as the Preferred Alternative.

Noise

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse noise impacts as compared to the No-Action Alternative. Under both alternatives, the maximum increase in Leq (noise equivalent sound level) due traffic-generated noise would be less than three dBA ("A" weighted sound level in decibels). Increases of this magnitude would be considered barely perceptible and not significant according to CEQR guidance.

Up to 31 dBA of building attenuation would be required in order to meet CEQR and HUD guidance under both the Preferred Alternative and the Rehabilitation and Infill Alternative. These specifications will be obligations of the PACT Partner that will be memorialized in legally binding documents in both alternatives. With the implementation of the prescribed noise attenuation levels, the Rehabilitation and Infill Alternative, like the Preferred Alternative, would provide sufficient attenuation to achieve CEQR interior noise level guidance of 45 dBA or lower for residential

and/or community facility uses and *HUD Noise Guidebook* interior noise level guidelines of 45 dBA or lower for residential uses. Therefore, like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in any significant adverse noise impacts related to building noise attenuation requirements.

Public Health

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in significant adverse impacts in any of the technical areas that contribute to public health: operational air quality, operational noise, water quality, hazardous materials, or construction. Therefore, there would be no significant adverse public health impacts expected during construction or operation of either project.

Neighborhood Character

The Rehabilitation and Infill Alternative would not result in significant adverse impacts in any of the technical areas that contribute to neighborhood character: land use, zoning, and public policy, socioeconomic conditions, open space, urban design and visual resources, transportation, or noise. Therefore, like the Preferred Alternative, the Rehabilitation and Infill Alternative would not have the potential to result in significant adverse impacts to neighborhood character.

Construction

Unlike the Preferred Alternative, which would result in construction noise and construction transportation impacts, the Rehabilitation and Infill Alternative would not result in any significant adverse construction impacts as compared to the No-Action Alternative. Construction of each of the three new buildings on the Project Sites would be considered short-term pursuant to CEQR (i.e., less than two years), and construction-related activity of the new buildings would not overlap, as they are located on three separate, non-contiguous blocks. Any temporary disruptions as a result of the renovations of the existing buildings on the Project Sites and the construction of the three new buildings in the Rehabilitation and Infill Alternative would be temporary, and all work would be done in coordination with applicable agencies.

In the Rehabilitation and Infill Alternative, renovation of existing apartments and community facility uses would proceed on a rolling basis, leading to the staggered temporary relocation of all residents and services. Renovations of building-wide issues would be conducted concurrently with repairs of individual units and would not require the additional relocation of residents and services beyond that occurring for repair of individual units. The rehabilitation of existing buildings in this alternative would severely inconvenience residents and disrupt community facilities/services during construction and, unlike the Preferred Alternative, would require all households and services to be temporarily relocated in phases during certain rehabilitation activities. In this phased relocation, some residents would be living in temporary accommodations while other residents would continue occupying their apartments, living in buildings under active construction. Services occupying the existing community facility spaces would also be temporarily relocated and otherwise located in buildings under active construction, likely causing disruptions of services.

Under the Rehabilitation and Infill Alternative, each resident and service on the Project Sites would need to be relocated for at least three months as their unit is renovated, while lead abatement would be performed and the electrical and plumbing systems would be improved. However, the three-month relocations would likely be longer due to the complexity of the rehabilitation program, delays in permitting, identification of new permits, review and sign-off by DOB, procurement times, and variances in buildings conditions and levels of deterioration identified during work. Despite the rehabilitation, residents and services, after being temporarily relocated, would still return to apartments in buildings with remaining, uncorrected conditions in the Rehabilitation and Infill Alternative.

Environmental Justice

Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in a disproportionately high adverse human health impact or environmental impact on minority or low-income populations as compared to the No-Action Alternative. As detailed further in **Chapter 05.20**, **"Environmental Justice,"** the Project Sites are partially located within identified Disadvantaged Communities as well as low-income and/or minority census block groups. Like the Preferred Alternative, the Rehabilitation and Infill Alternative would not result in disproportionate pollution burdens on disadvantaged communities. The Rehabilitation and Infill Alternative would be expected to improve environmental and health effects on resident minority and low-income populations of the Project Sites through the rehabilitation of existing affordable housing units, including the incorporation of noise attenuation and hazardous materials remediation, as detailed above. However, the Rehabilitation and Infill Alternative would not be as beneficial to low-income, minority, and disadvantaged communities and individuals as the Preferred Alternative because the Rehabilitation and Infill Alternative would involve more disruption to existing tenants, would provide substantially fewer qualitative housing improvements, and would provide much less additional affordable housing, less retail space, and less community facility space on the Project Sites as compared to the Preferred Alternative.