Chapter 21: Alternatives

A. INTRODUCTION

This chapter presents and analyzes alternatives to the proposed Cornell NYC Tech project. As described in the June 2012 *City Environmental Quality Review (CEQR) Technical Manual*, alternatives selected for consideration in an environmental impact statement (EIS) are generally those which are feasible and have the potential to reduce, eliminate, or avoid adverse impacts of a proposed action while meeting some or all of the goals and objectives of the action.

This chapter considers in detail the following two alternatives to the proposed project:

- A **No Action Alternative**, which is mandated by CEQR and SEQRA, and is intended to provide the lead and involved agencies with an assessment of the expected environmental impacts of no action on their part;
- A **No Unmitigated Significant Adverse Impact Alternative**, which considers development that would not result in any identified significant, unmitigated adverse impacts. In the case of the Cornell NYC Tech project, this alternative considers three variations: 1) whether the proposed project's significant adverse impact on the Goldwater Hospital complex could be avoided; 2) whether the proposed project's significant adverse transportation impacts (traffic and pedestrians) could be avoided; and 3) whether the project's construction-period impacts could be avoided.

As detailed in this chapter, neither the No Action nor the No Unmitigated Significant Adverse Impact Alternative would meet the goals and objectives of the city or Cornell University for the proposed project.

B. APPLIED SCIENCES NYC

As described in Chapter 1, "Project Description," the City of New York launched its Applied Sciences NYC initiative in 2010 after working with a range of New York City's business leaders, academics, community groups, and entrepreneurs to identify ambitious, achievable initiatives that the city could undertake to attain local economic growth. From that process, an unmet demand within New York City for top-flight engineers and applied scientists was identified.

The purpose of the Applied Sciences competition in New York City was to provide an opportunity for one or more leading academic institution(s) to build world-class applied sciences and engineering facilities in New York City thereby maintaining and increasing New York City's global competitiveness, diversifying the city's economy, driving economic growth, and creating jobs for New Yorkers.

In connection with the new campus, the city indicated its willingness to provide city-owned land in addition to a significant capital contribution in site infrastructure. In 2011, the city issued a Request for Proposals (RFP) seeking a university, institution, or consortium to develop and

operate a new (or expanded) campus in the city. The city selected Cornell University, in conjunction with its academic partner the Technion - Israel Institute of Technology, to develop the Applied Sciences NYC project at the Goldwater Hospital site on Roosevelt —the Cornell NYC Tech project.

The Cornell NYC Tech project intends to focus on research and graduate degrees in the applied sciences and fields of study related to the technology sector. A defining aspect of the new campus's graduate-level academic programs is the close tie to business and entrepreneurship that will be woven throughout the curriculum. Research will be focused on technology in application areas that have commercial potential in New York City markets. Specifically, New York City's technology sector and information-driven economy serves as the impetus for the development of many consumer-oriented companies focused specifically on technology to meet end users' needs, including some of NYC's core industries: media, advertising, finance, healthcare, real estate, construction, and design. The Cornell NYC Tech campus will be centered on flexible and dynamic interdisciplinary application hubs instead of traditional academic departments. This model will serve as a focal point for accelerating existing sectors of NYC's economy and driving the formation of new technology businesses through close ties to customers and core industry knowledge.

C. NO ACTION ALTERNATIVE

DESCRIPTION

The No Action Alternative assumes that the proposed Cornell NYC Tech project is not developed. There would be no new applied sciences and engineering campus and associated open space, and the loop road would not be reconstructed. As described in Chapter 1, "Project Description," the Goldwater Hospital complex located on the project site would be vacant since the New York City Health and Hospitals Corporation (NYCHHC) will vacate the site and relocate patients and services elsewhere. NYCHHC issued a Negative Declaration on December 6, 2011 for the Goldwater North project, which includes the closure and relocation of operations currently housed at the Goldwater Hospital (CEQR No. 12HHC001M). As described in the Environmental Assessment Statement prepared for the Goldwater North project, the existing Goldwater Hospital facility is at the end of its useful life without major renovations. Further, because of the age and design of the building, it can never be fully compliant with nursing facility environmental codes, nor can it ever be an optimal environment for specialty hospital (long-term acute care hospital) patients. NYCHHC will transfer operations from the project site to other sites including the former North General Hospital facility, located at 1879 Madison Avenue in Harlem, and the Coler Memorial Hospital campus.

This alternative essentially reflects conditions described as the "Future Without the Proposed Project" in Chapters 2 through 19. The analysis that follows compares conditions under the No Action Alternative to conditions with the proposed project in the 2038 analysis year.

