

APPENDIX A-2
Conceptual Analysis

A. INTRODUCTION

In response to public comments on the Draft Scope of Work, this appendix presents and analyzes the potential for significant adverse impacts that could result from future utilization of the proposed special permit to allow a new school use at Industry City. As detailed in Chapter 1, “Project Description,” and the Final Scope of Work for the Environmental Impact Statement (EIS), the proposed Special Industry City District text amendment would allow for the utilization of the proposed special permit to allow for a school use pursuant to a special permit. The Applicant does not intend to include a school at Industry City and has not included a school in the special permit application in conjunction with the Proposed Actions, and thus the Reasonable Worst-Case Development Scenario (RWCDS) for this EIS does not include this use for impact assessment purposes. To assess the potential effects of such a school use at Industry City were a future special permit sought to allow school use to be permitted, however, this appendix has been provided.

Neither specific programming nor a specific location have been identified for the potential school use. For the purposes of this analysis, the following details are assumed:

- Any future application seeking the proposed special permit for school use would not be permitted to exceed Industry City’s overall maximum zoning floor area. Therefore, the analysis assumes that the potential school would displace an equivalent amount of square footage in the proposed development program (see **Table A-2-1**).
- It is anticipated that a new school would most likely need to be located in a new-construction building. The Applicant currently controls only one of the three parcels within Industry City where new building construction would occur. Therefore, this analysis assumes that the potential school use could be located within the proposed new Building 11, which the RWCDS assumes would be occupied predominantly by Academic uses.
- One of the Applicant’s stated goals of the Proposed Actions is for the proposed Academic use to provide a venue for innovators and scholars to interface on research, design, training, and education, and provide a feeder of educated and trained employees to serve Innovation Economy uses on site and elsewhere within the City. Therefore, consistent with this goal and in response to public comments on the Draft Scope, this conceptual analysis assumes that the potential school use could be a 400-seat, specialized high school focused on innovation and technology. As described above, the potential high school is assumed to displace approximately 50,000 square feet of Academic space, compared to the Baseline Scenario (see **Table A-2-1**).

The analysis provided below is a qualitative assessment of the potential effects of a specialized public high school at Industry City. A detailed impact analysis would be conducted under a separate environmental review at such future time when a special permit is sought based on an actual program and siting plan.

**Table A-2-1
Specialized Public High School Scenario**

Use	School Scenario: Industry City Total	Increment: Baseline Scenario to School Scenario
Retail GSF¹	900,000	No change
Commercial GSF²	43,003	No change
Storage/Warehousing GSF	415,000	No change
Manufacturing GSF³	2,680,336	No change
Office GSF⁴	893,445	No change
Brooklyn Nets Training Facility GSF	74,824	No change
Hotel GSF	287,000	No change
Hotel Rooms	420	No change
Academic GSF	386,546	No change in total
<i>Instructional Space/Laboratories/Academic Offices/Academic Library Space/Museum or Non-Commercial Gallery Space</i>	336,546	-50,000
<i>Specialized Public High School</i>	50,000	50,000
Vertical Circulation/Mechanical GSF	419,957	No change
Vacant GSF	0	No change
Accessory Parking Spaces	Range: 1,811 to 2,111 Spaces	No change
Parking GSF⁴	477,910	No change
Total GSF	6,578,021	No change
Notes:		
¹ Assumes destination retail, local retail, and supermarket uses.		
² Commercial use as event space.		
³ Manufacturing consists of Manufacturing and Artisanal Manufacturing uses.		
⁴ Innovation Economy is comprised of Manufacturing, Artisanal Manufacturing, and Office uses.		
⁵ Parking includes surface lots, garage spaces, and private street parking controlled by the Applicant.		

B. ASSESSMENT OF THE SCHOOL SCENARIO

The analysis of the School Scenario presented below compares the potential environmental effects of this public high school program against the equivalent academic use, which would be the same 50,000 gsf assumed in all the RWCDs programs analyzed in the EIS.

