962-972 FRANKLIN AVENUE REZONING
Chapter 12: Alternatives

A. INTRODUCTION

As described in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, alternatives selected for consideration in an environmental impact statement are generally those that are feasible and have the potential to reduce, eliminate, or avoid significant adverse impacts of a proposed project while meeting some or all of the goals and objectives of this project. The purpose of an analysis of alternatives to a proposed project is to provide the decision makers with the opportunity to consider practicable alternatives that are consistent with the project's purpose, and that could potentially reduce or eliminate significant adverse environmental impacts identified in the Environmental Impact Statement (EIS). As described in **Chapter 1, "Project Description,"** the Proposed Actions would facilitate the development of a 14-story (145-foot-tall excluding mechanical equipment), 471,495 gsf mixed-used residential and commercial building containing 475 dwelling units (DUs) (419,346 gsf), 119 of which would be permanently affordable pursuant to MIH, 8,128 gsf of local retail space, 27,349 gsf of parking area, 2,752 gsf of loading area, and approximately 13,920 gsf of mechanical/storage space (the "Proposed Project"). Parking for approximately 20 percent of all market-rate units would be provided at the Proposed Project (approximately 71 parking spaces). The accessory parking garage would be accessed via a curb cut on Franklin Avenue.

This chapter considers four eight alternatives to the Proposed Project: (1) a No-Action Alternative, which contemplates a new as-of-right development that is reasonably anticipated to be developed pursuant to existing R6A zoning at the Proposed Development Site absent the Proposed Actions; (2) an alternative that is developed pursuant to a R7D zoning district; (3) an alternative that is developed pursuant to a R7A zoning district, (4) an R8A with 26.83-Degree Sloping Plane Alternative; (5) an R7X with 17-Degree Sloping Plane Alternative; (6) R7D with 15-Degree Sloping Plane Alternative; (7) R7A with 10-Degree Sloping Plane Alternative; and, (84) a No Unmitigated Significant Adverse Impacts Alternative, which considers a development scenario that would not result in any identified significant unmitigated adverse impacts. Alternatives 4 through 7- were developed ~~Additional alternatives will be further explored~~ with the Lead Agency and local stakeholders between the DEIS and FEIS. Alternative 4, R8A with 26.83-Degree Sloping Plane Alternative, has been proposed by the Applicant (the subject of the Modified Zoning Text Amendment, ULURP No. N230357(A)ZRK) as an effort to minimize, avoid, or mitigate the Proposed Project's shadows impacts on Brooklyn Botanic Garden and to be responsive to feedback provided by reviewing agencies, Brooklyn Community Board 9, and the public, while still accomplishing all of the goals of the Proposed Project. ~~The Applicant has offered the R8A with 26.83-Degree Sloping Plane Alternative, which would be implemented by means of a zoning text amendment (attached as Appendix), as another option that could be adopted by the decision-makers under the Uniform Land Use Review Procedure (ULURP) instead of the certified application that would facilitate the Proposed Project studied in this EIS.~~ A technical memorandum assessing whether this amended application would alter the conclusions presented in the DEIS was published on July 23, 2024 on the New York City Department of City Planning's (DCP) website, and is further described in this chapter.

Under the proposed text amendment, the maximum height of any structure would be limited along an imaginary sloping plane-, the location and angle of which are intended to closely align with the angle at which sunlight reaches the BBG Resources, and ensure those resources maintain adequate sunlight throughout the year. Above the imaginary sloping plane, the general provisions for permitted obstructions would not apply, except that parapets and safety rails could penetrate the reduced height limit if they are at least fifty percent open or ninety percent transparent materials. Alternatives 5, 6, and 7, (the Proposed Action Alternatives) were identified in response to comments received during the public review process as other options that could potentially minimize, avoid, or mitigate the Proposed Project's shadows impacts on Brooklyn Botanic Garden while still partly achieving the Applicant's proposed development program under either the Proposed Project or the R8A with 26.83-Degree Sloping Plane Alternative. Alternatives 5 through 7, -following a sloping plane approach, would apply the same text amendment as proposed in Alternative 4, but would 1.) modify the text to reduce the slope of the sloping plane, and 2.) would include modifications to the zoning map amendment (ULURP No. C230356ZMK) by mapping lower-density zoning districts.

B. PRINCIPAL CONCLUSIONS

No-Action Alternative

The No-Action Alternative examines future conditions on the Proposed Development Site but assumes the absence of the Proposed Project (i.e., none of the discretionary approvals proposed as part of the Proposed Project would be adopted). Under the No-Action Alternative by 2027, it is anticipated that an as-of-right residential development would be constructed on the Proposed Development Site (Lots 63 and 66) pursuant to the existing R6A zoning. The R6A zoning district permits 3.0 FAR with a maximum base height of 60 feet and a maximum building height of 70 feet. The No-Action development would include a seven-story residential building containing approximately 168 DUs (177,716 gsf) and 84 accessory off-street parking spaces. The 84 accessory off-street parking spaces would be in compliance with the R6A district's requirement for parking for 50 percent of the building's market-rate units.— The technical chapters of this EIS have described the No-Action Alternative as "the Future Without the Proposed Actions."

Because the No-Action Alternative is available without any discretionary approvals, t~~T~~he significant adverse impacts related to shadows, open space, and natural resources anticipated for the Proposed Project ~~would not~~are deemed not to occur under the No-Action Alternative. As compared to the Proposed Project, the No-Action Alternative would result in a shorter overall construction schedule and would have less construction noise and less on-site construction equipment and construction-related traffic generating emissions.– The No-Action Alternative would not result in any significant adverse construction impacts. However, the No-Action Alternative would not meet the goals of the Proposed Project. The benefits expected to result from the Proposed Project as intended by the Applicant – including promoting affordable and market-rate housing development through the introduction of increased residential density on-site, encouraging the extension of the retail corridor south along Franklin Avenue through the provision of a commercial overlay– would not be realized under this alternative, and the No-Action Alternative would fall short of the objectives of the Proposed Project.

R7D Alternative

The R7D Alternative examines conditions at the Proposed Development Site but assumes that the Project Area would be rezoned to R7D/C2-4 with Mandatory Inclusionary Housing. The R7D Alternative would

consist of 402 DUs (101 of which would be permanently affordable through the MIH Program) and 8,470 gsf of local retail space. The R7D Alternative would include 377,012 gsf and would be built to an FAR of 5.6. The R7D Alternative would comply with all R7D zoning bulk and parking regulations and would stand at a maximum height of 11 stories or 115 feet (not including mechanical bulkhead)[1]. The R7D Alternative would meet some of the goals of this project, including promoting affordable and market-rate housing development through the introduction of increased residential density on-site (albeit less than the Proposed Project), encouraging the extension of the retail corridor south along Franklin Avenue through the provision of a commercial overlay.

As discussed below, the R7D Alternative would result in significant adverse impacts to open space, shadows, natural resources, and construction (noise). The Department of City Planning (DCP), acting as Lead Agency, in consultation with the Department of Parks and Recreation (NYC Parks) finds that the ~~Proposed Actions~~R7D Alternative would result in significant adverse impacts to the Brooklyn Botanic Garden as well as the Jackie Robinson Playground.

R7A Alternative

The R7A Alternative examines conditions at the Proposed Development Site but assumes that the Project Area would be rezoned to R7A/C2-4 with Mandatory Inclusionary Housing. The R7A Alternative would consist of 328 DUs (82 of which would be permanently affordable through the MIH Program) and 8,470 gsf of local retail space. The R7A Alternative would include 318,796 gsf and would be built to an FAR of 4.6. The R7A Alternative would comply with all R7A zoning bulk and parking regulations and would stand at a maximum height of nine stories or 95 feet (not including mechanical bulkhead)[2]. The R7A Alternative would meet some of the goals of this project, including promoting affordable and market-rate housing development through the introduction of increased residential density on-site (albeit less than the Proposed Project), encouraging the extension of the retail corridor south along Franklin Avenue through the provision of a commercial overlay.

As discussed below, the R7A Alternative would result in significant adverse impacts to open space, shadows, natural resources, and construction (noise). DCP, acting as Lead Agency, in consultation with NYC Parks finds that the ~~Proposed Actions~~R7A Alternative would result in significant adverse impacts to the Brooklyn Botanic Garden as well as the Jackie Robinson Playground.

R8A with 26.38-Degree Sloping Plane Alternative

The R8A with 26.38-Degree Sloping Plane Alternative (the subject of the Modified Zoning Text Amendment, ULURP No. N230357(A)ZRK) examines conditions at the Proposed Development Site but assumes that the Project Area would be rezoned to R8A/C2-4 with Mandatory Inclusionary Housing. The R8A with 26.38-Degree Sloping Plane Alternative would consist of 475 DUs (119 of which would be permanently affordable through the MIH Program) and 8,128 gsf of local retail space. The R8A with 26.38-Degree Sloping Plane Alternative would include 419,346 gsf of residential space and would be built to an FAR of 7.20 as permitted under the City of Yes for Housing Opportunity. The R8A with 26.38-Degree Sloping Plane Alternative would comply with all R8A zoning bulk regulations and would stand at a maximum height of 14 stories or 145 feet (not including 25 feet mechanical bulkhead). Parking would be

[1] The shadows analysis below conservatively assumes that the entire 11-story portion of the R7D Alternative would be raised 35-feet to incorporate the 35-foot bulkhead allowance as part of the City of Yes for Carbon Neutrality zoning text amendment adopted in December 2023.
[2] The shadows analysis below conservatively assumes that the entire 9-story portion of the R7A Alternative would be raised 35-feet to incorporate the 35-foot bulkhead allowance as part of the City of Yes for Carbon Neutrality zoning text amendment adopted in December 2023.

provided pursuant to the same special permit requested for the Proposed Project. The R8A with 26.38-Degree Sloping Plane Alternative would result in the same residential DU count and retail space as the Proposed Project, thereby meeting the goals of this project, including promoting affordable and market-rate housing development through the introduction of increased residential density on-site, encouraging the extension of the retail corridor south along Franklin Avenue through the provision of a commercial overlay.

As discussed below, the R8A with 26.38-Degree Sloping Plane Alternative would result in significant adverse impacts to open space, shadows, natural resources, and construction (noise). DCP, acting as Lead Agency, in consultation with NYC Parks finds that the R8A with 26.38-Degree Sloping Plane Alternative would result in significant adverse impacts to the Brooklyn Botanic Garden as well as the Jackie Robinson Playground.

R7X with 17-Degree Sloping Plane Alternative

The R7X with 17-Degree Sloping Plane Alternative examines conditions at the Proposed Development Site but assumes that the Project Area would be rezoned to R7X/C2-4 with Mandatory Inclusionary Housing. The R7X with 17-Degree Sloping Plane Alternative would consist of 385 DUs (96 of which would be permanently affordable through the MIH Program) and 8,128 gsf of local retail space. The R7X with 17-Degree Sloping Plane Alternative would include 394,297 gsf of residential space and would be built to an FAR of 5.81 as permitted under the City of Yes for Housing Opportunity. The R7X with 17-Degree Sloping Plane Alternative would comply with all R7X zoning bulk regulations and would stand at a maximum height of 11 stories or 110 feet (not including 35 feet mechanical bulkhead). Parking would be provided pursuant to the same special permit requested for the Proposed Project. The R7X with 17-Degree Sloping Plane Alternative would meet some of the goals of this project, including promoting affordable and market-rate housing development through the introduction of increased residential density on-site, encouraging the extension of the retail corridor south along Franklin Avenue through the provision of a commercial overlay, although to a lesser degree than both the Proposed Project and the R8A with 26.38-Degree Sloping Plane Alternative Project.

As discussed below, the R7X with 17-Degree Sloping Plane Alternative would result in significant adverse impacts to open space, shadows, natural resources, and construction (noise). DCP, acting as Lead Agency, in consultation with NYC Parks finds that the R7X with 17-Degree Sloping Plane Alternative would result in significant adverse impacts to the Brooklyn Botanic Garden as well as the Jackie Robinson Playground. However, this alternative substantially reduces the magnitude, duration and extent of the significant adverse shadows impacts to Brooklyn Botanic Garden as compared to the Proposed Actions and the R8A with 26.38-Degree Sloping Plane Alternative (the Modified Text Amendment, ULURP No. N230357(A)ZRK). This alternative substantially reduces shadows to a point that mitigation strategies become feasible, as the shadows impacts on specific resources within BBG are reduced or eliminated on specific resources, further described below and in the Mitigation Chapter.

R7D with 15-Degree Sloping Plane Alternative

The R7D with 15-Degree Sloping Plane Alternative examines conditions at the Proposed Development Site but assumes that the Project Area would be rezoned to R7D/C2-4 with Mandatory Inclusionary Housing. The R7D with 15-Degree Sloping Plane Alternative would consist of 355 DUs (89 of which would be permanently affordable through the MIH Program) and 8,128 gsf of local retail space. The R7D with 15-

Degree Sloping Plane Alternative would include 368,620 gsf and would be built to an FAR of 5.35 as permitted under the City of Yes for Housing Opportunity. The R7D with 15-Degree Sloping Plane Alternative would comply with all R7D zoning bulk regulations and would stand at a maximum height of 10 stories or 100 feet (not including 35 feet mechanical bulkhead). Parking would be provided pursuant to the same special permit requested for the Proposed Project. The R7D with 15-Degree Sloping Plane Alternative would meet some of the goals of this project, including promoting affordable and market-rate housing development through the introduction of increased residential density on-site, encouraging the extension of the retail corridor south along Franklin Avenue through the provision of a commercial overlay, although to a lesser degree than the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative Project, and the R7X with 17-Degree Sloping Plane Alternative Project.

As discussed below, the R7D with 15-Degree Sloping Plane Alternative would result in significant adverse impacts to open space, shadows, natural resources, and construction (noise). DCP, acting as Lead Agency, in consultation with NYC Parks finds that the R7D with 15-Degree Sloping Plane Alternative would result in significant adverse impacts to the Brooklyn Botanic Garden as well as the Jackie Robinson Playground. However, this alternative substantially reduces the magnitude, duration and extent of the significant adverse shadows impacts to Brooklyn Botanic Garden as compared to the Proposed Actions and the R8A with 26.38-Degree Sloping Plane Alternative (the Modified Text Amendment, ULURP No. N230357(A)ZRK). This alternative substantially reduces shadows to a point that mitigation strategies become feasible, as the shadows impacts on specific resources within BBG are reduced or eliminated on specific resources, further described below and in the Mitigation Chapter.

R7A with 10-Degree Sloping Plane Alternative

The R7A with 10-Degree Sloping Plane Alternative examines conditions at the Proposed Development Site but assumes that the Project Area would be rezoned to R7A/C2-4 with Mandatory Inclusionary Housing. The R7A with 10-Degree Sloping Plane Alternative would consist of 319 DUs (80 of which would be permanently affordable through the MIH Program) and 8,128 gsf of local retail space. The R7A with 10-Degree Sloping Plane Alternative would include 337,198 gsf and would be built to an FAR of 4.81 as permitted under the City of Yes for Housing Opportunity. The R7A with 10-Degree Sloping Plane Alternative would comply with all R7A zoning bulk regulations and would stand at a maximum height of 9 stories or 90 feet (not including 23 feet mechanical bulkhead). Parking would be provided pursuant to the same special permit requested for the Proposed Project. The R7A with 10-Degree Sloping Plane Alternative would meet some of the goals of this project, including promoting affordable and market-rate housing development through the introduction of increased residential density on-site, encouraging the extension of the retail corridor south along Franklin Avenue through the provision of a commercial overlay, although to a lesser degree than the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative Project, the R7X with 17-Degree Sloping Plane Alternative Project, and the R7A with 15-Degree Sloping Plane Alternative Project.

As discussed below, the R7A with 10-Degree Sloping Plane Alternative would result in significant adverse impacts to open space, shadows, natural resources, air quality, and construction (noise). DCP, acting as Lead Agency, in consultation with NYC Parks finds that the R7A with 10-Degree Sloping Plane Alternative would result in significant adverse impacts to the Brooklyn Botanic Garden as well as the Jackie Robinson Playground. However, this alternative substantially reduces the magnitude, duration and extent of the significant adverse shadows impacts to Brooklyn Botanic Garden as compared to the Proposed Actions and the R8A with 26.38-Degree Sloping Plane Alternative (the Modified Text Amendment, ULURP No. N230357(A)ZRK). This alternative substantially reduces shadows to the greatest extent and to a point that

mitigation strategies become feasible, as the shadows impacts on specific resources within BBG are reduced or eliminated further described below and in the Mitigation Chapter.

DCP, acting on behalf of the CPC as lead agency for the environmental review, in consultation with NYC Parks, has determined the Alternatives 5, 6 and 7 (the R7X with 17-Degree Sloping Plane Alternative; the R7D with 15-Degree Sloping Plane Alternative; and the R7A with 10-Degree Slope Plane Alternative) all substantially reduce the magnitude, duration and extent of the significant adverse shadows impacts to Brooklyn Botanic Garden as compared to the Proposed Actions and the R8A with 26.38-Degree Sloping Plane Alternative (the Modified Text Amendment, ULURP No. N230357(A)ZRK). Alternatives 5, 6, and 7 substantially reduce shadows (with Alternative 7, the R7A with 10-Degree Sloping Plane Alternative identifying the greatest reduction) to a point that mitigation strategies become feasible, as the shadows impacts on specific resources within BBG are reduced or eliminated.– In conjunction with adoption of a Proposed Action Alternative which reduces the potential for shadows impacts to the Brooklyn Botanic Garden, the significant adverse shadow impact on the Brooklyn Botanic Garden could be partially mitigated by the applicant contributing to improve structures in the nursery yard that remain impacted by shadows. The Applicant will enter into a Restrictive Declaration that would require these measures. Because the significant adverse shadow impact would not be fully mitigated, adoption of any of the Sloping Plane Alternatives (4, 5, 6 and 7) in conjunction with the mitigation measures described above and in the Mitigation Chapter would result in an unavoidable significant adverse shadow impact on Brooklyn Botanic Garden.

Additionally, because the shadows diagrams, impact determinations and mitigations are based on a specific base plane as demonstrated in the Shadows and Alternatives chapters, this specific base plane from which the analysis was conducted will be codified in the RD as a component of the shadows mitigations in conjunction with the alternatives presented here. The base plane shall be defined as 87.38 feet above sea level NAVD88.

No Unmitigated Significant Adverse Impacts Alternative

The No Unmitigated Significant Adverse Impacts Alternative examines a scenario in which the density and other components of the Proposed Project are changed specifically to avoid unmitigated significant adverse impacts. As presented in **Chapter 11, "Mitigation,"** and **Chapter 13, "Unavoidable Adverse Impacts,"** there is the potential for the Proposed Project to result in unmitigated significant adverse impacts related to shadows,[1] open space, natural resources, and construction (noise). Overall, in order to eliminate all unmitigated significant adverse impacts, the Proposed Project would have to be modified to a point where the principal goals and objectives would not be realized.

C. NO-ACTION ALTERNATIVE

The No-Action Alternative assumes that the Proposed Project is not implemented. This includes no zoning map amendment, no zoning text amendment, and no special permit to reduce required parking. Conditions under this alternative are similar to the "Future without the Proposed Actions" described in the preceding chapters, which are compared in the following sections to conditions under the Proposed Project. The No-Action Alternative incorporates known development projects in the surrounding area that are likely to be built by the analysis year of 2027.

Under the No-Action Alternative, it is anticipated that an as-of-right residential development would be constructed on the Proposed Development Site (Lots 63 and 66) pursuant to the existing R6A zoning under future No-Action conditions. The R6A zoning district permits 3.0 FAR with a maximum base height of 60 feet and a maximum building height of 70 feet. As described above, the No-Action development would include a seven-story residential building containing approximately 168 DUs (177,716 gsf) and 84 accessory off-street parking spaces. The 84 accessory off-street parking spaces would be in compliance with the R6A district's requirement for parking for 50 percent of the building's market-rate units.

The effects of the No-Action Alternative in comparison to those of the Proposed Project are provided below.

Land Use, Zoning, and Public Policy

Under the No-Action Alternative, it is anticipated that ~~the existing building on the Proposed Development Site would be demolished and~~ a new residential development would be constructed on-site pursuant to existing zoning. The No-Action development would introduce new residential uses on a site that has been primarily vacant, a portion of the site has been used most recently for spice processing, warehousing, and distribution. Approximately 177,716 gsf of residential uses would be developed, with approximately 168 market-rate condominiums and approximately 84 parking spaces, as described above. As such, the No-Action Alternative would result in a change of land use on the Proposed Development Site.

No changes to zoning or public policy are anticipated to the Project Area or the Proposed Development Site under the No-Action Alternative. Under this alternative, the existing R6A zoning classification of the Project Area would remain and no zoning special permits or other land use actions would be required. In addition, the zoning text amendment to establish the Project Area as a Mandatory Inclusionary Housing (MIH) area would not be established and no mandatory affordable housing would be developed.

It is the Applicant's opinion that unlike the Proposed Project, the No-Action Alternative would not improve land use conditions in the study area by expanding housing opportunities and mandating the creation of affordable housing and introducing local retail uses to the area. Further, the Applicant believes that the pedestrian experience would not be enhanced without active retail uses. In addition, the Applicant believes that the No-Action Alternative would be less supportive of public policies articulated in *Housing New York*, PlaNYC, and *OneNYC* that aim toward increasing the supply of housing in the city, reclaiming underutilized land, and expanding access to affordable housing.

While the Applicant believes that the No-Action Alternative does not achieve the beneficial land use changes that would result with the Proposed Project, neither the Proposed Project nor the No-Action Alternative would result in significant adverse impacts related to land use, zoning, and public policy, as described in **Chapter 2, "Land Use, Zoning, and Public Policy."**

Socioeconomic Conditions

Neither the No-Action Alternative nor the Proposed Project would be expected to have a significant adverse impact on socioeconomic conditions. Similar to the Proposed Project, the No-Action Alternative would not result in direct residential or business displacement. While a portion of the Proposed Development Site currently supports an existing business operation, the Applicant has indicated that they have an accepted purchase agreement and the existing business would vacate the property regardless of the Proposed Actions.

New residential developments are anticipated in the socioeconomic conditions study area in both the future with the Proposed Project and under the No-Action Alternative, and demand for residential development in Crown Heights is expected to continue to rise. Unlike the Proposed Project, under the No-Action Alternative, the Proposed Development Site would not be designated an MIH area, and no units of affordable housing would be constructed. As a result, the benefits of the Proposed Project, in which the Applicant intends to provide new affordable housing to the area that would help maintain deeper affordability in Crown Heights' housing stock, would not be realized under the No-Action Alternative as described in **Attachment C, "Socioeconomic Conditions,"** of the Environmental Assessment Statement (EAS).

Community Facilities and Services

As described in **Attachment B, "Supplemental Screening,"** of the EAS, the Proposed Project would not result in direct or indirect significant adverse impacts to community facilities. As the No-Action Alternative would be built to a lesser density than the Proposed Project, the No-Action Alternative would not result in significant adverse impacts to community facilities.

Open Space

Under the No-Action Alternative, a new market-rate residential development with 168 units would occur on the Proposed Development Site. Approximately 424 residents and six workers would be introduced to the area as a result of the as-of-right development on the Proposed Development Site. Similar to existing conditions, the total, active, and passive open space ratios under the No-Action alternative would remain above the City's community district median and the City's optimal planning guidelines (refer to Table 3-7). The No-Action Alternative would cast shadows on two sunlight sensitive resources, the Brooklyn Botanic Garden and Jackie Robinson Playground. Shadows from the No-Action Alternative would be limited to the early morning hours of each of the four representative analysis days and would not cast any shadow on any greenhouse. Shadow from the No-Action Alternative would be cast on Jackie Robinson Playground in the afternoon hours of each representative analysis day. Shadows from the No-Action Alternative would not substantially affect the usability or enjoyment of either open space.

Shadows/Natural Resources

Under the No-Action Alternative, a 168-unit market-rate residential development would occupy the Proposed Development Site. The R6A zoning district permits 3.0 FAR with a maximum base height of 60 feet and a maximum building height of 70 feet. The longest shadow cast would extend approximately 301 feet and, as such, would have the potential to reach the Jackie Robinson Playground and the Brooklyn Botanic Garden. With the existing four- and six-story buildings located on Washington Avenue to the west of the Proposed Development Site, there would be minimal incremental shadows cast to the west as a result of the No-Action Alternative. Shadows cast by the No-Action Alternative would be limited to small portions of the garden in the early morning hours. ~~No shadow would be cast on any sensitive greenhouses.~~ Shadows cast to the east as a result of the No-Action Alternative would result in afternoon shadows on the Jackie Robinson Playground; however, the incremental shadows would be limited in size and would not substantially affect the usability or enjoyment of the playground. Therefore, as shadows from the No-Action Alternative would not ~~reach any sensitive greenhouses in the Brooklyn Botanic Garden, or~~ affect the usability and enjoyment of the Jackie Robinson Playground, no significant adverse impacts would occur under the No-Action Alternative.

Historic and Cultural Resources

As described in **Attachment B, "Supplemental Screening,"** of the EAS, the Proposed Project would not result in direct or indirect significant adverse impacts to historic and cultural resources. As the No-Action Alternative would be built on the same Proposed Development Site, to a lesser density and height than the Proposed Project, the No-Action Alternative would not result in significant adverse impacts to historic and cultural resources.

Urban Design and Visual Resources

As under future conditions with the Proposed Project, no significant adverse impacts to urban design and visual resources would occur in the No-Action Alternative. Under the No-Action Alternative, the Proposed Development Site would provide increased foot traffic and a unified streetwall that does not exist at the underutilized site under existing conditions. However, there would not be any local retail uses at the site under the No-Action Alternative.

Hazardous Materials

As under the Proposed Project, the No-Action Alternative would not result in significant adverse hazardous materials impacts. Under the No-Action Alternative, the Proposed Development Site would be redeveloped in accordance with the applicable NYC DOB guidance in terms of safe building demolition and site redevelopment methods. Therefore, there would be no potential for contact with subsurface contamination and no significant risk of human exposure.

Water and Sewer Infrastructure

Neither the Proposed Project nor the No-Action Alternative would result in significant adverse impacts on the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. Compared with the Proposed Project, the No-Action Alternative would generate less demand on the City's water supply and wastewater treatment infrastructure.

Energy

Neither the Proposed Project nor the No-Action Alternative would result in significant adverse impacts with respect to the transmission or generation of energy. The demand generated under the No-Action Alternative would be considerably less than for the Proposed Project. However, under both the Proposed Project and the No-Action Alternative, the annual increase in demand would represent a negligible amount of the City's forecasted annual energy requirements for 2027.

Transportation

As described in **Attachment F, "Transportation,"** of the EAS, the Proposed Project would not result in direct or indirect significant adverse impacts to traffic, pedestrians, transit, or parking. As the No-Action Alternative would be built on the same site to a lesser density and height than the Proposed Project, the No-Action Alternative would not result in significant adverse impacts to traffic, pedestrians, transit, or parking.

Air Quality

Under the No-Action Alternative, a new 168-unit market-rate residential development and an on-site accessory parking garage would be constructed on the Proposed Development Site containing approximately 84 accessory parking spaces. As such there would be a new source of stationary source air quality emissions and a new emissions source from the parking garage on the Proposed Development Site. As the size of the accessory-parking garage would be larger in the No-Action condition than in the Proposed Project, the No-Action condition may result in more vehicles and higher emissions concentrations than the Proposed Project. However, the potential for significant adverse impacts is unlikely given the No-Action Alternative's garage is less than 85 spaces, the threshold identified for analysis in Table 16-1 of the *CEQR Technical Manual*.

Under the No-Action condition, a 70-foot-tall building of approximately 177,716 gsf would be constructed at the Proposed Development Site. The closest building taller than the No-Action development is the 119-foot tall building at 1 Sullivan Place. 1 Sullivan Place is approximately 160 feet south of the Proposed Development Site. As shown in **Figure 12-1** (based on Figure 17-3 of the *CEQR Technical Manual*), the No-Action Alternative would be above the screening curve for fossil fueled fired HVAC systems. Since the No-Action condition would be developed as-of-right, it would not be subject to environmental review.

~~Under the No-Action condition, a 70-foot-tall building of approximately 177,716 gsf would be constructed at the Proposed Development Site. The closest building taller than the No-Action development is the 175-foot tall building at 40 Crown Street. 40 Crown Street is approximately 350 feet north of the Proposed Development Site. As shown in **Figure 12-1** (based on Figure 17-3 of the *CEQR Technical Manual*), the No-Action Alternative would be below the screening curve for fossil fueled fired HVAC systems. Therefore, no stationary source air quality significant adverse impacts would occur.~~

Additionally, mobile source emissions from traffic on surrounding roadways decrease when compared to the Proposed Project. As the No-Action Alternative would result in less mobile source emissions (i.e., fewer incremental vehicle trips) than the Proposed Project, significant adverse mobile source impacts are unlikely under the No-Action Alternative.

Greenhouse Gas Emissions and Climate Change

As the No-Action Alternative would result in a new 168-unit market-rate residential development, it would be smaller than the Proposed Project. As such, it would use less energy than the Proposed Project and would, therefore, result in fewer carbon dioxide equivalent (CO_2e) emissions per year. Neither the Proposed Project nor the No-Action Alternative would result in significant adverse greenhouse gas (GHG) emission or climate change impacts.

Noise

Under the No-Action Alternative, a new 168-unit market-rate residential development would occur on the Proposed Development Site. No other sources of noise would be created on the Proposed Development Site. The noise levels from mobile sources on surrounding roadways would increase due to general background traffic growth and new developments in the surrounding area, as well as the 168-unit residential development, when compared to noise levels under existing conditions, but would be lower than future conditions with the Proposed Project. As presented in **Attachment H, "Noise,"** of the EAS, under the Proposed Project no significant adverse noise impacts would occur. As the No-Action



160' from nearest building taller than 70'

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Figure 12-1

Stationary Source Screen - No-Action Alternative

Alternative would result in fewer vehicle trips near the Project Area's noise receptor locations, the No-Action Alternative would not result in any significant adverse impacts to noise.

Public Health

Similar to the Proposed Project, the No-Action Alternative would not result in any unmitigated significant adverse impacts in any of the technical areas related to public health. According to the *CEQR Technical Manual*, actions that do not result in unmitigated significant adverse impacts related to air quality, water quality, hazardous materials, or noise typically do not warrant a public health analysis. As the No-Action Alternative does not have the potential to cause any significant adverse impacts in those areas, it would not have any significant adverse impacts on public health.

Neighborhood Character

According to the *CEQR Technical Manual*, a proposed project could have a significant adverse neighborhood character impact if it would have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact in any relevant technical area, or through a combination of moderate effects in those technical areas. Similar to the Proposed Project, the No-Action Alternative would not cause significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; transportation; or noise. The No-Action Alternative would also not result in any significant adverse impacts to open space; shadows; or natural resources. As such, the No-Action Alternative would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature. A new 168-unit market-rate residential development would occur under the No-Action Alternative and the overall neighborhood character of the area would continue to trend toward increased residential and local retail uses on vacant and underutilized sites under the No-Action Alternative. The study area would continue to be characterized by its evolving mix of land uses and building types, and its location in an area with low pedestrian volumes. Neither the Proposed Project nor the No-Action Alternative would result in significant adverse impacts to neighborhood character.

Construction

As discussed above, the No-Action Alternative would result in a new as-of-right residential development with 168 new market-rate units on the Proposed Development Site and therefore would result in temporary increases in construction worker demand on the transportation network of the surrounding area, and new sources of construction-related air quality or noise emissions. As compared to the Proposed Project, the No-Action Alternative would result in a shorter overall construction schedule and would have less construction noise and less on-site construction equipment and construction-related traffic generating emissions. The No-Action Alternative would not result in any significant adverse construction impacts.

D. R7D ALTERNATIVE

The ~~Applicant has proposed~~Applicant has analyzed an alternative pursuant to a R7D zoning district to create a development (the "R7D Alternative") that results in fewer significant adverse impacts than would occur under the Proposed Project. The R7D Alternative would consist of 402 DUs (101 of which would be permanently affordable through the MIH Program) and 8,470 gsf of local retail space. The R7D Alternative

would include 377,012 gsf and would be built to an FAR of 5.6 as permitted under the City of Yes for Housing Opportunity. The R7D Alternative would comply with all R7D zoning bulk and parking regulations and would stand at a maximum height of 11 stories or 115 feet (not including mechanical bulkhead).[3] **Figure 12-2** includes an axonometric diagram of the R7D Alternative.

As shown in **Table 12-1**, the R7D Alternative would result in approximately 73 fewer total DU, 55 fewer market-rate DU, and 18 fewer affordable DU than the Proposed Project. The R7D Alternative would have approximately 342 gsf of additional local retail space compared to the Proposed Project. The R7D Alternative would have 184 fewer residents and two fewer workers than the Proposed Project.

TABLE 12-1
Comparison of the Proposed Project and R7D Alternative

Use	Proposed Project	R7D Alternative	Increment
Residential			
Market-Rate Dwelling Units	356 (~314,509.5 gsf)	301 (~244,986 gsf)	**-55 (~69,523.5 gsf)**
Affordable Dwelling Units	119 (~104,836.5.5 gsf)	101 (~81,662 gsf)	**-18 (~23,174.5 gsf)**
TOTAL	**475 (419,346 gsf)**	**402 (326,648 gsf)**	**-73 (~92,698 gsf)**
Local Retail	8,128 gsf	8,470 gsf	**+342 gsf**
Parking	71 spaces (30,101 gsf)	79 spaces (29,760 gsf)	**+8 spaces (-141 gsf)**
Population/Employment[1]	**With-Action Scenario**	**With-Action Scenario**	**Increment**
Residents	1,197	1,013	**-184**
Workers	43	41	**-2**

Notes:
[1] Assumes 2.52 persons per ~~affordable~~ DU (based on 2020 U.S. Census data for Brooklyn Community District 9). Estimate of workers is based on standard rates and are as follows: 1 worker per 25 dwelling units; 3 workers per 1,000 sf retail space.

The effects of the R7D Alternative in comparison to those of the Proposed Project are provided below for each technical area.

Land Use, Zoning, and Public Policy

Under the R7D Alternative, it is anticipated that ~~the existing building on the Proposed Development Site would be demolished and~~ a new residential development would be constructed on-site pursuant to R7D zoning. The R7D Alternative would introduce new residential uses on a site that has been primarily vacant, a portion of the site has been used most recently for spice processing, warehousing, and distribution. Approximately 402 DUs would be developed with approximately 301 market-rate units and approximately 101 permanently affordable units through the MIH Program, described above. As such, the R7D Alternative would not result in a change of land use on the Proposed Development Site relative to the Proposed Project. The R7D Alternative would incorporate approximately 73 fewer DUs than the Proposed Project and would offer a similar amount of local retail uses and off-street parking.

Under this alternative, the Project Area would be rezoned to R7D, a medium-density residential district that permits a maximum FAR of 5.6. The zoning text amendment to establish the Project Area as a Mandatory Inclusionary Housing (MIH) area would still be established and approximately 101 DUs of mandatory affordable housing would be developed. No zoning special permits would be required.

It is the Applicant's opinion that the R7D Alternative would be supportive of public policies articulated in *Housing New York*, PlaNYC, and *OneNYC* that aim toward increasing the supply of housing in the city, reclaiming underutilized land, and expanding access to affordable housing. However, this would be to a

[3] The shadows analysis below conservatively assumes that the entire 11-story portion of the R7D Alternative would be raised 35-feet to incorporate the 35-foot bulkhead allowance as part of the City of Yes for Carbon Neutrality zoning text amendment adopted in December 2023.

Massing at Lot 63 & 66 - R7D
11 Story / 5.60 FAR

GFA: 377,012 SF
ZFA: 289,957 SF (FAR 5.60)
Units: Approx. 402 Units

Parking Spaces Provided
Total Approx. 79 Spaces



*For Illustrative Purposes only

lesser degree than the Proposed Actions, given that the total number of new housing units would be 402 units instead of 475 units with the Proposed Project, and the affordable housing units would be 101 DUs instead of 119 DUs with the Proposed Project, a loss of 18 affordable units.

As described in **Chapter 2, "Land Use, Zoning, and Public Policy,"** the Proposed Project would not result in any significant adverse impacts to land use, zoning, or public policy. As the R7D Alternative would include similar uses to the Proposed Project, with residential uses included at a lower density, along with a similar amount of local retail space, the R7D Alternative would not result in any significant adverse impacts related to land use, zoning, and public policy.

Socioeconomic Conditions

Similar to the Proposed Project, the R7D Alternative would not be expected to have a significant adverse impact on socioeconomic conditions. Similar to the Proposed Project, the R7D Alternative would not result in direct residential or business displacement. While a portion of the Proposed Development Site currently supports an existing business operation, the Applicant has indicated that they have an accepted purchase agreement and the existing business would vacate the property regardless of the Proposed Actions.

New residential developments are anticipated in the socioeconomic conditions study area in both the future with and without the Proposed Actions, and demand for residential development in Crown Heights is expected to continue to rise. The Project Area would also be designated as an MIH area under the R7D Alternative. As discussed above, under the R7D Alternative, 101 DUs of permanently affordable housing through the MIH program would be constructed.

The residential units that would be constructed under the R7D Alternative would not result in indirect residential displacement by introducing a trend or accelerating a trend that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. The affordable housing units added by the R7D Alternative would maintain a diverse demographic composition within the study area and would further expand the supply of affordable housing for current and future residents. The affordable housing units would help to ensure that a considerable portion of the new households would have incomes that would more closely reflect the incomes of existing households in the study area and help ensure that the neighborhood continues to serve diverse housing needs. Therefore, the R7D Alternative would not introduce a new trend or accelerate an existing trend of changing conditions in a manner that would have the potential to substantially change the socioeconomic character of the neighborhood.

Therefore, similar to the Proposed Project and the findings of **Attachment C, "Socioeconomic Conditions,"** of the EAS, the R7D Alternative would not result in any significant adverse impacts to Socioeconomic Conditions.

Community Facilities and Services

As described in **Attachment B, "Supplemental Screening,"** of the EAS, the Proposed Project would not result in direct or indirect significant adverse impacts to community facilities. As the R7D Alternative would be built to a lesser density than the Proposed Project, the R7D Alternative would not result in significant adverse impacts to community facilities.

Open Space

As discussed in **Chapter 3, "Open Space,"** the Proposed Project would result in a direct open space significant adverse impact as a result of shadows cast by the Proposed Project. The Proposed Project would not result in significant adverse indirect impacts to open space in the surrounding area as a result of the increased population. As the R7D Alternative would result in fewer residents in the Project Area, the R7D Alternative would also not result in indirect significant adverse impacts to open space.

For a discussion on direct effects of the R7D Alternative on nearby open space resources, refer to the discussion below on shadows.

Shadows/Natural Resources

As described in **Chapter 3, "Open Space," Chapter 4, "Shadows," and Chapter 5, "Natural Resources,"** the Proposed Project would result in significant adverse impacts due to direct shadows effects on open space and natural resources in the Brooklyn Botanic Garden and Jackie Robinson Playground.

As described above, the ~~Applicant has proposed~~Applicant has analyzed an 11-story, 115-foot-tall R7D Alternative in an effort to reduce the significant adverse impacts identified as a result of the Proposed Project. Consistent with the analysis in **Chapter 4, "Shadows,"** the R7D Alternative assumes the inclusion of a 35-foot bulkhead on each of the 11-story portions of the R7D Alternative. The R7D Alternative would cast shadows on the Brooklyn Botanic Garden and the Jackie Robinson Playground, similar to the Proposed Project.

Brooklyn Botanic Garden

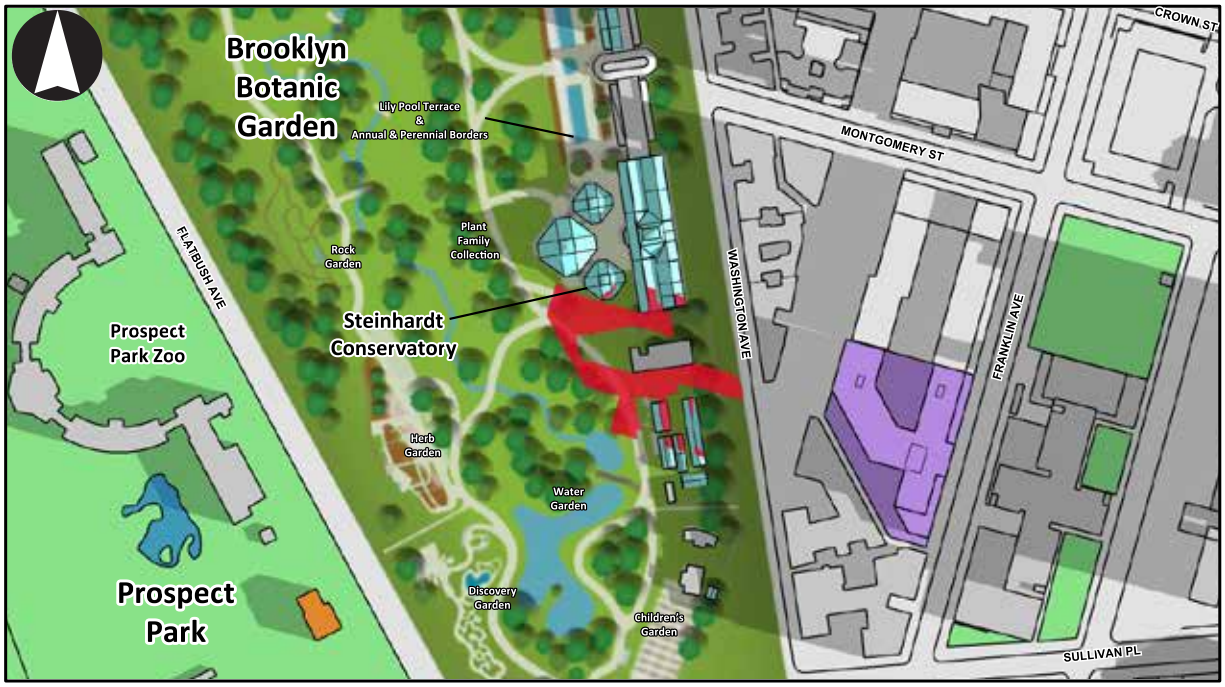
Under the R7D Alternative, incremental shadows would be cast over several of the affected greenhouses in the Brooklyn Botanic Garden used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. Incremental shadows from the R7D Alternative would be cast over this sunlight-sensitive resource on each of the four analysis days. As shown in **Table 12-2**, incremental shadows from the R7D Alternative would range on the Brooklyn Botanic Garden from 52 minutes on the December 21 analysis day (8:51 – 9:43 AM) to two hours and 15 minutes on the June 21 analysis day (5:57 – 8:12 AM). Refer to **Figures 12-3** through **12-6**.

Individual resources within the Brooklyn Botanic Garden (Resources A through V in **Table 12-2**) would experience incremental shadows ranging from two minutes to two hours and 15 minutes. Compared to the Proposed Project, the R7D Alternative would result in decreases of incremental shadow duration of up to 42 minutes (the Hardy Plant Nursery Yard) (refer to **Table 12-2**).

The R7D Alternative would not result in any increases in incremental shadow over the Proposed Project on any resources within the garden. Greenhouses within the Brooklyn Botanic Garden are used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. While the *CEQR Technical Manual* states that six to eight hours of sunlight is necessary for plant survival, the Brooklyn Botanic Garden contains over 18,500 kinds of plants, with globally rare species and native rare species. The minimum sunlight needed to constitute survival may not be enough to promote healthy growth of these rare plants, and as the *CEQR Technical Manual* states, each project must take into account its unique circumstances. DCP, acting as Lead

Figure 12-3a

R7D Alternative - Brooklyn Botanic Gardens
Incremental Shadows on March 21/September 21



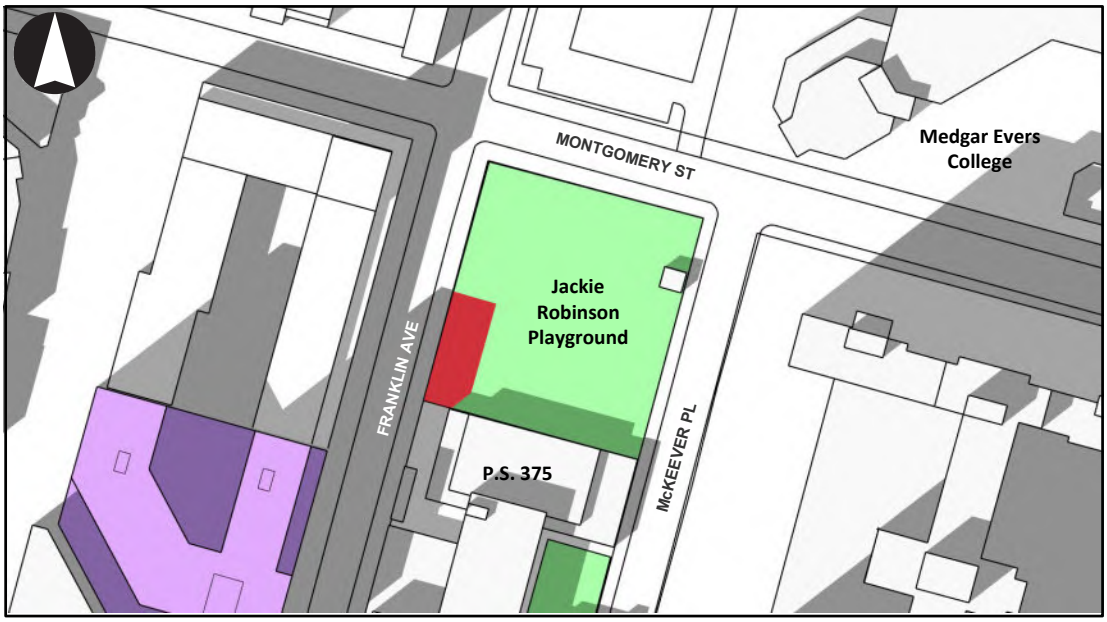
7:36 AM



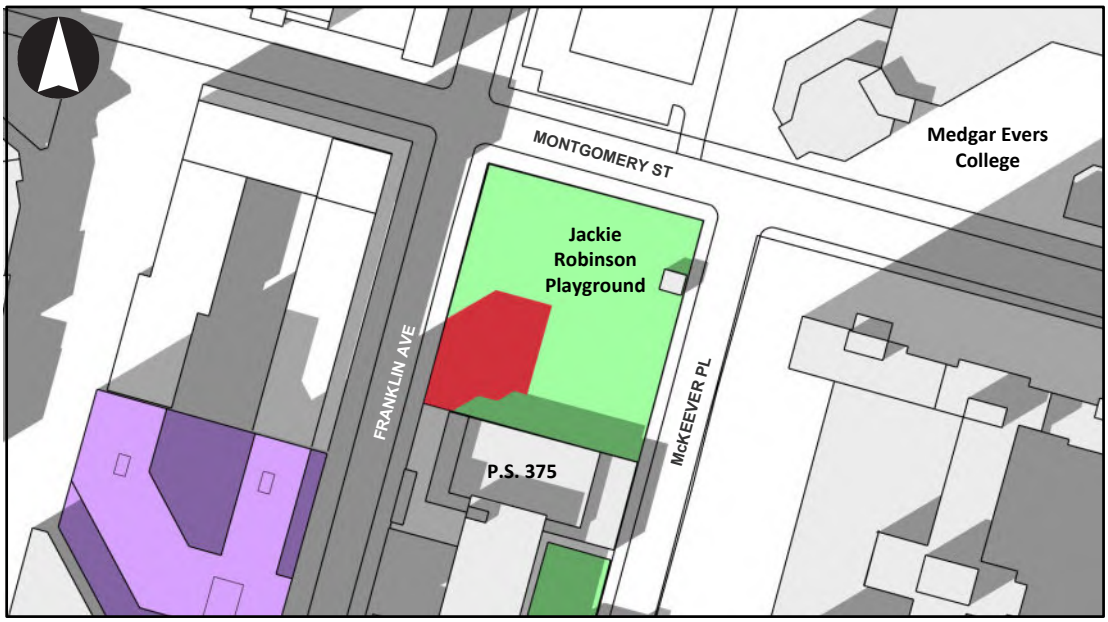
8:30 AM

R7D Alternative
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

R7D Alternative - Jackie Robinson Playground
Incremental Shadows on March 21/September 21



2:45 PM

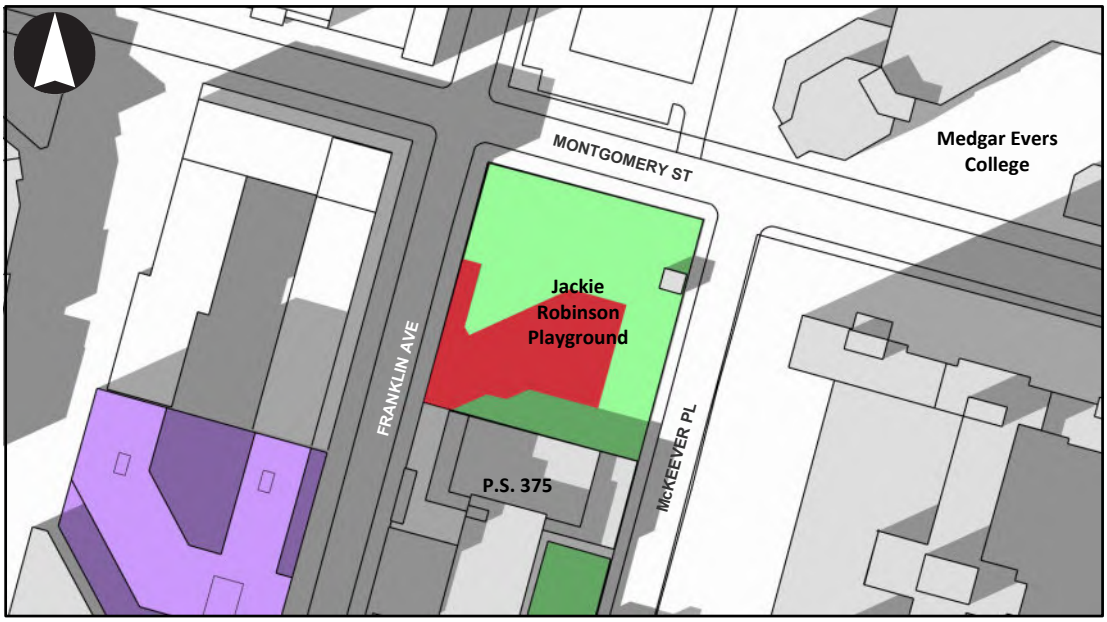


3:15 PM

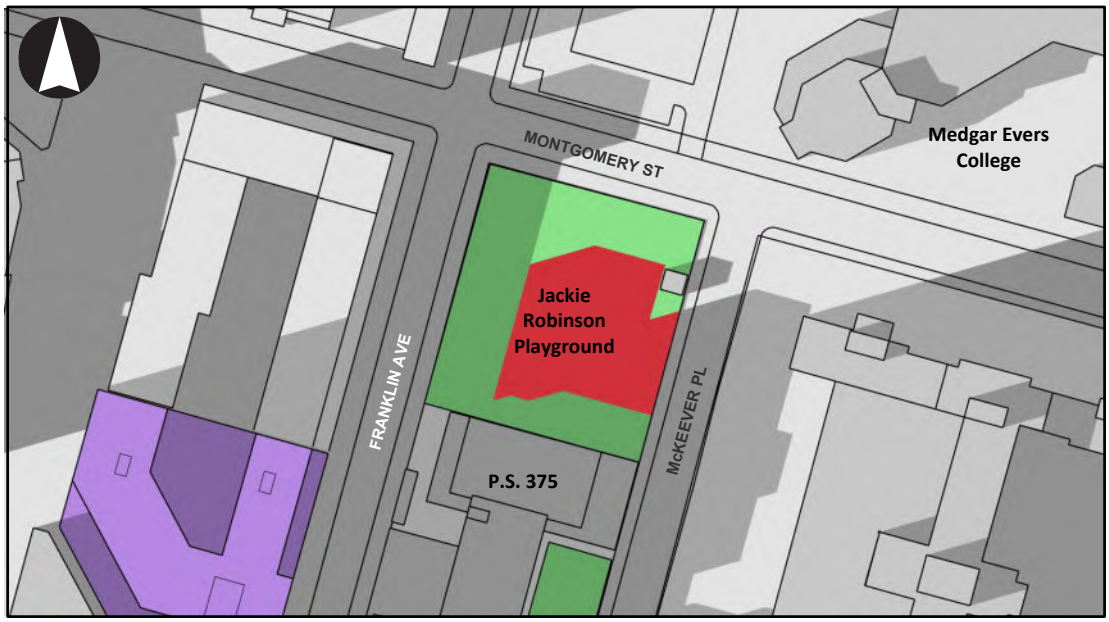
R7D Alternative | Open Space | Incremental Shadow

Figure 12-3c

R7D Alternative - Jackie Robinson Playground
Incremental Shadows on March 21/September 21



3:45 PM



4:29 PM

R7D Alternative | Open Space | Incremental Shadow

Figure 12-4a

R7D Alternative - Brooklyn Botanic Gardens
Incremental Shadows on May 6/August 6



6:27 AM

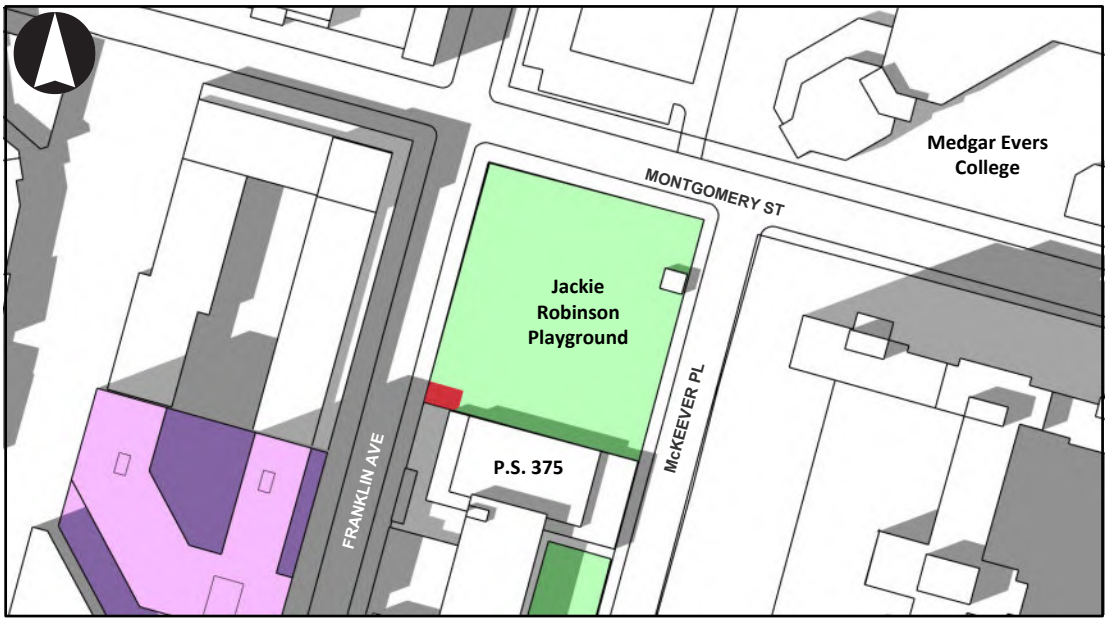


8:00 AM

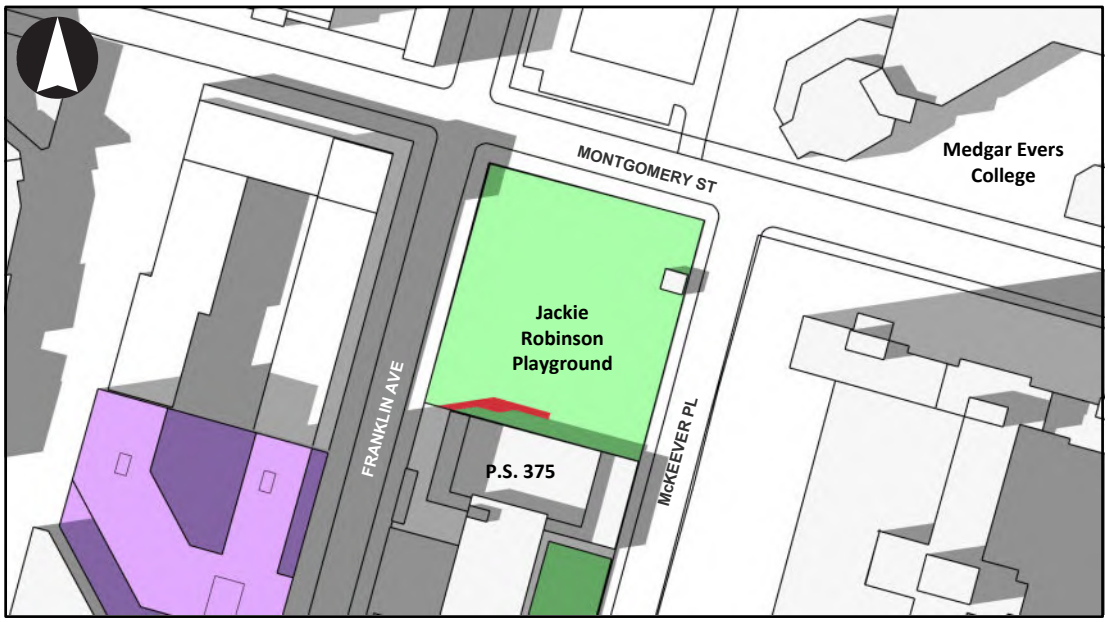
R7D Alternative
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Figure 12-4b

R7D Alternative - Jackie Robinson Playground
Incremental Shadows on May 6/ August 6



2:45 PM



3:45 PM

R7D Alternative **Open Space** **Incremental Shadow**

Figure 12-4c

R7D Alternative - Jackie Robinson Playground
Incremental Shadows on May 6/ August 6



4:45 PM

R7D Alternative | Open Space | Incremental Shadow

Figure 12-5a

R7D Alternative - Brooklyn Botanic Gardens
Incremental Shadows on June 21



5:57 AM



6:45 AM

R7D Alternative	Open Space	Historic Resource
Greenhouse Facility	Incremental Shadow	Water Feature

Figure 12-5b

R7D Alternative - Brooklyn Botanic Gardens
Incremental Shadows on June 21



7:45 AM

R7D Alternative
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

R7D Alternative - Brooklyn Botanic Gardens
Incremental Shadows on December 21



8:51 AM



9:30 AM

R7D Alternative
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Figure 12-6b

R7D Alternative - Jackie Robinson Playground
Incremental Shadows on December 21



1:53 PM



2:53 PM

R7D Alternative | Open Space | Incremental Shadow

Agency, in consultation with NYC Parks finds that the R7D Alternative would result in significant adverse impacts to the Brooklyn Botanic Garden ~~due to the unique nature of the resource~~.

Jackie Robinson Playground

As shown in **Table 12-2**, the R7D Alternative will cast incremental shadows on the Jackie Robinson Playground on three of the four representative analysis days. The R7D Alternative would not cast shadow on the June 21 analysis day, unlike the Proposed Project. Incremental shadow coverage under this Alternative would last between one hour and 10 minutes and two hours and 46 minutes. Compared to the Proposed Project, the R7D Alternative would result in decreases of incremental shadow duration between eight minutes and one hour and 41 minutes on the March 21/September 21, May 6/August 6, June 21, and December 21 analysis days.

As shown in **Figures 12-3** through **12-6**, incremental shadows from the R7D Alternative are expected to cast shadow on a passive area for seating, and areas for active uses including a playground and basketball courts. Based on the size and duration of incremental shadow on Jackie Robinson Playground, significant adverse impacts would occur. Incremental shadow from the R7D Alternative would occur over large portions of the park during the March 21/September 21 and December 21 analysis days. Therefore, as the extent and duration of the incremental shadows would (1) significantly reduce or completely eliminate direct sunlight exposure on any of the sunlight-sensitive resources found within this open space; and (2) would alter the public's use of the park, incremental shadows from the R7D Alternative on Jackie Robinson Playground would be considered a significant adverse impact, in accordance with CEQR Technical Manual methodology.

TABLE 12-2
Incremental Shadow Coverage – R7D Alternative (11-Story)

Resource #	Resource	Analysis Day	March 21/Sept. 21	May 6/August 6	~~21 Jun~~June 21	~~21 Dec~~December 21	Incremental Shadow Durations Compared to the Proposed Project (Table 4-6)			
			7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM	March 21/Sept. 21	May 6/August 6	21-Jun	21-Dec
1	Brooklyn Botanic Garden (Resources A-V)	Shadow enter-exit time	7:36 - 9:05 AM	6:27 - 8:22 AM	5:57 - 8:12 AM	8:51 - 9:43 AM	-31 minutes	- 38 minutes	-42 minutes	-20 minutes
		Incremental shadow duration	1 hour 29 minutes	1 hour 55 minutes	2 hours 15 minutes	52 minutes				
2	Jackie Robinson Playground	Shadow enter-exit time	2:15 - 4:29 PM	2:14 - 5:00 PM	-	1:43 - 2:53 PM	-32 minutes	-38 minutes	- 1 hour 41 minutes	-8 minutes
		Incremental shadow duration	2 hours 14 minutes	2 hour 46 minutes	-	1 hour 10 minutes				
3	Prospect Park	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
4	P.S. 375K Community Playground	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
A	Education Greenhouse: Desert Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-9 minutes
		Incremental shadow duration	-	-	-	-				
B	Education Greenhouse: Warm Temperate Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-11 minutes
		Incremental shadow duration	-	-	-	-				
C	Education Greenhouse: Tropical Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-13 minutes
		Incremental shadow duration	-	-	-	-				
D	Helen Mattin Warm Temperate Pavilion	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				

E	Tropical Pavilion	Shadow enter-exit time	-	-	-	-	-40 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
F	Desert Pavilion	Shadow enter-exit time	7:36 - 7:49 AM	-	-	-	-39 minutes	-	-	-
		Incremental shadow duration	13 minutes	-	-	-				
G	C.V. Starr Bonsai Museum	Shadow enter-exit time	-	-	-	8:51 - 8:59 AM	-	-	-	- 19 minutes
		Incremental shadow duration	-	-	-	8 minutes				
H	Conservatory Entry House	Shadow enter-exit time	-	-	-	8:51 - 8:53 AM	-14 minutes	-	-	-14 minutes
		Incremental shadow duration	-	-	-	2 minutes				
I	Aquatic House & Orchid Collection	Shadow enter-exit time	7:36 - 8:26 AM	-	-	-	-27 minutes	-	-	-
		Incremental shadow duration	50 minutes	-	-	-				
J	Desert, Mediterranean, South African Bulb (Arid) Workhouse	Shadow enter-exit time	-	-	-	8:51 - 9:27 AM		-	-	-7 minutes
		Incremental shadow duration	-	-	-	36 minutes				
K	Humid Tropics Workhouse	Shadow enter-exit time	-	-	-	8:51 - 9:19 AM		-	-	-9 minutes
		Incremental shadow duration	-	-	-	28 minutes				
L	Lowland Moist Tropical Orchid Workhouse	Shadow enter-exit time	-	-	-	8:51 - 9:08 AM	-41 minutes	-	-	-5 minutes
		Incremental shadow duration	-	-	-	17 minutes				
M	Highland Moist Tropical Orchid Workhouse	Shadow enter-exit time	7:59 - 8:33 AM	-	-	8:51 - 9:00 AM	-47 minutes	-	-	No Change
		Incremental shadow duration	34 minutes	-	-	9 minutes				
N		Shadow enter-exit time	7:36 - 8:37 AM	-	-	-	-37 minutes	-	-	-

	Tropical Plant Propagation House	Incremental shadow duration	1 hour 1 minute	-	-	-				
O	Tropical & Desert Plant Propagation House	Shadow enter-exit time	7:36 - 8:41 AM	-	-	-	-32 minutes	-	-	-
		Incremental shadow duration	1 hour 5 minutes	-	-	-				
P	Hardy Plant Nursery Yard	Shadow enter-exit time	7:36 - 8:49 AM	6:27 - 8:22 AM	5:57 - 8:12 AM	-	-15 minutes	-32 minutes	-42 minutes	-
		Incremental shadow duration	1 hour 13 minutes	1 hour 55 minutes	2 hours 15 minutes	-				
Q	Temperate Bonsai Tunnel	Shadow enter-exit time	7:36 - 7:57 AM	6:27 - 7:25 AM	5:57 - 7:15 AM	-	- 30 minutes	-33 minutes	-40 minutes	-
		Incremental shadow duration	21 minutes	58 minutes	1 hour 18 minutes	-				
R	Production House	Shadow enter-exit time	7:36 - 7:51 AM	6:27 - 7:11 AM	5:57 - 7:09 AM	-	No Change	-33 minutes	-32 minutes	-
		Incremental shadow duration	15 minutes	45 minutes	1 hour 12 minutes	-				
S	Tropical Bonsai House	Shadow enter-exit time	7:36 - 7:58 AM	6:27 - 7:22 AM	5:57 - 7:15 AM	-	No Change	-34 minutes	-38 minutes	-
		Incremental shadow duration	22 minutes	55 minutes	1 hour 18 minutes	-				
T	Auxiliary House	Shadow enter-exit time	-	6:27 - 7:18 AM	5:57 - 7:10 AM	-	-	-24 minutes	-38 minutes	-
		Incremental shadow duration	-	51 minutes	1 hour 13 minutes	-				
U	New York-Native Flora & Temperate Plant Propagation Tunnel	Shadow enter-exit time	7:36 - 8:11 AM	6:27 - 7:46 AM	5:57 - 7:41 AM	-	-31 minutes	-33 minutes	-37 minutes	-
		Incremental shadow duration	35 minutes	1 hour 19 minutes	1 hour 44 minutes	-				
V	Mediterranean Display Plants Tunnel	Shadow enter-exit time	-	6:32 - 7:12 AM	6:06 - 7:19 AM	-	-1 minute	-42 minutes	-30 minutes	-
		Incremental shadow duration	-	40 minutes	1 hour 13 minutes	-				

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *CEQR Technical Manual* guidance.
Table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.
[1] Keyed to **Figure 4-3**.

