

## A. INTRODUCTION

~~In accordance with the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, This chapter presents a description and analyzes evaluation of alternatives to the proposed projects. The purpose of an analysis of alternatives is to provide the decision makers with the opportunity to consider reasonable alternatives that could avoid or minimize significant adverse environmental impacts identified in the Environmental Impact Statement (EIS). 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.~~

~~In addition to a comparative impact analysis, The alternatives in this chapter are then further evaluated assessed to determine to what extent they would whether they are feasible considering meet the goals and the objectives and capabilities of the proposed actions, as intended by the project applicants, which for the proposed projects are to create up to 2,775 new dwelling units within Manhattan CD 3, of which 25 percent or up to 694 units would be designated as permanently affordable,<sup>1</sup> including approximately 200 new units of low-income senior housing, advancing a City-wide initiative to build and preserve 200,000 affordable units over 10 years in order to support New Yorkers with a range of incomes; provide additional resiliency measures at each site; achieve high quality urban design, architecture, community facility space, and open space elements; provide intended enhancements to the surrounding streetscape and enliven the pedestrian experience, through the creation of new buildings, landscaping, and open space on the project sites, including both new and altered on-site open space (of which 33,550 square feet [sf] would be dedicated as publicly accessible); add to the retail mix already located in the Two Bridges neighborhood; and strengthen the City's tax base by encouraging development and employment opportunities in the area.~~

This chapter considers ~~two~~ three alternatives to the proposed projects:

- 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. The No Action Alternative assumes that in the future without the proposed actions, the project sites will continue as in existing conditions, and no

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<sup>1</sup> A portion of the affordable units would be made permanently affordable pursuant to requirements of the "R10 Program," set forth in Zoning Resolution Sections 23-154(a) and 23-90. The remainder of the affordable units would be made permanently affordable pursuant to Regulatory Agreements with the New York City Department of Housing Preservation and Development (HPD) as established in consultation with the applicants. For purposes herein, permanent or permanently affordable housing shall refer to units made permanently affordable both through the R10 Program and the Regulatory Agreements.

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development will occur in the Two Bridges Large Scale Residential Development (LSRD) and

- A No Unmitigated Significant Adverse Impacts Alternative, which would eliminate the proposed project's unmitigated significant adverse impacts on traffic, transit, and construction noise.
- A Reduced Height Alternative, which is based on comments received during the public review period, considers a maximum building height of 350 feet. This would reduce the maximum number of residential units in the overall development from 2,775 to 1,023. The retail and community facility space as well as the parking on Site 5 would be the same as with the proposed actions. However, the Rutgers Slip Open Space and Site 4 (4A/4B) open space would remain private and no affordable housing would be provided.

The DEIS had considered what a A-Lesser Density Alternative which that would eliminate both the mitigated and unmitigated the significant adverse impacts of the proposed projects. The analysis focused on each of the both mitigated and unmitigated, by reducing the density of each proposed project was also considered. by technical analysis areas where an impact was identified, as described below.

- ~~The proposed projects are not seeking any density related waivers, and each site fully utilizes its available site area. In addition, Site 4 (4A/4B) must maintain the existing one-story building on Lot 76 (235 Cherry Street). If any of the modest amount of lot area allocated to private open space on the project sites was instead incorporated into the floorplates of the buildings, the potential resulting height reduction would be extremely small.~~
- In order to avoid the proposed projects' significant adverse impact on elementary schools in the Community School District, in the scenario that conservatively assumes the 200 affordable units may not be developed exclusively for seniors, the total number of residential units would need to be reduced by approximately 155 to 2,620 residential units.
- In order to avoid the proposed projects' significant adverse impact on publicly funded child care facilities, in the scenario that conservatively assumes the 200 affordable units may not be developed exclusively for seniors, the number of affordable units introduced by the proposed projects would need to be reduced by 160 to 534 affordable residential units.
- In order to avoid the proposed projects' identified significant adverse impact on open space—i.e., to decrease the projected reductions in the area's With Action open space ratios to less than a five percent change—the total number of residential units would have to be reduced by 1,088 units, representing approximately 40 percent of each project's program (approximately 250 units for Site 4 (4A/4B), 530 units for Site 5, and 308 units for Site 6A, respectively).
- Given the location of the proposed Site 6A building in relation to the Cherry Clinton Playground directly across Clinton Street, in order to fully eliminate the identified significant adverse shadows impact on this playground, the height of the proposed building on Site 6A would need to be reduced to approximately 200 feet (a height reduction of approximately 530 feet). Regarding the significant adverse shadows impact to Lillian D. Wald Playground, which would only occur on the March 21/September 21 analysis day, a reduction in height to either the proposed Site 6A building or the proposed Site 5 building could eliminate the significant adverse impact. The proposed Site 5 building would need to be reduced in height to approximately 600 feet (a height reduction of approximately 200 feet), or the proposed Site 6A building would need to be reduced to a height of approximately 450 feet (a height reduction of 280 feet). If both buildings were reduced in height rather than only one or the other, the

height reductions required to eliminate the impact would be less. A reduction of approximately 150 feet in the height of the proposed Site 5 building in combination with a reduction of approximately 230 feet in the height of the proposed Site 6A building would eliminate the significant adverse shadows impact on Lillian D. Wald Playground.

- As described in Chapter 22, “Project Permutations,” the identified significant adverse traffic, transit, and pedestrian impacts could not be fully eliminated even if only one of the three projects were to be constructed (effectively representing a reduction of between 660 and 1,350 units, or 24 to 49 percent of the combined project programs).
- For project-generated trip increments at the East Broadway-Rutgers Street Station to fall below 200 during peak hours and avoid the potential transit impact, the number of dwelling units with the proposed projects would need to be reduced by nearly 83 percent, to fewer than 500 dwelling units in total.
- As described in Chapter 22, “Project Permutations,” the construction-period noise impacts predicted at 64 Rutgers Street, 80 Rutgers Slip, 82 Rutgers Slip, and the residences west of Site 4 (4A/4B) could not be fully eliminated unless the Site 4 (4A/4B) project does not move forward; the noise impacts at 265 and 275 Cherry Street could not be fully eliminated unless the Site 5 project does not move forward; and the noise impacts predicted at residences facing the project sites on Cherry Street, the residences immediately adjacent to Site 6A, and 286 South Street could not be fully eliminated unless the Site 6A project does not move forward.

~~The proposed projects are not seeking any density related waivers, and each fully utilizes its available site area. In addition, Site 4 (4A/4B) must maintain the existing one-story building on Lot 76 (235 Cherry Street). If any of the modest amount of lot area allocated to private open space on these sites was instead incorporated into the floorplates of the proposed buildings, the potential resulting height reduction would be extremely small and the loss of the existing on-site private open space, including the existing private Rutgers Slip Open Space on Site 5, would result in even greater open space impacts. Therefore, there are no alternative massing scenarios that might even slightly reduce the height-related (shadows) impacts of the proposed projects. In conclusion, a Lesser Density Alternative with density reductions of this the scales identified above magnitude would significantly reduce the amount of permanently affordable housing delivered by the proposed projects and would substantially compromise the proposed projects’ stated goals and objectives.~~

## PRINCIPAL CONCLUSIONS

### *NO ACTION ALTERNATIVE*

The significant adverse impacts related to elementary schools, child care, open space, shadows, transportation, and construction-period transportation and noise would not occur under the No Action Alternative. As compared to the proposed actions, the intended public benefits associated with the proposed projects—the provision of a substantial amount of new permanently affordable housing, urban design improvements, including an enlivened streetscape with new retail spaces, and new and improved publicly accessible and private open spaces—would not occur in the No Action Alternative.

*NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE*

As described in detail below, no reasonable alternative could be developed to eliminate the proposed projects' unmitigated significant adverse impacts on traffic, transit, and construction-period traffic and noise without substantially compromising the proposed projects' stated goals.

REDUCED HEIGHT ALTERNATIVE

As described in the analysis below, given existing open spaces and easements on the three project sites, there is a limited footprint available for each of the proposed buildings. Accordingly, the Reduced Height Alternative would result in 1,023 dwelling units, but no affordable housing, as compared to the 2,775 dwelling units with the proposed projects, of which approximately 694 dwelling units would be affordable. The applicants have advised that given the land costs, construction costs, and the cost of the transit mitigation measures, it would not be financially feasible to provide affordable units under the Reduced Height Alternative. As such, the Reduced Height Alternative would not meet the goals and purposes of the proposed action to provide a significant number of affordable units in furtherance of the Mayor's *Housing New York* program.

