A. INTRODUCTION

This chapter analyzes a range of alternatives to the proposed project. Five alternatives are considered: a No Action Alternative, which assumes no zoning changes or other proposed actions for the site and no development on the project site; an As-of-Right Alternative, in which the project site is developed as-of-right with a commercial development; a No NYPD Mounted Unit Facility Alternative, which considers the effects of a development on the project site in which the proposed NYPD facility is not provided but in which the other proposed actions are approved and the other elements of the proposed development program are completed; a Lesser Density/CB 4 Alternative, which considers redevelopment with a lower permitted residential density as proposed by Manhattan Community Board 4; and a No Unmitigated Impact Alternative, which considers the magnitude of development that could occur on the projected development sites without resulting in any unmitigated significant adverse impacts, which has been updated since the Draft EIS to reflect the results the further investigation of the feasibility of potential mitigation measures.

Table 20-1 presents comparison of the programs for the proposed action/RWCDS and the alternatives considered in this chapter and Table 20-2 identifies the peak hour vehicle and person trips generated by each.

For each of the technical analyses presented in the EIS, the anticipated effects of the proposed action are compared to those that would result from each of the alternatives. The purpose of this analysis, as set forth in the *City Environmental Quality Review (CEQR) Technical Manual*, is to provide the decision makers with the opportunity to consider practical alternatives that are consistent with the project's purpose, and that could potentially reduce or eliminate significant adverse environmental impacts identified in the EIS.

B. NO ACTION ALTERNATIVE

This alternative is analyzed in the future without the proposed action in each of the technical areas of the EIS, Chapters 2 through 19. The No Action Alternative would not involve any major changes to the project site and no discretionary actions would be taken. However, the applicant would complete ongoing foundation work and remove and properly dispose of any hazardous materials present on the site. The applicant completed as-of-right excavation of the site in 2008.

LAND USE, ZONING AND PUBLIC POLICY

Under the No Action Alternative, the project site would remain vacant except for the completion of the building foundation being constructed on the project site. No new residential or commercial uses would be introduced on the project site. Unlike the proposed action, this alternative would not reinforce the existing patterns of development in this area of

Table 20-1, Proposed Action and Alternatives: Program

	Residential (1)	Health Club	Local Retail	Auto Dealership	NYPD Mounted Unit	Destination Retail (2)	Office
Proposed Action	900 DUs	20,000	8,800	330,000	36,000	-	-
No Action Alternative	-	-	-	-	-	-	-
As-of-right Alternative	-	-	-	330,000	-	108,000	307,300
No NYPD Mounted Unit Facility Alternative	900 DUs	30,000	16,800	330,000	-	-	-
Lesser Density/CB4 Alternative	646 DUs	-	-	330,000	-	-	-
No Unmitigated Impact Alternative	303 DUs	-	-	330,000	-	-	-

(1) 900 DUs under the proposed action and the No NYPD Mounted Unit Facility Alternative would include approximately 180 affordable lower income DUs (20% of total) pursuant to an Inclusionary Housing Bonus and HFA financing. Lesser Desnity/CB4 Alternative would not include an Inclusionary Housing Bonus and therefore likely would not include affordable lower income units.
(2) Expected to be a home improvement/hardware store (based on zoning and market conditions)

Table 20-2, Proposed Action and Alternatives: Vehicle and Person Trips

	VEHICLE TRIPS				PERSON TRIPS			
	WKDY AM	WKDY MD	WKDY PM	SAT MD	WKDY AM	WKDAY MD	WKDAY PM	SAT MD
Proposed Action	221	174	220	182	905	847	1,190	847
No Action Alternative	-	-	-	-	-	-	-	-
As-of-right Alternative	212	378	353	438	1,082	2,165	2,095	2,382
No NYPD Mounted Unit Facility Alternative	224	192	226	196	937	1,175	1,363	1,027
Lesser Density/CB4 Alternative	213	144	136	136	579	349	636	469
No Unmitigated Impact Alternative	N/A	NA	N/A	N/A	N/A	N/A	N/A	N/A

(1) Expected to be a home improvement/hardware store (based on zoning and market conditions)

Manhattan. Overall, neither the No Action Alternative nor the project's development would result in significant adverse impacts to the area's land use, zoning, and public policy.

SOCIOECONOMIC CONDITIONS

Like the proposed action, this alternative would not result in either direct or indirect commercial and residential displacement, and would not have any adverse effects on specific industries. However, unlike the proposed project, this alternative would not provide housing in the study area and would not be consistent with existing trends in this area of Manhattan.

COMMUNITY FACILITIES

Neither the No Action Alternative nor the proposed action would increase demands for police and fire protection. The No Action Alternative would not generate any new school-age children, while the proposed action would introduce new elementary, middle, and high school students. Similarly, this alternative would not generate additional residents who could use local public library branches. While the proposed action would result in significant adverse impacts on elementary schools within the half-mile radius study area and on public day care services within the one-mile radius study area, the No Action Alternative would not result in significant adverse impacts on elementary or middle schools or day care. The local public library branches would be able to accommodate the additional demand for library services from residents generated by the proposed action and no significant adverse impacts to libraries would occur.

OPEN SPACE

Under the No Action Alternative, there would not be an introduction of new residents and workers to the open space study area. The half-mile study area open space ratio for the No Action Alternative, 0.825 acres per 1,000 residents, will be below the average city-wide community district median of 1.5 acres per 1,000 residents. In addition, the active open space ratio in the area will continue to be well below DCP's optimal planning goal of 2.0 acres per 1,000 residents, with an active open space ratio of 0.409 acres per 1,000 residents. The passive open space ratio will be slightly below DCP's optimal planning goal of 0.5 per acres, with a passive open space ratio of 0.414. Neither the No Action Alternative nor the proposed action would result in any significant adverse effects on open space in the study area.

SHADOWS

Without a new building on the project site, no new shadows would be cast on the open spaces and historic resources in the study area. While the proposed action would result in increased shadows, no significant adverse shadow impacts are anticipated for the open space resources surrounding the project site. There would be significant shadow impacts anticipated for the

sunlight-sensitive stained-glass rose window above the entrance of Centro Maria in the future with the proposed action. As discussed in Chapter 19, "Mitigation," this would be an unavoidable adverse impact of the proposed project. This impact would not occur under the No Action Alternative.

HISTORIC RESOURCES

There are three historic resources located within 400 feet of the project site. These are Centro Maria at 539 W. 54th Street, and 552 and 554 W. 53rd Street, which are adjoining properties located across the street from the project site. These resources are eligible for listing on the State and National Registers of Historic Places (S/NR) but are not afforded special construction protections as they are not S/NR-listed or designated NYC Landmarks. A renovation completed in 2007 of the latter two historically distinct buildings reconfigured them into a single affordable housing development with ground floor commercial space.

Eligible (but not designated) resources, such as those within 90 feet of a construction site are not afforded any special protections, except for the basic structural protections provided by the New York City Department of Buildings (DOB) regulations. Under the No Action Alternative, the three eligible historic resources located across the street from the project site (at a lateral distance of approximately 60 feet) it is assumed that no construction would occur on the project site and there would be no potential for construction-related impacts on these historic resources.

As with the proposed action, the No Action Alternative would not result in the disturbance of archaeological resources, as LPC has determined that the project site is not archaeologically sensitive.

URBAN DESIGN AND VISUAL RESOURCES

With the No Action Alternative, the project site would be vacant except for building foundation walls constructed as part of the ongoing foundation work on the project site. Unlike the proposed action, the No Action Alternative would not redevelop the site with a new building that would potentially improve the urban design character of the redeveloping Clinton neighborhood as compared to existing conditions by enhancing pedestrian conditions, and enlivening streets in an area where pedestrian activity is limited.

NEIGHBORHOOD CHARACTER

In the No Action Alternative, the area surrounding the project site will experience new development, primarily residential and mixed (residential-retail) use. With increased development and continued growth in travel demand in the area, some congested intersections will become worse and additional intersections will become congested. The moderately high noise levels in the area (i.e., projected No Action daytime Leq(1) values that range between 67.7 and 73.8 dBA), which are fairly typical of similar areas in Manhattan are expected to

continue. Based on anticipated development in the area, the overall character of the area is expected to become more residential with less vacant land and fewer industrial/commercial uses. Neither the No Action Alternative nor the proposed action is expected to result in significant adverse impacts to the elements that contribute to the character of the neighborhood.

HAZARDOUS MATERIALS

Under the No Action Alternative, foundation work on the project site will continue under as-of-right conditions and hazardous materials concerns will be addressed by the applicant, in accordance with applicable regulations. The applicant has completed excavation of the site in 2008 and performed hazardous materials and disposal in accordance with applicable legal requirements. Pursuant to the proposed action, the applicant developed a Remedial Action (RAP) and Construction Health and Safety Plan, which has been reviewed and approved by DEP in 2008 for future work on the project site. No significant adverse impacts are expected either with the proposed action or the No Action Alternative.

INFRASTRUCTURE AND SOLID WASTE AND SANITATION

Under this alternative, demands on local utility systems, including water supply, sewage treatment, and solid waste and sanitation, would not increase over existing conditions, but even with the proposed action, no adverse impacts are anticipated.

TRAFFIC AND PARKING

Although the No Action Alternative would not generate any new traffic trips, traffic volumes in the study area would be expected to increase as a result of planned development in the study area and general growth in the city. Significant adverse traffic impacts at 4 intersections in the weekday AM peak hour, 3 in the weekday midday peak hour, 3 in the weekday PM peak hour, and 2 in the Saturday midday peak hour would not occur with this alternative, thus eliminating the need for mitigation associated with the proposed development. As with the proposed action, no impacts to parking are anticipated with this alternative.

TRANSIT AND PEDESTRIANS

Transit and pedestrian facilities in the study area would experience an increase in pedestrian volumes as a result of background growth and planned developments. The No Action Alternative would not result in any new pedestrian trips and therefore, there would be no increased demand for pedestrian space generated by the project site in the study area. Similarly, subway and bus trips would not increase as a result of this alternative. As with the proposed action, no impacts to pedestrians, public transportation, and pedestrian safety conditions are expected with the No Action Alternative.