LAND USE, ZONING, AND PUBLIC POLICY

Currently there are no public school uses within the Directly Affected Area or the Primary Study Area; there are two elementary schools and one public high school (not specialized) within the Secondary Study Area. The potential specialized public high school would be allowable by special permit within the Directly Affected Area under the proposed actions. It would be expected to be compatible with the anticipated mix of uses within the Special Industry City District, which is expected to support an ecosystem where makers, innovators, students, and scholars will interface on research, design, training, and education. The creation of a specialized public high school at this location would not result in any changes to public policies affecting the Directly Affected Area or the Primary or Secondary Study Areas, and would be consistent with such public policies. Therefore, this scenario would not be anticipated to have any significant adverse impacts on land use, zoning, or public policy.

SOCIOECONOMIC CONDITIONS

The School Scenario, like the three scenarios analyzed in the EIS, would not be expected to create any significant adverse socioeconomic conditions impacts. It would not result in any direct business or residential displacement. It would not introduce any residential or additional commercial uses, and thus there would be no potential for impacts related to indirect residential or business displacement, or adverse effects on specific industries.

COMMUNITY FACILITIES

The School Scenario, like the three scenarios analyzed in the EIS, would not physically alter any community facilities, would not introduce a sizeable new neighborhood where none existed before, and would not introduce any residential uses to the Directly Affected Area. Therefore, it would not meet any of the *CEQR Technical Manual* thresholds for analysis of community facilities. Under the School Scenario, a 400-seat specialized public high school could be created within the Directly Affected Area. If the proposed high school were operated as a public high school, the new facility would create additional opportunities for specialized learning, and would increase the availability of high school seats borough-wide or City-wide. Therefore, there would be no significant adverse impact to community facilities with the School Scenario.

OPEN SPACE

The School Scenario, like the three scenarios analyzed in the EIS, would not result in significant adverse impacts on open space. The School Scenario, with its introduction of 400 students, would introduce slightly more non-residents to the Project Area than the academic use, and represent an approximately one-percent increase in the estimated non-resident population (29,417). The passive open space ratios for the non-residential study area in the School Scenario would remain at approximately 0.474 and continue to be well above the City's planning goal of 0.15 acres of passive open space per 1,000 non-residents.

SHADOWS

The maximum height of new Building 11 (170 feet, 185 feet with rooftop mechanical equipment) would not change in the School Scenario, and the new Building 11 would not cast incremental shadow on any sunlight-sensitive resources in any scenario. Therefore, as with the scenarios analyzed in the EIS, the School Scenario would not result in a significant shadow impact on any sunlight-sensitive resources.

HISTORIC AND CULTURAL RESOURCES

As detailed in Chapter 6, "Historic and Cultural Resources," the New York City Landmarks Preservation Commission (LPC) has determined that the Project Area does not possess archaeological sensitivity (see **Appendix C**, "Historic and Cultural Resources"). Therefore, like the scenarios analyzed in the EIS, the School Scenario would have no significant adverse impact on archaeological resources.

In the School Scenario, like the three scenarios analyzed in the EIS, Building 11 would be constructed on the site currently occupied by the one-story building that abuts Building 9 on the west (882 3rd Avenue, Block 679, Lot 1) and the former Bush Terminal steam plant at 2nd Avenue and 32nd Street (Block 679, Lot 1), which are within the boundaries of the State and National Register of Historic Places-eligible Bush Terminal Historic District and would be demolished in the No Action condition for parking. Therefore, the construction of new Building 11 in either the Baseline Scenario or School Scenario would not result in the demolition of any architectural

resources. It is expected that in the School Scenario, as in the three scenarios analyzed in the EIS, the Applicant is expected to enter in a Restrictive Declaration that will specify the need for a Construction Protection Plan (CPP) in order to avoid inadvertent construction-related impacts to architectural resources located within 90 feet of the new Building 11..