Neither the Reduced Height Alternative nor the proposed actions would be expected to result in significant adverse impacts to land use, zoning, and public policy; socioeconomic conditions; public libraries; historic and cultural resources; urban design and visual resources; natural resources; hazardous materials; water and sewage infrastructure; solid waste; energy; noise; neighborhood character; or greenhouse gas emissions and climate change.

Similar to the proposed actions (with 200 senior affordable units), the Reduced Height Alternative would avoid a significant adverse impact on public schools and publicly funded child care. With the open space user population reduced by 63 percent and the open space supply reduced by approximately 0.77 acres, the Reduced Height Alternative would avoid the significant adverse impact on open space that would occur with the proposed action. However, the Reduced Height Alternative would not dedicate the Rutgers Slip Open Space as publicly accessible and no mitigation measure would be required dedicating the Site 4 open space as publicly accessible. The Reduced Height Alternative would remove the significant adverse shadow impact on Lillian D. Wald Playground and reduce the incremental shadows on the Cherry Clinton Playground.

The Reduced Height Alternative's 1,023 dwelling units would generate fewer trips than the 2,775 dwelling units with the proposed projects. However, the Reduced Height Alternative would still result in significant adverse impacts to traffic, transit, and pedestrians, and there would be an off-street parking shortfall in the surrounding area. As with the proposed projects, all significant adverse transportation-related impacts for the Reduced Height Alternative could be fully mitigated except for traffic impacts at two study area intersections.

Neither the proposed actions nor the Reduced Height Alternative would result in a significant adverse mobile source air quality impact. In terms of stationary sources, the Reduced Height Alternative would have lower stack heights, and some of the proposed restrictions identified for Site 5 and Site 6A required for the proposed actions may not be required for the Reduced Height Alternative. Since the Site 4 (4A/4B) building would be lower in height than the One Manhattan Square tower, potential air quality effects from Site 4 (4A/4B) under the Reduced Height Alternative may require additional restrictions to avoid impacts on the One Manhattan Square tower.

While the Reduced Height Alternative would involve less construction overall, all of the excavation, foundation work and construction work up to the 350 foot level would be the same as

or similar to the construction with the proposed actions. Given that the duration of construction would be shorter, the duration of potential construction impacts would be reduced. In particular the duration of construction-period noise levels that would constitute potential construction-period noise impacts would be reduced making the Reduced Height Alternative less likely to result in significant adverse public health impacts. Like the proposed projects, the Reduced Height Alternative would also need to undertake measures to minimize construction-period effects on the nearby community, including those related to communication with the community, community safety, and environmental performance.

## **B. NO ACTION ALTERNATIVE**

### **ALTERNATIVE IDENTIFICATION**

For the purposes of this EIS, it is assumed that in the future without the proposed projects (the No Action condition), the project sites would continue as in the existing conditions, including the Rutgers Slip Open Space on Site 5 remaining private open space. The partially vacant existing retail building on Site 4 (4A/4B) at 235 Cherry Street/Lot 76 would be re-tenanted. No new development would occur on the project sites. For each technical analysis in the EIS, the No Action condition also considers approved or planned development projects within the appropriate study area that are likely to be completed by the analysis year.

### **LAND USE, ZONING, AND PUBLIC POLICY**

Under the No Action Alternative, the project sites would continue in their existing conditions, including the Rutgers Slip Open Space on Site 5 remaining private open space. The partially vacant retail building at 235 Cherry Street on Site 4 (4A/4B) would be re-tenanted. There would be no modification to the Two Bridges LSRD. No new development would occur on the project sites. The Two Bridges LSRD would remain underdeveloped in terms of its floor area potential under existing C6-4 zoning. Up to 2,775 residential units, including up to 694 permanently affordable units, would not be built, and thus this alternative would not support the Mayor's affordable housing programs. No new largely residential buildings would be created in the Two Bridges LSRD, and existing on-site open spaces would not be altered with new amenities, no new open space would be created, and no existing private open space would be enlarged or dedicated as publicly accessible. On Site 4 (4A/4B), the existing private open space on Lots 15, 70, and 76 would not be altered with new amenities. On Site 5, the existing surface parking lot along South Street would not be replaced by a new building with below-grade parking; the existing private Rutgers Slip Open Space would not be expanded or altered with new amenities, nor would it be dedicated as publicly accessible; and the existing private open space between the 265 and 275 Cherry Street buildings would not be expanded or altered with new amenities. On Site 6A, the existing vacant lot would not be replaced by a new building, and the new private open space would not be created. Further, no resiliency measures in keeping with the resiliency policies of New York City would be provided on the project sites to protect the existing buildings.

Outside the Two Bridges LSRD, current land use trends and general development patterns would continue. Within the ¼-mile study area, a number of development projects are expected to be completed by 2021. These projects are expected to introduce substantial new residential uses as well as more limited commercial, community facility, and recreational uses, increasing the density of the study area. By 2021 One Manhattan Square (80-story tower with 815 units) would be complete just east of the Manhattan Bridge and west of the project sites. Part of the same

development, the 13-story building at 229 Cherry Street, also is expected to be complete, with 205 affordable units. South of the project sites on the waterfront, the redevelopment of Pier 35 as a recreational facility is expected to be complete by 2021, and construction on Pier 42 to create a park and a link to the East River Park is expected to have progressed. New development at Two Pike Street is expected to add approximately 59,000 sf of office space and approximately 4,900 sf of community facility space. The other projects in the study area will each add more modest numbers of residential units (20 or fewer), and retail or community facility space.

Zoning and public policies affecting the study area are expected to remain unchanged from existing conditions.<sup>2</sup> Both the Lower Manhattan Coastal Resiliency (LMCR) and East Side Coastal Resiliency (ESCR) programs are expected to have progressed to protect the shoreline and low-lying upland areas.

In summary, neither the No Action Alternative nor the proposed actions would result in significant adverse impacts to land use, zoning or public policy.

### **SOCIOECONOMIC CONDITIONS**

Neither the No Action Alternative nor the proposed actions would result in significant adverse impacts due to direct residential and business displacement, indirect residential and business displacement, or result in adverse effects on specific industries. Under the No Action Alternative, no new development would occur on the project sites; however, the existing partially vacant retail building on Site 4 (4A/4B) would be re-tenanted. No temporary or permanent displacement would occur in the No Action Alternative.

#### *DIRECT RESIDENTIAL DISPLACEMENT*

Similar to the proposed actions, the No Action Alternative would not result in significant adverse socioeconomic impacts due to direct residential displacement. On Site 4 (4A/4B), the 10 dwelling units that would be removed from the 80 Rutgers Slip building and replaced in the new Site 4 (4A/4B) building would remain in place in the 80 Rutgers Slip building. The additional nine dwelling units in the 80 Rutgers Slip building that would be renovated would not be renovated. The approximately 19 residents of those units would not be relocated during the construction period to comparable, newly renovated units within the 80 Rutgers Slip building as they become available, or, if necessary, to units in neighboring buildings.

#### *DIRECT BUSINESS DISPLACEMENT*

In the No Action Alternative, the Stop 1 Food Market (on Site 5) that may require temporary displacement during construction on Site 5 would not be displaced, as no construction would occur

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<sup>2</sup> As described in Chapter 2, “Land Use, Zoning, and Public Policy,” there is a pending application, the “Modification to LSRD Special Permit Text Amendment,” which would amend Article VII, Chapter 8 (Special Regulations Applying to Large-Scale Residential Developments) of the Zoning Resolution to require a special permit for modifications to the existing large-scale residential development within the former Two Bridges Urban Renewal Area. ~~Because the land use application and the draft Environmental Assessment Statement (EAS) are in the review process with DCP, was recently filed, it is preliminary and it is unknown uncertain at this time when the “Modification to LSRD Special Permit Text Amendment” will be complete and ready for referral into public review, if the application will advance. As additional information becomes known, it will be included in the FEIS.~~

on that site. Thus, similar to the proposed actions, the No Action Alternative would not result in significant adverse socioeconomic impacts due to direct business displacement.

#### *INDIRECT RESIDENTIAL DISPLACEMENT*

Similar to the proposed actions, the No Action Alternative would not result in significant adverse impacts due to indirect residential displacement. Neither the proposed actions nor the No Action Alternative would introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change.

There is already a readily observable trend toward higher incomes and new market-rate residential development in the socioeconomic conditions study area which would continue in the future either with the proposed actions or in the No Action Alternative. However, in the No Action Alternative a lower percentage of affordable housing would be introduced than in the future with the proposed actions, as other planned development projects are primarily market-rate. In this respect, the No Action Alternative would not provide housing stock that is affordable to households with as wide a range of incomes as compared to the housing stock resulting from the proposed actions, because the No Action projects are expected to continue the trend towards market-rate development and rising residential rents in the study area.