AIR QUALITY

With the No Action Alternative, the insignificant *de minimis* increases in the 8-hour carbon monoxide (CO) concentrations resulting from traffic generated by the proposed action would not occur. No violations of National Ambient Air Quality Standards (NAAQS) are predicted to occur under either the No Action Alternative or the proposed action, and both would be consistent with the New York State Implementation Plan (SIP) for the control of ozone and carbon monoxide. As no building would be developed on the site under this alternative, there would be no HVAC emissions generated on the project site. Like the proposed action, this alternative would not have any significant stationary source air quality impacts.

NOISE

As the No Action Alternative would not result in any new uses on the project site, it would not result in any permanent mobile or stationary noise sources. Any noise related to the ongoing foundation work on the project site would be similar to the construction noise associated with the proposed project. As with the proposed project, the No Action Alternative would not create any significant adverse noise impacts on nearby noise sensitive uses.

The noise levels at the monitoring sites in the vicinity of the project site are moderately high and are fairly typical of similar areas in Manhattan. With the No Action Alternative, the Leq noise levels at these locations would be negligibly higher, with increases of less than 1 dBA. Changes of this magnitude would be insignificant and imperceptible. As the No Action Alternative would not be introducing a noise sensitive use in this area, it would not require an (E) designation or a Restrictive Declaration to avoid significant adverse noise impacts as would be required with the proposed action.

CONSTRUCTION IMPACTS

The No Action Alternative would not generate as much temporary construction disruption as would be attributable to the proposed action. The only construction under the No Action Alternative would be the completion of ongoing work resulting in the completion of foundations. Under the proposed action as well as under the No-Action Alternative, all construction would be governed by applicable city, state, and federal regulations regarding construction activities, avoiding significant adverse impacts in other areas. The No-Action Alternative would result in less truck traffic and construction-related noise projected to occur with the proposed action.

The construction activities associated with the proposed action, i.e., work beyond foundation, including economic benefits, would not occur under this alternative. The economic effects of major construction projects are typically estimated based on direct benefits—the value of site improvements as measured by construction-related labor, materials and services, and indirect benefits—expenditures made by suppliers, construction workers, and other employees involved in the direct activity.

PUBILC HEALTH

Neither the No Action Alternative nor the proposed action would result in significant adverse impacts to public health. It is expected that with either the No Action Alternative or the proposed action, no air quality impacts as a result of increase vehicular traffic or emissions from stationary sources would result. Neither the No Action Alternative nor the proposed action would create a new source of noise, and neither would result in significant adverse hazardous materials

C. AS-OF-RIGHT ALTERNATIVE

The As-of-Right Alternative analyzes the potential as-of-right development that could occur on the project site, without the need for discretionary actions such as those required for the proposed project. The as-of-right alternative presented herein is a theoretical scenario. The zoning designation of M1-5 (Special Clinton District) would remain and development allowed under existing zoning regulations would occur. The existing site zoning permits commercial and light manufacturing uses with a floor area ratio (FAR) of 5.0 and community facility uses with an FAR of 6.5. Residential uses are not permitted.

This as-of-right development would include an approximately 170-foot tall, 12-story commercial development, featuring a two-story base and three cellar levels, as the site already has been excavated by the applicant on an as-of-right basis pursuant to Department of Buildings permits. Refer to Figure 20-1, which shows an illustrative plan and section and Figure 20-2, which shows a bulk diagram for this alternative. Under this alternative, the site would be developed with approximately 108,000 sf of destination hardware store space, approximately 330,000 sf of auto dealership showroom and related space; approximately 307,300 sf of office space in the tower rising from the base on floors 3 through 12; and approximately 100 accessory parking spaces. There would be no residential units, health club, or NYPD Mounted Unit facility included in the as-of-right development.

This As-of-Right Alternative was identified based on a review of site and market conditions, including past development proposals for the project site. The auto dealership component would be the same size and design, occupying approximately 56,000 sf of above grade space and 274,000 sf of below grade space, as under the proposed action. Given that such a development could be developed as an alternative to the proposed action, an assessment of the As-of-Right Alternative is provided for illustrative and comparative purposes. It should be noted that as it does not require any discretionary approvals, the As-of-Right Alternative would not be subject to environmental review if it were to be pursued.

LAND USE, ZONING AND PUBLIC POLICY

Under the As-of-Right Alternative, an 11-story commercial development would be built on the project site, as allowed under existing zoning regulations. No new residential uses would be introduced as part of this alternative. Unlike the proposed action, this alternative would not

reinforce the existing patterns of residential development in this area of Manhattan, nor would this alternative provide housing opportunities for the community. The project site would maintain its existing M1-5 (CL) zoning designation and the commercial uses introduced as part of the As-of-Right Alternative would be generally similar to existing commercial uses and ongoing commercial development in the surrounding area. Overall, neither the As-of-Right Alternative nor the proposed project would result in significant adverse impacts to the area's land use, zoning, and public policy.

SOCIOECONOMIC CONDITIONS

Like the proposed action, this alternative would not result in either direct or indirect commercial and residential displacement, and would not have any adverse effects on specific industries. However, unlike the proposed project, this alternative would not provide market rate or affordable housing in the study area and would not be consistent with existing trends in this area of Manhattan. However, it is not anticipated that the As-of-Right Alternative would alter existing residential development trends in this neighborhood. While a sizable commercial development, this alternative is not a use that would be inconsistent with surrounding uses, as the area includes a number of commercial uses, particularly along Eleventh Avenue.

As it would include only commercial uses, the socioeconomic benefits of the residential component of the proposed action, including the 180 units of affordable housing, would not be realized with the As-of-Right Alternative.

COMMUNITY FACILITIES

Neither the As-of-Right Alternative nor the proposed action would increase demands for police and fire protection. Unlike the proposed action, the As-of-Right Alternative would not introduce any residential units to the project site and therefore would not generate any new school-age children, while the proposed action would introduce residents who could use local library branches and new elementary, middle and high school students. The As-of-Right Alternative would not result in significant adverse community facilities impacts.

OPEN SPACE

The proposed action would not result in any significant adverse impacts on open space in the study area. Under the As-of-Right Alternative, there would not be an introduction of new residents to the open space study area; however, there would be an increase in workers (as with the proposed action). It is likely that the As-of-Right Alternative would introduce a larger non-residential population, which may place a greater demand on passive open space resources than the proposed project.

SHADOWS

The As-of-Right Alternative would feature an office tower that would rise to approximately 170 feet tall, shorter than the tallest point of the proposed project under Build conditions, which would be approximately 350 feet tall. It also would be considerably shorter than the approximately 457-foot tall AT&T Switching Tower located immediately to the east (see Figure 20-2). As shown in Table 20-3 below, the office tower in the As-of-Right Alternative would cast incremental shadows on the two open spaces considered in the analysis, DeWitt Clinton Park and Clinton Towers Plaza open space, for similar durations and during similar times of the day as the proposed project under Build conditions (Table 6-2, Chapter 6, "Shadows"). The one difference is that the As-of-Right Alternative would not cast incremental shadows on Clinton Towers Plaza Open Space during the June analysis date.

Incremental shadows cast upon Centro Maria by the As-of-Right Alternative would also be similar in duration and time of day as incremental shadows cast by the proposed project under Build conditions. Like Clinton Towers Plaza, new shadows cast by the As-of-Right Alternative would not be cast upon Centro Maria during the June Analysis date. Incremental shadows cast by the As-of-Right Alternative onto Centro Maria would likely impact the sunlight-sensitive resource above the front door of the facility, but would be generally shorter in duration than shadows cast under Build conditions. As-of-Right Alternative shadows would be approximately 42 minutes shorter on December 21 and approximately 2 hours and 54 minutes shorter on March 21 during similar times of the day. As-of-Right Alternative shadows would be last approximately 2 hours and 48 minutes shorter on May 6, during the late afternoon instead of the late morning and early afternoon under Build conditions.

Table 20-3, Incremental Shadows Cast by the As-of-Right Alternative Development

Resource	Incremental Shadows	Dec. 21	Mar. 21	May 5	Jun. 21
DeWitt Clinton Park	**Start**	8:51am	7:36am	6:27am	5:57am
	End	10:51am	10:10am	8:49am	8:19am
	Duration	**2:00**	**2:34**	**2:22**	**2:22**
Clinton Towers Plaza Open Space	**Start**	9:32am	11:35am	2:06pm	--
	End	10:49am	4:29pm	4:03pm	--
	Duration	**1:17**	**4:54**	**1:57**	--
	Start	11:08am	--	--	--
	End	2:53pm	--	--	--
	Duration	**3:45**	--	--	--
	Total Duration	**5:02**	**4:54**	**1:57**	--
Centro Maria	**Start**	10:38am	1:24pm	4:23pm	--
	End	2:53pm	4:29pm	5:18pm	--
	Duration	**4:15**	**3:05**	**0:55**	--

Therefore, the As-of-Right Alternative would increase incremental shadows on the stained-glass rose window above the entrance of Centro Maria, but for a shorter duration than shadows cast by the proposed project. Consequently, the As-of-Right Alternative may not result in significant adverse shadows impacts as compared to the proposed action..

HISTORIC RESOURCES

As with the proposed action, under the As-of-Right Alternative potential construction-related damage could occur to three buildings: Centro Maria, 539 W. 54th Street; the former 53rd Street Industrial School, now known as the Old School, at 552 W. 53rd Street; and the building formerly known as The Emerson, now known as The Flats, at 554 W. 53rd Street. The three resources would be afforded limited protection under the NYC Department of Buildings (DOB) regulations applicable to all buildings located adjacent to construction sites. However, as these resources are S/NR-eligible but not S/NR-listed or designated NYC Landmarks, they are not afforded any special protections, except for the basic structural protections provided by the New York City Department of Buildings (DOB) regulations. As discussed in Chapter 6, "Historic Resources," the applicant is voluntarily preparing a Construction Protection Plan in order to avoid the potential for construction impacts on thee resources. With these measures in place, the potential for significant adverse impacts would be avoided.