Historic and Cultural Resources

As described in **Attachment B, "Supplemental Screening,"** of the EAS, the Proposed Project would not result in direct or indirect significant adverse impacts to historic and cultural resources. As the R7D Alternative would be built on the same Proposed Development Site to a lesser density and height than the Proposed Project, the R7D Alternative would not result in significant adverse impacts to historic and cultural resources.

Urban Design and Visual Resources

The R7D Alternative would be constructed within the permitted zoning envelope of the R7D zoning district. The R7D district permits a maximum base height of 95 feet. After a 10-foot setback from wide streets and a 15-foot setback from narrow streets, developments in a R7D district can reach a maximum height of 115 feet (11 stories) not including permitted obstructions such as the mechanical bulkhead. The R7D Alternative would be approximately 30 feet shorter than the Proposed Project. The base height of the R7D Alternative would be 10 feet less than the Proposed Project.

Similar to the Proposed Project, the R7D Alternative would not result in any significant adverse impacts to urban design or visual resources. The R7D Alternative would be a building form that is similar to other recent developments in the area. The R7D Alternative would be constructed on an existing block and would not entail any changes to topography, open space, or natural features in the Project Area or secondary study area.

The R7D Alternative would not obstruct any significant viewsheds in the area, or substantially alter the pedestrian experience in the immediate vicinity of the Project Area. Therefore, the R7D Alternative would not result in any significant adverse impacts to visual resources.

Hazardous Materials

As under the Proposed Project, the R7D Alternative would not result in significant adverse hazardous materials impacts. The R7D Alternative would be developed in accordance with the applicable NYC DOB guidance in terms of safe building demolition and site redevelopment methods. Therefore, there would be no potential for contact with subsurface contamination and no significant risk of human exposure.

Water and Sewer Infrastructure

Neither the Proposed Project nor the R7D Alternative would result in significant adverse impacts on the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. Compared with the Proposed Project, the R7D Alternative would generate less demand on the City's water supply and wastewater treatment infrastructure.

Energy

Neither the Proposed Project nor the R7D Alternative would result in significant adverse impacts with respect to the transmission or generation of energy. The demand generated under the R7D Alternative would be less than the Proposed Project. However, under both the Proposed Project and the R7D

Alternative, the annual increase in demand would represent a negligible amount of the City's forecasted annual energy requirements for 2027.

Transportation

As described in **Attachment F, "Transportation,"** of the EAS, the Proposed Project would not result in direct or indirect significant adverse impacts to traffic, pedestrians, transit, or parking. As the R7D Alternative would be built on the same site, to a lesser density than the Proposed Project, the R7D Alternative would not result in significant adverse impacts to traffic, pedestrians, transit, or parking.

Air Quality

Under the R7D Alternative, a new 402-unit mixed-use residential and local retail development and an on-site accessory parking garage would be constructed on the Proposed Development Site containing approximately 79 accessory parking spaces. As such there would be a new source of stationary source air quality emissions and a new emissions source from the parking garage on the Proposed Development Site. As the size of the accessory-parking garage would be larger in the R7D Alternative than in the Proposed Project, the R7D Alterative may result in higher emissions concentrations than the Proposed Project. However, the potential for significant adverse impacts is unlikely given the R7D Alternative's garage is less than 85 spaces, the threshold identified for analysis in Table 16-1 of the *CEQR Technical Manual*.

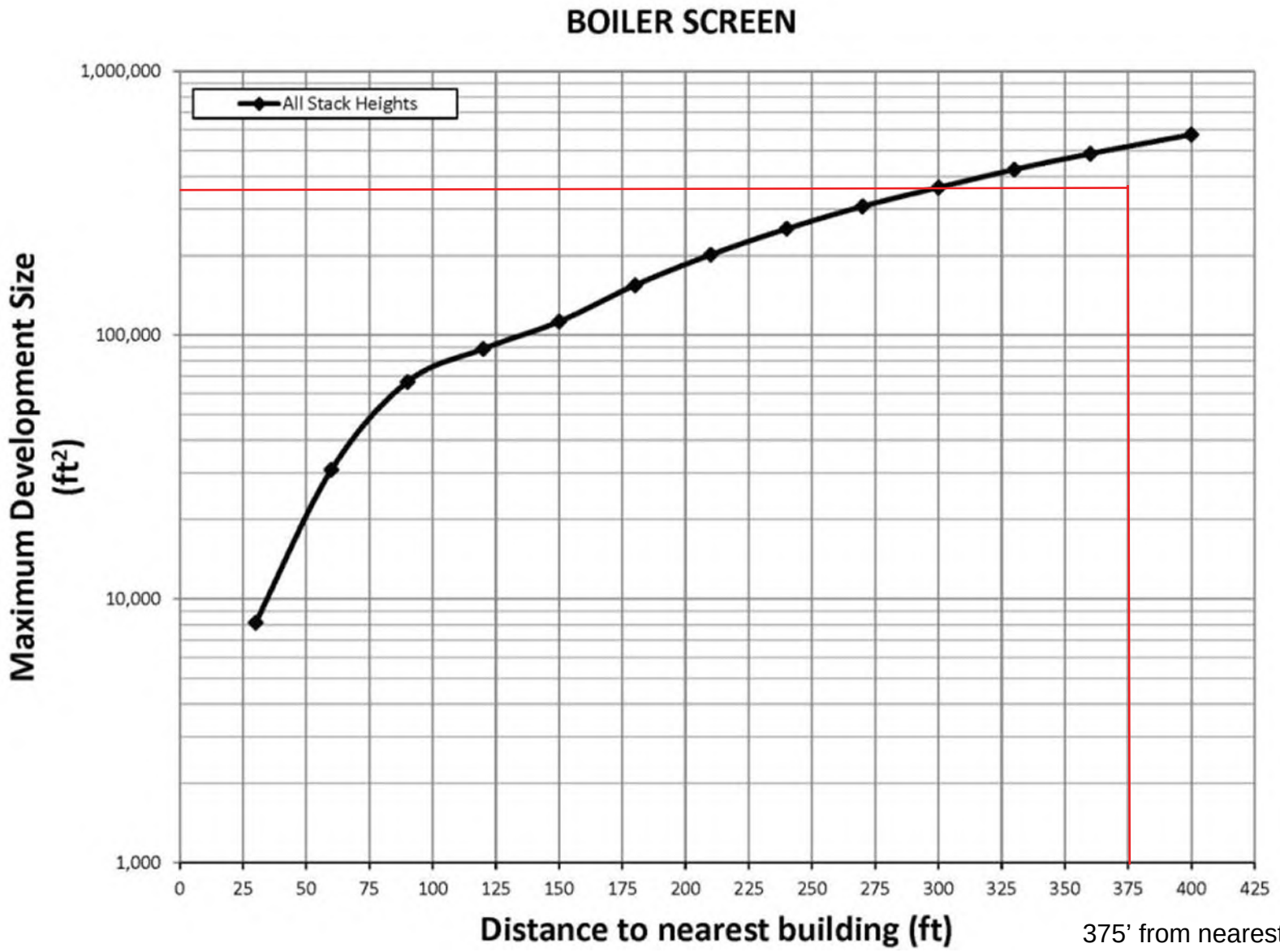
Under the R7D Alternative, a 150-foot-tall building (including bulkhead) of approximately 377,012 gsf would be constructed at the Proposed Development Site. The closest building taller than the R7D Alternative is the 211-foot tall building at 1720 Bedford Avenue. 1720 Bedford Avenue is approximately 375 feet east of the Proposed Development Site. As shown in **Figure 12-7** (based on Figure 17-3 of the *CEQR Technical Manual*), the R7D Alternative would be below the screening curve for fossil fueled fired HVAC systems. Therefore, no stationary source air quality significant adverse impacts would occur.

~~Under the R7D Alternative, a 115-foot-tall building of approximately 377,012 gsf would be constructed at the Proposed Development Site. The closest building taller than the R7D Alternative is the 175-foot tall building at 40 Crown Street. 40 Crown Street is approximately 350 feet north of the Proposed Development Site. As shown in **Figure 12-7** (based on Figure 17-3 of the *CEQR Technical Manual*), the R7D Alternative would be below the screening curve for fossil fueled fired HVAC systems. Therefore, no stationary source air quality significant adverse impacts would occur.~~

Additionally, mobile source emissions from traffic on surrounding roadways decrease when compared to the Proposed Project. As the R7D Alternative would result in less mobile source emissions (i.e., fewer incremental vehicle trips) than the Proposed Project, significant adverse mobile source impacts are unlikely under the R7D Alternative.

Greenhouse Gas Emissions and Climate Change

As the R7D Alternative would result in a new 402-unit mixed-use residential and local retail development, it would be smaller than the Proposed Project. As such, it would use less energy than the Proposed Project and would, therefore, result in fewer carbon dioxide equivalent (CO_2e) emissions per year. Neither the Proposed Project nor the R7D Alternative would result in significant greenhouse gas (GHG) emission or climate change impacts.



375' from nearest building taller than 150'

Noise

Under the R7D Alternative, a new 402-unit mixed-use development would occur on the Proposed Development Site. No other sources of noise would be created on the Proposed Development Site. The noise levels from mobile sources on surrounding roadways would decrease compared to the Proposed Project, as the R7D Alternative would include approximately 73 less DU. As presented in **Attachment H, "Noise,"** of the EAS, under the Proposed Project no significant adverse noise impacts would occur. As the R7D Alternative would result in fewer vehicle trips near the Project Area's noise receptor locations, the R7D Alternative would not result in any significant adverse impacts to noise.

Public Health

Similar to the Proposed Project, the R7D Alternative would not result in any unmitigated significant adverse impacts in any of the technical areas related to public health. According to the *CEQR Technical Manual*, actions that do not result in unmitigated significant adverse impacts related to air quality, water quality, hazardous materials, or noise typically do not warrant a public health analysis. As the R7D Alternative does not have the potential to cause any significant adverse impacts in those areas, it would not have any significant adverse impacts on public health.

Neighborhood Character

According to the *CEQR Technical Manual*, a proposed project could have a significant adverse neighborhood character impact if it would have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact in any relevant technical area, or through a combination of moderate effects in those technical areas. Similar to the Proposed Project, the R7D Alternative would not cause significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; transportation; or noise. As such, the R7D Alternative would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature. A new 402-unit residential and commercial development would occur under the R7D Alternative and the overall neighborhood character of the area would continue to trend toward increased residential and local retail uses on vacant and underutilized sites under the R7D Alternative. The study area would continue to be characterized by its evolving mix of land uses and building types, and its location in an area with low pedestrian volumes. Neither the Proposed Project nor the R7D Alternative would result in significant adverse impacts to neighborhood character.

Construction

While the R7D Alternative is somewhat smaller in overall density and size, it would require essentially the same construction process as anticipated under the Proposed Actions. Since the building would be smaller and would be developed over a similar construction schedule, there could be modest reduction in the amount of materials and construction workers associated with building the R7D Alternative. This could slightly reduce the duration and total level of activity. These reductions would not materially affect the construction-related analysis assumptions and conclusions. Therefore, while the overall construction duration could be shorter, the R7D Alternative would result in similar conditions to the analysis presented in **Chapter 10, "Construction".**

Like the Proposed Actions, there would be no significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, open space, hazardous materials, and air quality.

E. R7A ALTERNATIVE

The ~~Applicant has proposed~~Applicant has analyzed an alternative pursuant to a R7A zoning district to create a development (the "R7A Alternative") that results in fewer significant adverse impacts than would occur under the Proposed Project. The R7A Alternative would consist of 328 DUs (82 of which would be permanently affordable through the MIH Program) and 8,470 gsf of local retail space. The R7A Alternative would include 318,796 gsf and would be built to an FAR of 4.6 as permitted under the City of Yes for Housing Opportunity. The R7A Alternative would comply with all R7A zoning bulk and parking regulations and would stand at a maximum height of nine stories or 95 feet (not including mechanical bulkhead)[4]. **Figure 12-8** includes an axonometric diagram of the R7A Alternative.

As shown in **Table 12-3**, the R7A Alternative would result in approximately 147 less total DU, 110 less market-rate DU, and 37 less affordable DU than the Proposed Project. The R7A Alternative would have approximately 342 gsf of additional local retail space compared to the Proposed Project. The R7A Alternative would have 370 fewer residents and five fewer workers than the Proposed Project.

TABLE 12-3
Comparison of the Proposed Project and R7A Alternative

Use	Proposed Project	R7A Alternative	Increment
Residential			
– Market-Rate Dwelling Units	356 (~314,509.5 gsf)	246 (~201,324 gsf)	**-110 (~113,185.5 gsf)**
– Affordable Dwelling Units	119 (~104,836.5.5 gsf)	82 (~67,108 gsf)	**-37 (~37,728.5 gsf)**
– **TOTAL**	**475 (419,346 gsf)**	**328 (268,432 gsf)**	**-147 (~150,914 gsf)**
Local Retail	8,128 gsf	8,470 gsf	**+342 gsf**
Parking	71 spaces (30,101 gsf)	79 spaces (29,760 gsf)	**+8 spaces (-141 gsf)**
Population/Employment[1]	**With-Action Scenario**	**With-Action Scenario**	**Increment**
Residents	1,197	827	**-370**
Workers	43	38	**-5**

Notes:
[1] Assumes 2.52 persons per affordable DU (based on 2020 U.S. Census data for Brooklyn Community District 9). Estimate of workers is based on standard rates and are as follows: 1 worker per 25 dwelling units; 3 workers per 1,000 sf retail space.

The effects of the R7A Alternative in comparison to those of the Proposed Project are provided below for each technical area.

Land Use, Zoning, and Public Policy

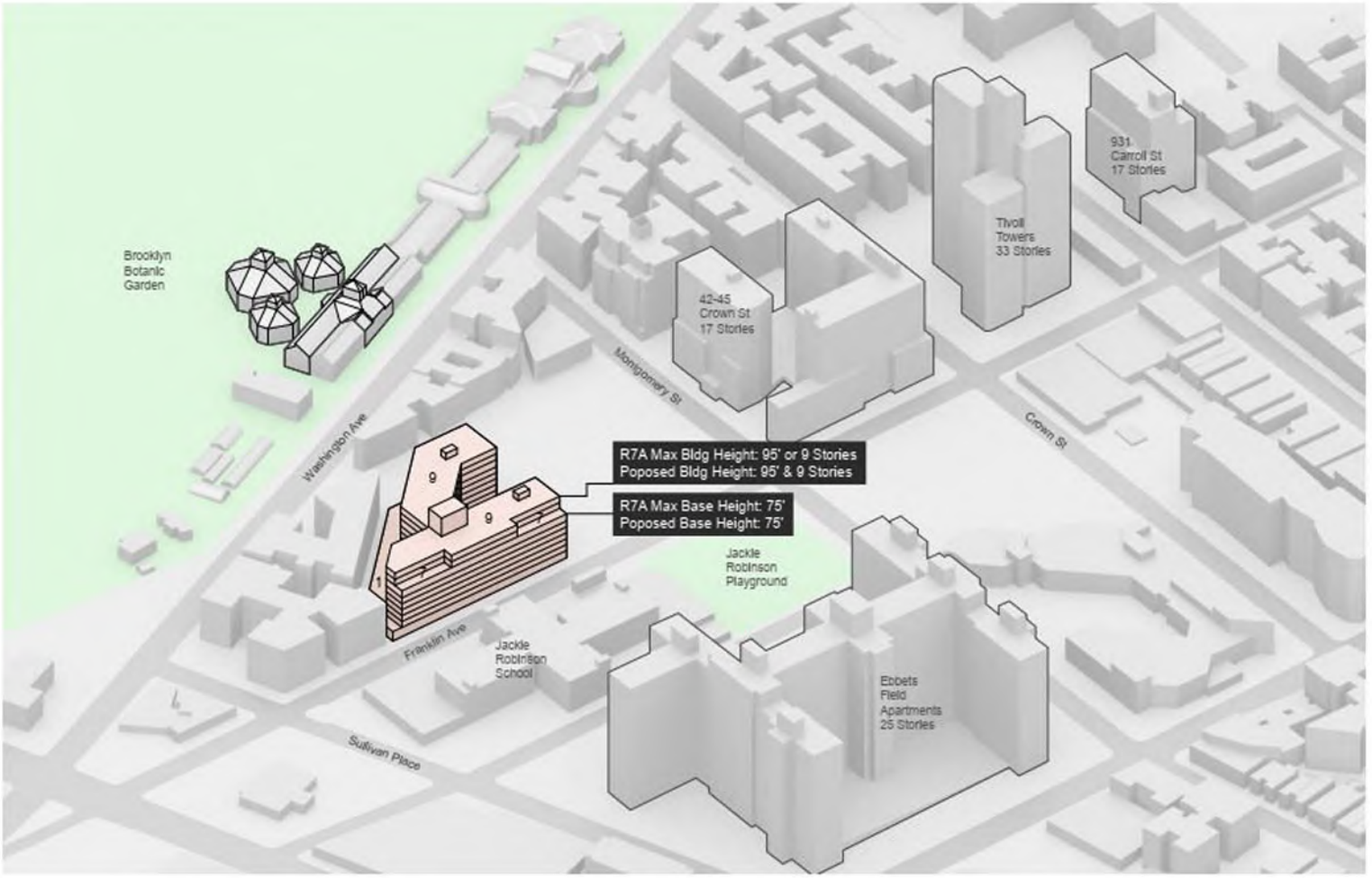
Under the R7A Alternative, it is anticipated that ~~the existing building on the Proposed Development Site would be demolished and~~ a new residential development would be constructed on-site pursuant to R7A zoning. The R7A Alternative would introduce new residential uses on a site that has been primarily vacant, a portion of the site has been used most recently for spice processing, warehousing, and distribution. Approximately 328 DUs would be developed with approximately 246 market-rate units and approximately 82 permanently affordable units through the MIH Program, described above. As such, the R7A Alternative would not result in a change of land use on the Proposed Development Site relative to the Proposed

[4] The shadows analysis below conservatively assumes that the entire 9-story portion of the R7A Alternative would be raised 35-feet to incorporate the 35-foot bulkhead allowance.

Massing at Lot 63 & 66 - R7A
9 Story / 4.60 FAR

GFA: 318,796 SF
ZFA: 238,179 SF (FAR 4.60)
Units: Approx. 328 Units

Parking Spaces Provided
Total Approx. 79 Spaces



*For Illustrative Purposes only

962-972 Franklin Avenue Rezoning

Figure 12-8
Axonometric Diagram - R7A Alternative

Project. The R7A Alternative would incorporate approximately 147 fewer DUs than the Proposed Project and would offer a similar amount of local retail uses and off-street parking.

Under this alternative, the Project Area would be rezoned to R7A, a medium-density residential district that permits a maximum FAR of 4.6. The zoning text amendment to establish the Project Area as a Mandatory Inclusionary Housing (MIH) area would still be established and approximately 82 DUs of mandatory affordable housing would be developed. No zoning special permits would be required.

It is the Applicant's opinion that the R7A Alternative would be supportive of public policies articulated in *Housing New York*, PlaNYC, and *OneNYC* that aim toward increasing the supply of housing in the city, reclaiming underutilized land, and expanding access to affordable housing. However, this would be to a lesser degree than the Proposed Actions, given that the total number of new housing units would be 328 units instead of 475 units with the Proposed Project, and the affordable housing units would be 82 DUs instead of 119 DUs with the Proposed Project, a loss of 37 affordable units.

As described in **Chapter 2, "Land Use, Zoning, and Public Policy,"** the Proposed Project would not result in any significant adverse impacts to land use, zoning, or public policy. As the R7A Alternative would include similar uses to the Proposed Project, with residential uses included at a lower density, along with a similar amount of local retail space, the R7A Alternative would not result in any significant adverse impacts related to land use, zoning, and public policy.

Socioeconomic Conditions

Similar to the Proposed Project, the R7A Alternative would not be expected to have a significant adverse impact on socioeconomic conditions. Similar to the Proposed Project, the R7A Alternative would not result in direct residential or business displacement. While a portion of the Proposed Development Site currently supports an existing business operation, the Applicant has indicated that they have an accepted purchase agreement and the existing business would vacate the property regardless of the Proposed Actions.

New residential developments are anticipated in the socioeconomic conditions study area in both the future with and without the Proposed Actions, and demand for residential development in Crown Heights is expected to continue to rise. The Project Area would also be designated as an MIH area under the R7A Alternative. As discussed above, under the R7A Alternative, 82 DUs of permanently affordable housing through the MIH program would be constructed.

The residential units that would be constructed under the R7A Alternative would not result in indirect residential displacement by introducing a trend or accelerating a trend that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. The affordable housing units added by the R7A Alternative would maintain a diverse demographic composition within the study area and would further expand the supply of affordable housing for current and future residents. The affordable housing units would help to ensure that a considerable portion of the new households would have incomes that would more closely reflect the incomes of existing households in the study area and help ensure that the neighborhood continues to serve diverse housing needs. Therefore, the R7A Alternative would not introduce a new trend or accelerate an existing trend of changing conditions in a manner that would have the potential to substantially change the socioeconomic character of the neighborhood.

Therefore, similar to the Proposed Project and the findings of **Attachment C, "Socioeconomic Conditions,"** of the EAS, the R7A Alternative would not result in any significant adverse impacts to Socioeconomic Conditions.

Community Facilities and Services

As described in **Attachment B, "Supplemental Screening,"** of the EAS, the Proposed Project would not result in direct or indirect significant adverse impacts to community facilities. As the R7A Alternative would be built to a lesser density than the Proposed Project, the R7A Alternative would not result in significant adverse impacts to community facilities.

Open Space

As discussed in **Chapter 3, "Open Space,"** the Proposed Project would result in a direct open space significant adverse impact as a result of shadows cast by the Proposed Project. The Proposed Project would not result in significant adverse indirect impacts to open space in the surrounding area as a result of the increased population. As the R7A Alternative would result in approximately 370 less residents in the Project Area, the R7A Alternative would also not result in indirect significant adverse impacts to open space.

For a discussion on direct effects of the R7A Alternative on nearby open space resources, refer to the discussion below on shadows.

Shadows/Natural Resources

As described in **Chapter 3, "Open Space," Chapter 4, "Shadows," and Chapter 5, "Natural Resources,"** the Proposed Project would result in significant adverse impacts[1] due to direct shadows effects on open space and natural resources in the Jackie Robinson Playground and Brooklyn Botanic Garden.

As described above, the ~~Applicant has proposed~~Applicant has analyzed a 9-story, 95-foot-tall R7A Alternative in an effort to reduce the significant adverse impacts identified as a result of the Proposed Project. Consistent with the analysis in **Chapter 4, "Shadows,"** the R7A Alternative assumes the inclusion of a 35-foot bulkhead on each of the 9-story portion of the R7A Alternative. The R7A Alternative would cast shadows on the Brooklyn Botanic Garden and the Jackie Robinson Playground, similar to the Proposed Project.

Brooklyn Botanic Garden

Under the R7A Alternative, incremental shadows would be cast over several of the affected greenhouses in the Brooklyn Botanic Garden used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. Incremental shadows from the R7A Alternatives would be cast over this sunlight-sensitive resource on each of the four analysis days. As shown in **Table 12-4**, incremental shadows from the R7A Alternative would range on the Brooklyn Botanic Garden from 43 minutes on the December 21 analysis day (8:51 – 9:34 AM) to one hour and 57 minutes on the June 21 analysis day (5:57 – 7:54 AM).

TABLE 12-4
Incremental Shadow Coverage – R7A Alternative (9-Story)

Resource #	Resource	Analysis Day	March 21/Sept. 21	May 6/August 6	~~21-Jun~~June 21	~~21-Dec~~December 21	Incremental Shadow Durations Compared to Table 6-4 of DEIS			
			7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM	March 21/Sept. 21	May 6/August 6	21-Jun	21-Dec
1	Brooklyn Botanic Garden (Resources A-V)	Shadow enter-exit time	7:36 - 8:37 AM	6:27 - 8:05 AM	5:57 - 7:54 AM	8:51 - 9:34 AM	-59 minutes	-55 minutes	-1 hour	-29 minutes
		Incremental shadow duration	1 hour 1 minute	1 hour 38 minutes	1 hour 57 minutes	43 minutes				
2	Jackie Robinson Playground	Shadow enter-exit time	2:26 - 4:29 PM	2:28 - 4:52 PM	-	1:50 - 2:53 PM	-43 minutes	-59 minutes	-1 hour 41 minutes	-15 minutes
		Incremental shadow duration	2 hours 3 minutes	2 hours 25 minutes	-	1 hour 3 minutes				
3	Prospect Park	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
4	P.S. 375K Community Playground	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
A	Education Greenhouse: Desert Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-9 minutes
		Incremental shadow duration	-	-	-	-				
B	Education Greenhouse: Warm Temperate Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-11 minutes
		Incremental shadow duration	-	-	-	-				
C	Education Greenhouse: Tropical Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-13 minutes
		Incremental shadow duration	-	-	-	-				
D	Helen Mattin Warm Temperate Pavilion	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				

E	Tropical Pavilion	Shadow enter-exit time	-	-	-	-	- 40 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
F	Desert Pavilion	Shadow enter-exit time	-	-	-	-	-52 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
G	C.V. Starr Bonsai Museum	Shadow enter-exit time	-	-	-	-	-	-	-	-27 minutes
		Incremental shadow duration	-	-	-	-				
H	Conservatory Entry House	Shadow enter-exit time	-	-	-	8:51 - 8:57 AM	-14 minutes	-	-	-10 minutes
		Incremental shadow duration	-	-	-	6 minutes				
I	Aquatic House & Orchid Collection	Shadow enter-exit time	7:36 - 8:09 AM	-	-	-	-44 minutes	-	-	-
		Incremental shadow duration	33 minutes	-	-	-				
J	Desert, Mediterranean, South African Bulb (Arid) Workhouse	Shadow enter-exit time	-	-	-	8:51 - 9:19 AM	-	-	-	-14 minutes
		Incremental shadow duration	-	-	-	28 minutes				
K	Humid Tropics Workhouse	Shadow enter-exit time	-	-	-	8: 51 - 9:15 AM	-	-	-	-13 minutes
		Incremental shadow duration	-	-	-	24 minutes				
L	Lowland Moist Tropical Orchid Workhouse	Shadow enter-exit time	-	-	-	8:51 - 9:05 AM	-41 minutes	-	-	-7 minutes
		Incremental shadow duration	-	-	-	15 minutes				
M	Highland Moist Tropical Orchid Workhouse	Shadow enter-exit time	8:00 - 8:16 AM	-	-	8:51 - 8:58 AM	-1 hour 5 minutes	-	-	-2 minutes
		Incremental shadow duration	16 minutes	-	-	7 minutes				
N	Tropical Plant Propagation House	Shadow enter-exit time	7:36 - 8:20 AM	-	-	8:51 - 8:55 AM	-54 minutes	-	-	+4 minutes
		Incremental shadow duration	44 minutes	-	-	4 minutes				

O	Tropical & Desert Plant Propagation House	Shadow enter-exit time	7:36 - 8:23 AM	-	-	-	-50 minutes	-	-	-
		Incremental shadow duration	47 minutes	-	-	-				
P	Hardy Plant Nursery Yard	Shadow enter-exit time	7:36 - 8:37 AM	6:27 - 8:05 AM	5:57 - 7:54 AM	-	-27 minutes	-49 minutes	-1 hour	-
		Incremental shadow duration	1 hour 1 minute	1 hour 38 minutes	1 hour 57 minutes	-				
Q	Temperate Bonsai Tunnel	Shadow enter-exit time	7:36 - 7:45 AM	6:27 - 7:11 AM	5:57 - 6:58 AM	-	-42 minutes	-47 minutes	-57 minutes	-
		Incremental shadow duration	9 minutes	44 minutes	1 hour 1 minute	-				
R	Production House	Shadow enter-exit time	7:36 – 7:38 AM	6:27 - 6:57 AM	5:57 - 6:59 AM	-	-13 minutes	-48 minutes	-42 minutes	-
		Incremental shadow duration	2 minutes	30 minutes	1 hour 2 minutes	-				
S	Tropical Bonsai House	Shadow enter-exit time	7:36 - 7:46 AM	6:27 - 7:07 AM	5:57 - 6:58 AM	-	-12 minutes	-49 minutes	-55 minutes	-
		Incremental shadow duration	10 minutes	40 minutes	1 hour 1 minute	-				
T	Auxiliary House	Shadow enter-exit time	7:36 - 7:45 AM	6:27 - 7:03 AM	5:57 - 6:55 AM	-	+9 minutes	-39 minutes	-53 minutes	-
		Incremental shadow duration	9 minutes	36 minutes	58 minutes	-				
U	New York-Native Flora & Temperate Plant Propagation Tunnel	Shadow enter-exit time	7:36 - 8:04 AM	6:27 - 7:32 AM	5:57 - 7:22 AM	-	-38 minutes	-47 minutes	-56 minutes	-
		Incremental shadow duration	28 minutes	1 hour 5 minutes	1 hour 25 minutes	-				
V	Mediterranean Display Plants Tunnel	Shadow enter-exit time	7:36 AM - 7:47 AM	6:32 AM - 7:01 AM	6:07 AM - 7:04 AM	-	+8 minutes	-53 minutes	-40 minutes	-
		Incremental shadow duration	9 minutes	29 minutes	1 hour 3 minutes	-				

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *CEQR Technical Manual* guidance.
Table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.
[1] Keyed to **Figure 4-3**.

Individual resources within the Brooklyn Botanic Garden (Resources A through V in **Table 12-4**) would experience incremental shadows ranging from two minutes to one hour and 57 minutes. Compared to the Proposed Project, the R7A Alternative would result in decreases of incremental shadow duration of up to one hour and five minutes (the Highland Moist Tropical Orchid Workhouse) (refer to **Table 12-4**).

The R7A Alternative would result in increases in incremental shadow duration relative to the Proposed Project at three resources. On the March 21/September 21 analysis day, the R7A Alternative would cast nine minutes of incremental shadow on the Auxiliary House (Resource T) that would not occur under the Proposed Project. On this analysis day, the R7A Alternative would cast eight additional minutes of incremental shadow on the Mediterranean Display Plants Tunnel (Resource V) than would occur under the Proposed Project (refer to **Table 12-4**).

Greenhouses within the Brooklyn Botanic Garden are used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. While the *CEQR Technical Manual* states that six to eight hours of sunlight is necessary for plant survival, the Brooklyn Botanic Garden contains over 18,500 kinds of plants, with globally rare species and native rare species. The minimum sunlight needed to constitute survival may not be enough to promote healthy growth of these rare plants and as the *CEQR Technical Manual* states, each project must take into account its unique circumstances. DCP, acting as Lead Agency, in consultation with the NYC Parks finds that the Proposed Actions would result in significant adverse impacts to the Brooklyn Botanic Garden ~~due to the unique nature of the resource~~.

Jackie Robinson Playground

As shown in **Table 12-4**, the R7A Alternative will cast incremental shadows on the Jackie Robinson Playground on three of the four representative analysis days. Incremental shadow coverage under this Alternative would last between one hour and three minutes and two hours and 25 minutes. Compared to the Proposed Project, the R7A Alternative would result in decreases of incremental shadow duration between 43 and 59 minutes on the March 21/September 21 and May 6/August 6 analysis days. The R7A Alternative would not cast any incremental shadow on the June 21 analysis day, approximately one hour and 41 minutes less than the Proposed Project. On the December 21 analysis day, the R7A Alternative would result in an incremental shadow duration 15 minutes less than the Proposed Project (refer to **Table 12-4**).

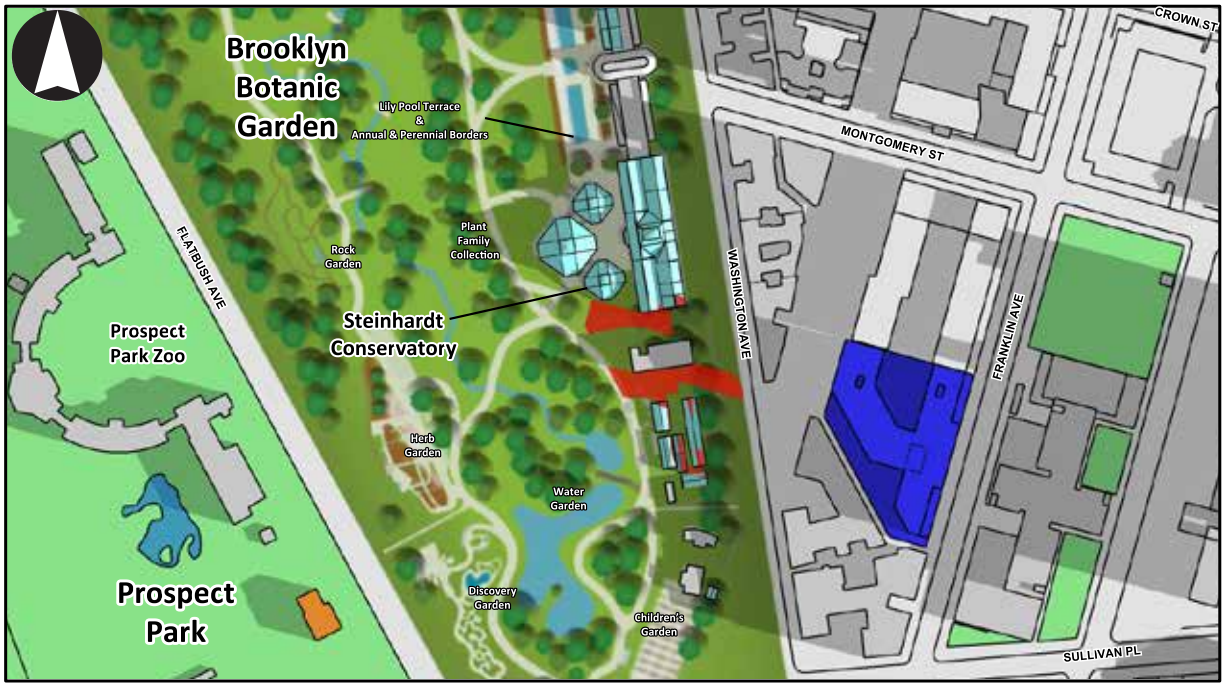
As shown in **Figures 12-9** through **12-12**, incremental shadows from the R7A Alternative are expected to cast shadow on a passive area for seating, and areas for active uses including a playground and basketball courts. Therefore, as the extent and duration of the incremental shadows would (1) significantly reduce or completely eliminate direct sunlight exposure on any of the sunlight-sensitive resources found within this open space; and (2) would alter the public's use of the park, incremental shadows from the R7A Alternative on Jackie Robinson Playground would be considered a significant adverse impact, in accordance with *CEQR Technical Manual* methodology.

Historic and Cultural Resources

As described in **Attachment B, "Supplemental Screening,"** of the EAS, the Proposed Project would not result in direct or indirect significant adverse impacts to historic and cultural resources. As the R7A Alternative would be built on the same Proposed Development Site, to a lesser density and height than

Figure 12-9a

R7A Alternative - Brooklyn Botanic Gardens
Incremental Shadows on March 21/September 21



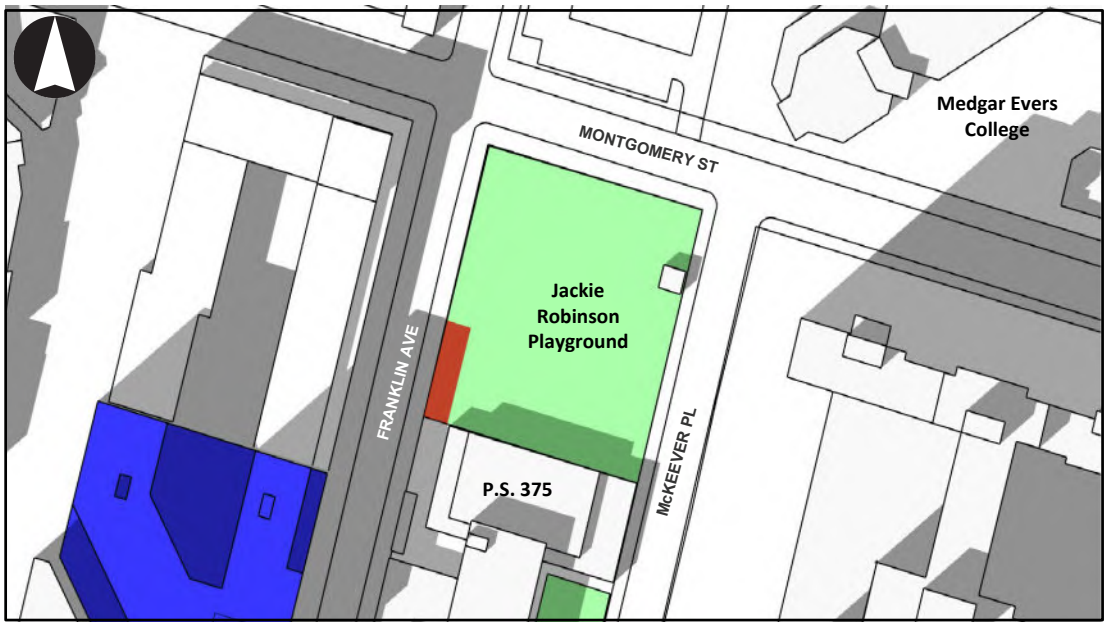
7:36 AM



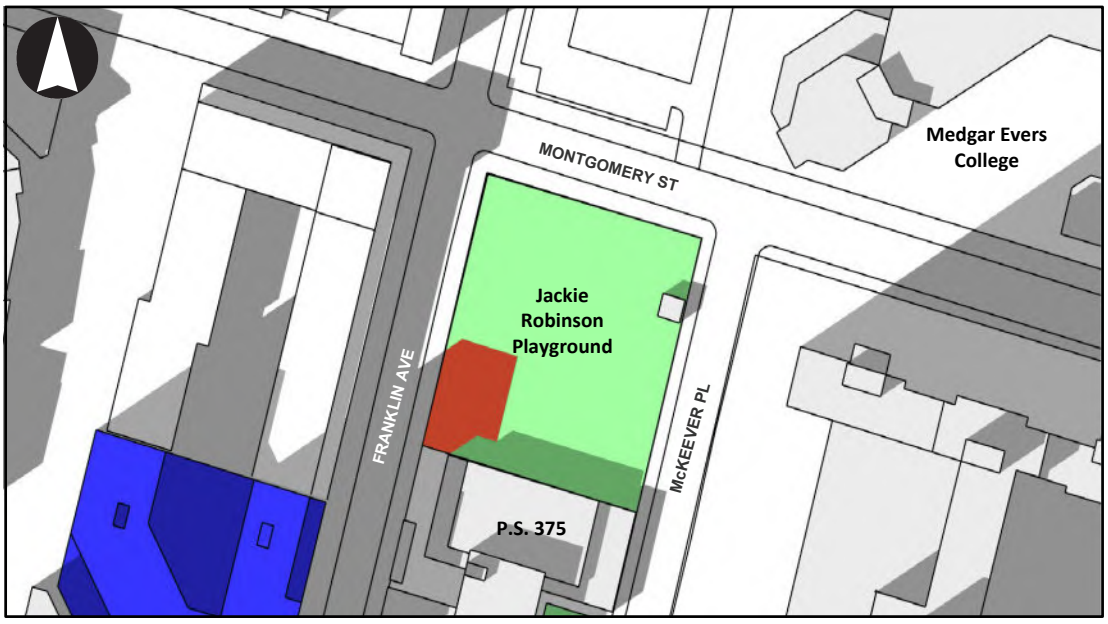
8:30 AM

R7A Alternative
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

R7A Alternative - Jackie Robinson Playground
Incremental Shadows on March 21/September 21



2:45 PM

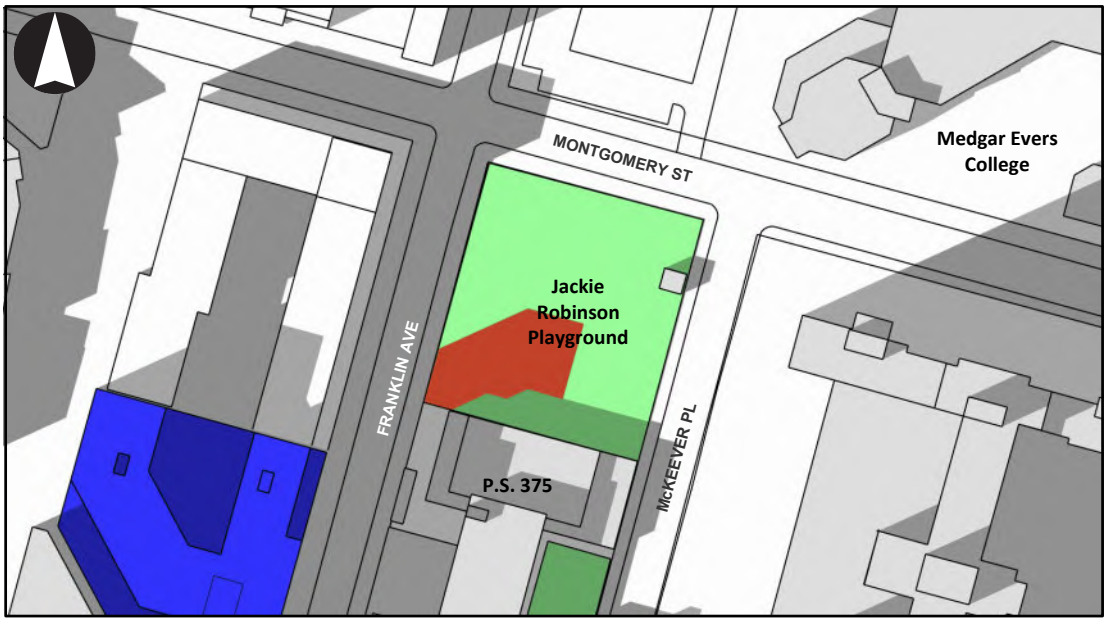


3:15 PM

R7A Alternative | Open Space | Incremental Shadow

Figure 12-9c

R7A Alternative - Jackie Robinson Playground
Incremental Shadows on March 21/September 21



3:45 PM



4:29 PM

R7A Alternative | Open Space | Incremental Shadow

Figure 12-10a

R7A Alternative - Brooklyn Botanic Gardens
Incremental Shadows on May 6/August 6



6:27 AM

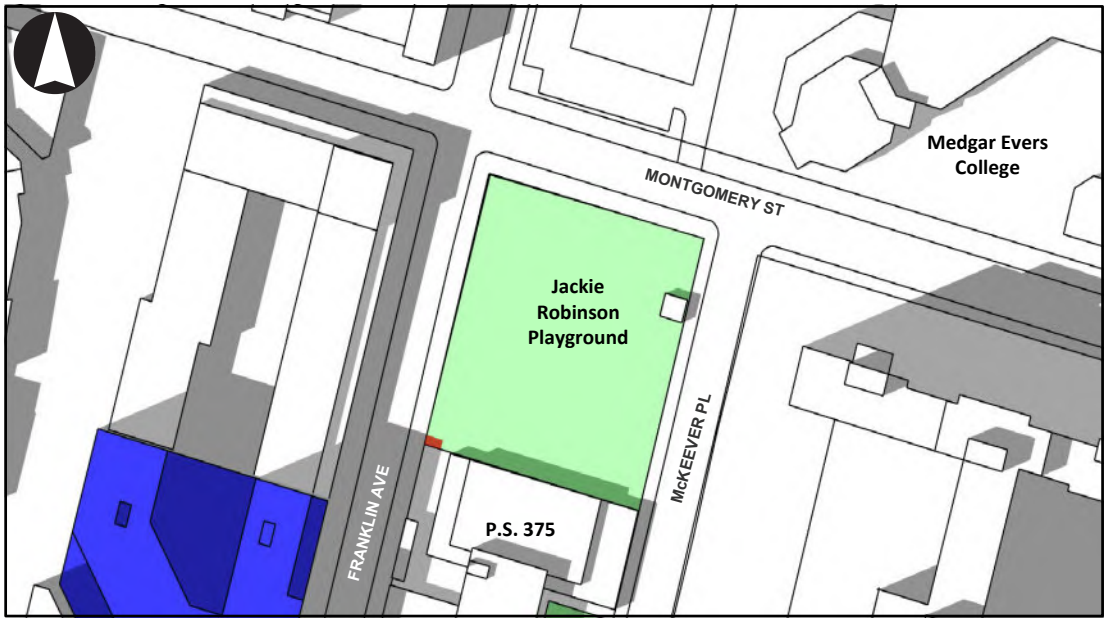


8:00 AM

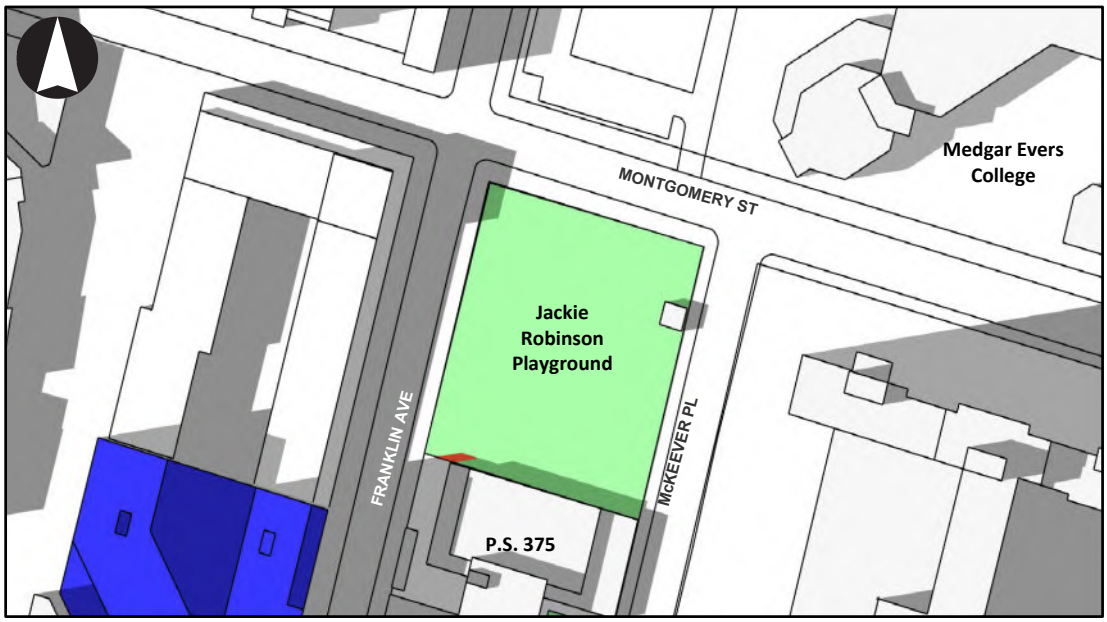
R7A Alternative
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Figure 12-10b

R7A Alternative - Jackie Robinson Playground
Incremental Shadows on May 6/ August 6



2:45 PM



3:45 PM

R7A Alternative **Open Space** **Incremental Shadow**

Figure 12-10c

R7A Alternative - Jackie Robinson Playground
Incremental Shadows on May 6/ August 6



4:45 PM

R7A Alternative | Open Space | Incremental Shadow

Figure 12-11a

R7A Alternative - Brooklyn Botanic Gardens
Incremental Shadows on June 21



5:57 AM



6:45 AM

R7A Alternative	Open Space	Historic Resource
Greenhouse Facility	Incremental Shadow	Water Feature

Figure 12-11b

R7A Alternative - Brooklyn Botanic Gardens
Incremental Shadows on June 21



7:45 AM

R7A Alternative

Open Space

Historic Resource

Greenhouse Facility

Incremental Shadow

Water Feature

Figure 12-12a

R7A Alternative - Brooklyn Botanic Gardens
Incremental Shadows on December 21



8:51 AM

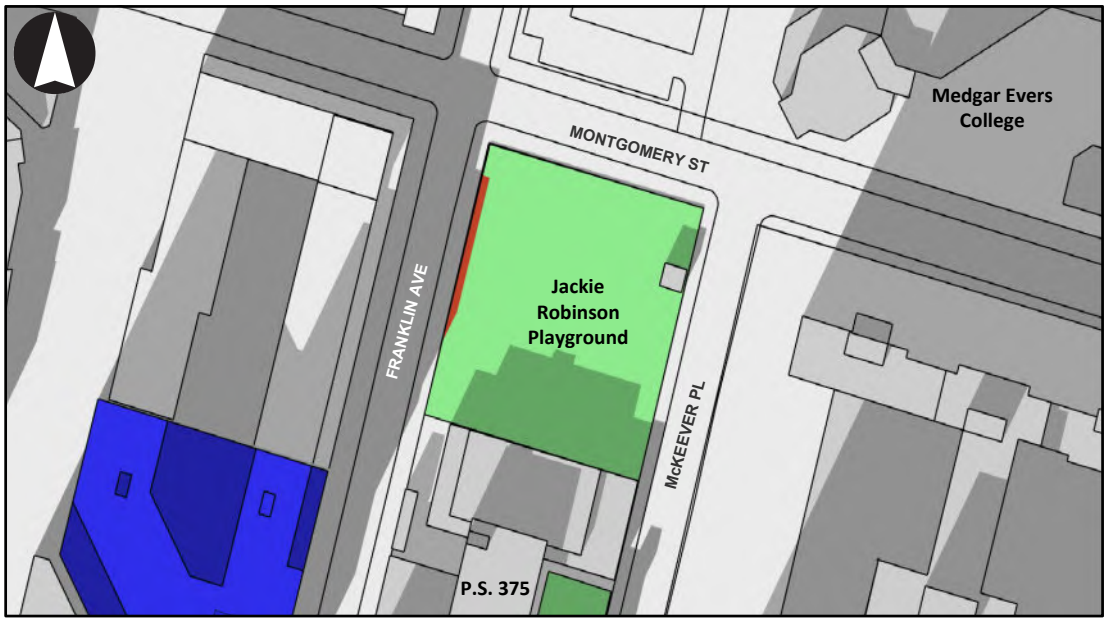


9:30 AM

R7A Alternative
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Figure 12-12b

R7A Alternative - Jackie Robinson Playground
Incremental Shadows on December 21



1:53 PM



2:53 PM

R7A Alternative **Open Space** **Incremental Shadow**

the Proposed Project, the No-Action Alternative would not result in significant adverse impacts to historic and cultural resources.

Urban Design and Visual Resources

The R7A Alternative would be constructed within the permitted zoning envelope of the R7A zoning district. The R7A district permits a maximum base height of 75 feet. After a 10-foot setback from wide streets and a 15-foot setback from narrow streets, developments in a R7A district can reach a maximum height of 95 feet (nine stories) not including permitted obstructions such as the mechanical bulkhead. The R7A Alternative would be approximately 50 feet shorter than the Proposed Project. The base height of the R7A Alternative would be 30 feet less than the Proposed Project.

Similar to the Proposed Project, the R7A Alternative would not result in any significant adverse impacts to urban design or visual resources. The R7A Alternative would be a building form that is similar to other recent developments in the area. The R7A Alternative would be constructed on an existing block and would not entail any changes to topography, open space, or natural features in the Project Area or secondary study area.

The R7A Alternative would not obstruct any significant viewsheds in the area, or substantially alter the pedestrian experience in the immediate vicinity of the Project Area. Therefore, the R7A Alternative would not result in any significant adverse impacts to visual resources.

Hazardous Materials

As under the Proposed Project, the R7A Alternative would not result in significant adverse hazardous materials impacts. The R7A Alternative would be developed in accordance with the applicable NYC DOB guidance in terms of safe building demolition and site redevelopment methods. Therefore, there would be no potential for contact with subsurface contamination and no significant risk of human exposure.

Water and Sewer Infrastructure

Neither the Proposed Project nor the R7A Alternative would result in significant adverse impacts on the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. Compared with the Proposed Project, the R7A Alternative would generate less demand on the City's water supply and wastewater treatment infrastructure.

Energy

Neither the Proposed Project nor the R7A Alternative would result in significant adverse impacts with respect to the transmission or generation of energy. The demand generated under the R7A Alternative would be less than the Proposed Project. However, under both the Proposed Project and the R7A Alternative, the annual increase in demand would represent a negligible amount of the City's forecasted annual energy requirements for 2027.

Transportation

As described in **Attachment F, "Transportation,"** of the EAS, the Proposed Project would not result in direct or indirect significant adverse impacts to traffic, pedestrians, transit, or parking. As the R7A Alternative would be built on the same Proposed Development Site, to a lesser density than the Proposed Project, the R7A Alternative would not result in significant adverse impacts traffic, pedestrians, transit, or parking.

Air Quality

Under the R7A Alternative, a new 328-unit mixed-use residential and local retail development and an on-site accessory parking garage would be constructed on the Proposed Development Site containing approximately 79 accessory parking spaces. As such there would be a new source of stationary source air quality emissions and a new emissions source from the parking garage on the Proposed Development Site. As the size of the accessory-parking garage would be larger in the R7A Alternative than in the Proposed Project, the R7A Alterative may result in higher emissions concentrations than the Proposed Project. However, the potential for significant adverse impacts is unlikely given the R7A Alternative's garage is less than 85 spaces, the threshold identified for analysis in Table 16-1 of the *CEQR Technical Manual*.

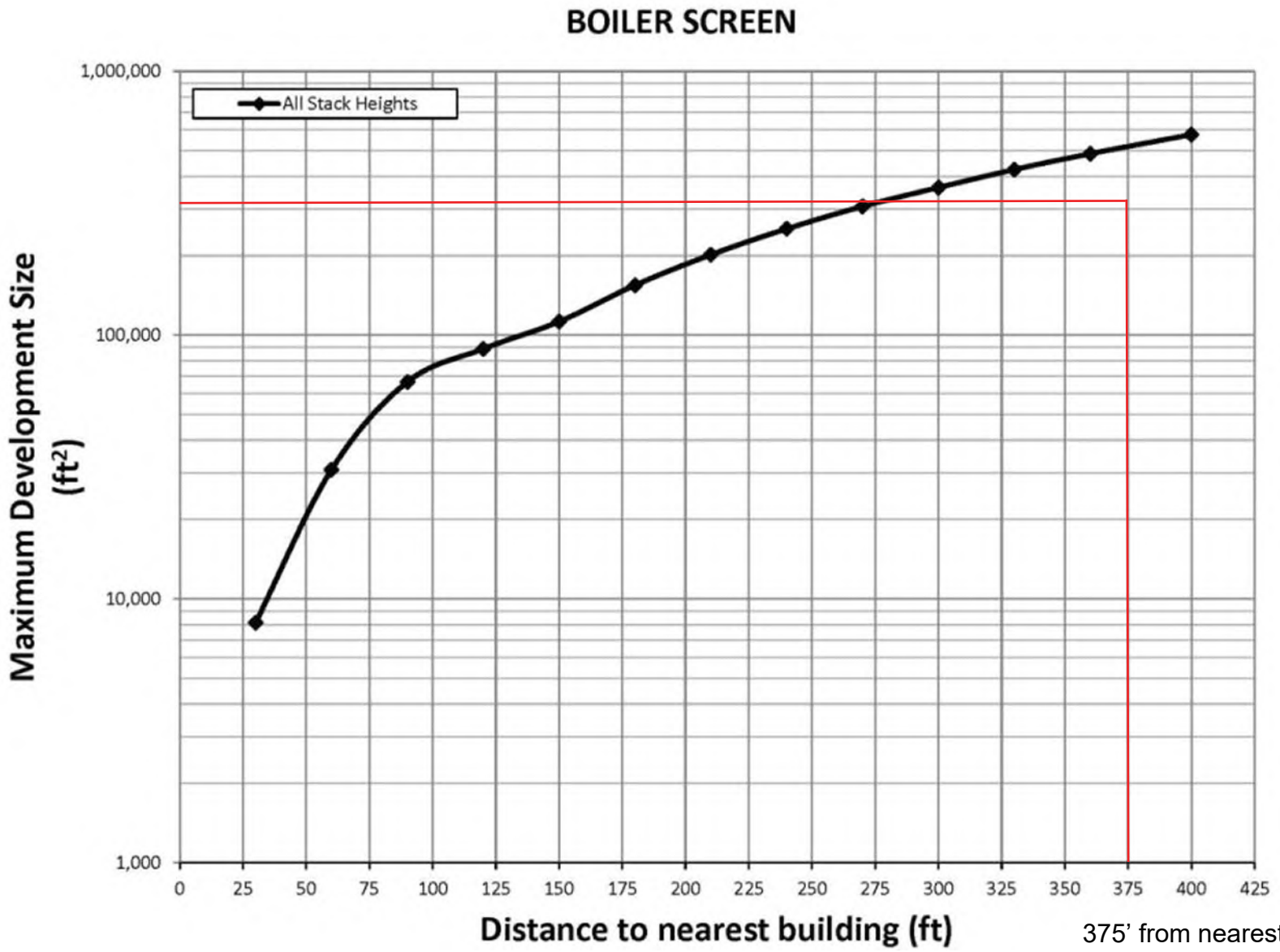
Under the R7A Alternative, a 130-foot-tall building (including bulkhead) of approximately 318,796 gsf would be constructed at the Proposed Development Site. The closest building taller than the R7A Alternative is the 211-foot tall building at 1720 Bedford Avenue. 1720 Bedford Avenue is approximately 375 feet east of the Proposed Development Site. As shown in **Figure 12-13** (based on Figure 17-3 of the *CEQR Technical Manual*), the R7A Alternative would be below the screening curve for fossil fueled fired HVAC systems. Therefore, no stationary source air quality significant adverse impacts would occur.

~~Under the R7A Alternative, a 95-foot-tall building of approximately 318,796 gsf would be constructed at the Proposed Development Site. The closest building taller than the R7A Alternative is the 175-foot tall building at 40 Crown Street. 40 Crown Street is approximately 350 feet north of the Proposed Development Site. As shown in **Figure 12-13** (based on Figure 17-3 of the *CEQR Technical Manual*), the R7A Alternative would be below the screening curve for fossil fueled fired HVAC systems. Therefore, no stationary source air quality significant adverse impacts would occur.~~

Additionally, mobile source emissions from traffic on surrounding roadways decrease when compared to the Proposed Project. As the R7A Alternative would result in less mobile source emissions (i.e., less incremental vehicle trips) than the Proposed Project, significant adverse mobile source impacts are unlikely under the R7A Alternative.

Greenhouse Gas Emissions and Climate Change

As the R7A Alternative would result in a new 328-unit mixed-use residential and local retail development, it would be smaller than the Proposed Project. As such, it would use less energy than the Proposed Project and would, therefore, result in fewer carbon dioxide equivalent (CO_2e) emissions per year. Neither the Proposed Project nor the R7A Alternative would result in significant greenhouse gas (GHG) emission or climate change impacts.



375' from nearest building taller than 130'

Noise

Under the R7A Alternative, a new 328-unit mixed-use development would occur on the Proposed Development Site. No other sources of noise would be created on the Proposed Development Site. The noise levels from mobile sources on surrounding roadways would decrease compared to the Proposed Project, as the R7A Alternative would include approximately 147 less DUs. As presented in **Attachment H, "Noise,"** of the EAS, under the Proposed Project no significant adverse noise impacts would occur. As the R7A Alternative would result in less vehicle trips near the Project Area's noise receptor locations, the R7A Alternative would not result in any significant adverse impacts to noise.

Public Health

Similar to the Proposed Project, the R7A Alternative would not result in any unmitigated significant adverse impacts in any of the technical areas related to public health. According to the *CEQR Technical Manual*, actions that do not result in unmitigated significant adverse impacts related to air quality, water quality, hazardous materials, or noise typically do not warrant a public health analysis. As the R7A Alternative does not have the potential to cause any significant adverse impacts in those areas, it would not have any significant adverse impacts on public health.

Neighborhood Character

According to the *CEQR Technical Manual*, a proposed project could have a significant adverse neighborhood character impact if it would have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact in any relevant technical area, or through a combination of moderate effects in those technical areas. Similar to the Proposed Project, the R7A Alternative would not cause significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; transportation; or noise. As such, the R7A Alternative would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature. A new 328-unit residential and commercial development would occur under the R7A Alternative and the overall neighborhood character of the area would continue to trend toward increased residential and local retail uses on vacant and underutilized sites under the R7A Alternative. The study area would continue to be characterized by its evolving mix of land uses and building types, and its location in an area with low pedestrian volumes. Neither the Proposed Project nor the R7A Alternative would result in significant adverse impacts to neighborhood character.

Construction

While the R7A Alternative is somewhat smaller in overall density and size, it would require essentially the same construction process as anticipated under the Proposed Actions. Since the building would be smaller and would be developed over a similar construction schedule, there could be modest reduction in the amount of materials and construction workers associated with building the R7A Alternative. This could slightly reduce the duration and total level of activity. These reductions would not materially affect the construction-related analysis assumptions and conclusions. Therefore, while the overall construction duration could be shorter, the R7A Alternative would result to similar findings presented in **Chapter 10, "Construction".**

Like the Proposed Actions, there would be no significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, open space, hazardous materials, and air quality.

F. R8A WITH 26.38-DEGREE SLOPING PLANE ALTERNATIVE

The Applicant has proposed an alternative (the subject of the Modified Zoning Text Amendment, ULURP No. N230357(A)ZRK) pursuant to a R8A zoning district to create a development (the "R8A with 26.38-Degree Sloping Plane Alternative") that results in fewer significant adverse impacts than would occur under the Proposed Project, while accomplishing the goals of the Proposed Project.[5] The R8A with 26.38-Degree Sloping Plane Alternative would have the same development program as the Proposed Project. It would only have a different building envelope, but not affect the permitted or built floor area, uses, parking and loading regulations, or any other elements subject to zoning. Accordingly, the R8A with 26.38-Degree Sloping Plane Alternative would consist of 475 DUs (119 of which would be permanently affordable through the MIH Program) and 8,128 gsf of local retail space. The R8A with 26.38-Degree Sloping Plane Alternative would include 419,346 gsf of residential space and would be built to an FAR of 7.2 as permitted under the City of Yes for Housing Opportunity. The R8A with 26.38-Degree Sloping Plane Alternative would comply with all R8A zoning bulk regulations and would stand at a maximum height of 14 stories or 145 feet (not including 25 feet mechanical bulkhead). Parking would be provided pursuant to the same special permit requested for the Proposed Project. **Figure 12-14** includes an axonometric diagram of the R8A with 26.38-Degree Sloping Plane Alternative.

As shown in **Table 12-5**, the R8A with 26.38-Degree Sloping Plane Alternative would result in the same number of DU, local retail, and parking space as the Proposed Project. It was, concurrently, have the same number of residents and workers as the Proposed Project. Similar to the Proposed Actions, this Alternative would require an (e) designation for hazardous materials and air quality; and a Restrictive Declaration to codify project components related to the environment (PCREs) and mitigation measures related to shadows, construction (air quality and noise) to avoid and partially mitigate the identified impacts.