In summary, similar to the proposed actions, the No Action Alternative would not result in significant adverse impacts due to indirect residential displacement.

#### *INDIRECT BUSINESS DISPLACEMENT*

Neither the No Action Alternative nor the proposed actions would result in significant adverse impacts due to indirect business displacement. Similar to the proposed actions, the No Action Alternative would not introduce new economic activities that would substantially alter existing economic patterns within the study area, nor would it alter the land use character of the study area. The project sites and broader socioeconomic study area have well-established residential and retail markets such that neither the proposed actions nor the No Action Alternative would substantially alter commercial real estate trends in the area.

#### *ADVERSE EFFECTS ON SPECIFIC INDUSTRIES*

Neither No Action Alternative nor the proposed actions would result in significant adverse impacts on specific industries. The No Action Alternative would not require any temporary displacement during construction of the single business that might be displaced by the proposed projects—the Stop 1 Food Market. However, this market does not represent a critical mass of businesses within any City industry, category of business, or category of employment. Although this business is an amenity to the community, the goods and services offered can be found elsewhere within the socioeconomic study area, within a broader trade area, and within the City as a whole.

### **COMMUNITY FACILITIES AND SERVICES**

#### *PUBLIC SCHOOLS*

Neither the proposed actions, assuming 200 of the affordable units would be permanently designated for senior house, nor the No Action Alternative would result in significant adverse impacts to elementary schools, intermediate schools, or high schools.

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However, in comparison to the With Action scenario that considers that 200 affordable units may not be developed exclusively for seniors, the No Action Alternative would avoid a significant adverse impact on public elementary schools. The public elementary schools in the Community School District (CSD) 1 would not operate over capacity in the No Action Alternative.

### *PUBLIC LIBRARIES*

Neither the proposed actions nor the No Action Alternative would result in a noticeable change in the delivery of library services.

### *PUBLICLY FUNDED CHILD CARE CENTERS*

Neither the No Action Alternative nor the proposed actions, assuming 200 of the affordable units would be permanently designated for senior housing, would have a significant adverse impact on publicly funded child care facilities.

However, in comparison to the With Action scenario that considers that 200 affordable units may not be developed exclusively for seniors, the No Action Alternative would avoid a significant adverse impact on publicly funded child care facilities. The child care facilities which operate over capacity would not experience an increase in the utilization rate greater than five percentage points in the No Action Alternative.

### **OPEN SPACE**

Neither the proposed actions nor the No Action Alternative would physically alter or displace publicly accessible open space resources. The No Action Alternative would avoid the proposed actions' identified project-generated shadows impacts to the Cherry Clinton Playground and the Lillian D. Wald Playground, which are considered direct effects on open space resources.

The No Action Alternative would not increase the open space user population on the project sites. In the No Action Alternative, the total, active, and passive open space ratios in the residential study area would be below the City's planning goals. However, with the No Action Alternative the study area's open space ratios would not decrease by more than five percentage points. Under the No Action Alternative, the existing private Rutgers Slip Open Space would not be enlarged totaling approximately 33,550 sf (approximately 0.77 acres) or altered with new amenities; nor would it be dedicated as publicly accessible open space as compared to the With Action scenario. Therefore, while the No Action Alternative would not have the significant adverse open space impact anticipated with the proposed actions, it would not result in the dedication of Rutgers Slip Open Space on Site 5 as publicly accessible open space.

### **SHADOWS**

The No Action Alternative would not cast any project-generated incremental shadow on the 34 different sunlight-sensitive resources in the longest shadow study area. The No Action Alternative would avoid the significant adverse shadows impacts identified for the proposed actions on the Cherry Clinton Playground on the December 21 analysis day (use, but not vegetation), March 21/September 21 analysis day (use and vegetation), and on the May 6/August 6 analysis day (use only), and on the Lillian D. Wald Playground on the March 21/September 21 analysis day (use only).

## **HISTORIC AND CULTURAL RESOURCES**

Unlike the proposed actions, the No Action Alternative would not have the potential to disturb archaeological resources, as no development and thus no subsurface disturbance would take place on the project sites. Any undisturbed portions of Site 5 and Site 6A, which were determined to possess moderate to high sensitivity for landfill deposits and landfill-retaining structures and low to moderate sensitivity for historic period streetbed deposits and early wooden water mains, would not be affected. Site 4 (4A/4B) also would not be disturbed; however, it was determined to have low sensitivity for both types of resources. Archaeological monitoring would not be undertaken for Sites 5 and 6A, and an Unanticipated Discoveries Plan would not be developed for Site 4 (4A/4B).

Neither the proposed actions nor the No Action Alternative would result in any significant adverse direct or indirect effects to known or potential historic architectural resources on the project sites or in the study area.

## **URBAN DESIGN AND VISUAL RESOURCES**

The No Action Alternative would not add any new buildings to the project sites. Neither the proposed actions nor the No Action Alternative would eliminate any significant publicly accessible view corridors or completely block public views to any visual resources, result in any substantial changes to the built environment of a historic district, or result in an area-wide rezoning. The No Action Alternative would not create any new development on the project sites consistent with new development projects in the study areas, including the 80-story tower at One Manhattan Square and the multi-building, mixed-use Essex Crossing development currently under construction. There would be no new ground floor design elements that would add active ground floor uses to the surrounding area that are intended to enliven the streetscape of the nearby study area. The intended improvements to the pedestrian experience of the urban design characteristics of the project sites would not occur. The No Action Alternative would avoid the potential for elevated pedestrian-level wind conditions that were identified for the With Action condition. In the No Action Alternative there would be one location where pedestrian-level winds potentially exceed the safety criterion, which is based on a criterion of a wind gust exceeding 56 miles per hour (mph) more than 0.1 percent of the time (i.e., 9 hours per year or more). This location is one of the two locations under the FDR Drive. However, no measures would be undertaken in the No Action Alternative to avoid or minimize the effects of winds at this location. Because measures would be incorporated into the proposed projects to reduce the effects of pedestrian-level winds, and the modeling analysis indicates that exceedances could occur at certain locations primarily or exclusively during the winter months, no significant adverse urban design impacts would result from potential pedestrian-level wind conditions in the future with the proposed actions.

Overall, similar to the proposed actions, the No Action Alternative would not result in any significant adverse impacts on urban design and visual resources.

## **NATURAL RESOURCES**

The No Action Alternative would not alter “paved roads/paths,” “urban vacant lots,” “mowed lawns with trees,” and “urban structure exteriors,” all of which provide limited habitat to wildlife other than species common to urban areas. Avoiding loss of this habitat area would avoid adverse effects on individual wildlife unable to find suitable available habitat in the vicinity of the study area; however, in any case, loss of individuals of these common species would not result in a significant adverse impact. Without new landscaping and tree replacement and/or restitution for

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removed trees that would occur in compliance with Local Law 3 and Chapter 5 of Title 56, the No Action Alternative would not have the potential to benefit natural resources by improving the quality of existing wildlife habitat. The No Action Alternative would not create new tall structures and would avoid the potential for bird collisions and potential impacts to migratory bird populations that tall structures often create. The No Action Alternative would not increase shadows on the East River. However, the incremental shadows from the proposed projects would not adversely affect aquatic resources (plankton or fish) in the East River.

### **HAZARDOUS MATERIALS**

In the No Action Alternative there would be no excavation or construction on the project sites. There would be no potential for disturbing any contaminated materials that may exist on the project sites. The No Action Alternative would not require remediation pursuant to the Hazardous Materials “E” Designations placed on each of the project sites.

### **WATER AND SEWER INFRASTRUCTURE**

While the proposed actions would result in an incremental water demand of approximately 1,022,347 gallons per day (gpd), neither the proposed actions nor the No Action Alternative would result in any significant adverse impacts to the City’s water supply.

The proposed actions would generate approximately 588,010 gpd of sanitary sewage (approximately 0.12 percent of the average daily flow at the Newtown Creek Waste Water Treatment Plant [WWTP]); however, this increase in volume would not exceed the capacity of the Newtown Creek WWTP. Neither the proposed actions nor the No Action Alternative would result in a significant adverse impact on the City’s sanitary sewage treatment system.

Without the selected best management practices (BMPs) anticipated with the proposed actions, the peak stormwater runoff rates would be greater in the No Action Alternative than with the proposed actions.

### **SOLID WASTE AND SANITATION SERVICES**

Similar to the proposed actions, the No Action Alternative would not adversely affect solid waste and sanitation services or place a significant burden on the City’s solid waste management system, and therefore similarly would not result in significant adverse impacts on Solid Waste and Sanitation Services. However, the No Action Alternative would generate less demand on New York City’s solid waste services and sanitation services.