As with the proposed action, the As-of-Right Alternative would not result in the disturbance of archaeological resources, as LPC has determined that the project site is not archaeologically sensitive.

URBAN DESIGN AND VISUAL RESOURCES

Like the proposed action, the As-of-Right Alternative would alter the streetscape surrounding the project site, and the replacement of the vacant lot would be an improvement over existing conditions. Under this alternative, the as-of-right development may also improve the urban design character of the redeveloping Clinton neighborhood, enhance pedestrian conditions, and enliven streets in an area where pedestrian activity is limited and the urban design character is weak, similar to the proposed action. The tower design of the building in the As-of-Right Alternative would not be as sensitive to the proximity to De Witt Clinton Park as the proposed project, which is specifically designed to concentrate building bulk away from the park. Neither the proposed action nor the as-of-right alternative would result in significant adverse neighborhood character impacts.

NEIGHBORHOOD CHARACTER

While both the As-of-Right Alternative and the proposed project would substantially change the character of the project block, neither would result in significant adverse neighborhood character impacts. However, the As-of-Right alternative would not be as well integrated into the surrounding neighborhood. The as-of-right development commercial use would be compatible with the surrounding neighborhood, however this alternative would not reinforce the existing patterns of development in this area of Manhattan and land use around the project site.

HAZARDOUS MATERIALS

Under the As-of-Right Alternative, foundation work on the project site would continue under as-of-right conditions and hazardous materials concerns will be addressed by the applicant in accordance with applicable regulations. Like under the proposed action, under the As-of-Right Alternative a Remedial Action Plan will be followed for the project site. By following these measures, there would be no significant adverse hazardous materials impacts to construction workers, neighborhood residents, or future occupants or visitors of the new building. No significant adverse impacts are expected either with the proposed action or the As-of-Right Alternative.

INFRASTRUCTURE AND SOLID WASTE AND SANITATION

Under the As-of-Right Alternative, demands on local utility systems, including water supply, sewage treatment, and solid waste and sanitation would likely stay at similar levels as the Build condition relative to the capacity of these systems. Therefore, as with the proposed action, no adverse impacts are anticipated.

TRAFFIC AND PARKING

The As-of-Right Alternative would result in 1,082, 2,165, 2,095, and 2,382 peak hour person trips in the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, respectively (refer to Table 20-4 and 20-5). By comparison, the proposed action would result in 926, 872, 1,249, and 876 person trips per hour during the same peak hours. The As-of-Right Alternative would result in 212, 378, 353, and 438 vehicles per hour (vph) in the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, respectively. The proposed action, by comparison, would result in 221, 174, 220, and 182 vph during the same peak hours. A comparison of the vehicle trips generated by this alternative is presented in Table 20-6.

As compared to the proposed action, which would result in significant adverse traffic impacts at 4, 3, 3, and 2 intersections in the weekday AM, midday, PM, and Saturday midday peak hours, this alternative during those same peak hours would impact 4, 6, 5, and 5 intersections. Refer to Table 20-7.

However, as discussed above, the As-of-Right Alternative does not require any discretionary approvals and is not subject to CEQR and likely only would be implemented if the proposed action is not approved. Therefore, under the As-of-Right Alternative no such mitigation measures would be proposed as no CEQR review would be performed.

The As-of-Right Alternative would include a lesser number of accessory parking garage spaces than the proposed action and likely would generate a higher peak parking demand (apart from the overnight period). As there will be a shortfall in parking capacity in the AM peak hour under No-Build conditions, this would continue with the as-of-right alternative. This alternative was discussed and person and vehicle trips comparison tables shown here for illustrative purposes only.
TABLE 20-4

TABLE 20-4
TRANSPORTATION PLANNING ASSUMPTIONS
As-of-Right Alternative

		Uses Generated by the Proposed Action					
Land Use:		Destination Hardware		Office		Auto Dealership	
Size/Units:		108,000 gsf		307,300 gsf		330,000 gsf	
		(1)		(2), (5)		(3)	
Trip Generation:	WKDY	131.0		18.0		2.63	
	SAT	169.0		3.87		2.63	
		per 1,000 sf		per 1,000 sf		per 1,000 sf	
Temporal Distribution:		(1)		(4)		(3)	
	WKDY AM	2.3%		11.8%		12.0%	
	WKDY MD	8.7%		15.0%		12.0%	
	WKDY PM	8.9%		13.7%		9.0%	
	SAT MD	11.5%		15.0%		12.0%	
		(1)		(3)		(3)	
Modal Splits:		AM/MD/PM		AM/PM	MD/SA	AM/MD/PM	
	Auto	10.0%		13.7%	2.0%	100.0%	
	Taxi	15.0%		2.1%	3.0%	0.0%	
	Subway	20.0%		63.0%	6.0%	0.0%	
	Bus	20.0%		16.8%	6.0%	0.0%	
	Walk	35.0%		4.4%	83.0%	0.0%	
	Other	0.0%		0.0%	0.0%	0.0%	
		100.0%		100.0%	100.0%	100.0%	
		(1)		(4)		(3)	
In/Out Splits:		In	Out	In	Out	In	Out
	WKDY AM	63%	37%	95%	5%	67%	33%
	WKDY MD	55%	45%	48%	52%	50%	50%
	WKDY PM	47%	53%	15%	85%	15%	85%
	SAT MD	55%	45%	60%	40%	50%	50%
Vehicle Occupancy:		(1)		(6)		(3)	
	Auto	2.00		1.65		1.3	
	Taxi	2.00		1.40		1.5	
Truck Trip Generation:		(1)		(6)		(3)	
	WKDY	0.35		0.15		0.15	
	SAT	0.02		0.01		0.15	
		per 1,000 sf		per 1,000 sf		per 1,000 sf	
		(1)		(6)		(3)	
	WKDY AM	7.7%		9.6%		9.6%	
	WKDY MD	11.0%		11.0%		11.0%	
	WKDY PM	1.0%		1.0%		1.0%	
	SAT MD	11.0%		11.0%		11.0%	
		(1)		(6)		(3)	
		In	Out	In	Out	In	Out
	AM/MD/PM/SAT MD	50%	50%	50%	50%	50%	50%

Sources:

(1) River Center FEIS (1999); Trip rates from ITE Trip Generation Manual Land Use Category 820 expanded to person trips (also used in Coliseum FEIS and W. 57th St. Rezoning FEIS).
(2) Pushkarev & Zupan, *Urban Space for Pedestrians* (1975).
(3) W. 57th Street Rezoning FEIS (2001)
(4) Coliseum Redevelopment FEIS (1997)
(5) Sat. office trip generation rate provided by NYCDOT.
(6) Clinton Green Mixed Use Development EAS (2004)
Note: Gross floor area numbers are approximate.

TABLE 20-5
TRANSPORTATION PLANNING CALCULATIONS
As-of-Right Alternative

		Uses Generated by the Proposed Action						Subtotal,		
Land Use:		Destination Hardware		Office		Auto Dealership		Build Scenario		
Size/Units:		108,000 gsf		307,300 gsf		330,000 gsf				
Peak Hour Trips:										
WKDAY AM		325		653		104		1,082		
WKDY MD		1,231		830		104		2,165		
WKDY PM		1,259		758		78		2,095		
SAT MD		2,099		178		104		2,382		
Person Trips:										
		In	Out	In	Out	In	Out	In	Out	Total
W AM	Auto	21	12	85	4	70	34	175	51	226
	Taxi	31	18	13	1	0	0	44	19	63
	Subway	41	24	391	21	0	0	432	45	476
	Bus	41	24	104	5	0	0	145	30	175
	Walk	72	42	27	1	0	0	99	44	143
	Other	0	0	0	0	0	0	0	0	0
	Total	205	120	620	33	70	34	895	187	1,082
		In	Out	In	Out	In	Out	In	Out	Total
W MD	Auto	68	55	55	59	52	52	174	167	341
	Taxi	102	83	8	9	0	0	110	92	202
	Subway	135	111	251	272	0	0	386	383	769
	Bus	135	111	67	72	0	0	202	183	386
	Walk	237	194	18	19	0	0	254	213	467
	Other	0	0	0	0	0	0	0	0	0
	Total	677	554	398	431	52	52	1,127	1,037	2,165
		In	Out	In	Out	In	Out	In	Out	Total
W PM	Auto	59	67	16	88	12	66	86	221	308
	Taxi	89	100	2	14	0	0	91	114	205
	Subway	118	133	72	406	0	0	190	539	729
	Bus	118	133	19	108	0	0	137	242	379
	Walk	207	234	5	28	0	0	212	262	474
	Other	0	0	0	0	0	0	0	0	0
	Total	592	667	114	644	12	66	717	1,378	2,095
								In	Out	Total
S MD	Auto	115	94	15	10	52	52	182	156	338
	Taxi	173	142	2	1	0	0	175	143	319
	Subway	231	189	67	45	0	0	298	234	532
	Bus	231	189	18	12	0	0	249	201	450
	Walk	404	331	5	3	0	0	409	334	742
	Other	0	0	0	0	0	0	0	0	0
	Total	1154	945	107	71	52	52	1,314	1,068	2,382
Vehicle Trips:										
		In	Out	In	Out	In	Out	In	Out	Total
W AM	Auto (Total)	10	6	51	3	54	26	115	35	151
	Taxi	15	9	9	0	0	0	25	10	34
	Taxi (Bal.)							25	25	50
	Truck	1	1	2	2	2	2	6	6	12
	TOTAL							146	66	212
		In	Out	In	Out	In	Out	In	Out	Total
W MD	Auto (Total)	34	28	33	36	40	40	107	104	211
	Taxi	51	42	6	6	0	0	57	48	105
	Taxi (Bal.)							76	76	152
	Truck	2	2	3	3	3	3	7	7	15
	TOTAL							191	187	378
		In	Out	In	Out	In	Out	In	Out	Total
W PM	Auto (Total)	30	33	9	53	9	51	48	138	186
	Taxi	44	50	2	10	0	0	46	60	106
	Taxi (Bal.)							83	83	166
	Truck	0	0	0	0	0	0	1	1	1
	TOTAL							131	222	353
		In	Out	In	Out	In	Out	In	Out	Total
S MD	Auto (Total)	58	47	9	6	40	40	107	93	200
	Taxi	87	71	2	1	0	0	88	72	160
	Taxi (Bal.)							116	116	232
	Truck	0	0	0	0	3	3	3	3	6
	TOTAL							226	212	438

TRANSIT AND PEDESTRIANS

The As-of-Right Alternative would result in more subway and bus person trips in both the weekday AM and weekday PM peak hours than the proposed action. Similarly, this alternative would generate more walk only trips in all analyzed peak hours except the weekday AM peak hour. Refer to Tables 20-8 and 20-9. However, given the very good levels of service at the 59th Street-Columbus Circle subway station stairways that would process the greatest concentrations of project-generated trips and on sidewalks, corners, and crosswalks closest to the project site, it is expected that the As-of-Right Alternative would not result in significant adverse subway and pedestrian impacts. With bus trips generated by this alternative dispersed among the four bus routes operating in the vicinity of the project site, no single route would carry more than 200 project-generated bus person trips per hour in one direction, the threshold for detailed quantitative analysis. Accordingly, this alternative, like the proposed action, would not result in significant adverse bus impacts.