URBAN DESIGN AND VISUAL RESOURCES

Like the three scenarios analyzed in the EIS, the School Scenario would not be anticipated to result in significant adverse impacts on urban design, view corridors, and visual resources. The maximum height of new Building 11 (170 feet, 185 feet with rooftop mechanical equipment) would not change in the School Scenario, and the massing of the building is assumed to be reflective of existing Buildings 19 and 20, as with the Baseline Scenario. As with all three scenarios analyzed in the EIS, Building 11 would be prominently visible along 2nd Avenue within the study area, but the School Scenario would not adversely impact or obstruct views to any visual resources in the study area.

NATURAL RESOURCES

Similar to the scenarios analyzed in the EIS, the School Scenario would not adversely affect the floodplain, or increase flooding within or adjacent to the Directly Affected Area, or result in significant adverse impacts to groundwater resources. The new Building 11 would comply with New York City Building Codes for construction within the 1 percent Annual Change and 0.2 percent Annual Change floodplains (i.e., 100-year and 500-year floodplains). The new Building 11 also would implement measures developed on the basis of further environmental investigation to minimize effects to the environment, including groundwater. The School Scenario, like the scenarios analyzed in the EIS, would result in the disturbance of paved areas, urban vacant lots and urban structure exterior habitats. These ecological communities provide limited habitats to wildlife other than species common to urban areas. Loss of these habitats may adversely affect individual wildlife unable to find suitable available habitats in the vicinity of the study area. Loss of individuals of these common species would not result in significant adverse impacts to populations of these species within the New York City metropolitan region.

HAZARDOUS MATERIALS

As with the scenarios analyzed in the EIS, the potential for significant adverse impacts related to hazardous materials resulting from the School Scenario would be precluded through the placement of (E) Designations, as warranted, for all privately owned lots where soil disturbing activities are anticipated. An (E) Designation for hazardous materials requires, prior to change of use or redevelopment requiring ground disturbance, that the fee-owner of the property conduct a Phase I Environmental Site Assessment (ESA), subsurface testing and remediation, where appropriate, to the satisfaction of the New York City Mayor's Office of Environmental Remediation (OER). The New York City Department of Buildings (DOB) permits associated with such actions cannot be issued without OER approval. The OER review would ensure protection of human health and the environment from known or suspected hazardous materials. With these measures in place, similar to the three scenarios analyzed in the EIS, the School Scenario is not anticipated to result in adverse impacts related to hazardous materials.

WATER AND SEWER INFRASTRUCTURE

Neither the scenarios analyzed in the EIS nor the School Scenario would result in significant adverse impacts on the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. Using *CEQR Technical Manual* factors, the school would generate approximately

12,000 gallons more of water (domestic and air conditioning demand) and approximately 4,000 gallons of sewer demand (domestic demand only) than the equivalent academic use. This would represent negligible increases of less than ½ percent for water demand and less than 1/3 percent for sewer demand. These incremental increases would not result in an undue burden to the area’s water and sewer infrastructure. As with the scenarios analyzed in the EIS, the incorporation of selected best management practices (BMPs) would be required in the School Scenario as part of the New York City Department of Environmental Protection (DEP) site connection application process for any potential new buildings, including new Building 11.

ENERGY

Neither the scenarios analyzed in the EIS nor the School Scenario would result in significant adverse impacts with respect to the transmission or generation of energy. The school program would generate the same energy demand as the equivalent academic use demand on New York City’s energy services, which represent a negligible amount of the City’s forecasted annual energy requirements for 2027.

TRANSPORTATION

Compared with the trip generation associated with the school and the equivalent academic use, the School Scenario would result in a decrease in the number of vehicle, pedestrian, and transit trips during the weekday midday, PM, and Saturday peak hours but would result in an increase in the number of vehicle, pedestrian, and transit trips during the weekday AM peak hour. The school would result in a decrease in the parking demand for both the weekday and Saturday during the peak periods.

The combined net increment is an increase in Specialized Public High School space (by 50,000 sf totaling to 400 seats) and a decrease in other Academic space (by 50,000 sf). Travel demand projections were prepared for the School Scenario based on assumptions summarized in Chapter 11, “Transportation”; travel demand assumptions for the high school student and staff trips were obtained from the *East New York Rezoning Proposal FEIS (2016)* with school staff modal split and vehicle occupancy rates assumed to be similar to other Industry City workers. **Table A-2-2** presents an incremental comparison of the total peak hour person trips generated by the school and the academic use, and **Table A-2-3** presents an incremental comparison of the total peak hour vehicle trips generated between the two uses.