### **ENERGY**

Similar to the proposed actions, the No Action Alternative would not result in significant adverse impacts with respect to the transmission or generation of energy. While the No Action Alternative would not generate increased demands on New York City’s energy services, the proposed actions would generate an incremental increase in energy demand that would be negligible when compared to the overall demand within Consolidated Edison (Con Edison)’s New York City and Westchester County service area.

### **TRANSPORTATION**

As discussed below, unlike the proposed actions, the No Action Alternative would not result in any significant adverse impacts with respect to transportation. Unlike the proposed actions, the

No Action Alternative would not result in significant adverse traffic impacts to 6, 5, and 10 intersections in the weekday AM, midday, and PM peak hours, respectively. The proposed actions' significant adverse impact to the S1 stairway at the East Broadway station during the weekday AM and PM peak hours and the P3 stairway at the same station during the AM peak hour would not occur under the No Action Alternative. Furthermore, the proposed actions' significant adverse impact to one sidewalk in the weekday AM and PM peak hours, and to three crosswalks during one or more of the weekday AM, midday, and PM peak hours, would not occur under the No Action Alternative. As with the proposed actions, demand for off-street parking spaces within the parking study area would exceed capacity during the weekday AM, midday, and PM peak periods, but there would be available off-street parking capacity in the weekday overnight period.

In the No Action Alternative, traffic, parking, transit, and pedestrian demand in the study area would increase as a result of background growth, development that could occur pursuant to existing zoning (i.e., as-of-right development), and other development projects likely to occur within and in the vicinity of the project area.

#### *TRAFFIC*

Independent of the proposed actions, traffic levels of service (LOS) at many locations in the study area would experience congested conditions in the future. Under the No Action Alternative, of the 29 signalized intersections and two unsignalized intersections analyzed (containing 144 total lane groups), 33, 31, and 37 lane groups (all signalized) would operate at LOS D or worst during the weekday AM, midday, and PM peak hours, respectively; this is compared with 39, 32, and 40 lane groups (all signalized) operating at LOS D or worst during the corresponding peak hours under the proposed actions. There would be no intersections with significant adverse traffic impacts under the No Action Alternative compared with 6, 5, and 10 impacted intersections during the weekday AM, midday, and PM peak hours, respectively, under the proposed actions.

#### *TRANSIT*

Under the No Action Alternative, the analyzed subway station elements would experience an increase in demand as a result of background growth and future developments anticipated within and in the vicinity of the project area, but the S1 stairway would not be significantly impacted, as predicted under the proposed actions during both the weekday AM and PM peak hours. Similarly, the P3 stairway would not be significantly impacted during the weekday AM peak hour. Like the proposed actions, the No Action Alternative would not result in any significant adverse impacts to fare arrays, other station elements, or subway/bus line-haul conditions.

#### *PEDESTRIANS*

Under the No Action Alternative, pedestrian volumes along analyzed sidewalks, crosswalks and corner areas are expected to increase compared with existing levels as a result of background growth as well as demand from new development.

#### *Sidewalks*

Under the No Action Alternative, only the north sidewalk of Madison Street between Rutgers Street and Pike Street would operate at LOS D or worse during the weekday AM and PM peak hour. The proposed actions' significant adverse impact to this sidewalk in the weekday AM and PM peak hours would not occur under the No Action Alternative.

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### *Crosswalks*

Under the No Action Alternative, only the north crosswalk at Rutgers Street and Madison Street during the weekday AM peak hour, and the south crosswalk at Rutgers Street and Cherry Street during the weekday midday peak hour would operate at LOS D or worse. Unlike the proposed actions, the No Action Alternative would not result in significant adverse crosswalk impacts at the above two crosswalks and the west crosswalk of Rutgers Street and Madison Street.

### *Corners*

Under the No Action Alternative, all analyzed corner areas are expected to operate at an uncongested LOS A or B in all peak hours. Like the proposed actions, the No Action Alternative would not result in any significant adverse corner impacts in any peak hour.

### *PARKING*

Under the No Action Alternative, it is anticipated that demand for the area's off-street parking would increase due to new development and general background growth, with projected parking utilization expected to increase to 100, 128, 105 and 89 percent during the weekday AM, midday, PM, and overnight time periods, respectively. During the AM, midday, and PM periods, these utilization levels represent parking shortfalls of 7, 646, and 121 spaces, respectively. These levels are lower than the 113, 132, 116, and 112 percent utilization levels predicted for the same weekday AM, midday, PM, and overnight time periods under the With Action condition, for which parking shortfalls were estimated to range from approximately 270 to 760 spaces. As parking shortfalls in this area of Manhattan are not considered a significant adverse impact under *CEQR Technical Manual* criteria, significant impacts are not anticipated under the No Action Alternative or the proposed actions.

## **AIR QUALITY**

The No Action Alternative would result in fewer vehicle trips and less mobile source pollution than the proposed actions. Since no significant adverse mobile source air quality impacts are predicted due to the proposed actions, neither the proposed actions nor the No Action Alternative would result in a significant adverse impact related to mobile sources.

Under the No Action Alternative, stationary sources of emissions would be lower than with the proposed actions. The restrictions on the type of fuel for heating and hot water and CHP systems, as well as on the use of low NO<sub>x</sub> burners for certain boilers, emission limits for certain CHP equipment, and the heights and placement of boiler and CHP exhaust stacks that would be put in place through the mapping of an (E) Designation for air quality on the project sites in the future with the proposed actions would not be required with the No Action Alternative. However, the existing air quality (E) Designation requirements for Site 5 would remain under the No Action Alternative.

## **CLIMATE CHANGE**

### *GREENHOUSE GAS EMISSIONS*

In the No Action Alternative, there would be no increase in energy use on the project sites, or the ensuing greenhouse gas (GHG) emissions associated with the proposed buildings. Building and on-road energy use and the associated GHG emissions would remain largely unchanged, and may be reduced over time due to changes in the mix of fuel used to produce electricity provided to

building, fuels and technologies used for heating, and vehicle technology and fuel. Any increase in emissions which might occur under the proposed actions, associated with increased usage of the sites, would be likely to occur elsewhere in the No Action Alternative, addressing the same growth in residential population, similar requirement for commercial uses, and associated facilities and services. If those needs are provided in an area with less access to transit or with less efficient energy design requirements or a higher-carbon mix of electricity production, those emissions may be higher.

#### *RESILIENCE TO CLIMATE CHANGE*

In the No Action Alternative, the existing buildings and uses on the project sites would be unchanged from current conditions and would continue to be vulnerable to current potential coastal flooding conditions during severe storms, with increasing potential damage and flood elevations in the future. It is assumed that none of the resilience measures provided on the project sites by the proposed actions, for existing buildings as well as proposed buildings, would be undertaken in the No Action Alternative.

#### **NOISE**

In the No Action Alternative, traffic volumes would increase due to background growth and trips associated with new development that would occur independent of the proposed actions, but there would be no increases due to additional vehicular trips associated with the proposed projects. Like with the proposed actions, there would be no significant adverse noise impacts in the No Action Alternative, as neither scenario would generate sufficient traffic to have the potential to cause a significant mobile source noise impact. Further, the proposed buildings' mechanical systems (i.e., heating, venting, and air conditioning [HVAC] systems) would be designed to meet all applicable noise regulations and to avoid producing levels that would result in any significant increase in ambient noise levels. Therefore, neither the proposed actions nor the No Action Alternative would result in any significant adverse noise impacts related to building mechanical equipment.

In the With Action condition, due to existing high levels of ambient noise in the area, building attenuation would be required to ensure that interior noise levels meet CEQR criteria. The proposed designs for the three proposed buildings include acoustically rated windows and central air conditioning as alternate means of ventilation. The proposed buildings would provide sufficient attenuation to achieve the CEQR interior  $L_{10(1)}$  noise level guideline of 45 dBA or lower for residential or community facility uses and 50 dBA or lower for retail uses. The window/wall attenuation and alternate means of ventilation requirements would be codified in a Noise (E) Designation on the project sites. In the No Action Alternative, there would be no need for Noise (E) Designations to be placed on the project sites.

#### **NEIGHBORHOOD CHARACTER**

Similar to the proposed actions, the No Action Alternative would not result in significant adverse impacts associated with neighborhood character. Similar to the proposed actions, the No Action Alternative would not result in significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; and noise. In comparison to the proposed actions, the No Action Alternative would avoid significant adverse impacts with respect to open space, shadows, and transportation, none of which result in a significant change to one of the determining elements of neighborhood character; however, the No Action Alternative would not result in potential benefits to

neighborhood character, including dedicating an enlarged Rutgers Slip Open Space with new publicly accessible amenities, altering urban design conditions with streetscape elements intended to enliven the surrounding area and establishing a consistent street wall along Cherry and South Streets.