Table 20-6, Peak Hour Vehicle Trips: As-of-Right Alternative

Peak Hour	Proposed Action/RWCDS	As-of-Right Alternative	Difference
Weekday AM	221	212	-9
Weekday MD	174	378	+204
Weekday PM	220	353	+133
Saturday MD	182	438	+256

AIR QUALITY

The As-of-Right Alternative would result in additional vehicle trips in the weekday midday weekday PM, and Saturday midday peak hours as compared to the proposed action. Although the additional emissions from vehicles traveling in the study area would result in greater levels of CO, as with the proposed action no significant adverse air quality mobile source impacts are anticipated to occur. The As-of-Right Alternative would result in a shorter building with less density as compared to the proposed action and like it would not be expected to result in significant adverse impact related to stationary source emissions.

NOISE

As discussed above, the As-of-Right Alternative would result in 212, 378, 353, and 438 in the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours as compared to the proposed action, which would result in 221, 174, 220, and 182 vph during the same peak hours. While this alternative would have a greater vehicle trip generation than the proposed project, this increase in vehicle trips is not expected to result in noise impacts, as it would not result in a doubling of passenger car equivalent traffic on streets in the vicinity of the project site. It is anticipated that similar levels of building attenuation as those required with the proposed action would be needed for the As-of-Right Alternative to achieve acceptable interior noise levels.

Table 20-7 , Comparison of Traffic Impacts for Proposed Project and Alternatives

Intersection		Proposed Project				AS-OF-RIGHT Alternative				Lesser Density/CB4 Alternative				No NYPD Facility Alternative			
		AM	MD	PM	SAT MD	AM	MD	PM	SAT MD	AM	MD	PM	SAT MD	AM	MD	PM	SAT MD
10th Avenue	W. 52nd		1	1			1	1			1	1			1	1	
	W. 53rd	1		1		1		1	1	1		1		1		1	
	W. 54th	1				1				1				1			
11th Avenue	W. 52nd		1				1		1		1				1		
	W. 53rd	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	W. 55th	1				1	1			1				1			
	W. 57th						1		1								
12th Avenue	W. 52nd				1		1	1	1				1		1		1
	W. 54th							1									
Total Number of Impaccted Intersections		4	3	3	2	4	6	5	5	4	3	3	2	4	4	3	2

1= Number of Impacted movements at intersections in the peak hour. This table has been updated since the DEIS.

Table 20-8, Peak Hour Subway & Bus Trips: As-of-Right Alternative

Peak Hour	Proposed Action/RWCDS	As-of-Right Alt	Difference
Subway			
Weekday AM	226	476	+250
Weekday PM	300	729	+429
Bus			
Weekday AM	141	175	+34
Weekday PM	180	379	+199

Table 20-9, Peak Hour Pedestrian Trips: As-of-Right Alternative

Peak Hour	Proposed Action/RWCDS	As-of-Right Alt	Difference
Weekday AM	644	694	+50
Weekday PM	901	1,582	+681

CONSTRUCTION IMPACTS

The construction that would occur on the project site with the As-of-Right Alternative would be similar to the construction activities associated with the proposed action, including economic benefits.

PUBLIC HEALTH

Neither the As-of-Right Alternative nor the proposed action would result in significant adverse impacts to public health. It is expected that under both the As-of-Right Alternative and the proposed action, no air quality impacts as a result of increased vehicular traffic or emissions from stationary sources would result. Neither the As-of-Right Alternative nor the proposed action would create a new source of noise, and neither would result in significant hazardous materials impacts.

D. NO NYPD MOUNTED UNIT FACILITY ALTERNATIVE

As noted in Chapter 1, "Project Description," the proposed action/RWCDS includes an NYPD Mounted Unit facility in a ground floor space, accessed via a midblock driveway on W. 53rd Street. This would include approximately 36,000 gsf of offices, stables, and related space and would include a mezzanine. In the event this facility is not occupied by the NYPD, the EIS considers a "No NYPD Mounted Unit Alternative." NYPD and the NYC Department of Citywide Administrative Services filed a separate ULURP application for the site selection/acquisition of this facility between the DEIS and the FEIS in January 2009. That ULURP application will rely on this EIS for its CEQR/SEQRA environmental determination.

Under this alternative, in its place it is expected that this space would not be built with an approximately 15,300 sf mezzanine as anticipated under the RWCDS. The approximately

20,700 sf ground floor space instead would be occupied by an approximately 8,000 gsf local retail use located midblock on W. 53rd Street and the remainder of the space, approximately 12,700 sf to be located in the interior portion of the site, would be occupied by accessory back-of-house functions. Refer to Figure 20-3.

Accordingly, the total amount of local retail space to be provided on the site under this alternative would be 16,800 gsf, as compared to 8,800 gsf under the RWCDS for the proposed action. As such, the RWCDS for this alternative would consist of the following program: 900 dwelling units (DUs), of which 180 would be affordable housing DUs; 16,800 sf of local retail; 330,000 sf of automobile dealership space; 30,000 sf of health club space; and 225 accessory parking spaces. The building envelope would be the same or very similar under this alternative as under the proposed action.

The environmental effects of this alternative would be very similar to those of the proposed action/RWCDS. The principal differences would be relatively minor changes in the number of peak hour vehicle, transit, and pedestrian trips generated by the proposed action, and the absence of the NYPD Mounted Unit facility's horse stables. The effects of this alternative on CEQR technical areas relating to site-based effects and residential density effects would be the same under this alternative as under the proposed action/RWCDS. These technical areas include: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Community Facilities; Open Space; Shadows; Historic Resources; Urban Design and Visual Resources; Hazardous Materials; Noise; and Construction Impacts. As with the proposed action, this alternative would result in significant adverse elementary school impacts within the half-mile radius study area, significant adverse day care impacts within the mile radius study area, and would result in shadows impacts on the stained glass rose window located on Centro Maria.

The other CEQR technical areas are discussed below.

NEIGHBORHOOD CHARACTER

While both the No NYPD Mounted Unit Facility Alternative and the proposed project would substantially change the character of the project block, neither would result in significant adverse neighborhood character to the elements that contribute to the character of the neighborhood. Generally, the effects of this alternative would be very similar to those of the proposed action.

INFRASTRUCTURE AND SOLID WASTE AND SANITATION

Under the No NYPD Mounted Unit Facility Alternative, demands on local utility systems, including water supply, sewage treatment, and solid waste and sanitation would likely stay at similar levels as the Build condition relative to the capacity of these systems. Therefore, as with the proposed action, no significant adverse impacts are anticipated.

TRAFFIC AND PARKING

Table 20-10 presents the transportation planning assumptions and Table 20-11 presents the transportation planning calculations for this alternative. The traffic and parking effects of the proposed project would be very similar to those of the proposed action/RWCDS. However, the number of peak hour vehicle trips generated would be slightly different. The No NYPD Mounted Unit Facility Alternative would generate 224, 192, 226, and 196 vehicle trips in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. As compared to the proposed action/RWCDS, the difference in number of vehicles trips would be +3, +18, +6, and +14, in the respective peak hours. This information is summarized in Table 20-12.

With the very similar number of vehicle trips generated, the number of intersections with traffic impacts under this alternative would be 4, 4, 3, and 2 in the weekday AM, midday, PM, and Saturday midday peak hours would, respectively, as compared to 4, 3, 3, and 2 as under the proposed action (this information is summarized in Table 20-7).

TRANSIT AND PEDESTRIANS

Transit

As with peak hour vehicle trips, the number of peak hour transit and pedestrian trips would be similar with the No NYPD Mounted Unit Facility Alternative, though the number of trips would be slightly higher under this alternative. As shown in Table 20-13, this alternative would generate 238 and 333 peak hour subway trips in the weekday AM and weekday PM peak hours, respectively. As compared to the proposed action/RWCDS, the difference in number of subway trips would be +12 and +33, in the respective peak hours. This alternative would generate 146 and 197 peak hour bus trips in the weekday AM and weekday PM peak hours, respectively. As compared to the proposed action/RWCDS, the difference in number of bus trips would be +5 and +17, in the respective peak hours. This information is summarized in Table 20-13.

With these very modest increases in transit demand, subway and bus conditions would be very similar. At the two street stairs at the 59th Street-Columbus Circle station analyzed in the PM peak hour in Chapter 14, "Transit and Pedestrians," the Build conditions level of service would remain at LOS B or better, and there would not be any change in the persons per foot per minute and volume-to-capacity ratios.

