Chapter 10: Transportation

A. INTRODUCTION

This chapter examines the potential effects of the Proposed Project on the study area transportation systems, and compares the future with the Proposed Project (the With Action condition) to the future without the Proposed Project (the No Action condition). The assessments consider the 2026 analysis year to identify potential transportation impacts, and if warranted, determine feasible mitigation measures that would be appropriate to address those impacts. The travel demand projections contained in this chapter were conducted pursuant to the methodologies outlined in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*.

As described in Chapter 1, "Project Description," the proposed actions would facilitate the construction of the Proposed Project, an approximately 596,200 gross-square-foot (gsf) state-of-the-art laboratory building with offices and other support space at 310 East 67th Street, Block 1441 Lot 40 (the Development Site). The existing three-story New York Blood Center (NYBC) building occupies the through-block Development Site. Block 1441, bounded by East 66th and East 67th Streets and First and Second Avenues, is located in Community District 8 on the Upper East Side of Manhattan.

Originally constructed in 1930 as a trade school, the existing building covers the entire lot. Within the existing building, there is an auditorium occupying approximately 5,200 gross square feet (gsf) which is used for training, scientific lectures and conferences, cultural events, and community meetings, including some meetings of Community Board 8. There are two curb cuts on East 66th Street for the service entrance and limited automobile and fleet vehicle parking for approximately 30 vehicles in an accessory parking area within the ground floor of the building. The main (pedestrian) entrance is on East 67th Street.

Consistent with Chapter 1, "Project Description," in the No Action condition, the Applicant would demolish the existing NYBC building and develop a modern facility under existing zoning. The new facility would provide approximately 188,900 gsf of laboratory space for the Applicant and approximately 40,100 gsf of physicians' offices. In the With Action condition, the existing building would be demolished, and a new facility would be built by the Applicant and a development partner. The new facility would consist of approximately 206,400 gsf for the Applicant's use and approximately 389,800 gsf of biomedical research laboratories to be operated by the development partner.

According to the Applicant,[1] the operation of, visitation to, and employment in the upgraded building is not expected to change between No Action and With Action conditions. The proposed building would provide a multipurpose room (which can be used for evening meetings such as Community Board 8 meetings). It would be smaller in size but more flexible in design than the existing auditorium. The Applicant does not anticipate that the Proposed Project would change the

[1] Director, Facilities and Real Estate, New York Blood Center

number of daily visitors for blood donations, and expects the same private vehicle fleet size and operations for transporting blood samples and other related materials, the same daily incoming deliveries for supplies and outgoing waste, and the same number of employees (approximately 580) under the No Action and With Action conditions. The Applicant would operate the same amount of laboratory space for approximately 27 research scientists and would have the same number of building support staff and deliveries under the No Action and With Action conditions. There are currently 55 to 65 daily visitors to NYBC who make blood donations between 7 AM and 7 PM. There would be six spaces of on-site parking under the No Action and With Action conditions to accommodate the Applicant's fleet vehicles. Pedestrians, autos that would park at nearby off-street parking facilities, taxis, and delivery vehicles would arrive to and depart from the Proposed Project using the same travel patterns and use entrances on the same block faces under either condition. However, the curb cut for the Applicant's fleet vehicle parking would be on East 67th Street in the No Action versus East 66th Street in the With Action condition. There would be no change in the hourly vehicle trips generated by the fleet vehicles, and any difference in vehicle patterns between the No Action and With Action conditions at intersections surrounding the site would be negligible since the fleet vehicles do not arrive and depart the site more than once per hour; therefore, there would only be a difference of approximately five or fewer peak hour trips at any intersections resulting from the different curb cut locations for the fleet vehicle parking when comparing No Action and With Action conditions. Although there would be a small increase in floor area for the Applicant's use (approximately 17,500 gsf) when compared to the No Action condition, this additional area would not generate additional trips. The No Action configuration requires compromises to ideal program sizes and associated support spaces in order to fit within the prescribed floorplate sizes and height limits of the No Action zoning envelope while maintaining the critical adjacencies of those program spaces. In the With Action condition, these spaces are optimized and right sized. The With Action condition also includes an increase in the size of the applicant's specialized core labs which anticipate shared use by commercial partner scientists. Part of the additional area would allow NYBC to optimize and right-size its facilities. There would be a larger pro-rata share of the common mechanical and building support space allocated to NYBC in the With Action building (in the No Action building, there would be approximately 62,900 gsf of shared mechanical and building support space, and in the With Action building, there would be about 128,000 gsf of this space). The Applicant's trip generation would not change between No Action and With Action conditions, as it is based on the population of staff and visitors, and not the square footage of the space. Therefore, for the purposes of this analysis, the only difference between the No Action and With Action conditions for the Proposed Project is the approximately 40,100 gsf of medical office floor area in the No Action condition and the approximately 389,800 gsf of biomedical research laboratory floor area in the With Action condition; the NYBC uses would have no net incremental changes between the No Action and With Action conditions. For the purposes of this analysis, trip estimates are based on the program shown in **Table 10-1**.

