

## 3.5 SHADOWS

### INTRODUCTION

The proposed action would result in significant adverse shadow impacts. Shadow impacts would occur on two historic resources: the Church of St. Joseph of the Holy Family and the Metropolitan Community United Methodist Church, and two open resources: Dream Street Park and the Adam Clayton Powell Jr. State Office Building Plaza.

According to the *CEQR Technical Manual*, a shadow is defined as the circumstance in which a building or other built structure blocks the sun from the land. An adverse shadow impact is considered to occur when the shadow from a proposed project falls on a publicly accessible open space, historic landscape, or other historic resource if the features that make the resource significant depend on sunlight, or if the shadow falls on an important natural feature and adversely affects its use and/or important landscaping and vegetation. In general, shadows on city streets and sidewalks or on other buildings are not considered significant under CEQR. In addition, shadows occurring within one and one-half hours of sunrise or sunset generally are not considered significant under CEQR.

This chapter assesses the reasonable worst-case development scenario, on a site-specific basis, for potential shadowing effects on existing light-sensitive resources, and discloses the range of shadow impacts, if any, which are likely to result from the action, further identifying:

- All projected and potential development sites, including those adjacent to existing natural resources, historic resources, and/or publicly accessible open spaces; and those located in areas which are not susceptible to shadow impacts.
- The potential effect of shadows from buildings on development sites identified in the RWCDS (both projected and potential development sites) on publicly accessible open spaces, light-sensitive natural resources, or light-sensitive historic resources and describing them through shadow diagrams and text.

The area affected by the proposed action covers 24 blocks along 125<sup>th</sup> Street in East, Central, and West Harlem. According to the *CEQR Technical Manual*, the longest shadow a structure will cast, except for periods close to dawn or dusk, is 4.3 times its height. Projected and potential development building heights would range from 80 feet up to 290 feet in portions of the corridor, accordingly, the longest shadows cast by potential or projected new development would extend from 344 feet up to 1,247 feet in length. Preliminary assessment of future buildings on projected and potential development sites, and the shadows they would cast, found that several cast shadows long enough to reach open spaces and architectural resources. Therefore, a shadow screening analysis was undertaken for the projected and potential development sites to determine whether the proposed action has the potential to result in significant shadow impacts thereby requiring a detailed shadow analysis.

## Methodology

Computer-generated simulations of the shadows under Future No-Action and Action conditions were prepared for representative times on four analysis days: March 21, May 6, June 21, and December 21. Since the CEQR methodology does not consider shadows and incremental increases in shadows within one and one-half hours of sunrise or sunset to be significant, the analysis period on each analysis day considers only the shadows that begin one and one-half hours after sunrise and end one and one-half hours before sunset. Daylight savings time was assumed for the analysis times on the March 21, May 6 and June 21 analysis dates. In general, shadows on city streets and sidewalks or on other buildings are not considered significant under *CEQR Technical Manual* guidelines.

The uses and vegetation in an open space determine its sensitivity to shadows. Uses that rely on sunlight include passive uses, such as sitting or sunbathing, and such activities as gardening or wading in fountains or pools. Vegetation requiring sunlight includes the tree canopy and flowering plants. In open spaces where lawns are actively used, the grass also requires extensive sunlight. Four to six hours a day of sunlight is generally a minimum requirement, particularly in the growing season. Sun-sensitive features of historic resources may include large windows admitting light into interior spaces, stained glass windows in churches, deeply sculpted façade ornamentation, and historic landscapes.

Following the guidelines of the *CEQR Technical Manual*, the analysis focuses on the incremental or additional shadows cast by the proposed development program in the With-Action development scenario beyond the shadows from structures which could be built under the Future No-Action development scenario. The analysis examines the potential impact of these incremental shadows and takes into account uses and users of open space, landscaping and vegetation of open space, as well as the characteristics of any significant natural features or historic resources with qualities or details that are sunlight-dependent and make such resources significant. The *CEQR Technical Manual* identifies the following conditions when a proposed development program may result in a significant shadow impact:

- Substantial reduction in sunlight where a sensitive use is already subject to substandard sunlight (i.e., less than the minimum time necessary for plant survival);
- Reduction in sunlight available to a sensitive use from more to less than the minimum time necessary for plant survival;
- Substantial reduction in sunlight to a sun-sensitive use or feature; and
- Substantial reduction in the usability of the open space.

There may be situations where a very small loss of sunlight is important (e.g., in areas where people sit or in a historic church with stained glass windows) or where a comparatively large loss is not significant (e.g., where vegetative species are shade-tolerant). Although these situations represent a general guideline for determining significant adverse impacts, each case is reviewed on its own merits. Potential impacts were considered based on the coverage and duration of shadows on each sensitive receptor, as well as the presence or lack of sun-sensitive uses, the amount of use in general, and the availability of alternative space within each sensitive receptor.

The shadow diagrams and analysis presented in this chapter were developed using building envelope information supplied by the New York City Department of City Planning. For the purposes of this shadow analysis, projected and potential development sites were modeled assuming a “worst case scenario” bulk condition for each site, using maximum streetwall heights and maximum building heights. Projected and potential sites also include a representative bulk head volume on top of the highest story as well as 3-foot high parapet walls. Actual development in the future may involve less bulk.

### 3.5.1 RESOURCES OF CONCERN

In accordance with CEQR guidelines, the assessment of potential shadow impacts is limited to new shadows long enough to reach publicly accessible open spaces, historic resources, or important natural features. In coordination with Chapter 3.4, “Open Space,” and Chapter 3.6, “Historic Resources”, publicly accessible open spaces and architectural resources to the north, south, east, and west of the projected and potential development sites were identified, as shadows created by the proposed action could fall in the direction of these resources. Figure 3.4-2 in Chapter 3.4, “Open Space”, and Figure 3.6-1 in Chapter 3.6, “Historic Resources” show the location of each respective resource with the exception of resources 51-57, as they are positioned outside the Historic Resources study area but are within reach of potential shadows; there are a total of 81 resources of concern in the 125<sup>th</sup> Street shadows study area which is defined by the combination of the areas located within 4.3 times the maximum height of projected or potential development sites. Each of these resources is listed below and identified by numbers.

#### Historic Resources

1. Mount Morris Bank (Corn Exchange), (Historic Resource #1)  
The structure is located on the corner of East 125<sup>th</sup> Street and Park Avenue and is a five-story red brick building raised on a high basement of rock-faced stone. Originally constructed in 1883, the now vacant building remains a distinctive example of mix-used commercial residential building that recalls Harlem’s transition into a prosperous urban neighborhood. The former Mount Morris Bank is located on a portion of Projected Development Site 19.
2. Harlem Savings Bank (Historic Resource #2)  
The former Harlem Savings Bank, built in the Classical Revival style, is located at 124 East 125<sup>th</sup> Street and formerly housed the Harlem Savings Bank. This small but grandly executed structure was designed by the architectural firm of Bannister & Schell and constructed in 1906-07. The two-story building reflects both the history of one of Harlem’s founding financial institutions and the prominence of east 125<sup>th</sup> Street as the community’s principal commercial thoroughfare. This resource is located on a portion of Potential Development Site 46 and is within 90 feet of Potential Development 47.
3. Marion Building (Historic Resource #3)

The Marion Building, located at 78-84 West 125<sup>th</sup> Street/290 Lenox Avenue, reflects the Harlem building boom brought about by the opening of the subway. The three-story brick and terra cotta structure was built in 1904 and retains many of its Beaux Arts style elements including its rustication, lintels with scrolled keystones and shields and ornate frieze and cornice. This resource is located on Potential Development Site 39 and is adjacent to Projected Development Site 16.

4. Bishop Building (Historic Resource #4)

The Bishop Building, located at 275 West 125<sup>th</sup> Street is a four-story brick commercial building which was designed by prominent architect Ernest Flagg and constructed in 1906. Built for Cortland Field Bishop, one of the founders of the Aero Club of America (ACA), the structure displays restrained Beaux Arts detailing.

5. Amsterdam News Building (Historic Resource #5)

The Amsterdam News Building is located at 2340 Frederick Douglass Boulevard. The four-story building was constructed in the late 19<sup>th</sup> century. The building has housed the Amsterdam News since 1938. The Amsterdam News is one of the largest and most influential African-American newspapers in the United States. This resource is located on Potential Development Site 32 and is within 90 feet of Potential Development Site 33.

6. Flats & Stores (Historic Resource #6)

Flats & Stores is located at 4-12 East 125<sup>th</sup> Street. Designed by D. & J. Jardine and constructed in 1888, the five-story building is an outstanding example of Italian Renaissance-inspired design. The structure features arched openings, rock-faced masonry, handsomely ornamented terra cotta panels and a prominent cornice.

7. Park Avenue Viaduct (Historic Resource #7)

Built in 1897 and extending along Park Avenue from 111<sup>th</sup> Street to the Harlem River, the four track railroad viaduct replaced a shallow open cut which had been created when the New York Central Railroad was extended to Harlem, then a quiet hamlet, in 1837. The viaduct was erected over the existing Park Avenue track bed and was constructed under the supervision of Walter Katte, the railroad's chief engineer. A rehabilitation of the viaduct was completed by Metro-North in 1998.

8. Metro-North 125<sup>th</sup> Street Station (Historic Resource #8)

The Metro-North 125<sup>th</sup> Street Station was designed by railroad architect Morgan O'Brien and completed in 1897 for the New York and Central & Hudson River Railroad. The station is a distinctive example of the Classical Revival style and features fluted pilasters and a denticulated cornice. The station was built as part of a major reconstruction of the railroad. The 40 by 200 foot station is one-story in height and is located at street level under the viaduct.

9. Engine Company No. 36 (Historic Resource #9)

This fire station, formerly known as Fire Hook and Ladder Company No. 14, is located at 120 East 125<sup>th</sup> Street and is an intact representative example of a late 19<sup>th</sup> century urban

firehouse. Completed in 1889, this was one of many firehouses designed by the prominent architectural firm of Napoleon LeBrun and Son for the New York City Fire Department. The four-story brick Romanesque Revival fire house has a highly ornamented façade with a single vehicular entrance on the first story and multi-use upper floors.

10. The New York Public Library, 125<sup>th</sup> Street Branch (Historic Resource #10)  
The New York Public Library, 125<sup>th</sup> Street Branch, located at 224 East 125<sup>th</sup> Street has served East Harlem since 1924. The Neo-Classical façade is clad in limestone and is elegantly detailed. The library was built with funds provided by philanthropist Andrew Carnegie and designed by the premier architectural firm of McKim, Mead and White.
11. Twelfth Ward Bank (Historic Resource #11)  
Located at the northeast corner of East 125<sup>th</sup> Street and Lexington Avenue, the former Twelfth Ward Bank at 147 East 125<sup>th</sup> Street was constructed in 1893-94. Designed to incorporate Romanesque Revival motifs, the six-story building reflects Harlem's emergence as an affluent late 19<sup>th</sup> century urban neighborhood.
12. Blumstein's Department Store (Historic Resource #12)  
The former Blumstein's Department Store at 230 West 125th Street was built in 1923; its design may have been inspired by the Secessionist architecture period of Germany and Austria. During the Great Depression, Blumstein's was boycotted as part of the "Buy Where You Can Work" campaign which brought attention to discriminatory hiring practices. Blumstein's soon agreed to hire African-Americans for sales and clerical positions and by the late 1940s had become a model for equal opportunity practices.
13. Lowe's Victoria Theatre (Historic Resource #13)  
Lowe's Victoria Theatre is located at 233-237 West 125th Street and is historically and architecturally significant as one of Harlem's surviving vaudeville and motion picture theatres. Constructed in 1917, the theatre boasts a distinctive renaissance style design inspired by 18<sup>th</sup> century Adamesque sources. The Victoria was designed by Thomas M. Lamb, one of America's great theatre architects, and opened in 1917.
14. The Apollo Theatre (Historic Resource #14)  
The Apollo Theatre is located at 253 West 125th Street and is historically and culturally significant for its role as one of New York City and the nation's leading entertainment centers for over six decades. Designed in the neoclassical style, the Apollo was built in 1914. Beginning in 1935, the theatre presented a permanent variety show format featuring African-American entertainers. The Apollo became the center for Harlem's popular entertainment and one of the nation's most important arenas for the display of leaning African-American performers. Harlem, it is said "recognized no popular entertainer until he or she had appeared or excelled at the Apollo." (<http://www.theblackmarket.com/ProfilesInBlack/Apollo.htm>). The Apollo was substantially renovated in the 1980s, but its significance as a cultural landmark continues.