TABLE 20-10
TRANSPORTATION PLANNING ASSUMPTIONS: NO NYPD MOUNTED UNIT FACILITY ALTERNATIVE

	Uses Generated by the Proposed Action			
Land Use:	Residential	Health Club	Retail	Auto Dealership
Size/Units:	900 DUs	30,000 gsf	16,800 gsf	330,000 gsf
	(1)	(2)	(1)	(3)
Trip Generation: WKDY	8.075	44.7	205.0	2.63
SAT	8.075	29.5	205.0	2.63
	per DU	per 1,000 sf	per 1,000 sf	per 1,000 sf
Temporal Distribution:	(1)	(2)	(1)	(3)
WKDY AM	9.1%	4.8%	3.1%	12.0%
WKDY MD	4.7%	5.6%	19.0%	12.0%
WKDY PM	10.7%	13.2%	9.6%	9.0%
SAT MD	7.0%	9.8%	9.5%	12.0%
	(5)	(6)	(7)	(3)
Modal Splits:	AM/MD/PM	AM/MD/PM	AM/MD/PM	AM/MD/PM
Auto	9.0%	35.0%	2.0%	100.0%
Taxi	6.0%	3.0%	3.0%	0.0%
Subway	31.0%	41.0%	6.0%	0.0%
Bus	20.0%	12.0%	6.0%	0.0%
Walk	34.0%	9.0%	83.0%	0.0%
Other	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%
	(1)	(2)	(7)	(3)
In/Out Splits:	In Out	In Out	In Out	In Out
WKDY AM	15% 85%	41% 59%	50% 50%	67% 33%
WKDY MD	50% 50%	54% 46%	50% 50%	50% 50%
WKDY PM	70% 30%	75% 25%	50% 50%	15% 85%
SAT MD	50% 50%	54% 46%	50% 50%	50% 50%
Vehicle Occupancy:	(5),(2)	(2)	(7)	(3)
Auto	1.26	1.40	1.6	1.3
Taxi	1.40	1.40	1.2	1.5
Truck Trip Generation:	(8)	(2)	(7)	(3)
WKDY	0.064	0.19	0.35	0.15
SAT	0.004	0.01	0.018	0.15
	per DU	per 1,000 sf	per 1,000 sf	per 1,000 sf
	(8)	(2)	(7)	(3)
WKDY AM	6.0%	6.0%	7.7%	9.6%
WKDY MD	11.0%	11.0%	11.0%	11.0%
WKDY PM	1.0%	1.0%	1.0%	1.0%
SAT MD	7.9%	7.6%	11.0%	11.0%
	(8)	(2)	(7)	(3)
	In Out	In Out	In Out	In Out
AM/MD/PM	50% 50%	50% 50%	50% 50%	50% 50%

Sources:

(1) Pushkarev & Zupan, *Urban Space for Pedestrians* (1975).

(2) Coliseum Redevelopment FEIS (1997)

(3) W. 57th Street Rezoning FEIS (2001)

(4) Daily trip rate, temporal distribution, and directional split are derived from driveway count conducted by PHA at existing NYPD Stable facility on Hudson River Pier 76. Other trips walking or by horse. The calculated number of vehicle trips in Table 13-6 match the vehicle count data at the existing facility.

(5) 2000 Census for NY County tract 135, Journey to Work data (adjusted to exclude "worked at home")

(6) 2000 Census for NY County tract 135, Reverse Journey to Work data (adjusted to exclude "worked at home")

(7) Hudson Yards FGEIS (2004)

(8) Clinton Green Mixed Use Development EAS (2004)

Note: Gross floor area numbers are approximate.

TABLE 20-11
TRANSPORTATION PLANNING CALCULATIONS: NO NYPD MOUNTED UNIT FACILITY ALTERNATIVE

		Uses Generated by the Proposed Action								Subtotal,		
Land Use:		Residential		Health Club		Retail		Auto Dealership		Build Scenario		
Size/Units:		900 DUs		30,000 gsf		16,800 gsf		330,000 gsf				
Peak Hour Trips:												
WKDAY AM		661		64		107		104		937		
WKDY MD		342		75		654		104		1,175		
WKDY PM		778		177		331		78		1,363		
SAT MD		509		87		327		104		1,027		
Person Trips:												
		In	Out	In	Out	In	Out	In	Out	In	Out	Total
W AM	Auto	9	51	9	13	1	1	70	34	89	99	188
	Taxi	6	34	1	1	2	2	0	0	8	36	45
	Subway	31	174	11	16	3	3	0	0	45	193	238
	Bus	20	112	3	5	3	3	0	0	26	120	146
	Walk	34	191	2	3	44	44	0	0	80	239	319
	Other	0	0	0	0	0	0	0	0	0	0	0
	Total	99	562	26	38	53	53	70	34	249	688	937
		In	Out	In	Out	In	Out	In	Out	In	Out	Total
W MD	Auto	15	15	14	12	7	7	52	52	88	86	174
	Taxi	10	10	1	1	10	10	0	0	21	21	42
	Subway	53	53	17	14	20	20	0	0	89	87	176
	Bus	34	34	5	4	20	20	0	0	59	58	117
	Walk	58	58	4	3	272	272	0	0	333	333	666
	Other	0	0	0	0	0	0	0	0	0	0	0
	Total	171	171	41	35	327	327	52	52	591	585	1,175
		In	Out	In	Out	In	Out	In	Out	In	Out	Total
W PM	Auto	49	21	46	15	3	3	12	66	110	106	217
	Taxi	33	14	4	1	5	5	0	0	42	20	62
	Subway	169	72	54	18	10	10	0	0	233	100	333
	Bus	109	47	16	5	10	10	0	0	135	62	197
	Walk	185	79	12	4	137	137	0	0	334	221	555
	Other	0	0	0	0	0	0	0	0	0	0	0
	Total	544	233	133	44	165	165	12	66	854	509	1,363
										In	Out	Total
S MD	Auto	23	23	16	14	3	3	52	52	95	92	187
	Taxi	15	15	1	1	5	5	0	0	22	21	43
	Subway	79	79	19	16	10	10	0	0	108	105	213
	Bus	51	51	6	5	10	10	0	0	66	65	132
	Walk	86	86	4	4	136	136	0	0	226	226	452
	Other	0	0	0	0	0	0	0	0	0	0	0
	Total	254	254	47	40	164	164	52	52	517	510	1,027
Vehicle Trips :												
		In	Out	In	Out	In	Out	In	Out	In	Out	Total
W AM	Auto (Total)	7	40	7	9	1	1	54	26	68	78	146
	Taxi	4	24	1	1	1	1	0	0	6	26	32
	Taxi (Bal.)									29	29	58
	Truck	2	2	0	0	0	0	2	2	5	5	8
	TOTAL									112	112	224
		In	Out	In	Out	In	Out	In	Out	In	Out	Total
W MD	Auto (Total)	12	12	10	9	4	4	40	40	65	65	130
	Taxi	7	7	1	1	8	8	0	0	16	16	33
	Taxi (Bal.)									24	24	48
	Truck	4	4	0	0	0	0	3	3	7	7	14
	TOTAL									96	96	192
		In	Out	In	Out	In	Out	In	Out	In	Out	Total
W PM	Auto (Total)	39	17	33	11	2	2	9	51	83	81	164
	Taxi	23	10	3	1	4	4	0	0	30	15	45
	Taxi (Bal.)									30	30	60
	Truck	1	1	0	0	0	0	0	0	1	1	2
	TOTAL									114	112	226
		In	Out	In	Out	In	Out	In	Out	In	Out	Total
S MD	Auto (Total)	18	18	12	10	2	2	40	40	72	70	142
	Taxi	11	11	1	1	4	4	0	0	16	16	32
	Taxi (Bal.)									24	24	48
	Truck	0	0	0	0	0	0	3	3	3	3	6
	TOTAL									99	97	196

Table 20-12, Peak Hour Vehicle Trips: No NYPD Mounted Unit Facility Alternative

Peak Hour	Proposed Action/RWCDS	No NYPD Mounted Unit Alt	Difference
Weekday AM	221	224	+3
Weekday MD	174	192	+18
Weekday PM	220	226	+6
Saturday MD	182	196	+14

Table 20-13, Peak Hour Subway & Bus Trips: No NYPD Mounted Unit Facility Alternative

Peak Hour	Proposed Action/RWCDS	No NYPD Mounted Unit Alt	Difference
Subway			
Weekday AM	226	238	+12
Weekday PM	300	333	+33
Bus			
Weekday AM	141	146	+5
Weekday PM	180	197	+17

Pedestrians

The number of peak hour pedestrian trips would be somewhat higher with the No NYPD Mounted Unit Facility Alternative, as compared to the proposed action/RWCDS. As shown in Table 20-11, this alternative would generate 319 and 555 peak hour walk only peak hour trips in the weekday AM and weekday PM peak hours, respectively. Overall, including bus and subway trips which also include a walk component, the total pedestrian trips generated by this alternative would be 703 and 1,085, in the weekday AM and PM peak hours, respectively. As compared to the proposed action/RWCDS, the difference in the number of total pedestrian trips would be +59 and +184. Unlike vehicle and transit trips, which would not differ significantly from the NYPD Mounted Unit facility anticipated under the proposed action, there would be a more sizeable increase, approximately 9 percent and 20 percent higher, in pedestrian trips in the AM and PM peak hours, respectively. This reflects the higher number of pedestrian trips associated with local retail uses in these times of day. This information is summarized in Table 20-14.

Table 20-14, Peak Hour Pedestrian Trips: No NYPD Mounted Unit Facility Alternative

Peak Hour	Proposed Action/RWCDS	No NYPD Mounted Unit Alt	Difference
Weekday AM	644	703	+59
Weekday PM	901	1,085	+184

With the higher pedestrian volumes under this alternative, an analysis of pedestrian volumes was conducted to determine the effects. As with the proposed action, this alternative would not result in any significant adverse pedestrian impacts.

AIR QUALITY

The effects of the No NYPD Mounted Unit Facility Alternative on air quality conditions would be generally similar to the proposed action/RWCDS. Overall, the size of the building would be approximately the same, as would the location of vents for building mechanical systems. As the number of vehicles generated by this alternative would be very similar to the proposed action, it is expected that as with the proposed action this alternative would not result in mobile source impacts. As pertains to air quality effects, the only notable difference with this alternative is that without the NYPD Mounted Unit facility, there would be no odors emissions on the project site related to horses. The proposed action would not result in significant adverse impacts due to such odors.