NO ACTION ALTERNATIVE COMPARED WITH THE PROPOSED ACTIONS

The effects of the No Action Alternative in comparison to those of the proposed Cornell NYC Tech project are summarized below.

LAND USE, ZONING, AND PUBLIC POLICY

Like the proposed project, the No Action Alternative would not result in any significant adverse impacts to land use, zoning, or public policy. No changes to zoning would occur with the No Action Alternative and the site would continue to be zoned R7-2. The project site would contain a vacant hospital complex and vacant land. Unlike the proposed project, the No Action Alternative would not improve land use conditions in the study are by creating a vibrant new mixed-use campus that would be compatible with nearby uses. Under the No Action Alternative, the opportunity to provide roadway improvements, new publicly accessible open space, and economic development would not be realized. Unlike the proposed project, this alternative would not achieve the goals of the city's Applied Sciences NYC initiative.

SOCIOECONOMIC CONDITIONS

Like the proposed project, the No Action Alternative would not result in any significant adverse impacts to socioeconomic conditions in the study area. The following summarizes the potential socioeconomic effects of the No Action Alternative as compared to those of the proposed project for the five issues of socioeconomic concern specified in the *CEQR Technical Manual*.

Direct Residential Displacement

Neither the proposed project nor the No Action Alternative would result in significant adverse impacts due to direct residential displacement in the study area.

Direct Business Displacement

The No Action Alternative would result in direct business displacement at the site by closing Goldwater Hospital; however, this would not be an adverse impact. As stated above, NYCHHC issued a Negative Declaration on December 6, 2011 for the closure and relocation of operations currently housed at the Goldwater Hospital (CEQR No. 12HHC001M) and will relocate its patients and services. The proposed project would not result in any direct business displacement.

Indirect Residential Displacement

While the No Action Alternative would not introduce new residential dwelling units or a population that could substantially affect residential real estate market conditions in the study area, neither the proposed project nor the No Action Alternative would result in significant adverse impacts due to indirect residential displacement.

Indirect Business Displacement

Similar to the proposed project, the No Action Alternative would not introduce new economic activities that would substantially alter existing economic patterns in the study area. However, since the project site would be unoccupied in the No Action Alternative, this alternative could result in some negative effects on area businesses since there would be fewer people making use of businesses on Roosevelt Island. Unlike the proposed project, this alternative would not add economic variety and vitality to complement the growing residential population on the Island.

Adverse Effects on Specific Industries

Similar to the proposed project, the No Action Alternative would not have a significant adverse impact on specific industries. While the closure of the Goldwater Hospital would affect this health care facility at the project site, it would not adversely affect the health care industry in New York City. Similarly, the proposed project would not directly displace any businesses or

have substantial adverse effects on business conditions in any industry or any category of business within or outside the study area.

COMMUNITY FACILITIES AND SERVICES

Neither the No Action Alternative nor the proposed project would have significant adverse direct or indirect impacts on community facilities.[1] The No Action Alternative would not add new residences for campus leadership and faculty, postdoctoral fellows, Ph.D. candidates, and master's students, and would therefore not create increased demand for various community facilities, including public schools and libraries.

OPEN SPACE

Neither the No Action Alternative nor the proposed project would have significant adverse impacts on open space. Since the project site would be vacant in the No Action Alternative, this alternative would reduce the demand for area open spaces compared to the proposed project. However, this alternative would not provide for the notable open space improvements associated with the proposed project.

SHADOWS

Neither the No Action Alternative nor the proposed project would have significant adverse shadows impacts. Since the Goldwater Hospital complex is expected to remain in place, but vacant, in the No Action Alternative, shadows would remain unchanged from existing conditions.

HISTORIC AND CULTURAL RESOURCES

As described above, in the No Action Alternative, the Goldwater Hospital complex, which is eligible for listing on the State and National Registers of Historic Places (S/NR-eligible), would remain intact. Compared to the proposed project which would demolish the hospital complex resulting in a significant adverse impact to this architectural resource, with the No Action Alternative, this architectural resource would not be demolished. Therefore, the No Action Alternative, unlike the proposed project, would not result in any significant adverse impacts to this architectural resource.

The No Action Alternative, like the proposed project, would not result in any significant adverse physical or contextual impacts to architectural resources in the study area.

URBAN DESIGN AND VISUAL RESOURCES

With this alternative, the project's new academic campus would not be added to the urban design fabric of Roosevelt Island.