## **CONSTRUCTION**

The No Action Alternative would not involve any construction on the project sites, and none of the potential impacts associated with construction would occur.

None of the projected construction trips would occur with the No Action Alternative and thus none of the resulting significant adverse traffic impacts would occur, including the unmitigatable impacts at the South Street and Montgomery Street and at the Chatham Square and Worth Street/Oliver Street intersections. The No Action Alternative would not exacerbate the identified parking shortfall.

The No Action Alternative would not generate construction worker transit trips. With the proposed projects, significant adverse impacts on transit services during construction are not anticipated until at least one of the three proposed buildings is completed and occupied.

The No Action Alternative would not generate any construction worker pedestrian trips. However, even with construction of the proposed projects the potential for any significant adverse pedestrian impacts is not anticipated until at least one of the three proposed buildings is completed and occupied.

As no construction would occur on the project sites in the No Action Alternative, unlike the proposed actions, there would not be the potential to result in temporary significant adverse construction noise impacts.

With the No Action Alternative, there would be no need for measures to be undertaken during construction of the proposed actions to minimize the effects of the proposed projects on the nearby community, including those related to communication with the community, community safety, and environmental performance.

## **PUBLIC HEALTH**

Under both the No Action Alternative and the proposed actions, no unmitigated significant adverse impacts would occur in the areas of hazardous materials, air quality, water quality, or noise. However, unlike the proposed actions the No Action Alternative would not result in construction-period noise levels that would constitute potential temporary significant adverse impacts. As no construction would occur on the project sites in the No Action Alternative, no temporary construction period-noise exceedances would occur. Therefore, the No Action Alternative would not result in significant adverse public health impacts.

## **C. NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE**

### **ALTERNATIVE IDENTIFICATION**

In order to identify a No Unmitigated Significant Adverse Impact Alternative, the full range of impacts identified for the proposed projects was considered to determine what avoidance measures would be required for the different types of impacts.

The proposed projects' identified significant adverse impacts on public elementary schools, publicly funded child care, open space, shadows, traffic, transit, and pedestrians ~~that, and construction-period traffic and transit~~ could be partially or fully mitigated with the measures identified in Chapter 21, "Mitigation." The proposed projects are anticipated to have significant adverse impacts that may not be ~~able to~~ mitigated in the areas of traffic, transit ~~construction-period traffic~~, and construction-period noise. Therefore, those technical areas are considered below.

## TRANSPORTATION

For the proposed projects, unmitigated significant adverse traffic impacts were identified at South Street and Montgomery Street during the weekday AM and PM peak hours, and at Chatham Square and Worth Street/Oliver Street during the weekday AM, midday, and PM peak hours. ~~The proposed projects would also result in a significant adverse subway stairway impact at the S1 stairway at the East Broadway station during the weekday AM and PM peak hours and the P3 stairway at the same station during the weekday AM peak hour.~~

At ~~these~~ South Street and Montgomery Street intersections, because multiple lane groups/movements are projected to operate at congested levels under the future No Action condition, they are susceptible to significant adverse impacts from the addition of project-generated trips, and if impacts are identified at ~~these~~ this intersections, they would be difficult to mitigate. According to the *CEQR Technical Manual*, intersections incurring 50 or more peak hour vehicle trips are subject to a detailed analysis and evaluation of potential impacts. For project-generated vehicle-trip increments to not have the potential to cause significant adverse traffic impacts at ~~these~~ this intersections ~~to fall below 50 during peak hours~~, the proposed projects would have to be reduced by about ~~62-90~~ percent, to approximately ~~1,050~~ 285 dwelling units.

For the impacts identified for the S1 and P3 stairways at the East Broadway station, construction of a new stairway (S2) across Rutgers Street, widening the existing P3 stairway, and the installation of American with Disabilities Act (ADA) compliant elevators between the street and mezzanine levels and between the mezzanine and platform levels have been proposed. While discussions with New York City Transit (NYCT) are underway to determine the feasibility of these improvement measures, if they are deemed infeasible and no alternative mitigation measures can be identified, then the significant adverse impacts identified for the S1 and P3 stairways would remain unmitigated. Similar to conditions described above for the South Street and Montgomery Street, the S1 and P3 stairways are also projected to operate at congested levels under the future No Action condition, and hence are susceptible to significant adverse impacts from the addition of projected generated trips. According to the *CEQR Technical Manual*, stations incurring 200 or more peak hour trips are subject to a detailed analysis and evaluation of potential impacts. For project generated trip increments at this station ~~to fall below 200 during peak hours~~, the proposed projects would need to be reduced by nearly 83 percent, to fewer than 500 dwelling units.

~~Both of The~~ above reductions described above would substantially compromise the proposed projects' stated goals, including the creation of up to 694 permanently affordable housing units, providing additional resiliency measures at each site; achieving high quality urban design, architecture, community facility space, and open space elements; providing intended enhancements to the surrounding streetscape and enlivening pedestrian experience, through the creation of new buildings, landscaping, and open space on the project sites including both new and altered on-site open space (of which 33,550 sf would be dedicated as publicly accessible); adding to the retail mix already located in the Two Bridges neighborhood; and strengthening the City's tax base by encouraging development and employment opportunities in the area. The

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~~approximately 62–90 percent reduction in the project programs would reduce the maximum number of affordable units to 26471, and an 83 percent reduction would reduce the maximum number of affordable units to 125. Given A development program with this~~ these reductions in affordable units, ~~neither a reduction of 62 percent to avoid the significant adverse traffic impacts, nor a reduction of 83 percent to avoid the significant adverse subway stair impacts,~~ would not be considered a reasonable alternative ~~to avoid these potential unmitigated significant adverse impacts.~~ Therefore, no reasonable alternative could be developed to avoid these potential unmitigated significant adverse traffic impacts.

## CONSTRUCTION

### TRAFFIC

The peak construction traffic increments during the construction peak hours (6:00 to 7:00 AM and 3:00 to 4:00 PM) would be lower than the full operational traffic increments associated with the proposed projects in 2021 during the 8:00 to 9:00 AM and 5:00 to 6:00 PM commuter peak hours. ~~Therefore, if traffic impacts occur during the peak construction, they are expected to be within the envelope of significant adverse traffic impacts identified for the With Action condition. However,~~ as with the operational condition, there could be significant adverse traffic impacts at the South Street and Montgomery Street and the Chatham Square and Worth Street/Oliver Street intersections that could not be fully mitigated during one or more analysis peak hours but such effects would be temporary and limited to the peak construction period. As discussed above under “Transportation,” no reasonable alternative could be developed to avoid such temporary construction-period traffic impacts without substantially compromising the proposed projects’ stated goals.

### NOISE

The detailed noise modeling analysis concluded that construction of the proposed projects in the With Action condition has the potential to result in construction-period noise levels that exceed the *CEQR Technical Manual* noise impact criteria for an extended period of time at the façades of residences facing the project sites on Cherry Street; the eastern, southern, and western façades of 64 Rutgers Street; 80 Rutgers Slip; the northern, eastern, and a portion of the southern façades of 82 Rutgers Slip; a portion of the northern façade and the eastern and western façades of 265 and 275 Cherry Street; residences immediately adjacent to Site 6A; portions of the northern and western façades of 286 South Street; and portions of the northern and eastern façades of the residences west of Site 4 (4A/4B). Construction-period noise levels of this magnitude for an extended duration would constitute a significant adverse impact. No feasible and practicable mitigation measures have been identified that would fully mitigate the construction-period noise impacts. Therefore, the identified the construction-period noise impacts would remain unmitigated.

Based on field observations, the buildings where construction-period noise impacts have been identified appear to have insulated glass windows and an alternative means of ventilation. The provision of replacement windows is not anticipated to provide substantial improvement in the amount of façade attenuation or reduction in interior noise levels at all impacted receptor locations at buildings with existing through-the-wall air conditioning units, PTAC units, or window air conditioning units. These air conditioning units, which are necessary to maintain the closed-window condition, would remain as a pathway for construction noise to enter the building. Therefore, there are no feasible and practicable mitigation measures that could further reduce or

fully eliminate the potential significant adverse construction-period noise impacts at these locations. The provision of replacement windows at the residences west of Site 4 (4A/4B) is not anticipated to be practicable as these buildings are currently under construction and would be expected to be provided with high-quality double glazed windows.