TABLE 12-5
Comparison of the Proposed Project and R8A with 26.38-Degree Sloping Plane Alternative

Use	Proposed Project	R8A with 26.38-Degree Sloping Plane Alternative	Increment
Residential Market-Rate Dwelling Units Affordable Dwelling Units **TOTAL**	 356 (~314,509.5 gsf) 119 (~104,836.5 gsf) **475 (419,346 gsf)**	 356 (~314,509.5 gsf) 119 (~104,836.5 gsf) **475 (419,346 gsf)**	-
Local Retail	8,128 gsf	8,128 gsf	-
Parking	71 spaces (30,101 gsf)	71 spaces (30,101 gsf)	-
Population/Employment[1]	**With-Action Scenario**	**With-Action Scenario**	**Increment**
Residents	1,197	1,197	-
Workers	43	43	-

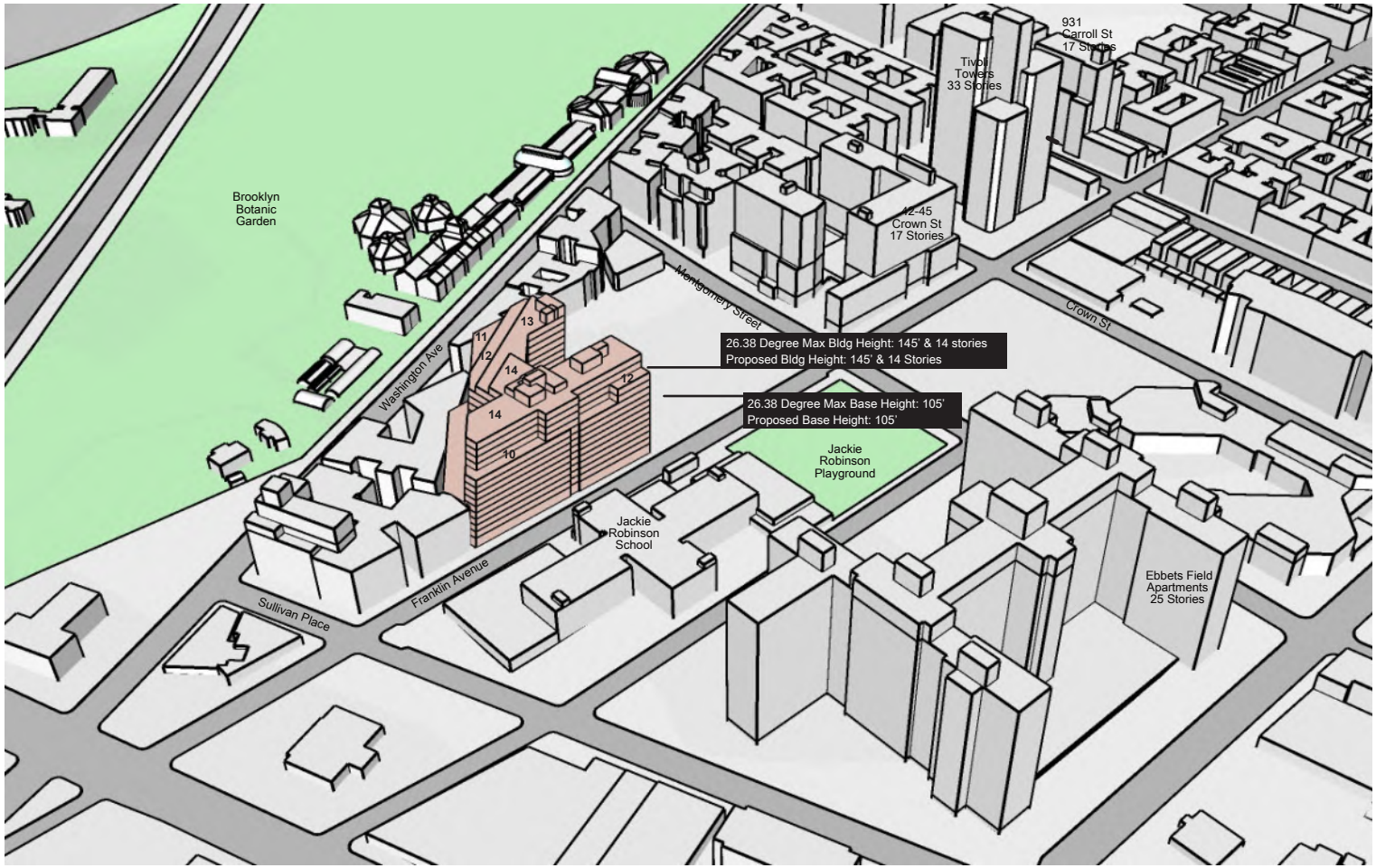
Notes:
[1] Assumes 2.52 persons per DU (based on 2020 U.S. Census data for Brooklyn Community District 9). Estimate of workers is based on standard rates and are as follows: 1 worker per 25 dwelling units; 3 workers per 1,000 sf retail space.

[5] The R8A with 26.38-Degree Sloping Plane Alternative was preliminarily analyzed in a Technical Memorandum dated July 23, 2024. There, it was referred to as the "Modified Project" because an amended application for a Modified Text Amendment was filed.

Massing at Lot 63 & 66 - R8A with 26.38-Degree Sloping Plane
14 Story / 7.20 FAR

GFA: 419,496
ZFA: 381,360 (FAR 7.20)

Parking Spaces Provided
Total Approx. 71 Spaces



*For Illustrative Purposes only

The effects of the R8A with 26.38-Degree Sloping Plane Alternative in comparison to those of the Proposed Project are provided below for each technical area.

Land Use, Zoning, and Public Policy

Similar to the Proposed Project, as described in **Chapter 2, "Land Use, Zoning, and Public Policy,"** the R8A with 26.38-Degree Sloping Plane Alternative would not result in any significant adverse impacts to land use, zoning, or public policy. The R8A with 26.38-Degree Sloping Plane Alternative would have very similar effects on land use, zoning, and public policy as compared to the Proposed Project. This is because under both scenarios, the underlying zoning and the development program would be the same. While the building massing would differ, the maximum permitted envelope allowed under the R8A with 26.38-Degree Sloping Plane Alternative would be more restrictive than under the Proposed Project with the certified application. The Applicant believes that this unusual control on bulk is warranted due to the need to balance concerns over shading on the BBG Resources with opportunities to provide additional affordable housing. Therefore, the R8A with 26.38-Degree Sloping Plane Alternative would not result in significant adverse land use, zoning, and public policy impacts.

Socioeconomic Conditions

Similar to the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not be expected to have a significant adverse impact on socioeconomic conditions. Similar to the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not result in direct residential or business displacement. While a portion of the Proposed Development Site currently supports an existing business operation, the Applicant has indicated that they have an accepted purchase agreement and the existing business would vacate the property regardless of the Proposed Actions.

New residential developments are anticipated in the socioeconomic conditions study area in both the future with and without the Proposed Actions, and demand for residential development in Crown Heights is expected to continue to rise. The Project Area would also be designated as an MIH area under the R8A with 26.38-Degree Sloping Plane Alternative. As discussed above, under the R8A with 26.38-Degree Sloping Plane Alternative, 119 DUs of permanently affordable housing through the MIH program would be constructed.

The residential units that would be constructed under the R8A with 26.38-Degree Sloping Plane Alternative would not result in indirect residential displacement by introducing a trend or accelerating a trend that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. The affordable housing units added by the R8A with 26.38-Degree Sloping Plane Alternative would maintain a diverse demographic composition within the study area and would further expand the supply of affordable housing for current and future residents. The affordable housing units would help to ensure that a considerable portion of the new households would have incomes that would more closely reflect the incomes of existing households in the study area and help ensure that the neighborhood continues to serve diverse housing needs. Therefore, the R8A with 26.38-Degree Sloping Plane Alternative would not introduce a new trend or accelerate an existing trend of changing conditions in a manner that would have the potential to substantially change the socioeconomic character of the neighborhood.

Therefore, similar to the Proposed Project and the findings of **Attachment C, "Socioeconomic Conditions,"** of the EAS, the R8A with 26.38-Degree Sloping Plane Alternative would not result in any

significant adverse impacts to Socioeconomic Conditions.

Community Facilities and Services

Similar to the Proposed Project, as described in **Attachment B, "Supplemental Screening,"** of the EAS, the R8A with 26.38-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to community facilities. As the R8A with 26.38-Degree Sloping Plane Alternative would follow the same development program as the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not result in significant adverse impacts to community facilities.

Open Space

Similar to the Proposed Project as discussed in **Chapter 3, "Open Space,"** the R8A with 26.38-Degree Sloping Plane Alternative would result in a direct open space significant adverse impact as a result of shadows cast by the Proposed Project. The R8A with 26.38-Degree Sloping Plane Alternative would not result in significant adverse indirect impacts to open space in the surrounding area as a result of the increased population. As the R8A with 26.38-Degree Sloping Plane Alternative would result in the same number of residents added to the Project Area, the R8A with 26.38-Degree Sloping Plane Alternative would also not result in indirect significant adverse impacts to open space.

For a discussion on direct effects of the R8A with 26.38-Degree Sloping Plane Alternative on nearby open space resources, refer to the discussion below on shadows.

Shadows/Natural Resources

Similar to the Proposed Project, as described in **Chapter 3, "Open Space," Chapter 4, "Shadows," and Chapter 5, "Natural Resources,"** the R8A with 26.38-Degree Sloping Plane Alternative would result in significant adverse impacts due to direct shadows effects on open space and natural resources in the Brooklyn Botanic Garden and Jackie Robinson Playground.

As described above, the Applicant has analyzed a 14-story, 145-foot-tall R8A with 26.38-Degree Sloping Plane Alternative in an effort to reduce the significant adverse impacts identified as a result of the Proposed Project. The R8A with 26.38-Degree Sloping Plane Alternative assumes the inclusion of a 25-foot bulkhead on each of the 14-story portions of the R8A with 26.38-Degree Sloping Plane Alternative, pursuant to the proposed text amendment. The R8A with 26.38-Degree Sloping Plane Alternative would cast shadows on the Brooklyn Botanic Garden and the Jackie Robinson Playground, similar to, but to a lesser extent than, the Proposed Project.

Brooklyn Botanic Garden

Under the R8A with 26.38-Degree Sloping Plane Alternative, incremental shadows would be cast over several of the affected greenhouses in the Brooklyn Botanic Garden used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. Incremental shadows from the R8A with 26.38-Degree Sloping Plane Alternative would be cast over parts of this sunlight-sensitive resource on each of the four analysis days. As shown in **Table 12-6**, incremental shadows from the R8A with 26.38-Degree Sloping Plane Alternative would range on the

Brooklyn Botanic Garden (Full Garden) from 28 minutes on the December 21 analysis day (8:51 – 9:19 AM) to one hour and 58 minutes on the June 21 analysis day (5:57 – 7:55 AM). Refer to **Figures 12-15** through **12-18.**

Individual resources within the Brooklyn Botanic Garden (Resources A through V in **Table 12-6**) would experience incremental shadows ranging from two minutes to one hour and 29 minutes (which is for the largest resource, Resource P, which encompasses Resources Q through V within is limits). Although this is the case, compared to the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would result in decreases of incremental shadow duration of up to 1 hour and 28 minutes (the Hardy Plant Nursery Yard) (refer to **Table 12-6**).

Greenhouses within the Brooklyn Botanic Garden are used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. While the *CEQR Technical Manual* states that six to eight hours of sunlight is necessary for plant survival, the Brooklyn Botanic Garden contains over 18,500 kinds of plants, with globally rare species and native rare species. The minimum sunlight needed to constitute survival may not be enough to promote healthy growth of these rare plants and as the *CEQR Technical Manual* states, each project must take into account its unique circumstances.

DCP, acting as Lead Agency, in consultation with NYC Parks finds that under the R8A with 26.38-Degree Sloping Plane Alternative, shadows impacts would be reduced or eliminated as compared to the Proposed Project on some of the Brooklyn Botanic Garden sunlight sensitive resources, but significant adverse shadows impacts on open space and natural resources would still occur on resources within the Brooklyn Botanic Garden.

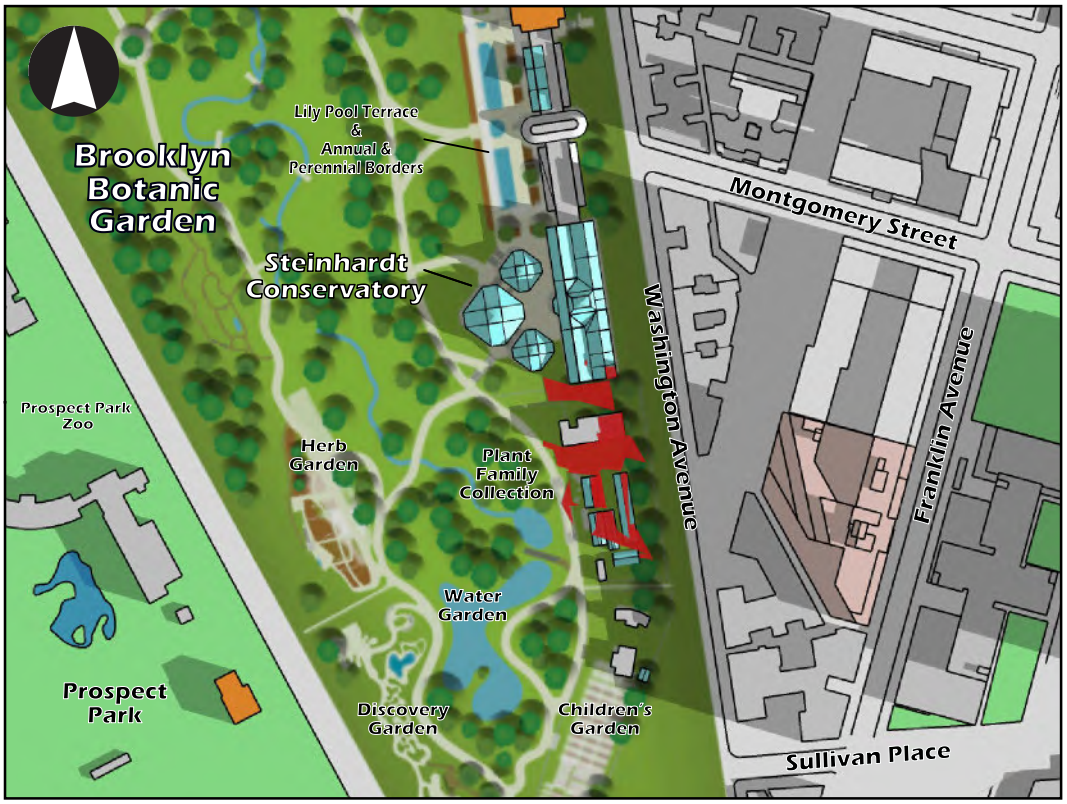
Jackie Robinson Playground

As shown in **Table 12-6**, the R8A with 26.38-Degree Sloping Plane Alternative would cast incremental shadows on the Jackie Robinson Playground on three of the four representative analysis days. The R8A with 26.38-Degree Sloping Plane Alternative would not cast shadow on the June 21 analysis day, unlike the Proposed Project. Incremental shadow coverage under the R8A with 26.38-Degree Sloping Plane Alternative would last between one hour and 6 minutes and two hours and 24 minutes. Compared to the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would result in decreases of incremental shadow duration between 12 minutes and one hour and 41 minutes on the March 21/September 21, May 6/August 6, June 21, and December 21 analysis days.

As shown in **Figures 12-15** through **12-18**, incremental shadows from the R8A with 26.38-Degree Sloping Plane Alternative are expected to cast shadow on a passive area for seating, and areas for active uses including a playground and basketball courts. While the incremental shadows impact on Jackie Robinson Playground would be lessened compared to the Proposed Project, significant adverse impacts would still occur. Incremental shadow from the R8A with 26.38-Degree Sloping Plane Alternative would occur over large portions of the park during the March 21/September 21 and May 6/August 6 analysis days. Therefore, as the extent and duration of the incremental shadows would (1) significantly reduce or completely eliminate direct sunlight exposure on any of the sunlight-sensitive resources found within this open space; and (2) would alter the public's use of the park, incremental shadows from the R8A with 26.38-Degree Sloping Plane Alternative on Jackie Robinson Playground would be considered a significant adverse impact, in accordance with *CEQR Technical Manual* methodology.

Brooklyn Botanic Garden

26.38 Degree Slope Modified Project Incremental Shadows - March 21/September 21



7:45 AM



8:30 AM

26.38 Degree Slope Modified Project

Open Space

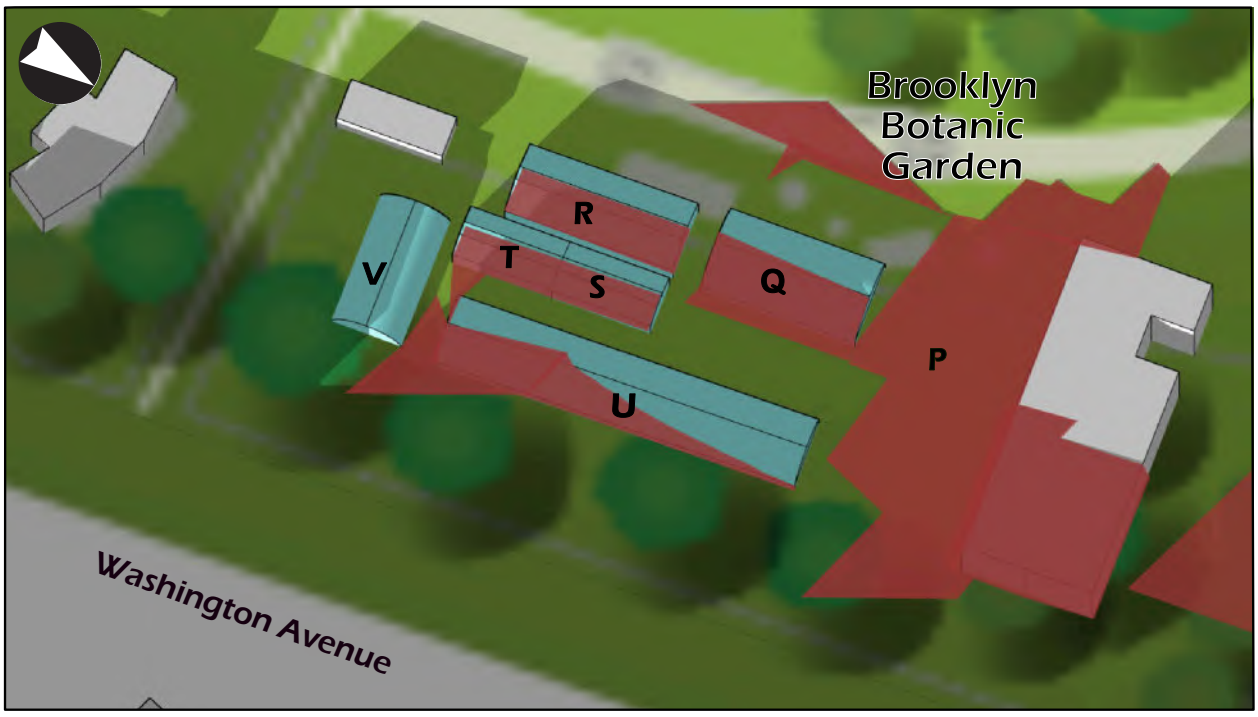
Historic Resource

Greenhouse Facility

Incremental Shadow

Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
26.38 Degree Slope Modified Project Incremental Shadows - March 21/September 21



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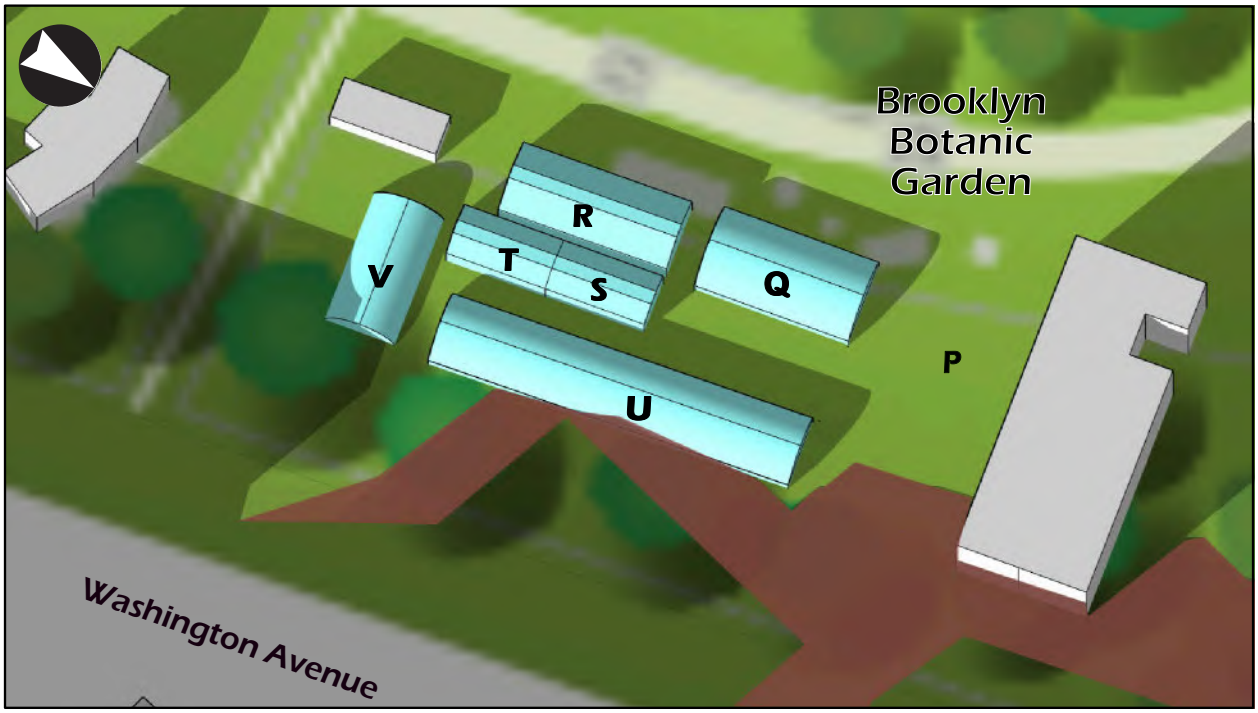
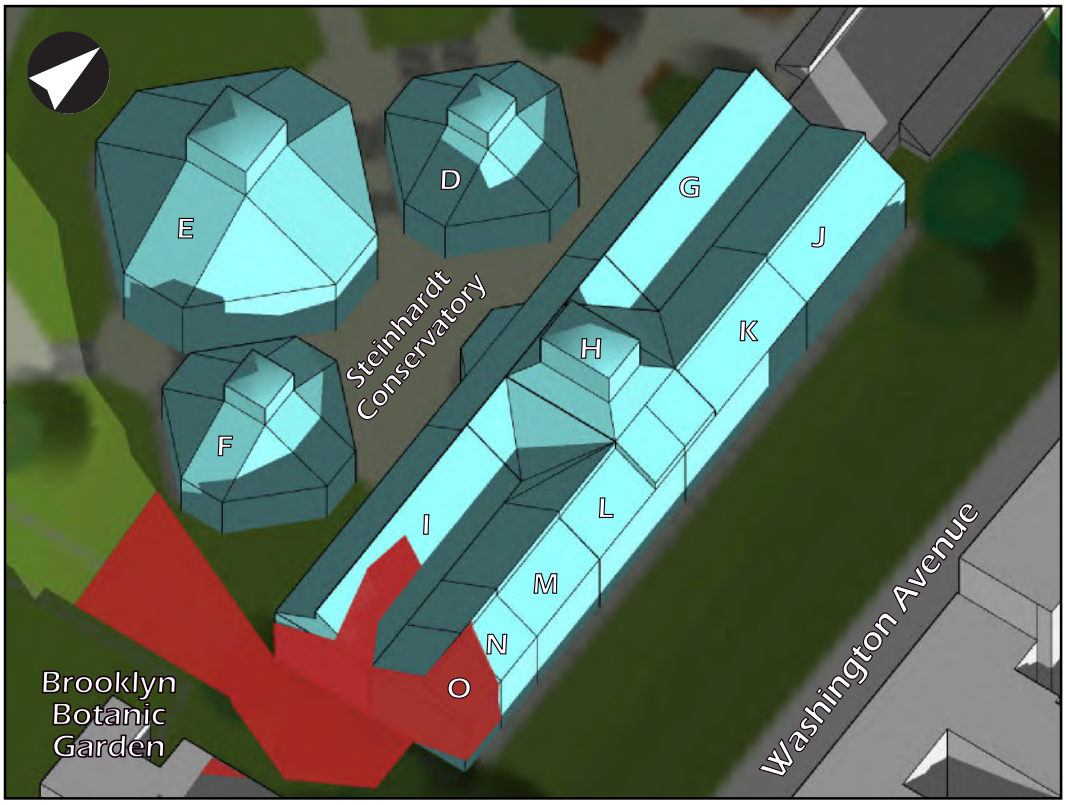


8:10 AM

Open Space
Historic Resource
P
Greenhouse Facility
Incremental Shadow

Brooklyn Botanic Garden - Steinhardt Conservatory
26.38 Degree Slope Modified Project Incremental Shadows - March 21/September 21



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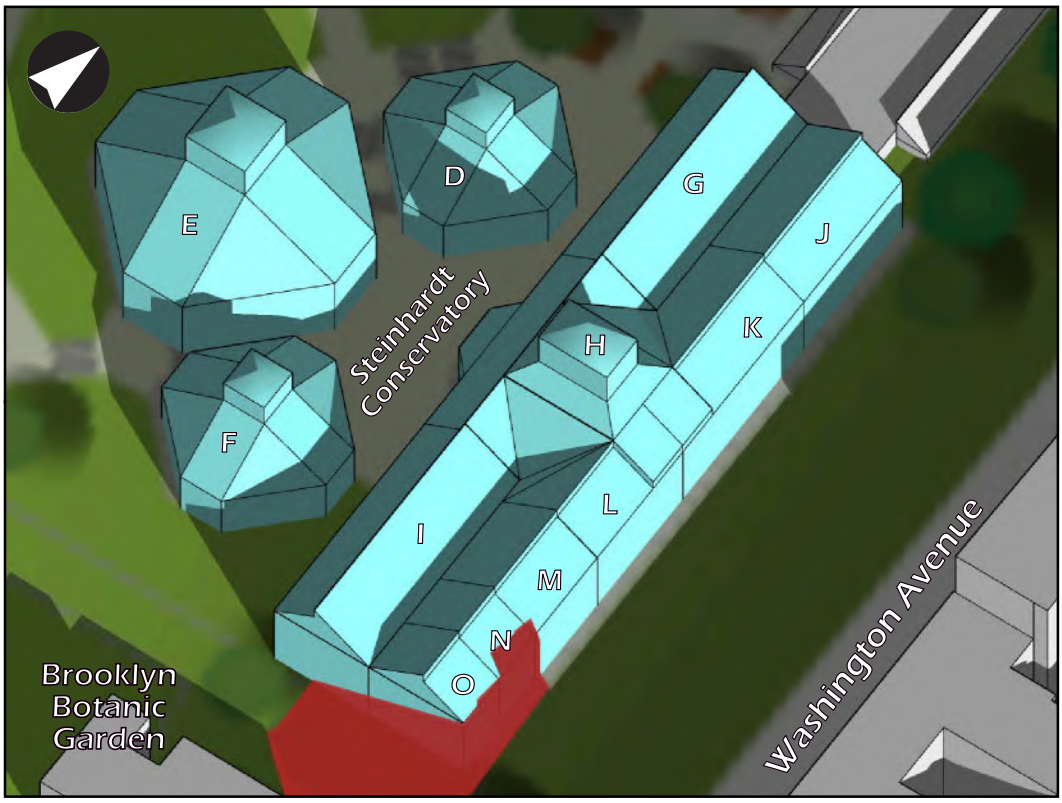


8:00 AM

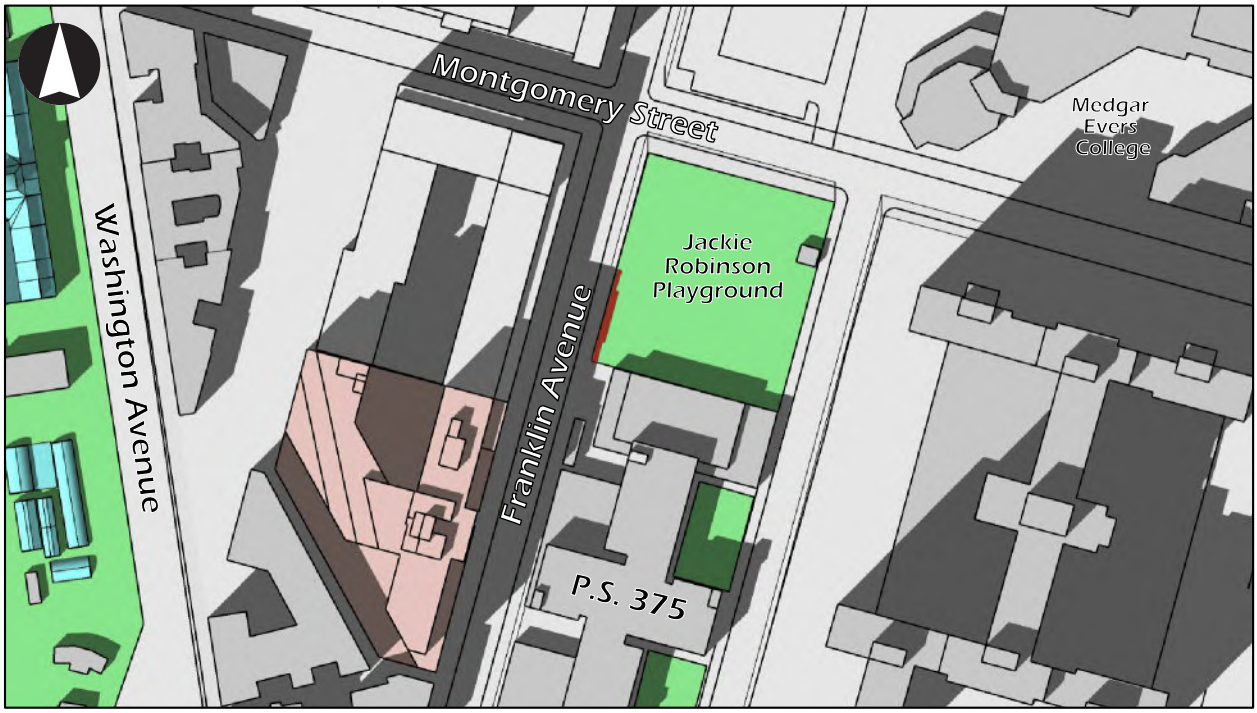
D Greenhouse Facility

Open Space

Historic Resource

Incremental Shadow

Jackie Robinson Playground
26.38 Degree Slope Modified Project Incremental Shadows - March 21/September 21



2:15 PM



3:00 PM

26.38 **Degree Slope Modified Project** | **Open Space** | **Incremental Shadow**

Jackie Robinson Playground

26.38 Degree Slope Modified Project Incremental Shadows - March 21/September 21



3:30 PM



4:15 PM

26.38 **Degree Slope Modified Project** | **Open Space** | **Incremental Shadow**

Brooklyn Botanic Garden

26.38 Degree Slope Modified Project Incremental Shadows - May 6/August 6



6:30 AM



7:30 AM

26.38 Degree Slope Modified Project

Open Space

Historic Resource

Greenhouse Facility

Incremental Shadow

Water Feature

Brooklyn Botanical Garden
26.38 Degree Slope Modified Project Incremental Shadows - May 6/August 6



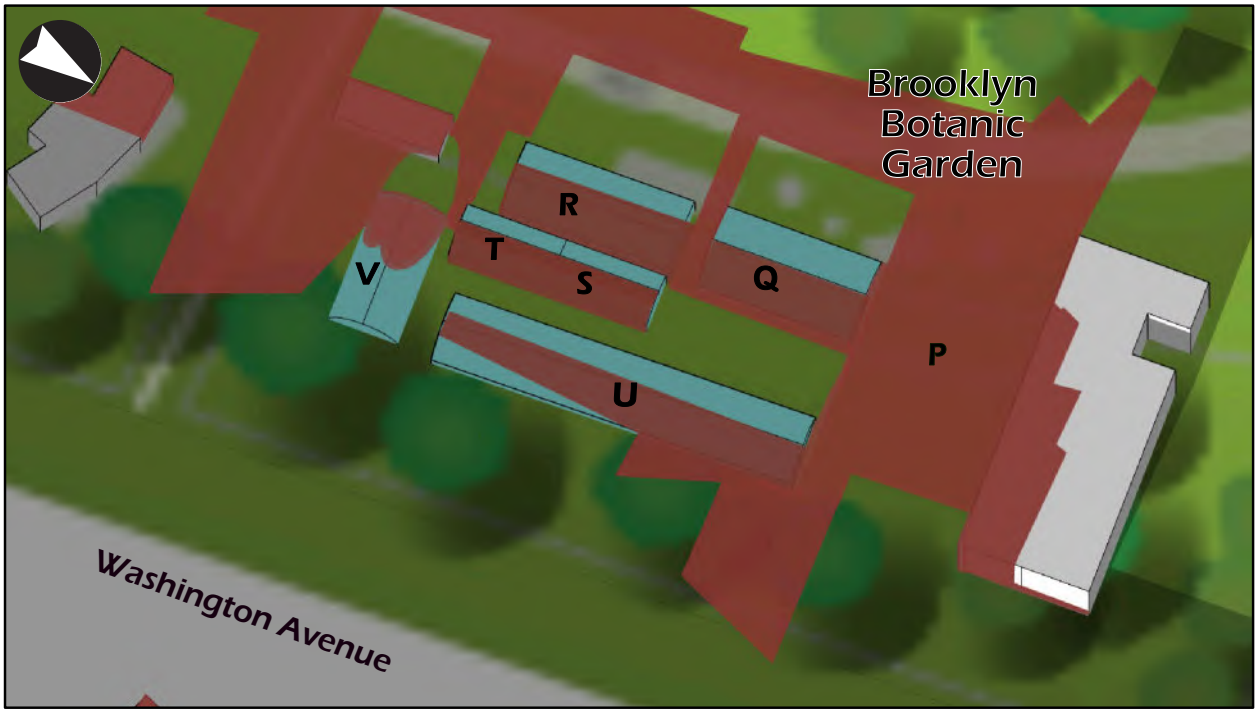
8:00 AM



8:15 AM

26.38 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
26.38 Degree Slope Modified Project Incremental Shadows - May 6/August 6



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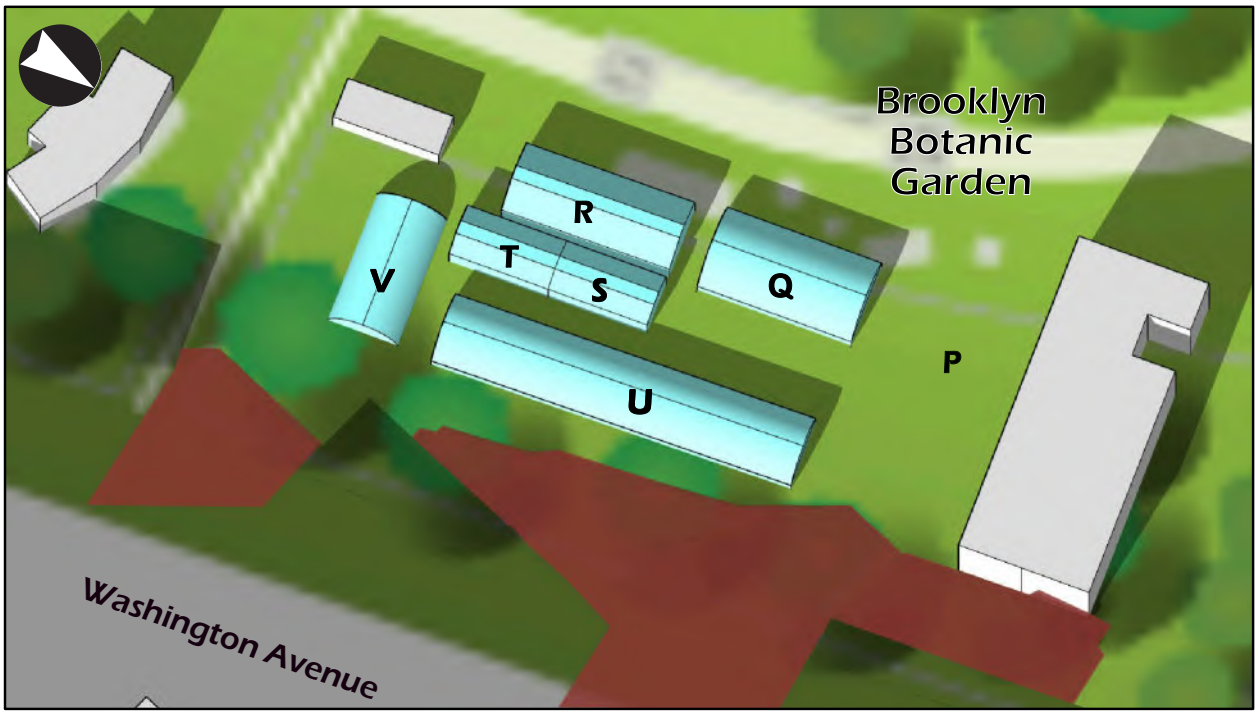
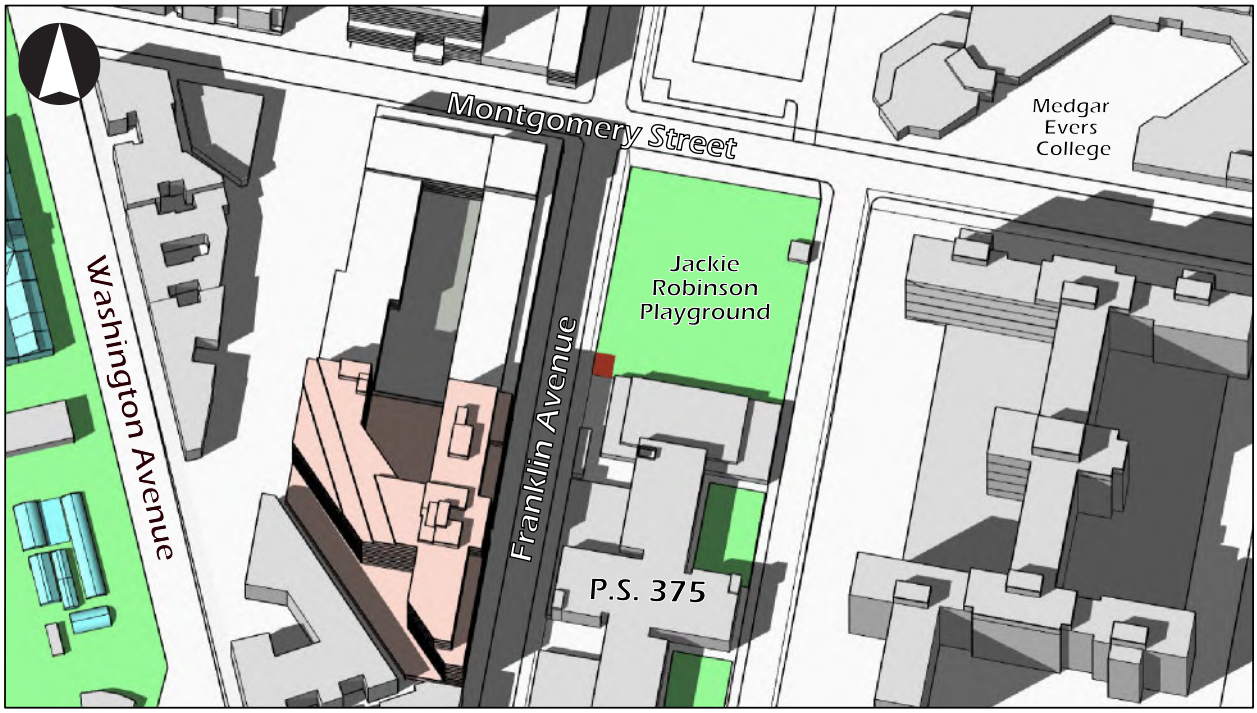


7:30 AM

Open Space
Historic Resource
P
Greenhouse Facility
Incremental Shadow

Jackie Robinson Playground
26.38 Degree Slope Modified Project Incremental Shadows - May 6/August 6



2:30 PM



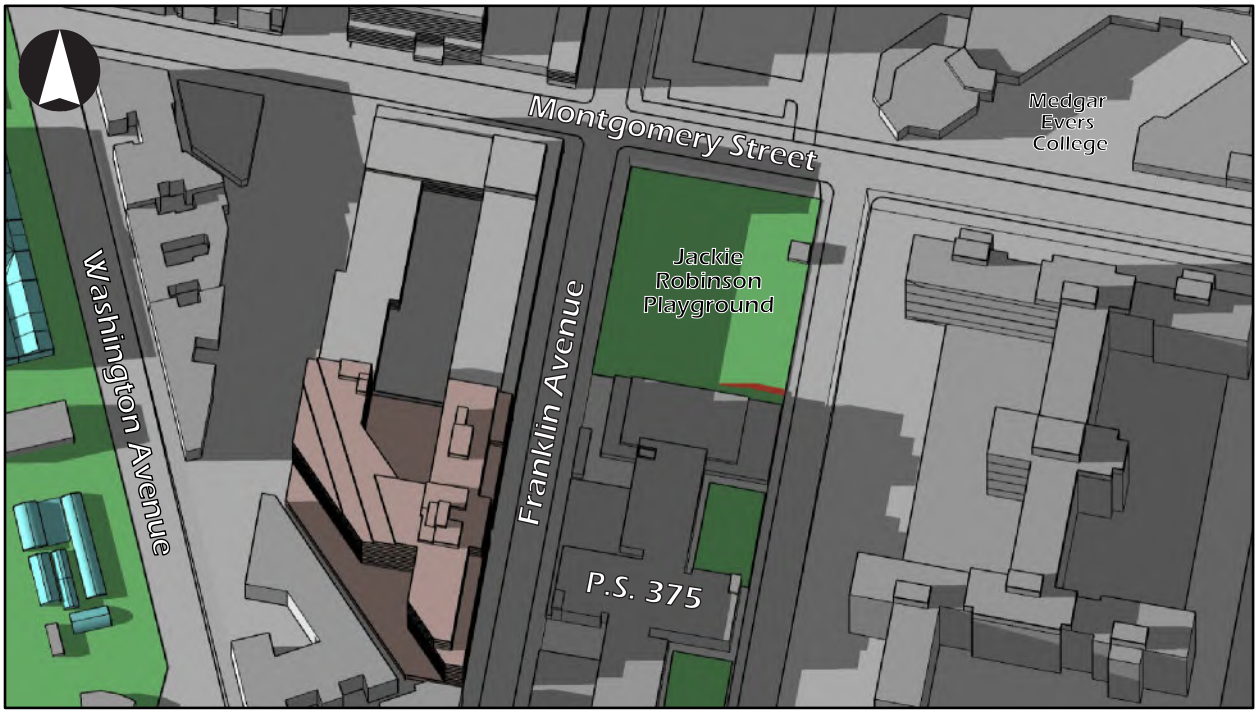
3:30 PM

26.38 **Degree Slope** Modified **Project** | **Open Space** | **Incremental Shadow**

Jackie Robinson Playground
26.38 Degree Slope Modified Project Incremental Shadows - May 6/August 6



4:00 PM



5:00 PM

26.38 **Degree Slope** Modified **Project** | **Open Space** | **Incremental Shadow**

Brooklyn Botanic Gardens
26.38 Degree Slope Modified Project Incremental Shadows - June 21



6:15 AM



7:00 AM

26.38 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Garden
26.38 Degree Slope Modified Project Incremental Shadows - June 21



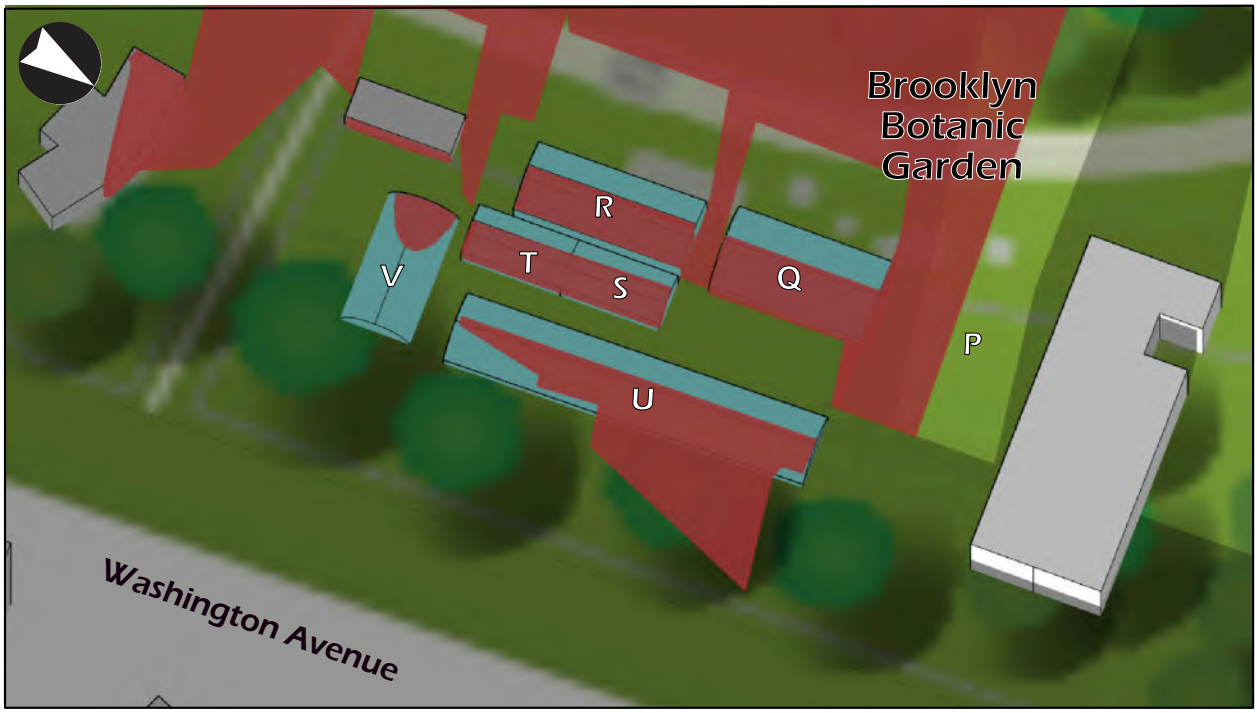
7:30 AM



8:00 AM

26.38 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
26.38 Degree Slope Modified Project Incremental Shadows - June 21



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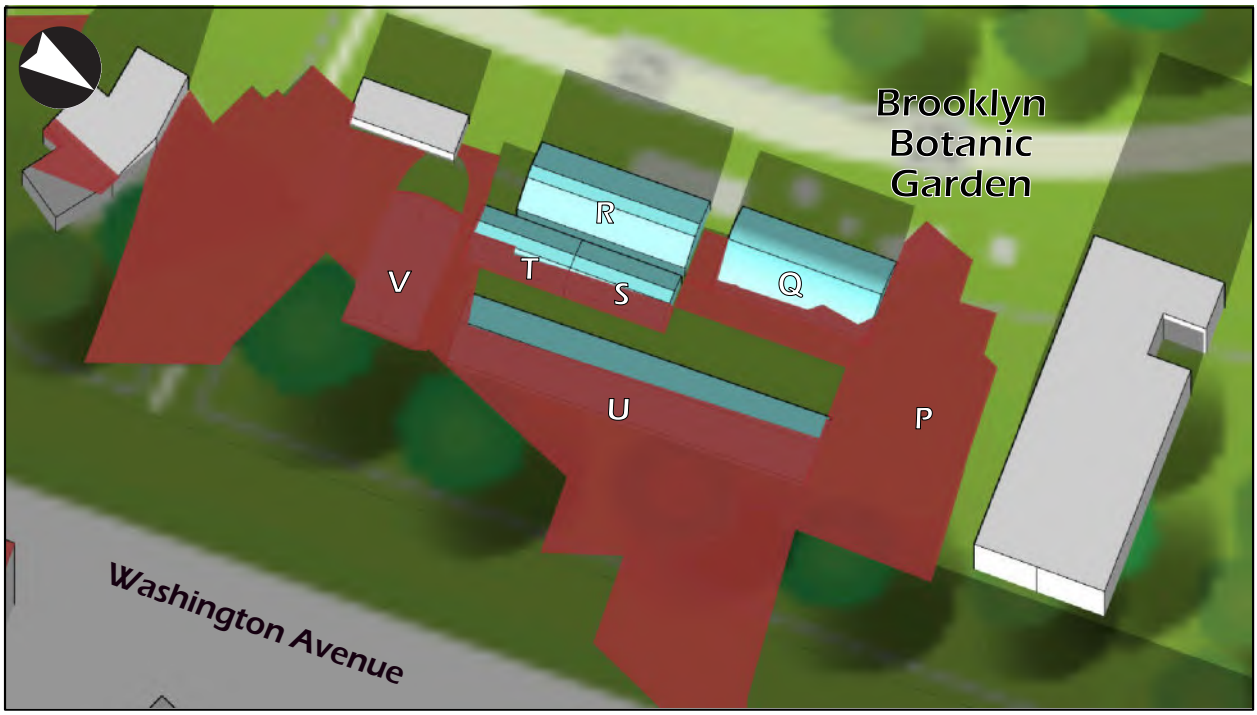
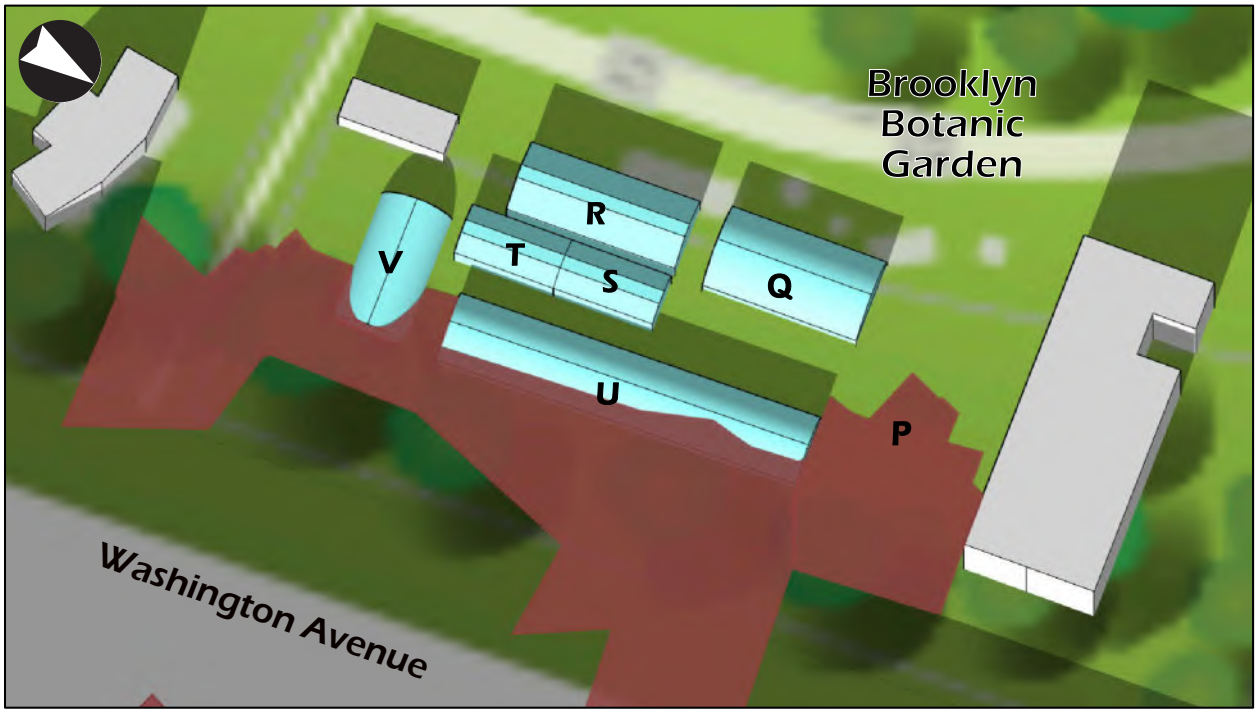


6:45 AM

Open Space
Historic Resource
P
Greenhouse Facility
Incremental Shadow

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
26.38 Degree Slope Modified Project Incremental Shadows - June 21



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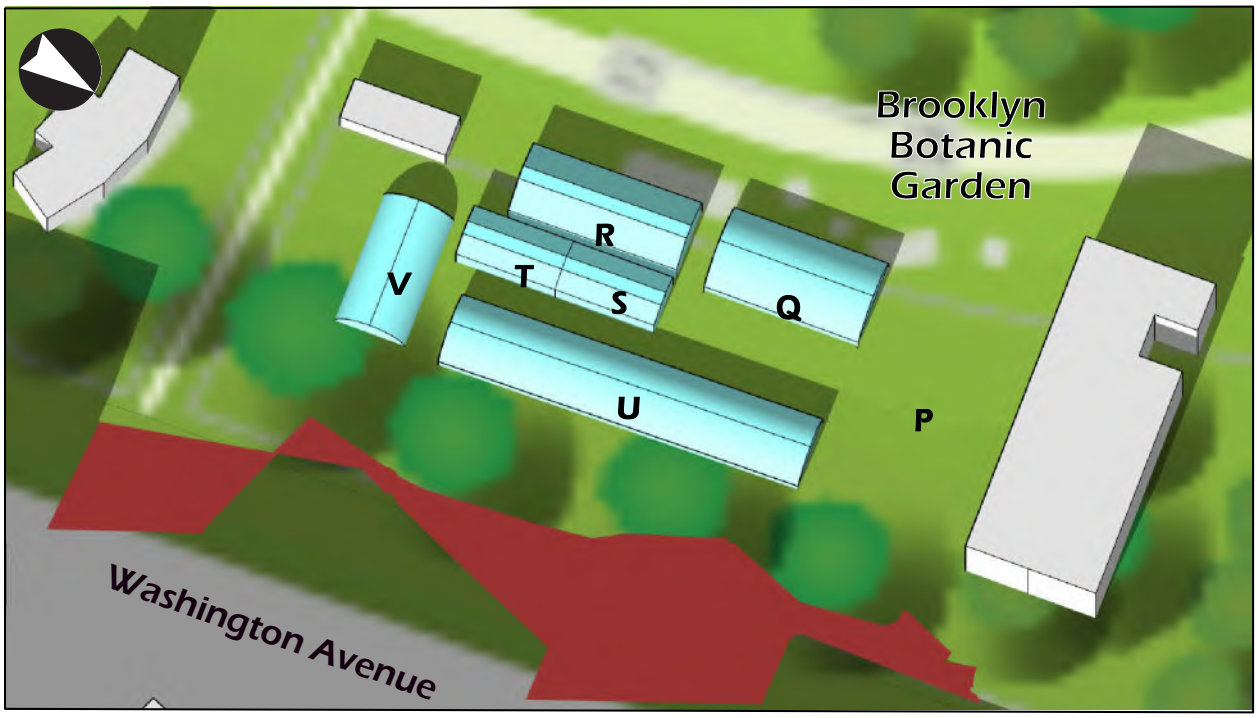


7:30 AM

Open Space
Historic Resource
P Greenhouse Facility
Incremental Shadow

Brooklyn Botanic Gardens
26.38 Degree Slope Modified Project Incremental Shadows - December 21



9:00 AM



9:25 AM

26.38 **Degree Slope** Modified **Project**

Open Space

Historic Resource

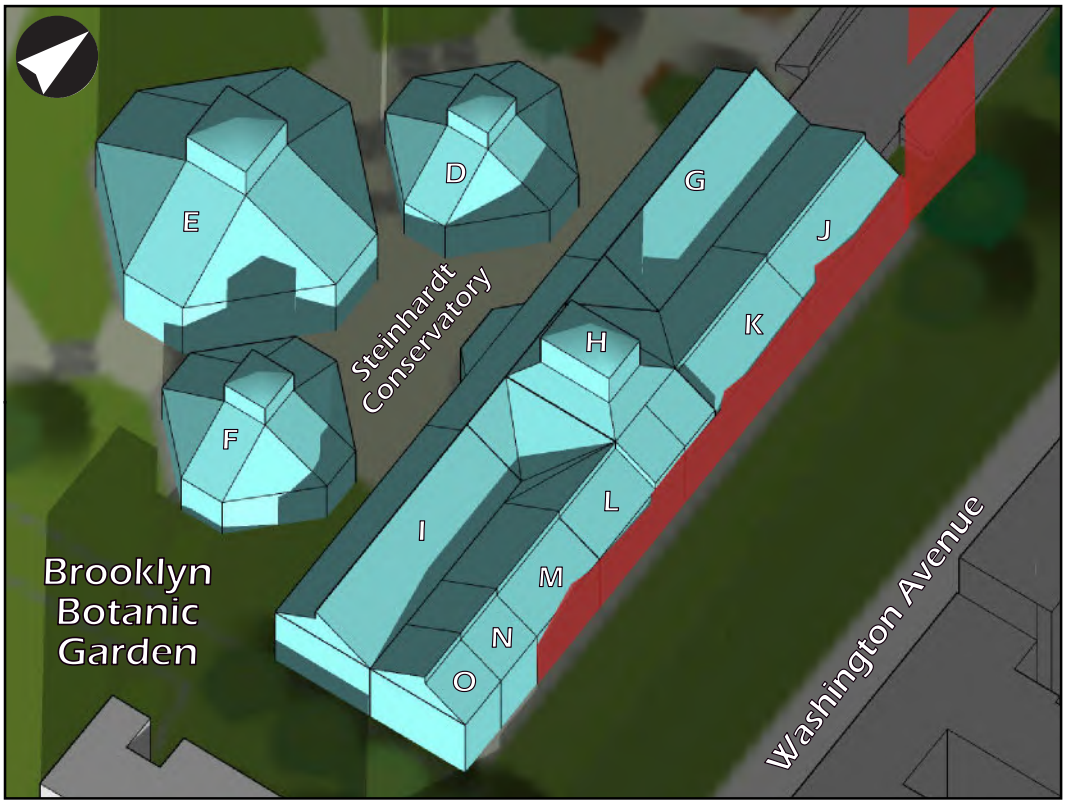
Greenhouse Facility

Incremental Shadow

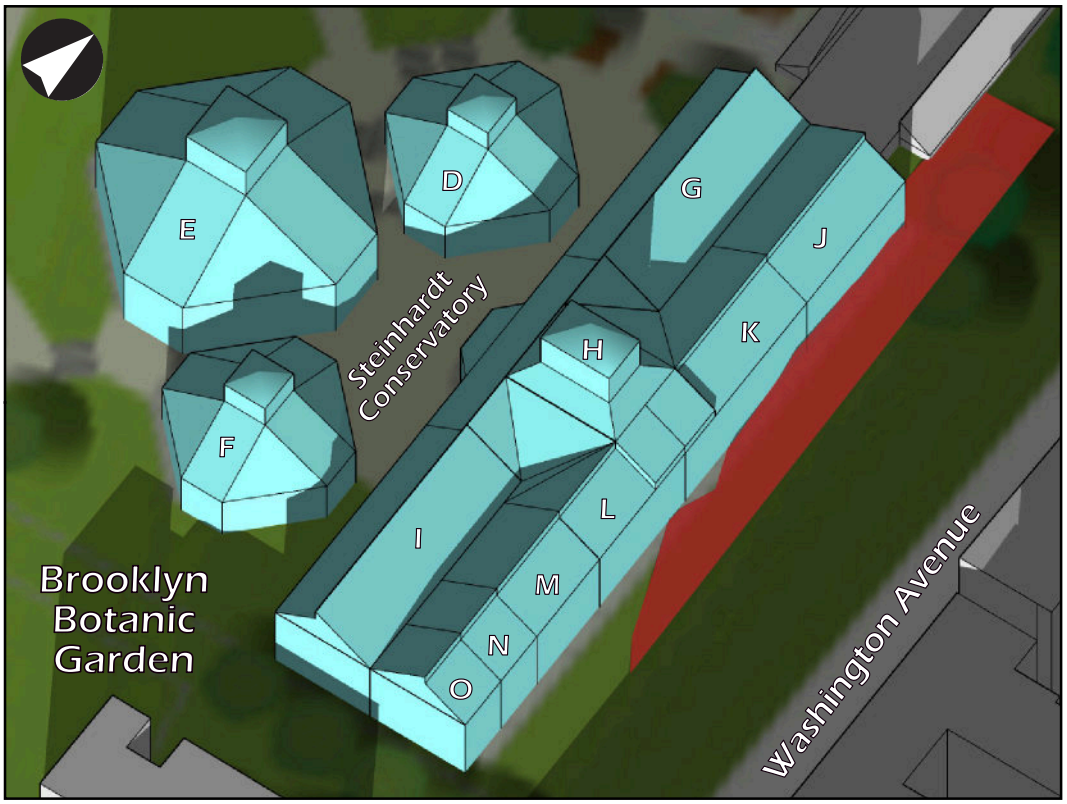
Water Feature

Brooklyn Botanic Garden - Steinhardt Conservatory

26.38 Degree Slope Modified Project Incremental Shadows - December 21



8:55 AM



9:10 AM

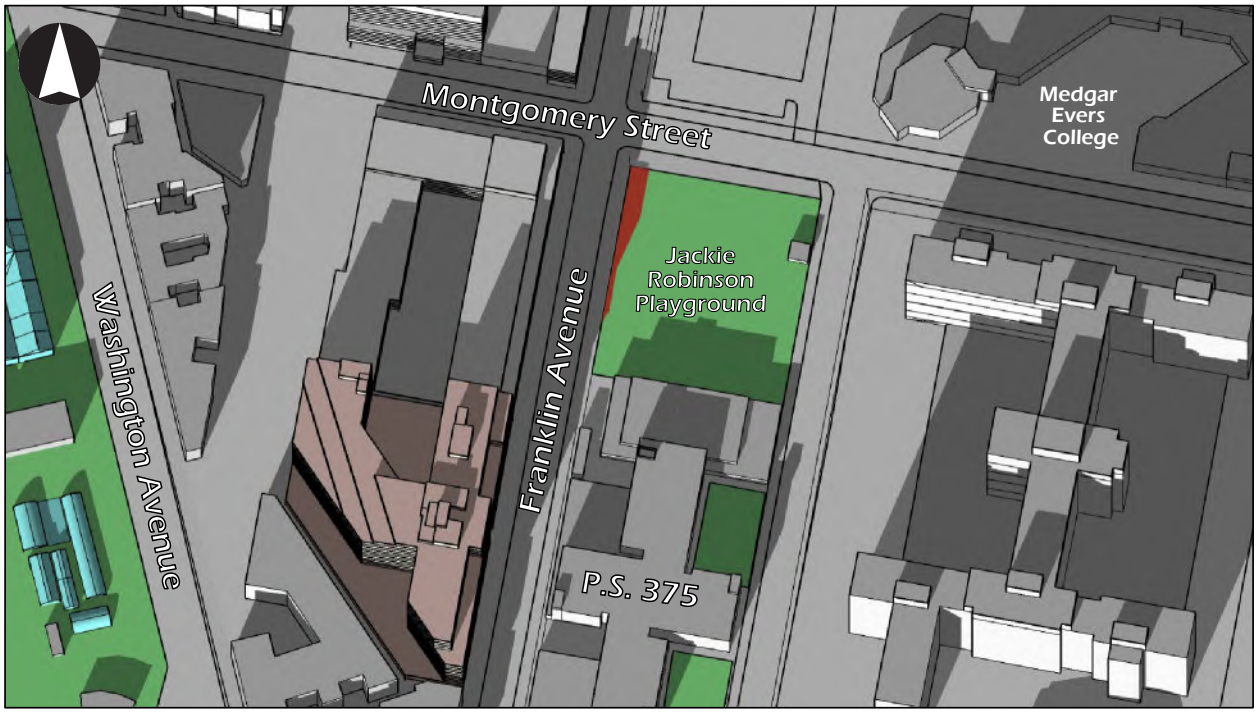
D Greenhouse Facility

Open Space

Historic Resource

Incremental Shadow

Jackie Robinson Playground
26.38 Degree Slope Modified Project Incremental Shadows - December 21



1:50 PM



2:50 PM

26.38 **Degree Slope** Modified **Project** | **Open Space** | **Incremental Shadow**

TABLE 12-6
Incremental Shadow Coverage – R8A with 26.83-Degree Sloping Plane Alternative (14-Story)

Resource #	Resource	Analysis Day	March 21/Sept. 21	May 6/August 6	June 21	December 21	Incremental Shadow Durations Compared to the Proposed Project (Table 4-6)			
			7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM	March 21/Sept. 21	May 6/August 6	June 21	December 21
1	Brooklyn Botanic Garden (Full Garden)	Shadow enter-exit time	7:36 AM - 8:42 AM	6:27 AM - 8:07 AM	5:57 AM - 7:55 AM	8:51 AM - 9:19 AM	-54 minutes	-53 minutes	-59 minutes	-44 minutes
		Incremental shadow duration	1 hour 6 minutes	1 hour 40 minutes	1 hour 58 minutes	28 minutes				
2	Jackie Robinson Playground	Shadow enter-exit time	2:18 PM - 4:29 PM	2:21 PM - 4:45 PM	-	1:47 PM - 2:53 PM	-35 minutes	-1 hour	-1 hour 41 minutes	-12 minutes
		Incremental shadow duration	2 hours 11 minutes	2 hours 24 minutes	-	1 hour 6 minutes				
3	Prospect Park	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
4	P.S. 375K Community Playground	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
	Brooklyn Botanic Garden (Resources A-V)	Shadow enter-exit time	7:36 AM - 8:23 AM	6:27 AM - 7:39 AM	5:57 AM - 7:26 AM	8:51 AM - 9:07 AM	+44 minutes	-1 hour 15 minutes	-1 hour 15 minutes	-26 minutes
		Incremental shadow duration	47 minutes	1 hour 12 minutes	1 hour 29 minutes	16 minutes				
A	Education Greenhouse: Desert Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-9 minutes
		Incremental shadow duration	-	-	-	-				
B	Education Greenhouse: Warm Temperate Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-11 minutes
		Incremental shadow duration	-	-	-	-				
C	Education Greenhouse: Tropical Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-13 minutes
		Incremental shadow duration	-	-	-	-				

D	Helen Mattin Warm Temperate Pavilion	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
E	Tropical Pavilion	Shadow enter-exit time	-	-	-	-	-40 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
F	Desert Pavilion	Shadow enter-exit time	-	-	-	-	-52 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
G	C.V. Starr Bonsai Museum	Shadow enter-exit time	-	-	-	-	-	-	-	-27 minutes
		Incremental shadow duration	-	-	-	-				
H	Conservatory Entry House	Shadow enter-exit time	-	-	-	-	-14 minutes	-	-	-16 minutes
		Incremental shadow duration	-	-	-	-				
I	Aquatic House & Orchid Collection	Shadow enter-exit time	7:36 AM - 7:58 AM	-	-	-	-54 minutes	-	-	-
		Incremental shadow duration	22 minutes	-	-	-				
J	Desert, Mediterranean, South African Bulb (Arid) Workhouse	Shadow enter-exit time	-	-	-	8:51 AM- 9:05 AM	-	-	-	-28 minutes
		Incremental shadow duration	-	-	-	14 minutes				
K	Humid Tropics Workhouse	Shadow enter-exit time	-	-	-	8:51 AM - 9:07 AM	-	-	-	-21 minutes
		Incremental shadow duration	-	-	-	16 minutes				
L	Lowland Moist Tropical Orchid Workhouse	Shadow enter-exit time	-	-	-	8:51 AM - 9:03 AM	-41 minutes	-	-	-10 minutes
		Incremental shadow duration	-	-	-	12 minutes				

M	Highland Moist Tropical Orchid Workhouse	Shadow enter-exit time	7:58 AM - 8:17 AM	-	-	8:51 AM - 9:01 AM	-1 hour 2 minutes	-	-	+1 minute
		Incremental shadow duration	19 minutes	-	-	10 minutes				
N	Tropical Plant Propagation House	Shadow enter-exit time	7:36 AM - 8:15 AM	-	-	8:51 AM - 8:54 AM	- 50 minutes	-	-	+3 minutes
		Incremental shadow duration	39 minutes	-	-	3 minutes				
O	Tropical & Desert Plant Propagation House	Shadow enter-exit time	7:36 AM - 8:12 AM	-	-	8:51 AM - 8:53 AM	-55 minutes	-	-	+2 minutes
		Incremental shadow duration	36 minutes	-	-	2 minutes				
P	Hardy Plant Nursery Yard	Shadow enter-exit time	7:36 AM - 8:23 AM	6:27 AM - 7:39 AM	5:57 AM - 7:26 AM	-	-41 minutes	-1 hour 15 minutes	-1 hour 28 minutes	-
		Incremental shadow duration	47 minutes	1 hour 12 minutes	1 hour 29 minutes	-				
Q	Temperate Bonsai Tunnel	Shadow enter-exit time	7:36 AM - 7:52 AM	6:27 AM - 6:56 AM	5:57 - 6:44 AM	-	-35 minutes	-1 hour 2 minutes	-1 hour 11 minutes	-
		Incremental shadow duration	16 minutes	29 minutes	47 minutes	-				
R	Production House	Shadow enter-exit time	7:36 AM - 7:46 AM	6:27 AM - 6:49 AM	5:57 - 6:32 AM	-	-5 minutes	-56 minutes	-1 hour 9 minutes	-
		Incremental shadow duration	10 minutes	22 minutes	35 minutes	-				
S	Tropical Bonsai House	Shadow enter-exit time	7:36 AM - 7:54 AM	6:27 AM - 6:58 AM	5:57 - 6:42 AM	-	-4 minutes	-58 minutes	-1 hour 11 minutes	-
		Incremental shadow duration	18 minutes	31 minutes	45 minutes	-				
T	Auxiliary House	Shadow enter-exit time	7:36 AM - 7:51 AM	6:27 - 7:03 AM	5:57 - 6:46 AM	-	+15 minutes	-39 minutes	-1 hour 2 minutes	-
		Incremental shadow duration	15 minutes	36 minutes	49 minutes	-				
U	New York-Native Flora & Temperate Plant Propagation Tunnel	Shadow enter-exit time	7:36 AM - 8:06 AM	6:27 - 7:15 AM	5:57 - 7:02 AM	-	-36 minutes	-1 hour 4 minutes	-1 hour 16 minutes	-
		Incremental shadow duration	30 minutes	48 minutes	1 hour 5 minutes	-				

V	Mediterranean Display Plants Tunnel	Shadow enter-exit time	7:36 AM - 7:44 AM	6:32 AM - 7:09 AM	6:06 AM - 6:56 AM	-	+7 minutes	-45 minutes	-53 minutes	-
		Incremental shadow duration	8 minutes	37 minutes	50 minutes	-				

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *CEQR Technical Manual* guidance.
Table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.
[1] Keyed to **Figure 4-3**.