PUBLIC HEALTH

Neither the No NYPD Mounted Unit Facility Alternative nor the proposed action would result in significant adverse impacts to public health. It is expected that under both the As-of-Right Alternative and the proposed action, no air quality impacts as a result of increase vehicular traffic or emissions from stationary sources would result. Neither the As-of-Right Alternative nor the proposed action would create a new source of noise, and neither would result in significant hazardous materials impacts.

E. LESSER DENSITY/CB4 ALTERNATIVE

Under this alternative, which is proposed for inclusion in this chapter by Manhattan Community Board 4 (CB4), the project site would be rezoned to R8A, which permits a maximum residential density of 6.02. In addition, CB4 has indicated that this alternative should permit ground floor retail but should not include "big box" retail uses. Accordingly, for analysis purposes this alternative would include a C2-5 commercial overlay, permitting up 2.0 commercial FAR in Use Groups 5-9 and 14. The analysis assumes this would be a typical C2-5 overlay mapped to a depth of 100 feet along Eleventh Avenue, which would limit the size of retail uses that can be provided. However, as discussed in other sections of this EIS, the applicant has proceeded with as-of-right excavation and foundation work for a commercial development, specifically an auto dealership. As this is already under construction pursuant to Department of Buildings permits, this use would be a grandfathered, vested use that would exist on the site in any event and would occupy the C2-5 portion of the site under the Lesser Density/CB4 Alternative.

As commercial uses must be located below residential uses in mixed residential-commercial buildings within commercial overlay districts, it is assumed that the portion of the ground floor not occupied by the auto dealership would be occupied by an accessory parking facility, mechanical, and other accessory spaces.

As proposed, the Lesser Density/CB4 Alternative would not include the zoning text amendments included in the proposed action that would create an inclusionary housing FAR

bonus, permit police stables, and exempt parking located more than 23 feet above the base plane as being counted as floor area. Similarly, this alternative would not include the proposed General Large Scale Development special permit and therefore the site would be required to be developed pursuant to the proposed R8A contextual zoning regulations.

This alternative is likely to result in a U-shaped building with a streetwall ranging in height from 60 to 85 feet, as required by R8A zoning. Above the streetwall, parts of the building may rise up with a setback to the maximum permitted 120 foot height. Refer to Figure 20-4, showing a plan and section for this alternative. It likely would include a 1-story base occupied by the auto dealership along the Eleventh Avenue frontage and accessory parking on the midblock portions of the lot, above which would be apartments. The building could include an inner courtyard or terrace above the base. Such a building could have up to approximately 330,000 sf of auto dealership space (the same as under the proposed action) and approximately 646 DUs with an average size of 850 sf, occupying approximately 549,000 sf of residential floor area, and the maximum permitted number of accessory parking spaces (estimated to be 143 spaces). As this alternative would not include an Inclusionary Housing FAR bonus, it likely would be comprised entirely of market rate units and would not include any affordable lower income units. Accordingly, it would be expected to have a population of approximately 1,059 residents. Unlike the proposed action, a development under this alternative would not include a health club or NYPD Mounted Unit facility as such uses would not be as-of-right under R8A/C2-5 zoning.

LAND USE, ZONING, AND PUBLIC POLICY

As with the proposed project, the Lesser Density/CB4 Alternative would not result in significant adverse impacts to land use, zoning, and public policy. Under this alternative, the project site would be developed with less residential floor area, and no affordable dwelling units, less commercial space, and without the NYPD Mounted Unit facility. The effects of the proposed project and the Lesser Density/CB4 alternative on land use, zoning, and public policy would be generally comparable.

SOCIOECONOMIC CONDITIONS

Neither the proposed project nor the Lesser Density/CB4 Alternative would result in significant adverse impacts to socioeconomic conditions. Like the proposed project, this alternative would not result in any direct displacement as the project site is vacant. Neither this alternative nor the proposed project would result in any direct or indirect residential displacement, and neither would have any adverse effects on local business or economic conditions. However, unlike the proposed project, this alternative would not provide affordable housing for lower income households. Also the number of jobs provided would be somewhat less as the site would not include retail space, a health club, or the NYPD Mounted Unit.

COMMUNITY FACILITIES

Elementary Schools

Under the proposed action, elementary schools in the half-mile radius study area would experience an increased shortfall in seats as compared to No-Build conditions. Demand would increase from 112 to 118 percent of capacity from No-Build to Build conditions. This 6 percentage point increase would be a significant adverse impact.

Under the Lesser Density/CB4 Alternative, the project site would be developed with approximately 646 DUs. As such, per the *CEQR Technical Manual* methodology, this alternative would generate approximately 78 elementary school students. With this alternative, demand would increase from 112 to 116 percent of capacity. As such, the shortfall in seats would increase by 4 percentage points. As the threshold for impacts is a 5 percent increase in a shortfall, this alternative would not result in a significant adverse impact. Refer to Tables 20-15 and 20-16. This alternative would not include any affordable housing units, as an inclusionary housing bonus would not be pursued to achieve the FAR density. This alternative would not result in significant adverse impacts to daycare facilities, as compared to the proposed action which would result in a shortfall of 72 slots.

Table 20-15,
Estimated Number of New School-aged Children as a Result of Lesser Density/CB4 Alternative

	Total Units Introduced as Result of Proposed Action	Projected Elementary Students	Projected Intermediate Students	Projected High School Students	Total Students Generated
Total	646	78	26	39	143

(1) Based on Fall 2008 CEQR Technical Manual, Table 3C-2: Manhattan (0.12 – Elementary, 0.04 – Intermediate, 0.06 – High School).

Table 20-16,
Estimated Public School Utilization, Capacity and Enrollment Figures for Year 2011: Lesser Density/CB4

	No- Build 2011 Projected Enrollment (with Pre-K)	New Students Generated by Lesser Density/ CB4 Alternative	Future With LDA/CB4 Alternative Enrollment	Program Capacity	Seats Available	Utilization (%)
Elementary Schools						
Study Area	1,865	78	1,943	1,672	-271	116%
Zone 3	2,751	78	2,829	2,817	-12	100%
Total CSD 2	16,260	78	16,338	15,254	-1,084	107%

For information on No-Build Utilization, refer to Table 4-5

As the proposed action would not result in impacts on other community facilities, this alternative with a lower number of housing units also would not be expected to result in significant adverse impacts to libraries, police and fire services.

OPEN SPACE

Under the Lesser Density Alternative/CB4, there would be the introduction of approximately 1,059 new residents to the open space study area as compared to 1,631 with the proposed action. As with the proposed action, with this alternative open space ratios would remain below the planning goal of 2.5 acres of public open space per 1,000 residents and the Citywide median of 1.5 acres per 1,000 residents. The proposed action would result in an approximately 2.5 percent decrease in the open space ratio as compared to No-Build conditions while this alternative would result in an approximately 1.6 percent decrease. As with the proposed action, such a decrease would be minor and would not result in significant adverse open space impacts.

SHADOWS

Under the Lesser Density/CB4 Alternative, as with the proposed project, the new incremental shadows would not result in significant adverse shadow impacts on local open spaces or sunlight sensitive historic or natural resources. With the R8A contextual zoning on this site, it would result in a building with a streetwall up to 85 feet tall and a maximum height of 120 feet (see Figure 20-5). By comparison the proposed project's streetwall height would vary with an S-shaped tower rising through the middle portion of the site from the approximately 43 foot base that would cover the site to a height of approximately 350 feet at the eastern portion of the site. In addition, the proposed project's Eleventh Avenue streetwall would range in height from approximately 98 to 128 feet. Given that the height of a development under this alternative would be similar to or shorter than the proposed project, albeit with differences in setback distances, the effects of shadows cast on the sunlight sensitive resources would be generally similar to the proposed project.

As shown in Table 20-17 below, the residential tower in the Lesser Density/CB 4 Alternative would cast incremental shadows on the two open spaces considered in the analysis, DeWitt Clinton Park and Clinton Towers Plaza open space, for similar durations and during similar times of the day as the proposed project under Build conditions (Table 6-2, Chapter 6, "Shadows"). The Lesser Density/CB4 Alternative would cast incremental shadows of shorter duration during the December, March, and May analysis dates and of longer duration during the June analysis date, compared to incremental shadows cast under Build conditions.

Incremental shadows cast upon Centro Maria by the Lesser Density/CB4 Alternative would also be similar in duration and time of day as incremental shadows cast by the proposed project under Build conditions. One exception is that new shadows cast by the Lesser Density/CB4 Alternative would not reach Centro Maria during the June Analysis date. Incremental shadows cast by the Lesser Density/CB4 Alternative onto Centro Maria would likely impact the sunlight-sensitive resource above the front door of the facility at generally similar times as shadows cast under Build conditions. Lesser Density/CB4 Alternative shadows would be cast at exactly the same time and duration as Build conditions on December 21; approximately 2 hours and 5 minutes shorter on March 21 at later in the day;

and approximately 2 hours and 46 minutes shorter on May 6, during the late afternoon instead of the late morning and early afternoon under Build conditions.

Table 20-17, Incremental Shadows Cast by the Lesser Density/CB4 Alternative Development

Resource	Incremental Shadows	Dec. 21	Mar. 21	May 5	Jun. 21
DeWitt Clinton Park	**Start**	8:51am	7:36am	6:27am	5:57am
	End	11:55am	10:28am	9:10am	8:41am
	Duration	**3:04**	**2:52**	**2:43**	**2:44**
Clinton Towers Plaza Open Space	**Start**	9:30am	11:03am	1:14pm	2:53pm
	End	10:49am	4:29pm	5:18pm	5:45pm
	Duration	**1:19**	**5:26**	**4:04**	**2:52**
	Start	11:08am	--	--	--
	End	2:53pm	--	--	--
	Duration	**3:45**	--	--	--
	Total Duration	**5:04**	**5:26**	**4:04**	**2:52**
Centro Maria	**Start**	9:56am	1:20pm	4:21pm	--
	End	2:53pm	4:29pm	5:18pm	--
	Duration	**4:57**	**3:09**	**0:57**	--

Therefore, the Lesser Density/CB4 Alternative would create unmitigated significant adverse shadow impacts on the stained-glass rose window above the entrance of Centro Maria, but for a shorter duration than shadows cast by the proposed project under Build conditions.