As described in Chapter 22, “Project Permutations,” the noise impacts predicted at 64 Rutgers Street, 80 Rutgers Slip, 82 Rutgers Slip, and the residences west of Site 4 (4A/4B) could not be fully eliminated unless the Site 4 (4A/4B) project does not move forward; the noise impacts at 265 and 275 Cherry Street could not be fully eliminated unless the Site 5 project does not move forward; and the noise impacts predicted at residences facing the project sites on Cherry Street, the residences immediately adjacent to Site 6A, and 286 South Street could not be fully eliminated unless the Site 6A project does not move forward.

Therefore, no reasonable alternative could be developed to avoid the temporary unmitigated construction-period noise impact without substantially compromising the proposed projects’ stated goals.

## **D. REDUCED HEIGHT ALTERNATIVE**

### **ALTERNATIVE IDENTIFICATION**

During the public review of the DEIS, comments were made requesting consideration of an alternative under which the C6-4 zoning district would be left in place, but a maximum height limit of 350 feet would be imposed (the “Reduced Height Alternative”). Under the Reduced Height Alternative, each of the proposed buildings would be limited to a height to 350 feet. Given existing open spaces and easements, there is a limited footprint available for each building. On Sites 4 (4A/4B) and 6A, the foot prints and the bases of the buildings would be the same as with the proposed projects. On Site 5 instead of having two towers on the base as proposed, the building would be continuous and there would be no opening toward the East River. The Rutgers Slip Open Space, an approximately 0.77-acre area, would remain a private recreation area and, due to easements in this area, the building would not be constructed in this area.

On Site 4 (4A/4B), the Reduced Height Alternative would reduce the maximum number of dwelling units to 148, a reduction of 78 percent. On Site 5, the maximum number of dwelling units would be reduced by about 55 percent to 612. On Site 6A, this alternative would reduce the maximum number of dwelling units by about 66 percent to 263.

The applicants have advised that with the reduced number of units under the Reduced Height Alternative, it would not be financially feasible to provide affordable housing without subsidy support, given the land costs, construction costs, and the cost of the transit mitigation measures.

The Reduced Height Alternative, therefore, does not meet the goals and objectives of the proposed project to provide new housing, including a significant amount of affordable housing in furtherance of the City’s *Housing New York* program.

### **LAND USE, ZONING, AND PUBLIC POLICY**

Under the Reduced Height Alternative, three new largely residential buildings would be created in the Two Bridges LSRD, but at an overall height of 350 feet, the new buildings would be substantially shorter than the proposed buildings. Existing on-site open spaces would be altered with new amenities, but the Rutgers Slip Open Space would not be dedicated as publicly accessible

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and the dedication of the Site 4 (4A/4B) open space as publicly accessible would not be required as a mitigation measure. The partially vacant retail building at 235 Cherry Street on Site 4 (4A/4B) would be re-tenanted. There would be modifications to the Two Bridges LSRD, but it would remain underdeveloped in terms of its floor area potential under the existing C6-4 zoning. Up to 1,023 residential units could be built; however, because it would not be financially feasible for the applicants to include affordable units within the buildings, this alternative would not support the Mayor's affordable housing program.

On Site 4 (4A/4B), the existing private open space on Lots 15, 70, and 76 would be altered with new amenities. On Site 5, the existing surface parking lot along South Street would be replaced by a new building with below-grade parking. The existing private open space between the 265 and 275 Cherry Street buildings and along Rutgers Slip would be expanded and altered with new amenities. On Site 6A, the existing vacant lot would be replaced by a new building, and a new private open space would be created. Further, resiliency measures in keeping with the resiliency policies of New York City would be provided on the project sites to protect the existing buildings as well as the new buildings.

Zoning and public policies affecting the study area are expected to remain unchanged from existing conditions.<sup>3</sup> Both the LMCR and ESCR programs are expected to have progressed to protect the shoreline and low-lying upland areas.

In summary, neither the Reduced Height Alternative nor the proposed actions would result in significant adverse impacts to land use, zoning or public policy.

### **SOCIOECONOMIC CONDITIONS**

Neither the Reduced Height Alternative nor the proposed actions would result in significant adverse impacts due to direct residential and business displacement, indirect residential and business displacement, or result in adverse effects on specific industries. Under the Reduced Height Alternative, new development would occur on the three project sites; however, it would produce fewer units than anticipated with the proposed actions, none of which would be affordable.

#### **DIRECT RESIDENTIAL DISPLACEMENT**

Similar to the proposed actions, the Reduced Height Alternative would not result in significant adverse socioeconomic impacts due to direct residential displacement. On Site 4 (4A/4B), the same 10 dwelling units that would be removed from the 80 Rutgers Slip building and replaced in the new Site 4 (4A/4B) building would be removed and replaced in the new building. As with the proposed actions, an additional nine dwelling units in the 80 Rutgers Slip building would be renovated. The approximately 19 residents of those units would be relocated during the

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<sup>3</sup> As described in Chapter 2, "Land Use, Zoning, and Public Policy," there is a pending application, the "Modification to LSRD Special Permit Text Amendment," which would amend Article VII, Chapter 8 (Special Regulations Applying to Large-Scale Residential Developments) of the Zoning Resolution to require a special permit for modifications to the existing large-scale residential development within the former Two Bridges Urban Renewal Area. The land use application and the draft EAS are in the review process with DCP. It is unknown at this time when the application will be complete and ready for referral into public review.

construction period to comparable, newly renovated units within the 80 Rutgers Slip building as they become available, or, if necessary, to units in neighboring buildings.

*DIRECT BUSINESS DISPLACEMENT*

Similar to the proposed actions, the construction of the Reduced Height Alternative may temporarily displace the Stop 1 Food Market (on Site 5), and it would not result in significant adverse socioeconomic impacts due to direct business displacement.

*INDIRECT RESIDENTIAL DISPLACEMENT*

Similar to the proposed actions, the Reduced Height Alternative would not result in significant adverse impacts due to indirect residential displacement. Neither the proposed actions nor the Reduced Height Alternative would introduce a trend or accelerate a trend of changing socioeconomic conditions that might potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change.

There is already a readily observable trend toward higher incomes and new market-rate residential development in the socioeconomic conditions study area which would continue in the future either with the proposed actions or in the Reduced Height Alternative. However, in the Reduced Height Alternative it would not be financially feasible for the applicants to provide affordable units. In this respect, the Reduced Height Alternative would not provide dwelling units that are affordable to households with a wide a range of incomes.

In summary, similar to the proposed actions, the Reduced Height Alternative would not result in significant adverse impacts due to indirect residential displacement.

*INDIRECT BUSINESS DISPLACEMENT*

Neither the Reduced Height Alternative nor the proposed actions would result in significant adverse impacts due to indirect business displacement. Similar to the proposed actions, the Reduced Height Alternative would not introduce new economic activities that would substantially alter existing economic patterns within the study area, nor would it alter the land use character of the study area. The project sites and broader socioeconomic study area have well-established residential and retail markets such that neither the proposed actions nor the Reduced Height Alternative would substantially alter commercial real estate trends in the area.

*ADVERSE EFFECTS ON SPECIFIC INDUSTRIES*

Neither the Reduced Height Alternative nor the proposed actions would result in significant adverse impacts on specific industries. The Reduced Height Alternative would require temporary displacement during construction of the single business that might be displaced by the proposed projects—the Stop 1 Food Market. However, this market does not represent a critical mass of businesses within any City industry, category of business, or category of employment. Although this business is an amenity to the community, the goods and services offered can be found elsewhere within the socioeconomic study area, within a broader trade area, and within the City as a whole.

## **COMMUNITY FACILITIES AND SERVICES**

### **PUBLIC SCHOOLS**

Neither the proposed actions (assuming 200 of the affordable units would be permanently designated for senior use) nor the Reduced Height Alternative would result in significant adverse impacts to elementary schools, intermediate schools, or high schools.

With a total of up to 1,023 total units, the Reduced Height Alternative would generate fewer units than 2,620, the maximum number of units that would avoid a significant adverse impact on public elementary schools.

### **PUBLIC LIBRARIES**

Neither the proposed actions nor the Reduced Height Alternative would result in a noticeable change in the delivery of library services.

### **PUBLICLY FUNDED CHILD CARE CENTERS**

Neither the Reduced Height Alternative nor the proposed actions (assuming 200 of the affordable units within the proposed projects would be permanently designated for senior housing) would have a significant adverse impact on publicly funded child care facilities.

With a total of up to 256 affordable units, the Reduced Height Alternative would generate fewer than 508 units, the maximum number to avoid a significant adverse impact on publicly funded child care.

### **OPEN SPACE**

Neither the proposed actions nor the Reduced Height Alternative would physically alter or displace publicly accessible open space resources. The Reduced Height Alternative would reduce the proposed actions' shadow impacts to the Cherry Clinton Playground and remove the shadow impact to the Lillian D. Wald Playground.