Historic and Cultural Resources

Similar to the Proposed Project, as described in **Attachment B, "Supplemental Screening,"** of the EAS, the R8A with 26.38-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to historic and cultural resources. As the R8A with 26.38-Degree Sloping Plane Alternative would be built on the same Proposed Development Site under the same development program as the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not result in significant adverse impacts to historic and cultural resources.

Urban Design and Visual Resources

Similar to the proposed Project, as described in **Chapter 6, "Urban Design and Visual Resources,"** the R8A with 26.38-Degree Sloping Plane Alternative would not result in any significant adverse impacts to urban design and visual resources.

While the maximum permitted roof height for a R8A zoning district under the City of Yes for Housing Opportunity, 145 feet, would be the same under both the R8A with 26.38-Degree Sloping Plane Alternative and the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would be constructed within a smaller maximum permitted building envelope due to stricter controls on bulkheads and other building "obstructions" as described above per the imposed 26.38-degree sloping plane. As such the R8A with 26.38-Degree Sloping Plane Alternative's effects on urban design and visual resources would be very similar to the Proposed Project.

As with the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would be a building form that is similar to other recent developments in the area, would be constructed on an existing block and would not entail any changes to topography, open space, or natural features in the Project Area or secondary study area. Likewise, as with the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not obstruct any significant viewsheds in the area, or substantially alter the pedestrian experience in the immediate vicinity of the Project Area.

Hazardous Materials

As under the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not result in significant adverse hazardous materials impacts. The R8A with 26.38-Degree Sloping Plane Alternative would be developed in accordance with the applicable NYC DOB guidance in terms of safe building demolition and site redevelopment methods, including compliance with the proposed (Ee) dDesignation.

The (E) Designation, E-728 text related to hazardous materials is as follows:

> **Task 1-Sampling Protocol**
>
> **The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be**

complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

Therefore, there would be no potential for contact with subsurface contamination and no significant risk of human exposure.

Water and Sewer Infrastructure

Neither the Proposed Project nor the R8A with 26.38-Degree Sloping Plane Alternative would result in significant adverse impacts on the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. As the R8A with 26.38-Degree Sloping Plane Alternative follows the same development program as the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would generate the same demand on the City's water supply and wastewater treatment infrastructure.

Energy

Neither the Proposed Project nor the R8A with 26.38-Degree Sloping Plane Alternative would result in significant adverse impacts with respect to the transmission or generation of energy. The demand generated under the R8A with 26.38-Degree Sloping Plane Alternative would be the same as for the Proposed Project. However, under both the Proposed Project and the R8A with 26.38-Degree Sloping Plane Alternative, the annual increase in demand would represent a negligible amount of the City's forecasted annual energy requirements for 2027.

Transportation

Similar to the Proposed Project, as described in **Attachment F, "Transportation,"** of the EAS, the R8A with 26.38-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to traffic, pedestrians, transit, or parking. As the R8A with 26.38-Degree Sloping Plane Alternative would

be built on the same site, under the same development program as the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not result in significant adverse impacts to traffic, pedestrians, transit, or parking.

Air Quality

Under the R8A with 26.38-Degree Sloping Plane Alternative, as with the Proposed Project, there would be a new approximately 471,495-gsf mixed use development with 71 accessory parking spaces. While the roof height of the R8A with 26.38-Degree Sloping Plane Alternative, 145 feet, would be the same as the Proposed Project, the total height of the R8A with 26.38-Degree Sloping Plane Alternative as compared to the Proposed Project, inclusive of bulkheads, would be approximately 170 feet, due to the imaginary sloping plane restriction, as compared to the Proposed Project, which with a maximum permitted bulkhead of 55 feet would be up to approximately 200 feet. As such, the R8A with 26.38-Degree Sloping Plane Alternative would introduce stationary source air quality emissions of the same magnitude and similar source locations as compared to the Proposed Project and as is the case for the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not be expected to result in significant adverse stationary source air quality impacts.

The closest building taller than the R7D Alternative (including bulkhead) is the 211-foot tall building at 1720 Bedford Avenue. 1720 Bedford Avenue is approximately 375 feet east of the Proposed Development Site. As shown in **Figure 12-19** (based on Figure 17-3 of the *CEQR Technical Manual*), the R7X with 17-Degree Sloping Plane Alternative would be below the screening curve for fossil fueled fired HVAC systems. Therefore, no stationary source air quality significant adverse impacts would occur.

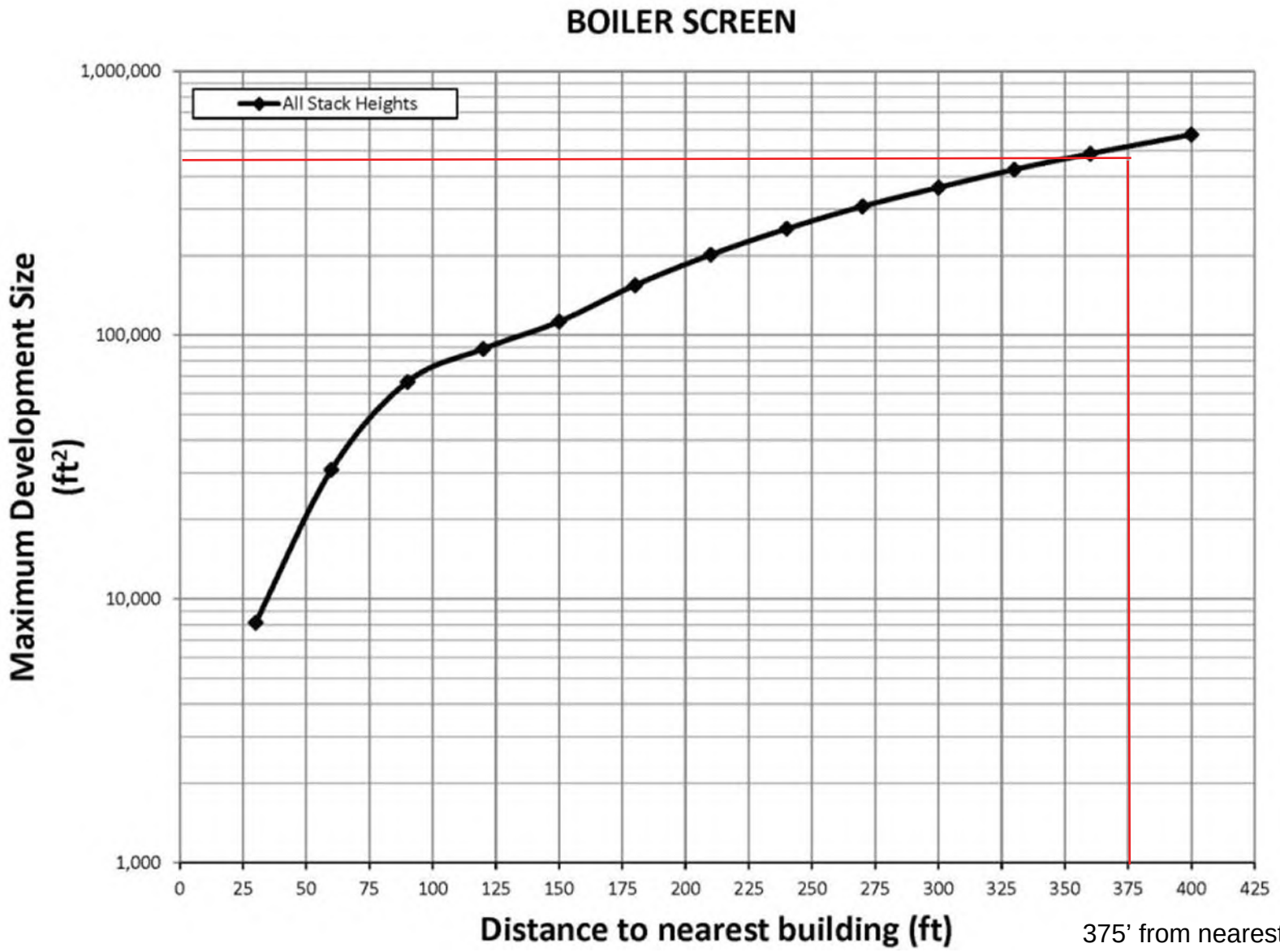
The same (E) designation requirement for stack location identified for the Proposed Project in the **Environmental Assessment Statement (EAS)** for this application, issued June 26, 2023, would also apply to the R8A with 26.38-Degree Sloping Plane Alternative. That requirement is as follows:

> **Block: 1192, Lots: 63 and 66**
>
> **Any new residential and/or commercial development on the above-referenced property must ensure the heating, ventilating, and air conditioning (HVAC) system and hot water equipment stack is located at the highest tier and at least 148 feet above grade to avoid any potential significant adverse air quality impact.**

Additionally, mobile source emissions from traffic on surrounding roadways would be identical for the R8A with 26.38-Degree Sloping Plane Alternative as compared to the Proposed Project. Accordingly, as is the case for the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not result in significant adverse mobile source air quality impacts.

Greenhouse Gas Emissions and Climate Change

As the R8A with 26.38-Degree Sloping Plane Alternative would result in a new 475-unit mixed-use residential and local retail development, it would follow the same development program as the Proposed Project. As such, it would use a similar amount of energy as the Proposed Project and would, therefore, result in similar carbon dioxide equivalent (CO_2e) emissions per year. Neither the Proposed Project nor the R8A with 26.38-Degree Sloping Plane Alternative would result in significant greenhouse gas (GHG) emission or climate change impacts.



375' from nearest building taller than 170'

962-972 Franklin Avenue Rezoning **Figure 12-19**

Stationary Source Screen - R8A with 26.38-Degree Sloping Plane Alternative

Noise

Under the R8A with 26.38-Degree Sloping Plane Alternative, a new 475-unit mixed-use development would occur on the Proposed Development Site. No other sources of noise would be created on the Proposed Development Site. The noise levels from mobile sources on surrounding roadways would remain similar compared to the Proposed Project, as the R8A with 26.38-Degree Sloping Plane Alternative would include the same number of DU. As presented in **Attachment H, "Noise,"** of the EAS, under the Proposed Project no significant adverse noise impacts would occur. As the R8A with 26.38-Degree Sloping Plane Alternative would result in the same number of vehicle trips near the Project Area's noise receptor locations, the R8A with 26.38-Degree Sloping Plane Alternative would not result in any significant adverse impacts to noise.

Public Health

Similar to the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not result in any unmitigated significant adverse impacts in any of the technical areas related to public health. According to the *CEQR Technical Manual,* actions that do not result in unmitigated significant adverse impacts related to air quality, water quality, hazardous materials, or noise typically do not warrant a public health analysis. As the R8A with 26.38-Degree Sloping Plane Alternative does not have the potential to cause any significant adverse impacts in those areas, it would not have any significant adverse impacts on public health.

Neighborhood Character

According to the *CEQR Technical Manual,* a proposed project could have a significant adverse neighborhood character impact if it would have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact in any relevant technical area, or through a combination of moderate effects in those technical areas. Similar to the Proposed Project, the R8A with 26.38-Degree Sloping Plane Alternative would not cause significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; transportation; or noise. As such, the R8A with 26.38-Degree Sloping Plane Alternative would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature. The new building that would occur under the R8A with 26.38-Degree Sloping Plane Alternative and the overall neighborhood character of the area would continue to trend toward increased residential and local retail uses on vacant and underutilized sites, as would also occur under the Proposed Project. The study area would continue to be characterized by its evolving mix of land uses and building types, and its location in an area with low pedestrian volumes. Neither the Proposed Project nor the R8A with 26.38-Degree Sloping Plane Alternative would result in significant adverse impacts to neighborhood character.

Construction

Because the R8A with 26.38-Degree Sloping Plane Alternative follows the same development program as the Proposed Project, it would require essentially the same construction process as anticipated under the Proposed Actions. The RD would continue to include project components related to the environment related to construction air quality and noise that would avoid or partially mitigate the impacts. Therefore, the same amount of materials and construction workers can be assumed for building the R8A with 26.38-

Degree Sloping Plane Alternative and construction would result in similar conditions to the analysis presented in **Chapter 10, "Construction".**

G. R7X WITH 17-DEGREE SLOPING PLANE ALTERNATIVE

At the request of the Lead Agency and NYC Parks, the Applicant has analyzed an alternative pursuant to a R7X zoning district to create a development (the "R7X with 17-Degree Sloping Plane Alternative") that results in fewer significant adverse impacts than would occur under the Proposed Project. The R7X with 17-Degree Sloping Plane Alternative would consist of 385 DUs (96 of which would be permanently affordable through the MIH Program) and 8,128 gsf of local retail space. The R7X with 17-Degree Sloping Plane Alternative would include 394,297 gsf of residential space and would be built to an FAR of 5.81 as permitted under the City of Yes for Housing Opportunity. The R7X with 17-Degree Sloping Plane Alternative would comply with all R7X zoning bulk regulations and would stand at a maximum height of 11 stories or 110 feet (not including a 35-~~-~~foo~~e~~t mechanical bulkhead). Parking would be provided pursuant to the same special permit requested for the Proposed Project. **Figure 12-20** includes an axonometric diagram of the R7X with 17-Degree Sloping Plane Alternative.

As shown in **Table 12-7**, the R7X with 17-Degree Sloping Plane Alternative would result in approximately 90 fewer total DU, 67 fewer market-rate DU, and 23 fewer affordable DU than the Proposed Project. The R7X with 17-Degree Sloping Plane Alternative would have approximately the same amount of local retail space as the Proposed Project. The R7X with 17-Degree Sloping Plane Alternative would have 227 fewer residents and three fewer workers than the Proposed Project. Similar to the Proposed Actions, this Alternative would require an (e) designation for hazardous materials; the (e) designation for air quality would no longer be required, see Air Quality section below. A Restrictive Declaration to codify project components related to the environment (PCREs) and mitigation measures related to shadows, construction (air quality and noise) to avoid and partially mitigate the identified impacts.

TABLE 12-7
Comparison of the Proposed Project and R7X with 17-Degree Sloping Plane Alternative

Use	Proposed Project	R7X with 17-Degree Sloping Plane Alternative	Increment
Residential			
Market-Rate Dwelling Units	356 (~314,509.5 gsf)	289 (~295,722.8 gsf)	**-67 (~18,786.8 gsf)**
Affordable Dwelling Units	119 (~104,836.5 gsf)	96 (~98,574.3 gsf)	**-23 (~6,262.3 gsf)**
TOTAL	**475 (419,346 gsf)**	**385 (394,297 gsf)**	**-90 (~25,049 gsf)**
Local Retail	8,128 gsf	8,128 gsf	-
Parking	71 spaces (30,101 gsf)	71 spaces (30,101 gsf)	-
Population/Employment[1]	**With-Action Scenario**	**With-Action Scenario**	**Increment**
Residents	1,197	970	**-227**
Workers	43	40	**-3**

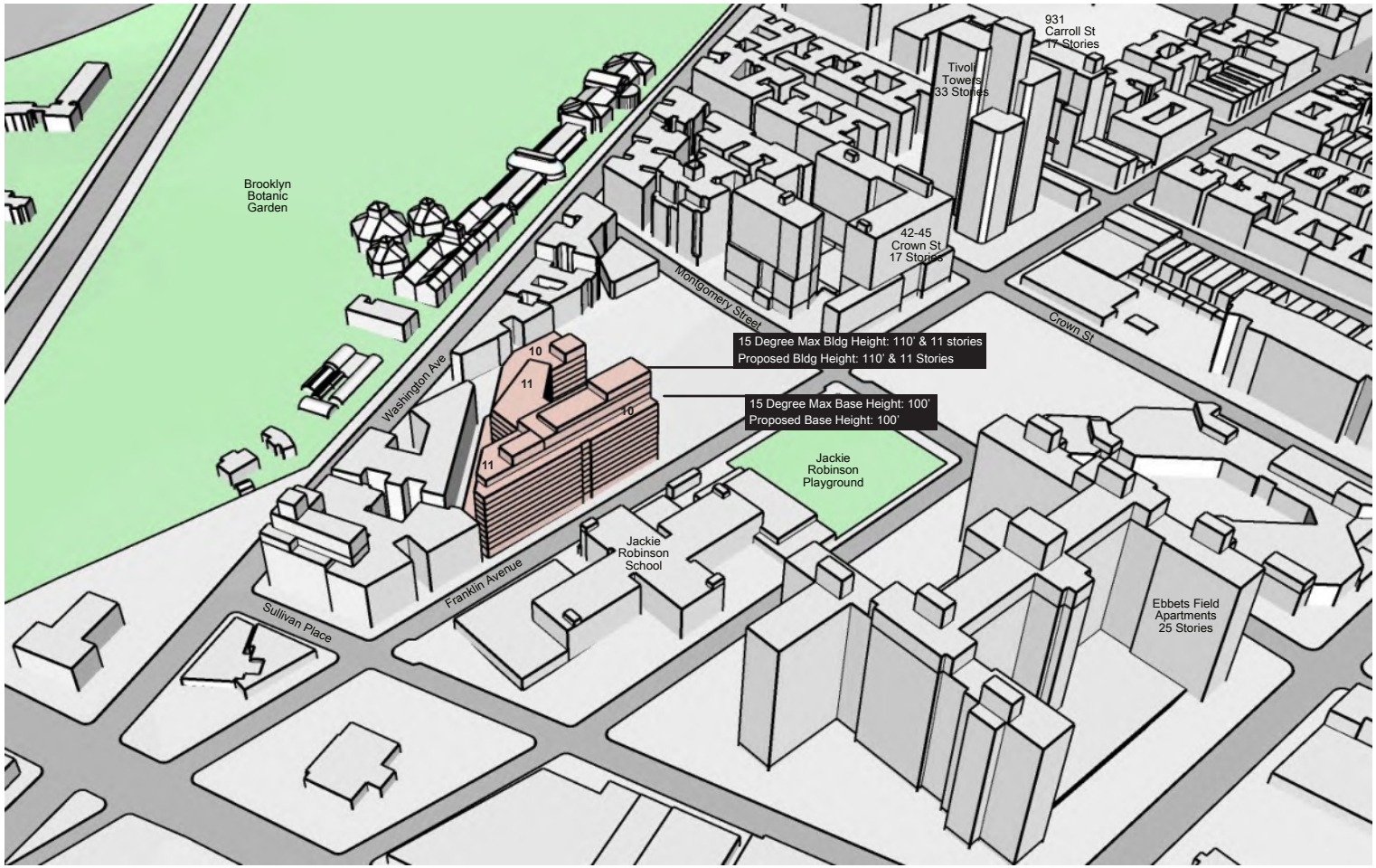
Notes:
[1] Assumes 2.52 persons per DU (based on 2020 U.S. Census data for Brooklyn Community District 9). Estimate of workers is based on standard rates and are as follows: 1 worker per 25 dwelling units; 3 workers per 1,000 sf retail space.

The effects of the R7X with 17-Degree Sloping Plane Alternative in comparison to those of the Proposed Project are provided below for each technical area.

Massing at Lot 63 & 66 - R7X with 17-Degree Sloping Plane
11 Story / 5.81 FAR

GFA: 394,297
ZFA: 309,469 (FAR 5.81)

Parking Spaces Provided
Total Approx. 71 Spaces



*For Illustrative Purposes only

962-972 Franklin Avenue Rezoning

Figure 12-20
Axonometric Diagram - R7X with 17-Degree Sloping Plane

Land Use, Zoning, and Public Policy

Under the R7X with 17-Degree Sloping Plane Alternative, it is anticipated that a new residential development would be constructed on-site pursuant to R7X zoning. The R7X with 17-Degree Sloping Plane Alternative would introduce new residential uses on a site that has been primarily vacant, a portion of the site has been used most recently for spice processing, warehousing, and distribution. Approximately 385 DUs would be developed with approximately 289 market-rate units and approximately 96 permanently affordable units through the MIH Program. As such, the R7X with 17-Degree Sloping Plane Alternative would not result in a change of land use on the Proposed Development Site relative to the Proposed Project. The R7X with 17-Degree Sloping Plane Alternative would incorporate approximately 90 fewer DUs than the Proposed Project and would offer a similar amount of local retail uses and off-street parking.

Under this alternative, the Project Area would be rezoned to R7X, a medium-density residential district that permits a maximum FAR of 6.0 per City of Yes for Housing Opportunity. The zoning text amendment to establish the Project Area as a Mandatory Inclusionary Housing (MIH) area would still be established and approximately 96 DUs of mandatory affordable housing would be developed. No zoning special permits would be required.

It is the Applicant's opinion that the R7X with 17-Degree Sloping Plane Alternative would be supportive of public policies articulated in *Housing New York*, PlaNYC, and *OneNYC* that aim toward increasing the supply of housing in the city, reclaiming underutilized land, and expanding access to affordable housing. However, this would be to a lesser degree than the Proposed Actions, given that the total number of new housing units would be 385 units instead of 475 units with the Proposed Project, and the affordable housing units would be 96 DUs instead of 119 DUs with the Proposed Project, a loss of 23 affordable units.

As described in **Chapter 2, "Land Use, Zoning, and Public Policy,"** the Proposed Project would not result in any significant adverse impacts to land use, zoning, or public policy. As the R7X with 17-Degree Sloping Plane Alternative would include similar uses to the Proposed Project, with residential uses included at a lower density, along with a similar amount of local retail space, the R7X with 17-Degree Sloping Plane Alternative would not result in any significant adverse impacts related to land use, zoning, and public policy.

Socioeconomic Conditions

Similar to the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would not be expected to have a significant adverse impact on socioeconomic conditions. Similar to the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would not result in direct residential or business displacement. While a portion of the Proposed Development Site currently supports an existing business operation, the Applicant has indicated that they have an accepted purchase agreement and the existing business would vacate the property regardless of the Proposed Actions.

New residential developments are anticipated in the socioeconomic conditions study area in both the future with and without the Proposed Actions, and demand for residential development in Crown Heights is expected to continue to rise. The Project Area would also be designated as an MIH area under the R7X with 17-Degree Sloping Plane Alternative. As discussed above, under the R7X with 17-Degree Sloping

Plane Alternative, 96 DUs of permanently affordable housing through the MIH program would be constructed.

The residential units that would be constructed under the R7X with 17-Degree Sloping Plane Alternative would not result in indirect residential displacement by introducing a trend or accelerating a trend that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. The affordable housing units added by the R7X with 17-Degree Sloping Plane Alternative would maintain a diverse demographic composition within the study area and would further expand the supply of affordable housing for current and future residents. The affordable housing units would help to ensure that a considerable portion of the new households would have incomes that would more closely reflect the incomes of existing households in the study area and help ensure that the neighborhood continues to serve diverse housing needs. Therefore, the R7X with 17-Degree Sloping Plane Alternative would not introduce a new trend or accelerate an existing trend of changing conditions in a manner that would have the potential to substantially change the socioeconomic character of the neighborhood.

Therefore, similar to the Proposed Project and the findings of **Attachment C, "Socioeconomic Conditions,"** of the EAS, the R7X with 17-Degree Sloping Plane Alternative would not result in any significant adverse impacts to Socioeconomic Conditions.

Community Facilities and Services

Similar to the Proposed Project,. as described in **Attachment B, "Supplemental Screening,"** of the EAS, the R7X with 17-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to community facilities. As the R7X with 17-Degree Sloping Plane Alternative would be built to a lesser density than the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would not result in significant adverse impacts to community facilities.

Open Space

Similar to the Proposed Project, as discussed in **Chapter 3, "Open Space,"** the R7X with 17-Degree Sloping Plane Alternative would result in a direct open space significant adverse impact as a result of shadows cast by the Proposed Project. The Proposed Project would not result in significant adverse indirect impacts to open space in the surrounding area as a result of the increased population. As the R7X with 17-Degree Sloping Plane Alternative would result in 227 fewer residents in the Project Area, the R7X with 17-Degree Sloping Plane Alternative would also not result in indirect significant adverse impacts to open space.

For a discussion on direct effects of the R7X with 17-Degree Sloping Plane Alternative on nearby open space resources, refer to the discussion below on shadows.

Shadows/Natural Resources

Similar to the Proposed Project, as described in **Chapter 3, "Open Space," Chapter 4, "Shadows," and Chapter 5, "Natural Resources,"** the R7X with 17-Degree Sloping Plane Alternative would result in significant adverse impacts due to direct shadows effects on open space and natural resources in the

Brooklyn Botanic Garden and Jackie Robinson Playground. However, shadow magnitude, duration and extent are meaningfully reduced compared to the Proposed Actions.

As described above, the Applicant has analyzed an 11-story, 110-foot-tall R7X with 17-Degree Sloping Plane Alternative in an effort to reduce the significant adverse impacts identified as a result of the Proposed Project. Consistent with the analysis in **Chapter 4, "Shadows,"** the R7X with 17-Degree Sloping Plane Alternative assumes the inclusion of a 35-foot bulkhead on the eastern portion and a 16-foot bulkhead on the western portion of the R7X with 17-Degree Sloping Plane Alternative. The R7X with 17-Degree Sloping Plane Alternative would cast shadows on the Brooklyn Botanic Garden and the Jackie Robinson Playground, similar to the Proposed Project.

Brooklyn Botanic Garden

Under the R7X with 17-Degree Sloping Plane Alternative, incremental shadows would be cast over several of the affected greenhouses in the Brooklyn Botanic Garden used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. Incremental shadows from the R7X with 17-Degree Sloping Plane Alternative would be cast over this sunlight-sensitive resource on each of the four analysis days. As shown in **Table 12-8**, incremental shadows from the R7X with 17-Degree Sloping Plane Alternative would range on the Brooklyn Botanic Garden (Full Garden) from 12 minutes on the December 21 analysis day (8:51 – 9:03 AM) to one hour and 42 minutes on the June 21 analysis day (5:57 – 7:39 AM). Refer to **Figures 12-21** through **12-24**.

Individual resources within the Brooklyn Botanic Garden (Resources A through V in **Table 12-8**) would experience incremental shadows ranging from three minutes to one hour and 15 minutes. Compared to the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would result in decreases of incremental shadow duration of up to one hour and 42 minutes (the Hardy Plant Nursery Yard) (refer to **Table 12-8**).

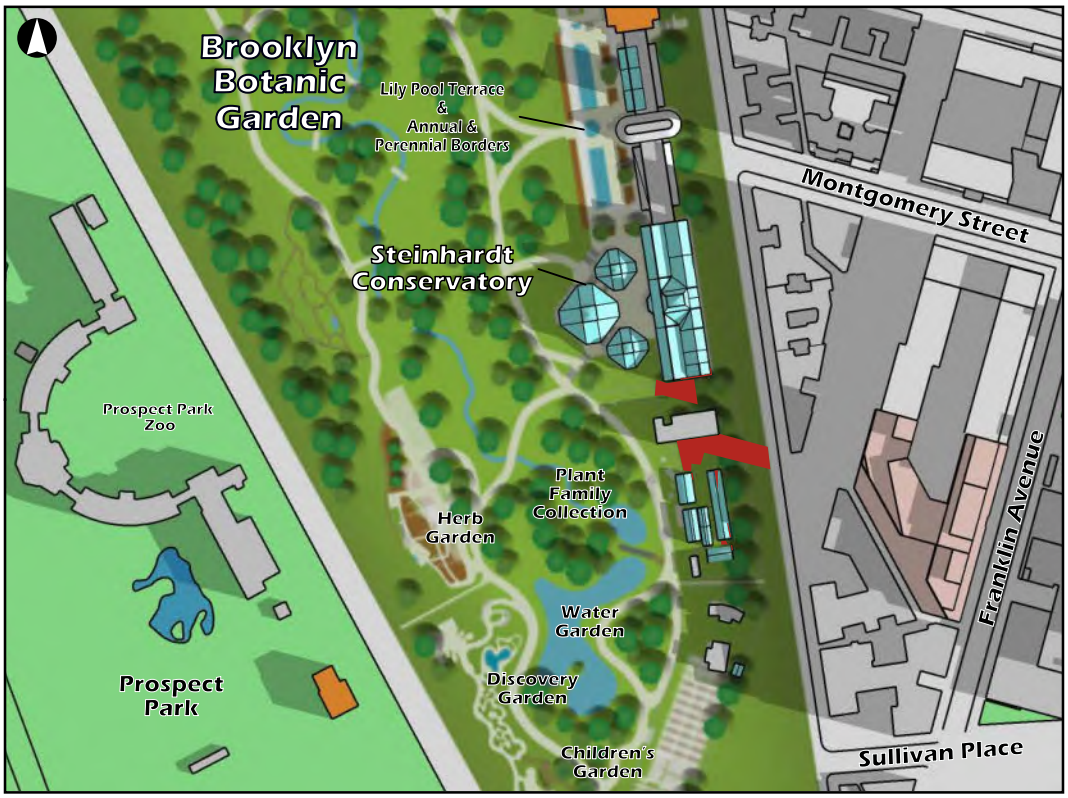
The R7X with 17-Degree Sloping Plane Alternative would not result in any increases in incremental shadow over the Proposed Project on any resources within the garden. Greenhouses within the Brooklyn Botanic Garden are used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. While the *CEQR Technical Manual* states that six to eight hours of sunlight is necessary for plant survival, the Brooklyn Botanic Garden contains over 18,500 kinds of plants, with globally rare species and native rare species. The minimum sunlight needed to constitute survival may not be enough to promote healthy growth of these rare plants and as the *CEQR Technical Manual* states, each project must take into account its unique circumstances. DCP, acting as Lead Agency, in consultation with NYC Parks finds that under the R7X with 17-Degree Sloping Plane Alternative, shadows impacts would be reduced or eliminated as compared to the Proposed Project on some of the Brooklyn Botanic Garden sunlight sensitive resources, but significant adverse shadows impacts on open space and natural resources would still occur on resources within the Brooklyn Botanic Garden.

Jackie Robinson Playground

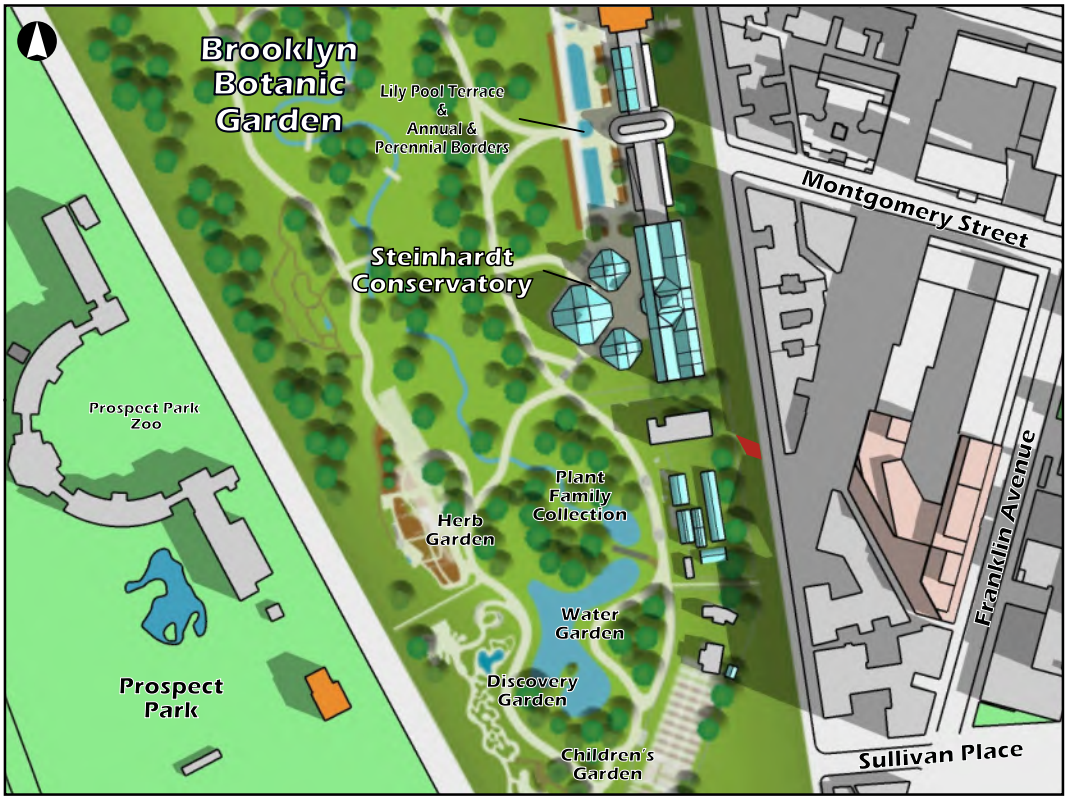
As shown in **Table 12-8**, the R7X with 17-Degree Sloping Plane Alternative will cast incremental shadows on the Jackie Robinson Playground on three of the four representative analysis days. The R7X with 17-Degree Sloping Plane Alternative would not cast shadow on the June 21 analysis day, unlike the Proposed Project. Incremental shadow coverage under this Alternative would last between 59 minutes and two

Brooklyn Botanic Gardens

17 Degree Slope Modified Project Incremental Shadows - March 21/September 21



7:36 AM



8:15 AM

17 Degree Slope Modified Project

Open Space

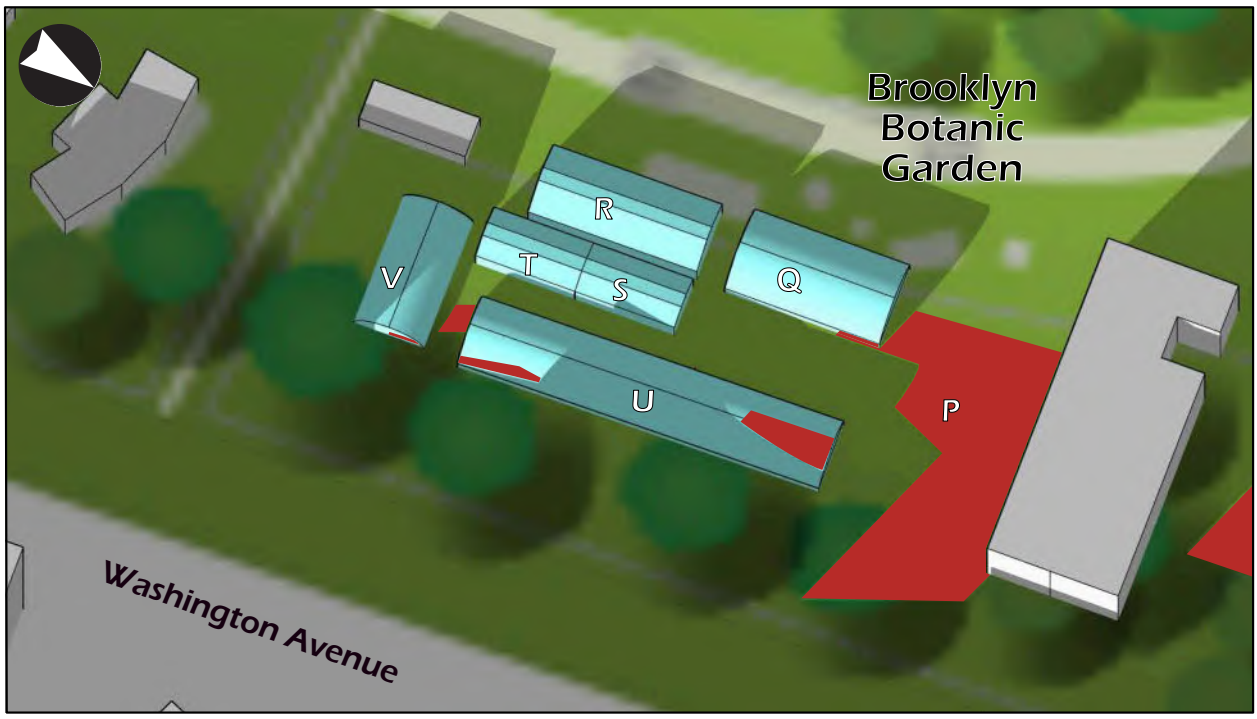
Historic Resource

Greenhouse Facility

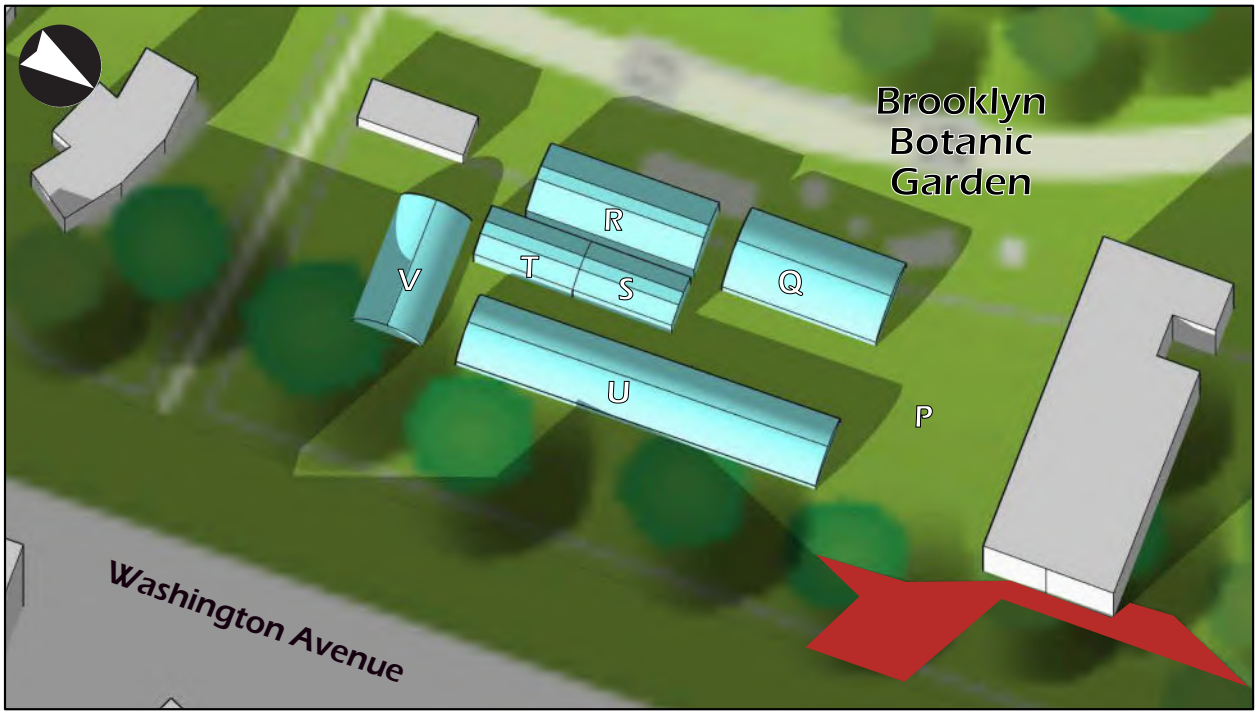
Incremental Shadow

Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
17 Degree Slope Modified Project Incremental Shadows - March 21/September 21



7:36 AM



8:00 AM

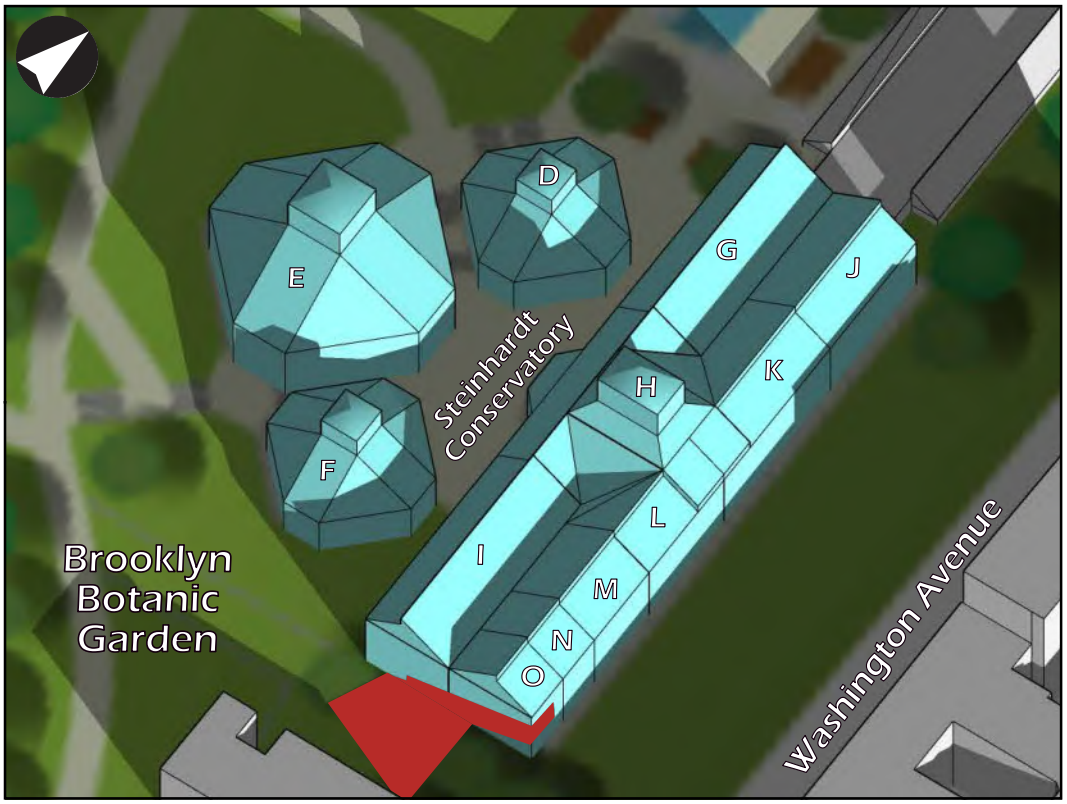
Open Space

Historic Resource

P Greenhouse Facility

Incremental Shadow

Brooklyn Botanic Garden - Steinhardt Conservatory
17 Degree Slope Modified Project Incremental Shadows - March 21/September 21



7:36 AM



7:40 AM

D Greenhouse Facility

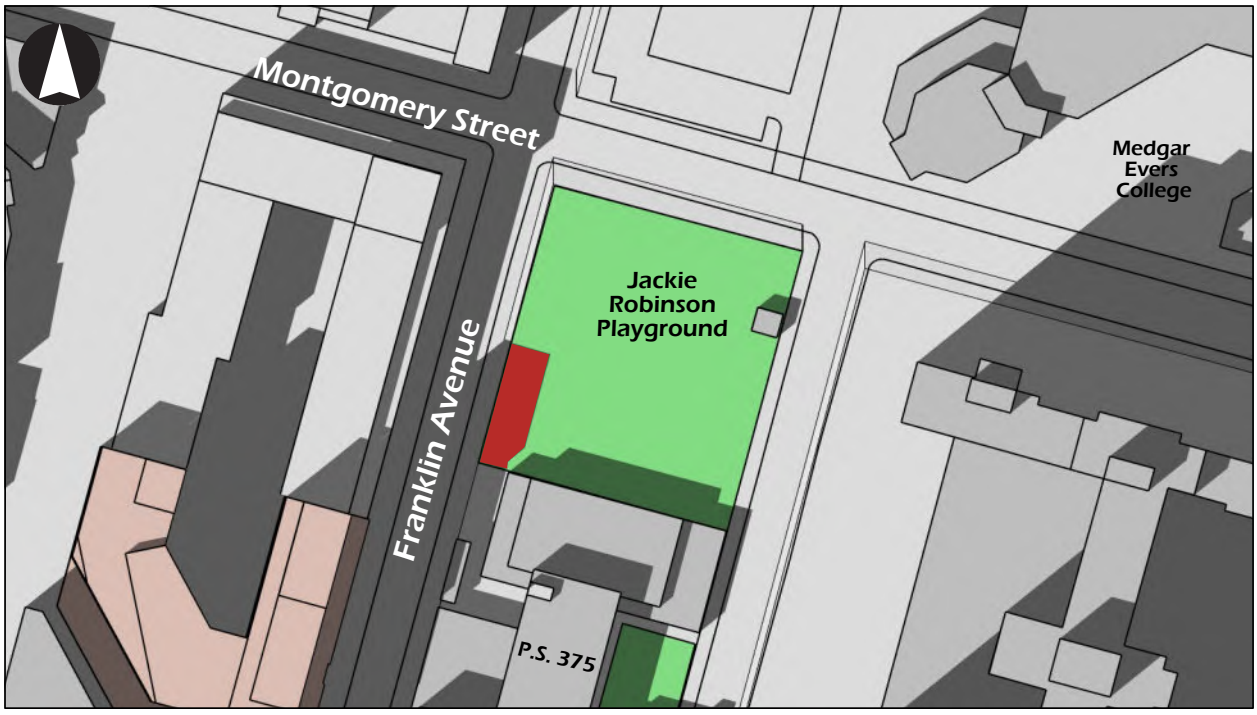
Open Space

Historic Resource

Incremental Shadow

Jackie Robinson Playground

17 Degree Slope Modified Project Incremental Shadows - March 21/September 21



2:40 PM

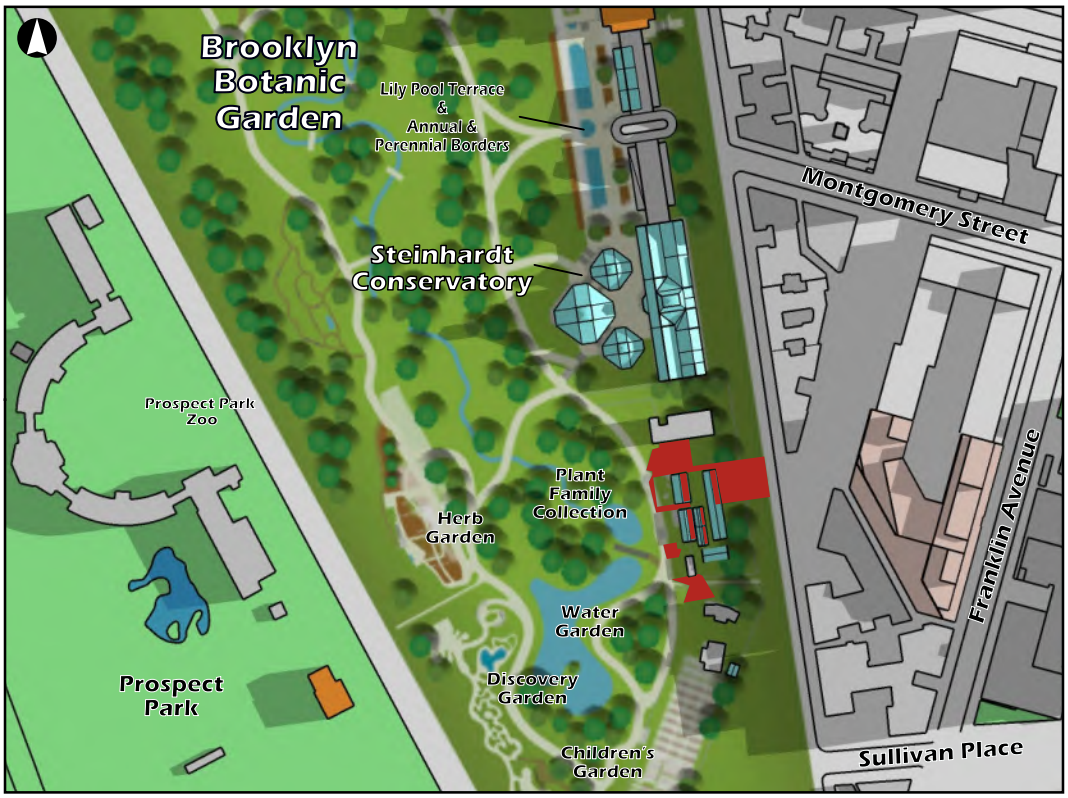


4:00 PM

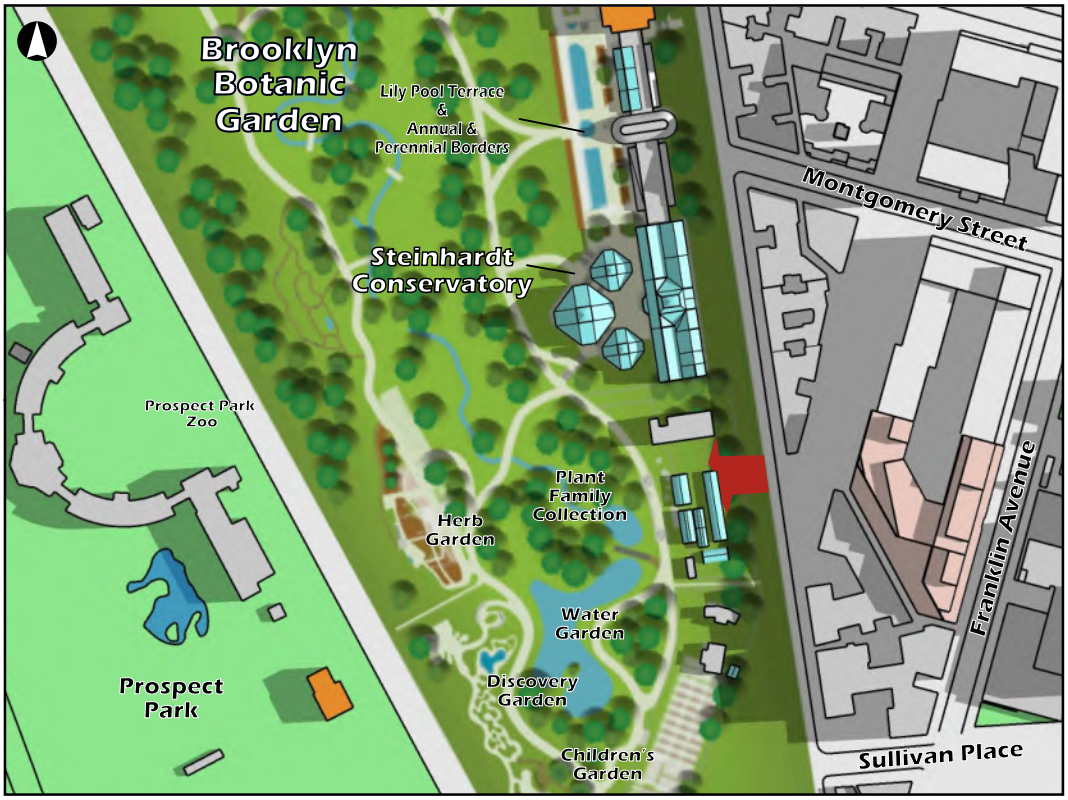
17 Degree Slope Modified Project | Open Space | Incremental Shadow

Brooklyn Botanic Gardens

17 Degree Slope Modified Project Incremental Shadows - May 6/August 6



6:27 AM



7:00 AM

17 Degree Slope Modified Project

Open Space

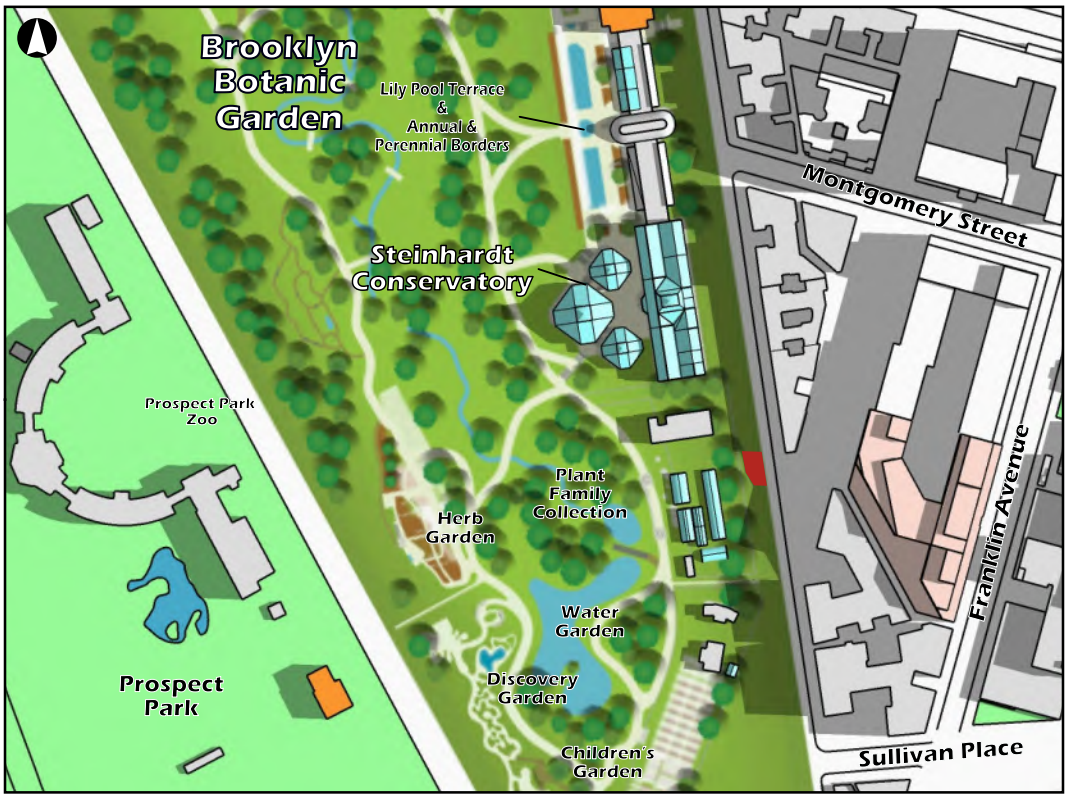
Historic Resource

Greenhouse Facility

Incremental Shadow

Water Feature

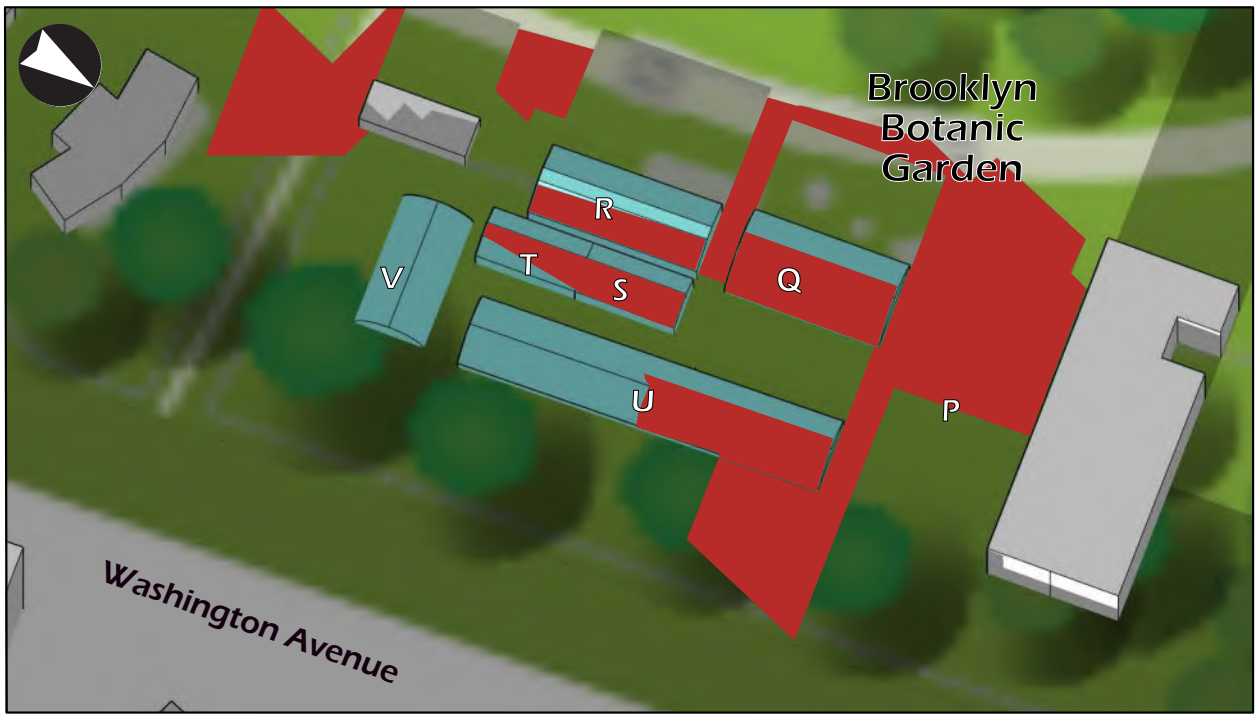
Brooklyn Botanic Gardens
17 Degree Slope Modified Project Incremental Shadows - May 6/August 6