Under the No Action Alternative, the Goldwater Hospital complex would be vacant. This alternative would not introduce new buildings with active ground-floor uses, including retail, and new open spaces that provide places to rest and play and that visually enhance the experience of walking around the project site. The No Action Alternative would result in less

[1] The *CEQR Technical Manual* defines community facilities as public or publicly funded facilities, including schools, health care, day care, libraries, and fire and police protection services.

pedestrian activity in the area and the Goldwater Hospital site would be a less inviting and appealing place than with the proposed project.

The No Action Alternative would not result in any changes in views of the site from farther distances since the hospital complex would remain in place. With the proposed project, on- views from north and south of the project site would change considerably and from the more distant off- views, it is anticipated that the campus would appear more consistent with the development on the north side of the .

NATURAL RESOURCES

Like the proposed project, the No Action Alternative would not result in any significant adverse impacts with respect to natural resources. Under the No Action Alternative, trees would not be removed from the site as they would with the proposed project. However, the loss of these trees and the existing ecological communities within the project site, which are common to the New York metropolitan area, would not result in significant adverse impacts to natural resources.

HAZARDOUS MATERIALS

Like the proposed project, the No Action Alternative would not result in any significant adverse impacts with respect to hazardous materials. Under the No Action Alternative, during the closure of the existing hospital and following vacating the buildings, applicable legal requirements would need to be followed, including but not limited to disposal of chemicals or other wastes, NYSDEC regulations relating to removal of unused petroleum tanks along with any associated contaminated soil, and proper management of asbestos-containing materials.

WATER AND SEWER INFRASTRUCTURE

While the No Action Alternative would generate less demand on New York City's water supply and sanitary sewage treatment systems than the proposed project, neither the proposed project nor the No Action Alternative would result in any significant adverse impacts on the city's water supply, wastewater or stormwater conveyance and treatment infrastructure.

SOLID WASTE AND SANITATION SERVICES

While the No Action Alternative would generate less demand on New York City's solid waste services and sanitation services, neither the proposed project nor the No Action Alternative would result in any significant adverse impacts to these services.

ENERGY

While the No Action Alternative would generate less demand for energy than the proposed project, neither the proposed project nor the No Action Alternative would result in any significant adverse impacts to energy. Unlike the proposed project, the No Action Alternative would not result in the development of new green energy sources, including photovoltaic panels and geothermal wells.

TRANSPORTATION

The No Action Alternative would not result in any of the travel demand associated with the proposed project and consequently would not result in significant adverse impacts to transportation. The proposed project would result in significant adverse traffic impacts at a

number of intersections. Some of these impacts could be mitigated with readily implementable traffic improvement measures, including signal timing and phasing changes, new traffic signals, parking regulation changes to gain or widen a travel lane at key intersections, and lane restriping, while some could be unmitigatable, which would not occur with the No Action Alternative. The proposed project would also result in significant adverse impacts to bus line-haul levels for the Q102 bus and the Red Bus; these impacts could be mitigated by improving service frequencies, subject to fiscal and operational constraints of the responsible agencies. In addition, the proposed project would result in significant adverse impacts at two locations on West Road; these impacts could be mitigated by widening the sidewalk. In the event the sidewalk widening was determined to be infeasible, the pedestrian impacts would remain unmitigated, which also would not occur with the No Action Alternative.

AIR QUALITY

Like the proposed project, the No Action Alternative would not result in significant adverse impacts from mobile source emissions.

GREENHOUSE GAS EMISSIONS

As a vacant hospital complex, the No Action Alternative would have minimal energy use and vehicle use, and would therefore result in very little carbon dioxide equivalent (CO_2e) emissions per year. However, the No Action Alternative would not capitalize on the reuse of a vacant site located near transit.

The proposed project would include many features aimed at reducing energy consumption and GHG emissions, and would be consistent with the city's citywide GHG reduction goal.

NOISE

Like the proposed project, the No Action Alternative would not result in significant adverse noise impacts.

NEIGHBORHOOD CHARACTER

The No Action Alternative, with its vacant hospital complex, could detract from the natural setting and open space resources of the study areas, which are defining neighborhood character features. This alternative would forgo the benefits to neighborhood character that would be realized with the proposed project, which would introduce a new active, mixed-use academic oriented development, with a minimum of 2.5 acres of new publicly accessible open space, and improvements to the loop road.

CONSTRUCTION

As there would be no new construction at the project site, the No Action Alternative would not result in the proposed project's disruptions due to construction, nor would it result in the proposed project's temporary significant adverse traffic, transit, and pedestrian impacts and noise impacts on open space.