As shown in **Table A-2-2**, the school would result in an additional 64 bus transit trips, 40 subway transit trips, and 70 walk trips during the weekday AM peak hour. The school would result in fewer transit and pedestrian trips during the other peak hours analyzed: 8 to 18 fewer bus transit trips, 10 to 196 fewer subway transit trips, and 40 to 90 fewer walk trips are expected during the weekday midday, PM, and Saturday peak hours.

**Table A-2-2
Net Difference in Person Trips**

	Difference in Person Trips											
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	-5	-1	-6	-3	-3	-6	-2	-12	-14	-3	-3	-6
Taxi	55	0	55	-1	-1	-2	-1	-2	-3	-1	-1	-2
Bus	65	-1	64	-5	-5	-10	-3	-15	-18	-4	-4	-8
Subway	47	-7	40	-6	-6	-12	-24	-172	-196	-5	-5	-10
Walk	72	-2	70	-45	-45	-90	-5	-35	-40	-41	-41	-82
Total	234	-11	223	-60	-60	-120	-35	-236	-271	-54	-54	-108

As shown in **Table A-2-3**, the school would result in an additional 80 vehicle trips during the weekday AM peak hour; the number of auto trips would decrease by six vehicle trips but the school would result in an increase in 84 auto pick-up/drop-off and taxi trips and two truck trips. The School Scenario would result in fewer vehicle trips during the other peak hours analyzed: eight fewer vehicle trips during the weekday midday peak hour, 17 fewer vehicle trips during the weekday PM peak hour, and 10 fewer vehicle trips during the Saturday peak hour.

**Table A-2-3
Net Difference in Vehicle Trips**

	Difference in Vehicle Trips											
	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	-5	-1	-6	-3	-3	-6	-2	-11	-13	-3	-3	-6
Auto Pick-up/Drop-offs and Taxi	42	42	84	-2	-2	-4	-2	-2	-4	-2	-2	-4
Truck	1	1	2	1	1	2	0	0	0	0	0	0
Total	38	42	80	-4	-4	-8	-4	-13	-17	-5	-5	-10

The Proposed Actions would result in significant adverse traffic impacts at 15 intersections during the weekday AM peak hour, 15 intersections during the weekday midday peak hour, 22 intersections during the weekday PM peak hour, and 14 intersections during the Saturday peak hour. As described in Chapter 20, “Mitigation,” mitigation measures were successfully developed for 8 out of 15 impacted intersections during the weekday AM peak hour, 9 out of 15 impacted intersections during the weekday midday peak hour, 11 out of 22 impacted intersections during the weekday PM peak hour, and 8 out of 14 impacts intersections during the Saturday peak hour. The inclusion of a school would generally be expected to generate a similar number of significant traffic impacts and unmitigated impacts with implementation of the mitigation measures identified in the EIS. However, additional analyses would be needed to validate or modify the weekday AM peak hour impact assumptions at the time of a future special permit application since the additional vehicle trips could potentially result in additional significant impacts.

The Proposed Actions would result in significant adverse traffic impacts along the northbound Gowanus Expressway during the weekday AM peak hour (in the segment between 40th Street and 49th Street) and in the weekday midday peak hour (in the segment between 38th Street and 49th Street). These impacts are identified as being unmitigated. It is expected the inclusion of the school replacing an equivalent amount of academic space would result in similar unmitigated impacts.

The Proposed Actions would result in significant adverse impacts at the 36th Street station during the weekday AM and PM peak hours (the P3 and P4 stairways, which connect the mezzanine to the station platforms; the S3 stairway which connects the street surface with the mezzanine; and, during only the weekday PM peak hour, the M1A/M1B mezzanine level stairways located between the S1 and S3 stairways and the fare control area). Measures to fully mitigate these impacts would likely require long-term capital improvements, such as the widening of stairways, the feasibility and practicability of which would require detailed engineering feasibility studies. Between the Draft EIS and the Final EIS, mitigation measures such as these will be studied further in conjunction with NYCT. It is expected the School Scenario would result in similar impacts.