Under the Reduced Height Alternative, the existing private Rutgers Slip Open Space could be enlarged totaling approximately 33,550 sf (approximately 0.77 acres) and altered with new amenities. However, since the effects of the projects on open space resources in the area would be more modest, the Rutgers Slip Open Space would not be dedicated as publicly accessible open space as it would with the proposed actions.

With the number of dwelling units reduced by 63 percent to 1,023 and the population reduced by 63 percent to 2,160, even with the publicly accessible open space reduced by approximately 0.77 acres as compared to the proposed actions, the Reduced Height Alternative would avoid the open space impact which would occur under the proposed actions if more than 1,497 dwelling units are created. Accordingly, the improvements to Coleman Playground, Captain Jacob Joseph Playground, and Little Flower Playground would not be required as mitigations, as under the proposed actions. In the Reduced Height Alternative, the total, active, and passive open space ratios in the residential study area would be below the City's planning goals. With the Reduced Height Alternative, the study area's open space ratios would increase as compared to these ratios with the proposed actions.

## **SHADOWS**

At a height of 350 feet, the buildings in the Reduced Height Alternative would cast less incremental shadow on sunlight-sensitive resources. Unlike the incremental shadows of the proposed actions, incremental shadow from the Reduced Height Alternative would not cause a significant adverse impact to the use of the Lillian D. Wald Playground on the March 21/September 21 analysis day. The Reduced Height Alternative would cast less incremental shadows on the Cherry Clinton Playground on the March 21/September 21 analysis days compared with the proposed actions but, similar to the proposed actions, the extent and duration of the incremental shadow would be substantial enough to cause significant adverse impacts to the use of the playground and the health of a number of the trees in the playground. However, unlike the proposed actions, the Reduced Height Alternative would not cause a significant adverse shadow impact to the use of the playground on the May 6/August 6 analysis day. On December 21, when shadows are longest, the Reduced Height Alternative would cast the same shadow on Cherry Clinton Playground as the proposed actions, similarly resulting in a significant adverse impact on that analysis day.

## **HISTORIC AND CULTURAL RESOURCES**

Similar to the proposed actions, the Reduced Height Alternative would have the potential to disturb archaeological resources since the 350-foot-tall buildings would have the same bases and require similar subsurface disturbance on the project sites. Any undisturbed portions of Site 5 and Site 6A, which were determined to possess moderate to high sensitivity for landfill deposits and landfill-retaining structures and low to moderate sensitivity for historic period streetbed deposits and early wooden water mains, would be affected. Site 4 (4A/4B) also would also be disturbed; however, this site was determined to have low sensitivity for both types of resources. Archaeological monitoring would need to be undertaken for Sites 5 and 6A, and an Unanticipated Discoveries Plan would be developed for Site 4 (4A/4B).

Neither the proposed actions nor the Reduced Height Alternative would result in any significant adverse direct or indirect effects to known or potential historic architectural resources on the project sites or in the study area.

## **URBAN DESIGN AND VISUAL RESOURCES**

With the Reduced Height Alternative, the three buildings added to the LSRD would be much shorter than the three proposed buildings. In addition to the building on Site 5 being shorter, in order to maximize square footage potential within the 350-foot-height limit, it would have a slab-like form oriented parallel to South Street. In contrast to the proposed Site 5 building, which has an opening between two towers, the Site 5 building with the Reduced Height Alternative would create a more enclosed courtyard between the residential buildings at 265 and 275 Cherry Street. Neither the proposed actions nor the Reduced Height Alternative would eliminate any significant publicly accessible view corridors or completely block public views to any visual resources, result in any substantial changes to the built environment of a historic district, or result in an area-wide rezoning. Like the proposed projects, with the Reduced Height Alternative, there would be new active ground floor uses intended to enliven the streetscape of the nearby study area.

The Reduced Height Alternative might somewhat reduce the potential for elevated pedestrian-level wind conditions that were identified with the proposed actions. However, as noted above, even in the No Action Alternative, there would be one location where pedestrian-level winds potentially exceed the safety criterion.

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Similar to the proposed actions and with the incorporation of any necessary measures to avoid elevated pedestrian level winds, the Reduced Height Alternative would not result in any significant adverse impacts on urban design and visual resources.

### **NATURAL RESOURCES**

Similar to the proposed actions, the Reduced Height Alternative would alter “paved roads/paths,” “urban vacant lots,” “mowed lawns with trees,” and “urban structure exteriors,” all of which provide limited habitat to wildlife other than species common to urban areas. Loss of this habitat area would have adverse effects on individual wildlife unable to find suitable available habitat in the vicinity of the study area; however, as with the proposed actions, loss of individuals of these common species would not result in a significant adverse impact. With new landscaping and tree replacement and/or restitution for removed trees that would occur in compliance with Local Law 3 and Chapter 5 of Title 56, the Reduced Height Alternative would have the potential to benefit natural resources by improving the quality of existing wildlife habitat similar to the proposed actions. With less tall new structures, the Reduced Height Alternative may reduce the potential for nighttime bird collisions. However, the majority of collisions occur during the daytime and often relate to reflections of trees and landscaping. The Reduced Height Alternative would substantially reduce the shadows cast on the East River. However, even with the proposed actions the incremental shadows from the proposed projects would not adversely affect aquatic resources (plankton or fish) in the East River.

### **HAZARDOUS MATERIALS**

In the Reduced Height Alternative, there would be excavation on the project sites similar to the proposed actions, and there would be the potential for disturbing any contaminated materials that may exist on the project sites. Similar to the proposed actions, the Reduced Height Alternative would require remediation pursuant to the Hazardous Materials “E” Designations placed on each of the project sites.

### **WATER AND SEWER INFRASTRUCTURE**

The proposed actions would result in an incremental water demand of approximately 1,022,347 gallons per day (gpd), and the Reduced Height Alternative would result in an incremental water demand of approximately 37 percent of that, 378,268 gpd. Neither the proposed actions nor the Reduced Height Alternative would result in any significant adverse impacts to the City’s water supply.

The proposed actions would generate approximately 588,010 gpd of sanitary sewage (approximately 0.12 percent of the average daily flow at the Newtown Creek WWTP); however, this increase in volume would not exceed the capacity of the Newtown Creek WWTP. At approximately 37 percent of the proposed actions, the Reduced Height Alternative would generate 217,564 gpd of sanitary sewage. Neither the proposed actions nor the Reduced Height Alternative would result in a significant adverse impact on the City’s sanitary sewage treatment system.

With the same best management practices (BMPs) as anticipated with the proposed actions, the peak stormwater runoff rates would be the same in the Reduced Height Alternative as with the proposed actions.

### **SOLID WASTE AND SANITATION SERVICES**

Similar to the proposed actions, the Reduced Height Alternative would not adversely affect solid waste and sanitation services or place a significant burden on the City’s solid waste management system, and therefore similarly would not result in significant adverse impacts on Solid Waste and Sanitation Services. However, the Reduced Height Alternative would generate less demand on New York City’s solid waste services and sanitation services.

### **ENERGY**

Similar to the proposed actions, the Reduced Height Alternative would not result in significant adverse impacts with respect to the transmission or generation of energy. While the Reduced Height Alternative would generate less demand on New York City’s energy services, the incremental increase with the proposed actions would be negligible when compared to the overall demand within Consolidated Edison (Con Edison)’s New York City and Westchester County service area.

### **TRANSPORTATION**

The Reduced Height Alternative’s 1,023 dwelling units would generate fewer trips than the 2,775 dwelling units with the proposed projects. However, the Reduced Height Alternative would still result in significant adverse impacts to traffic, transit, and pedestrians, as well as an off-street parking shortfall in the surrounding area. As with the proposed projects, all significant adverse transportation-related impacts for the Reduced Height Alternative could be fully mitigated except for traffic impacts at two study area intersections.

### **TRAFFIC**

With approximately 40 percent of the total vehicle trips projected for the proposed project’s 2,775 dwelling units, the Reduced Height Alternative would be expected to result in the same impact and mitigation findings as those described in Chapter 14, “Transportation,” and Chapter 21, “Mitigation,” except for the following:

- South Street and Pike Slip—The southbound left-turn impact identified for the PM peak hour is not expected to occur with Reduced Height Alternative. Accordingly, the proposed mitigation (1 second of signal retiming) would also not be necessary.
- East Broadway and Pike Street—The northbound left-turn impact on the east portion of the intersection and the eastbound through-right impact on the west portion of the intersection identified for the midday peak hour would not be expected to occur with the Reduced Height Alternative. Accordingly, although the lane restriping for the eastbound approach would still be applicable for this peak hour to mitigate the impacts identified for the AM and PM peak hours, the proposed 1 second of signal retiming for the northbound left-turn would not be necessary.
- Division Street and Market Street—The northbound left-turn impact identified for the midday peak hour is not expected to occur with the Reduced Height Alternative. Accordingly, the proposed mitigation (1 second of signal retiming) would also not be necessary.
- Canal Street and Allen Street—The eastbound approach impact identified for the PM peak hour would not be expected to occur with the Reduced Height Alternative. Accordingly, the proposed mitigation (1 second of signal retiming) would not be necessary.