PUBLIC HEALTH

The No Action Alternative, like the proposed project, would not result in any significant adverse public health impacts associated with construction or operation of the new development on the project site.

D. NO UNMITIGATED SIGNIFICANT ADVERSE IMPACT ALTERNATIVE

HISTORIC AND CULTURAL RESOURCES

The demolition of Goldwater Hospital complex would represent a significant adverse impact to this architectural resource. As described in Chapter 22, "Mitigation," certain measures would be taken to mitigate the impact. However, these measures would achieve only a partial mitigation and a significant adverse impact would still occur.

Preservation of the building complex and its reuse was explored but was found to not be feasible (see Appendix 7, "Historic and Cultural Resources," for an assessment of alternatives for adaptively reusing the existing buildings). Consequently, there is no prudent and feasible alternative that would successfully meet the goals and objectives of the project, Cornell University, and the City of the New York, while still preserving the existing hospital complex as a way of avoiding the significant adverse impact on the historic architectural resource.

TRANSPORTATION

TRAFFIC

As discussed in Chapter 23, "Unavoidable Adverse Impacts," the proposed project would result in unmitigatable significant adverse impacts in both the 2018 analysis year (one intersection in the AM peak hour) and the 2038 analysis year (five intersections in the AM peak hour and four intersections in the midday and PM peak hours). These impacts are currently identified as unmitigatable, but additional review of potential mitigation measures that may fully or partially mitigate these significant adverse impacts will be undertaken for the Final Environmental Impact Statement (EIS).

To avoid these impacts, development at the project site would need to be significantly reduced in size to a development smaller than the Phase 1 development. Such limited development would not meet the long-term goals and objectives of the proposed project of building a world-class applied sciences and engineering campus in New York City with flexible and dynamic interdisciplinary application hubs that would accelerate existing sectors of NYC's economy.

PEDESTRIAN CONDITIONS

As discussed in Chapter 14, "Transportation," the proposed project would result in significant adverse pedestrian impacts under Full Build-2038 conditions at the following locations on West Road and West Main Street:

- West Road: The east sidewalk between West Main Street and the subway station; and
- West Main Street: The east sidewalk between the Tram Station West bus stop and the Queensboro Bridge.

As discussed in Chapter 22, "Mitigation," and Chapter 23, "Unavoidable Adverse Impacts," sidewalk widenings at both these locations to increase the effective sidewalk width would fully mitigate these impacts. However, in the event the sidewalk widening is determined to be infeasible, the projected pedestrian impacts would remain unmitigated.

To avoid this impact, development at the project site would need to be significantly reduced in size and limited to just Phase 1 development. Limiting the development of the site to just Phase 1 would not meet the long-term goals and objectives of the proposed project of building a world-class applied sciences and engineering campus in New York City with flexible and dynamic interdisciplinary application hubs that would accelerate existing sectors of NYC's economy.

CONSTRUCTION

As discussed in Chapter 23, "Unavoidable Adverse Impacts," construction of the project is projected to result in the following unavoidable significant adverse impacts, as follows:

- Traffic. One intersection would experience unmitigatable impacts in the AM peak hour and two intersections would experience unmitigatable impacts during the PM peak hour.
- Pedestrians. The potential pedestrian impacts projected to occur under Full Build-2038 conditions on West Road and West Main Street could potentially occur earlier during construction of Phase 2 of the project.
- Noise on Open Spaces.
  - During construction of Phase 1, the open space areas along Main Street would experience noise level increments resulting from construction traffic up to 6.2 dBA and would therefore experience exceedances due to trucks and workers travelling on Main Street to and from the project site during the AM construction traffic peak hour (6 to 7 AM);
  - During construction of Phase 2, South Point Park and the waterfront promenades on the east and west sides of the Island adjacent to the project site would experience noise levels in the mid to high 70s of dBA for over 24 months. These exceedances would be due to the operation of on-site construction equipment.

For the traffic impacts, additional review of potential mitigation measures that may fully or partially mitigate these significant impacts will be undertaken for the Final EIS. For the pedestrian impacts, sidewalk widenings, if determined feasible, would mitigate the impacts. For noise, there are no practical and feasible mitigation measures that could be implemented to reduce construction noise levels to below the 55 dBA $L_{10(1)}$ guideline[2] within any of the open space areas. In addition, no feasible alternative has been identified to avoid the Phase 1 construction noise level exceedances at open spaces along Main Street or to avoid the noise level increases at the promenade and South Point Park. Even accounting for the types of measures incorporated into the proposed project to reduce construction noise, any development comparable in scale to the proposed project (i.e., that would involve demolition of the Goldwater Hospital campus, multi-year construction at any one location, and the construction of multi-story buildings) would have the potential to result in unmitigated significant adverse construction noise impacts at these open spaces. As discussed in Chapter 22, "Mitigation," and Chapter 23, "Unavoidable Adverse Impacts," existing noise levels at the waterfront promenade and South Point Park are already above the 55 dBA $L_{10(1)}$ guideline due to noise from vehicular traffic on the Queensboro Bridge and on the FDR Drive. To achieve noise