15. Church of St. Joseph of the Holy Family (Historic Resource #15)  
The Church of St. Joseph of the Holy Family complex at 405 West 125<sup>th</sup> Street/168 Morningside Avenue is comprised of a complex of buildings consisting of a church and rectory, both constructed in 1860 and fronting on West 125<sup>th</sup> Street and a discontinuous school (1886-1889) at 168 Morningside Avenue and convent at 406 West 127<sup>th</sup> Street. This resource is historically associated with the community's 19<sup>th</sup> century German immigrant population. This resource is considered sunlight-sensitive as it contains stained glass features prominently displayed on the eastern, southern and western facades of the building.
16. NY Public Library, George Bruce Branch (Historic Resource #16)  
The NY Public Library, George Bruce Branch located at 518 West 125<sup>th</sup> Street was designed by the noted architectural firm of Carrere & Hastings and opened in 1916; five years after the firm's monumental main branch of the New York Public Library had opened. The three-story brick building is an outstanding example of Georgian Revival civic architecture and displays a high degree of integrity of design, materials and craftsmanship.
19. Mount Morris Park Historic District Extension (Historic Resource #19).  
The expansion of the historic district consists of all or part of 15 blocks; the expansion area is contiguous to the original Mount Morris Park Historic District. The buildings within the expanded area are part of the same historical development that shaped those structures within the original district. The streetscapes within the original and expanded district are solidly built up with late nineteenth century houses, religious institutions and related buildings. The northern portion of this historic district is located within the study area. This includes the block frontages along East and West 124<sup>th</sup> Street.
20. Flats & Stores (Historic Resource #20)  
The five-story commercial/apartment building known as Flats & Stores and located at 1944 Madison Ave was erected in 1888 to the design of C. Abbott French & Company. A similarly named structure is located at 4-12 East 125<sup>th</sup> St; each resource provides commercial space on the first story and apartment dwellings on the upper floors, hence the name. This building reflects late 19<sup>th</sup> century Renaissance Revival design and boasts a façade embellished by decorative terra cotta floral panels set above and below window openings.
21. 221 East 124<sup>th</sup> Street (Historic Resource #21)  
The multi-unit dwelling located at 221 East 124<sup>th</sup> Street was built in 1883. This brick structure is an architecturally distinguished example of late 19<sup>th</sup> century tenement design in the Renaissance Revival style. This resource is part of Projected Development Site 24.
22. 2075-2087 Lexington Avenue (Historic Resource #22)  
The apartment building located at 2075-2087 Lexington Avenue was constructed in 1899. This seven-story Flemish Revival brick structure displays ornamental limestone trim.

23. Hotel Theresa (Historic Resource #23)  
The Hotel Theresa is located at 2082-2090 Adam Clayton Powell Boulevard and is one of Harlem's most prominent structures. Constructed in 1912-13, the former hotel is a major work of the architectural firm of George & Edward Blum and a key landmark in the cultural history of Harlem's African American community. The Theresa's white brick and terra cotta facades are adorned with distinctive geometric ornament. The Theresa remained a segregated "white only" establishment until 1940 when the discriminatory policy was dropped and it rapidly became what Ebony magazine referred to as the "Waldorf of Harlem," hosting African-American celebrities and community social events. This resource is immediately adjacent to Projected Development Site 9.
24. 516 West 126<sup>th</sup> Street (Historic Resource #24)  
The five-story school building located at 516 West 126<sup>th</sup> Street was originally built to house the experimental Speyer School, under the jurisdiction of nearby Teachers College. Constructed in 1902, structure remains a distinctive example of Renaissance Revival/Flemish Renaissance style. The building was acquired by St. Mary's Episcopal Church in 1964; renamed the Ackley Center it presently hosts an AIDS service facility.
25. Old Broadway Synagogue (Historic Resource #25)  
Old Broadway Synagogue is located at 15 Old Broadway and is the sanctuary of Congregation Chevra Talmud Torah Ansheri Marovu, a congregation of Jewish residents of Manhattanville established in 1911. The building was consecrated in 1923 and represents the vernacular synagogue architecture built by immigrant congregations which were prevalent on Manhattan's Lower East Side. The two-story wood and brick structure is approximately 25 feet wide by 80 feet deep. The street elevation is dominated by a two-story high roman arch which encompasses the entrance door. This historic resource is considered sunlight sensitive as the facade pediment displays a handsomely detailed blind arcade containing a stained glass window.
26. 125th Street/Lenox Avenue Subway Station (Historic Resource #26)  
The 125th Street/Lenox Avenue Subway Station is located at the intersection of Lenox Ave and West 125th Street. The significant elements of this resource are primarily set below ground. Physical evidence suggest the four grade level entrances, one at each corner of Lenox Ave and West 125<sup>th</sup> Street, are substantially unaltered.
27. H. C. F. Koch & Company Department Store (Historic Resource #27)  
The former H. C. F. Koch & Company Department Store is located at 132 West 125<sup>th</sup> Street and was once one of the city's major department stores. Constructed in 1890 and expanded in 1893, the lavish Renaissance Revival style department store, was the first to open on 125<sup>th</sup> Street in Manhattan and was Harlem's main department store for 30 years. This six-story through-block building was a retail forerunner in what was then an exclusively residential neighborhood. The primary West 125<sup>th</sup> Street façade is constructed of light-colored brick with terra cotta trim. Like the former Blumenstein's Department Store (Resource 12) Koch was a target of the "Buy Where You Can Work"

campaign which brought attention to discriminatory hiring practices. Rather than accede to community demands for equal treatment and opportunity, the Koch Family chose to sell the department store in 1930. The inscription “Koch & Co.” on the pedimented gable reflects the structure’s original use.

28. Manhattan Avenue West 120-123rd Streets Historic District (Historic Resource #28)  
The Manhattan Avenue West 120-123rd Streets Historic District is an architecturally significant enclave of 113 neo-Greek, Queen Anne and Renaissance style row houses completed during the years 1886 to 1896. The district is characterized by unbroken streetscape of row houses which are all three stories in height with basement. The intact block of houses form a cohesive identify distinct in both scale and quality of construction from surrounding tenements and apartment buildings. These dwellings represent the final period of large-scale speculative construction of single-family row house for middle and upper-middle classes.
29. 553 Manhattan Avenue (Historic Resource #29)  
The building located at 553 Manhattan Avenue is a contributing feature in Manhattan Avenue West 120-123 Streets Historic District and is one of several adjacent and similar designed buildings along this Manhattan Avenue block. The rowhouse is three stories high with a full basement and displays elements of the Queen Anne and neo-Greek styles.
30. Metropolitan Community United Methodist Church (Historic Resource #30)  
The Metropolitan Community United Methodist Church is located at 1975 Madison Avenue East 126th Street. Constructed in 1871 for the congregation of St. James Methodist Episcopal Church, the church and its adjoining parsonage retain a high degree of architectural integrity. The church is a fine example of Gothic Revival design and displays elements typical of the style including pointed arched openings, elaborate window surrounds, corner towers, and buttresses. This historic resource is considered a sunlight-sensitive resource as it contains stained glass features on the southern and western sides of the church.
31. St. Andrew’s Episcopal Church (Historic Resource #31)  
St. Andrew’s Episcopal Church is located at 2067 5th Avenue. St Andrew’s is one of the finest Victorian Gothic churches in new York City and one of the few 19<sup>th</sup> century Protestant churches in Harlem still occupied by its original congregation. In 1872-73, architect Henry Congdon designed St, Andrews for a site on East 127<sup>th</sup> Street between Park and Lexington Avenues. By the late 1880s, the congregation had outgrown the building; Congdon was rehired to dismantle the structure and supervise its reconstruction and enlargement on this more prestigious site at the corner of 5th Avenue and East 127<sup>th</sup> Street. This historic resource is considered a sunlight-sensitive resource as it includes stained glass window features located on the southern and western facades of the building.
32. 16 East 127th St (Historic Resource #32)



The residential building at 16 East 127th St is located in the potential St. Andrews Historic District and is a noteworthy representation of a mid 19<sup>th</sup> century Italianate style brownstone dwelling. Constructed about 1865, the three-story building displays many features typically associated with the style including a high stoop, round arched entrance with pilasters and heavy protruding door hood and console brackets, rhythmically spaced segmental arched windows with stone lintels and sills and an imposing roofline cornice embellished with scroll brackets.

33. Langston Hughes House (Historic Resource #33)  
Langston Hughes House is located at 20 East 127th Street. Constructed in 1869; this Italianate brownstone derives its significance from its association with Langston Hughes who lived on the top floor from 1947 until his death in 1967. Hughes, one of the leading figures of the Harlem Renaissance, wrote many works while residing on East 127<sup>th</sup> Street including his humorous pieces documenting the life of Harlem's common man.
34. St. Paul's German Evangelical Lutheran Church (Historic Resource #34)  
St. Paul's German Evangelical Lutheran Church is located at 147 West 123rd Street and is a contributing resource in the Mount Morris Park Historic District. St. Paul's was designed by German immigrant architects; its construction in 1897-98 reflected the growth of the German community in the Mount Morris area both in size and wealth. The neo-Gothic church was home to the St. Paul's congregation until 1939, long after most white congregations had left Harlem. In 1985, the Greater Metropolitan Baptist Church purchased this building, its present home. This resource is considered to be a sunlight-sensitive resource as it includes stained glass windows located on the southern and eastern sides of the church.
35. Engine Company No. 37 (Historic Resource #35)  
Engine Company No. 37 is located at 509 WEST 126th Street and was built in 1881 to the designs of Napoleon LeBrun who served as the chief architect for the New York City Fire Department from 1880 to 1895. Despite some modifications, the façade of this Romanesque Revival structure retains many original design features including base-level fluted pilasters and decorative shields, brownstone stringcourses and a modillioned cornice. The structure is noteworthy as a representative example of late 19<sup>th</sup> century firehouse design and for its historic association with the history of firefighting in New York City.
36. St. Mary's Protestant Episcopal Church, Parish House and Sunday School (Historic Resource #36)  
St. Mary's Protestant Episcopal Church, Parish House and Sunday School are located at 517-523 West 126<sup>th</sup> Street. The site includes a neo-Gothic church constructed in 1908-1909, a clapboard parish house (the original rectory), built in 1851 and the Sunday School which dates from 1890. This Manhattanville parish has continuously served the community for more than 175 years. As a large number of the early congregants were poor, in 1831 the church voted to abolish pew fees, the first Episcopal Church in New York City to do so. A gable-roofed porch delineates the entrance to the complex. This

resource is considered sunlight-sensitive as it features stained glass windows prominently on the southern façade.

37. Manhattanville Junior High School (P. S. 43), (Historic Resource #37)  
Manhattanville Junior High School (P. S. 43) is located at 509 West 129th Street. The structure was built between 1932 and 1937, replacing an earlier on-site public school. The four-story red brick building features limestone trim and is an intact example of a 1930s era institutional design. Simplified Collegiate Gothic details include a central tower, pointed arched entrance and stone pinnacles at the parapets.
38. The Interborough Rapid Transit (IRT) System Broadway Line Viaduct North (Historic Resource #38)  
The Interborough Rapid Transit (IRT) System Broadway Line Viaduct North is located on Broadway between WEST 122nd and West 135th Streets. Following a succession of aborted attempts to build a subway system in Manhattan, a contract was signed in 1899 for the IRT's first subway. This is part of IRT Line Contract 1 which ran from City Hall to Grand Central Station, turned west to Times Square and then northward along Broadway to the Bronx, one of the line's distinctive features is the above-ground Manhattan Valley viaduct which carries the Broadway line over a valley at West 125th Street and which consists of approaches faced with rock faced granite blocks, steel viaducts and a central span with three parabolic arches. The total length of the viaduct from 122<sup>nd</sup> Street to 135<sup>th</sup> Street is 2,147 feet and the maximum height above 125<sup>th</sup> Street is 54 feet.
39. Broadway IRT Broadway Subway Station (Historic Resource #39)  
The Broadway IRT Broadway Subway Station at West 125th Street is a component of the IRT Broadway viaduct. The station structure is centered above the viaduct's parabolic braced arch is utilitarian in appearance and is constructed of steel beams and wooden sheathing. Alterations include the addition of decorative iron railings and lamp posts along the sides of the station platform and replacement escalators.
40. Sheffield Farms Stable (Historic Resource #40)  
The former Sheffield Farms Stable is located at 3229 Broadway and is a six-story brick warehouse which is significant for its historic association with the Sheffield Farms Slawson Decker Company, which pioneered commercial milk pasteurization in New York City. This building housed the work horses for the nearby Sheffield Farm Dairy located at 632 West 125th Street The stable's present appearance dates from a 1909 alteration to a two-story 1903 stable. The building is presently home to the Hudson Moving & Storage Company.
41. Tiemann Estate Historic District (Historic Resource #41)  
The Tiemann Estate Historic District encompasses 47 residential buildings many designed by the city's leading apartment designers. The district retains a sense of place through buildings linked by scale, materials and details and collectively is an exemplary grouping of Renaissance Revival and Beaux Arts apartment buildings. The district is also

notable for its residents who portrayed significant aspects of New York's social and cultural history.

42. Whitestone Apartments (Historic Resource #42)

The Whitestone Apartments are located at 45 Tiemann Place and is a contributing resource in the Tiemann Estate Historic District. The Whitestone is a distinctively designed apartment house created by the prolific architect Emory Roth. The six-story building is notable for its fine craftsmanship, ornamentation and use of materials. The lively façade is articulated by tall brick piers which delineate the window bays, geometrically shaped terra cotta ornament and fanciful Cooper parapet.