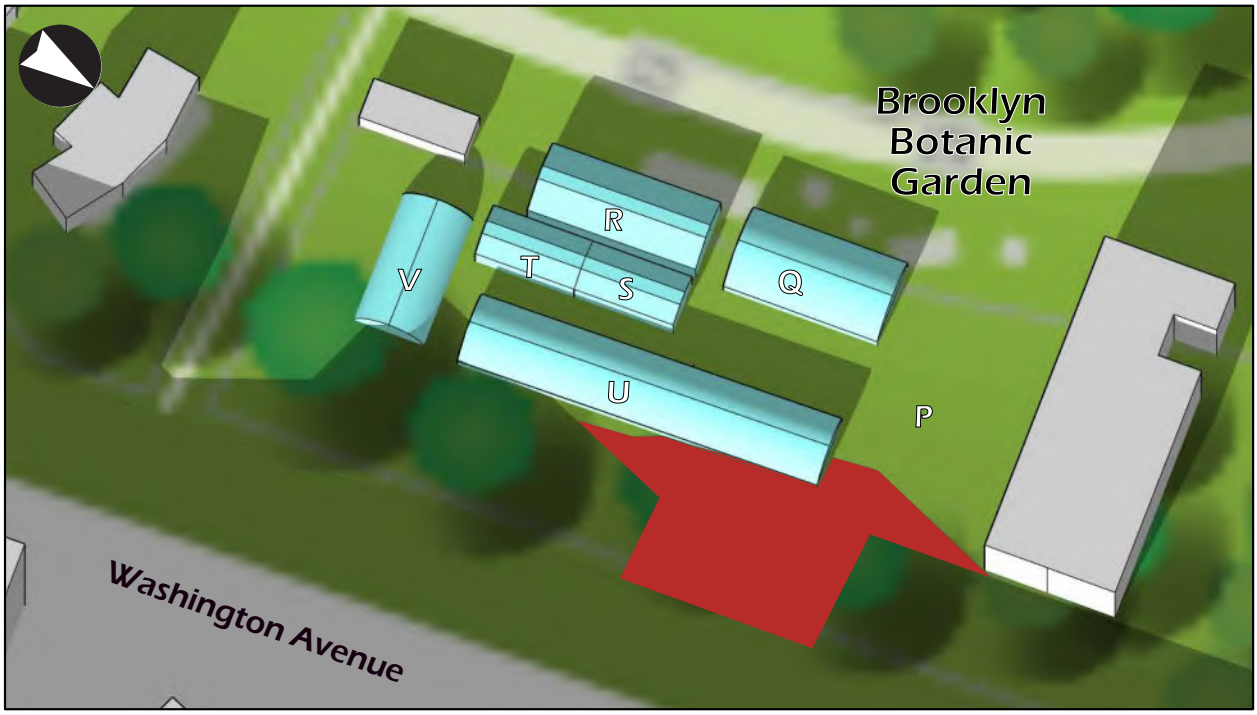
7:30 AM

17 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
17 Degree Slope Modified Project Incremental Shadows - May 6/August 6



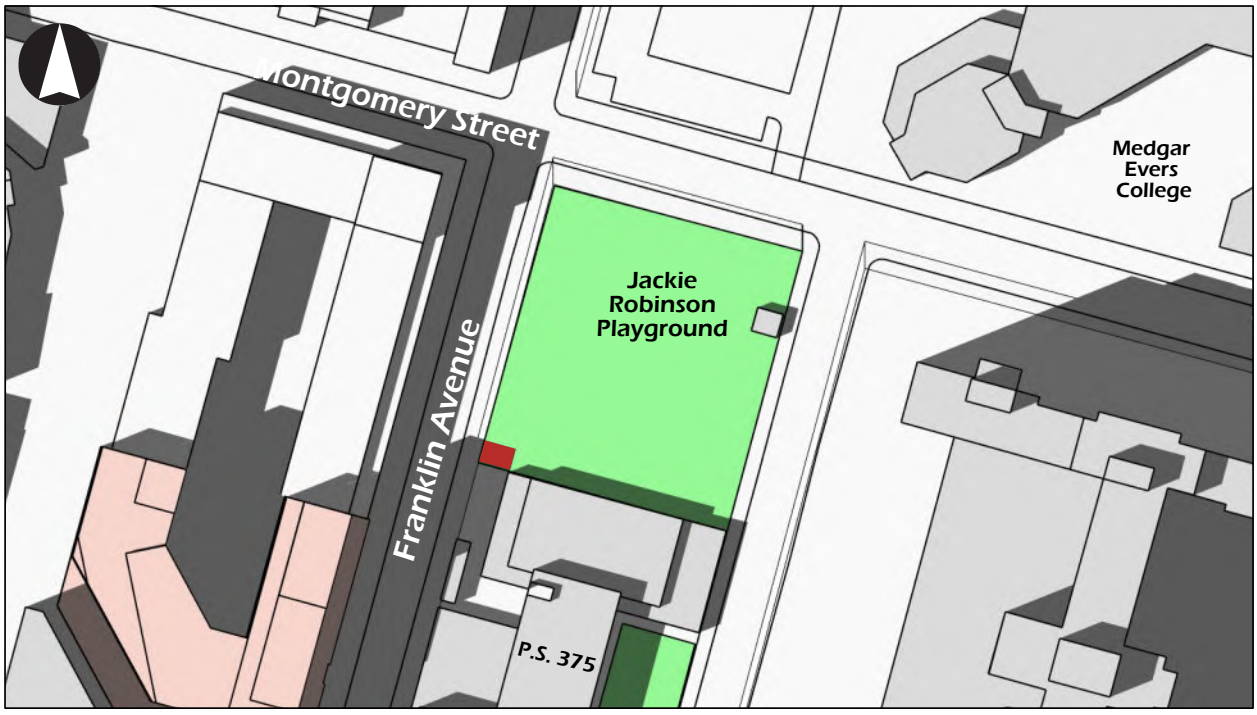
6:27 AM



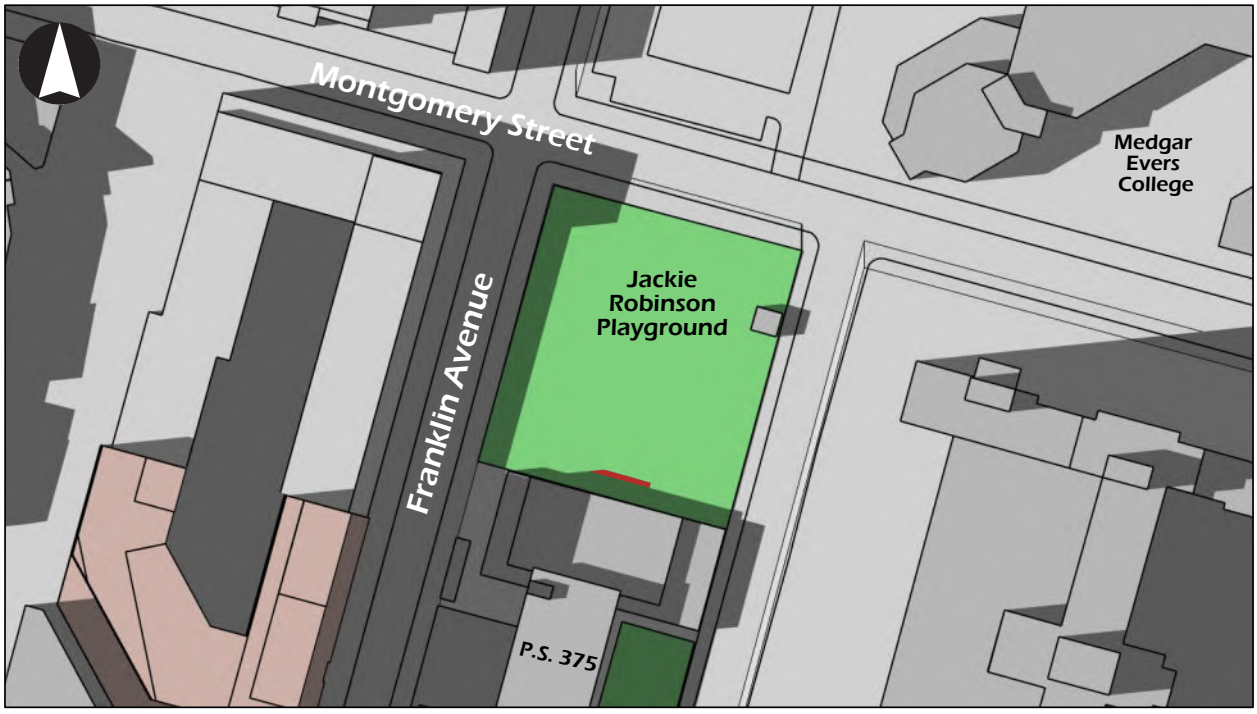
7:00 AM

Open Space
Historic Resource
P Greenhouse Facility
Incremental Shadow

Jackie Robinson Playground
17 Degree Slope Modified Project Incremental Shadows - May 6/August 6



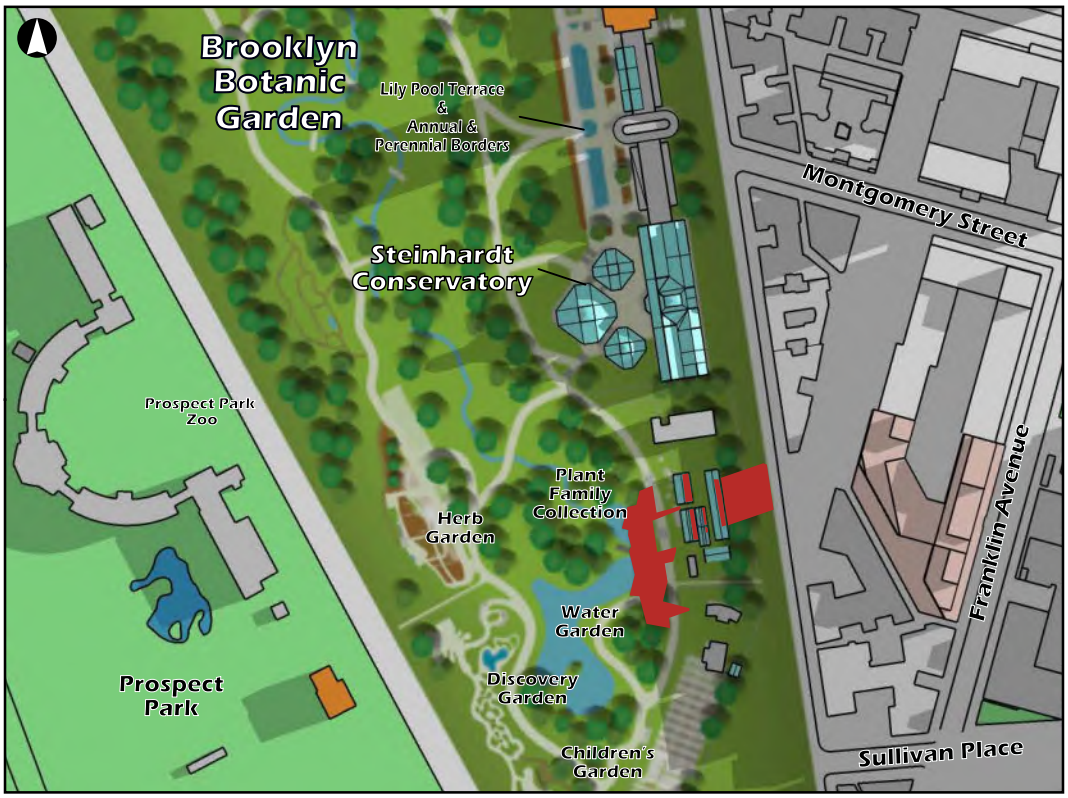
2:40 PM



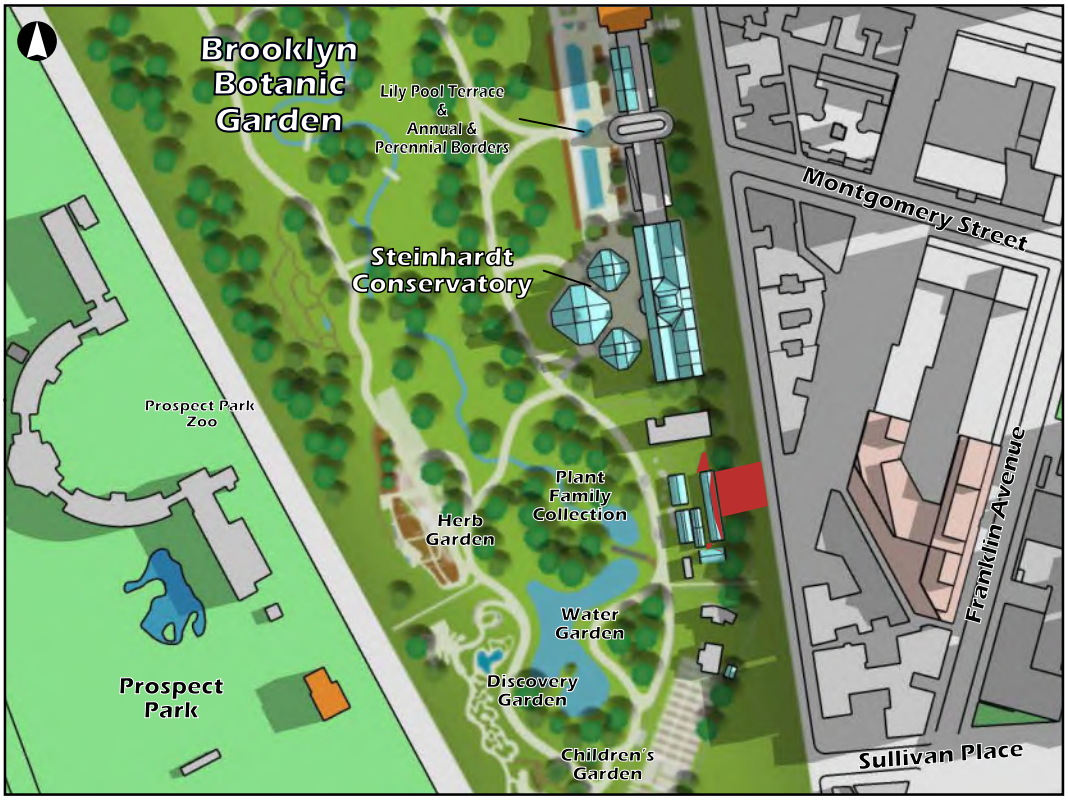
4:00 PM

17 Degree Slope Modified Project | Open Space | Incremental Shadow

Figure 12-23a
Brooklyn Botanic Gardens
17 Degree Slope Modified Project Incremental Shadows - June 21



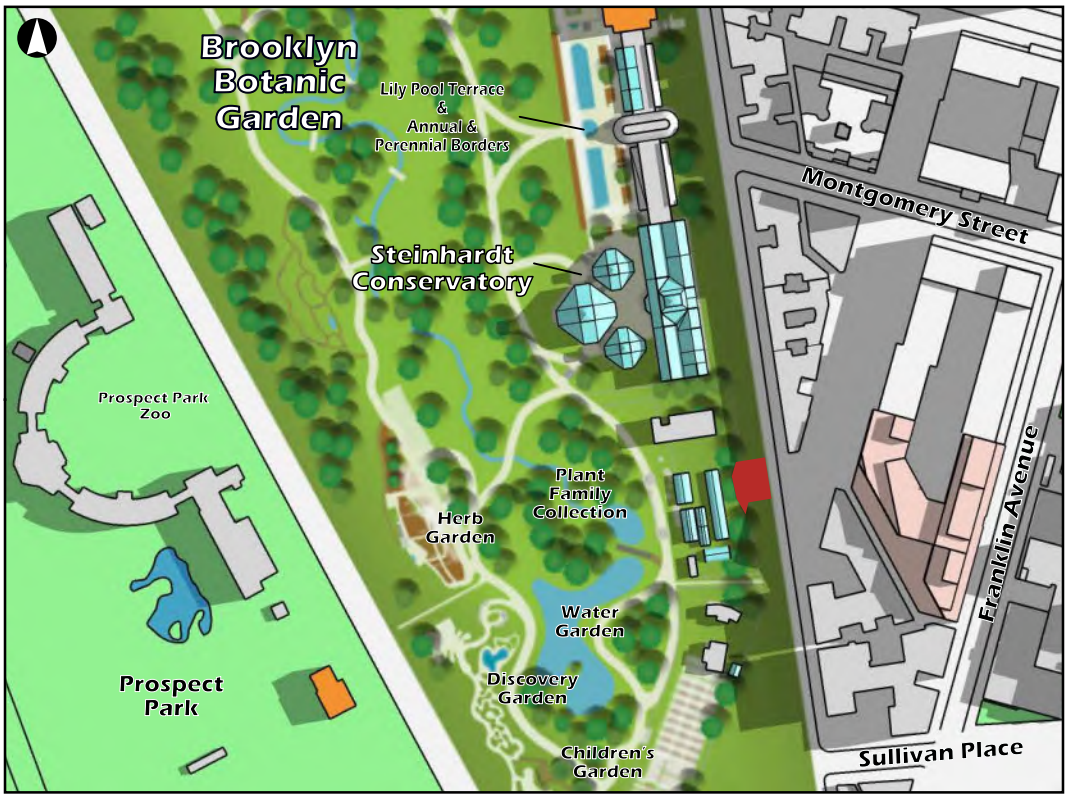
5:57 AM



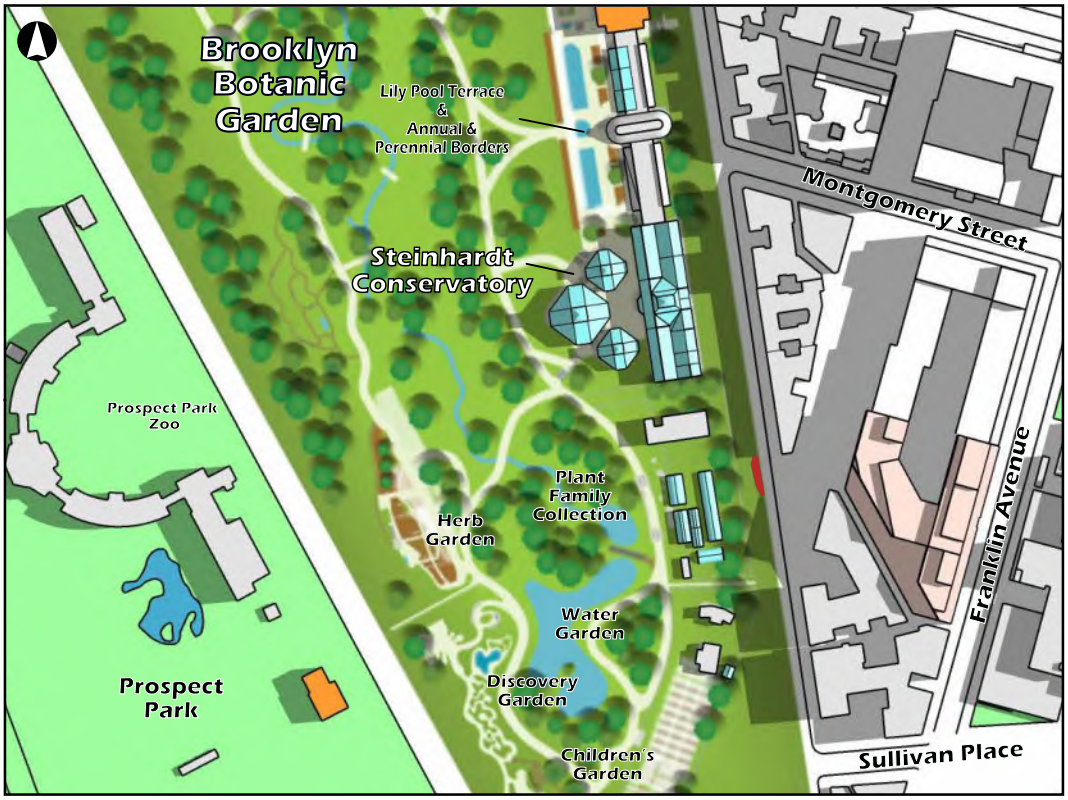
6:30 AM

17 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Gardens
17 Degree Slope Modified Project Incremental Shadows - June 21



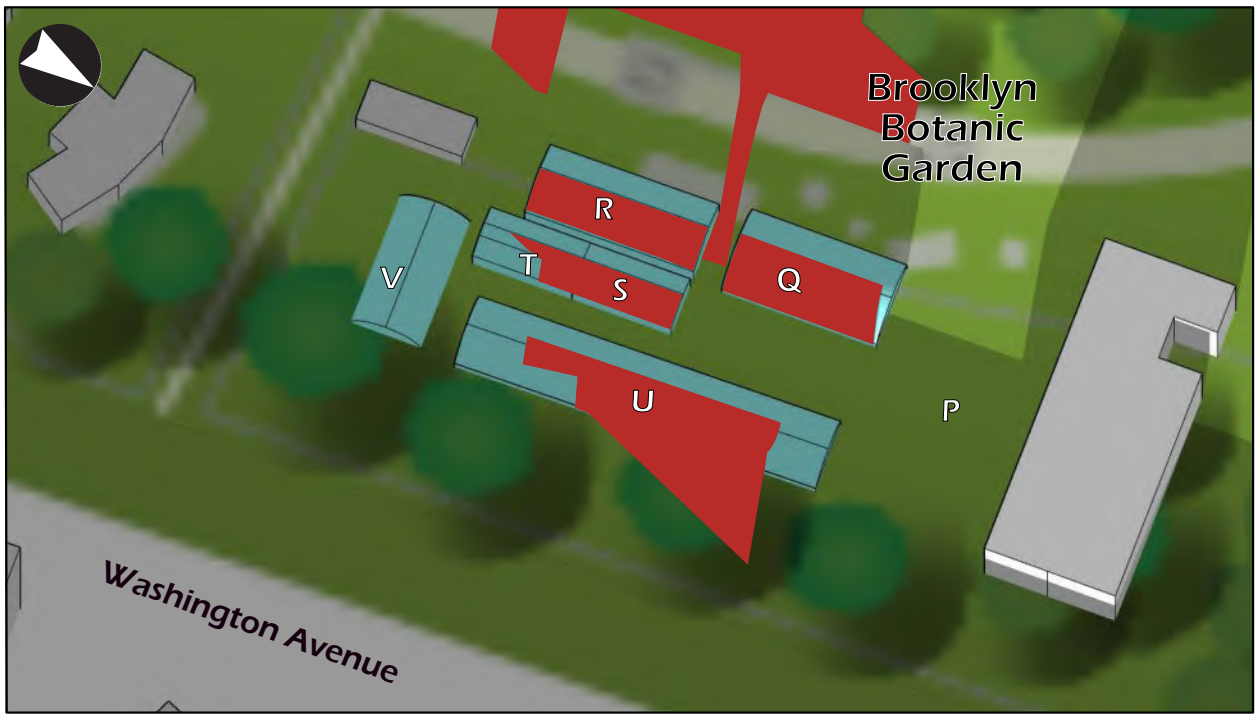
7:00 AM



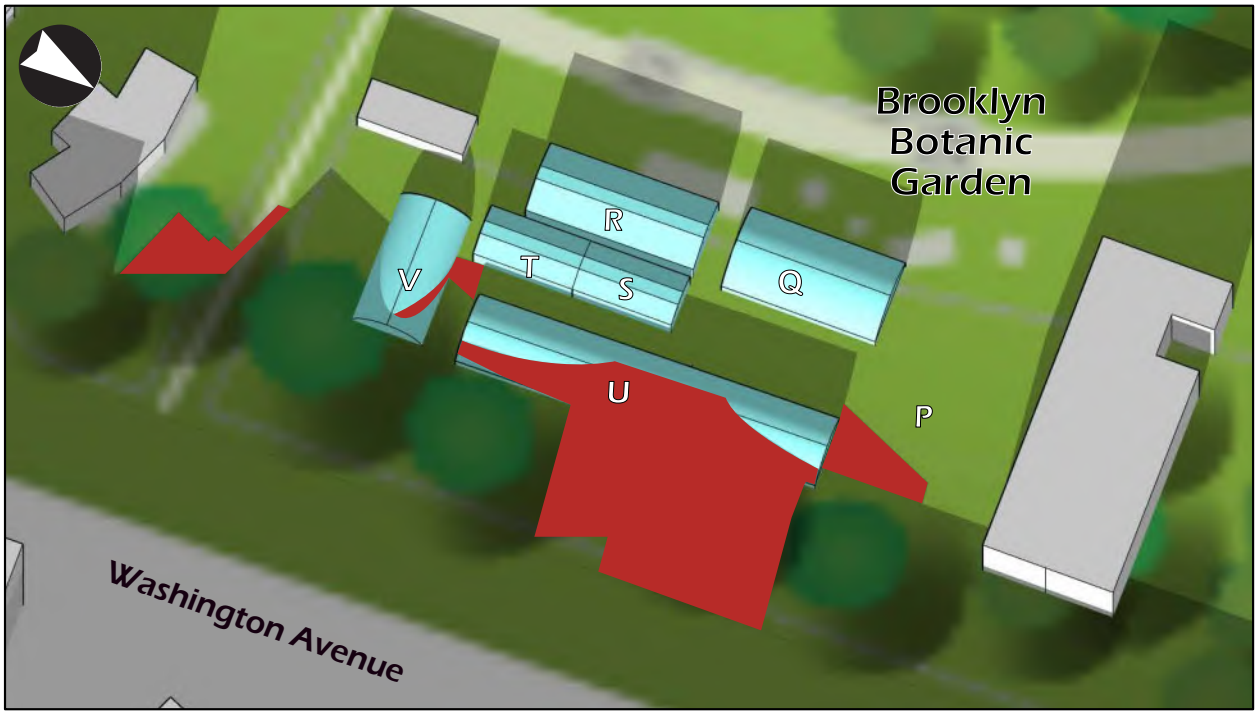
7:30 AM

17 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
17 Degree Slope Modified Project Incremental Shadows - June 21



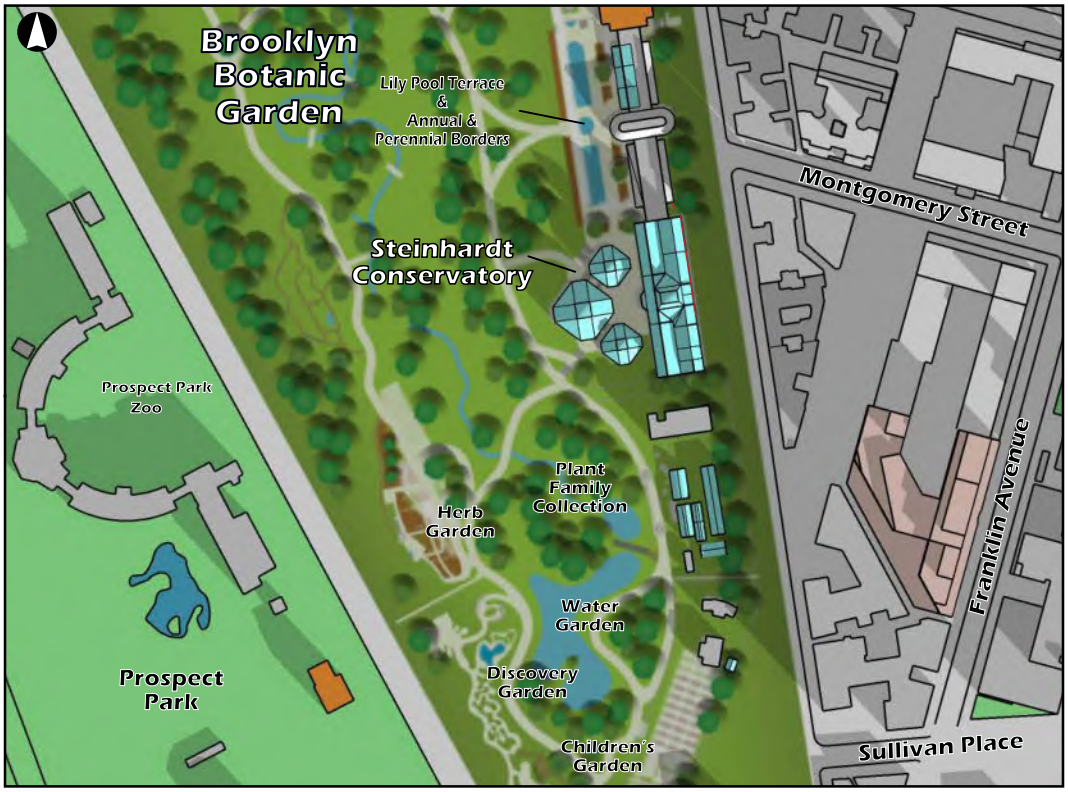
6:00 **AM**



7:00 **AM**

Open Space
Historic Resource
P Greenhouse Facility
Incremental Shadow

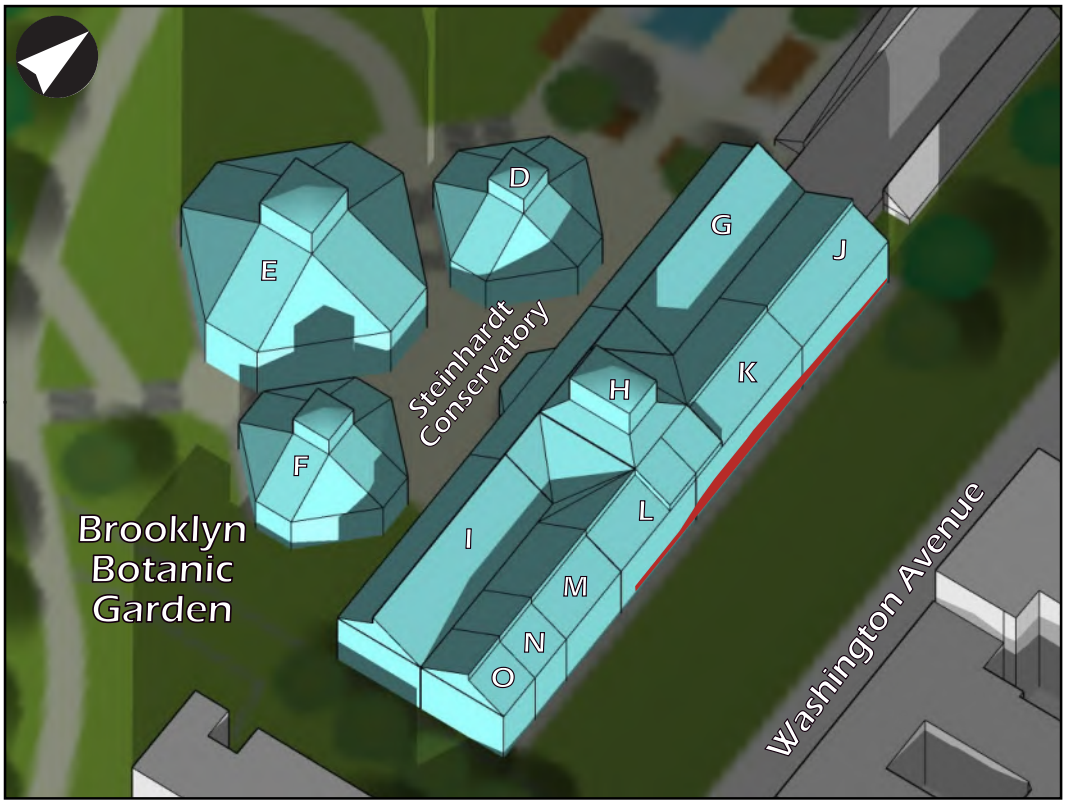
Brooklyn Botanic Gardens
17 Degree Slope Modified Project Incremental Shadows - December 21



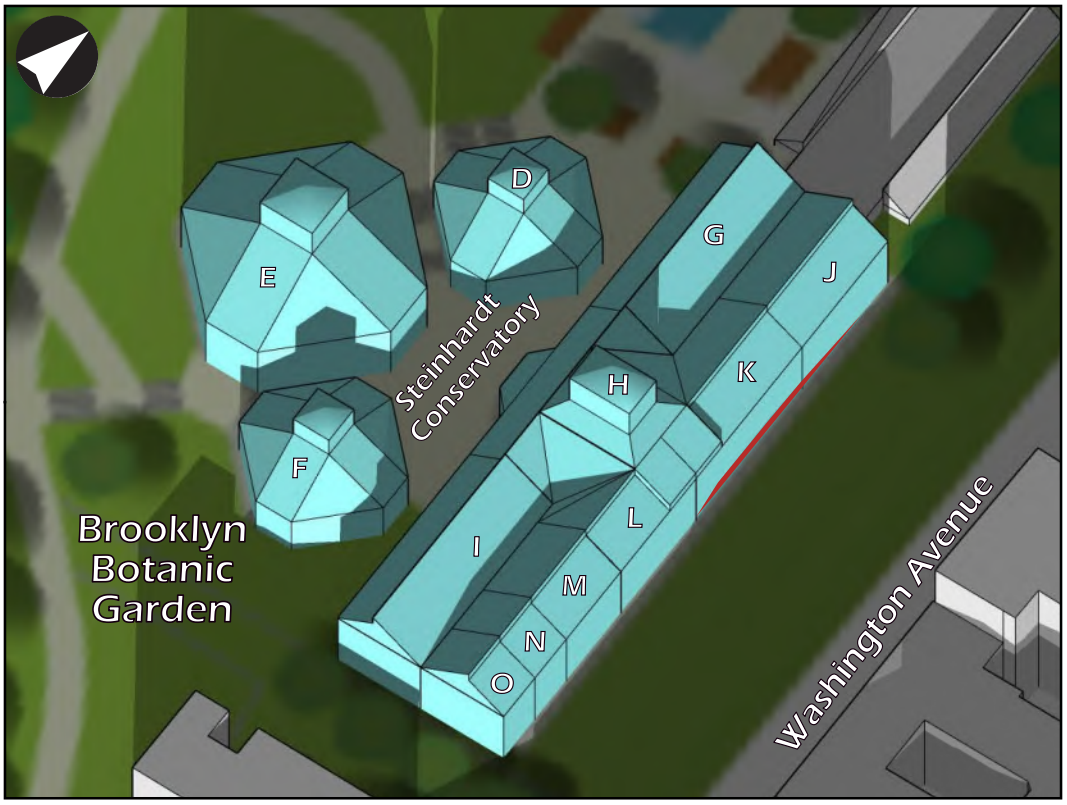
8:51 AM

17 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Garden - Steinhardt Conservatory
17 Degree Slope Modified Project Incremental Shadows - December 21



8:51 AM



8:55 AM

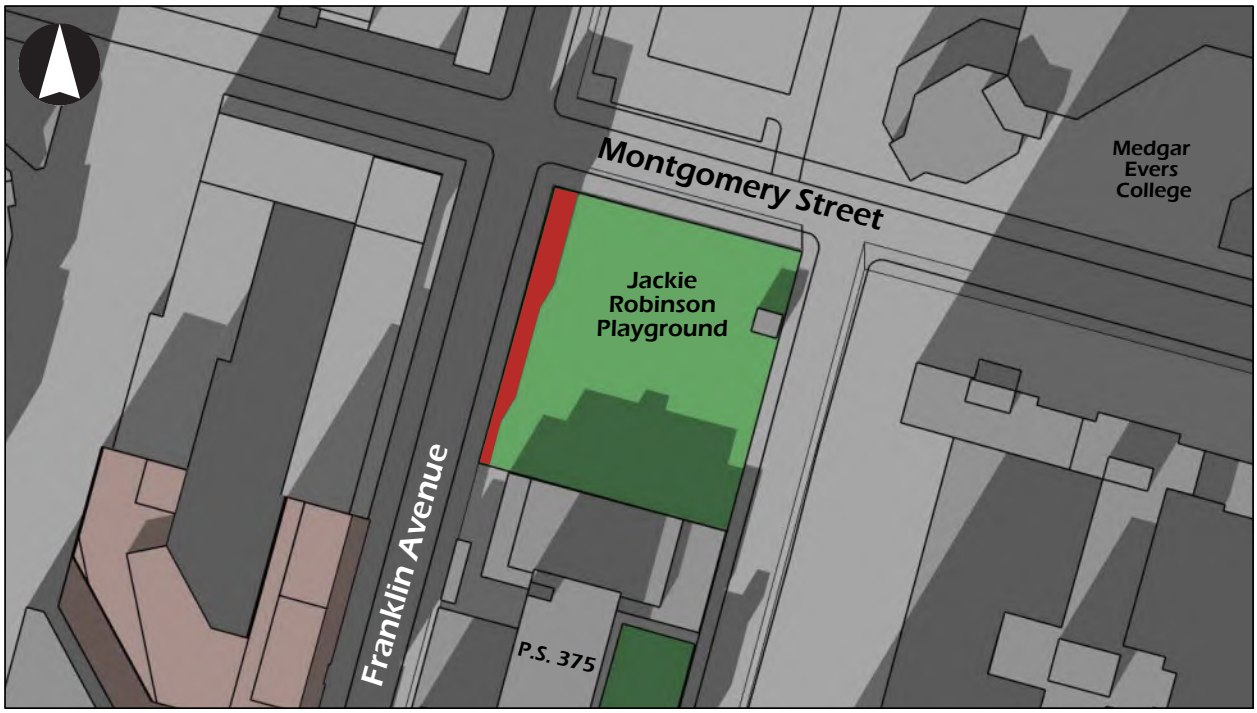
D Greenhouse Facility

Open Space

Historic Resource

Incremental Shadow

Jackie Robinson Playground
17 Degree Slope Modified Project Incremental Shadows - May 6/August 6



2:05 PM



2:45 PM

17 Degree Slope Modified Project | Open Space | Incremental Shadow

hours and 25 minutes. Compared to the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would result in decreases of incremental shadow duration between 19 minutes and one hour and 41 minutes on the March 21/September 21, May 6/August 6, June 21, and December 21 analysis days.

As shown in **Figures 12-21** through **12-24**, incremental shadows from the R7X with 17-Degree Sloping Plane Alternative are expected to cast shadow on a passive area for seating, and areas for active uses including a playground and basketball courts. Based on the size and duration of incremental shadow on Jackie Robinson Playground, significant adverse impacts would occur. Incremental shadow from the R7X with 17-Degree Sloping Plane Alternative would occur over large portions of the park during the March 21/September 21 and May 6/August 6 analysis days. Therefore, as the extent and duration of the incremental shadows would (1) significantly reduce or completely eliminate direct sunlight exposure on any of the sunlight-sensitive resources found within this open space; and (2) would alter the public's use of the park, incremental shadows from the R7X with 17-Degree Sloping Plane Alternative on Jackie Robinson Playground would be considered a significant adverse impact, in accordance with *CEQR Technical Manual* methodology.

TABLE 12-8
Incremental Shadow Coverage – R7X with 17-Degree Sloping Plane Alternative (11-Story)

Resource #	Resource	Analysis Day	March 21/Sept 21	May 6/August 6	June 21	December 21	Incremental Shadow Durations Compared to the Proposed Project (Table 4-6)			
			7:36 AM - 4:29 PM	6:27 AM - 5:18 PM	5:57 AM - 6:01 PM	8:51 AM - 2:53 PM	March 21/Sept 21	May 6/August 6	June 21	December 21
1	Brooklyn Botanic Garden (Full Garden)	Shadow enter-exit time	7:36 AM - 8:30 AM	6:27 AM - 7:51 AM	5:57 AM - 7:39 AM	8:51 AM - 9:03 AM	-1 hour 6 minutes	-1 hour 9 minutes	-1 hour 15 minutes	-1 hour
		Incremental shadow duration	54 Minutes	1 hour 24 minutes	1 hour 42 minutes	12 minutes				
2	Jackie Robinson Playground	Shadow enter-exit time	2:15 PM - 4:29 PM	2:15 PM - 4:40 PM	-	1:54 PM - 2:53 PM	-32 minutes	-59 minutes	-1 hour 41 minutes	-19 minutes
		Incremental shadow duration	2 hours 14 minutes	2 hours 25 minutes	-	59 minutes				
3	Prospect Park	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
4	P.S. 375K Community Playground	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
	Brooklyn Botanic Garden (Resources A - V)	Shadow enter-exit time	7:36 AM - 8:13 AM	6:27 AM - 7:24 AM	5:57 AM - 7:12 AM	8:51 AM - 8:58 AM	-54 minutes	-1 hour 30 minutes	-1 hour 42 minutes	-35 minutes
		Incremental shadow duration	37 minutes	57 minutes	1 hour and 15 minutes	7 minutes				
A	Education Greenhouse: Desert Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-9 minutes
		Incremental shadow duration	-	-	-	-				
B	Education Greenhouse: Warm Temperate Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-11 minutes
		Incremental shadow duration	-	-	-	-				
C		Shadow enter-exit time	-	-	-	-	-	-	-	-13 minutes

	Education Greenhouse: Tropical Plants	Incremental shadow duration	-	-	-	-				
D	Helen Mattin Warm Temperate Pavilion	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
E	Tropical Pavilion	Shadow enter-exit time	-	-	-	-	-40 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
F	Desert Pavilion	Shadow enter-exit time	-	-	-	-	-52 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
G	C.V. Starr Bonsai Museum	Shadow enter-exit time	-	-	-	-	-	-	-	-27 minutes
		Incremental shadow duration	-	-	-	-				
H	Conservatory Entry House	Shadow enter-exit time	-	-	-	-	-14 minutes	-	-	-16 minutes
		Incremental shadow duration	-	-	-	-				
I	Aquatic House & Orchid Collection	Shadow enter-exit time	7:36 AM - 7:43 AM	-	-	-	-1 hour 9 minutes	-	-	-
		Incremental shadow duration	7 minutes	-	-	-				
J	Desert, Mediterranean, South African Bulb (Arid) Workhouse	Shadow enter-exit time	-	-	-	8:51 AM - 8:56 AM	-	-	-	-37 minutes
		Incremental shadow duration	-	-	-	5 minutes				
K	Humid Tropics Workhouse	Shadow enter-exit time	-	-	-	8:51 AM - 8:58 AM	-	-	-	-30 minutes
		Incremental shadow duration	-	-	-	7 minutes				

L	Lowland Moist Tropical Orchid Workhouse	Shadow enter-exit time	-	-	-	8:51 AM - 8:55 AM	-41 minutes	-	-	-18 minutes
		Incremental shadow duration	-	-	-	4 minutes				
M	Highland Moist Tropical Orchid Workhouse	Shadow enter-exit time	-	-	-	-	-1 hour 21 minutes	-	-	-9 minutes
		Incremental shadow duration	-	-	-	-				
N	Tropical Plant Propagation House	Shadow enter-exit time	7:41 AM - 7:54 AM	-	-	-	-1 hour 16 minutes	-	-	-
		Incremental shadow duration	13 minutes	-	-	-				
O	Tropical & Desert Plant Propagation House	Shadow enter-exit time	7:36 AM - 7:56 AM	-	-	-	-1 hour 11 minutes	-	-	-
		Incremental shadow duration	20 minutes	-	-	-				
P	Hardy Plant Nursery Yard	Shadow enter-exit time	7:36 AM - 8:13 AM	6:27 AM - 7:24 AM	5:57 AM - 7:12 AM	-	-52 minutes	-1 hour 30 minutes	-1 hour 42 minutes	-
		Incremental shadow duration	36 minutes	57 minutes	1 hour 15 minutes	-				
Q	Temperate Bonsai Tunnel	Shadow enter-exit time	7:36 AM - 7:39 AM	6:27 AM - 6:44 AM	5:57 AM - 6:27 AM	-	-48 minutes	-1 hour 14 minutes	-1 hour 28 minutes	-
		Incremental shadow duration	3 minutes	17 minutes	30 minutes	-				
R	Production House	Shadow enter-exit time	-	6:27 AM - 6:32 AM	5:57 AM - 6:18 AM	-	-15 minutes	-1 hour 13 minutes	-1 hour 23 minutes	-
		Incremental shadow duration	-	5 minutes	21 minutes	-				
S	Tropical Bonsai House	Shadow enter-exit time	-	6:27 AM - 6:42 AM	5:57 AM - 6:28 AM	-	-22 minutes	-1 hour 14 minutes	-1 hour 25 minutes	-
		Incremental shadow duration	-	15 minutes	31 minutes	-				
T	Auxiliary House	Shadow enter-exit time	-	6:27 AM - 6:43 AM	5:57 AM - 6:29 AM	-	-	-59 minutes	-1 hour 19 minutes	-

		Incremental shadow duration	-	16 minutes	32 minutes	-				
U	New York-Native Flora & Temperate Plant Propagation Tunnel	Shadow enter-exit time	7:36 AM - 7:52 AM	6:27 AM - 7:03 AM	5:57 AM - 6:48 AM	-	-50 minutes	-1 hour 16 minutes	-1 hour 30 minutes	-
		Incremental shadow duration	16 minutes	36 minutes	51 minutes	-				
V	Mediterranean Display Plants Tunnel	Shadow enter-exit time	7:36 AM - 7:39 AM	6:32 AM - 6:39 AM	6:05 AM - 6:33 AM	-	+2 minutes	-1 hour 15 minutes	-1 hour 15 minutes	-
		Incremental shadow duration	3 minutes	7 minutes	28 minutes	-				

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *CEQR Technical Manual* guidance.
Table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.
[1] Keyed to **Figure 4-3**.

Historic and Cultural Resources

Similar to the Proposed Project, as described in **Attachment B, "Supplemental Screening,"** of the EAS, the R7X with 17-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to historic and cultural resources. As the R7X with 17-Degree Sloping Plane Alternative would be built on the same Proposed Development Site to a lesser density and height than the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would not result in significant adverse impacts to historic and cultural resources.

Urban Design and Visual Resources

The R7X with 17-Degree Sloping Plane Alternative would be constructed within the permitted zoning envelope of the R7X zoning district under the City of Yes for Housing Opportunity while complying with height restrictions of the 17-degree sloping plane. The R7X district permits a maximum base height of 105 feet. The R7X with 17-Degree Sloping Plane Alternative would be approximately 35 feet shorter than the Proposed Project. The base height of the R7X with 17-Degree Sloping Plane Alternative would be five feet less than the Proposed Project.

Similar to the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would not result in any significant adverse impacts to urban design or visual resources. The R7X with 17-Degree Sloping Plane Alternative would be a building form that is similar to other recent developments in the area. The R7X with 17-Degree Sloping Plane Alternative would be constructed on an existing block and would not entail any changes to topography, open space, or natural features in the Project Area or secondary study area.

The R7X with 17-Degree Sloping Plane Alternative would not obstruct any significant viewsheds in the area, or substantially alter the pedestrian experience in the immediate vicinity of the Project Area. Therefore, the R7X with 17-Degree Sloping Plane Alternative would not result in any significant adverse impacts to visual resources.

Hazardous Materials

As under the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would not result in significant adverse hazardous materials impacts. The R7X with 17-Degree Sloping Plane Alternative would be developed in accordance with the applicable NYC DOB guidance in terms of safe building demolition and site redevelopment methods, in accordance with the (E) Designation.

The (E) Designation, E-728 text related to hazardous materials is as follows:

> **Task 1-Sampling Protocol**
>
> **The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of**

sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

Therefore, there would be no potential for contact with subsurface contamination and no significant risk of human exposure.

Water and Sewer Infrastructure

Neither the Proposed Project nor the R7X with 17-Degree Sloping Plane Alternative would result in significant adverse impacts on the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. Compared with the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would generate less demand on the City's water supply and wastewater treatment infrastructure.

Energy

Neither the Proposed Project nor the R7X with 17-Degree Sloping Plane Alternative would result in significant adverse impacts with respect to the transmission or generation of energy. The demand generated under the R7X with 17-Degree Sloping Plane Alternative would be less than the Proposed Project. However, under both the Proposed Project and the R7X with 17-Degree Sloping Plane Alternative, the annual increase in demand would represent a negligible amount of the City's forecasted annual energy requirements for 2027.

Transportation

Similar to the Proposed Project, as described in **Attachment F, "Transportation,"** of the EAS, the R7X with 17-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to traffic, pedestrians, transit, or parking. As the R7X with 17-Degree Sloping Plane Alternative would be built

on the same site, to a lesser density than the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would not result in significant adverse impacts to traffic, pedestrians, transit, or parking.

Air Quality

Under the R7X with 17-Degree Sloping Plane Alternative, a new 385-unit mixed-use residential and local retail development and an on-site accessory parking garage would be constructed on the Proposed Development Site containing approximately 71 accessory parking spaces. As such there would be a new source of stationary source air quality emissions and a new emissions source from the parking garage on the Proposed Development Site. As the size of the accessory-parking garage would be the same in the R7X with 17-Degree Sloping Plane Alternative as in the Proposed Project, the emissions concentrations would likely be very similar as well. Thus, the potential for significant adverse impacts under the R7X Alterative is unlikely given the R7X with 17-Degree Sloping Plane Alternative's garage is less than 85 spaces, the threshold identified for analysis in Table 16-1 of the *CEQR Technical Manual*.

Under the R7X with 17-Degree Sloping Plane Alternative, a 145-foot-tall building (including bulkhead) of approximately 402,425 gsf would be constructed at the Proposed Development Site. The closest building taller than the R7X with 17-Degree Sloping Plane Alternative is the 211-foot tall building at 1720 Bedford Avenue. 1720 Bedford Avenue is approximately 375 feet east of the Proposed Development Site. As shown in **Figure 12-25** (based on Figure 17-3 of the *CEQR Technical Manual*), the R7X with 17-Degree Sloping Plane Alternative would be below the screening curve for fossil fueled fired HVAC systems. Therefore, no stationary source air quality significant adverse impacts would occur.

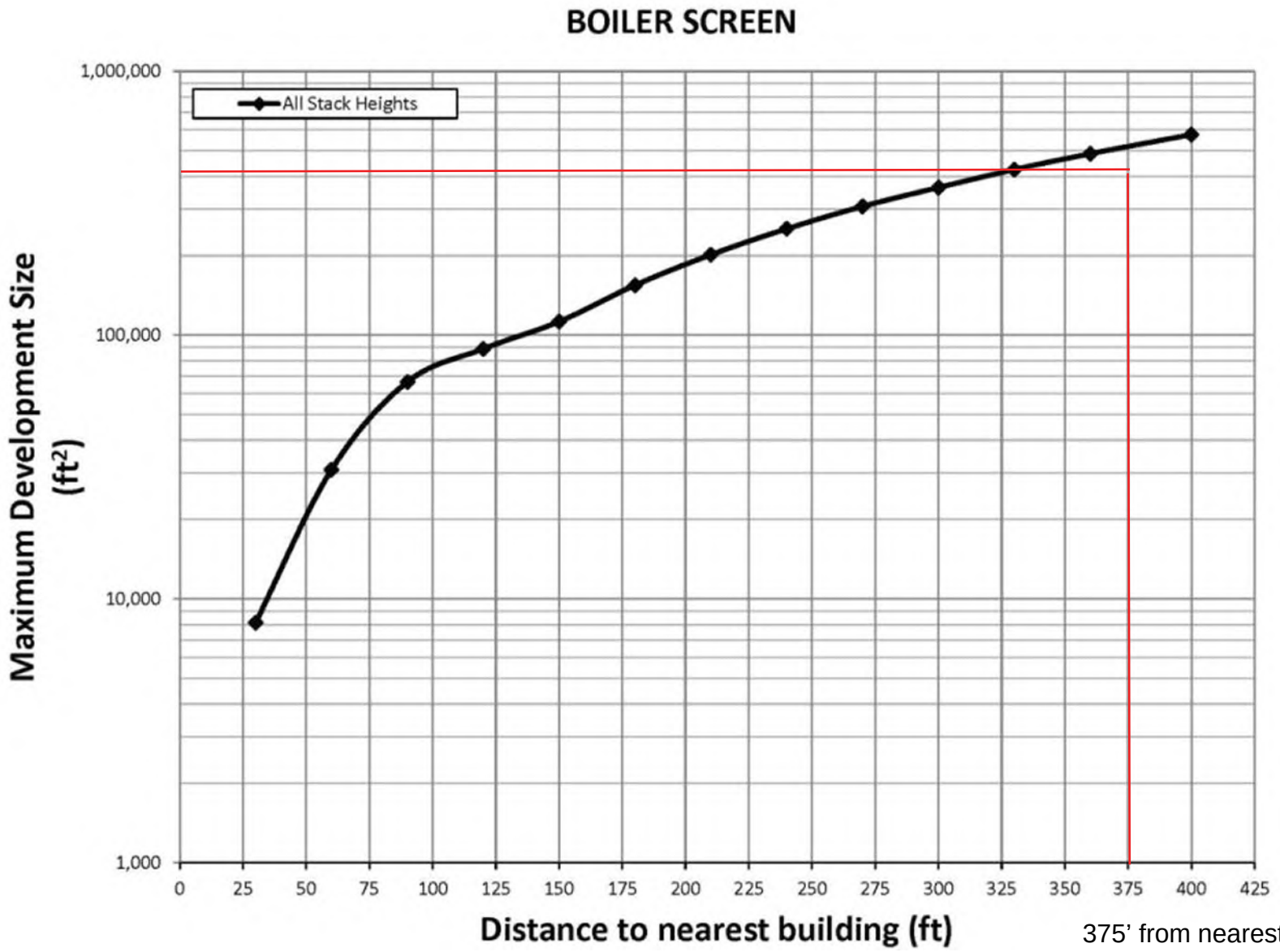
The same (E) designation requirement for stack location identified for the Proposed Project in the **Environmental Assessment Statement (EAS)** for this application, issued June 26, 2023, would also apply to the R8A with 26.38-Degree Sloping Plane Alternative. That requirement is as follows:

> **Block: 1192, Lots: 63 and 66**
>
> **Any new residential and/or commercial development on the above-referenced property must ensure the heating, ventilating, and air conditioning (HVAC) system and hot water equipment stack is located at the highest tier and at least 148 feet above grade to avoid any potential significant adverse air quality impact.**

Additionally, mobile source emissions from traffic on surrounding roadways decrease when compared to the Proposed Project. As the R7X with 17-Degree Sloping Plane Alternative would result in less mobile source emissions (i.e., fewer incremental vehicle trips) than the Proposed Project, significant adverse mobile source impacts are unlikely under the R7X with 17-Degree Sloping Plane Alternative.

Greenhouse Gas Emissions and Climate Change

As the R7X with 17-Degree Sloping Plane Alternative would result in a new 385-unit mixed-use residential and local retail development, it would be smaller than the Proposed Project. As such, it would use less energy than the Proposed Project and would, therefore, result in fewer carbon dioxide equivalent (CO_2e) emissions per year. Neither the Proposed Project nor the R7X with 17-Degree Sloping Plane Alternative would result in significant greenhouse gas (GHG) emission or climate change impacts.



375' from nearest building taller than 145'

Noise

Under the R7X with 17-Degree Sloping Plane Alternative, a new 385-unit mixed-use development would occur on the Proposed Development Site. No other sources of noise would be created on the Proposed Development Site. The noise levels from mobile sources on surrounding roadways would decrease compared to the Proposed Project, as the R7X with 17-Degree Sloping Plane Alternative would include approximately 90 less DU. As presented in **Attachment H, "Noise,"** of the EAS, under the Proposed Project no significant adverse noise impacts would occur. As the R7X with 17-Degree Sloping Plane Alternative would result in fewer vehicle trips near the Project Area's noise receptor locations, the R7X with 17-Degree Sloping Plane Alternative would not result in any significant adverse impacts to noise.

Public Health

Similar to the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would not result in any unmitigated significant adverse impacts in any of the technical areas related to public health. According to the *CEQR Technical Manual*, actions that do not result in unmitigated significant adverse impacts related to air quality, water quality, hazardous materials, or noise typically do not warrant a public health analysis. As the R7X with 17-Degree Sloping Plane Alternative does not have the potential to cause any significant adverse impacts in those areas, it would not have any significant adverse impacts on public health.

Neighborhood Character

According to the *CEQR Technical Manual*, a proposed project could have a significant adverse neighborhood character impact if it would have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact in any relevant technical area, or through a combination of moderate effects in those technical areas. Similar to the Proposed Project, the R7X with 17-Degree Sloping Plane Alternative would not cause significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; transportation; or noise. As such, the R7X with 17-Degree Sloping Plane Alternative would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature. A new 385-unit residential and commercial development would occur under the R7X with 17-Degree Sloping Plane Alternative and the overall neighborhood character of the area would continue to trend toward increased residential and local retail uses on vacant and underutilized sites under the R7X with 17-Degree Sloping Plane Alternative. The study area would continue to be characterized by its evolving mix of land uses and building types, and its location in an area with low pedestrian volumes. Neither the Proposed Project nor the R7X with 17-Degree Sloping Plane Alternative would result in significant adverse impacts to neighborhood character.

Construction

While the R7X with 17-Degree Sloping Plane Alternative is somewhat smaller in overall density and size, it would require essentially the same construction process as anticipated under the Proposed Actions. Since the building would be smaller and would be developed over a similar construction schedule, there could be modest reduction in the amount of materials and construction workers associated with building the R7X with 17-Degree Sloping Plane Alternative. This could slightly reduce the duration and total level of activity. These reductions would not materially affect the construction-related analysis assumptions

and conclusions. Therefore, while the overall construction duration could be shorter, the R7X with 17-Degree Sloping Plane Alternative would result in similar conditions to the analysis presented in **Chapter 10, "Construction".** The RD would continue to include project components related to the environment related to construction air quality and noise that would avoid or partially mitigate the impacts.

Like the Proposed Actions, there would be no significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, open space, hazardous materials, and air quality.

H. R7D WITH 15-DEGREE SLOPING PLANE ALTERNATIVE

The Applicant has analyzed an alternative pursuant to a R7D zoning district to create a development (the "R7D with 15-Degree Sloping Plane Alternative") that results in fewer significant adverse impacts than would occur under the Proposed Project. The R7D with 15-Degree Sloping Plane Alternative would consist of 355 DUs (89 of which would be permanently affordable through the MIH Program) and 8,128 gsf of local retail space. The R7D with 15-Degree Sloping Plane Alternative would include 368,620 gsf of residential space and would be built to an FAR of 5.35 as permitted under the City of Yes for Housing Opportunity. The R7D with 15-Degree Sloping Plane Alternative would comply with all R7D zoning bulk regulations and would stand at a maximum height of 10 stories or 100 feet (not including 35 feet mechanical bulkhead). Parking would be provided pursuant to the same special permit requested for the Proposed Project. **Figure 12-26** includes an axonometric diagram of the R7D with 15-Degree Sloping Plane Alternative.

As shown in **Table 12-9**, the R7D with 15-Degree Sloping Plane Alternative would result in approximately 120 fewer total DU, 90 fewer market-rate DU, and 30 fewer affordable DU than the Proposed Project. The R7D with 15-Degree Sloping Plane Alternative would have the same amount of local retail space as the Proposed Project. The R7D with 15-Degree Sloping Plane Alternative would have 302 fewer residents and four fewer workers than the Proposed Project. Similar to the Proposed Actions, this Alternative would require an (e) designation for hazardous materials; the (e) designation for air quality would no longer be required, see Air Quality section below. A Restrictive Declaration to codify project components related to the environment (PCREs) and mitigation measures related to shadows, construction (air quality and noise) to avoid and partially mitigate the identified impacts.

TABLE 12-9
Comparison of the Proposed Project and R7D with 15-Degree Sloping Plane Alternative

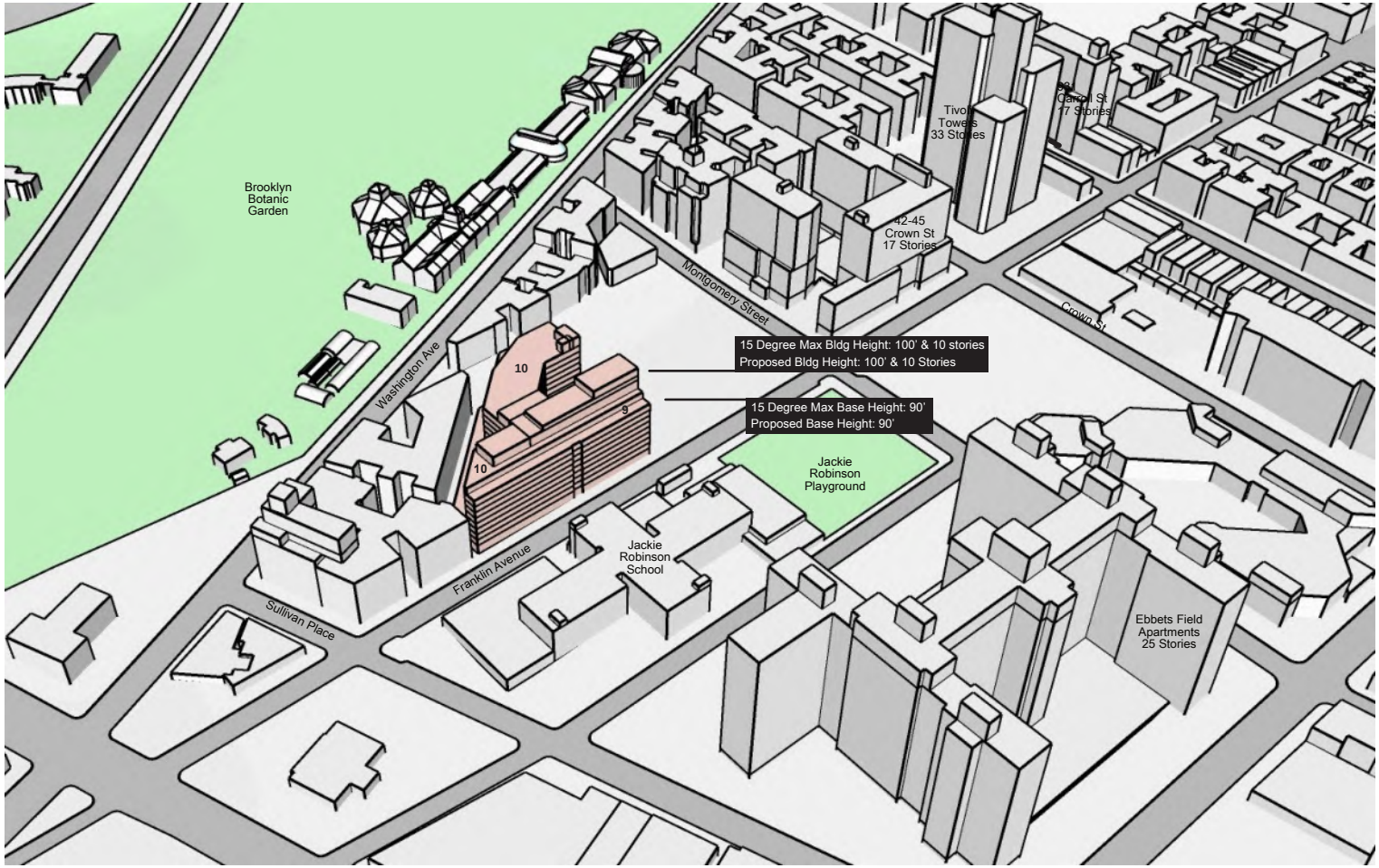
Use	Proposed Project	R7D with 15-Degree Sloping Plane Alternative	Increment
Residential			
Market-Rate Dwelling Units	356 (~314,509.5 gsf)	266 (~276,465 gsf)	**-90 (~38,044.5 gsf)**
Affordable Dwelling Units	119 (~104,836.5 gsf)	89 (~92,155 gsf)	**-30 (~12,681.5 gsf)**
TOTAL	**475 (419,346 gsf)**	**355 (368,620 gsf)**	**-120 (~50,726 gsf)**
Local Retail	8,128 gsf	8,128 gsf	-
Parking	71 spaces (30,101 gsf)	71 spaces (30,101 gsf)	-
Population/Employment[1]	**With-Action Scenario**	**With-Action Scenario**	**Increment**
Residents	1,197	895	**-302**
Workers	43	39	**-4**

Notes:
[1] Assumes 2.52 persons per DU (based on 2020 U.S. Census data for Brooklyn Community District 9). Estimate of workers is based on standard rates and are as follows: 1 worker per 25 dwelling units; 3 workers per 1,000 sf retail space.

Massing at Lot 63 & 66 - R7D with 15-Degree Sloping Plane
10 Story / 5.35 FAR

GFA: 368,620
ZFA: 284,947 (FAR 5.35)

Parking Spaces Provided
Total Approx. 71 Spaces



*For Illustrative Purposes only

962-972 Franklin Avenue Rezoning

Figure 12-26
Axonometric Diagram - R7D with 15-Degree Sloping Plane

The effects of the R7D with 15-Degree Sloping Plane Alternative in comparison to those of the Proposed Project are provided below for each technical area.

Land Use, Zoning, and Public Policy

Under the R7D with 15-Degree Sloping Plane Alternative, it is anticipated that a new residential development would be constructed on-site pursuant to R7D zoning. The R7D with 15-Degree Sloping Plane Alternative would introduce new residential uses on a site that has been primarily vacant, a portion of the site has been used most recently for spice processing, warehousing, and distribution. Approximately 355 DUs would be developed with approximately 266 market-rate units and approximately 89 permanently affordable units through the MIH Program. As such, the R7D with 15-Degree Sloping Plane Alternative would not result in a change of land use on the Proposed Development Site relative to the Proposed Project. The R7D with 15-Degree Sloping Plane Alternative would incorporate approximately 120 fewer DUs than the Proposed Project and would offer a similar amount of local retail uses and off-street parking.

Under this alternative, the Project Area would be rezoned to R7D, a medium-density residential district that permits a maximum FAR of 5.6 under the City of Yes for Housing Opportunity. The zoning text amendment to establish the Project Area as a Mandatory Inclusionary Housing (MIH) area would still be established and approximately 89 DUs of mandatory affordable housing would be developed. No zoning special permits would be required.