[2] The *CEQR Technical Manual* recommends a 55 dBA $L_{10(1)}$ noise level for outdoor areas requiring serenity and quiet (Table 17-3).

levels that would meet the 55 dBA $L_{10(1)}$ guideline, measures would need to be implemented to control noise from the Queensboro Bridge; the implementation of barriers on the bridge would not be practicable, in part because of the bridge's landmarked status.

E. CONCLUSIONS

For each alternative, the principal conclusions of the analysis in this chapter are as follows:

NO ACTION ALTERNATIVE

Consideration of the No Action Alternative is intended to provide the lead and involved agencies with an assessment of the expected environmental impacts of no action on their part. The No Action Alternative assumes that the proposed project would not be implemented (i.e., none of the discretionary approvals proposed as part of the proposed project would be adopted), and that the Goldwater Hospital complex would be vacant.

The significant adverse impacts anticipated for the proposed project—in the areas of historic resources, transportation, and construction-period traffic, transit, pedestrians, and noise on open space—would not occur with the No Action Alternative.

The No Action Alternative would be inconsistent with the City of New York's Applied Sciences NYC initiative since it would not realize the benefits of bringing a leading academic institution to build a world-class applied sciences and engineering campus in New York City. The No Action Alternative would not achieve the Applied Sciences NYC initiative's overarching goal of maintaining and increasing New York City's global competitiveness, diversifying the city's economy, driving economic growth, and creating jobs for New Yorkers. This alternative would not provide a new campus for Cornell that will encourage close collaboration between graduate-level academic programs and business and entrepreneurship. The Cornell NYC Tech project at this location would be centered on flexible and dynamic interdisciplinary application hubs instead of traditional academic departments. This model will serve as a focal point for accelerating existing sectors of NYC's economy and driving the formation of new technology businesses through close ties to customers and core industry knowledge. The No Action Alternative would not meet the goals and objectives of the proposed project.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACT ALTERNATIVE

HISTORIC AND CULTURAL RESOURCES

Preservation of the hospital complex and its reuse for the Cornell NYC Tech project was explored but was found to not be feasible. Consequently, there is no feasible alternative that would successfully meet the goals and objectives of Cornell University and the City of the New York, while still preserving the existing hospital complex as a way of avoiding the significant impact on this historic architectural resource.

TRANSPORTATION

To avoid both the operational period traffic and pedestrian impacts, development at the site would need to be significantly reduced. To avoid the traffic impacts, development would need to be limited to a development smaller than Phase 1; to avoid the potential pedestrian impact, development at the project site would need to be limited to just Phase 1 development. Such limited development would not meet the long-term goals and objectives of the proposed project

of building a world-class applied sciences and engineering campus in New York City with flexible and dynamic interdisciplinary application hubs that would accelerate existing sectors of NYC's economy.

CONSTRUCTION

For the traffic impacts, additional review of potential mitigation measures that may fully or partially mitigate these significant impacts will be undertaken for the Final EIS. For the pedestrian impacts, sidewalk widenings, if determined feasible, would mitigate the impacts. For noise, no feasible alternative has been identified to avoid the Phase 1 construction noise level exceedances at open spaces along Main Street or to avoid the construction noise level increases at the promenade and South Point Park. Even accounting for the types of measures incorporated into the proposed project to reduce construction noise, any development comparable in scale to the proposed project (i.e., that would involve demolition of the Goldwater Hospital campus, multi-year construction at any one location, and the construction of multi-story buildings) would have the potential to result in unmitigated significant adverse construction noise impacts at these open spaces. As discussed in Chapter 22, "Mitigation," and Chapter 23, "Unavoidable Adverse Impacts," existing noise levels at the waterfront promenade and South Point Park are already above the 55 dBA $L_{10(1)}$ guideline due to noise from vehicular traffic on the Queensboro Bridge. To achieve noise levels that would meet the 55 dBA $L_{10(1)}$ guideline, measures would need to be implemented to control noise from the Queensboro Bridge and the FDR Drive; the implementation of barriers on the bridge would not be practicable in part because of the bridge's landmarked status. ✷