43. Yuengling Brewery/Bernheimer & Schwartz Pilsner Brewing Company (Historic Resource #43)

The former Yuengling Brewery/Bernheimer & Schwartz Pilsner Brewing Company consists of several adjacent brick structures fronting on Amsterdam Avenue, West 127<sup>th</sup> Street and West 128<sup>th</sup> Street. D. G. Yuengling of Pottsville, Pennsylvania established a New York outpost of his brewery in the 1870s, undoubtedly attracted to this area by the community's substantial German population. The D. G. Yuengling Jr. Brewing Company was purchased at a foreclosure sale in 1893 retaining the Yuengling name until 1897 when it again sold and operated as Betz's Manhattan Brewery. In 1903, Bernheimer & Schwartz Pilsner Brewing Company erected additional structures including the prominent five-story Victorian eclectic building at 1361-1369 Amsterdam Avenue and the two-story brick vernacular structure with medieval gothic inspired decorative elements at 470 West 128<sup>th</sup> Street. Bernheimer & Schwartz were the last of a succession of brewing companies at this site. The complex of buildings which comprise the former brewery are located on the east side of Amsterdam Avenue between West 126<sup>th</sup> and West 127<sup>th</sup> Streets to the south and West 128<sup>th</sup> Street to the north building. The complex is noteworthy for its association with New York's brewing industry in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries.

44. Provident Loan Society (Historic Resource #44)

The former Provident Loan Society is located at 2365 Frederick Douglass Boulevard and was erected in 1916 for the Provident Loan Society of New York. The former bank building is a surviving representation of Beaux Arts commercial architecture and features full-height windows with triangular and segmental pediments, and a prominent cornice. Since 1943, the structure has housed a Baptist Church and is presently home to the Greater Zion Hill congregation.

45. 272-282 West 127<sup>th</sup> Street Historic District (Historic Resource #45)

The residences which comprise the 272-282 West 127<sup>th</sup> Street Historic District form a row of six brownstone dwellings, each three stories high with basement. The houses display many characteristics of the neo-Grec style and feature high stoops, segmental; arched double leaf entrance doors, tall parlor windows, pedimented door and window hoods and prominent cornices with angular brackets.

46. 127 East 123rd Street (Historic Resource #46)  
The multi-storied building at 127 East 123rd Street was constructed about 1930. The detailing and massing of this early 20<sup>th</sup> century building combines elements of both the Classical Revival and Art Deco styles. The façade is interplay of materials, predominantly yellow colored brick and limestone, and shapes. The segmental arched third story windows and the rounded building corners strongly contrast with the rectilinear formality of the fenestration and classically inspired main entrance pavilion.
47. Ligia's Place Adult Care Facility (Historic Resource #47)  
Ligia's Place Adult Care Facility is located at 2265 Third Avenue. The simply detailed five-story building incorporates Richardsonian Romanesque elements. Round arch openings, into which the second, third and fourth floor windows are set, are defining elements of both the Third Avenue and East 123rd Street elevations. Above the bays, cast stone columnettes flank the rectangular sixth story openings.
48. Chambers Memorial Baptist Church (Historic Resource #48)  
Chambers Memorial Baptist Church is located at 219 East 123rd Street. This house of worship was constructed in 1891 and is a finely crafted depiction of Romanesque Revival architecture. The tripartite façade is composed of light tan brick; a contrasting color is used to accentuate window openings, building corners and the façade gable. The adjacent mansard-roofed parish house predates the church building. This resource is considered a sunlight-sensitive resource due to the stained glass windows on the southern façade of the church.
49. 31-33 East 127th St (Historic Resource #49)  
The standing resource at 31-33 East 127th St reflects the rental housing constructed as public transportation made the community accessible to the general public. The six-story building displays a symmetrically arranged seven bay façade which is faced in cream colored brick and rises to a modillion and bracketed cornice. Window openings display a variety of decorative treatment, which incorporate a selection of cast stone ornamentation.
50. 2052 Adam Clayton Powell Boulevard (Historic Resource #50)  
The commercial/residential structure at 2052 Adam Clayton Powell Boulevard was constructed in the late 19<sup>th</sup> century and is a component of a similar designed grouping of structures extending northward along Adam Clayton Powell Boulevard. At present, this structure is the best maintained of the grouping and like its neighbors to its north displays cast stone lintels and a corbelled brick cornice.

The following architectural resources were not included in the Historic Resources chapter because they are located outside of the 400 foot historic resources study area, but they are included in the study area for the shadows analysis because they are within the reach of the shadows that would be cast by the projected and potential development sites under the proposed action.

51. Metropolitan Baptist Church  
Metropolitan Baptist Church, located at 151 West 128th Street, is a SHPO- and LPC-designated structure, and contains stained-glass windows on the eastern, southern and western sides. The building combines Romanesque-inspired massing and rough-textured stonework with such Gothic features as pointed arches and flying buttresses. Metropolitan was one of the first black congregations established in Harlem and remains one of the most prestigious churches in the community. This resource is considered a sunlight sensitive resource due to the presence of stained glass windows on the south, east and west facades of the building.
52. Washington Apartments  
The Washington Apartments, located at 2034-2040 Adam Clayton Powell, Jr., Boulevard, is one of the oldest apartment houses in New York City, and is the first in Harlem planned specifically to house middle-class families. The structure is faced in red brick with terra-cotta trim.
53. 17 East 128<sup>th</sup> Street  
This house is one of the few remaining examples of the French Second Empire style in New York. It is a well-preserved example of Harlem's early history as a rural village, and retains its original stoop, decorated porch, double doors, shutters, and multicolored slate roof.
54. 12 West 129<sup>th</sup> Street  
This house was originally a 2 ½-story structure erected in 1863. In 1882 additions such as the Moorish porch were commissioned, with a full third story added in 1896. The building has recently undergone restoration.
55. Astor Row  
The twenty-eight houses of Astor Row, located at 8-62 West 130th Street, were built on land owned by William Astor. The coherent blockfront of brick houses with wooden porches is unique to New York City.
56. Roman Catholic Church of All Saints  
The Roman Catholic Church of All Saints, located at 47 East 129<sup>th</sup> Street, was created by one of New York's leading nineteenth-century architects, James Renwick, Jr. The facades of All Saints combine the mixed tones of light and dark brick, terra cotta and stone, with an assortment of window shapes and sizes. This historic resource is considered sunlight-sensitive as it contains stained-glass windows on the eastern, western, and southern side of the structure.
57. Harlem Courthouse  
The former Harlem Courthouse, located at 170 East 121st Street, is an idiosyncratic Romanesque Revival brick structure with an octagonal tower and a four-faced clock. The

building was erected to house the New York City Police Court and District Court, but has since been occupied by several other city agencies.

After the issuance of the DEIS, two additional historic resources within the historic resources study area were identified. The **McDermott-Bunger Dairy**, located at 527-535 West 125<sup>th</sup> Street (Block 1982, Lot 10), between Broadway and Amsterdam Avenue, is an S/NR-eligible three-story stone and brick-clad building. The building was designed by Joseph H. McGuire/Sass & Smallheiser in 1904. The main block of the building is flanked by one-story walls with large doorways that provided passageways for horses and carriages. The building is designed in a restrained Classical style, with simple ornamentation including stone rustication and keystones above the windows on the ground floor, and corbelling at the parapet. The McDermott-Bunger Dairy was operated by Sheffield Farms. The building is currently occupied by a charitable institution and other commercial uses. No light-sensitive features are present on this resource, and therefore a detailed shadow assessment was not performed.

In addition, a **residential building at 28-30 East 125<sup>th</sup> Street** (Block 1749 Lot 56) was determined to be S/NR eligible. For further information, please refer to LPC correspondence dated February 24<sup>th</sup>, 2008 in Appendix B. No light-sensitive features are present on this resource, and therefore a detailed shadow assessment was not performed.

The preliminary shadows assessment identified 57 historic resources that could be potentially affected by the sweep of new shadows from the projected and potential development sites, as listed above. As per CEQR, only historic resources with sunlight-sensitive features have the potential to be adversely impacted by incremental new shadows generated by the proposed action. As noted above, nine of the 57 historic resources have been identified as containing stained glass windows as part architectural features of the buildings. The *CEQR Technical Manual* cites stained glass windows as an example of sunlight-sensitive features that could potentially require a detailed shadows assessment. The nine resources that are considered sunlight-sensitive and could potentially require a detailed shadows assessment are:

- St. Andrew's Episcopal Church
- Old Broadway Synagogue
- Church of St. Joseph of the Holy Family
- Metropolitan Community United Methodist Church
- St. Paul's German Evangelical Lutheran Church
- St. Mary's Protestant Episcopal Church, Parish House and Sunday School
- Chambers Memorial Baptist Church.
- Metropolitan Baptist Church
- Roman Catholic Church of All Saints

The remaining 48 resources are not considered dependent on sunlight to the extent that any net incremental shadows generated by the proposed action would diminish their significance. Therefore, while the proposed action could potentially cast shadows on these 48 resources, such

shadow effects would not be considered significant and would not require a detailed shadows assessment.

As part of the preliminary screening, a shadow “sweep” was performed for the nine above-mentioned identified historic resources over the course of the four seasonal analysis days (December 21st, March 21st, June 21st and May 6th). This sweep considered the shadows from existing buildings and the shadows cast from projected and potential sites under Future No-Action and Action conditions, based on the building envelope information provided by DCP. Based on this preliminary shadow sweep, it was found that two historic resources, the Church of St. Joseph of the Holy Family and the Metropolitan Community United Methodist Church would be expected to receive incremental shadows from projected or potential development sites under Future Action conditions. A detailed shadow assessment for these two resources was therefore conducted and is presented below. No incremental new shadows would be cast upon St. Andrew’s Episcopal Church, the Old Broadway Synagogue, St. Paul’s German Evangelical Lutheran Church, St. Mary’s Protestant Episcopal Church, Parish House and Sunday School, Chambers Memorial Baptist Church, Metropolitan Baptist Church, and Roman Catholic Church of All Saints.

## **Open Space Resources**

According to the *CEQR Technical Manual*, some open spaces contain facilities that are not sensitive to sunlight. These are usually paved, contain no sitting areas, no vegetation, no unusual or historic plantings, or contain only unusual or historic plantings that are shade tolerant. Facilities such as children's playgrounds and sprinklers, swimming pools, sitting or sunning areas, ballfields and other play areas that are covered with turf do require direct sunlight for some part of the day or at some times of the year.

Twenty-four open space resources were identified as falling within the shadow radius of projected or potential developments sites and may require a detailed technical analysis to identify potential incremental shadow impacts generated under the RWCDS. The following list contains a description of the features and facilities present on the 24 open space resources in order to determine which resources would be considered sensitive to new incremental shadows caused by the proposed action.

1. William B. Washington Memorial Garden (Open Space Resource #13)  
William B. Washington Memorial Garden is a small, 0.2-acre park located on West 126<sup>th</sup> Street between Frederick Douglas Boulevard and St. Nicholas Avenue. Containing passive recreation components, the William B. Washington Memorial Garden features a garden and landscaping. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the garden.
2. Clayton Williams Garden (Open Space Resource #29)

Clayton Williams Garden is located on West 126th Street between Frederick Douglas Boulevard and St. Nicholas Avenue. Consisting of 0.4 acres of passive recreation space, Clayton Williams Garden features amenities such as landscaping, benches, and a gazebo. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the garden.

3. Roosevelt Triangle (Open Space Resource #6)  
Roosevelt Triangle is a small, 0.035-acre passive green space bounded by West 125<sup>th</sup> Street, Morningside Avenue, and Hancock Place. The park contains landscaping and several benches at the perimeter. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.
4. Adam Clayton Powell Jr. State Office Building Plaza (Open Space resource #18)  
The Adam Clayton Powell Jr. State Office Building Plaza, which is approximately 0.5 acres, is mostly paved and contains passive open space elements like benches that provide seating, planters and a sculpture. This resource is considered sunlight-sensitive due to the benches and planters that are a part of the plaza.
5. Marcus Garvey Memorial Park (Open Space resource #52)  
Marcus Garvey Memorial Park is one of Harlem's largest active open space resources, with a total of 20.17 acres. Marcus Garvey Memorial Park contains 16.14 acres of active open space and 4.03 acres of passive open space. This resource is considered sunlight-sensitive due to the park's landscaping features and the park's active and passive recreation elements, including benches and a pool.
6. Dream Street Park (Open Space Resource #45)  
Located on East 124<sup>th</sup> Street between 2<sup>nd</sup> and 3<sup>rd</sup> Avenues, Dream Street Park is a small 0.25-acre park consisting of landscaped areas and benches. The small open space is directly abutted by a tenement building to the west, by projected development site 26 to the east and by potential development site 49 to the north. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.
7. Sheltering Arms Park (Open Space Resource #9)  
Sheltering Arms Park is a 1.43-acre park bounded by West 126<sup>th</sup> Street, West 129<sup>th</sup> Street, Amsterdam Avenue, and Old Broadway. Consisting of passive and active recreation features, Sheltering Arms Park contains two pools, a handball court, jungle gyms, and landscaping. This resource is considered sunlight-sensitive due to the park's landscaping features and the park's active and passive recreation elements.
8. Courtney Callender Playground (Open Space Resource #21)  
Courtney Callender Playground is a 0.65-acre park located on 5<sup>th</sup> Avenue between West 130<sup>th</sup> and West 131<sup>st</sup> Streets, and contains active recreation features such as a large jungle gym and basketball court. Benches and landscaping are also present. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.