It is the Applicant's opinion that the R7D with 15-Degree Sloping Plane Alternative would be supportive of public policies articulated in *Housing New York*, PlaNYC, and *OneNYC* that aim toward increasing the supply of housing in the city, reclaiming underutilized land, and expanding access to affordable housing. However, this would be to a lesser degree than the Proposed Actions, given that the total number of new housing units would be 355 units instead of 475 units with the Proposed Project, and the affordable housing units would be 89 DUs instead of 119 DUs with the Proposed Project, a loss of 30 affordable units.

As described in **Chapter 2, "Land Use, Zoning, and Public Policy,"** the Proposed Project would not result in any significant adverse impacts to land use, zoning, or public policy. As the R7D with 15-Degree Sloping Plane Alternative would include similar uses to the Proposed Project, with residential uses included at a lower density, along with a similar amount of local retail space, the R7D with 15-Degree Sloping Plane Alternative would not result in any significant adverse impacts related to land use, zoning, and public policy.

Socioeconomic Conditions

Similar to the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would not be expected to have a significant adverse impact on socioeconomic conditions. Similar to the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would not result in direct residential or business displacement. While a portion of the Proposed Development Site currently supports an existing business operation, the Applicant has indicated that they have an accepted purchase agreement and the existing business would vacate the property regardless of the Proposed Actions.

New residential developments are anticipated in the socioeconomic conditions study area in both the future with and without the Proposed Actions, and demand for residential development in Crown Heights is expected to continue to rise. The Project Area would also be designated as an MIH area under the R7D

with 15-Degree Sloping Plane Alternative. As discussed above, under the R7D with 15-Degree Sloping Plane Alternative, 89 DUs of permanently affordable housing through the MIH program would be constructed.

The residential units that would be constructed under the R7D with 15-Degree Sloping Plane Alternative would not result in indirect residential displacement by introducing a trend or accelerating a trend that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. The affordable housing units added by the R7D with 15-Degree Sloping Plane Alternative would maintain a diverse demographic composition within the study area and would further expand the supply of affordable housing for current and future residents. The affordable housing units would help to ensure that a considerable portion of the new households would have incomes that would more closely reflect the incomes of existing households in the study area and help ensure that the neighborhood continues to serve diverse housing needs. Therefore, the R7D with 15-Degree Sloping Plane Alternative would not introduce a new trend or accelerate an existing trend of changing conditions in a manner that would have the potential to substantially change the socioeconomic character of the neighborhood.

Therefore, similar to the Proposed Project and the findings of **Attachment C, "Socioeconomic Conditions,"** of the EAS, the R7D with 15-Degree Sloping Plane Alternative would not result in any significant adverse impacts to Socioeconomic Conditions.

Community Facilities and Services

Similar to the Proposed Project, as described in **Attachment B, "Supplemental Screening,"** of the EAS, the R7D with 15-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to community facilities. As the R7D with 15-Degree Sloping Plane Alternative would be built to a lesser density than the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would not result in significant adverse impacts to community facilities.

Open Space

Similar to the Proposed Project, as discussed in **Chapter 3, "Open Space,"** the R7D with 15-Degree Sloping Plane Alternative would result in a direct open space significant adverse impact as a result of shadows cast by the Proposed Project. The Proposed Project would not result in significant adverse indirect impacts to open space in the surrounding area as a result of the increased population. As the R7D with 15-Degree Sloping Plane Alternative would result in fewer residents in the Project Area, the R7D with 15-Degree Sloping Plane Alternative would also not result in indirect significant adverse impacts to open space.

For a discussion on direct effects of the R7D with 15-Degree Sloping Plane Alternative on nearby open space resources, refer to the discussion below on shadows.

Shadows/Natural Resources

Similar to the Proposed Project, as described in **Chapter 3, "Open Space," Chapter 4, "Shadows," and Chapter 5, "Natural Resources,"** the R7D with 15-Degree Sloping Plane Alternative would result in significant adverse impacts due to direct shadows effects on open space and natural resources in the

Brooklyn Botanic Garden and Jackie Robinson Playground. However, shadow magnitude, duration and extent are meaningfully reduced compared to the Proposed Actions.

As described above, the Applicant has analyzed a 10-story, 100-foot-tall R7D with 15-Degree Sloping Plane Alternative in an effort to reduce the significant adverse impacts identified as a result of the Proposed Project. Consistent with the analysis in **Chapter 4, "Shadows,"** the R7D with 15-Degree Sloping Plane Alternative assumes the inclusion of a 35-foot bulkhead on each of the 10-story portions of the R7D with 15-Degree Sloping Plane Alternative. The R7D with 15-Degree Sloping Plane Alternative would cast shadows on the Brooklyn Botanic Garden and the Jackie Robinson Playground, similar to the Proposed Project.

Brooklyn Botanic Garden

Under the R7D with 15-Degree Sloping Plane Alternative, incremental shadows would be cast over several of the affected greenhouses in the Brooklyn Botanic Garden used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. Incremental shadows from the R7D with 15-Degree Sloping Plane Alternative would be cast over this sunlight-sensitive resource on each of the four analysis days. As shown in **Table 12-10**, incremental shadows from the R7D with 15-Degree Sloping Plane Alternative would range on the Brooklyn Botanic Garden (Full Garden) from 8 minutes on the December 21 analysis day (8:51 – 8:59 AM) to one hour and 37 minutes on the June 21 analysis day (5:57 – 7:34 AM). Refer to **Figures 12-27** through **12-30**.

Individual resources within the Brooklyn Botanic Garden (Resources A through V in **Table 12-10**) would experience incremental shadows ranging from four minutes to one hour and 9 minutes. Compared to the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would result in decreases of incremental shadow duration of up to one hour and 48 minutes (the Hardy Plant Nursery Yard) (refer to **Table 12-10**).

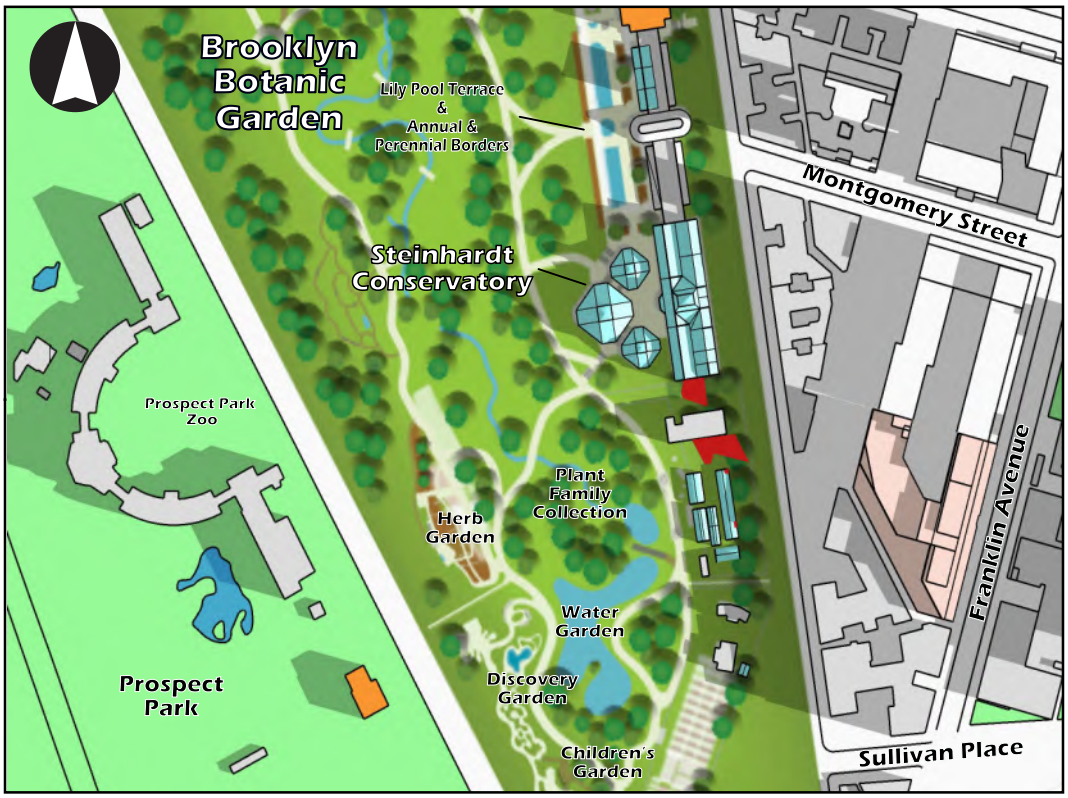
The R7D with 15-Degree Sloping Plane Alternative would not result in any increases in incremental shadow over the Proposed Project on any resources within the garden. Greenhouses within the Brooklyn Botanic Garden are used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. While the *CEQR Technical Manual* states that six to eight hours of sunlight is necessary for plant survival, the Brooklyn Botanic Garden contains over 18,500 kinds of plants, with globally rare species and native rare species. The minimum sunlight needed to constitute survival may not be enough to promote healthy growth of these rare plants and as the *CEQR Technical Manual* states, each project must take into account its unique circumstances. DCP, acting as Lead Agency, in consultation with NYC Parks finds that under the R7D with 15-Degree Sloping Plane Alternative, shadows impacts would be substantially reduced or eliminated as compared to the Proposed Project on some of the Brooklyn Botanic Garden sunlight sensitive resources, but significant adverse shadows impacts on open space and natural resources would still occur on resources within the Brooklyn Botanic Garden.

Jackie Robinson Playground

As shown in **Table 12-10**, the R7D with 15-Degree Sloping Plane Alternative will cast incremental shadows on the Jackie Robinson Playground on three of the four representative analysis days. The R7D with 15-Degree Sloping Plane Alternative would not cast shadow on the June 21 analysis day, unlike the Proposed Project. Incremental shadow coverage under this Alternative would last between 22 minutes and one

Brooklyn Botanic Gardens

15 Degree Slope Modified Project Incremental Shadows - March 21/September 21



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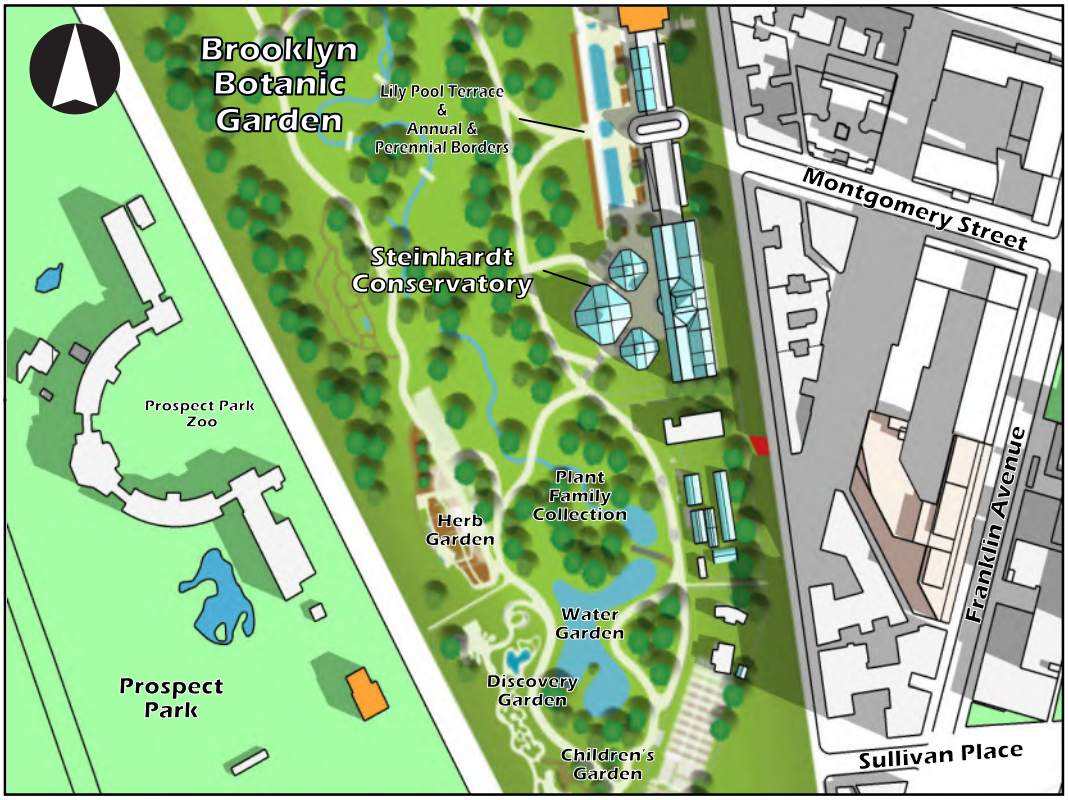


8:15 AM

15 Degree Slope Modified Project

Open Space

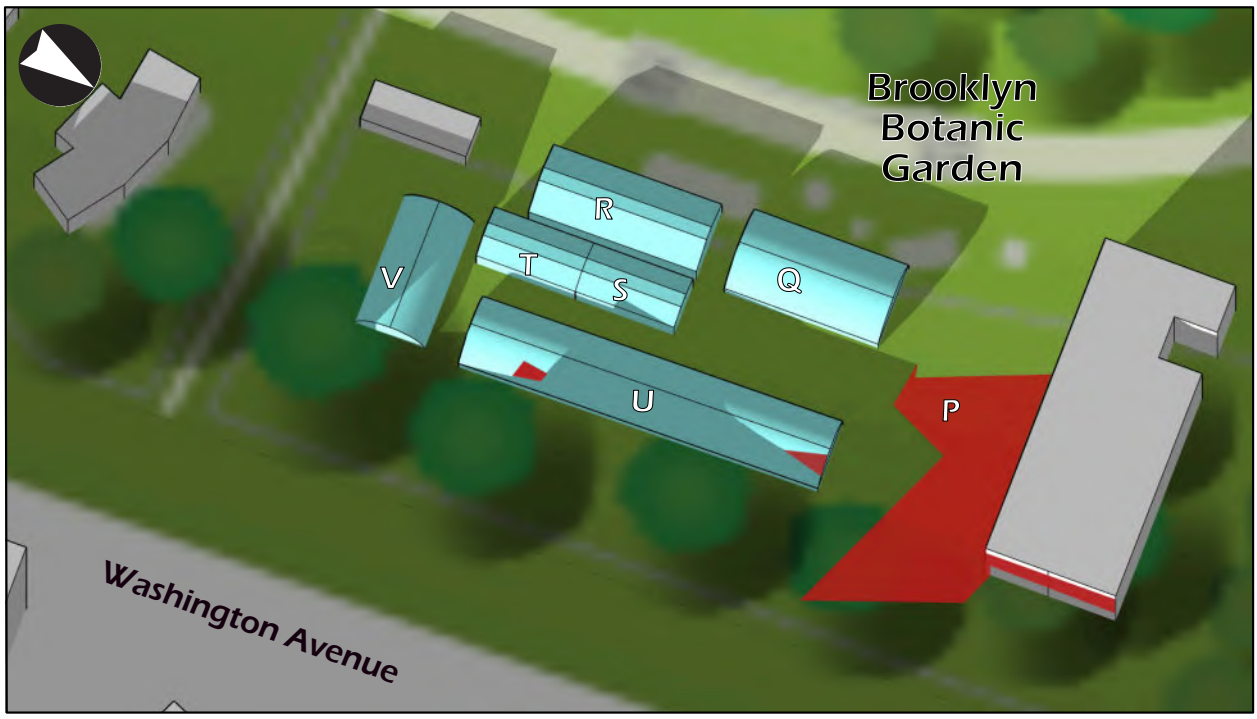
Historic Resource

Greenhouse Facility

Incremental Shadow

Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
15 Degree Slope Modified Project Incremental Shadows - March 21/September 21



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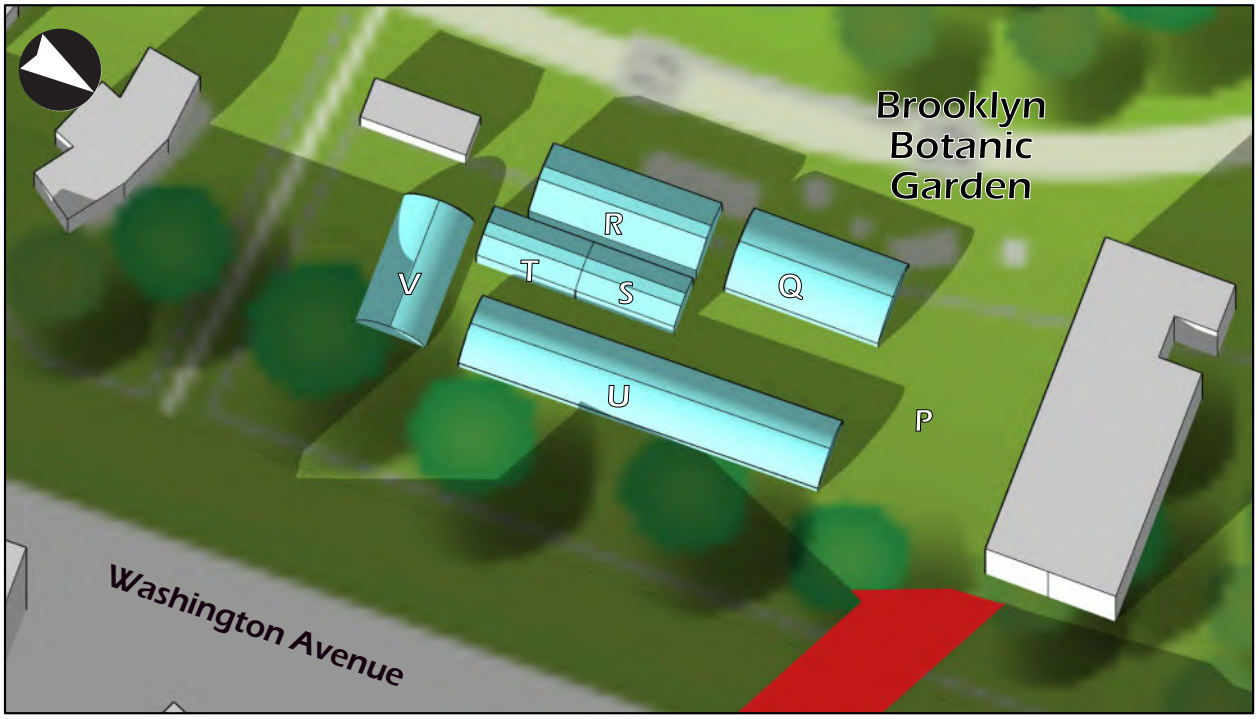

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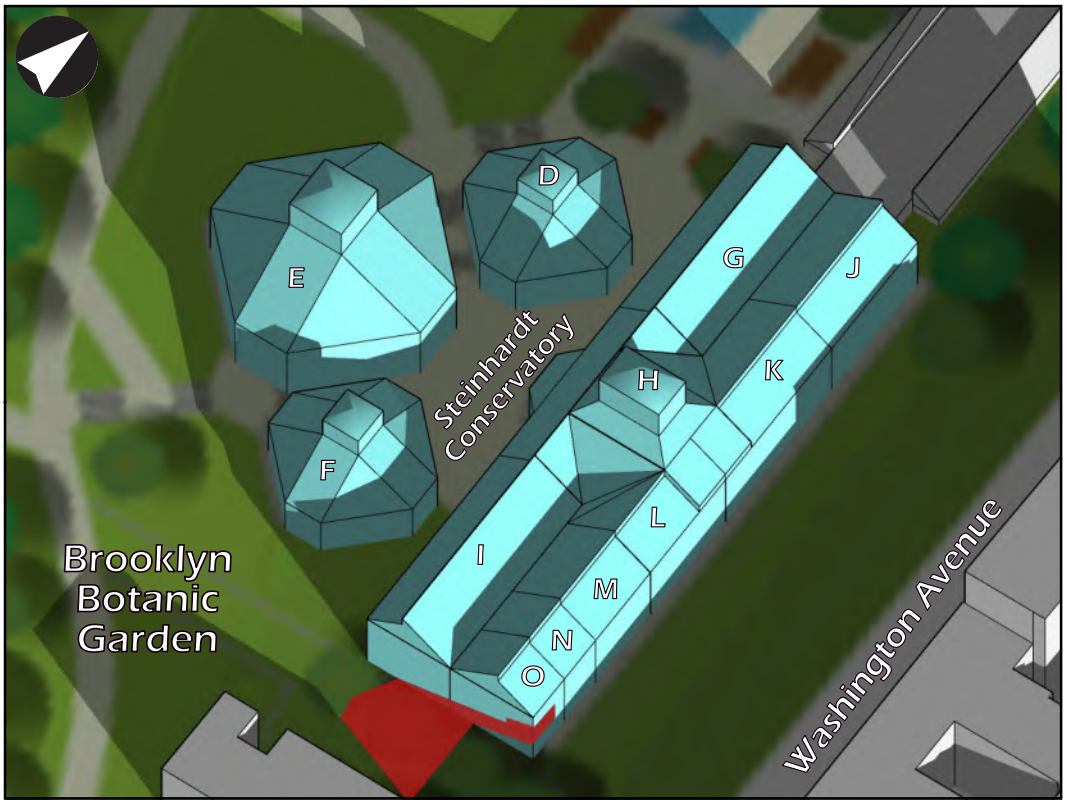
Open Space

Historic Resource

P Greenhouse Facility

Incremental Shadow

Brooklyn Botanic Garden - Steinhardt Conservatory
15 Degree Slope Modified Project Incremental Shadows - March 21/September 21



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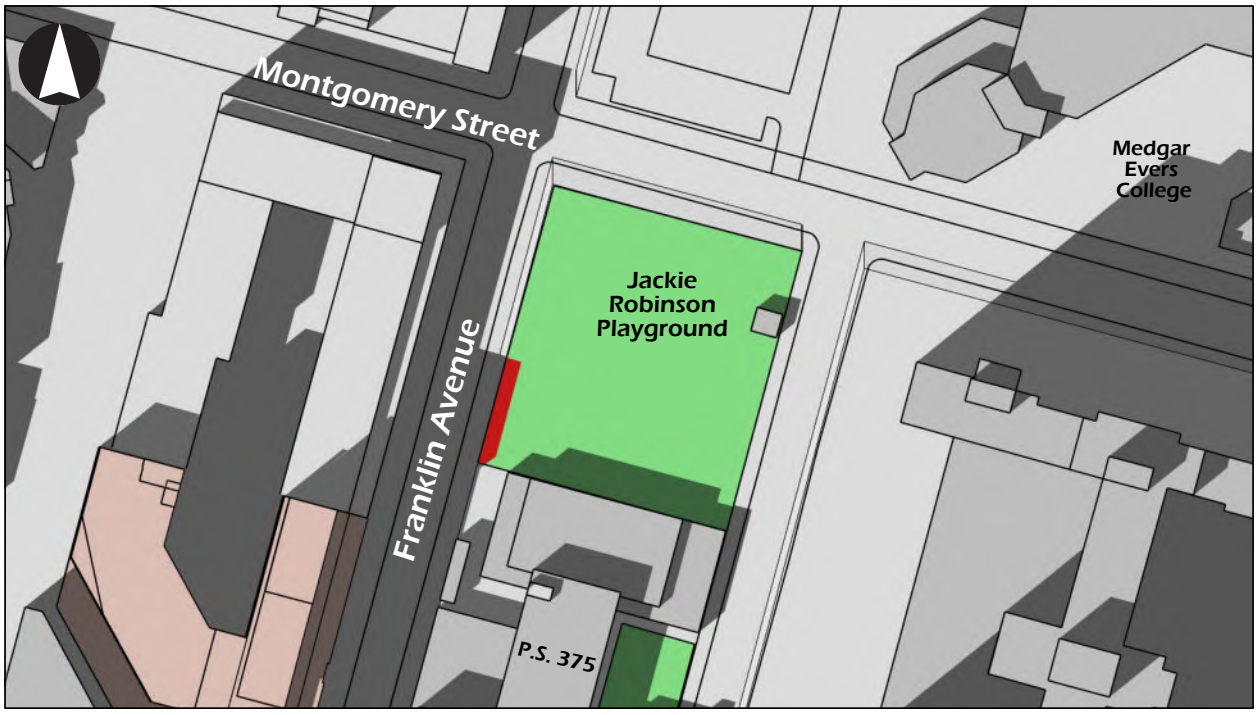
D Greenhouse Facility

Open Space

Historic Resource

Incremental Shadow

Jackie Robinson Playground
15 Degree Slope Modified Project Incremental Shadows - March 21/September 21



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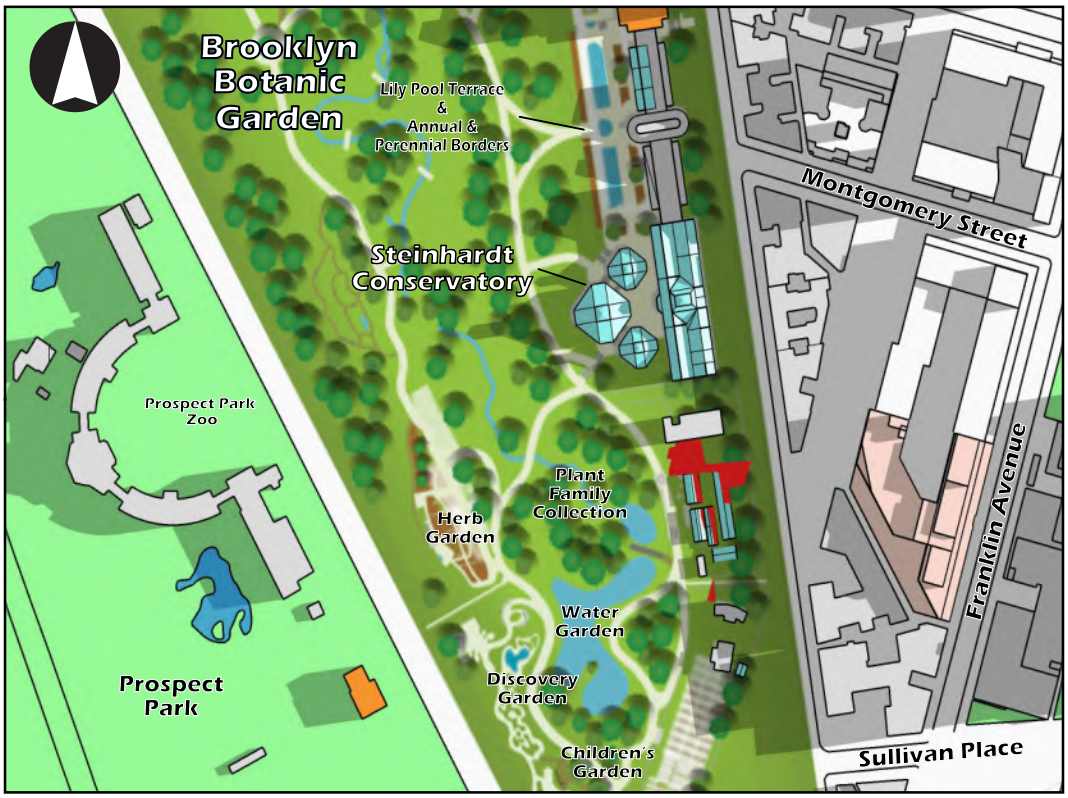
4:00 PM

15 Degree Slope Modified Project | Open Space | Incremental Shadow

Brooklyn Botanic Gardens
15 Degree Slope Modified Project Incremental Shadows - May 6/August 6



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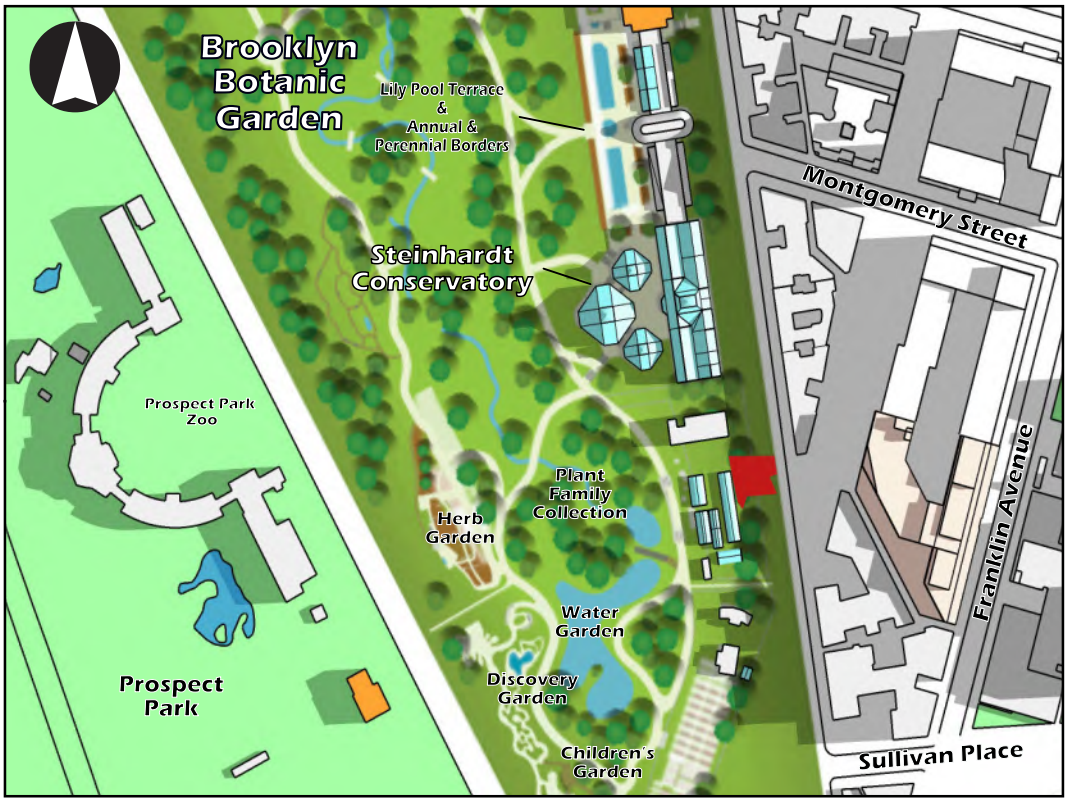
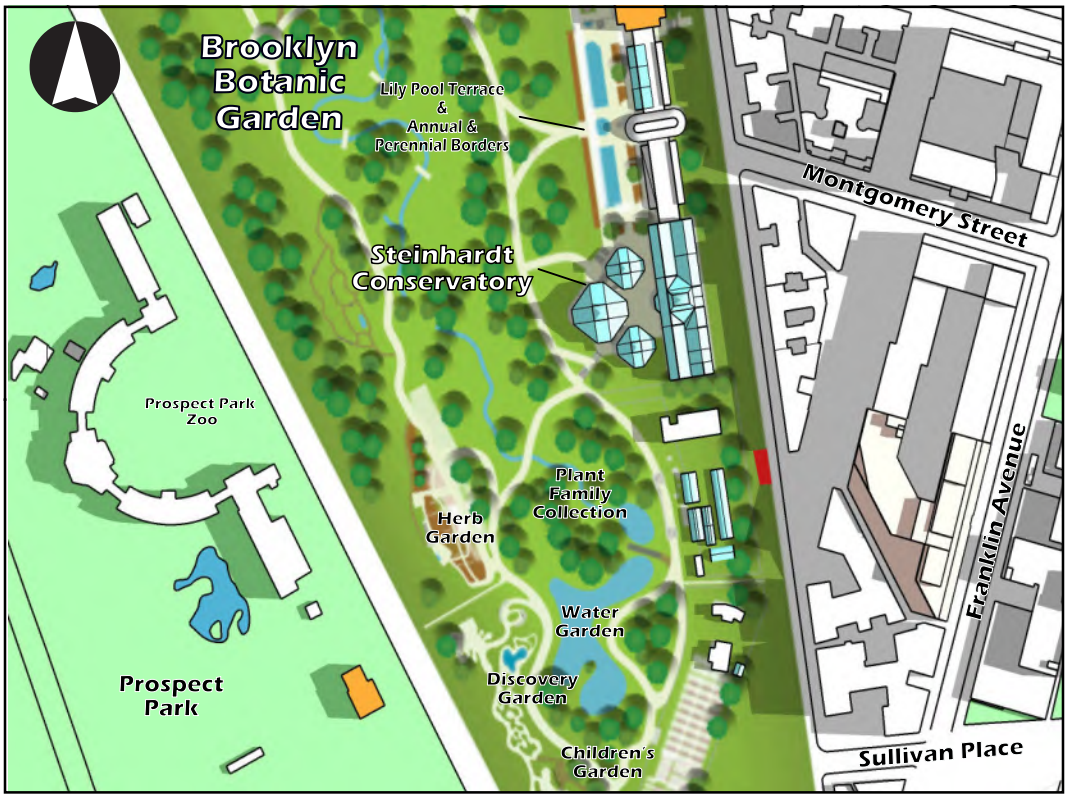


7:00 AM

15 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

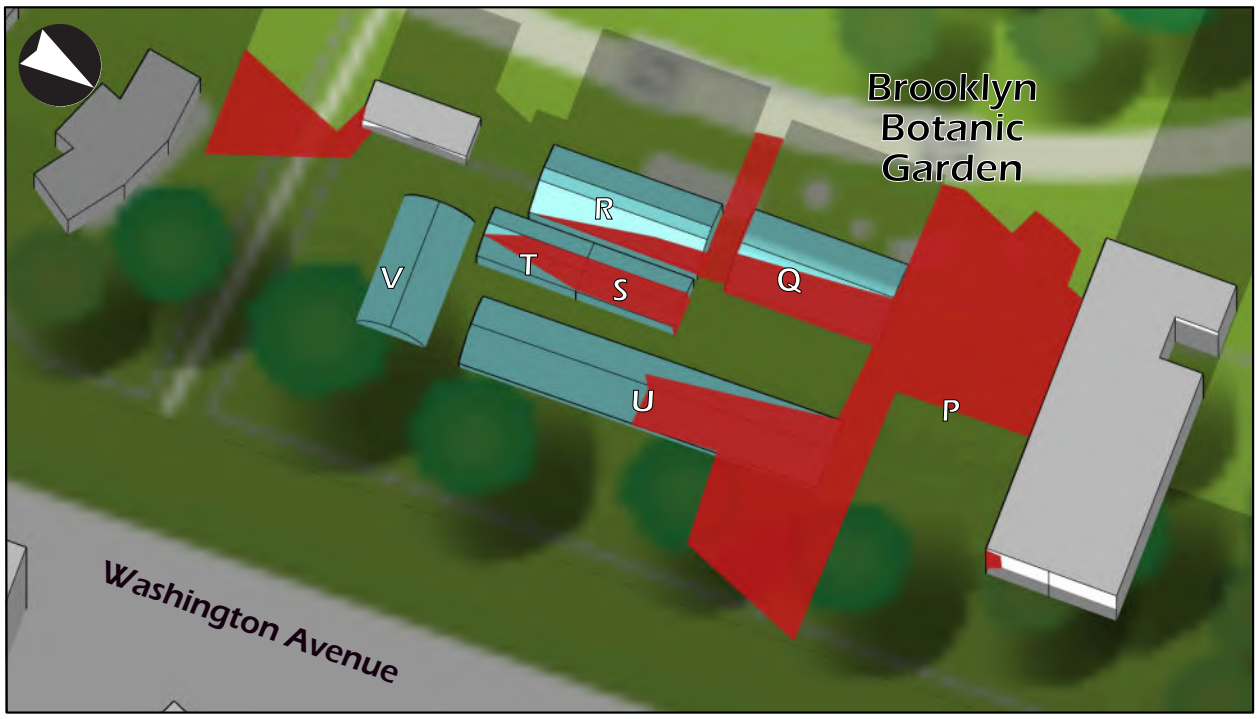
Brooklyn Botanic Gardens
15 Degree Slope Modified Project Incremental Shadows - May 6/August 6



7:30 AM

15 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
15 Degree Slope Modified Project Incremental Shadows - May 6/August 6



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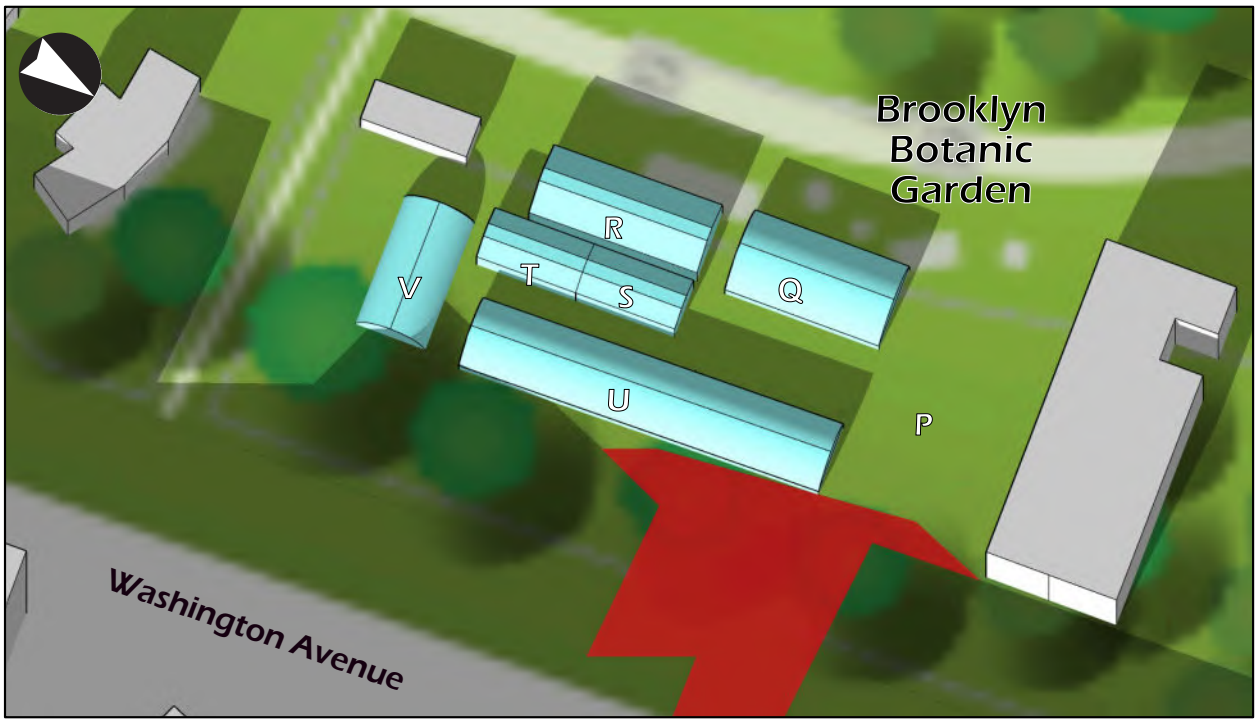

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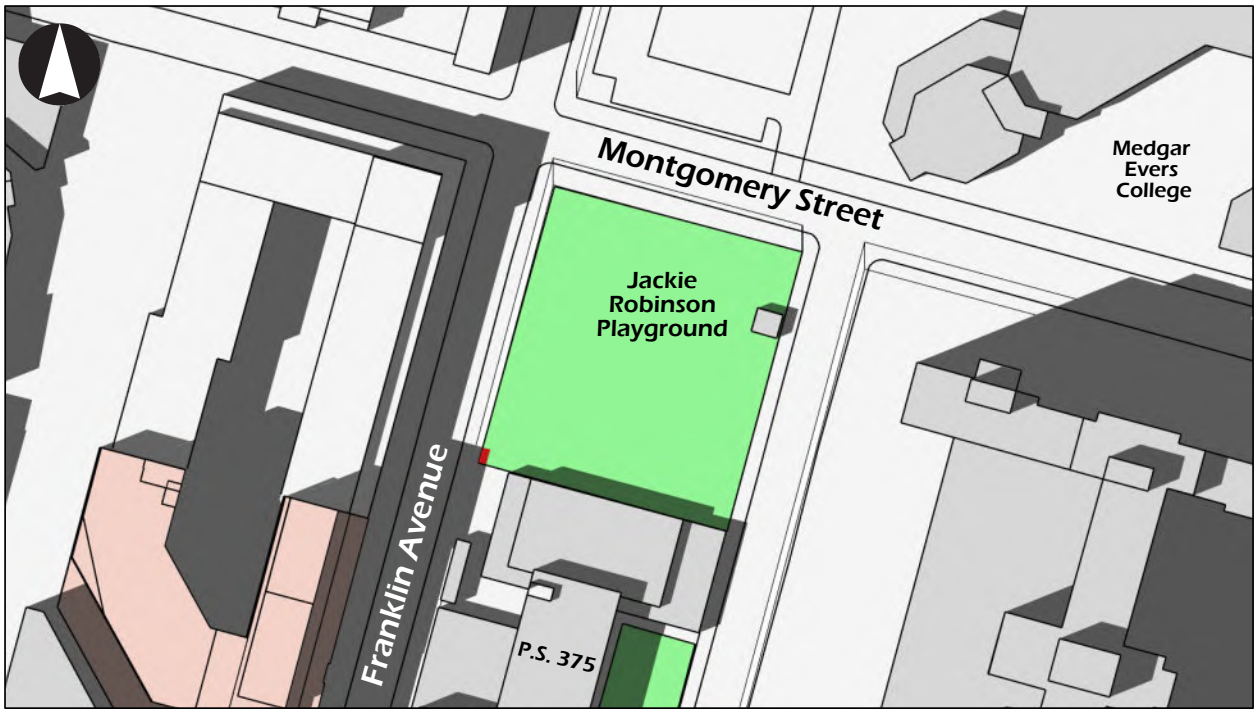
Open Space

Historic Resource

P Greenhouse Facility

Incremental Shadow

Jackie Robinson Playground
15 Degree Slope Modified Project Incremental Shadows - May 6/August 6



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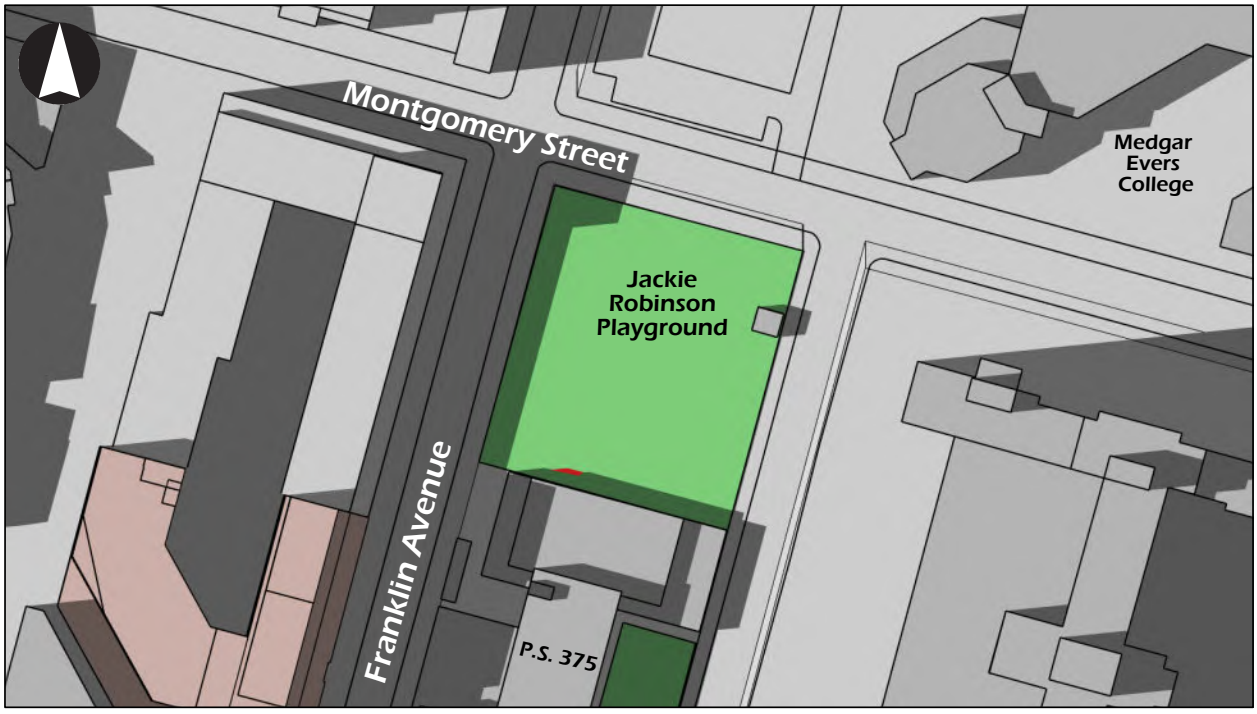

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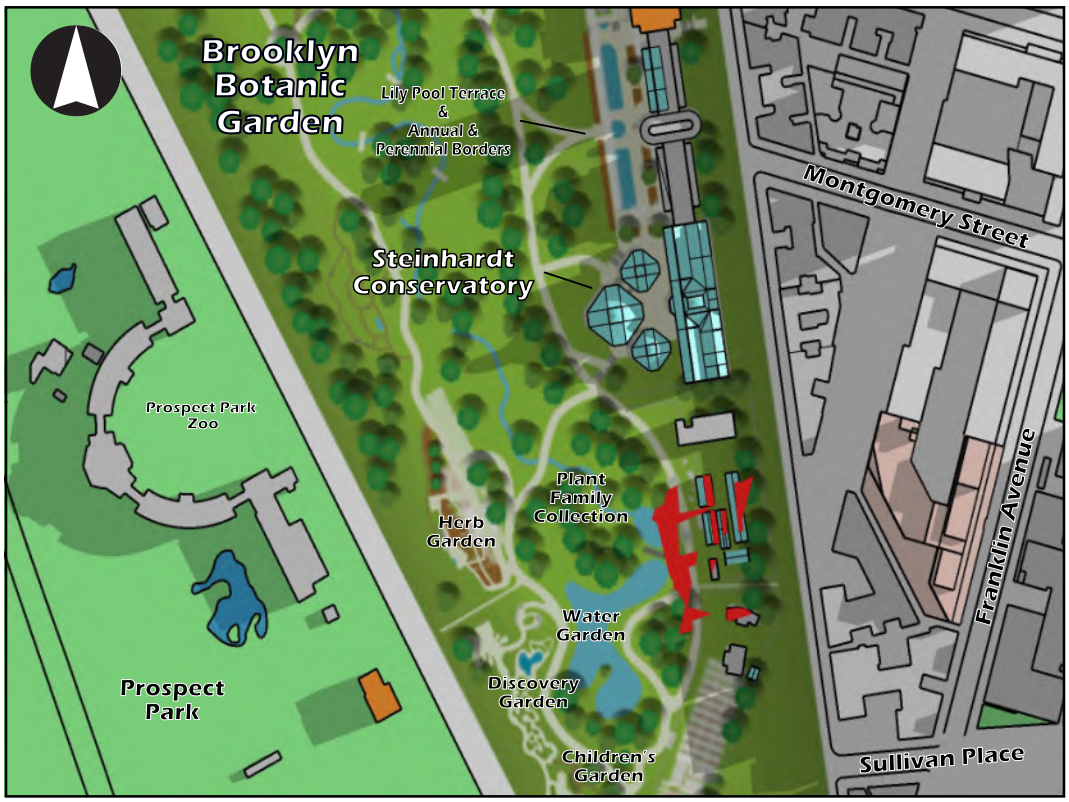
15 Degree Slope Modified Project | Open Space | Incremental Shadow

Brooklyn Botanic Gardens
15 Degree Slope Modified Project Incremental Shadows - June 21



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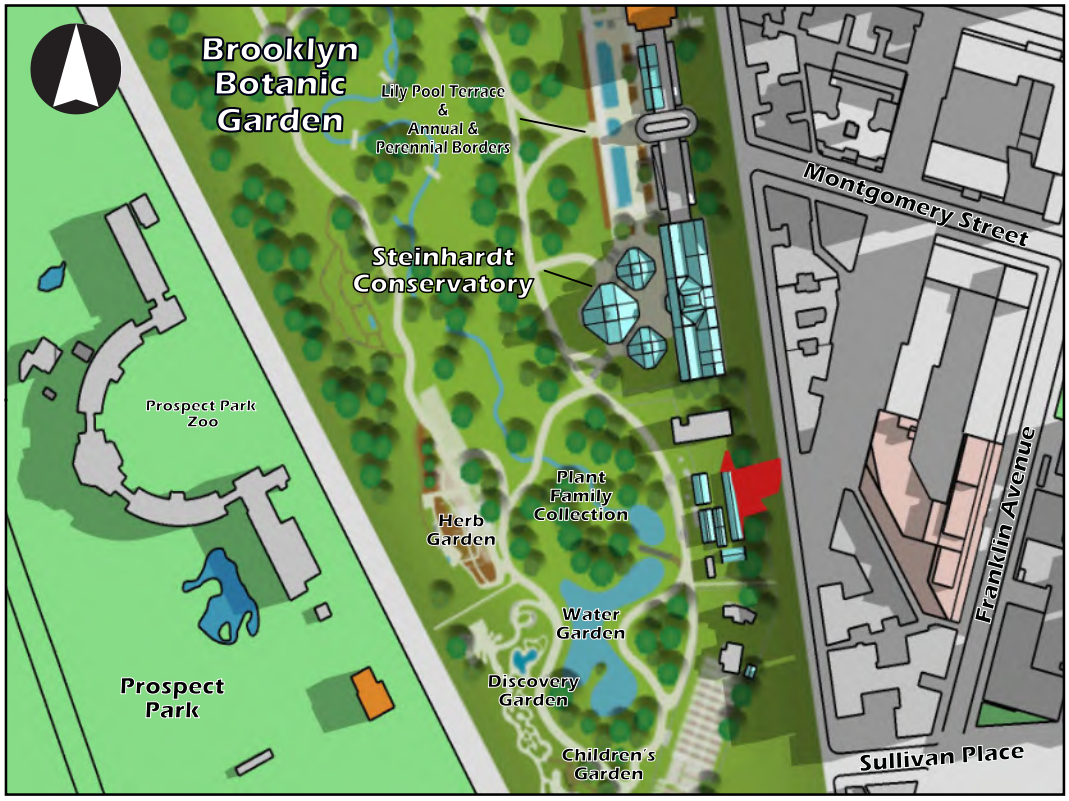

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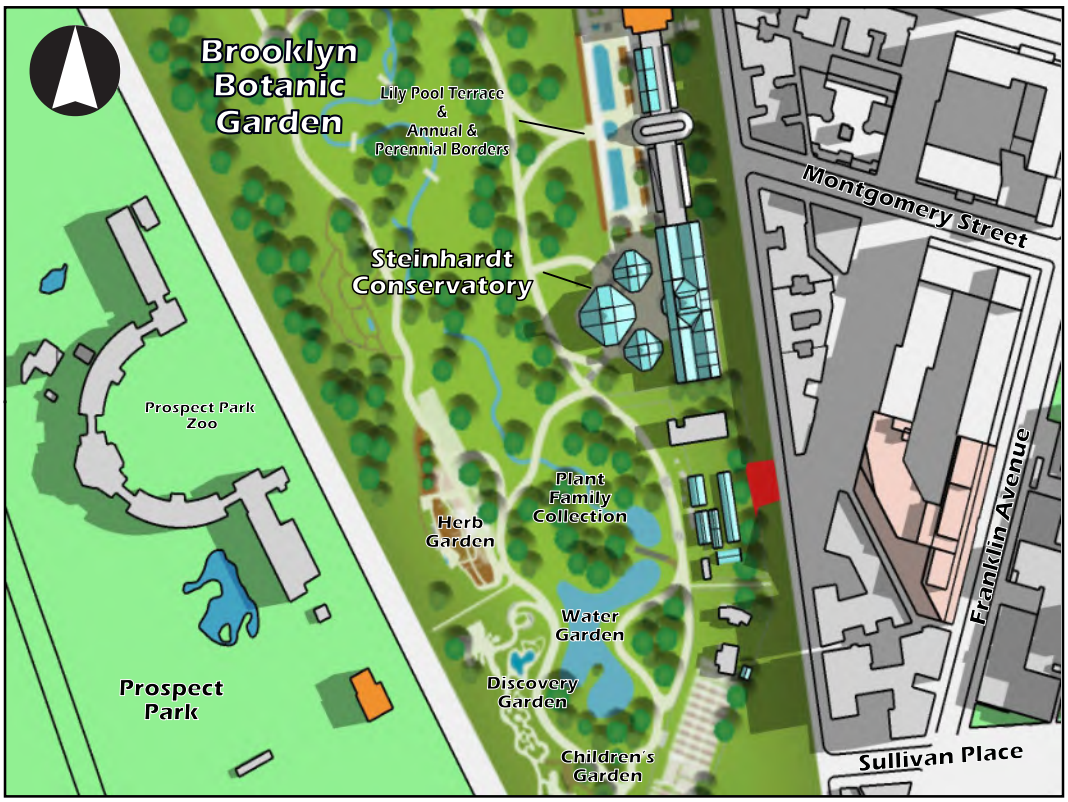
15 Degree Slope **Modified Project**
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Gardens
15 Degree Slope Modified Project Incremental Shadows - June 21



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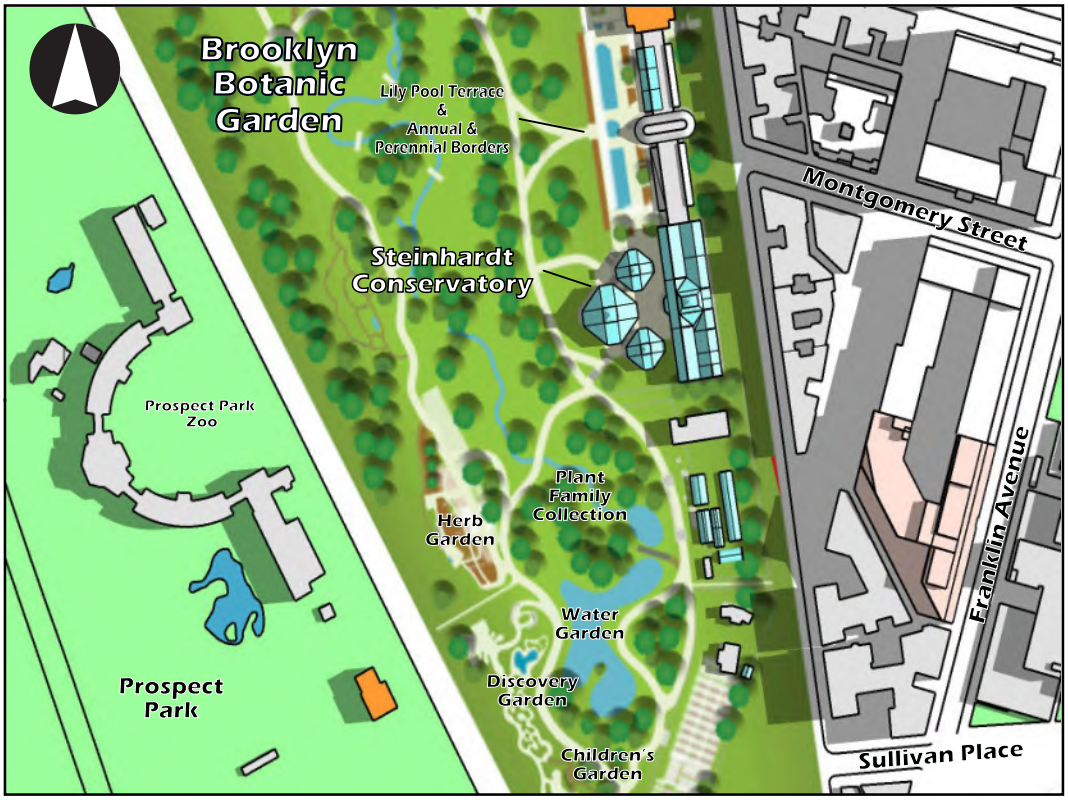

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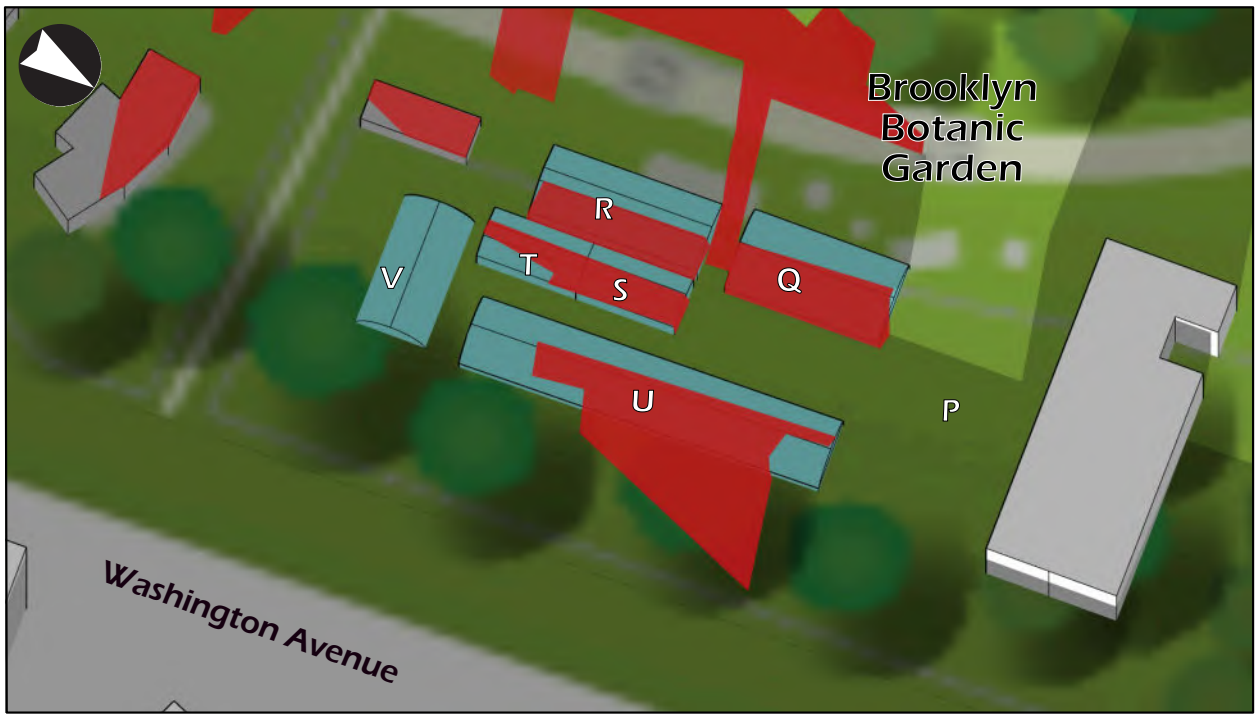
15 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
15 Degree Slope Modified Project Incremental Shadows - June 21



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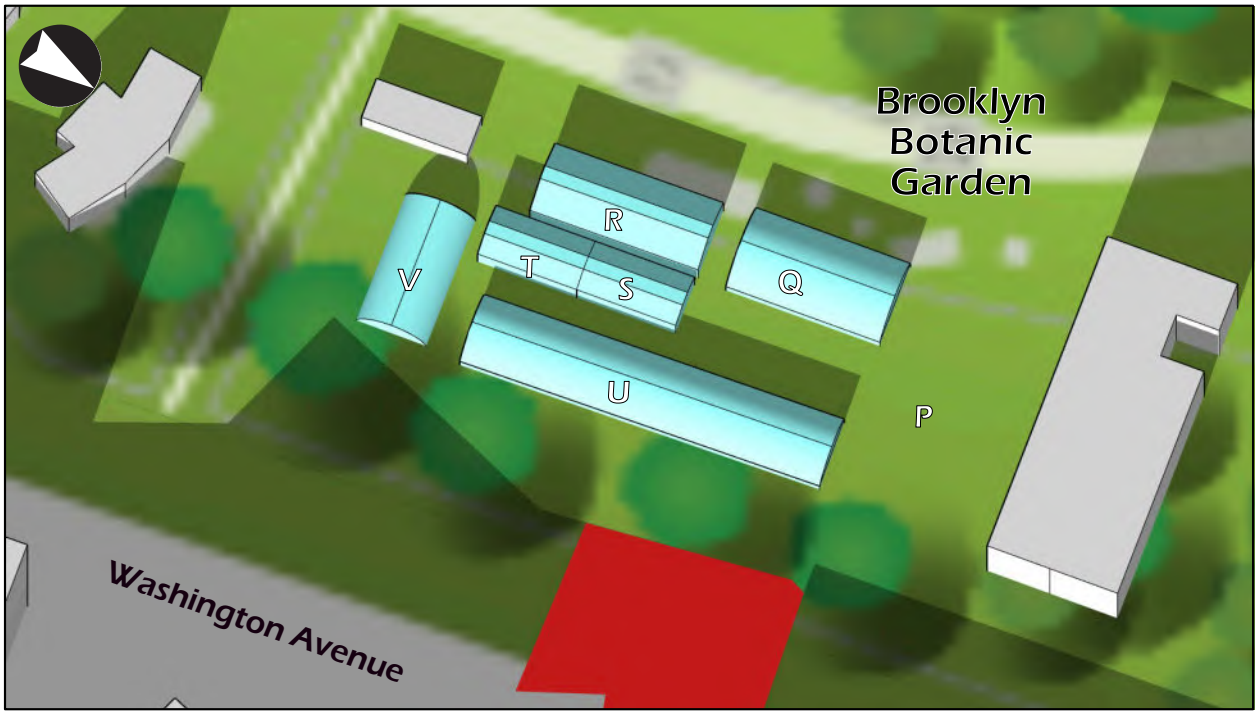
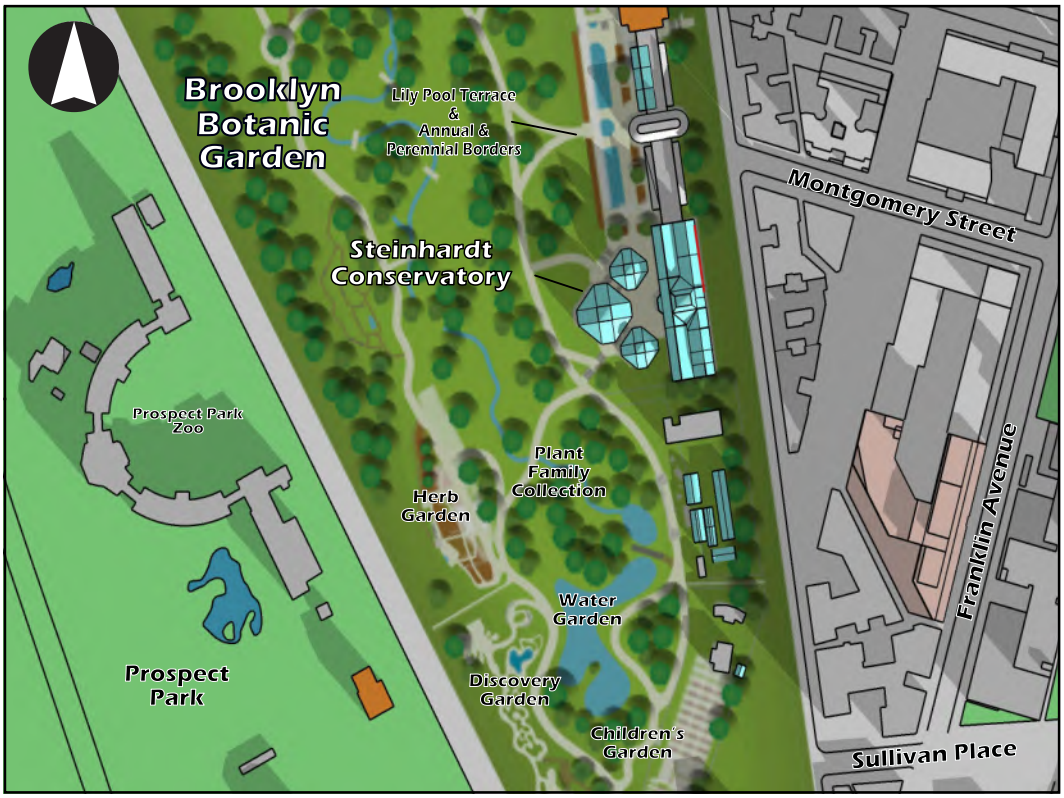


7:00 AM

Open Space
Historic Resource
P
Greenhouse Facility
Incremental Shadow

Brooklyn Botanic Gardens
15 Degree Slope Modified Project Incremental Shadows - December 21