The Proposed Actions would result in a capacity shortfall on the westbound B70 bus route during the weekday AM peak hour which could be mitigated by the addition of one standard bus along

the westbound B35 LTD bus route in the weekday AM peak hour. The general policy of NYCT is to provide additional bus service where demand warrants, taking into account financial and operational constraints. It is expected the inclusion of the school Scenario would result in similar bus transit impacts, and the incorporation of the mitigation measures would be expected to be able to mitigate these impacts.

The majority of the 77 pedestrian elements analyzed would either not be significantly impacted or could be fully mitigated with readily implementable pedestrian improvement measures identified in Chapter 11, "Transportation" and Chapter 20, "Mitigation." The Proposed Actions would result in significant adverse pedestrian impacts at six pedestrian elements during the weekday AM peak hour (three elements could not be mitigated), 14 pedestrian elements during the weekday midday peak hour (11 elements could not be mitigated), 18 pedestrian elements during the weekday PM peak hour (13 elements could not be mitigated), and 12 pedestrian elements during the Saturday peak hour (10 elements could not be mitigated). The School Scenario would be expected to generate a similar number of significant pedestrian impacts and unmitigated impacts upon the incorporation of the mitigation measures. However, additional CEQR analyses would be needed to validate or modify the weekday AM peak hour impact assumptions at the time of a future special permit application since the additional pedestrian trips could potentially result in additional significant impacts.

Overall, the school would generate fewer auto trips during all peak hours as compared to the equivalent academic use, and as such, it would be expected the parking demand would also be lower. The Proposed Actions would be fully able to accommodate its parking demand and would be expected to accommodate the parking demand with the inclusion of a school as well.

AIR QUALITY

As discussed above, the school would result in reduced levels of traffic for all analyzed peak traffic periods with the exception of the AM peak period. Based on the mobile source analysis performed for the Proposed Actions, the additional vehicle trips predicted during the AM would not be expected to result in any significant adverse air quality impacts with respect to mobile source emissions of carbon monoxide (CO) or fine particulate matter less than 10 microns in diameter (PM₁₀). Likewise, concentrations of fine particulate matter less than 2.5 microns in diameter (PM_{2.5}) would not be expected to exceed the CEQR *de minimis* criteria on a 24-hour average. As presented in Chapter 13, "Air Quality," under the Proposed Actions, at all three intersection sites analyzed, the maximum annual incremental PM_{2.5} concentration is predicted to exceed the *de minimis* criteria; under the School Scenario, it would be expected that the same intersections would be impacted. As discussed in Chapter 20, "Mitigation," however, the modeling analysis based on the incorporation of traffic mitigation measures determined that annual incremental concentrations of PM_{2.5} would be significantly lower than the With Action condition and would not exceed the *de minimis* criteria for PM_{2.5}. Since the School Scenario would only affect one of the peak traffic periods analyzed for the annual PM_{2.5} analysis, it is likewise expected that under the School Scenario, no unmitigated significant adverse air quality impacts would remain upon incorporation of the same mitigation measures, but additional CEQR analyses would be needed to validate the impact assumptions if the School Scenario is progressed further since the additional traffic trips could potentially result in additional significant impacts on traffic, that may in turn require further or different traffic mitigation. This analysis would be conducted at the time of future special permit application.

There would be no net change in floor area under the School Scenario as compared to the Proposed Actions; therefore, no increase in emissions from heating and hot water systems would be

expected. If the new school requires a separate heating and hot water system, further analysis may be required to confirm that the proposed system would not result in any significant adverse air quality impacts.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Greenhouse gas (GHG) emissions associated with land uses in the Project Area under the School Scenario would be similar to those generated under the scenarios analyzed in the EIS.