9. 132<sup>nd</sup> Street Block Association Park (Open Space Resource #25)  
The 132<sup>nd</sup> Street Block Association Park is located on West 132<sup>nd</sup> Street between Lenox Avenue and Adam Clayton Powell Boulevard. This 0.17-acre park is mainly comprised of passive recreation features and includes a small pond, cobblestone pathways, benches, and landscaping. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.
10. Othmar Ammann Playground (Open Space Resource #35)  
Othmar Ammann Playground, located on East 124<sup>th</sup> Street between 1<sup>st</sup> and 2<sup>nd</sup> Avenues, is a 0.8-acre park containing mainly active recreation features such as a basketball court and jungle gym. Other features include landscaping, shrubbery, and benches. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.
11. Collyer Brothers Park (Open Space Resource #36)  
Collyer Brothers Park is located on the corner of East 128<sup>th</sup> Street and 5<sup>th</sup> Avenue, and contains 0.034 acres of landscaped area and benches. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.
12. Reverend Linette C. Williamson Memorial Park (Open Space Resource #39)  
Reverend Linette C. Williamson Memorial Park is a 0.051-acre park located on West 129<sup>th</sup> Street between Lenox and 5<sup>th</sup> Avenues. Containing only passive green space, Reverend Linette C. Williamson Memorial Park features landscaped areas, garden boxes, a gazebo, and benches. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.
13. Jackie Robinson Houses Playground (Open Space Resource #43)  
The Jackie Robinson Houses playground is a 0.5-acre recreation area within the NYCHA-controlled Jackie Robinson Houses, which occupies a majority of the northern portion of 128<sup>th</sup> street between Lexington and Park Avenues. The playground is surrounded on three sides by an eleven-story building to the south and nine-story buildings to the west and north. This playground consists mainly of active recreation amenities, and includes a large jungle gym. This resource is mainly comprised of hard surface playground and is not considered sunlight-sensitive.
14. Crack is Wack Playground (at Harlem River Drive Park) (Open Space Resource #46)  
Located within Harlem River Drive Park on 2<sup>nd</sup> Avenue between East 127<sup>th</sup> and East 128<sup>th</sup> Streets, Crack is Wack Playground consists solely of active recreation space on 1.37 acres. Amenities include a large jungle gym and four basketball courts. The playground is mainly hard surface and used for active recreation and does not contain sunlight-sensitive resources.
15. Harlem River Park (Open Space Resource #47)

Harlem River Park is a .35-acre park located at East 127<sup>th</sup> Street and 2<sup>nd</sup> Avenue. Containing mainly passive recreation areas, Harlem River Park includes landscaped areas and benches. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.

16. Harlem Rose Garden (Open Space Resource #48)  
Harlem Rose Garden is a 0.75-acre park located on East 129<sup>th</sup> Street between 5<sup>th</sup> and Madison Avenues. This open space is comprised predominantly of passive recreation, and includes landscaped areas and benches. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.
17. Moore Playground (Open Space Resource #61)  
Moore Playground is a 0.77-acre park located on Madison Avenue between East 130<sup>th</sup> and 131<sup>st</sup> Streets. A number of active amenities are present in this park, such as basketball courts, tennis courts, and pathways. Benches line the perimeter. This resource is considered sunlight-sensitive due to the passive recreation resources of the playground.
18. Wagner Houses Pools (Open Space Resource #62)  
The Wagner Houses pools consist of one large and one smaller pool on East 124<sup>th</sup> Street between 1<sup>st</sup> and 2<sup>nd</sup> Avenues. At a size of 0.81 acres, the pools are classified as an active recreation facility. The presence of a pool in this open space resource makes this a sunlight-sensitive resource.
19. Unity Gardens (Open Space Resource #63)  
The Unity Gardens is a .129-acre park located on West 128<sup>th</sup> Street between 5<sup>th</sup> and Lennox Avenues. This open space is comprised predominantly of passive recreation, and includes landscaped areas, planting boxes, and benches. This resource is considered sunlight-sensitive due to the landscaping and passive recreation features of the park.
20. St. Nicholas North and South Playground (Open Space Resource #26 & 27)  
St. Nicholas North and South Playgrounds are located in the center of this dense development of 14-story towers. Mostly active recreation components are present, and at a combined size of approximately 1.35 acres, elements include several basketball courts, two jungle gyms, sprinkler, two swing sets and benches. The playgrounds are mainly concrete and other hard surfaces and are not considered a sunlight-sensitive resource.
21. 7th Avenue center plots (Open Space Resource #28)  
At approximately 1.7 acres, this strip of landscaped area is enclosed by short iron fencing. The center plots serve to provide additional street trees, which as per CEQR, are excluded from shadow analysis. The 7<sup>th</sup> Avenue plots are not considered sunlight-sensitive.
22. Grant Houses Open Spaces (Open Space Resource #69 only)  
Located from West 123<sup>rd</sup> to 125<sup>th</sup> Street and from Amsterdam to Morningside Avenues, this 2.5 acre open space contains mainly active uses and includes a playground and jungle

gym. The playgrounds are all on hard surfaces and are not considered a sunlight-sensitive resource.

23. Park at the SW corner of 124<sup>th</sup> Street, Manhattan Ave and Hancock Place  
This landscaped plot is in the mapped street bed of 125th Street. The landscaped features of the park have the potential to be sunlight-sensitive.
24. P.S. 30 Playground (Open Space Resource #42)  
The P.S. 30 Playground is located on East 128<sup>th</sup> Street between Lexington and 3<sup>rd</sup> Avenues. At 0.5 acre, this playground contains one jungle gym and is almost exclusively dedicated to active recreation space. Given the hard surface materials of the playground, this playground is not considered sunlight-sensitive.

Of the 24 identified open space resources listed above, six resources were identified as not containing sunlight-sensitive features and therefore do not warrant a detailed assessment of the potential for an adverse shadow impact to occur due to development under the RWCDs. The six resources identified in the above list that do not contain sunlight-sensitive attributes include:

- Jackie Robinson Houses Playground
- Crack is Wack Playground
- St. Nicholas North and South Playground
- 7th Avenue center plots
- Grant Houses Open Spaces
- PS 30 Playground

The remaining 18 resources identified in the list above have the potential to be affected by incremental new shadows from the projected and potential development sites. As part of the preliminary screening process, these 18 resources were further screened for the potential to be affected by shadow impacts of the proposed action. A preliminary shadow sweep was performed for the remaining 18 open space resources identified above as being sunlight-sensitive. The preliminary screening looked at a shadow sweep of the RWCDs over the course of four representative seasonal analysis days (December 21<sup>st</sup>, March 21<sup>st</sup>, June 21<sup>st</sup>, and May 6<sup>th</sup>). This preliminary shadows sweep consisted of shadows from the existing buildings, as well as those expected to be cast from the projected and potential sites under the Future No-Action and Future Action conditions. Of the 18 open space resources identified, six were determined to experience incremental new shadows cast on the resource from projected or potential development sites and require a detailed shadow assessment. The six open space resources that would require a detailed shadow assessment are:

- William B. Washington Memorial Garden (Open Space Resource #13)
- Clayton Williams Garden (Open Space Resource #29)
- Roosevelt Triangle (Open Space Resource #6)
- Adam Clayton Powell Jr. State Office Building Plaza (Open Space resource #18)
- Marcus Garvey Memorial Park (Open Space resource #52)

- Dream Street Park (Open Space Resource #45)

***Resources of Concern Requiring a Detailed Shadows Assessment***

Based on the preliminary shadow screening, the following two historic resources and six open space resources would receive incremental new shadows under the future Action scenario and therefore warrant a detailed shadows assessment in order to identify potential impacts.

- A. Church of St. Joseph of the Holy Family (Historic Resource #15)
- B. Metropolitan Community United Methodist Church (Historic Resource #30)
- C. William B. Washington Memorial Garden (Open Space Resource #13)
- D. Clayton Williams Garden (Open Space Resource #29)
- E. Roosevelt Triangle (Open Space Resource #6)
- F. Marcus Garvey Memorial Park (Open Space resource #52)
- G. Dream Street Park (Open Space Resource #45)
- H. Adam Clayton Powell Jr. State Office Building Plaza (Open Space resource #18)

### 3.5.2 FUTURE WITHOUT THE PROPOSED ACTION

In the future without the proposed action, the majority of the proposed rezoning area, which is currently zoned R7-2, C4-4, C4-5, C4-7, and M1-2 would continue to lack height limits, and the maximum height of development would continue to be regulated by sky-exposure-plane and tower regulations. Approximately one half of the northern block face of 125<sup>th</sup> Street between Park and Lexington Avenues is mapped C4-4A, and is governed by restrictions limiting development to 80 feet in height.

In the 2017 Future No-Action scenario, new commercial, residential and institutional development would be generated in the primary study area as a result of as-of-right and known development projects that are currently planned or under construction and as a result of as-of-right developments or conversions that are anticipated on 14 of the projected development sites. Six known development sites lie within the proposed rezoning area. These developments are expected to be in place by 2017 and would occur independently of the proposed action. None of the known developments are located on projected or potential development sites.

### 3.5.3 FUTURE WITH THE PROPOSED ACTION

In order to determine the impact of the new shadows created by the proposed action, the incremental difference in shadows cast by the potential and projected development sites was determined for the Future With-Action scenario. The incremental shadow durations under the Future With-Action scenario were determined for each of the following resources of concern: Church of St. Joseph of the Holy Family, Metropolitan Community United Methodist Church, William B. Washington Memorial Garden, Clayton Williams Garden, Roosevelt Triangle, Marcus Garvey Memorial Park, Dream Street Park, and the Adam Clayton Powell Jr. State Office Building Plaza. This analysis considers the effects of the incremental shadows cast on the resources of concern during the four representative analysis time periods of the year.

As directed by the *CEQR Technical Manual*, shadow analyses were performed for four representative days of the year: June 21<sup>st</sup>, May 6<sup>th</sup> and March 21<sup>st</sup> are representative days for the growing season for vegetation on open space; and December 21<sup>st</sup> is representative of conditions during winter months. Table 3.5-1 provides the start and end time of the incremental shadows cast by the projected and potential developments on the resources of concern and shows the estimated duration of those new incremental shadows. For this analysis, the massing and maximum building heights of the proposed action developments were used as described in the methodology section. The “entering” times shown in the table are the times that the shadows first hit any part of the resource being evaluated, and the “exit” time represents the time that the incremental shadow leaves the resource. Daylight savings time was assumed for the analysis times on the March 21, May 6 and June 21 analysis dates

**Table 3.5-1**  
**Durations of Future Action Incremental Shadows on Resources of Concern**

<b>Resource of Concern</b>	<b>Source of Shadow (Development sites and height in feet)</b>	<b>Dec 21 8:46 AM- 3:01 p.m. EST*</b>	<b>June 21 6:54 a.m.- 7:00 p.m. EST*</b>	<b>March 21 8:28 a.m.- 5:39 p.m. EST*</b>	<b>May 6 7:19 a.m.- 6:27 p.m. EST*</b>
<b>A - Church of St. Joseph of the Holy Family</b>	Site 3—120 feet, Site 28—120 feet, Site 29—120 feet	Enter: 8:46 a.m. Exit: 10:40 a.m. Duration: 1h 56m <b>Total for analysis day: 1h 56m</b>	Enter: 6:54 a.m. Exit: 9:30 a.m. Duration: 2h 36m <b>Total for analysis day: 2h 36m</b>	Enter 8:28 a.m. Exit: 11:00 a.m. Duration: 2h 32m <b>Total for analysis day: 2h 32m</b>	Enter 7:19 a.m. Exit 9:50 a.m. Duration: 2h 31m <b>Total for analysis day: 2h 31m</b>
<b>B - Metropolitan Community United Methodist Church</b>	Site 18-80 feet Site 19—80 feet Site 21-290 feet	Enter 8:46 a.m. Exit: 1:00 p.m. Duration: 4h 14m <b>Total for analysis day: 4h 14m</b>	N/A	N/A	N/A
<b>C - William B. Washington Memorial Garden</b>	Site 2—120 feet, Site 31—120 feet	Enter: 8:46 a.m. Exit: 2:15 p.m. Duration: 5h 29m <b>Total for analysis day: 5h 29m</b>	N/A	Enter: 12:15 p.m. Exit: 3:45 p.m. Duration: 3h 30m <b>Total for analysis day: 3h 30m</b>	N/A
<b>D - Clayton Williams Garden</b>	Site 2—120 feet, Site 31—120 feet	Enter: 9:15 a.m. Exit: 3:01 p.m. Duration: 5h 46m <b>Total for analysis day: 5h 46m</b>	N/A	Enter 12:15 p.m. Exit: 5:39 p.m. Duration: 5h 24m <b>Total for analysis day: 5h 24m</b>	Enter: 3:00 p.m. Exit: 6:27 p.m. Duration: 3h 27m <b>Total for analysis day: 3h 27m</b>

Note: Daylight saving time was assumed for the June, March, and May analysis dates

\* -The time shown represents one and one-half hours after sunrise and before sunset for the analysis date.