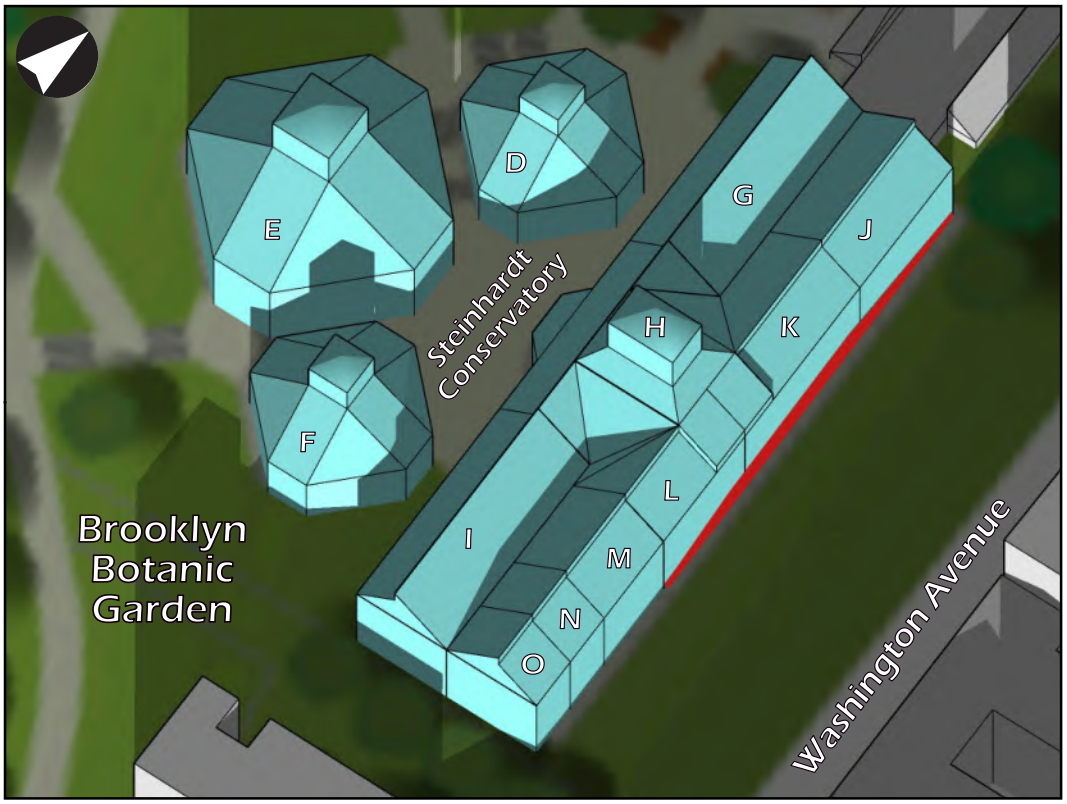


8:51 AM

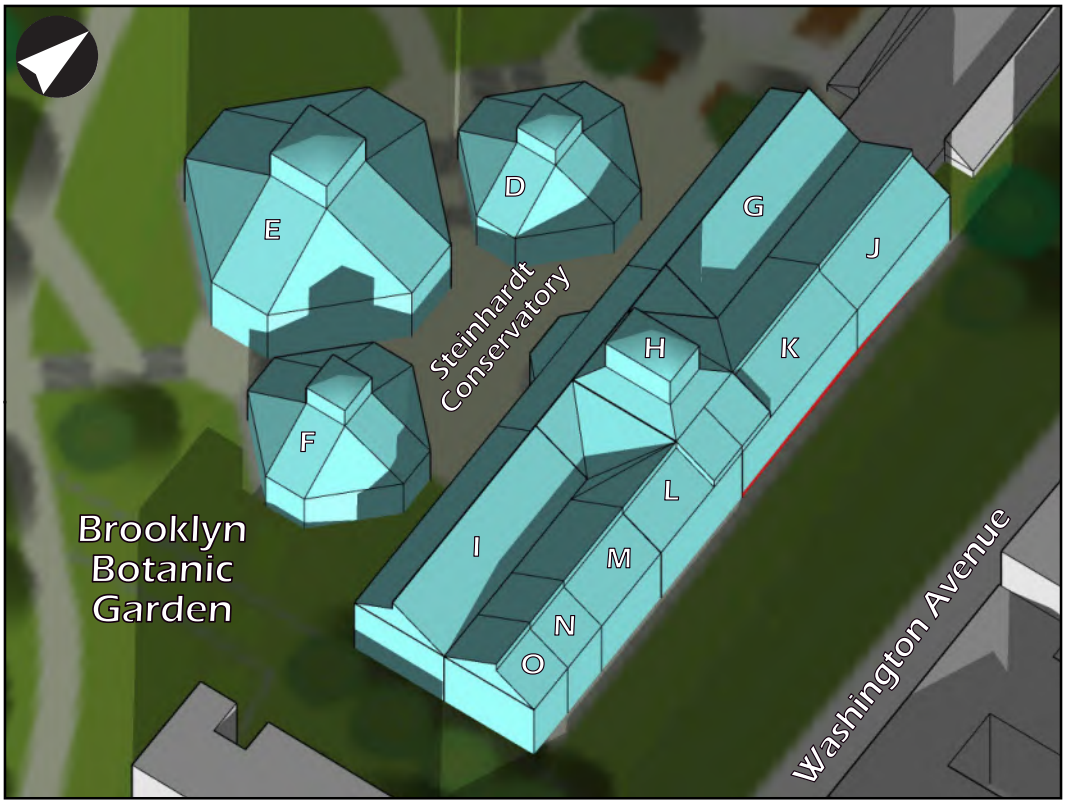
15 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Figure 12-30b

Brooklyn Botanic Garden - Steinhardt Conservatory
15 Degree Slope Modified Project Incremental Shadows - December 21



8:51 AM



8:55 AM

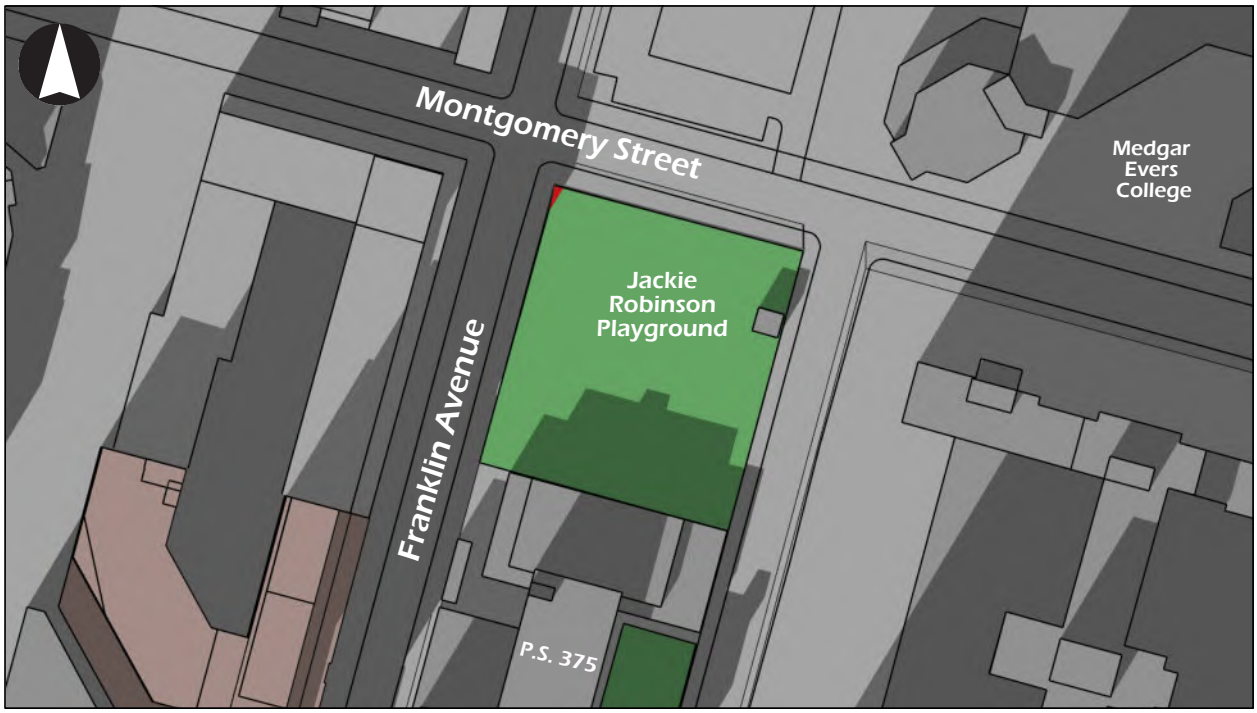
D Greenhouse Facility

Open Space

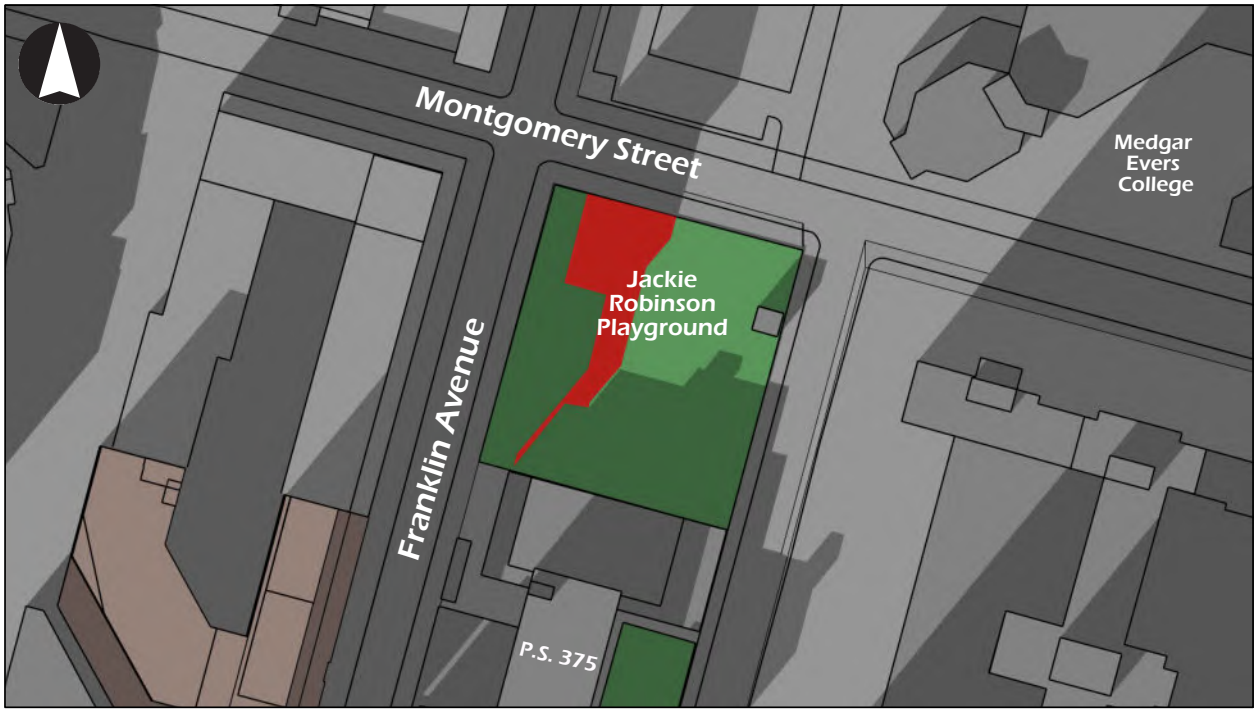
Historic Resource

Incremental Shadow

Jackie Robinson Playground
15 Degree Slope Modified Project Incremental Shadows - December 21



2:05 PM



2:45 PM

15 Degree Slope Modified Project | Open Space | Incremental Shadow

hour and 58 minutes. Compared to the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would result in decreases of incremental shadow duration between 48 minutes and one hour and 53 minutes on the March 21/September 21, May 6/August 6, June 21, and December 21 analysis days.

As shown in **Figures 12-27** through **12-30**, incremental shadows from the R7D with 15-Degree Sloping Plane Alternative are expected to cast shadow on a passive area for seating, and areas for active uses including a playground and basketball courts. Based on the size and duration of incremental shadow on Jackie Robinson Playground, significant adverse impacts would occur. Incremental shadow from the R7D with 15-Degree Sloping Plane Alternative would occur over large portions of the park during the March 21/September 21 and May 6/August 6 analysis days. Therefore, as the extent and duration of the incremental shadows would (1) significantly reduce or completely eliminate direct sunlight exposure on any of the sunlight-sensitive resources found within this open space; and (2) would alter the public's use of the park, incremental shadows from the R7D with 15-Degree Sloping Plane Alternative on Jackie Robinson Playground would be considered a significant adverse impact, in accordance with *CEQR Technical Manual* methodology.

TABLE 12-10
Incremental Shadow Coverage – R7D with 15-Degree Sloping Plane Alternative (10-Story)

Resource #	Resource	Analysis Day	March 21/Sept 21	May 6/August 6	June 21	December 21	Incremental Shadow Durations Compared to the Proposed Project (Table 4-6)			
			7:36 AM - 4:29 PM	6:27 AM - 5:18 PM	5:57 AM - 6:01 PM	8:51 AM - 2:53 PM	March 21/Sept 21	May 6/August 6	June 21	December 21
1	Brooklyn Botanic Garden (Full Garden)	Shadow enter-exit time	7:36 - 8:30 AM	6:27 - 7:44 AM	5:57 AM - 7:34 AM	8:51 AM - 8:59 AM	- 1 hour and 6 minutes	- 1 hour and 16 minutes	-1 hour and 20 minutes	- 1 hour and 4 minutes
		Incremental shadow duration	54 minutes	1 hour and 17 minutes	1 hour and 37 minutes	8 minutes				
2	Jackie Robinson Playground	Shadow enter-exit time	2:31 PM - 4:29 PM	2:35 PM - 4:06 PM	-	2:01 - 2:53 PM	- 48 minutes	- 1 hour and 53 minutes	- 1 hour and 41 minutes	- 56 minutes
		Incremental shadow duration	1 hour and 58 minutes	1 hour and 31 minutes	-	22 minutes				
3	Prospect Park	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
4	P.S. 375K Community Playground	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
	Brooklyn Botanic Garden (Resources A - V)	Shadow enter-exit time	7:36 AM - 8:12 AM	6:27 AM - 7:22 AM	5:57 AM - 7:06 AM	8:51 AM - 8:55 AM	- 55 minutes	- 1 hour and 32 minutes	- 1 hour and 48 minutes	- 38 minutes
		Incremental shadow duration	36 minutes	55 minutes	1 hour and 9 minutes	4 minutes				
A	Education Greenhouse: Desert Plants	Shadow enter-exit time	-	-	-	-	-	-	-	- 9 minutes
		Incremental shadow duration	-	-	-	-				
B	Education Greenhouse: Warm Temperate Plants	Shadow enter-exit time	-	-	-	-	-	-	-	- 11 minutes
		Incremental shadow duration	-	-	-	-				
C	Education Greenhouse:	Shadow enter-exit time	-	-	-	-	-	-	-	-13 minutes

	Tropical Plants	Incremental shadow duration	-	-	-	-				
D	Helen Mattin Warm Temperate Pavilion	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
E	Tropical Pavilion	Shadow enter-exit time	-	-	-	-	- 40 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
F	Desert Pavilion	Shadow enter-exit time	-	-	-	-	- 52 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
G	C.V. Starr Bonsai Museum	Shadow enter-exit time	-	-	-	-	-	-	-	- 27 minutes
		Incremental shadow duration	-	-	-	-				
H	Conservatory Entry House	Shadow enter-exit time	-	-	-	-	-14 minutes	-	-	- 16 minutes
		Incremental shadow duration	-	-	-	-				
I	Aquatic House & Orchid Collection	Shadow enter-exit time	7:36 AM - 7:43 AM	-	-	-	- 1 hour and 9 minutes	-	-	-
		Incremental shadow duration	7 minutes	-	-	-				
J	Desert, Mediterranean, South African Bulb (Arid) Workhouse	Shadow enter-exit time	-	-	-	8:51 AM - 8:55 AM	-	-	-	- 38 minutes
		Incremental shadow duration	-	-	-	4 minutes				
K	Humid Tropics Workhouse	Shadow enter-exit time	-	-	-	8:51 AM - 8:55 AM	-	-	-	- 33 minutes
		Incremental shadow duration	-	-	-	4 minutes				
L	Lowland Moist	Shadow enter-	-	-	-	8:51 AM -	- 41 minutes	-	-	- 18 minutes

	Tropical Orchid Workhouse	exit time				8:55 AM				
		Incremental shadow duration	-	-	-	4 minutes				
M	Highland Moist Tropical Orchid Workhouse	Shadow enter-exit time	-	-	-	-	- 1 hour and 21 minutes	-	-	- 9 minutes
		Incremental shadow duration	-	-	-	-				
N	Tropical Plant Propagation House	Shadow enter-exit time	-	-	-	-	- 1 hour and 29 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
O	Tropical & Desert Plant Propagation House	Shadow enter-exit time	7:36 AM - 7:53 AM	-	-	-	- 1 hour and 14 minutes	-	-	-
		Incremental shadow duration	17 minutes	-	-	-				
P	Hardy Plant Nursery Yard	Shadow enter-exit time	7:36 AM - 8:12 AM	6:27 AM - 7:22 AM	5:57 AM - 7:06 AM	-	- 52 minutes	- 1 hour and 32 minutes	- 1 hour and 48 minutes	-
		Incremental shadow duration	36 minutes	55 minutes	1 hour and 9 minutes	-				
Q	Temperate Bonsai Tunnel	Shadow enter-exit time	-	6:27 AM - 6:42 AM	5:57 AM - 6:24 AM	-	- 51 minutes	- 1 hour and 16 minutes	- 1 hour and 31 minutes	-
		Incremental shadow duration	-	15 minutes	27 minutes	-				
R	Production House	Shadow enter-exit time	-	6:27 AM - 6:31 AM	5:57 AM - 6:14 AM	-	-15 minutes	- 1 hour and 14 minutes	- 1 hour and 27 minutes	-
		Incremental shadow duration	-	4 minutes	17 minutes	-				
S	Tropical Bonsai House	Shadow enter-exit time	-	6:27 AM - 6:42 AM	5:57 AM - 6:25 AM	-	- 22 minutes	-1 hour and 14 minutes	-1 hour and 28 minutues	-
		Incremental shadow duration	-	15 minutes	28 minutes	-				
T	Auxiliary House	Shadow enter-exit time	-	6:27 AM - 6:40 AM	5:57 AM - 6:26 AM	-	-	- 1 hour and 2 minutes	- 1 hour and 22 minutes	-

		Incremental shadow duration	-	13 minutes	29 minutes	-				
U	New York-Native Flora & Temperate Plant Propagation Tunnel	Shadow enter-exit time	7:36 AM - 7:44 AM	6:27 AM - 6:59 AM	5:57 AM - 6:44 AM	-	-58 minutes	- 1 hour and 20 minutes	- 1 hour and 34 minutes	-
		Incremental shadow duration	8 minutes	32 minutes	47 minutes	-				
V	Mediterranean Display Plants Tunnel	Shadow enter-exit time	-	-	6:05 AM - 6:26 AM	-	- 1 minute	-1 hour and 22 minutes	- 1 hour and 22 minutes	-
		Incremental shadow duration	-	-	21 minutes	-				

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *CEQR Technical Manual* guidance.
Table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.
[1] Keyed to **Figure 4-3**.

Historic and Cultural Resources

Similar to the Proposed Project, as described in **Attachment B, "Supplemental Screening,"** of the EAS, the R7D with 15-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to historic and cultural resources. As the R7D with 15-Degree Sloping Plane Alternative would be built on the same Proposed Development Site to a lesser density and height than the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would not result in significant adverse impacts to historic and cultural resources.

Urban Design and Visual Resources

The R7D with 15-Degree Sloping Plane Alternative would be constructed within the permitted zoning envelope of the R7D zoning district under the City of Yes for Housing Opportunity while complying with height restrictions of the 15-degree sloping plane. The R7D district permits a maximum base height of 95 feet. Developments in a R7D district can reach a maximum height of 125 feet (10 stories) not including permitted obstructions such as the mechanical bulkhead. The R7D with 15-Degree Sloping Plane Alternative would be approximately 45 feet shorter than the Proposed Project. The base height of the R7D with 15-Degree Sloping Plane Alternative would be 15 feet less than the Proposed Project.

Similar to the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would not result in any significant adverse impacts to urban design or visual resources. The R7D with 15-Degree Sloping Plane Alternative would be a building form that is similar to other recent developments in the area. The R7D with 15-Degree Sloping Plane Alternative would be constructed on an existing block and would not entail any changes to topography, open space, or natural features in the Project Area or secondary study area.

The R7D with 15-Degree Sloping Plane Alternative would not obstruct any significant viewsheds in the area, or substantially alter the pedestrian experience in the immediate vicinity of the Project Area. Therefore, the R7D with 15-Degree Sloping Plane Alternative would not result in any significant adverse impacts to visual resources.

Hazardous Materials

As under the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would not result in significant adverse hazardous materials impacts. The R7D with 15-Degree Sloping Plane Alternative would be developed in accordance with the applicable NYC DOB guidance in terms of safe building demolition and site redevelopment methods, in accordance with the (E) Designation.

The (E) Designation, E-728 text related to hazardous materials is as follows:

> **Task 1-Sampling Protocol**
>
> **The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be**

complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

Therefore, there would be no potential for contact with subsurface contamination and no significant risk of human exposure.

Water and Sewer Infrastructure

Neither the Proposed Project nor the R7D with 15-Degree Sloping Plane Alternative would result in significant adverse impacts on the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. Compared with the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would generate less demand on the City's water supply and wastewater treatment infrastructure.

Energy

Neither the Proposed Project nor the R7D with 15-Degree Sloping Plane Alternative would result in significant adverse impacts with respect to the transmission or generation of energy. The demand generated under the R7D with 15-Degree Sloping Plane Alternative would be less than the Proposed Project. However, under both the Proposed Project and the R7D with 15-Degree Sloping Plane Alternative, the annual increase in demand would represent a negligible amount of the City's forecasted annual energy requirements for 2027.

Transportation

Similar to the Proposed Project, as described in **Attachment F, "Transportation,"** of the EAS, the R7D with 15-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to

traffic, pedestrians, transit, or parking. As the R7D with 15-Degree Sloping Plane Alternative would be built on the same site, to a lesser density than the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would not result in significant adverse impacts to traffic, pedestrians, transit, or parking.

Air Quality

Under the R7D with 15-Degree Sloping Plane Alternative, a new 355-unit mixed-use residential and local retail development and an on-site accessory parking garage would be constructed on the Proposed Development Site containing approximately 71 accessory parking spaces. As such there would be a new source of stationary source air quality emissions and a new emissions source from the parking garage on the Proposed Development Site. The size of the accessory-parking garage would be approximately the same in the R7D with 15-Degree Sloping Plane Alternative as in the Proposed Project, so the emissions concentrations would likely be very similar as well. Thus, the potential for significant adverse impacts under the R7D with 15-Degree Sloping Plane Alternative is unlikely given the R7D with 15-Degree Sloping Plane Alternative's garage is less than 85 spaces, the threshold identified for analysis in Table 16-1 of the *CEQR Technical Manual*.

Under the R7D with 15-Degree Sloping Plane Alternative, a 136-foot-tall building (including bulkhead) of approximately 376,748 gsf would be constructed at the Proposed Development Site. The closest building taller than the R7D with 15-Degree Sloping Plane Alternative is the 211-foot tall building at 1720 Bedford Avenue. 1720 Bedford Avenue is approximately 375 feet east of the Proposed Development Site. As shown in **Figure 12-31** (based on Figure 17-3 of the *CEQR Technical Manual*), the R7D with 15-Degree Sloping Plane Alternative would be below the screening curve for fossil fueled fired HVAC systems. Therefore, no stationary source air quality significant adverse impacts would occur.

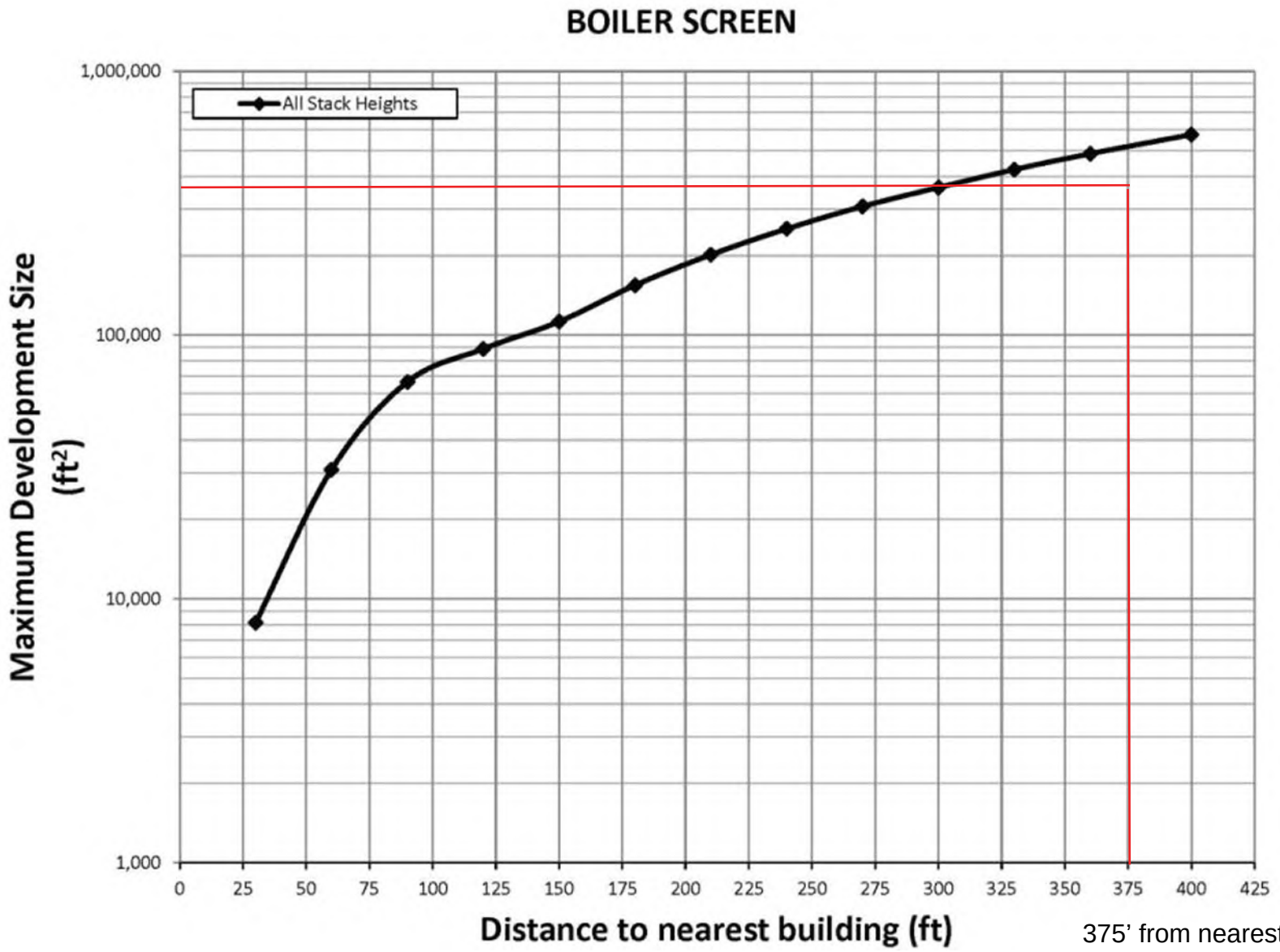
Additionally, mobile source emissions from traffic on surrounding roadways decrease when compared to the Proposed Project. As the R7D with 15-Degree Sloping Plane Alternative would result in less mobile source emissions (i.e., fewer incremental vehicle trips) than the Proposed Project, significant adverse mobile source impacts are unlikely under the R7D with 15-Degree Sloping Plane Alternative.

Greenhouse Gas Emissions and Climate Change

As the R7D with 15-Degree Sloping Plane Alternative would result in a new 402-unit mixed-use residential and local retail development, it would be smaller than the Proposed Project. As such, it would use less energy than the Proposed Project and would, therefore, result in fewer carbon dioxide equivalent (CO_2e) emissions per year. Neither the Proposed Project nor the R7D with 15-Degree Sloping Plane Alternative would result in significant greenhouse gas (GHG) emission or climate change impacts.

Noise

Under the R7D with 15-Degree Sloping Plane Alternative, a new 355-unit mixed-use development would occur on the Proposed Development Site. No other sources of noise would be created on the Proposed Development Site. The noise levels from mobile sources on surrounding roadways would decrease compared to the Proposed Project, as the R7D with 15-Degree Sloping Plane Alternative would include approximately 120 less DU. As presented in **Attachment H, "Noise,"** of the EAS, under the Proposed Project no significant adverse noise impacts would occur. As the R7D with 15-Degree Sloping Plane Alternative would result in fewer vehicle trips near the Project Area's noise receptor locations, the R7D with 15-Degree Sloping Plane Alternative would not result in any significant adverse impacts to noise.



375' from nearest building taller than 136'

Public Health

Similar to the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would not result in any unmitigated significant adverse impacts in any of the technical areas related to public health. According to the *CEQR Technical Manual*, actions that do not result in unmitigated significant adverse impacts related to air quality, water quality, hazardous materials, or noise typically do not warrant a public health analysis. As the R7D with 15-Degree Sloping Plane Alternative does not have the potential to cause any significant adverse impacts in those areas, it would not have any significant adverse impacts on public health.

Neighborhood Character

According to the *CEQR Technical Manual*, a proposed project could have a significant adverse neighborhood character impact if it would have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact in any relevant technical area, or through a combination of moderate effects in those technical areas. Similar to the Proposed Project, the R7D with 15-Degree Sloping Plane Alternative would not cause significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; transportation; or noise. As such, the R7D with 15-Degree Sloping Plane Alternative would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature. A new 355-unit residential and commercial development would occur under the R7D with 15-Degree Sloping Plane Alternative and the overall neighborhood character of the area would continue to trend toward increased residential and local retail uses on vacant and underutilized sites under the R7D with 15-Degree Sloping Plane Alternative. The study area would continue to be characterized by its evolving mix of land uses and building types, and its location in an area with low pedestrian volumes. Neither the Proposed Project nor the R7D with 15-Degree Sloping Plane Alternative would result in significant adverse impacts to neighborhood character.

Construction

While the R7D with 15-Degree Sloping Plane Alternative is somewhat smaller in overall density and size, it would require essentially the same construction process as anticipated under the Proposed Actions. Since the building would be smaller and would be developed over a similar construction schedule, there could be modest reduction in the amount of materials and construction workers associated with building the R7D with 15-Degree Sloping Plane Alternative. This could slightly reduce the duration and total level of activity. These reductions would not materially affect the construction-related analysis assumptions and conclusions. Therefore, while the overall construction duration could be shorter, the R7D with 15-Degree Sloping Plane Alternative would result in similar conditions to the analysis presented in **Chapter 10, "Construction".** The RD would continue to include project components related to the environment related to construction air quality and noise that would avoid or partially mitigate the impacts.

Like the Proposed Actions, there would be no significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, open space, hazardous materials, and air quality.

I. R7A WITH 10-DEGREE SLOPING PLANE ALTERNATIVE

The Applicant has analyzed an alternative pursuant to a R7A zoning district to create a development (the "R7A with 10-Degree Sloping Plane Alternative") that results in fewer significant adverse impacts than would occur under the Proposed Project. The R7A with 10-Degree Sloping Plane Alternative would consist of 319 DUs (80 of which would be permanently affordable through the MIH Program) and 8,128 gsf of local retail space. The R7A with 10-Degree Sloping Plane Alternative would include 337,198 gsf of residential space and would be built to an FAR of 4.81 as permitted under the City of Yes for Housing Opportunity. The R7A with 10-Degree Sloping Plane Alternative would comply with all R7A zoning bulk regulations and would stand at a maximum height of nine stories or 90 feet (not including 23 feet mechanical bulkhead). Parking would be provided pursuant to the same special permit requested for the Proposed Project. **Figure 12-32** includes an axonometric diagram of the R7A with 10-Degree Sloping Plane Alternative.

As shown in **Table 12-11**, the R7A with 10-Degree Sloping Plane Alternative would result in approximately 156 less total DU, 117 less market-rate DU, and 39 less affordable DU than the Proposed Project. The R7A with 10-Degree Sloping Plane Alternative would have the same amount of retail and parking space as the Proposed Project. The R7A with 10-Degree Sloping Plane Alternative would have 393 fewer residents and six fewer workers than the Proposed Project. Similar to the Proposed Actions, this Alternative would require an (e) designation for hazardous materials; the (e) designation for air quality would no longer be required, see Air Quality section below. A Restrictive Declaration to codify project components related to the environment (PCREs) and mitigation measures related to shadows, construction (air quality and noise) to avoid and partially mitigate the identified impacts.

TABLE 12-11
Comparison of the Proposed Project and R7A with 10-Degree Sloping Plane Alternative

Use	Proposed Project	R7A with 10-Degree Sloping Plane Alternative	Increment
Residential			
Market-Rate Dwelling Units	356 (~314,509.5 gsf)	239 (~252,898.5 gsf)	**-117 (~61,611.0 gsf)**
Affordable Dwelling Units	119 (~104,836.5 gsf)	80 (~84,299.5 gsf)	**-39 (~20,537.0 gsf)**
TOTAL	**475 (419,346 gsf)**	**319 (337,198 gsf)**	**-156 (~82,148 gsf)**
Local Retail	8,128 gsf	8,128 gsf	-
Parking	71 spaces (30,101 gsf)	71 spaces (30,101 gsf)	-
Population/Employment[1]	**With-Action Scenario**	**With-Action Scenario**	**Increment**
Residents	1,197	804	**-393**
Workers	43	37	**-6**

Notes:
[1] Assumes 2.52 persons per DU (based on 2020 U.S. Census data for Brooklyn Community District 9). Estimate of workers is based on standard rates and are as follows: 1 worker per 25 dwelling units; 3 workers per 1,000 sf retail space.

The effects of the R7A with 10-Degree Sloping Plane Alternative in comparison to those of the Proposed Project are provided below for each technical area.

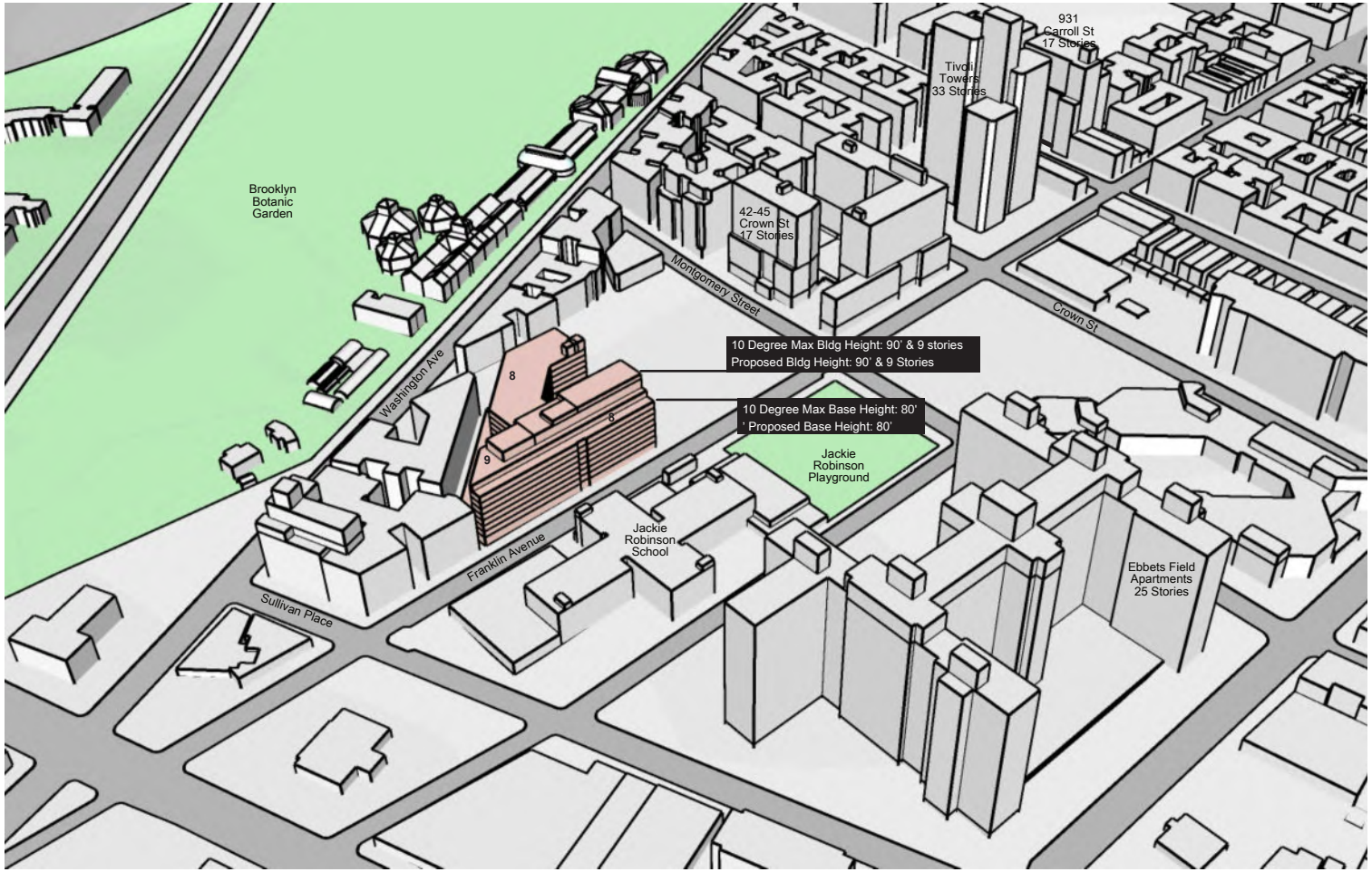
Land Use, Zoning, and Public Policy

Under the R7A with 10-Degree Sloping Plane Alternative, it is anticipated that a new residential development would be constructed on-site pursuant to R7A zoning. The R7A with 10-Degree Sloping Plane

Massing at Lot 63 & 66 - R7A with 10-Degree Sloping Plane
9 Story / 4.81 FAR

GFA: 337,198
ZFA: 255,981 (FAR 4.81)
Units: 319

Parking Spaces Provided
Total Approx. 71 Spaces



*For Illustrative Purposes only

Alternative would introduce new residential uses on a site that has been primarily vacant, a portion of the site has been used most recently for spice processing, warehousing, and distribution. Approximately 319 DUs would be developed with approximately 239 market-rate units and approximately 80 permanently affordable units through the MIH Program, described above. As such, the R7A with 10-Degree Sloping Plane Alternative would not result in a change of land use on the Proposed Development Site relative to the Proposed Project. The R7A with 10-Degree Sloping Plane Alternative would incorporate approximately 156 fewer DUs than the Proposed Project and would offer a similar amount of local retail uses.

Under this alternative, the Project Area would be rezoned to R7A, a medium-density residential district that permits a maximum FAR of 5.01 per City of Yes for Housing Opportunity. The zoning text amendment to establish the Project Area as a Mandatory Inclusionary Housing (MIH) area would still be established and approximately 80 DUs of mandatory affordable housing would be developed.

It is the Applicant's opinion that the R7A with 10-Degree Sloping Plane Alternative would be supportive of public policies articulated in *Housing New York*, PlaNYC, and *OneNYC* that aim toward increasing the supply of housing in the city, reclaiming underutilized land, and expanding access to affordable housing. However, this would be to a lesser degree than the Proposed Actions, given that the total number of new housing units would be 319 units instead of 475 units with the Proposed Project, and the affordable housing units would be 80 DUs instead of 119 DUs with the Proposed Project, a loss of 39 affordable units.

As described in **Chapter 2, "Land Use, Zoning, and Public Policy,"** the Proposed Project would not result in any significant adverse impacts to land use, zoning, or public policy. As the R7A with 10-Degree Sloping Plane Alternative would include similar uses to the Proposed Project, with residential uses included at a lower density, along with a similar amount of local retail space, the R7A with 10-Degree Sloping Plane Alternative would not result in any significant adverse impacts related to land use, zoning, and public policy.

Socioeconomic Conditions

Similar to the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would not be expected to have a significant adverse impact on socioeconomic conditions. Similar to the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would not result in direct residential or business displacement. While a portion of the Proposed Development Site currently supports an existing business operation, the Applicant has indicated that they have an accepted purchase agreement and the existing business would vacate the property regardless of the Proposed Actions.

New residential developments are anticipated in the socioeconomic conditions study area in both the future with and without the Proposed Actions, and demand for residential development in Crown Heights is expected to continue to rise. The Project Area would also be designated as an MIH area under the R7A with 10-Degree Sloping Plane Alternative. As discussed above, under the R7A with 10-Degree Sloping Plane Alternative, 80 DUs of permanently affordable housing through the MIH program would be constructed.

The residential units that would be constructed under the R7A with 10-Degree Sloping Plane Alternative would not result in indirect residential displacement by introducing a trend or accelerating a trend that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. The affordable housing units added by the R7A with 10-Degree Sloping Plane Alternative would maintain a diverse demographic composition within the study area and would further expand the supply of affordable housing for current and future residents. The affordable housing units

would help to ensure that a considerable portion of the new households would have incomes that would more closely reflect the incomes of existing households in the study area and help ensure that the neighborhood continues to serve diverse housing needs. Therefore, the R7A with 10-Degree Sloping Plane Alternative would not introduce a new trend or accelerate an existing trend of changing conditions in a manner that would have the potential to substantially change the socioeconomic character of the neighborhood.

Therefore, similar to the Proposed Project and the findings of **Attachment C, "Socioeconomic Conditions,"** of the EAS, the R7A with 10-Degree Sloping Plane Alternative would not result in any significant adverse impacts to Socioeconomic Conditions.

Community Facilities and Services

Similar to the Proposed Project, as described in **Attachment B, "Supplemental Screening,"** of the EAS, the R7A with 10-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to community facilities. As the R7A with 10-Degree Sloping Plane Alternative would be built to a lesser density than the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would not result in significant adverse impacts to community facilities.

Open Space

Similar to the Proposed Project, as discussed in **Chapter 3, "Open Space,"** the R7A with 10-Degree Sloping Plane Alternative would result in a direct open space significant adverse impact as a result of shadows cast by the Proposed Project. The Proposed Project would not result in significant adverse indirect impacts to open space in the surrounding area as a result of the increased population. As the R7A with 10-Degree Sloping Plane Alternative would result in approximately 393 less residents in the Project Area, the R7A with 10-Degree Sloping Plane Alternative would also not result in indirect significant adverse impacts to open space.

For a discussion on direct effects of the R7A with 10-Degree Sloping Plane Alternative on nearby open space resources, refer to the discussion below on shadows.

Shadows/Natural Resources

Similar to the Proposed Project, as described in **Chapter 3, "Open Space," Chapter 4, "Shadows," and Chapter 5, "Natural Resources,"** the R7A with 10-Degree Sloping Plane Alternative would result in significant adverse impacts[1] due to direct shadows effects on open space and natural resources in the Jackie Robinson Playground and Brooklyn Botanic Garden. However, shadow magnitude, duration and extent are substantially reduced compared to the Proposed Actions.

As described above, the Applicant has analyzed a 9-story, 90-foot-tall R7A with 10-Degree Sloping Plane Alternative in an effort to reduce the significant adverse impacts identified as a result of the Proposed Project. Consistent with the analysis in **Chapter 4, "Shadows,"** the R7A with 10-Degree Sloping Plane Alternative assumes the inclusion of a 23-foot bulkhead. The R7A with 10-Degree Sloping Plane Alternative would cast shadows on the Brooklyn Botanic Garden and the Jackie Robinson Playground, similar to the Proposed Project.

Brooklyn Botanic Garden

Under the R7A with 10-Degree Sloping Plane Alternative, incremental shadows would be cast over several of the affected greenhouses in the Brooklyn Botanic Garden used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. Incremental shadows from the R7A with 10-Degree Sloping Plane Alternatives would be cast over this sunlight-sensitive resource on three of the four analysis days. As shown in **Table 12-12**, incremental shadows from the R7A with 10-Degree Sloping Plane Alternative would range on the Brooklyn Botanic Garden (Full Garden) from 45 minutes on the March 21/September 21 analysis day (7:36 - 8:21 AM) to one hour and 33 minutes on the June 21 analysis day (5:57 – 7:30 AM). Refer to **Figures 12-33** through **12-36.**

Individual resources within the Brooklyn Botanic Garden (Resources A through V in **Table 12-12**) would experience incremental shadows ranging from six minutes to one hour and six minutes. Compared to the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would result in decreases of incremental shadow duration of up to one hour and 51 minutes (the Hardy Plant Nursery Yard) (refer to **Table 12-12**).

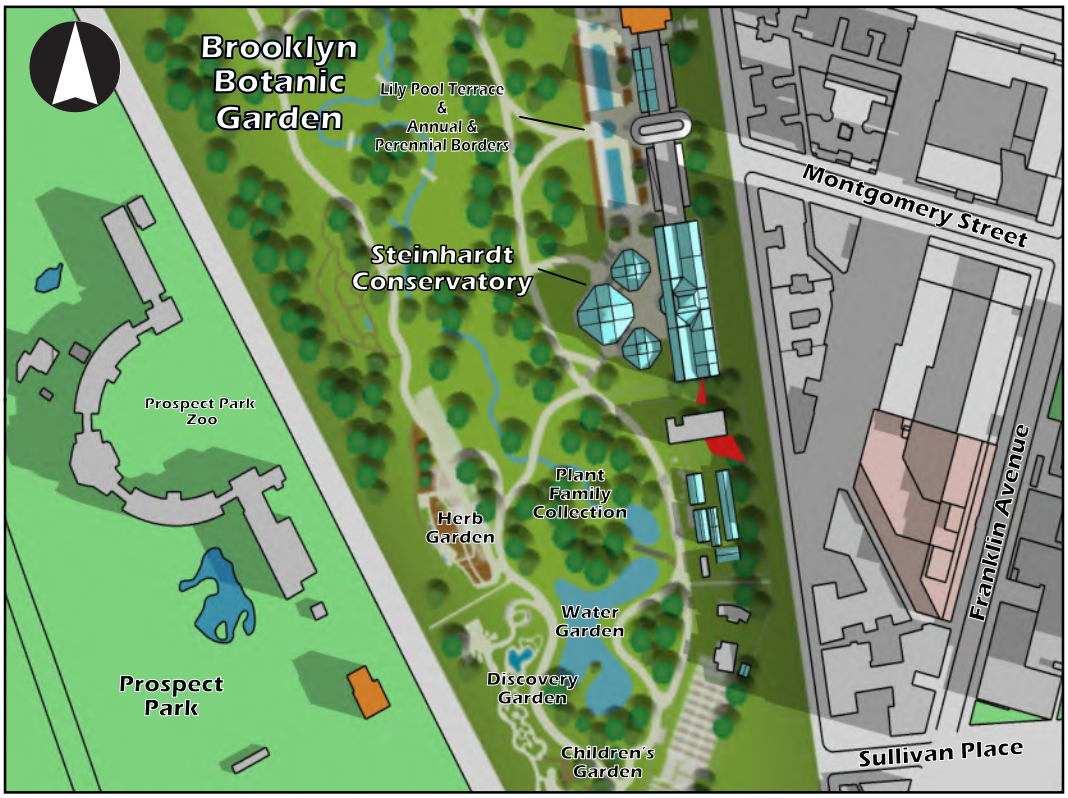
The R7A with 10-Degree Sloping Plane Alternative would result in no increases in incremental shadow duration relative to the Proposed Project (refer to **Table 12-12**). Greenhouses within the Brooklyn Botanic Garden are used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. While the *CEQR Technical Manual* states that six to eight hours of sunlight is necessary for plant survival, the Brooklyn Botanic Garden contains over 18,500 kinds of plants, with globally rare species and native rare species. The minimum sunlight needed to constitute survival may not be enough to promote healthy growth of these rare plants and as the *CEQR Technical Manual* states, each project must take into account its unique circumstances. DCP, acting as Lead Agency, in consultation with NYC Parks finds that under the R7A with 10-Degree Sloping Plane Alternative, shadows impacts would be substantially reduced or eliminated as compared to the Proposed Project on some of the Brooklyn Botanic Garden sunlight sensitive resources, but significant adverse shadows impacts on open space and natural resources would still occur on resources within the Brooklyn Botanic Garden.

Jackie Robinson Playground

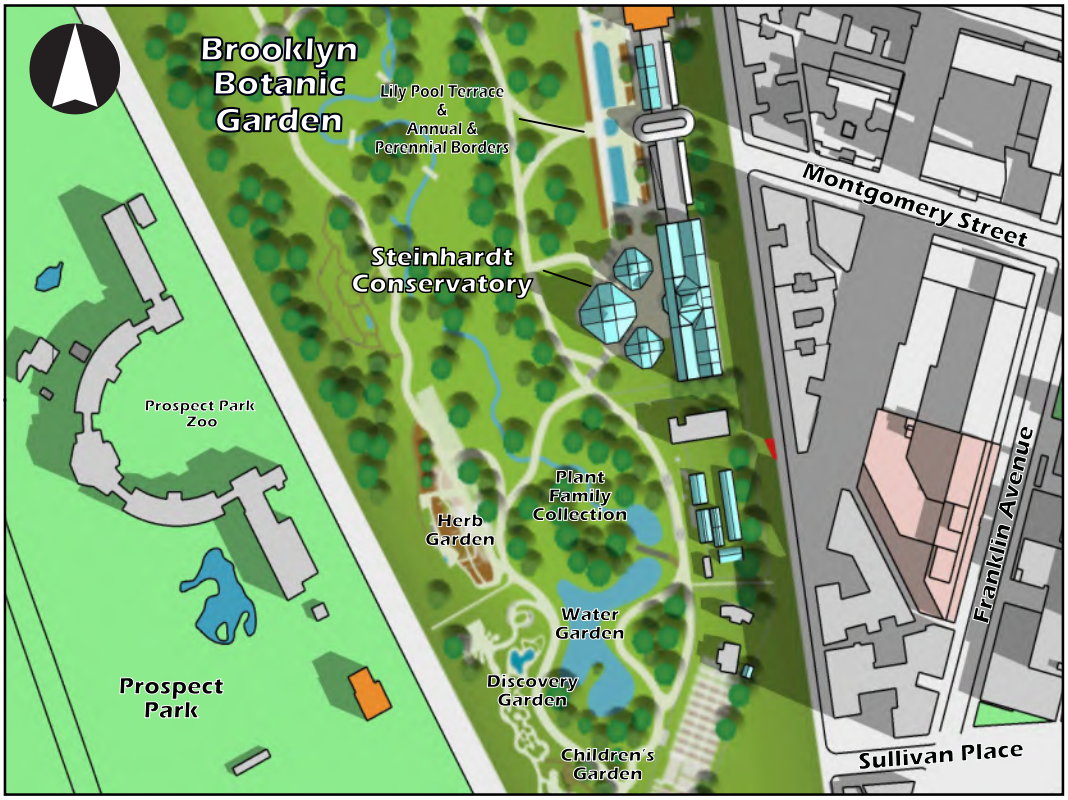
As shown in **Table 12-12**, the R7A with 10-Degree Sloping Plane Alternative will cast incremental shadows on the Jackie Robinson Playground on three of the four representative analysis days. Incremental shadow coverage under this Alternative would last between 44 minutes and one hour and 44 minutes. Compared to the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would result in decreases of incremental shadow duration between 33 minutes and two hours and 40 minutes on the December 21 and May 6/August 6 analysis days. The R7A with 10-Degree Sloping Plane Alternative would not cast any incremental shadow on the June 21 analysis day, approximately one hour and 41 minutes less than the Proposed Project. On the March 21/September 21 analysis day, the R7A with 10-Degree Sloping Plane

Brooklyn Botanic Gardens

10 Degree Slope Modified Project Incremental Shadows - March 21/September 21



7:36 AM



8:15 AM

10 Degree Slope Modified Project

Open Space

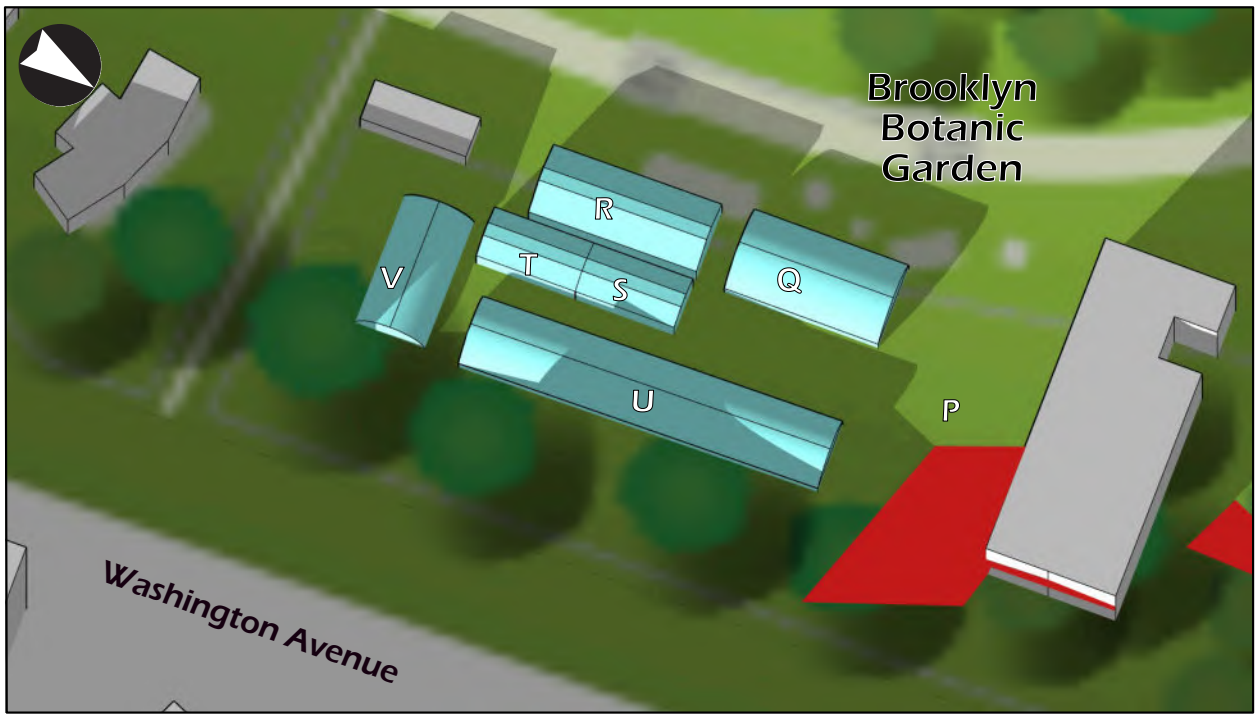
Historic Resource

Greenhouse Facility

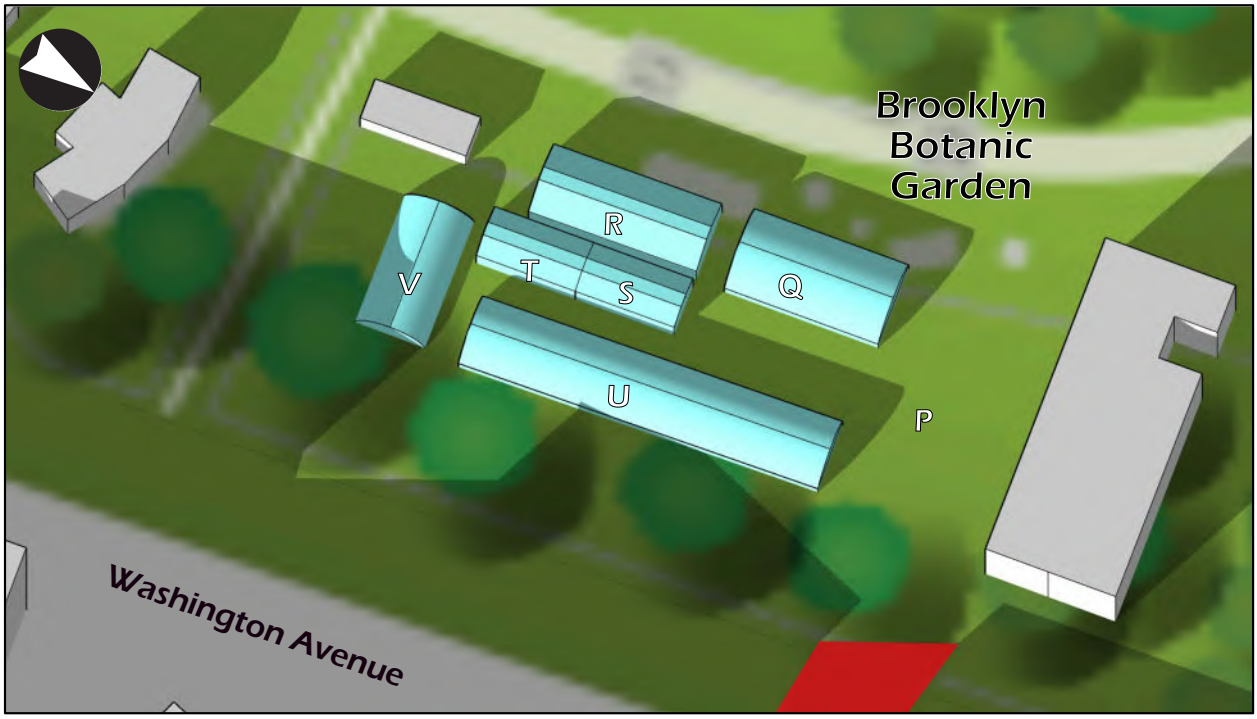
Incremental Shadow

Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
10 Degree Slope Modified Project Incremental Shadows - March 21/September 21



7:36 AM



8:00 AM

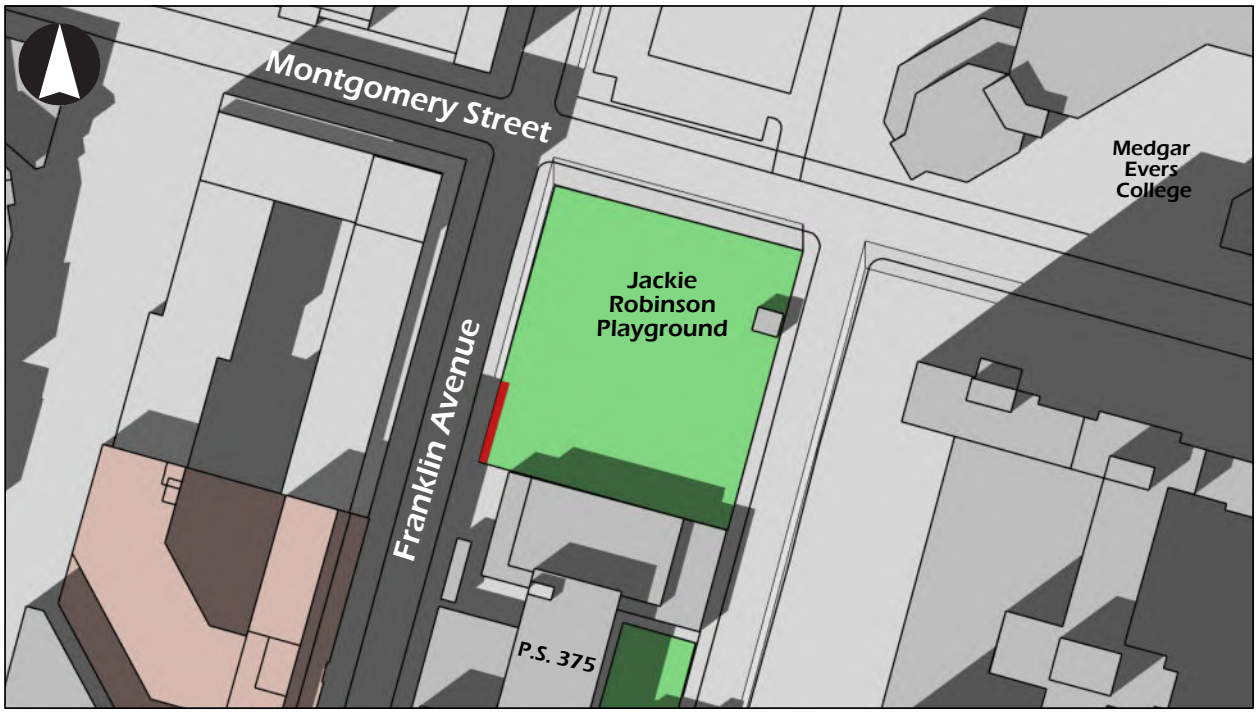
Open Space

Historic Resource

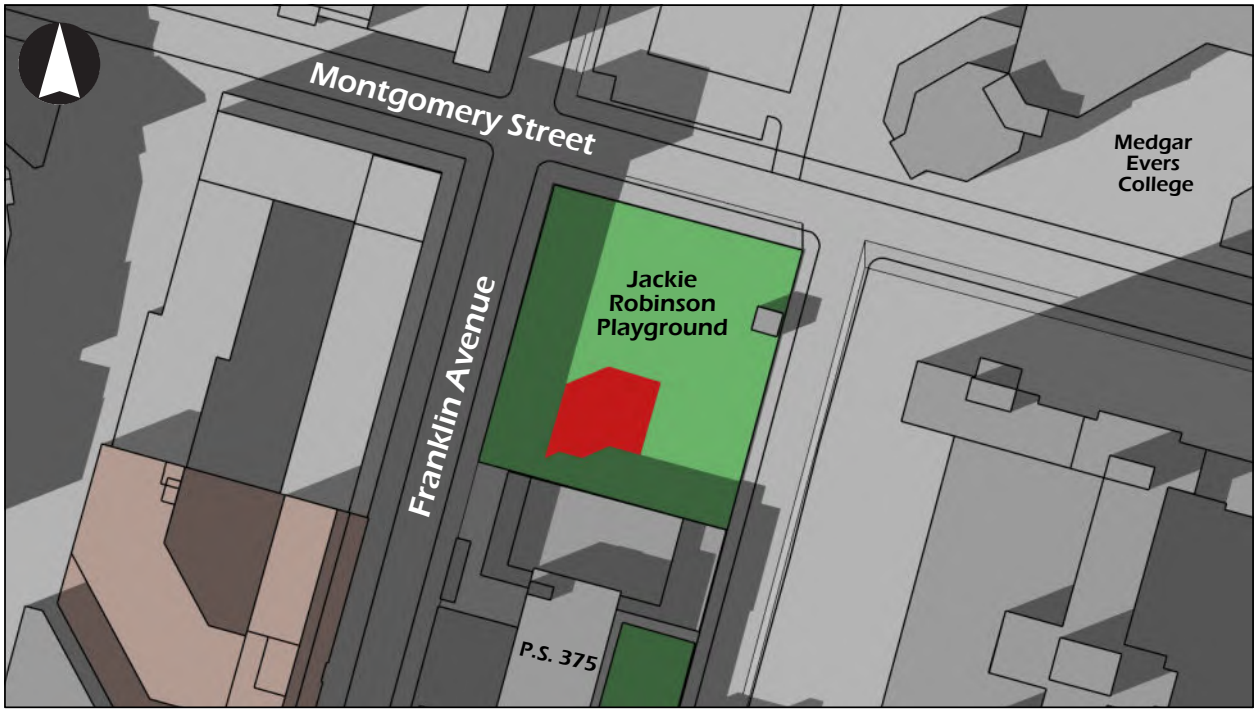
P Greenhouse Facility

Incremental Shadow

Jackie Robinson Playground
10 Degree Slope Modified Project Incremental Shadows - March 21/September 21