The resilience challenges associated with future increases in sea level rise and its potential impact on future severe storm levels and normal high tide inundation, and the City's response to those challenges, would be the same for the School Scenario and the scenarios analyzed in the EIS. Those sea level rise resiliency measures and adaptive strategies intended to address climate change impacts for the scenarios analyzed in the EIS (e.g., elevating critical infrastructure, restricting use of ground floors) also would be completed during any construction for Building 11 that would occur under the School Scenario. Both scenarios would result in a comparable reduction of the risk posed by climate change impacts.

NOISE

Similar to the scenarios analyzed in the EIS, traffic generated by the School Scenario would be expected to produce significant increases in noise levels on 41st Street between 1st and 2nd Avenues because of additional vehicular traffic utilizing the proposed parking garage at Building 21. These increases would constitute significant adverse impacts at a residential building (166 41st Street) along this block, which is the only sensitive noise receptor that would experience this significant increase in noise level. However, the absolute noise levels at this location with the Proposed Actions would be in the high 60s A-weighted decibels (dBA), which would be typical of areas near highly trafficked roadways in New York City and would be considered "marginally acceptable" according to *CEQR Technical Manual* noise exposure criteria.

Additionally, the building attenuation analysis presented in this EIS determined that the buildings to be constructed pursuant to the Proposed Actions would require between 28 and 40 A-weighted decibels (dBA) window/wall attenuation to meet *CEQR Technical Manual* interior noise level requirements, based on projected exterior noise levels. The attenuation requirements would be included in Noise (E) Designations (E-[TBD]) mapped on the sites within the Project Area. Specifically, at Building 11 in which the school is assumed to be located, the E-designation would require up to 31 dBA window/wall attenuation, which would be sufficient to ensure acceptable interior noise levels for a school use.

Additionally, similarly to the scenarios analyzed in the EIS, restrictions included in the New York City Department of Buildings (DOB) Building Code would ensure that demising partitions between a school in Building 11 and Innovation Economy uses on the same lot would provide sufficient noise attenuation to result in acceptable interior noise levels at the newly introduced noise receptors.

Consequently, the School Scenario would not result in any significant adverse noise impacts beyond the one identified for the scenario analyzed in the EIS.

PUBLIC HEALTH

Neither the scenarios analyzed in the EIS nor the School Scenario would result in unmitigated significant adverse public health impacts. No unmitigated significant adverse impacts would occur in the areas of hazardous materials, air quality, or noise in any of these scenarios. However, there

would be significant unmitigated adverse noise impacts during the construction of the Proposed Actions.

Overall, the area of potential noise impacts is limited, and the population exposed to elevated noise levels due to construction is very limited. In addition, as described above, the noise would not be chronic and would not exceed the threshold of short-term high decibel levels. Therefore, the predicted noise resulting from construction of the Proposed Actions would not constitute a potential significant adverse public health impact; consequently, there would not be significant adverse public health impacts due to construction of the Proposed Actions.

NEIGHBORHOOD CHARACTER

Neither the scenarios analyzed in the EIS nor the School Scenario would substantially change the character of the surrounding neighborhood. The School Scenario would not result in any significant adverse impacts on land use, zoning, and public policy; socioeconomic conditions; open space; shadows; or urban design and visual resources. Although the School Scenario, like the scenarios analyzed in the EIS, could result in significant adverse impacts to traffic and noise, the majority of these impacts could be fully mitigated with standard mitigation measures. Neither the scenarios analyzed in the EIS nor the School Scenario would result in a combination of moderate effects to several elements that could cumulatively impact neighborhood character. Therefore the School Scenario, like the scenarios analyzed in the EIS, would be consistent with the existing character of the neighborhood and would not result in any significant adverse impacts on neighborhood character.

CONSTRUCTION

The amount of construction activity under the School Scenario would be similar to the scenarios analyzed in the EIS, and thus the School Scenario would be expected to generate a similar amount of temporary construction disruption to the surrounding community. Any controls outlined in Chapter 18, "Construction," would be applicable to the School Scenario as well. *