**Table 3.5-1, Continued**  
**Durations of Future Action Incremental Shadows on Resources of Concern**

Resource of Concern	Source of Shadow (Development sites and height in feet)	Dec 21 8:46 AM- 3:01 p.m. EST	June 21 6:54 a.m.- 7:00 p.m. EST	March 21 8:28 a.m.- 5:39 p.m. EST	May 6 7:19 a.m.- 6:27 p.m. EST
<b>E - Roosevelt Triangle</b>	Site 29—120 feet	N/A	Enter: 6:54 a.m. Exit: 8:45 a.m. Duration: 1h 51m <b>Total for analysis day: 1h 51m</b>	N/A	Enter 7:19 a.m. Exit 8:30 a.m. Duration: 1h 11m <b>Total for analysis day: 1h 11m</b>
<b>F - Marcus Garvey Memorial Park</b>	Site 21—290 feet	N/A	Enter: 6:54 a.m. Exit: 9:00 a.m. Duration: 2h 6m <b>Total for analysis day: 2h 6m</b>	Enter: 8:28 a.m. Exit: 9:00 a.m. Duration: 32m <b>Total for analysis day: 32m</b>	Enter 7:19 a.m. Exit 9:10 a.m. Duration: 1h 51m <b>Total for analysis day: 1h 51m</b>
<b>G - Dream Street Park</b>	Site 24—120 feet, Site 25—120 feet, Site 26—120 feet, Site 49—120 feet	N/A	Enter: 6:54 a.m. Exit: 1:30 p.m. Duration: 6h 36m Enter: 3:30 p.m. Exit: 6:30 p.m. Duration: 3h 0m <b>Total for analysis day: 9h 36m</b>	Enter: 8:40 a.m. Exit: 2:00 p.m. Duration: 5h 20m <b>Total for analysis day: 5h 20m</b>	Enter: 7:19 a.m. Exit: 1:40 p.m. Duration: 6h 21m Enter: 3:40 p.m. Exit: 5:40 p.m. Duration: 2h 0m <b>Total for analysis day: 8h 21m</b>
<b>H - Adam Clayton Powell Jr. State Office Building Plaza</b>	Site 6—290 feet, Site 9—160 feet, Site 10—290 feet, Site 11—160 feet, Site 12—160 feet, Site 13—160 feet, Site 36—160 feet	Enter: 8:46 a.m. Exit: 3:01 p.m. Duration: 6h 15m <b>Total for analysis day: 6h 15m</b>	Enter: 6:54 a.m. Exit: 1:30 p.m. Duration: 6h 36m Enter: 4:30 p.m. Exit: 7:00 p.m. Duration: 2h 30 m <b>Total for analysis day: 9h 6m</b>	Enter: 8:28 a.m. Exit: 5:39 p.m. Duration: 9h 11m <b>Total for analysis day: 9h 11m</b>	Enter: 7:19 a.m. Exit: 1:30 p.m. Duration: 6h 11m Enter: 3:00 p.m. Exit: 6:27 p.m. Duration: 3h 27m <b>Total for analysis day: 9 h 38m</b>

Note: Daylight saving time was assumed for the June, March, and May analysis dates

\* -The time shown represents one and one-half hours after sunrise and before sunset for the analysis date.

As detailed in the discussion below, the proposed action would create incremental shadows on six sunlight-sensitive open space resources and two sunlight-sensitive historic resources within the study area. Based on the preliminary shadow screening, no other potential sunlight-sensitive

resources are expected to experience incremental shadows from the proposed action projected or potential development sites. The discussion below focuses on the duration, location, and size of the shadows generated from the proposed action development sites, with respect to the sunlight-sensitive resources of concern that would experience the incremental shadows.

## **Historic Resources**

### **Resource A: The Church of St. Joseph of the Holy Family**

The Church of St. Joseph of the Holy Family complex is located at 405 West 125th Street/168 Morningside Avenue and is a complex of buildings consisting of a church and rectory, both constructed in 1860 and fronting on West 125<sup>th</sup> Street and a school on a separate building (1886-1889) at 168 Morningside Avenue and convent at 406 West 127<sup>th</sup> Street. The church grounds include a landscaped area that connects the church to the school on a separate building. The landscaped area is surrounded by a fence and is not publicly accessible. As discussed in Chapter 3.5, “Historic Resources,” the Church of St. Joseph of the Holy Family is considered a State and National Register eligible landmark. The church has stained glass features on the southern, eastern and western portions of the building. As shown in Figures 3.5-2 through 3.5-5, Sites 3, 28 and 29, would contribute to the shadow cast upon this historic resource.

#### ***December 21<sup>st</sup>***

During the morning hours of December 21<sup>st</sup>, Site 3 and Site 29 would cast incremental shadows on the resource from sunrise until 10:40 a.m., which would result in a total shadow duration of one hour and 56 minutes. These shadows would be confined to a portion of the eastern side of the building and would not cast incremental new shadows on the stained glass located on the northeastern portion of the resource. (see Figure 3.5-2a & 3.5-2b)<sup>1</sup>

#### ***June 21<sup>st</sup>***

During the June 21<sup>st</sup> analysis period, incremental shadows would again be cast by Site 28 during the morning hours (see Figure 3.5-3a & 3.5-3b). Incremental new shadows under the Future Action condition would enter the resource at 6:54 a.m. and would exit at 9:30 a.m., resulting in an incremental shadow of two hours and 36 minutes. As new shadows are generated only during the AM hours, they would be confined to the eastern portion of the building.

#### ***March 21<sup>st</sup>***

On the March 21<sup>st</sup> analysis period, the incremental shadows from Sites 28 and 29 under the Future With-Action scenario, when compared to the Future No-Action scenario, would first enter the church at 8:28 a.m., and exit at 11:00 a.m. (see Figure 3.5-4a & 3.5-4b). Therefore, the incremental new shadow would be cast on the resource for the duration of two hours and 32

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<sup>1</sup> All shadow figures can be found at the end of this chapter



minutes on the southeastern portion of the building. Approximately one-quarter of the building would receive this additional shadow.

### ***May 6<sup>th</sup>***

On May 6<sup>th</sup>, incremental shadowing from Site 28 would be cast on the northeastern portion of the building during the morning hours (see Figure 3.5-5a & 3.5-5b). Beginning at the entry time of 7:19 a.m., the shadow remains on this resource until 9:50 a.m., for a total incremental shadowing time of two hours and 31 minutes. As no shadows would enter during the afternoon hours, only the eastern portion of this resource is affected.

### **Resource B - Metropolitan Community United Methodist Church**

This State and National Register eligible resource, located on the corner of West 126<sup>th</sup> Street and Madison Avenue, is a two-story stone building containing a number of stained glass windows. According to NYC Department of Finance records, it is estimated to have been built in 1920. The church has stained glass features on the northern, southern and eastern side of the building. Incremental shadows resulting from the proposed action are cast upon this resource only during the December analysis Site 18, 19 and 21 contribute to the shadow on the site in the Future Action scenario.

### ***December 21<sup>st</sup>***

On December 21<sup>st</sup>, the Future Action shadows cast upon the Metropolitan Community United Methodist Church would first enter the resource at 8:46 a.m. (see Figures 3.5-6 and 3.5-7). Under this scenario, the incremental shadows would exit the historic resource at 1:00 p.m. Thus, there would be four hours and 14 minutes of incremental additional shadow cast primarily upon the southern half of the resource under the Future Action scenario.

During all other analysis periods (June 21<sup>st</sup>, March 21<sup>st</sup>, and May 6<sup>th</sup>), no incremental new shadows will be cast upon the Metropolitan Community United Methodist Church as a result of the proposed action.

## **Open Space Resources**

### **Resource C - William B. Washington Memorial Garden**

William B. Washington Memorial Garden is a small, 0.2 acre park located on West 126<sup>th</sup> Street between Frederick Douglas Boulevard and St. Nicholas Avenue. Containing passive recreation components, the William B. Washington Memorial Garden features a garden and landscaping. Site 2 and Site 31 contribute to the shadow on the site in the Future Action scenario.

### ***December 21<sup>st</sup>***

During the morning hours of December 21<sup>st</sup>, Site 2 and Site 31 would begin casting an incremental shadow on this resource beginning at 8:46 a.m. and lasting until 2:15 p.m. (see Figure 3.5-8 and 3.5-9). The total duration of incremental new shadows on this open space resource would total five hours and 29 minutes, and the shadow would impact a majority of the resource during this time.

### ***June 21<sup>st</sup>***

In the future with the action, none of the projected or potential development sites would cast incremental new shadows upon the William B. Washington Memorial Garden during this analysis day (see Figure 3.5-10).

### ***March 21<sup>st</sup>***

On the March 21<sup>st</sup> analysis period, the incremental shadow under the Future Action scenario, when compared to the Future No-Action scenario, would first enter the resource at 12:15 a.m., and exit at 3:45 p.m. (see Figure 3.5-11). Therefore the incremental new shadow would be cast on the resource for the duration of three hours and 30 minutes on the southern portion of the garden. Approximately one-third of the resource would receive this additional shadow.

### ***May 6<sup>th</sup>***

On May 6<sup>th</sup>, under the Future Action scenario, the shadow of Site 2 and Site 31 would not cause incremental new shadows to be cast upon the garden (see Figure 3.5-12).

## **Resource D - Clayton Williams Garden**

Clayton Williams Garden is located on West 126<sup>th</sup> Street between Frederick Douglas Boulevard and St. Nicholas Avenue. Consisting of 0.4 acres of passive recreation space, Clayton Williams Garden features amenities such as landscaping, benches, and a gazebo. Site 2 and Site 31 contribute to the shadow on the site in the Future Action scenario.

### ***December 21<sup>st</sup>***

On December 21<sup>st</sup>, in the Future Action scenario, the shadow increment would enter the garden at 9:15 a.m. and exit at 3:01 p.m. (see Figure 3.5-13 and 3.5-14). The total duration of the incremental new shadow under the Future Action scenario would be five hours and 46 minutes. In this scenario, the shadows of Site 2 and Site 31 would cause a new shadow to be cast upon the garden from 30 minutes after sunrise until sunset.

***June 21<sup>st</sup>***

There would be no shadows generated by the Site 2 and Site 31 cast upon the Clayton Williams Garden during the June 21<sup>st</sup> analysis period. Thus, there are no incremental shadows in the Future Action scenario (see Figure 3.5-15).

***March 21<sup>st</sup>***

On March 21<sup>st</sup>, under the Future Action scenario, Site 2 and Site 31 would cause an additional shadow to enter at 12:15 a.m. and stay on the garden until 5:39 p.m. (see Figure 3.5-16 and 3.5-17). The duration of the incremental shadows under the Future Action scenario would be five hours and 24 minutes.

***May 6<sup>th</sup>***

During the May 6<sup>th</sup> analysis period, under the Future Action scenario, a shadow enters the garden in the afternoon at 3:00 p.m., and exits at 6:27 pm (see Figure 3.5-18). As a result of shadows cast by Site 2 and Site 31, the total time duration of the incremental shadow under the Future Action scenario would be three hours and 27 minutes.

Resource E – Roosevelt Triangle

Roosevelt Triangle is a small, 0.035-acre passive green space bounded by West 125<sup>th</sup> Street, Morningside Avenue, and Hancock Place. The park contains landscaping and several benches at the perimeter.

***December 21<sup>st</sup>***

In the future with the action, none of the projected or potential development sites would cast incremental new shadows upon Roosevelt Triangle.

***June 21<sup>st</sup>***

During the June 21<sup>st</sup> analysis period, incremental shadows would be cast by Site 29 during the morning hours (see Figure 3.5-19). Incremental new shadows under the Future Action condition would enter the resource at 6:54 a.m. and would exit at 8:45 a.m., resulting in an incremental shadow of one hour and 51 minutes. Shadow impacts would be confined to a small central portion of the park.

***March 21<sup>st</sup>***

On the March 21<sup>st</sup> analysis period, no incremental shadow under the Future With-Action scenario would be cast upon Roosevelt Triangle.

### ***May 6<sup>th</sup>***

On May 6<sup>th</sup>, incremental shadowing from Site 29 would be cast on the northwestern portion of Roosevelt Triangle during the morning hours (see Figure 3.5-20). Beginning at the entry time of 7:19 a.m., the shadow remains on this resource until 8:30 a.m., for a total incremental shadowing time of one hour and 11 minutes. The southeastern portion of this resource receives considerable sunlight during these times.