Table 10-1
Comparison of No Action and With Action Scenarios

Use	No Action	With Action	Increment
New York Blood Center (gsf)*	188,931	206,400	17,469
Commercial – Biomedical Laboratory (gsf)	0	389,800	389,800
Community Facility – Medical Office (gsf)	40,161	0	-40,161
Accessory Parking (Spaces)	6	6	0

Note:
* The existing NYBC building including the community meeting space is planned to be replaced with a new building with a similar use, but with upgraded facilities under the No Action or With Action conditions. The operation of, visitation to, and employment in the upgraded building would not change between the No Action and With Action conditions. The difference in size is shown for informational purposes, and would not generate any incremental trips according to NYBC.

PRINCIPAL CONCLUSIONS

The Proposed Project would not result in significant adverse impacts to transportation as the preliminary assessment found that the Proposed Project would not exceed the CEQR threshold warranted for detailed analysis. The incremental person trips would fall below the CEQR Level 1 threshold for transit (subway and bus) and pedestrians, therefore detailed transit and pedestrian analyses are not warranted. Although the number of incremental vehicle trips during the weekday AM peak hour is projected to exceed the CEQR threshold for the Level 2 screening assessment by four vehicles per hour, quantified traffic analysis was not warranted. The vehicles in that peak hour would be dispersed throughout a large street grid network consisting of one-way streets, which reduces the potential for trips to overlap at the same intersections. Furthermore, since the Proposed Project would only include six parking spaces, all intended for NYBC fleet vehicles, and with nearly 50 public parking facilities within ¼-mile of the site, no single intersection is anticipated to incur 50 or more vehicles during this peak hour. Therefore, no further analysis was warranted.

B. PRELIMINARY ANALYSIS METHODOLOGY AND SCREENING ASSESSMENT

The *CEQR Technical Manual* recommends a two-tier screening procedure for the preparation of a "preliminary analysis" to determine if quantified analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation analysis (Level 1) to estimate the volume of person and vehicle trips attributable to the Proposed Project. If the Proposed Project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the Proposed Project would result in 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station or at any given line, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a pedestrian element, then further quantified analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

LEVEL 1 SCREENING ASSESSMENT

A Level 1 trip generation screening assessment was conducted to estimate the number of person and vehicle trips by mode expected to be generated by the Proposed Project during the weekday AM, midday, and PM peak hours. These estimates were then compared to the *CEQR Technical Manual* thresholds to determine if a Level 2 screening and/or quantified operational analyses would be warranted.

TRANSPORTATION PLANNING ASSUMPTIONS

Trip generation factors for the proposed and potential future development sites are based on information from U.S. Census Data, New York City Department of Transportation (NYCDOT) recommended rates, and other approved environmental review documents, as summarized in **Table 10-2**.