HISTORIC RESOURCES

As with the proposed project, under the Lesser Density/CB4 Alternative the potential for significant adverse impacts on three nearby historic resources that are eligible for listing on the State and National Registers of Historic Places can be avoided by preparing and adhering to a Construction Protection Plan. As with the proposed project, this alternative would not have any other potential effects on historic resources and therefore would not result in significant adverse impacts.

URBAN DESIGN AND VISUAL RESOURCES

With the Lesser Density/CB4 Alternative, the project site would be developed with a building that would be a typical contextual zoning development, similar to some other recent developments in the area. It would share in common with the proposed project a continuous streetwall and would have some of the same uses, but would have a more uniform massing The height of a building under this alternative would fall within the range of heights of existing buildings in the area, as would the proposed development. As with the proposed project, this alternative would not result in significant adverse urban design and visual

resources impacts. However, the design would not include some elements of the proposed project that may be considered beneficial, such as it would not block views from De Witt Clinton Park of the windowless 457-foot tall AT&T Switching Center tower to the same extent as the proposed project.

NEIGHBORHOOD CHARACTER

Under this Lesser Density/CB4 Alternative, like the proposed project, the project site would experience new mixed residential-commercial development. Under both the proposed project and this alternative, the project site would be transformed from a vacant, former industrial property to a mixed-use development. Under both the proposed project and this alternative, there would also be increased pedestrian activity along the site's bordering streets, which would enliven the area and add to the potential customer base for local merchants and services. Both the proposed project and this alternative would provide a more compatible and appropriate use for this site located adjacent to a large neighborhood park and in an area that has been redeveloping with a mixed, predominately retail character. Neither the proposed project, nor the smaller, lower density development under this alternative would have impacts on visual resources, noise, historic resources, or other components of neighborhood character. As with the proposed project, this alternative would bring a substantial new population to the area, although with about 28 percent fewer units than the proposed project. However, a significant difference between this alternative and the proposed project is that affordable housing likely would not be provided, unlike the proposed project which would provide approximately 180 affordable lower income units.

HAZARDOUS MATERIALS

As discussed in Chapter 10, "Hazardous Materials," the project site is now vacant and undergoing as-of-right foundation work. Previous hazardous materials concerns on the site have been addressed in accordance with applicable legal requirements. The applicant has prepared a *Remedial Action Plan* and a *Construction Health and Safety Plan*, which DEP has reviewed and approved as the proposed project requires CEQR review. These procedures also would be applicable the Lesser Density/CB4 Alternative, as the alternative would also be subject to CEQR review. As with the proposed action, this alternative would not result in significant adverse hazardous materials impacts.

INFRASTRUCTURE AND SOLID WASTE AND SANITATION

Under the Lesser Density/CB4 Alternative, demands on local utility systems, including water supply, sewage treatment, and solid waste and sanitation would be at similar, though somewhat lower levels than under Build conditions with the proposed project. Therefore, as with the proposed action, no significant adverse impacts are anticipated.

TRAFFIC AND PARKING

Trip generation estimates for the Lesser Density/CB4 Alternative were performed using the same rates used for the proposed project (see Table 20-18). As shown in Table 20-19, this alternative would generate an estimated 213, 144, 136, and 136 vph in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. During these same peak hours, the proposed project would generate 221, 174, 220, and 182 vph. Refer to Table 20-20. As such, this alternative would generate 8, 30, 84, and 46 fewer vph during the respective peak hours. Similarly, parking demand would be lower. As summarized in Table 20-7 above, it is expected that this alternative would result in the same number and location of traffic impacts as the proposed project, with impacts at 4, 3, 3, and 2 intersections in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. It is expected that the same mitigation measures as recommended for the proposed project would be required to mitigate such impacts. This alternative also would increase the expected shortfall in public parking capacity under No-Build conditions in the AM peak period and create a shortfall in the PM peak period, which will be near capacity under No-Build conditions. Therefore, the effects of this alternative on traffic and parking conditions generally would be the same as under the proposed action.

TRANSIT AND PEDESTRIANS

As shown in Table 20-19, the Lesser Density/CB4 Alternative would generate an estimated 147 and 173 subway person trips in the weekday AM and PM peak hours, respectively. During these same peak hours, the proposed project would generate 226 and 300 subway trips. As such this alternative would generate 79 and 127 fewer subway trips than the proposed action. As with the proposed action, this alternative with its lower subway demand would not result in any significant adverse subway impacts. As also shown in Table 20-17, this alternative would generate 95 and 112 bus person trips in the weekday AM and PM peak hours, respectively. As such this alternative would generate 46 and 68 fewer bus trips than the proposed action. As with the proposed action, this alternative with its lower bus demand would not result in any significant adverse bus impacts.

As shown in Table 20-19, this alternative would generate an estimated 403 and 473 total walk person trips (including subway, bus, and walk only) in the weekday AM and PM peak hours. As such this alternative would generate 241 and 428 fewer walk trips than the proposed action. As with the proposed action, this alternative with its lower pedestrian demand would not result in any significant adverse bus impacts.

TABLE 20-18
LESSER DENSITY /CB4 ALTERNAIVE: TRANSPORTATION PLANNING ASSUMPTIONS

	Uses Generated by the Alternatlve			
Land Use:	Residential		Auto Dealership	
Size/Units:	646 DUs		330,000 gsf	
	(1)		(3)	
Trip Generation: WKDY	8.075		2.63	
SAT	8.075		2.63	
	per DU		per 1,000 sf	
Temporal Distribution:	(1)		(3)	
WKDY AM	9.1%		12.0%	
WKDY MD	4.7%		12.0%	
WKDY PM	10.7%		9.0%	
SAT MD	7.0%		12.0%	
	(5)		(3)	
Modal Splits:	AM/MD/PM		AM/MD/PM	
Auto	9.0%		100.0%	
Taxi	6.0%		0.0%	
Subway	31.0%		0.0%	
Bus	20.0%		0.0%	
Walk	34.0%		0.0%	
Other	0.0%		0.0%	
	100.0%		100.0%	
	(1)		(3)	
In/Out Splits:	In	Out	In	Out
WKDY AM	15%	85%	67%	33%
WKDY MD	50%	50%	50%	50%
WKDY PM	70%	30%	15%	85%
SAT MD	50%	50%	50%	50%
Vehicle Occupancy:	(5),(2)		(3)	
Auto	1.26		1.3	
Taxi	1.40		1.5	
Truck Trip Generation:	(8)		(3)	
WKDY	0.064		0.15	
SAT	0.004		0.15	
	per DU		per 1,000 sf	
	(8)		(3)	
WKDY AM	6.0%		9.6%	
WKDY MD	11.0%		11.0%	
WKDY PM	1.0%		1.0%	
SAT MD	7.9%		11.0%	
	(8)		(3)	
	In	Out	In	Out
AM/MD/PM	50%	50%	50%	50%

Refer to Table 13-5 for reference notes for rates used in this table .

Note: Gross floor area numbers are approximate.

TABLE 20-19
LESSER DENSITY/CB4 ALTERNATIVE: TRANSPORTATION PLANNING CALCULATIONS

		Uses Generated by the Alternative				Subtotal,		
Land Use:		Residential		Auto Dealership		Build Scenario		
Size/Units:		646 DUs		330,000 gsf				
Peak Hour Trips:								
WKDAY AM		475		104		579		
WKDY MD		245		104		349		
WKDY PM		558		78		636		
SAT MD		365		104		469		
Person Trips:								
		In	Out	In	Out	In	Out	Total
W AM	Auto	6	36	70	34	76	71	147
	Taxi	4	24	0	0	4	24	28
	Subway	22	125	0	0	22	125	147
	Bus	14	81	0	0	14	81	95
	Walk	24	137	0	0	24	137	161
	Other	0	0	0	0	0	0	0
	Total	71	403	70	34	141	438	579
		In	Out	In	Out	In	Out	Total
W MD	Auto	11	11	52	52	63	63	126
	Taxi	7	7	0	0	7	7	15
	Subway	38	38	0	0	38	38	76
	Bus	25	25	0	0	25	25	49
	Walk	42	42	0	0	42	42	83
	Other	0	0	0	0	0	0	0
	Total	123	123	52	52	175	175	349
		In	Out	In	Out	In	Out	Total
W PM	Auto	35	15	12	66	47	81	128
	Taxi	23	10	0	0	23	10	33
	Subway	121	52	0	0	121	52	173
	Bus	78	33	0	0	78	33	112
	Walk	133	57	0	0	133	57	190
	Other	0	0	0	0	0	0	0
	Total	391	167	12	66	402	234	636
						In	Out	Total
S MD	Auto	16	16	52	52	69	69	137
	Taxi	11	11	0	0	11	11	22
	Subway	57	57	0	0	57	57	113
	Bus	37	37	0	0	37	37	73
	Walk	62	62	0	0	62	62	124
	Other	0	0	0	0	0	0	0
	Total	183	183	52	52	235	235	469
Vehicle Trips :								
		In	Out	In	Out	In	Out	Total
W AM	Auto (Total)	5	29	54	26	59	78	137
	Taxi	3	17	0	0	3	17	20
	Taxi (Bal.)					19	19	38
	Truck	2	2	2	2	4	4	8
	TOTAL					112	101	213
		In	Out	In	Out	In	Out	Total
W MD	Auto (Total)	9	9	40	40	65	49	114
	Taxi	5	5	0	0	5	5	11
	Taxi (Bal.)					8	8	16
	Truck	4	4	3	3	7	7	14
	TOTAL					80	64	144
		In	Out	In	Out	In	Out	Total
W PM	Auto (Total)	28	12	9	51	37	63	100
	Taxi	17	7	0	0	17	7	24
	Taxi (Bal.)					17	17	34
	Truck	1	1	0	0	1	1	2
	TOTAL					55	81	136
		In	Out	In	Out	In	Out	Total
S MD	Auto (Total)	13	13	40	40	53	53	106
	Taxi	8	8	0	0	8	8	16
	Taxi (Bal.)					12	12	24
	Truck	0	0	3	3	3	3	6
	TOTAL					68	68	136

Table 20-20, Peak Hour Vehicle Trips: Lesser Density/CB4 Alternative

Peak Hour	Proposed Action/RWCDS	Lesser Density/CB4 Alt	Difference
Weekday AM	221	213	-8
Weekday MD	174	144	-30
Weekday PM	220	136	-84
Saturday MD	182	136	-46

AIR QUALITY

Under both the proposed project and this Lesser Density/CB4 Alternative there would not be any significant carbon monoxide (CO) concentrations resulting from traffic, or any violations of NAAQS.