### **Resource F – Marcus Garvey Memorial Park**

Marcus Garvey Memorial Park is one of Harlem’s largest active open space resources, with a total of 20.17 acres. Marcus Garvey Memorial Park contains 16.14 acres of active open space and 4.03 acres of passive open space. Facilities in the park include the Pelham Fritz Recreation Center and an Amphitheater (both located on the west side of the park at 122nd Street), swimming pool (on the north side of the park), and two playgrounds designed for infants and disabled children. A Little League baseball field occupies the southwest corner of the park. Only projected development site 21 contributes shadows onto Marcus Garvey Memorial Park.

### ***December 21<sup>st</sup>***

In the future with the action, none of the projected or potential development sites would cast incremental new shadows upon Marcus Garvey Memorial Park on the December 21<sup>st</sup> analysis day.

### ***June 21<sup>st</sup>***

During the June 21<sup>st</sup> analysis period, incremental shadows would be cast by Site 21 during the morning hours (see Figure 3.5-21). Incremental new shadows under the Future Action condition would enter the resource at 6:54 a.m. and would exit at 9:00 a.m., resulting in an incremental shadow of two hours and six minutes. As new shadows are generated only during the AM hours, they would be confined to the eastern portion of the resource and would not affect the pool or amphitheater elements of the park.

### ***March 21<sup>st</sup>***

On the March 21<sup>st</sup> analysis period, the incremental shadow under the Future With-Action scenario, when compared to the Future No-Action scenario, would first enter the church at 8:28 a.m., and exit at 9:00 a.m. (see Figure 3.5-22). Therefore, the incremental new shadow would be cast on the resource for the short duration of 32 minutes along the northern edge of the park. Only a small percentage of the park’s total area would receive this additional shadow.

### ***May 6<sup>th</sup>***

On May 6<sup>th</sup>, incremental shadowing from Site 21 would be cast from the northeastern onto the central portion of park during the morning hours (see Figure 3.5-23). Beginning at the entry time of 7:19 a.m., the shadow remains on this resource until 9:10 a.m., for a total incremental shadowing time of one hour and 51 minutes. The southeastern and northwestern portions of the park see considerable sunlight during these times.

### **Resource G – Dream Street Park**

Located on East 124<sup>th</sup> Street between 2<sup>nd</sup> and 3<sup>rd</sup> Avenues, Dream Street Park is a small 0.25-acre park consisting of landscaped areas and benches. The small open space is directly abutted by a tenement building to the west, by projected development site 26 to the east and by potential development site 49 to the north. Sites 24, 25, 26 and 49 contribute shadows upon Dream Street Park.

### ***December 21<sup>st</sup>***

In the future with the action, none of the projected or potential development sites would cast incremental new shadows upon Dream Street Park.

### ***June 21<sup>st</sup>***

During the June 21<sup>st</sup> analysis period, incremental shadows would be cast by Sites 24, 25 and 49 during several times of the day (see Figure 3.5-24 and 3.5-25). Incremental new shadows under the Future Action condition would first enter the resource at 6:54 a.m. and would exit at 1:30 p.m., resulting in an incremental shadow of six hours and 36 minutes. At 3:30 p.m., a shadow from Site 24 would enter the park for the duration of three additional hours and exit at 6:30 p.m. The total incremental shadow cast upon Dream Street Park during this analysis period is nine hours and 36 minutes.

### ***March 21<sup>st</sup>***

On the March 21<sup>st</sup> analysis period, the incremental shadow from Site 26 under the Future With-Action scenario, when compared to the Future No-Action scenario, would first enter the church at 8:40 a.m., and exit at 2:00 p.m. (see Figure 3.5-26). Therefore, the incremental new shadow would be cast on the resource for a total of five hours and 20 minutes on the north and western perimeter of the park. Less than one-quarter of the park would receive this additional shadow.

### ***May 6<sup>th</sup>***

On May 6<sup>th</sup>, incremental shadowing from Sites 25 and 49 would be first cast on the northwestern portion of the park during the morning hours (see Figure 3.5-27 and 3.5-28). Beginning at the

entry time of 7:19 a.m., the shadow remains on this resource until 1:40 p.m., for a total incremental shadowing time of six hours and 21 minutes. Beginning at 3:40 p.m., Site 24 would cast an additional shadow upon the park until 5:40 p.m., resulting in a new incremental shadow lasting two hours. The total incremental shadow cast upon Dream Street Park during this analysis day is eight hours and 21 minutes.

#### Resource H – Adam Clayton Powell, Jr. State Office Building Plaza

The Adam Clayton Powell Jr. State Office Building Plaza, which is approximately 0.5 acres, is mostly paved and contains passive open space elements like benches that provide seating, planters and sculpture. This public open space is located at West 125<sup>th</sup> Street and Adam Clayton Powell, Jr. Boulevard. Sites 6, 9, 10, 11, 12, 13 and 36 contribute shadows upon Adam Clayton Powell, Jr. State Office Building Plaza.

#### ***December 21<sup>st</sup>***

On the December 21<sup>st</sup> analysis period, the incremental shadow under the Future With-Action scenario, when compared to the Future No-Action scenario, would be cast from Sites 11, 12, 13 and 36 and would first enter the plaza at 8:46 a.m. At 3:01 p.m. the incremental shadow would exit the plaza (see Figure 3.5-29, 3.5-30, and 3.5-31). Therefore, the incremental new shadow would be cast on the resource for a total of six hours and 15 minutes on all portions of the plaza except the northeast corner. Approximately three-quarters of the plaza would receive this additional shadow during this analysis date.

#### ***June 21<sup>st</sup>***

During the June 21<sup>st</sup> analysis period, incremental shadows would be cast by Site 10 beginning in the morning (see Figure 3.5-32 and 3.5-33). Incremental new shadows under the Future Action condition would first enter the resource at 6:54 a.m. and would exit at 1:30 p.m., resulting in an incremental shadow of six hours and 36 minutes. Shadow would reenter the plaza at 4:30 p.m. and would remain under the end of the analysis period, resulting in additional incremental shadow of two hours and 30 minutes. The majority of the resource would be affected during these hours.

#### ***March 21<sup>st</sup>***

On the March 21<sup>st</sup> analysis period, the incremental shadow under the Future With-Action scenario, when compared to the Future No-Action scenario, would first enter the park at 8:28 a.m., and exit at 5:39 p.m. (see Figure 3.5-34 and 3.5-35), lasting the entirety of the analysis day. Therefore, the incremental new shadow would be cast on the plaza for a total of nine hours and 11 minutes.

## **May 6<sup>th</sup>**

On May 6<sup>th</sup>, incremental shadowing from Site 10 would be first cast diagonally through the central portion of the plaza during the morning hours (see Figure 3.5-36, 3.5-37, and 3.5-38). Beginning at the entry time of 7:19 a.m., the shadow remains on this resource until 1:30 p.m., for a total incremental shadowing time of six hours and 11 minutes. Beginning again at 3:00 p.m., an additional shadow from Sites 6, 9 and 11 would be cast upon the park until 6:27 p.m., resulting in a new incremental shadow lasting three hours and 27 minutes. The total incremental shadow cast upon the Adam Clayton Powell, Jr. State Office Building Plaza during this analysis day is 10 hours and 18 minutes.

### **Assessment of Potential Shadow Impacts**

According to the CEQR Technical Manual, a shadow is defined as the circumstance in which a building or other built structure blocks the sun from the land. An adverse shadow impact is considered to occur when the shadow from the projected or potential development falls on a publicly accessible open space, historic landscape, or other historic resource if the features that make the resource significant depend on sunlight, or if a shadow falls on an important natural feature and adversely affects its use and/or important landscaping and vegetation. The uses and vegetation in an open space establish its sensitivity to shadows. Uses that rely on sunlight include passive use, such as sitting or sunning, and such activities such as gardening, or children's wading pools and sprinklers. Vegetation requiring sunlight includes tree canopy and flowering plants. Where lawns, natural or artificial, are actively used, the turf also requires extensive sunlight. For these activities and plants, four to six hours a day of sunlight, particularly in the growing season, is often a minimum requirement. In general, shadows on city streets and sidewalks and on other buildings are not considered significant under CEQR.

The proposed action would result in significant adverse shadow impacts on four of the sunlight-sensitive resources analyzed above: The Church of St. Joseph of the Holy Family, Metropolitan Community United Methodist Church, Dream Street Park, and the Adam Clayton Powell, Jr. State Office Building Plaza. The incremental shadow cast on the Williams B. Washington Memorial Garden, Clayton Williams Garden, Roosevelt Triangle, and Marcus Garvey Memorial Park under the proposed action are not considered significant as described below. The following is a review of the six identified resources of concern and assessment of the incremental shadows on the resources created by the proposed action.

#### **Resource A - Church of St. Joseph of the Holy Family**

The Church of St. Joseph of the Holy Family complex, located at 405 West 125th Street/168 Morningside Avenue, is a complex of buildings consisting of a church and rectory, both constructed in 1860 and fronting on West 125<sup>th</sup> Street and a discontinuous school (1886-1889) at 168 Morningside Avenue and convent at 406 West 127<sup>th</sup> Street. The church can be seen in Photograph 15 of chapter 3.6, "Historic Resources." the Church of St. Joseph of the Holy Family is considered a State and National Register eligible landmark. The church has stained glass

features on the southern, eastern and western portions of the building. However, given the placement of the church and the shadow sweep from the projected and potential development sites that would affect this resource (Sites 3, 28 and 29), only the stained glass features on the eastern and southern facades have the potential to be affected by the proposed action. A small open space and backyard garden area are present behind the church, though these are not publicly accessible spaces and were therefore not considered in this shadowing impact analysis.

Incremental new shadows would be cast on the church during each of the four days analyzed. During the December 21<sup>st</sup> analysis period, Site 3 and Site 29 would cast an incremental new shadow lasting one hour and 56 minutes, entering the stained-glass features of the resource at approximately 8:46 a.m. and exiting the stained-glass features of the resource at approximately 10:40 a.m. At 8:46 a.m. all stained-glass windows on the southern and eastern façades of the building would be covered by the incremental shadow. As the morning progresses and the shadow shifts to the north, the incremental shadow would reach its maximum coverage period (when compared to the no-action shadow condition) at about 9:15 a.m. (See Figure 3.5-2a) and all windows on the eastern and southern façades of the church would be at this time covered by a combination of incremental shadows and shadows resulting from existing structures. ~~shadow would remain only on the stained-glass windows located towards the rear of the eastern façade.~~ After this point, the incremental shadow begins to recede off the stained-glass features and by approximately 10:30 a.m. it is expected that only two of the four of the ten stained-glass windows on the eastern façade would still be affected by the incremental shadow (See Figure 3.5-2b). ~~The shadow continues moving north across the stained-glass windows on the eastern façade until just before the shadow ultimately exits the stained-glass windows of the church at approximately 10:40 a.m.~~

On June 21<sup>st</sup>, Site 28 would cast an incremental shadow on the church for two hours and 36 minutes from 6:54 a.m. to 9:30 a.m. At the beginning of the analysis period the shadows are initially cast entirely on the southern façade and on the front half of the eastern façade, ~~and Five of the six large stained glass windows along the eastern façade nave of the church will be affected at this time.~~ By 8:00 a.m., As the incremental shadow moves north, it reaches its maximum coverage period (when compared to the no-action shadow condition) at about 8:00 a.m. (See Figure 3.5-3a) when the incremental shadow is cast upon the will “sweep” across the ~~eastern portion of the building and east shadows on four stained glass windows on the eastern portion of the church’s nave and a portion of the rectory’s stained-glass windows, of the northern half of the nave and stained-glass windows of the rectory.~~ Only a portion of the four stained-glass windows of the rectory would continue to experience incremental shadow by 9:00 a.m. (See Figure 3.5-3b). The shadow exits the northernmost window of the rectory just before 9:30 a.m.

On March 21, Sites 28 and 29 would cast an incremental shadow on the church for two hours and 32 minutes, from 8:28 a.m. to 11:00 a.m. At the start of the analysis period, net new shadows from these sites would be cast on a portion of the stained-glass windows located at the northern and south portions end of the eastern façade. At approximately 9:30 9:45 a.m. the incremental shadow reaches its maximum coverage period (when compared to the no-action shadow condition). At this time, from Site 28 exits the resource, and only the first three-four



windows at the ~~front~~ southern end of the church's ~~nave on the~~ eastern façade are partially or totally cast in incremental shadow (See Figure 3.5-4a). By ~~10:30~~ 10:45 a.m., as the shadow from Site 28 continues shifting north, the rear four windows in rear portion of the church's nave are in ~~are only partially cast in incremental shadow (See Figure 3.5-4b).~~ By 11:00 a.m. the shadow has receded from the stained-glass windows and no longer on the resource.