Table 10-2
Travel Demand Factors

Use	Biomedical Laboratory			Medical Office		
Total Daily Person Trip	(1) Weekday 6.98 Trips / KSF			(3) Weekday 76.00 Trips / KSF		
Trip Linkage	0%			0%		
Net Daily Person Trip	Weekday 6.98 Trips / KSF			Weekday 76.00 Trips / KSF		
Temporal	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**
	(1)			(3)		
	13%	10%	10%	11%	13%	9%
Direction	(1)			(3)		
In	89%	49%	23%	62%	47%	35%
Out	11%	51%	77%	38%	53%	65%
Total	100%	100%	100%	100%	100%	100%
Modal Split	(2)			(3)		
	AM	**MD**	**PM**	**AM**	**MD**	**PM**
Auto	17.0%	17.0%	17.0%	1.0%	1.0%	1.0%
Taxi	2.0%	2.0%	2.0%	5.0%	5.0%	5.0%
Subway	45.0%	45.0%	45.0%	60.0%	60.0%	60.0%
Railroad	8.0%	8.0%	8.0%	0.0%	0.0%	0.0%
Bus	12.0%	12.0%	12.0%	5.0%	5.0%	5.0%
Walk	16.0%	16.0%	16.0%	29.0%	29.0%	29.0%
Total	100%	100%	100%	100%	100%	100%
Vehicle Occupancy	(1,2) Weekday			(3) Weekday		
Auto	1.12			1.53		
Taxi	1.40			1.53		
Daily Delivery Rate Generation Rate	(1) Weekday 0.32 Delivery Trips / KSF			(4) Weekday 0.29 Delivery Trips / KSF		
	AM	**MD**	**PM**	**AM**	**MD**	**PM**
Delivery Temporal	(1)			(4)		
	10%	11%	2%	3%	11%	1%
Delivery Direction	(1)			(4)		
In	50%	50%	50%	50%	50%	50%
Out	50%	50%	50%	50%	50%	50%
Total	100%	100%	100%	100%	100%	100%

Sources:
(1) *Bronx Psychiatric Center Land Use Improvement Project FEIS (2019)* – Bio-Tech/Research Use
(2) U.S. Census Bureau, ACS 2012-2016 Five-Year Estimates – Reverse Journey-to-Work (RJTW) Data for New York County census tracts 106.02, 110, 116, 118, 120, 124, 126, and 128.
(3) Based on NYCDOT's trip generation rate Survey for Medical Office in Manhattan (Within Transit Zone)
(4) *East Harlem Rezoning FEIS (2017)*

Biomedical Laboratory

The daily person trip rate, as well as the temporal and directional distributions for the biomedical laboratory component, are from the 2019 *Bronx Psychiatric Center Land Use Improvement Project FEIS* Bio-Tech/Research Use, which was based on the 2015 *New York City Department of Sanitation Proposed Manhattan Districts 6/6A/8 Preliminary Transportation Demand Factors & Screening Assessment Memorandum* Scientific Research Laboratory Use. This source is based on a survey of travel demand factors at the Alexandria Center for Life Science, which is a successful model for the biomedical laboratories proposed for the Proposed Project. These types of facilities have laboratory and collaborative research shared spaces spread over large square foot

areas. Reverse Journey-to-Work (RJTW) data for the 2012–2016 U.S. Census Bureau American Community Survey (ACS) have been used to estimate modal splits for the standard weekday AM, midday, and PM analysis peak hours. The vehicle occupancies are from the U.S. Census ACS for autos and from the *Bronx Psychiatric Center Land Use Improvement Project FEIS* for taxis. The daily delivery trip rate and temporal and directional distributions are from the *Bronx Psychiatric Center Land Use Improvement Project FEIS.*

Medical Office

The daily trip generation, temporal and directional distributions, and vehicle occupancies for the medical office component are based on NYCDOT recommended rates for medical offices in Manhattan. The modal splits are based on the NYCDOT modal split survey for medical offices in Manhattan. The temporal distributions for the delivery trips are from the 2017 *East Harlem Rezoning FEIS.*

TRIP GENERATION SUMMARY

As summarized in **Table 10-3**, the proposed actions would generate 21, -124, and -3 incremental person trips during the weekday AM, midday, and PM peak hours, respectively. Approximately 54, 36, and 34 incremental vehicle trips would be generated during the same respective peak hours.