Because this alternative would have a maximum height of 120 feet, compared to the height of approximately 345 feet for the Proposed Action, a greater number of nearby buildings would be of similar or greater height and could be affected by emissions from the HVAC stack. The preliminary screening assessment of this alternative was based on the assumption that the roof would be 120 feet tall, with an approximately 123-foot tall stack height. The building would include approximately 906,000 gsf of space (including 330,000 gsf of auto dealership space and approximately 576,000 gsf of residential space).

AERMOD modeling was carried out for this alternative using the same protocols as described in Chapter 15, "Air Quality." Two scenarios were considered: one using #2 fuel oil and one using natural gas. As a worst-case assumption, the emission factors were based on residential use, except that the 330,000 sf allocated to the auto dealership would use fuel only for heating, not hot water. The analysis also assumed that the stack would be on the roof on the W. 54th Street side of the building at an elevation of 123 feet. It would be approximately 95 feet from a building of greater height on W. 54th Street. Modeling was carried for NOx for the natural gas scenario. For the scenario using #2 fuel oil, PM2.5, PM10, and SO2 would be the pollutants of concern.

The results of the analysis using natural gas showed that the maximum concentrations of NOx would occur at a window across from the stack at an elevation of 118 feet. The range of maximum annual NOx concentrations at this receptor point would range from 4.1 ug/m3 to 4.7 ug/m3, with the highest value of 4.7 ug/m3 occurring with the 2004 meteorological data. Adding 4.7 ug/m3 to the background value of 71 ugm3 would result in a worst-case total concentration of 75.7 ug/m3. This value is below the NAAQS of 100 ug/m3. Thus, no significant air quality impacts would occur with the use of natural gas.

The results of the analysis using #2 fuel oil showed potential for significant air quality impacts for PM2.5. Maximum pollutant concentrations occurred at the window(s) across from the stack. Maximum modeled 24-hour concentrations of PM2.5 ranged from 1.9 ug/m3 with the 2002 meteorological data to 3.1 ug/m3 with the 2003 meteorological data. Values at multiple receptor points exceeded the NYC de minimis value of 2.0 ug/m3. Maximum

modeled annual concentrations of PM2.5 ranged from 0.6 ug/m3 to 0.7 ug/m3, with the maximum value of 0.7 ug/m3 occurring with the 2004 meteorological data. These values are at least twice as high as the NYC de minimis value of 0.3 ug/m3 for the annual averaging period. Due to the building's U-shaped design, no suitable alternative locations for the HVAC stack appear feasible. Because the analysis of PM2.5 clearly demonstrated the potential for significant air quality impacts, no additional modeling of PM10 or SO2 were carried out.

As with the proposed action, adoption of this alternative would require a restrictive declaration to avoid significant adverse impacts.

Recommended text for the Restrictive Declaration is as follows:

Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 92 feet for Oil No. 2 from the lot line facing W 54th Street or use Natural Gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.

NOISE

Under both the proposed project and this Lesser Density/CB4 Alternative there would not be any significant adverse Noise impacts. It is assumed that under this alternative, like the proposed project, similar window wall attenuation requires would be necessary through a restrictive declaration to ensure acceptable interior noise levels and thereby avoid noise impacts.

CONSTRUCTION IMPACTS

Under both the proposed project and this Lesser Density/CB4 Alternative, site construction would occur. Thus, there would be the short-term construction effects, as discussed in Chapter 17, "Construction Impacts." However, these effects under both the proposed project and this alternative are short-term, and measures such as the *Construction Health and Safety Plan* during construction would minimize these impacts to the extent feasible. Construction period impacts under this alternative would also be slightly less as the extent of the building program for this alternative (e.g., square footage of development), is less. As with the proposed project, this alternative would not result in significant adverse construction impacts.

PUBLIC HEALTH

Neither the proposed project nor this Lesser Density Alternative would result in significant adverse impacts to public health. Neither would result in significant adverse air quality, noise, water quality or hazardous materials impacts.

F. NO UNMITGATED IMPACT ALTERNATIVE

Per the *CEQR Technical Manual*, it is the City's practice, whenever feasible, to identify a "No Unmitigated Impact Alternative" that avoids all unmitigated significant adverse environmental impacts of a proposed action. As presented in Chapters 2 through 18, the proposed action is anticipated to result in significant adverse community facilities (elementary schools and day care), shadows, and traffic impacts. All of the traffic impacts can be mitigated with minor signal timing adjustments and daylighting of parking regulations at two intersections during certain peak hours. The Restrictive Declaration for the project includes terms committing to measures that will mitigate any day care impacts. No significant adverse impacts are anticipated in the other technical areas.

Impact screening analyses determined that of the two unmitigated impacts associated with the proposed project, avoiding the shadow impact would require a greater reduction in scale to the project than the school impact. Therefore, the analysis focuses on identifying an alternative which can avoid the shadow impact as such an alternative would be expected to avoid the school impact.

As discussed in Chapter 19, "Mitigation," and Chapter 22, "Unavoidable Significant Adverse Impacts," there is no feasible mitigation that the proposed action could implement that would mitigate the shadow impact and fully mitigate the school impact. The No Unmitigated Impact Alternative explores modifications to the proposed action that would mitigate impacts in the areas of community facilities (elementary schools) and shadows.

The No Unmitigated Impact Alternative focuses on an alternative which avoids the unmitigated shadow impact and the school impact associated with the proposed project. This alternative building design would contain approximately 303 units and would be approximately 70 feet tall.

The alternative was developed based on the results of the community facilities and shadows analyses. For the elementary school impact to be avoided, the development on the project site would have to be limited to approximately 675 DUs; a development with a greater number of residential units would result in an unmitigated significant adverse impact on elementary school capacity in the half-mile radius. The shadow analysis found that any building with a streetwall taller than 70 feet along the site's W. 54th Street frontage would result significant adverse shadow impacts. A building limited to a 70-foot streetwall could have a U-shaped configuration with 4 residential floors above a commercial base. Such a building would contain approximately 257,600 gsf of residential space. Based on an average unit size of 850 sf, this would result in approximately 303 DUs.

As described further below, this alternative would result in no unmitigated impacts as compared to the proposed action. However, this alternative would not meet the goals and objectives of the proposed action and is therefore considered unfeasible.

COMMUNITY FACILITIES – ELEMENTARY SCHOOLS

Under the proposed action, elementary schools in the half-mile radius study area would experience an increased shortfall in seats as compared to No-Build conditions. Demand would increase from 112 to 118 percent of capacity from No-Build to Build conditions. This 6 percentage point increase would be a significant adverse impact under CEQR methodology, which identifies a 5 percentage point increase to be the threshold for impact significance. As noted above, full mitigation for this impact was determined not to be feasible between the Draft and Final EIS.

As described in Chapter 4, "Community Facilities," any development with more than approximately 675 DUs would generate more than 82 elementary school students and result in an increase over the No-Build elementary school utilization in the half-mile study area by more than 5 percent, the impact threshold.

A development with 675 or fewer DUs, would avoid the significant adverse elementary school impact associated with the proposed project. As noted above, in order to avoid the shadow impact associated with the proposed project, development on the site would be limited to 70 feet in height along the 54th Street frontage, and would contain approximately 303 DUs. Such a building would, therefore, avoid the unmitigated significant adverse impact to elementary schools as compared to the proposed project.

SHADOWS

A preliminary shadow impact screening determined that a building located along the W. 54th Street frontage in the vicinity of Centro Maria would require a maximum height of approximately 26 feet or less in order to avoid incremental shadows for all four analysis dates. The screening also found that a building in this location with a maximum height of approximately 70 feet tall or less would not result in incremental shadows for all analysis dates except December 21. This shadows screening found that on December 21, a 70 foot tall streetwall building without a taller setback would have a shadow duration of approximately 4 hours and 57 minutes, from 9:56 AM to 2:53 PM (the end of the analysis period on that day). This is the same shadow duration as the proposed project and the Lesser Density/CB4 Alternative. On December 21, when the sun is low in the sky, shadows are the longest they will be all year.

The casting of shadows only during the December 21 analysis date would not be considered a significant adverse impact. As Centro Maria no longer operates as a parish church and is not open to the public, it does not have any special time of year sensitivity to shadows for the purposes of CEQR. Over the course of the entire year, the incremental shadows cast on the Centro Maria stained glass rose window would be limited in magnitude. As indicated by the absence of shadows on the March 21 analysis date (which is equivalent to September 21), for at least half the year a 70 foot tall building along the project site's W. 54th Street frontage would not cast any incremental shadow on Centro Maria. The proposed project by comparison, would cast shadows throughout the year on Centro Maria, with durations of 5

hours, 59 minutes on March 21 (September 21), 3 hours, 43 minutes on May 6 (August 6), 2 hours, 35 minutes on June 21, and 4 hours, 57 minutes on December 21.

The construction of a building limited to 70 feet in height with approximately 303 DUs and in design configuration described above, would not meet many of the goals of the proposed project, however. The proposed action is intended to provide opportunities for new residential and commercial development on a site which has become vacant and is located in an area that has been undergoing substantial commercial and residential redevelopment in the last several years, including both new market rate and affordable housing units. The proposed project, with its mix of market rate and affordable housing units, automobile dealership, and local retail uses, would help to address the need for these types of development in the local area and City as a whole. A development that avoided the unmitigated significant adverse impacts associated with the proposed project would not be able to provide the mix of uses and density compatible with this area of Manhattan.