During the May 6<sup>th</sup> analysis date, Sites 28 and 29 would cast an incremental shadow on the church for two hours and 31 minutes from 7:19 a.m. to 9:50 a.m. At the start of the analysis period, the stained-glass windows located at the rectory (the rear end of the eastern side portion of the resource) church nave would receive incremental shadow from Site 28, while the southern portion remains unaffected. As the morning progresses, the incremental shadow from Site 28 and 29 moves north and at approximately 8:15 a.m. reaches the maximum coverage period (when compared to the no-action shadow condition), covering the last two windows on the eastern portion of the church's nave and most of the stained-glass windows of the rectory (See Figure 3.5-5a). ~~at the northern and southern edges of the building would receive shadows from Sites 28 and 29, respectively.~~ The length of the shadows diminishes through the course of the morning and by 9:30 a.m. only a small portion of the stained-glass windows located at the rectory are still covered by incremental shadow (See Figure 3.5-5b). At approximately 9:50 a.m. the incremental shadows from Sites 28 and 29 are no longer cast on the stained-glass windows of the church.

As described above, development Sites 3, 28 and 29 would cast incremental shadows on the church's stained glass windows. However, it should be noted that Sites 28 and 29, the closest to the church, are potential development sites which are therefore considered less likely to be developed in the future with the proposed action. Only Site 3, which is farthest from the church, is as a projected development site, which is considered to be more likely to be developed in the future with the proposed action.

~~A more detailed shadow analysis will be provided in the FEIS to determine more precisely the extent of the shadow coverage on the church's sunlight sensitive stained glass windows. However, Based on the preliminary analysis provided above, it appears that the proposed action would result in a substantial reduction in sunlight on the church's stained glass windows, and therefore would potentially detract from their architectural significance. The proposed action could generate new development that would cause incremental shadows to be cast upon the Church of St. Joseph of the Holy Family for a significant period of time during all four seasonal analysis periods. This reduction in sunlight would detract from the architectural significance of the windows, and result in a significant adverse shadow impact. Potential mitigation measures are discussed below and in Chapter 3.22, Mitigation.~~

#### Resource B - Metropolitan Community United Methodist Church

This State and National Register eligible resource, located on the corner of West 126<sup>th</sup> Street and Madison Avenue, is a two-story stone building containing a number of stained glass windows. The church has stained glass features on the northern, southern and eastern side of the building. The church can be seen in Photograph 28 of Chapter 3.6, "Historic Resources." Constructed in

1871 for the congregation of St. James Methodist Episcopal Church, the church and its adjoining parsonage retain a high degree of architectural integrity. The church is a fine example of Gothic Revival design and displays elements typical of the style including pointed arched openings, elaborate window surrounds, corner towers and buttresses.

Projected development sites 18, 19 and 21 contribute to the shadow on the site in the Future Action Scenario. Shadows from site 18, 19, and 21 would add an additional incremental shadow for four hours and 14 minutes during the December 21<sup>st</sup> analysis time period only, remaining on the church until 1:00 p.m. In the other three analysis time periods (June 21<sup>st</sup>, March 21<sup>st</sup> and May 6<sup>th</sup>) no incremental shadows would be generated by projected development site 18, 19, or 21. Given the placement of the church and the shadow sweep from the projected and potential development sites that would affect this resource (Sites 18, 19 and 21), only the stained glass features on the eastern and southern facades have the potential to be affected by the proposed action.

Beginning at the analysis period (8:46 a.m.), At 9:00 a.m., during the December 21<sup>st</sup> analysis day, the incremental shadow would cover all the stained glass features of the church, begin to enter the large stained glass window and three smaller stained glass windows on the southwest corner of the church fronting 126<sup>th</sup> Street. At approximately 9:30 a.m., the incremental shadow reaches its period of maximum coverage (when compared to the no-action shadow condition) and the stained-glass windows of the church on the eastern and southern facades are covered in incremental shadow (See Figure 3.5-6). incremental shadows would cover the entire southern façade of the church, and all stained-glass windows on the southern façade would be cast in shadow during this time. By 11:30 a.m., as shadows continue moving east, incremental shadow from Site 21 would enter the resource, though it only affects the stained glass windows on the far ends of the southern façade. The shadow continues moving east, and by 12:00 12:30 p.m. only a portion of the the large stained-glass window in the rear end of the center of the building's southern façade would still experience incremental shadows (See Figure 3.5-7). By 12:30 p.m., no further incremental shadows are cast upon the church's stained glass windows, and the incremental shadow exits the resource entirely at approximately after 1:00 p.m.

Although the incremental shadows from projected development sites are limited to the winter season only, the analysis indicates that the duration of the incremental shadows on this resource during the winter analysis period would be substantial. Incremental shadows are cast upon the church for a total period of four hour and 14 minutes, beginning at the start of the analysis time (8:46 a.m.) and not receding until 1:00 p.m. A more detailed shadow analysis will be provided in the FEIS to determine more precisely the extent of the shadow coverage on the church's sunlight sensitive stained glass windows during the December analysis period. However, based on the above preliminary analysis, The relatively long duration of the incremental shadow appears that the proposed action would potentially detract from the architectural significance of the church's stained glass windows and is due to the long duration of the incremental shadows. Based on the preliminary analysis, this is considered to be a significant adverse shadow impact. Potential mitigation measures are discussed below and in Chapter 3.22, Mitigation.

### Resource C - William B. Washington Memorial Garden

William B. Washington Memorial Garden is a small, 0.2 acre park located on West 126<sup>th</sup> Street between Frederick Douglas Boulevard and St. Nicholas Avenue. Containing passive recreation components, the William B. Washington Memorial Garden features a garden and landscaping elements. The garden is the site of community events including barbeques, holiday parties, workshops, plantings and food distribution. Vegetation includes collards, peppers, cucumbers, okras, fruit trees and willows. The garden was founded in 1993.

As discussed above, incremental shadows are expected to be cast upon the William B. Washington Memorial Garden during the December 21<sup>st</sup> and March 21<sup>st</sup> analysis time periods. Site 2 and Site 31 are expected to cast an additional shadow lasting five hours and 29 minutes on the December 21<sup>st</sup> analysis date. This shadow will enter the southwest corner of the resource at 8:46 a.m., and will gradually increase until 10:30 a.m., when the maximum shadow will be cast, with approximately 75 percent of the resource in the shadow of Site 31 (see Figure 3.5-9). The shadow sweep continues across the resource and ultimately exits the northeast corner at 2:15 p.m.

Site 31 casts incremental additional shadow on the garden for three hours and 30 minutes on March 21<sup>st</sup>. During the March 21<sup>st</sup> analysis period, the net new shadow enters the southern portion of the resource at 12:15 p.m. The longest shadow will be cast on the garden at 1:30 p.m. (see Figure 3.5-11), with approximately 33 percent of the resource cast in a shadow confined to the southern portion of the garden. This shadow cast on the garden during the March 21<sup>st</sup> analysis period emanates from Site 31 and ultimately exits the resource at 3:45 p.m.

The detailed shadow assessment found that development under the proposed action would result in incremental shadows on the William B. Washington Memorial Garden during the December 21<sup>st</sup> and March 21<sup>st</sup> analysis time periods. During these two analysis periods, gardening activity is expected to be minimal. While the maximum shadow would be cast across approximately 75 percent of the garden during the December 21<sup>st</sup> analysis time period and approximately 33 percent of the garden during the March 21<sup>st</sup> period, the incremental shadows occur during the December and March analysis periods and are not within the prime April to October growing period. Therefore, the new incremental shadows on Washington Memorial Garden in the Future Action scenario would not be expected to be significant. Thus, no significant adverse shadow impact is expected on the garden.

### Resource D - Clayton Williams Garden

Clayton Williams Garden is located on West 126<sup>th</sup> Street between Frederick Douglas Boulevard and St. Nicholas Avenue. Consisting of 0.4 acres of passive recreation space, Clayton Williams Garden features amenities such as vegetation, landscaping, benches, and a gazebo. The garden

was founded in 1989. Events offered at the garden include arts, culture, education recreation and youth programming.

As discussed in detail above, Site 2 and Site 31 are expected to cast incremental shadows on the Clayton Williams Garden in the December, March, and May analysis time periods. On December 21<sup>st</sup>, it was determined that the proposed action would cast an incremental additional five hours and 46 minutes of shadow on the garden. On March 21<sup>st</sup>, the analysis determined that the proposed action would cast an incremental shadow of five hours and 24 minutes on the garden. As is the case with the Washington Memorial Garden, the incremental shadows cast by Site 2 and Site 31 that occur during December 21<sup>st</sup> and March 21<sup>st</sup> would occur outside the April to October growing season, and therefore are not expected to adversely impact any light-sensitive resources such as vegetation. During the May 6<sup>th</sup> analysis date, the incremental new shadow enters the southern portion of the resource at 3:00 p.m. At 4:00 p.m., Sites 2 and 31 will begin casting incremental shadows upon the light-sensitive vegetation of the garden, which is located in planters running through the southern portion of this resource. At 5:00 p.m., the maximum net new shadow will be cast on the Washington Memorial Garden, and the southern portion, or approximately 50 percent, of this “L” shaped garden will be in shadow. Several benches are present in this affected area, and it is expected that these features of the garden would be cast in shadow during this time. The gazebo and plantings in the northern portion of the garden will not be affected during the May 6<sup>th</sup> analysis period. At 6:00 p.m. the shadow begins receding from the southern portion of the garden. The shadow will continue moving to the southeast until 6:27 p.m., which represents the end of the analysis day (one and one-half hour before sunset). No new net shadows will result from the proposed action during the June 21<sup>st</sup> analysis date.

While the incremental shadows cast during the May 6<sup>th</sup> analysis period occur during the vegetative growing season, the incremental shadow duration of three hours and 27 minutes is not expected to result in less than the minimum sunlight necessary for the survival of the garden’s vegetation. Furthermore, of the two sites that would cast the incremental shadows, Site 31 has been identified as a potential development site and is considered to be less likely to be developed in the future with the proposed action than Site 2, which is identified as a projected development site. As these net new shadows are not expected to result in a significant reduction in available sunlight for the garden’s light-sensitive elements such as vegetation and benches, no significant adverse shadow impacts are expected to this resource.

### Resource E – Roosevelt Triangle

Roosevelt Triangle is a small, 0.035-acre passive green space bounded by West 125<sup>th</sup> Street, Morningside Avenue, and Hancock Place. The park contains landscaping and several benches along the northern and southwestern perimeter.

As discussed above, as a result of the proposed action, potential development site 29 is expected to cast new shadows upon Roosevelt Triangle. These shadows would occur during the June and May analysis dates, with no incremental shadow expected to be cast during the December and

March dates. On June 21<sup>st</sup>, the analysis concluded that the proposed action would cast an incremental shadow of one hour and 51 minutes on the park. On May 6<sup>th</sup>, it was determined that the proposed action would cast an incremental shadow onto the park for a total of one hour and 11 minutes.

The analysis date in which the shadow of the longest duration would be cast by Site 29 would be June 21<sup>st</sup>. This shadow would extend the length of the resource and would be confined to a small section in the middle of the open space which contains sunlight-dependent vegetation and several benches along the northern and southwestern perimeter. The exiting time for this shadow would be 8:45 a.m., with the May 6<sup>th</sup> shadow exit time of 8:30 a.m. Whereas the June and May analysis dates do occur within the growing season for plants and other vegetation, it is expected that the reduction in sunlight that will occur will not result in any significant impacts due to the relatively short shadow duration and early exit time. Additionally, the benches at the perimeter of the resource will see incremental shadowing as well, though due to the exit time and duration, the effect of these shadows on the usability of these seating areas would be minimal. Therefore no significant adverse impacts are expected to this open space resource.

#### Resource F – Marcus Garvey Memorial Park

Marcus Garvey Memorial Park is one of Harlem's largest active open space resources, with a total of 20.17 acres. Marcus Garvey Memorial Park contains 16.14 acres of active open space and 4.03 acres of passive open space. Facilities in the park include the Pelham Fritz Recreation Center and an Amphitheater (both located on the west side of the park at 122nd Street), swimming pool (on the north side of the park), and two playgrounds designed for infants and disabled children. A Little League baseball field occupies the southwest corner of the park.

As previously discussed, under the proposed action, projected development site 21 contributes shadows onto Marcus Garvey Memorial Park. These shadows would occur during the June, March, and May analysis periods. On June 21<sup>st</sup>, it was determined that the projected development would cast an incremental new shadow of two hours and six minutes on the park during the morning hours. On March 21<sup>st</sup>, the shadow analysis indicated shadowing from Site 21 would be cast for a duration of 32 minutes. On the May 6<sup>th</sup> analysis day, it was concluded that an incremental shadow lasting one hour and 51 minutes would be cast upon the park. No incremental shadow will be cast during the December analysis period.