Table 10-3
Trip Generation Summary: Incremental Trips

Use	Peak Hour	In/Out	Person Trip							Vehicle Trip			
			Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Biomedical Laboratory	AM	In	54	6	142	25	38	50	315	48	4	6	58
		Out	7	1	18	3	5	6	40	6	4	6	16
		Total	61	7	160	28	43	56	355	54	8	12	74
	Midday	In	23	3	60	11	16	21	134	21	3	7	31
		Out	24	3	62	11	17	22	139	21	3	7	31
		Total	47	6	122	22	33	43	273	42	6	14	62
	PM	In	11	1	28	5	8	10	63	10	4	1	15
		Out	36	4	94	17	25	34	210	32	4	1	37
		Total	47	5	122	22	33	44	273	42	8	2	52
Medical Office	AM	In	-2	-10	-125	0	-10	-60	-207	-1	-9	0	-10
		Out	-1	-6	-77	0	-6	-37	-127	-1	-9	0	-10
		Total	-3	-16	-202	0	-16	-97	-334	-2	-18	0	-20
	Midday	In	-2	-9	-112	0	-9	-54	-186	-1	-11	-1	-13
		Out	-2	-11	-126	0	-11	-61	-211	-1	-11	-1	-13
		Total	-4	-20	-238	0	-20	-115	-397	-2	-22	-2	-26
	PM	In	-1	-5	-58	0	-5	-28	-97	-1	-8	0	-9
		Out	-2	-9	-107	0	-9	-52	-179	-1	-8	0	-9
		Total	-3	-14	-165	0	-14	-80	-276	-2	-16	0	-18
Total	AM	In	52	-4	17	25	28	-10	108	47	-5	6	48
		Out	6	-5	-59	3	-1	-31	-87	5	-5	6	6
		Total	58	-9	-42	28	27	-41	21	52	-10	12	54
	Midday	In	21	-6	-52	11	7	-33	-52	20	-8	6	18
		Out	22	-8	-64	11	6	-39	-72	20	-8	6	18
		Total	43	-14	-116	22	13	-72	-124	40	-16	12	36
	PM	In	10	-4	-30	5	3	-18	-34	9	-4	1	6
		Out	34	-5	-13	17	16	-18	31	31	-4	1	28
		Total	44	-9	-43	22	19	-36	-3	40	-8	2	34

LEVEL 1 SCREENING

TRAFFIC

As shown in **Table 10-3**, the estimated trips generated by the proposed actions would be 54, 36, and 34 incremental vehicle trips during the weekday AM, midday, and PM peak hours, respectively.

Although the number of weekday AM peak hour incremental vehicle trips is projected to exceed the CEQR threshold for Level 2 screening assessments by four vehicles per hour, it is not anticipated that quantified traffic analysis would be warranted. The 54 vehicles per hour would be dispersed throughout a large street grid network consisting of one-way streets, which reduces the potential for trips to overlap at the same intersections. Furthermore, since the proposed project would only include six parking spaces, all intended for NYBC fleet vehicles, and with nearly 50 public parking facilities within ¼-mile of the site, no single intersection is anticipated to incur 50 or more vehicles during this peak hour.

Furthermore, since the incremental vehicle trips would be fewer than 50 vehicles for all other peak hours, a detailed traffic analysis is not warranted, and the proposed project would not result in any significant adverse traffic impacts.

TRANSIT

As detailed in **Table 10-3**, the incremental transit trips generated by the proposed actions would include -42, -116, and -43 person trips by subway during the weekday AM, midday, and PM peak hours, respectively. Correspondingly, there would be 27, 13, and 19 incremental person trips by bus and 28, 22, and 22 incremental person trips by rail during these same peak hours. In addition to the availability of multiple subway stations/lines and bus routes near the proposed project, these incremental transit trips are below the *CEQR Technical Manual* analysis thresholds of 200 or more peak hour subway/rail trips and 50 or more peak hour bus riders in a single direction. Therefore, a detailed transit analysis is not warranted, and the proposed project would not result in any significant adverse transit impacts.

PEDESTRIAN

All incremental person trips generated by the proposed actions would traverse the pedestrian elements surrounding the Project Area. As shown in **Table 10-3**, the incremental pedestrian trips would be fewer than 200 during the AM, midday, and PM peak hours. Therefore, a detailed pedestrian analysis is not warranted, and the proposed project would not result in any significant adverse pedestrian impacts. ✷