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- Allen Street and Delancey Street—The westbound left-turn impacts identified for the midday and PM peak hours are not expected to occur with the Reduced Height Alternative. Accordingly, the proposed mitigation (1 second of signal retiming) would also not be necessary.
- Chatham Square and East Broadway—The southbound left-turn impact identified for the midday peak hour is not expected to occur with the Reduced Height Alternative. Accordingly, the proposed mitigation (1 second of signal retiming) would also not be necessary.
- Worth Street and Centre Street—The westbound through impact identified for the AM peak hour is not expected to occur with the Reduced Height Alternative. Accordingly, the proposed mitigation (1 second of signal retiming) would also not be necessary.

As with the 2,775 dwelling units that would be developed with the proposed projects, the Reduced Height Alternative would result in unmitigatable significant adverse traffic impacts at the intersections of South Street and Montgomery Street and at Chatham Square and Worth Street/Oliver Street.

### TRANSIT

Because stairway S1 at the East Broadway F train station already operates at congested levels under existing conditions and is projected to worsen under the No Action condition, any notable increase in additional subway ridership is expected to yield a significant adverse impact at this stairway. Similarly, because the P3 platform stairway will operate at capacity during the AM peak period under the No Action condition, it is also susceptible to be significantly impacted with any notable increases in subway ridership. Even with less than 40 percent of the total subway trips projected with the 2,775 dwelling units with the proposed projects, the Reduced Height Alternative would result in the same subway impact and mitigation findings as those described in Chapter 14, “Transportation” and Chapter 21, “Mitigation.” The applicants have advised that under the Reduced Height Alternative, the estimated cost of the transit improvements identified as mitigation in Chapter 21 “Mitigation” would be cost prohibitive as part of a Reduced Height Alternative and, in combination with land and construction costs, they would therefore not proceed with development under the Reduced Height Alternative.

### PEDESTRIANS

In consideration of the pedestrian impacts identified, even with 40 to 50 percent of the total person trips projected for the 2,775 dwelling units with the proposed projects, the Reduced Height Alternative would result in the same or similar impact findings as described in Chapter 14, “Transportation.” The necessary improvement measures are also expected to be the same or similar to those detailed in Chapter 21, “Mitigation,” which would include a sidewalk extension (in conjunction with a new street-level subway stairway), crosswalk widening, and adjustment to signal timings.

### PARKING

With a reduction of approximately 63 percent in the number of residential units, the Reduced Height Alternative would result in a relatively smaller parking shortfall as compared to the 2,775 dwelling units with the proposed projects. Parking utilization would still be well over capacity during weekday daytime hours and approximately at capacity overnight. As parking shortfalls in this area of Manhattan are not considered a significant adverse impact under *CEQR Technical*

Manual criteria, the Reduced Height Alternative would similarly not result in the potential for significant adverse parking impacts.

### **AIR QUALITY**

The Reduced Height Alternative would result in fewer vehicle trips and less mobile source pollution than the proposed projects. Since no significant adverse mobile source air quality impacts are predicted due to the proposed projects, neither the proposed projects nor the Reduced Height Alternative would result in a significant adverse impact related to mobile sources.

Under the Reduced Height Alternative, the stack heights for stationary sources of emissions would be lower than with the proposed projects. Some of the proposed restrictions identified for Site 5 and Site 6A with respect to the use of low NO<sub>x</sub> burners for certain boilers, emission limits for certain CHP equipment, and the heights and placement of boiler and CHP exhaust stacks that would be put in place through an Air Quality (E) Designation with the proposed projects may not be required with the Reduced Height Alternative. Site 4 (4A/4B) would be lower in height than the One Manhattan Square development under the Reduced Height Alternative. Consequently, potential air quality effects from Site 4 (4A/4B) under the Reduced Height Alternative may require additional restrictions to avoid impacts on the One Manhattan Square development.

### **CLIMATE CHANGE**

#### **GREENHOUSE GAS EMISSIONS**

With the Reduced Height Alternative, the increase in energy use on the project sites would be less and the ensuing greenhouse gas (GHG) emissions associated with the proposed buildings would be less. Building and on-road energy use and the associated GHG emissions would also be reduced, and may be reduced over time due to changes in the mix of fuel used to produce electricity provided to buildings, fuels and technologies used for heating, and vehicle technology and fuel. Increases in emissions, which might occur with the proposed projects would be likely to occur on the project sites and elsewhere given the need to address the same growth in residential population, similar requirement for commercial uses, and associated facilities and services. If those needs are provided in an area with less access to transit or with less efficient energy design requirements or a higher-carbon mix of electricity production, those emissions may be higher.

#### **RESILIENCE TO CLIMATE CHANGE**

In the Reduced Height Alternative, it is assumed that the three new buildings on the project sites would have all the same resilience measures as the proposed buildings, and resilience measures to protect existing buildings on the project sites would also be provided.

### **NOISE**

Neither the proposed projects nor the Reduced Height Alternative would generate sufficient traffic to result in a significant mobile source noise impact. Further, with the Reduced Height Alternative or the proposed projects, the proposed building mechanical systems (i.e., heating, venting, and air conditioning [HVAC] systems) would be designed to meet all applicable noise regulations and to avoid producing levels that would result in any significant increase in ambient noise levels. Therefore, neither the proposed projects nor the Reduced Height Alternative would result in any significant adverse noise impacts related to building mechanical equipment.

## **Two Bridges LSRD**

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Due to existing high levels of ambient noise in the area, building attenuation would be required for the Reduced Height Alternative as well as the proposed projects to ensure that interior noise levels meet CEQR criteria. The designs for the three buildings would need to include acoustically rated windows and central air conditioning as alternate means of ventilation similar to those with the proposed projects to achieve the CEQR interior  $L_{10(1)}$  noise level guideline of 45 dBA or lower for residential or community facility uses and 50 dBA or lower for retail uses. The window/wall attenuation and alternate means of ventilation requirements would be codified in a Noise (E) Designation on the project sites for the Reduced Height Alternative.

### **NEIGHBORHOOD CHARACTER**

Similar to the proposed projects, the Reduced Height Alternative would not result in significant adverse impacts associated with neighborhood character in the areas of land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; and noise. In comparison to the proposed projects, the Reduced Height Alternative would eliminate significant adverse impacts with respect to increases in open space users, shadows, and transportation, which are not considered determining elements of neighborhood character. Similar to the proposed projects, the Reduced Height Alternative would also provide streetscape elements intended to enliven the surrounding area and establish a consistent street wall along Cherry Street. However, the Reduced Height Alternative would not result in the dedication of the enlarged and improved Rutgers Slip Open Space or the Site 4 (4A/4B) open space to public use, and would not result in the production of up to 694 affordable dwelling units.

### **CONSTRUCTION**

While the Reduced Height Alternative would involve less construction overall, the excavation and foundation work and construction work up to the 350 foot level would be the same as or similar to the construction with the proposed projects. Given the duration of construction would be shorter, the duration of potential construction impacts would be reduced.

The duration of vehicle, transit, and pedestrian trips would be shorter. The Reduced Height Alternative would reduce the period of construction traffic impacts but could still have unmitigatable impacts at the South Street and Montgomery Street and at the Chatham Square and Worth Street/Oliver Street intersections. In terms of transit and pedestrians, the proposed projects, like the Reduced Height Alternative, would not have significant adverse impacts on transit services or pedestrian conditions until at least one of the three proposed buildings is completed and occupied. Therefore, the Reduced Height Alternative would also not have the potential to result in any significant adverse transit or pedestrian impacts during construction.

As there would be a shorter period of construction for the shorter buildings, the Reduced Height Alternative would have construction-period significant adverse noise impacts over a shorter period.

### **PUBLIC HEALTH**

Under both the Reduced Height Alternative and the proposed projects, no unmitigated significant adverse impacts would occur in the areas of hazardous materials, air quality, water quality, or noise. The Reduced Height Alternative would reduce the duration of construction-period noise levels that would constitute potential temporary significant adverse impacts, which therefore would not result in chronic or prolonged exposure to high levels of noise or episodic and

unpredictable exposure to noise at high decibel levels. As with the proposed projects, the Reduced Height Alternative would not result in significant adverse public health impacts. \*