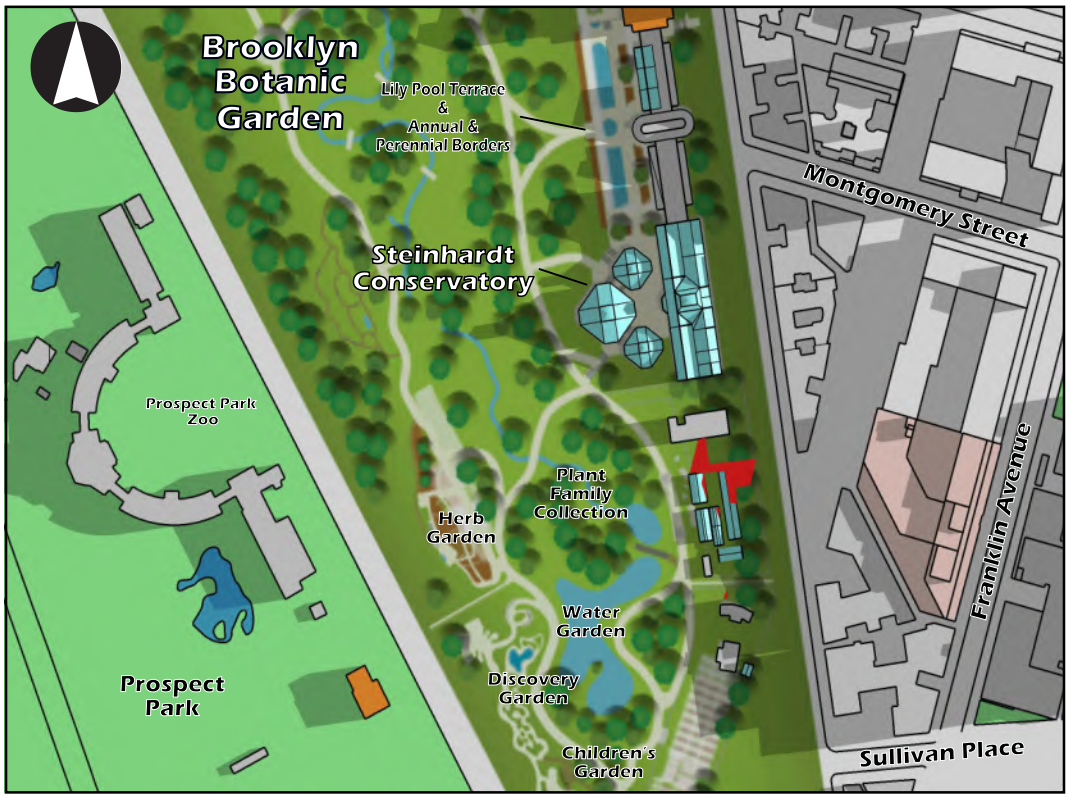
2:50 PM



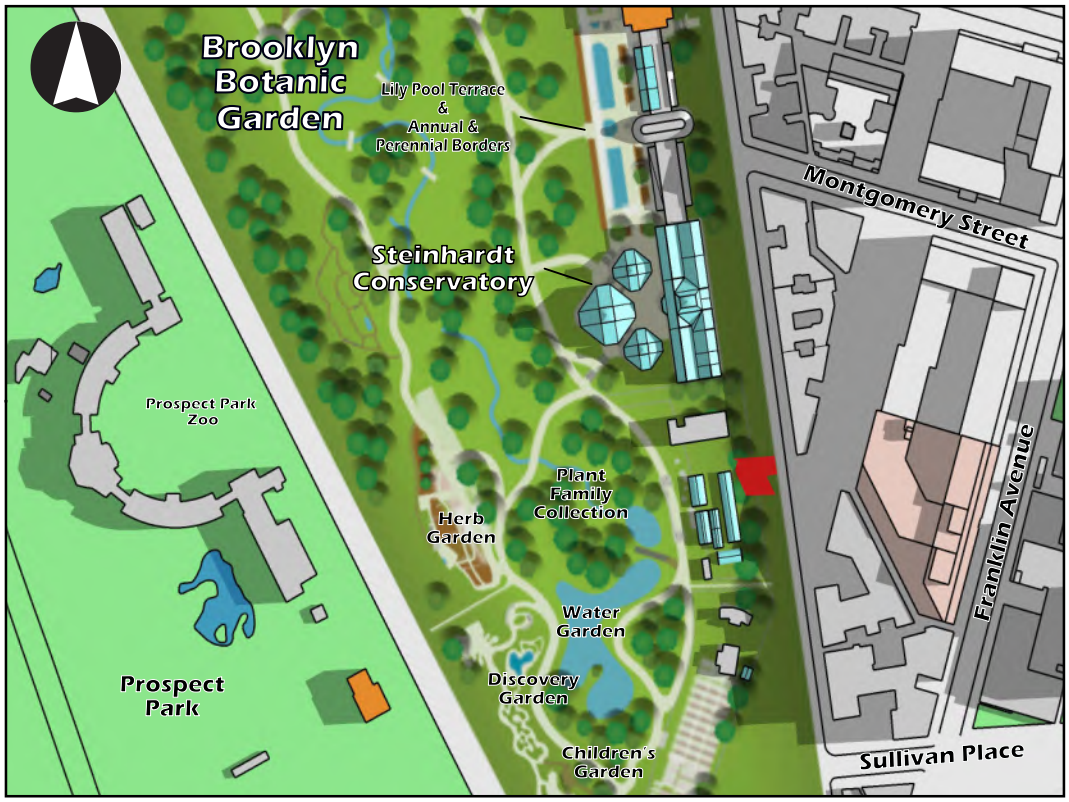
4:00 PM

10 Degree Slope Modified Project | Open Space | Incremental Shadow

Brooklyn Botanic Gardens
10 Degree Slope Modified Project Incremental Shadows - May 6/August 6



6:27 AM

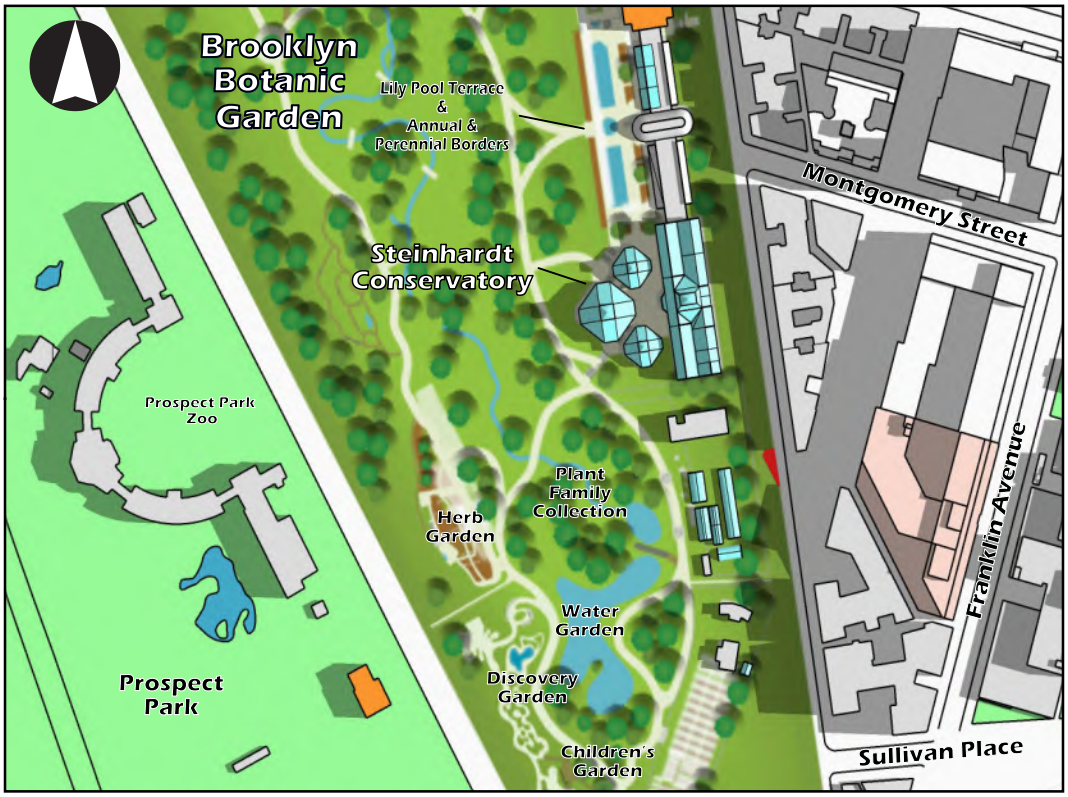


7:00 AM

10 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Gardens

10 Degree Slope Modified Project Incremental Shadows - May 6/August 6



7:30 AM

10 Degree Slope Modified Project

Open Space

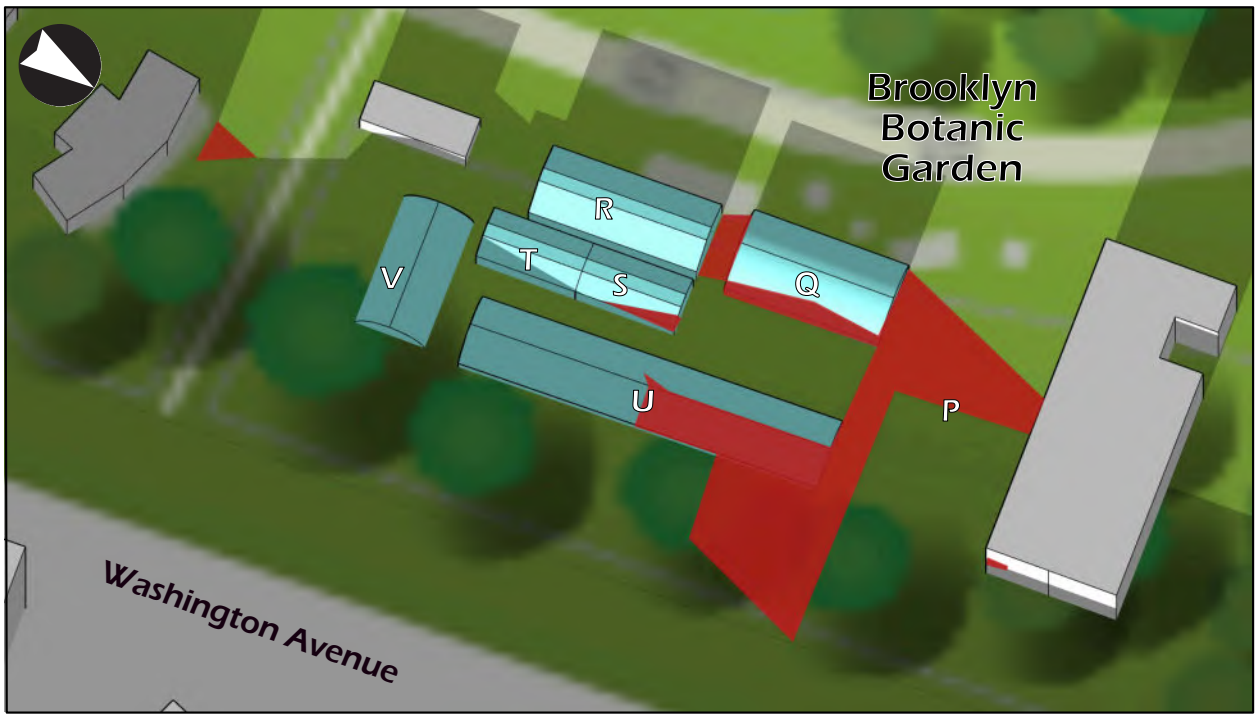
Historic Resource

Greenhouse Facility

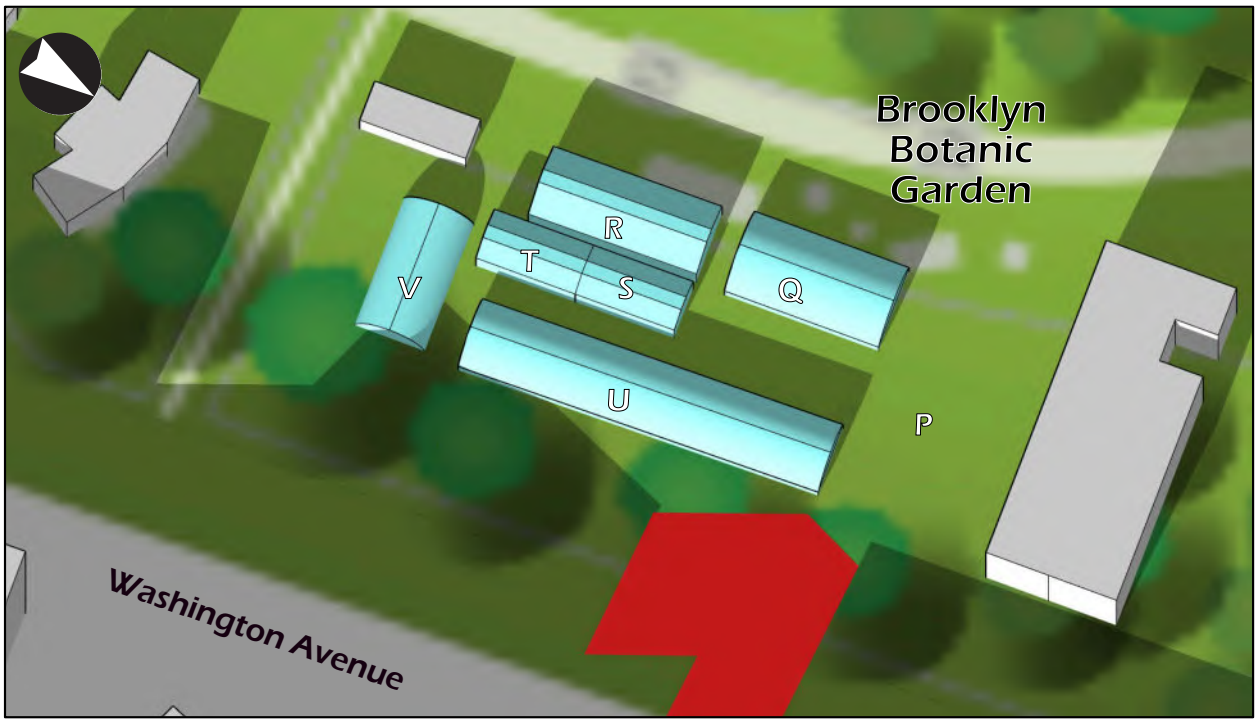
Incremental Shadow

Water Feature

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
10 Degree Slope Modified Project Incremental Shadows - May 6/August 6



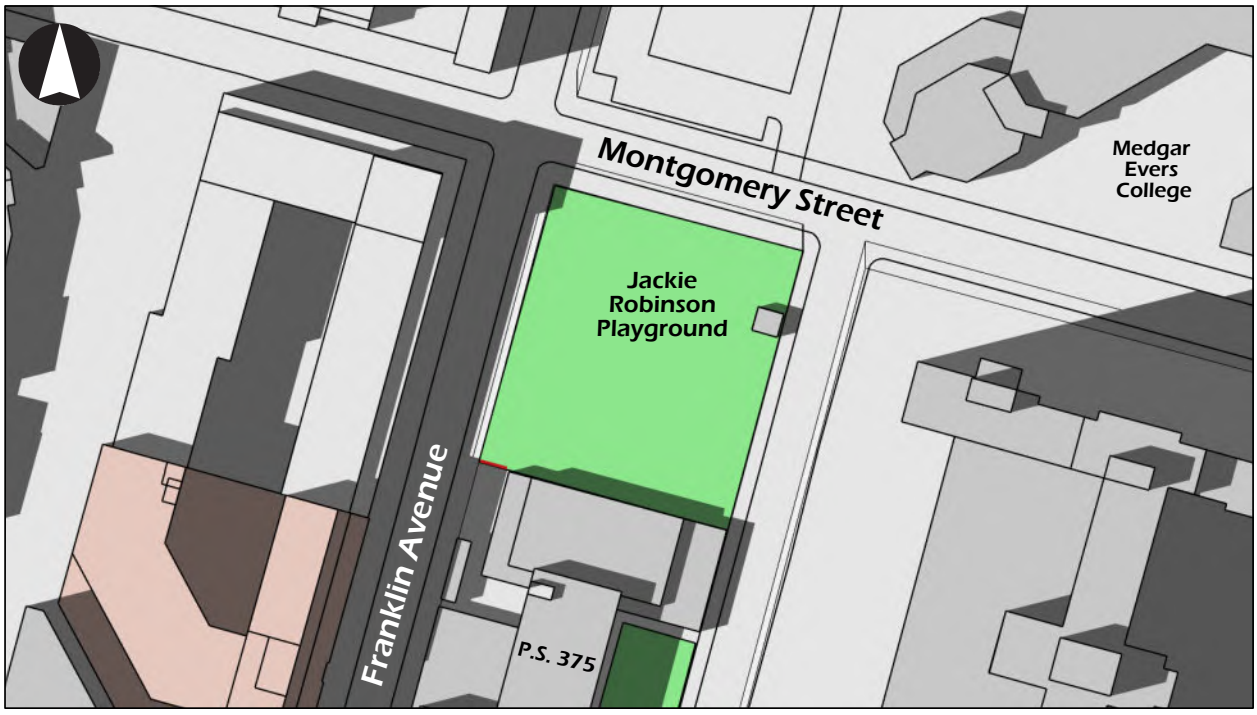
6:27 AM



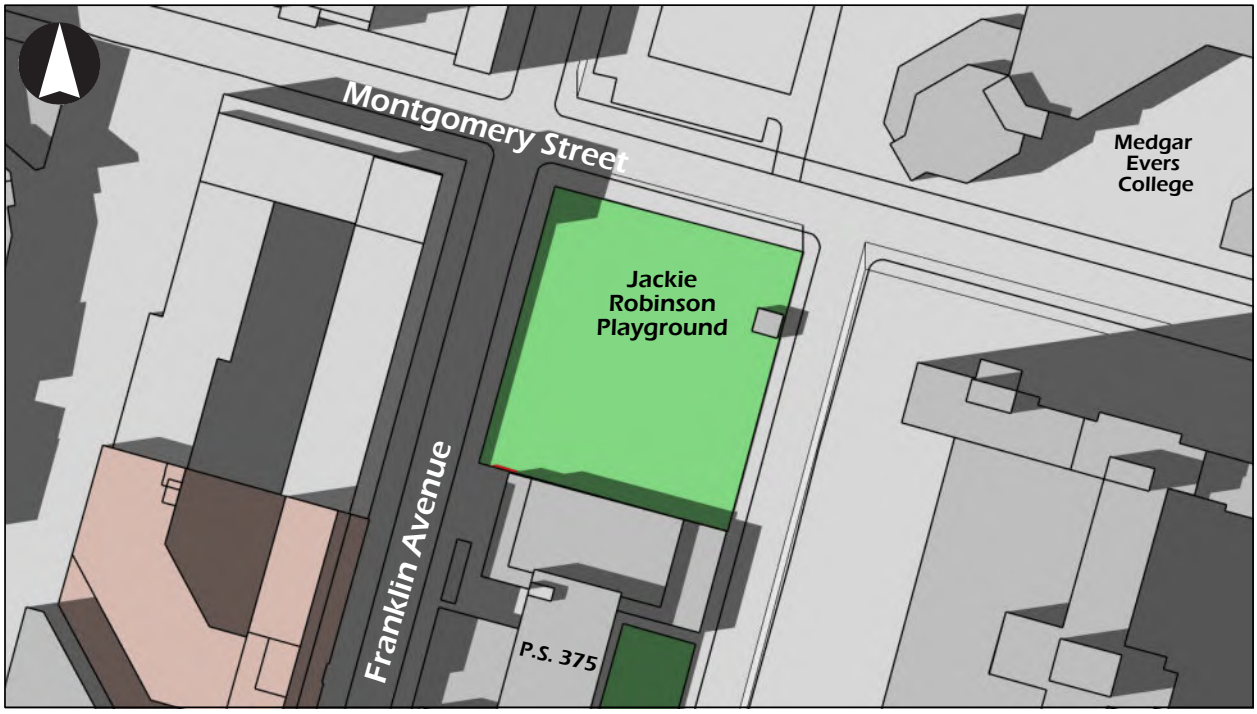
7:00 AM

Open Space
Historic Resource
P Greenhouse Facility
Incremental Shadow

Jackie Robinson Playground
10 Degree Slope Modified Project Incremental Shadows - May 6/August 6



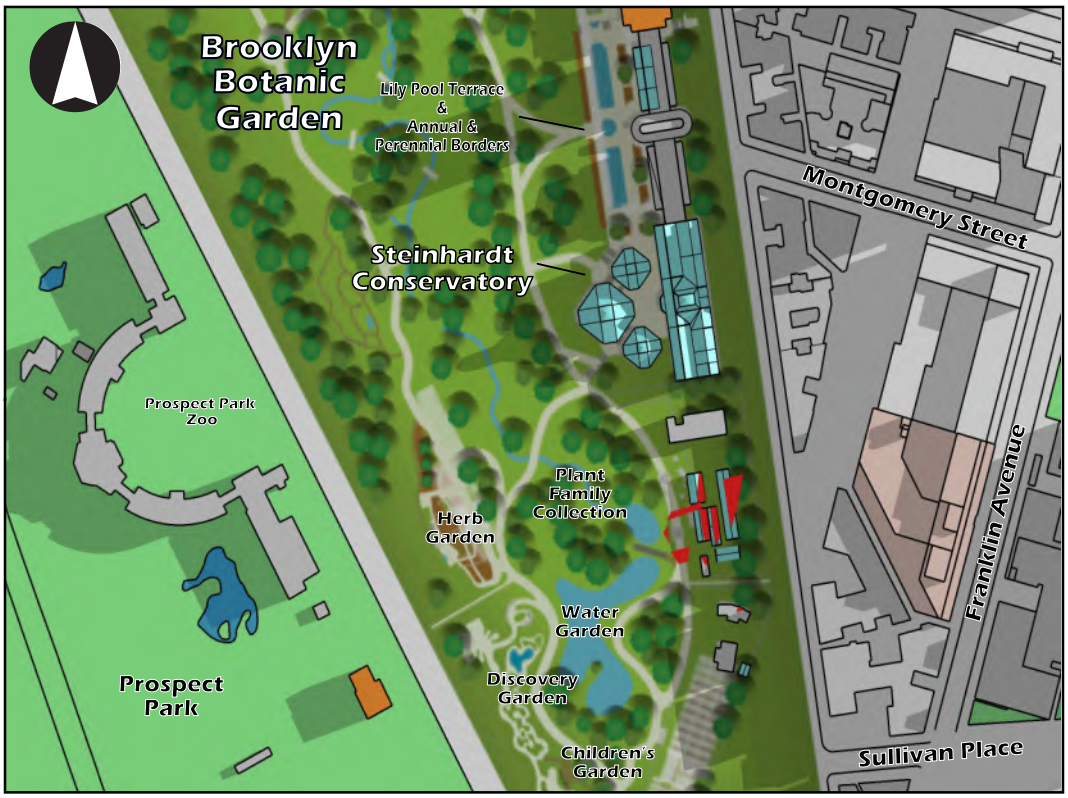
3:15 PM



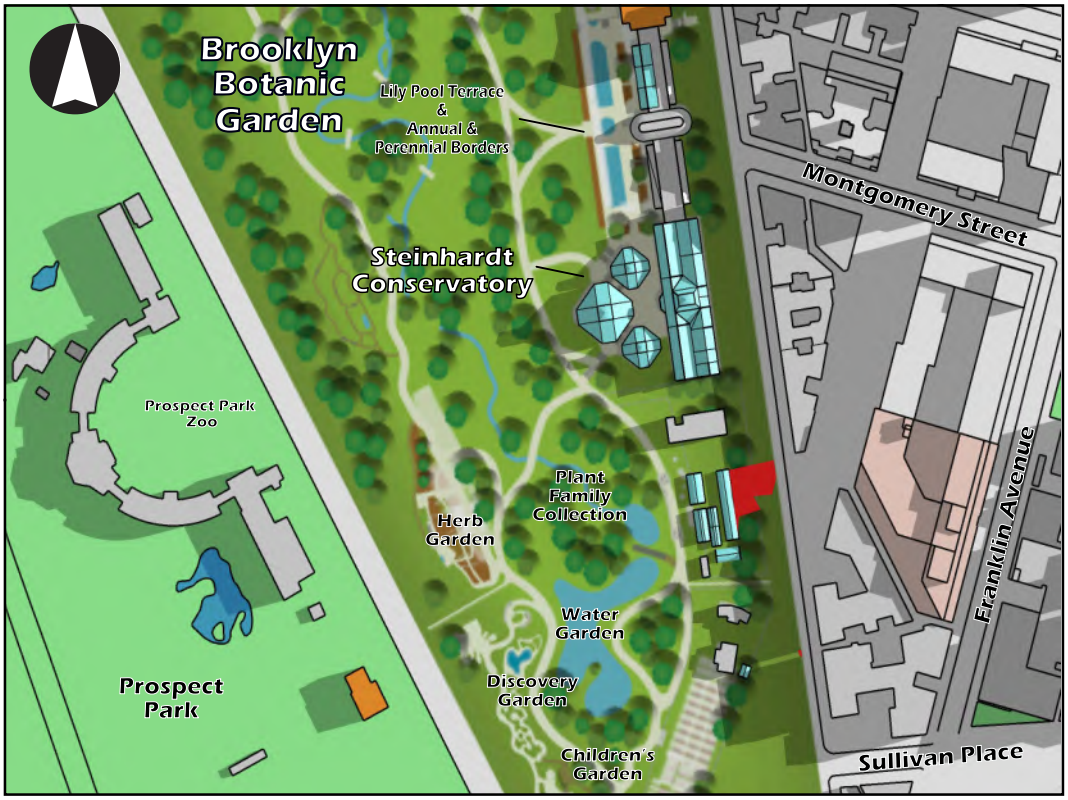
3:45 PM

10 Degree Slope Modified Project | Open Space | Incremental Shadow

Brooklyn Botanic Gardens
10 Degree Slope Modified Project Incremental Shadows - June 21



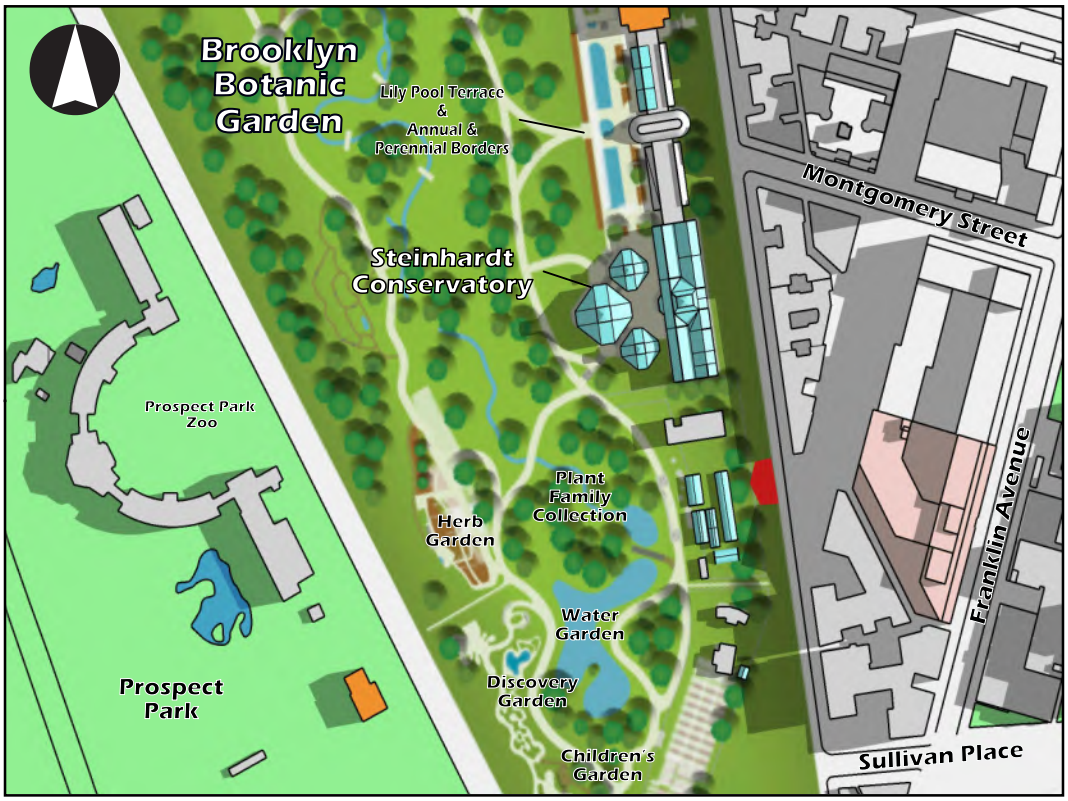
5:57 AM



6:30 AM

10 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Brooklyn Botanic Gardens
10 Degree Slope Modified Project Incremental Shadows - June 21

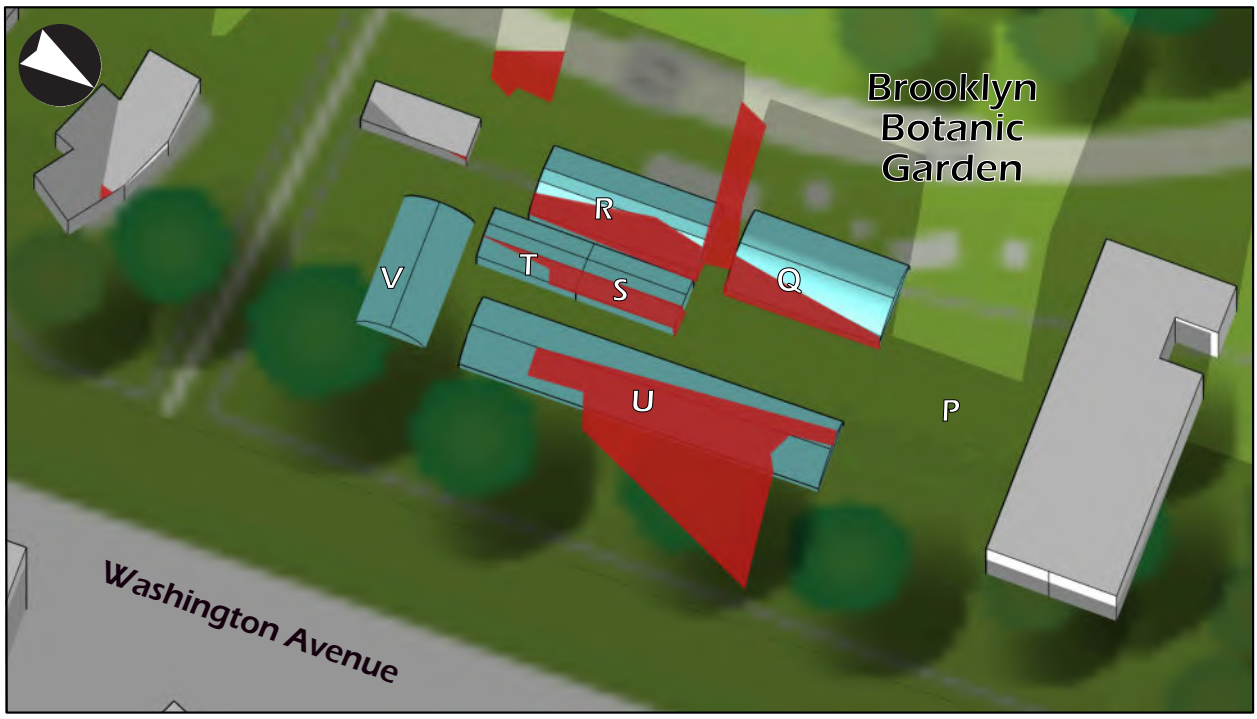


7:00 AM

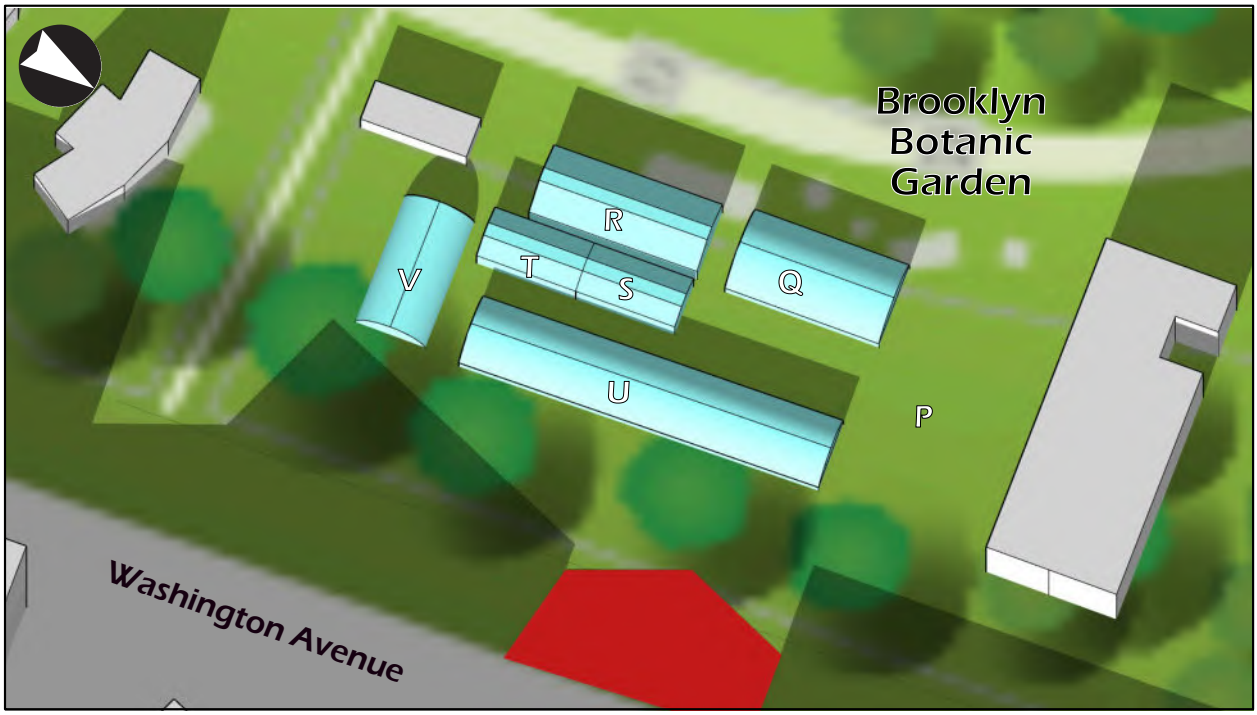
10 Degree Slope Modified Project
Open Space
Historic Resource
Greenhouse Facility
Incremental Shadow
Water Feature

Figure 12-35c

Brooklyn Botanic Garden - Hardy Plant Nursery Yard
10 Degree Slope Modified Project Incremental Shadows - June 21



6:00 AM



7:00 AM

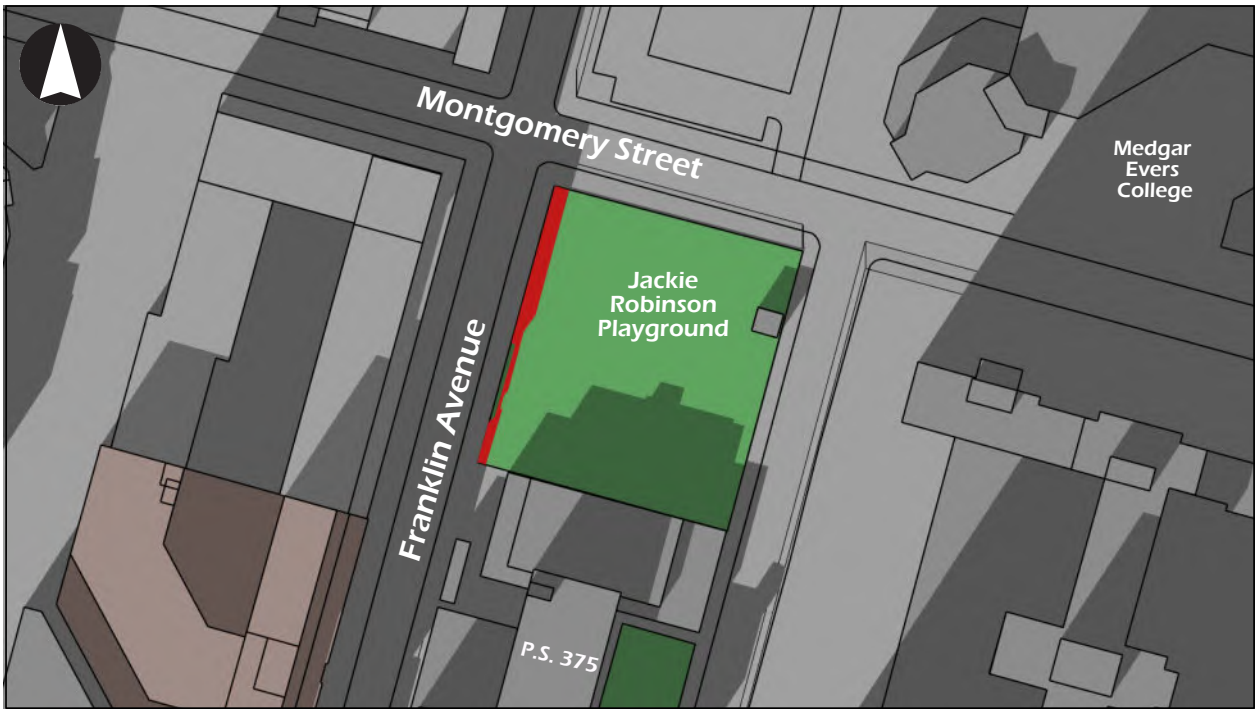
Open Space

Historic Resource

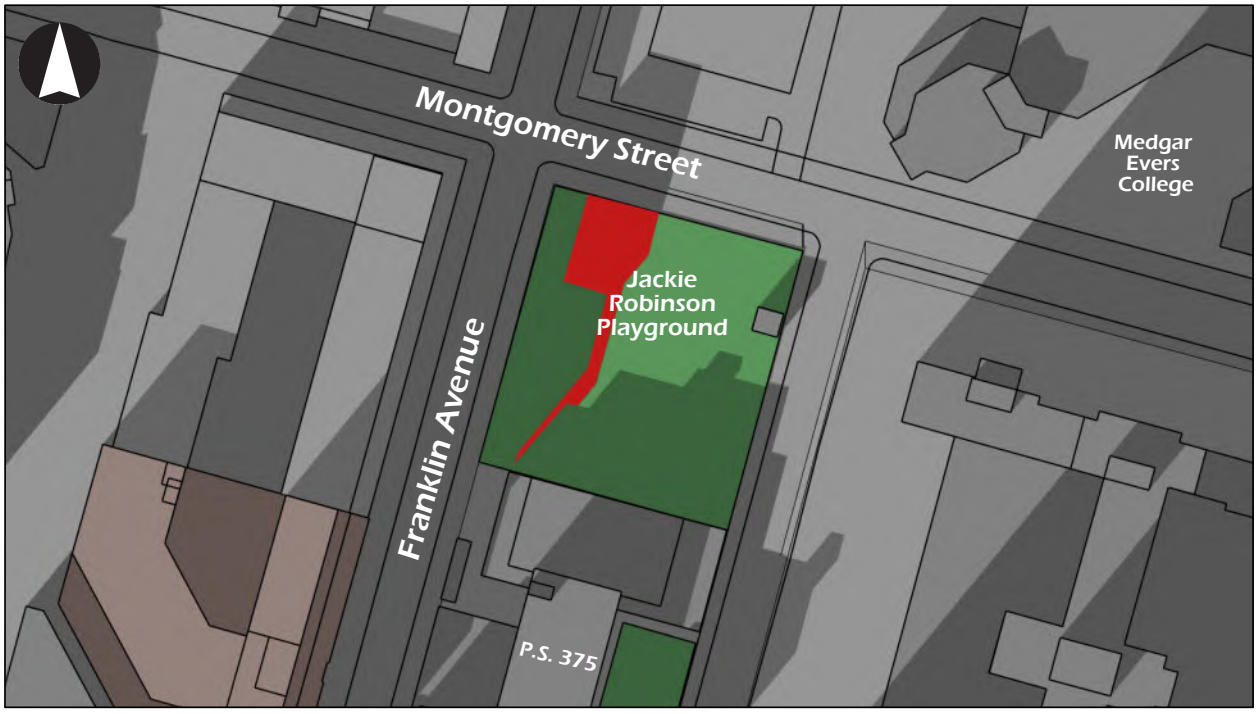
P Greenhouse Facility

Incremental Shadow

Jackie Robinson Playground
10 Degree Slope Modified Project Incremental Shadows - December 21



2:15 PM



2:45 PM

10 Degree Slope Modified Project | Open Space | Incremental Shadow

Alternative would result in an incremental shadow duration one hour and two minutes less than the Proposed Project (refer to **Table 12-12**).

As shown in **Figures 12-33** through **12-36**, incremental shadows from the R7A with 10-Degree Sloping Plane Alternative are expected to cast shadow on a passive area for seating, and areas for active uses including a playground and basketball courts. Therefore, as the extent and duration of the incremental shadows would (1) significantly reduce or completely eliminate direct sunlight exposure on any of the sunlight-sensitive resources found within this open space; and (2) would alter the public's use of the park, incremental shadows from the R7A with 10-Degree Sloping Plane Alternative on Jackie Robinson Playground would be considered a significant adverse impact, in accordance with *CEQR Technical Manual* methodology.

TABLE 12-12
Incremental Shadow Coverage – R7A with 10-Degree Sloping Plane Alternative (9-Story)

Resource #	Resource	Analysis Day	March 21/Sept 21	May 6/August 6	June 21	December 21	Incremental Shadow Durations Compared to the Proposed Project (Table 4-6)			
			7:36 AM - 4:29 PM	6:27 AM - 5:18 PM	5:57 AM - 6:01 PM	8:51 AM - 2:53 PM	March 21/Sept 21	May 6/August 6	June 21	December 21
1	Brooklyn Botanic Garden (Full Garden)	Shadow enter-exit time	7:36 - 8:21 AM	6:27 - 7:44 AM	5:57 AM -7:30 AM	-	- 1 hour 15 minutes	-1 hour 16 minutes	1 hour 24 minutes	-1 hour 12 minutes
		Incremental shadow duration	45 minutes	1 hour and 17 minutes	1 hour and 33 minutes	-				
2	Jackie Robinson Playground	Shadow enter-exit time	2:45 PM - 4:29 PM	3:14 PM - 3:58 PM	-	2:08 PM - 2:53 PM	-1 hour 2 minutes	-2 hour 40 minutes	-1 hour 41 minutes	-33 minutes
		Incremental shadow duration	1 hour and 44 minutes	44 minutes	-	45 minutes				
3	Prospect Park	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
4	P.S. 375K Community Playground	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
	Brooklyn Botanic Garden (Resources A - V)	Shadow enter-exit time	7:36 AM - 8:05 AM	6:27 AM - 7:18 AM	5:57 AM - 7:03 AM	-	-1 hour 2 minutes	-1 hour 36 minutes	-1 hour 51 minutes	-42 minutes
		Incremental shadow duration	29 minutes	51 minutes	1 hour and 6 minutes	-				
A	Education Greenhouse: Desert Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-9 minutes
		Incremental shadow duration	-	-	-	-				
B	Education Greenhouse: Warm Temperate Plants	Shadow enter-exit time	-	-	-	-	-	-	-	-11 minutes
		Incremental shadow duration	-	-	-	-				
C	Education Greenhouse:	Shadow enter-exit time	-	-	-	-	-	-	-	-13 minutes

	Tropical Plants	Incremental shadow duration	-	-	-	-				
D	Helen Mattin Warm Temperate Pavilion	Shadow enter-exit time	-	-	-	-	-	-	-	-
		Incremental shadow duration	-	-	-	-				
E	Tropical Pavilion	Shadow enter-exit time	-	-	-	-	-40 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
F	Desert Pavilion	Shadow enter-exit time	-	-	-	-	-52 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
G	C.V. Starr Bonsai Museum	Shadow enter-exit time	-	-	-	-	-	-	-	-27 minutes
		Incremental shadow duration	-	-	-	-				
H	Conservatory Entry House	Shadow enter-exit time	-	-	-	-	-14 minutes	-	-	-16 minutes
		Incremental shadow duration	-	-	-	-				
I	Aquatic House & Orchid Collection	Shadow enter-exit time	-	-	-	-	-1 hour 16 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
J	Desert, Mediterranean, South African Bulb (Arid) Workhouse	Shadow enter-exit time	-	-	-	-	-	-	-	-42 minutes
		Incremental shadow duration	-	-	-	-				
K	Humid Tropics Workhouse	Shadow enter-exit time	-	-	-	-	-	-	-	-37 minutes
		Incremental shadow duration	-	-	-	-				
L	Lowland Moist	Shadow enter-exit	-	-	-	-	-41 minutes	-	-	-22 minutes

	Tropical Orchid Workhouse	time								
		Incremental shadow duration	-	-	-	-				
M	Highland Moist Tropical Orchid Workhouse	Shadow enter-exit time	-	-	-	-	-1 hour 21 minutes	-	-	-9 minutes
		Incremental shadow duration	-	-	-	-				
N	Tropical Plant Propagation House	Shadow enter-exit time	-	-	-	-	-1 hour 29 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
O	Tropical & Desert Plant Propagation House	Shadow enter-exit time	-	-	-	-	-1 hour 31 minutes	-	-	-
		Incremental shadow duration	-	-	-	-				
P	Hardy Plant Nursery Yard	Shadow enter-exit time	7:36 AM - 8:05 AM	6:27 AM - 7:18 AM	5:57 AM - 7:03 AM	-	-59 minutes	-1 hour 36 minutes	-1 hour 51 minutes	-
		Incremental shadow duration	29 minutes	51 minutes	1 hour and 6 minutes	-				
Q	Temperate Bonsai Tunnel	Shadow enter-exit time	-	6:27 AM - 6:37 AM	5:57 AM - 6:17 AM	-	-51 minutes	-1 hour 21 minutes	-1 hour 38 minutes	-
		Incremental shadow duration	-	10 minutes	20 minutes	-				
R	Production House	Shadow enter-exit time	-	-	5:57 AM - 6:09 AM *	-	-15 minutes	-1 hour 18 minutes	-1 hour 32 minutes*	-
		Incremental shadow duration	-	-	12 minutes *	-				
S	Tropical Bonsai House	Shadow enter-exit time	-	6:27 AM - 6:33 AM	5:57 AM - 6:19 AM	-	-22 minutes	-1 hour 23 minutes	-1 hour 34 minutes	-
		Incremental shadow duration	-	6 minutes	22 minutes	-				
T	Auxiliary House	Shadow enter-exit time	-	-	5:57 AM - 6:16 AM	-	-	-1 hour 15 minutes	-1 hour 32 minutes	-
		Incremental shadow duration	-	-	19 minutes	-				

*The "Shadow enter-exit time", "Incremental shadow duration", and "Incremental Shadow Durations Compared to the Proposed Project" have been corrected from the 9/12/2024 published FEIS entries of 5:57 AM - 6:19 AM, 22 minutes, and -1 hour 22 minutes, respectively. See the 23DCP165K_Errata_09232024 under 2022K0423_Errata_1 in ZAP

U	New York-Native Flora & Temperate Plant Propagation Tunnel	Shadow enter-exit time	-	6:27 AM - 6:56 AM	5:57 AM - 6:39 AM	-	-1 hour 6 minutes	-1 hour 23 minutes	-1 hour 39 minutes	-
		Incremental shadow duration	-	29 minutes	42 minutes	-				
V	Mediterranean Display Plants Tunnel	Shadow enter-exit time	-	-	-	-	-1 minute	-1 hour 22 minutes	-1 hour 43 minutes	-
		Incremental shadow duration	-	-	-	-				

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *CEQR Technical Manual* guidance.
Table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.
[1] Keyed to **Figure 4-3**.

Historic and Cultural Resources

Similar to the Proposed Project, as described in **Attachment B, "Supplemental Screening,"** of the EAS, the R7A with 10-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to historic and cultural resources. As the R7A with 10-Degree Sloping Plane Alternative would be built on the same Proposed Development Site, to a lesser density and height than the Proposed Project, the No-Action Alternative would not result in significant adverse impacts to historic and cultural resources.

Urban Design and Visual Resources

The R7A with 10-Degree Sloping Plane Alternative would be constructed within the permitted zoning envelope of the R7A zoning district under the City of Yes for Housing Opportunity while complying with restrictions imposed by the 10-degree sloping plane. The R7A district permits a maximum base height of 85 feet. After a setback, developments in a R7A district can reach a maximum height of 115 feet (nine stories) not including permitted obstructions such as the mechanical bulkhead. The R7A with 10-Degree Sloping Plane Alternative would be approximately 50 feet shorter than the Proposed Project. The base height of the R7A with 10-Degree Sloping Plane Alternative would be 30 feet less than the Proposed Project.

Similar to the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would not result in any significant adverse impacts to urban design or visual resources. The R7A with 10-Degree Sloping Plane Alternative would be a building form that is similar to other recent developments in the area. The R7A with 10-Degree Sloping Plane Alternative would be constructed on an existing block and would not entail any changes to topography, open space, or natural features in the Project Area or secondary study area.

The R7A with 10-Degree Sloping Plane Alternative would not obstruct any significant viewsheds in the area, or substantially alter the pedestrian experience in the immediate vicinity of the Project Area. Therefore, the R7A with 10-Degree Sloping Plane Alternative would not result in any significant adverse impacts to visual resources.

Hazardous Materials

As under the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would not result in significant adverse hazardous materials impacts. The R7A with 10-Degree Sloping Plane Alternative would be developed in accordance with the applicable NYC DOB guidance in terms of safe building demolition and site redevelopment methods, in compliance with the (E) Designation.

The (E) Designation, E-728 text related to hazardous materials is as follows:

> **Task 1-Sampling Protocol**
>
> **The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources**

of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

Therefore, there would be no potential for contact with subsurface contamination and no significant risk of human exposure.

Water and Sewer Infrastructure

Neither the Proposed Project nor the R7A with 10-Degree Sloping Plane Alternative would result in significant adverse impacts on the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. Compared with the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would generate less demand on the City's water supply and wastewater treatment infrastructure.

Energy

Neither the Proposed Project nor the R7A with 10-Degree Sloping Plane Alternative would result in significant adverse impacts with respect to the transmission or generation of energy. The demand generated under the R7A with 10-Degree Sloping Plane Alternative would be less than the Proposed Project. However, under both the Proposed Project and the R7A with 10-Degree Sloping Plane Alternative, the annual increase in demand would represent a negligible amount of the City's forecasted annual energy requirements for 2027.

Transportation

Similar to the Proposed Project, as described in **Attachment F, "Transportation,"** of the EAS, the R7A with 10-Degree Sloping Plane Alternative would not result in direct or indirect significant adverse impacts to traffic, pedestrians, transit, or parking. As the R7A with 10-Degree Sloping Plane Alternative would be built on the same Proposed Development Site, to a lesser density than the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would not result in significant adverse impacts traffic, pedestrians, transit, or parking.

Air Quality

Under the R7A with 10-Degree Sloping Plane Alternative, a new 319-unit mixed-use residential and local retail development and an on-site accessory parking garage would be constructed on the Proposed Development Site containing approximately 48 accessory parking spaces. As such there would be a new source of stationary source air quality emissions and a new emissions source from the parking garage on the Proposed Development Site. As the size of the accessory-parking garage would be smaller in the R7A with 10-Degree Sloping Plane Alternative than in the Proposed Project, the R7A Alterative would not result in higher emissions concentrations than the Proposed Project. Therefore, the potential for significant adverse impacts under the R7A with 10-Degree Sloping Plane Alternative is unlikely.

Under the R7A with 10-Degree Sloping Plane Alternative, a 113-foot-tall building (including bulkhead) of approximately 345,326 gsf would be constructed at the Proposed Development Site. The closest building taller than the R7A with 10-Degree Sloping Plane Alternative is the 119-foot tall building at 1 Sullivan Place. 1 Sullivan Place is approximately 160 feet south of the Proposed Development Site. As shown in **Figure 12-37** (based on Figure 17-3 of the *CEQR Technical Manual*), the R7A with 10-Degree Sloping Plane Alternative would be above the screening curve for fossil fueled fired HVAC systems. Therefore, the R7A with 10-Degree Sloping Plane Alternative would have to utilize HVAC systems powered by electricity to avoid stationary source air quality significant adverse impacts.

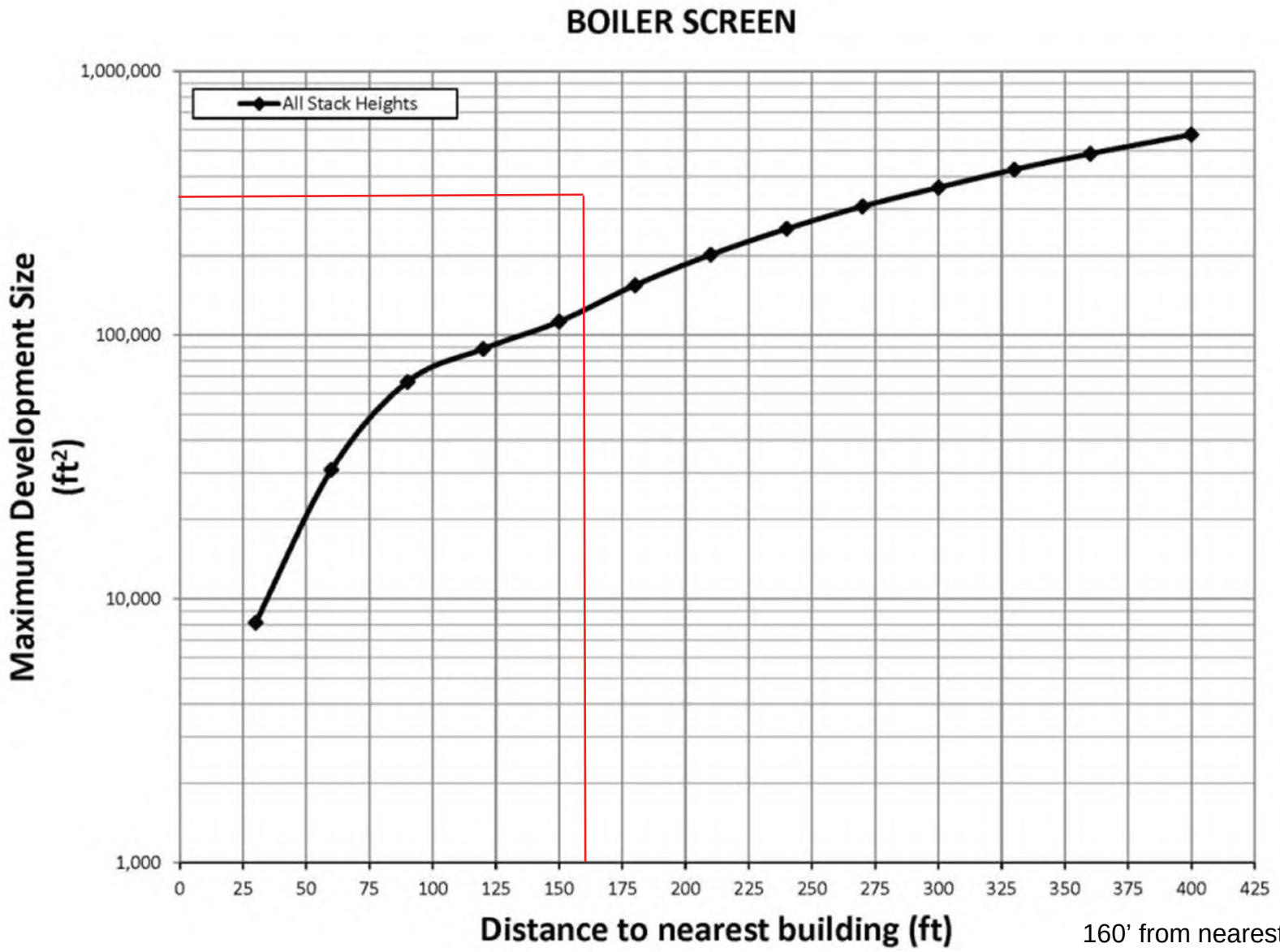
Additionally, mobile source emissions from traffic on surrounding roadways decrease when compared to the Proposed Project. As the R7A with 10-Degree Sloping Plane Alternative would result in less mobile source emissions (i.e., less incremental vehicle trips) than the Proposed Project, significant adverse mobile source impacts are unlikely under the R7A with 10-Degree Sloping Plane Alternative.

Greenhouse Gas Emissions and Climate Change

As the R7A with 10-Degree Sloping Plane Alternative would result in a new 319-unit mixed-use residential and local retail development, it would be smaller than the Proposed Project. As such, it would use less energy than the Proposed Project and would, therefore, result in fewer carbon dioxide equivalent (CO_2e) emissions per year. Neither the Proposed Project nor the R7A with 10-Degree Sloping Plane Alternative would result in significant greenhouse gas (GHG) emission or climate change impacts.

Noise

Under the R7A with 10-Degree Sloping Plane Alternative, a new 319-unit mixed-use development would occur on the Proposed Development Site. No other sources of noise would be created on the Proposed Development Site. The noise levels from mobile sources on surrounding roadways would decrease compared to the Proposed Project, as the R7A with 10-Degree Sloping Plane Alternative would include



160' from nearest building taller than 113'

approximately 156 less DUs. As presented in **Attachment H, "Noise,"** of the EAS, under the Proposed Project no significant adverse noise impacts would occur. As the R7A with 10-Degree Sloping Plane Alternative would result in less vehicle trips near the Project Area's noise receptor locations, the R7A with 10-Degree Sloping Plane Alternative would not result in any significant adverse impacts to noise.

Public Health

Similar to the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would not result in any unmitigated significant adverse impacts in any of the technical areas related to public health. According to the *CEQR Technical Manual*, actions that do not result in unmitigated significant adverse impacts related to air quality, water quality, hazardous materials, or noise typically do not warrant a public health analysis. As the R7A with 10-Degree Sloping Plane Alternative does not have the potential to cause any significant adverse impacts in those areas, it would not have any significant adverse impacts on public health.

Neighborhood Character

According to the *CEQR Technical Manual*, a proposed project could have a significant adverse neighborhood character impact if it would have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact in any relevant technical area, or through a combination of moderate effects in those technical areas. Similar to the Proposed Project, the R7A with 10-Degree Sloping Plane Alternative would not cause significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; transportation; or noise. As such, the R7A with 10-Degree Sloping Plane Alternative would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature. A new 319-unit residential and commercial development would occur under the R7A with 10-Degree Sloping Plane Alternative and the overall neighborhood character of the area would continue to trend toward increased residential and local retail uses on vacant and underutilized sites under the R7A with 10-Degree Sloping Plane Alternative. The study area would continue to be characterized by its evolving mix of land uses and building types, and its location in an area with low pedestrian volumes. Neither the Proposed Project nor the R7A with 10-Degree Sloping Plane Alternative would result in significant adverse impacts to neighborhood character.

Construction

While the R7A with 10-Degree Sloping Plane Alternative is somewhat smaller in overall density and size, it would require essentially the same construction process as anticipated under the Proposed Actions. Since the building would be smaller and would be developed over a similar construction schedule, there could be modest reduction in the amount of materials and construction workers associated with building the R7A with 10-Degree Sloping Plane Alternative. This could slightly reduce the duration and total level of activity. These reductions would not materially affect the construction-related analysis assumptions and conclusions. Therefore, while the overall construction duration could be shorter, the R7A with 10-Degree Sloping Plane Alternative would result to similar findings presented in **Chapter 10, "Construction".** The RD would continue to include project components related to the environment related to construction air quality and noise that would avoid or partially mitigate the impacts.

Like the Proposed Actions, there would be no significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, open space, hazardous materials, and air quality.

~~G.~~J. NO UNMITIGATED SIGNIFICANT ADVERSE IMPACT ALTERNATIVE

According to the *CEQR Technical Manual*, when a project would result in unmitigated significant adverse impacts, it is often CEQR practice to include an assessment of an alternative to the project that would result in no unmitigated impacts. Based on the analyses presented in other chapters of this EIS, there is the potential for the Proposed Project to result in unmitigated impacts with respect to open space, shadows[1], natural resources, and construction (noise). This alternative demonstrates those measures that would have to be taken to eliminate all of the Proposed Project's unmitigated significant adverse impacts. As detailed below, in order to result in no unmitigated significant adverse impacts, the Proposed Project would have to be modified to a point where the principal goals and objectives would not be fully realized.

As the density of this alternative would be substantially less than with the Proposed Project, the no unmitigated significant adverse impacts alternative would have similar or lesser effect on the CEQR technical areas analyzed in the EIS, compared to the Proposed Project. However, unlike the Proposed Project, this alternative would mitigate all identified significant adverse impacts. The analysis provided below focuses on the CEQR technical areas that would experience unmitigated significant adverse impacts with the Proposed Project.

Open Space, Shadows, and Natural Resources

Due to incremental shadows from the Proposed Project, the Proposed Actions would result in direct significant adverse impacts to Brooklyn Botanic Garden and Jackie Robinson Playground. The Proposed Project would cast incremental shadow on several greenhouses during the crucial winter months. Greenhouses within the Brooklyn Botanic Garden are used to propagate plants for desert, tropical, and warm temperate climates that require full, year-round sun including sunlight during the winter months. The Proposed Project would also cast incremental shadow on portions of Jackie Robinson Playground and result in a significant adverse impact. No feasible alternative to the Proposed Actions could be identified which ~~substantially~~ fully reduced incremental shadow to the degree which would fully mitigate the significant adverse open space, shadows, and natural resources impacts on the Brooklyn Botanic Garden and the shadows impact to Jackie Robinson Playground.

Construction

The Proposed Project would result in significant adverse construction noise impacts. As described in **Chapter 10, "Construction,"** the Proposed Project's construction activities would result in temporary significant adverse impacts related to noise. The construction noise analysis predicted noise levels due to construction could exceed the *CEQR Technical Manual* impact criteria at receptors surrounding the proposed construction work area at portions of six buildings. At these receptors, construction would produce noise level increases that would be noticeable and potentially intrusive during the most noise-intensive nearby construction activities; however, the predicted maximum levels would not persist throughout construction, and the noise levels would fluctuate over the course of the construction period. While the greatest levels of construction noise would not persist throughout construction, these locations

would experience construction noise levels whose magnitude and duration could constitute significant adverse impacts.

As presented in **Chapter 11, "Mitigation,"** potential measures to mitigate the significant adverse construction noise impacts were explored in consideration of their effectiveness, cost, and feasibility. As detailed in therein, in addition to measures required under New York City construction noise regulations, a measure to partially mitigate the construction noise impacts would be to make available, for purchase and installation, storm windows for façades that do not already have insulated glass windows and/or one window air conditioner per living room or bedroom or patient room that do not already have alternative means of ventilation. ~~The feasibility of this measure will be explored as a potential partial mitigation between the DEIS and FEIS. If implemented, these mitigation measures would be implemented prior to the start of construction.~~ Building façades with insulated glass windows or storm windows and alternative ventilation would provide sound attenuation such that even during warm weather conditions, interior noise levels would be approximately 25 dBA less than exterior noise levels. However, the most noise-intensive construction activity nearest the receptors experiencing significant adverse impacts would result in interior noise levels up to 61 dBA L10, which is 16 dBA greater than the level considered acceptable according to *CEQR Technical Manual* noise exposure guidelines. Consequently, the temporary significant adverse noise impacts predicted to occur at the above-mentioned receptors would be only partially mitigated in any event.

Given the proximity of these existing sensitive receptors to the Proposed Development Site, even accounting for the types of measures incorporated into the Proposed Project to reduce construction noise and the proposed mitigation measures, any development involving below-grade excavation and multi-year construction would likely have the potential to result in temporary unmitigated significant adverse construction noise impacts. Furthermore, any significant adverse construction noise impacts at these nearby receptors could not reasonably or feasibly be fully mitigated.

To completely avoid significant adverse construction noise impacts, the development program would have to be reduced to the No-Action Alternative. Due to the proximity of sensitive receptors to the Proposed Project, particularly P.S. 375 Jackie Robinson School, any construction increment above the No-Action Alternative would result in significant adverse impacts related to construction noise.

The No-Action Alternative would reduce the number of residential units by approximately 307 DUs, and would eliminate the proposed local retail space. While the No Unmitigated Significant Adverse Impacts Alternative would avoid the potential for unmitigated significant adverse impacts identified under the Proposed Actions, it would substantially compromise the objectives of the Proposed Actions. The benefits expected to result from the Proposed Actions – including the creation of 119 affordable DUs and local retail space would not be realized under this alternative. Therefore, no reasonable alternative could be developed to avoid temporary construction noise impacts without substantially compromising the Proposed Actions' stated goals and objectives. Accordingly, based on the analysis presented herein, no feasible alternative has been identified which results in no unmitigated significant adverse impacts.