The analysis date in which the longest shadow would be cast by Site 21 would be June 21<sup>st</sup>, which is during the summer season when park usage is heaviest. However, this incremental shadow exits the park at 9:00 a.m. and does not re-enter at any other time during that day. Additionally, during the May analysis date, no incremental new shadow is cast upon the park after 9:10 a.m. While some of the park's sunlight-dependent features, including trees, plantings, and other vegetation, would see a reduction of sunlight during the April to October growing season, this is not considered a substantial reduction in sunlight due to the short shadow duration and relatively early shadow exit. Therefore, no significant shadow impact is expected on Marcus Garvey Memorial Park.

### Resource G – Dream Street Park

Located on East 124<sup>th</sup> Street between 2<sup>nd</sup> and 3<sup>rd</sup> Avenues, Dream Street Park is a small 0.25-acre park consisting of grassy landscaped areas, benches, and a small stage. The small open space is directly abutted by a tenement building to the west, by projected development site 26 to the east and by potential development site 49 to the north.

As discussed in the shadow assessment, Sites 24, 25, 26, and 49 contribute shadows onto Dream Street Park, and these shadows occur during the June, March, and May analysis periods. On June 21<sup>st</sup>, incremental shadowing for a total of nine hours and 36 minutes would be cast upon the park. During the March 21<sup>st</sup> analysis period, the study indicated shadowing from Site 26 for a total of five hours and 20 minutes. On the May 6<sup>th</sup> analysis day, it was concluded that Dream Street Park would receive eight hours and 21 minutes of additional shadow under the Action scenario.

Projected and potential development sites contribute extensive shadowing on Dream Street Park during three of the four analysis days. During the June analysis period, when park usage is assumed to be heaviest, the incremental shadowing will begin at 6:57 a.m., which represents the start of the analysis day. At 8:00 a.m., the net new shadow is cast upon the northwestern portion of the park, which contains a storage shed and a portion of the heart-shaped pathway. The shadow begins diminishing in size towards late morning. By 10:00 a.m. only the benches and pathway in the southern half of the park would be cast in shadow from Site 26. This shadow continues to move to the east until 1:30 p.m., when it exits the resource. The southern and eastern areas of the park, which include benches, trees, and the small wooden stage, would experience the majority of the shadow during the June 21<sup>st</sup> analysis time period. At 3:30 p.m., new shadows from Site 24 enter the park from the west and remain until 6:30 p.m. The incremental difference between Future No-Action and Future Action shadows are projected to be limited, with only a small portion of the park's northeast corner affected during this second shadow sweep. No light-sensitive benches or plantings are present at this portion of the park.

The March analysis period will see five hours and 20 minutes of incremental shadows resulting from the surrounding projected and potential developments. Entering at 8:40 a.m., additional shadows would be cast on the northeastern quadrant of the park from Site 26. This shadow will continue west, and at 10:30 a.m. the storage shed in the northwest corner of the park will see new shadows from Site 26. This shadow will begin receding to the northeast, and at 12:30 p.m. only the trees and a small section of pathway in the northeastern corner of the park would receive additional shadows. The shadow from Site 26 is projected to exit the resource completely at 2:00 p.m. During the May analysis period, extensive incremental shadowing would be present within Dream Street Park for a total of eight hours and 21 minutes. Beginning at 7:19 a.m., shadows from Sites 25 and 49 will be cast on a portion of the pathway and several benches in the northwest portion of the park. Towards the later morning hours the park begins to receive more sunlight, and at 11:00 a.m. several benches and the small stage in the center of the park will receive additional shadow impacts. This shadow from Site 26 continues moving northeast until,

at 1:30 p.m., it exits the resource completely. The park therefore remains in sunlight until 3:40, when shadows from Site 24 enter from the west and cast net new shadows upon the mosaic benches and a portion of the pathway in the northern section of the park. This second shadow entry lasts until 5:40 p.m. and only affects these northern elements of the park. In addition to the mosaic benches, the small benches and stage in the eastern half of the park are likely to be affected during this shadow period.

Of the four sites casting shadows upon the resource, Site 49 is a potential development site and is therefore considered less likely to be developed than Sites 24, 25 and 26. The elements of the park most likely to be affected include the benches within the park, which are defined by the *CEQR Technical Manual* as an element that relies on sunlight. The variety of vegetation present in the park does not appear to be species that would be adversely affected by the loss in sunlight associated with this action. The park vegetation consists of a limited number of trees and shrubs and grass. The grass in the park is considered shade tolerant to the extent that the incremental shadows generated by the projected and potential development sites are not expected to reduce sunlight within the park to levels that are less than necessary for its survival. However, due to the presence of passive recreation features in the park and the duration of the net new shadows that would be cast during the peak times of year for park utilization, a significant adverse impact would result from the proposed action. Potential mitigation measures are discussed below.

#### Resource H – Adam Clayton Powell, Jr. State Office Building Plaza

The Adam Clayton Powell Jr. State Office Building Plaza, which is approximately 0.5 acres, is mostly paved and contains passive open space elements such as perimeter benches that provide seating, along with tree planters and a sculpture (see Figure 3.5-39). The plaza is occasionally programmed with events during the summer months.

As indicated in the shadows analysis above, Sites 6, 9, 10, 11, 12, 13, and 36 are all expected to contribute incremental new shadows onto the Adam Clayton Powell Jr. State Office Building Plaza during all four analysis periods. On December 21<sup>st</sup>, Sites 10, 11, 12, 13, and 36 are expected to cast shadows upon a majority of the plaza for a total of six hours and 15 minutes. At 8:46 a.m., the shadow from Site 12 enters the plaza from the southeast, and by 9:30 the central paved area and the tree planters located in the center of the plaza would experience incremental shadow effects. The shadow continues moving to the east, and by 11:30 a.m., shadows from Sites 12 and 36 are cast upon the tree planters in the northeast corner of the plaza, and Site 11 adds a slight additional shadow to the southwest section where the sculpture and several benches are located. The shadow from Site 11 begins stretching north into the plaza, and by 1:30 p.m. a large portion of the western half of the plaza, including the benches at the perimeter, are cast in shadow. Site 11's shadow continues moving east across the plaza until 3:01 p.m., when the incremental shadow exits the resource. During this December analysis period, the main affected elements are expected to be the benches at the western perimeter of the plaza.

On June 21<sup>st</sup>, the net new shadow cast upon the plaza would be from Site 10, and would last a total of six hours and 36 minutes. Entering from the east at 6:54 a.m., the shadow from Site 10

would initially be cast through the center of the plaza, which contains wooden benches and tree planters. As the morning progresses, this shadow would continue extending to the west, and by 9:00 a.m. Site 10's longest shadow is cast upon the plaza, and would extend to Adam Clayton Powell, Jr., Boulevard, thereby shadowing all benches along the southern perimeter of the resource, as well as all tree planters situated within the plaza. This shadow begins retracting by 10:00 a.m., and at 12:00 p.m. the incremental shadow begins shifting north. At this time only the tree planters in the northeast section of the plaza are cast in shadow. By 1:30 p.m. the shadow exits the northeast edge resource, and does not re-enter for the remainder of the analysis day. No additional shadow effects from nearby development sites are expected after this time.

During the March 21<sup>st</sup> analysis date, incremental shadows would be cast upon the resource from one and one-half hours after sunrise (8:28 a.m.) until one and one-half hours before sunset (5:39 p.m.). When compared to Future No-Action shadow conditions, incremental new shadows from Site 10 would be cast from the east onto the southwest corner of the plaza beginning at 8:28 a.m. By 10:30 a.m., the entire resource would be cast in Site 10's shadow, with the exception of the benches at the southern perimeter of the plaza. This shadow will continue moving northeast towards late morning, and at 11:30 a.m. a majority of the benches on the western perimeter, in addition to those on the southern perimeter, will be out of Site 10's shadow. At approximately 2:30 p.m., the shadow from Site 10 will exit the plaza at the northeast corner, and incremental shadowing from Site 11 will enter from the southwest edge near the plaza's sculpture. This shadow will continue moving east in the afternoon, and by 4:30 p.m. would be on the southern and central portion of the plaza, including the immobile benches along the perimeter and the mobile wooden benches towards the center of the plaza. The shadow from Site 11 would stretch further north as the afternoon progresses, and by 5:30 p.m. it is forecasted to reach development Site 10, thereby shadowing a majority of the plaza. During this time shadows from Sites 6 and 9 are expected to enter the resource from the west, with shadows cast upon the benches along the western perimeter of the plaza until 5:39 p.m., which represents the end of the analysis day.

Action-generated shadow effects are also expected during the May 6<sup>th</sup> analysis date, with Sites 6, 9, 10, and 11 all contributing shadows upon the Adam Clayton Powell Jr. State Office Building Plaza during this time. Beginning at 7:19 a.m., the shadow from Site 10 enters the plaza from the east, and the incremental shadow is cast upon the benches and planters on the southern portion of the resource. This shadow begins receding towards late morning, and by 11:00 a.m. the shadow from Site 10 no longer reaches the benches along the western perimeter of the plaza. The remainder of the plaza is cast in shadow during this time. This shadow continues moving to the northeast, and by 1:30 p.m. the shadow from Site 10 exits the plaza. At 2:40 p.m., shadow from Site 11 enters from the south, and begins to cast shadows upon the benches along the southern perimeter of the plaza. As this shadow moves to the east, additional shadows enter from Sites 6 and 9 at approximately 6:00 p.m. and affect the public benches along the west and southwest portions of the resource, respectively. The analysis day ends at 6:27 p.m., and at this time the shadows from 6, 9 and 11 are present along the southern and western edges of the plaza. It is during this analysis date that the shadow impact of greatest duration would occur, with a total of ten hours and 18 minutes of incremental new shadow cast upon the plaza.



The Adam Clayton Powell Jr. State Office Building Plaza is located within the portion of the corridor where the highest building heights are allowed. Sites 6 and 10 are located within the C4-7 zoning district, which allows a maximum building height of 290 feet. Both of these sites are expected to cast shadows upon the resource. With benches and planters with vegetation located along the perimeter and in the northeast corner of the plaza, the center portion contains a paved area which serves as a pathway or meeting area. While the majority of the plaza is mostly paved, the plaza is programmed with events during the summer. As extensive shadowing occurs on these elements throughout the December, June, March, and May analysis dates, a significant adverse impact is expected to occur in the future with the proposed action. Potential mitigation measures are discussed below.

## MITIGATION

### Church of St. Joseph of the Holy Family and Metropolitan Community United Methodist Church

As discussed above, the proposed action would result in significant adverse shadow impacts to two historic resources: the Church of St. Joseph of the Holy Family and the Metropolitan Community United Methodist Church. A potential mitigation measure for the identified impact on these two resources includes the use of artificial lighting to simulate the sunlit conditions. The provision of indirectly mounted lighting could simulate lost sunlight conditions at the affected stained glass windows of each resource. After the issuance of the DEIS, the Department of City Planning, in consultation with the NYC Landmark Preservation Commission, concluded that the mitigation measures described above are not feasible and that there are will explore this mitigation measure and other potential mitigation measures between the Draft and Final EIS. If no other feasible or practicable measures that would eliminate or reduce the impacts. Therefore, the significant adverse shadow impacts on these two resources remain unmitigated.

### Dream Street Park and Adam Clayton Powell, Jr. State Office Building Plaza

As discussed above, the proposed action would result in significant adverse shadow impacts to ~~two open space resources:~~ Dream Street Park ~~and the Adam Clayton Powell, Jr. State Office Building Plaza.~~ Potential mitigation measures for these shadow impacts include relocating facilities the sun-light sensitive features of the park to avoid sunlight loss – specifically relocating benches and/or seating areas, relocating vegetation to avoid shadows, or replacing vegetation with shade-tolerant species to withstand shady conditions. Additional potential mitigation measures include the provision of new passive facilities on other nearby open spaces to supplement those affected by the action generated shadows. Since the issuance of the DEIS, the Department of City Planning consulted with the NYC Department of Parks and Recreation (DPR) regarding the feasibility of implementing the potential mitigation measures identified. Based on these discussions, DPR concluded that relocating seating areas and replacing plant material was feasible and would allow for partial mitigation of the shadow impacts. If DPR funding becomes available to implement these improvements prior to the project's build year of 2017, the impacts could be partially mitigated. Absent available funding for the improvements, the significant adverse shadow impacts would remain unmitigated.

### Adam Clayton Powell, Jr. State Office Building Plaza

The proposed action would result in significant adverse shadow impacts to the Adam Clayton Powell, Jr. State Office Building Plaza. Mitigation measures for these shadow impacts include redesigning the plaza to relocate sun-light sensitive features to avoid sunlight loss, or the provision of new passive facilities on other nearby open spaces to supplement those affected by the action generated shadows. After the issuance of the DEIS, the Department of City Planning became aware of a proposal for redesigning and reconstructing the Adam Clayton Powell, Jr. State Office Building Plaza. Given this opportunity, the Department of City Planning has extended an offer to work closely with the State to ensure that the redesign of the plaza takes into consideration these potential impacts and minimizes their significant adverse nature. However, because the redesign plans for the plaza had not been finalized by the time of the FEIS, the significant adverse impact remains unmitigated.

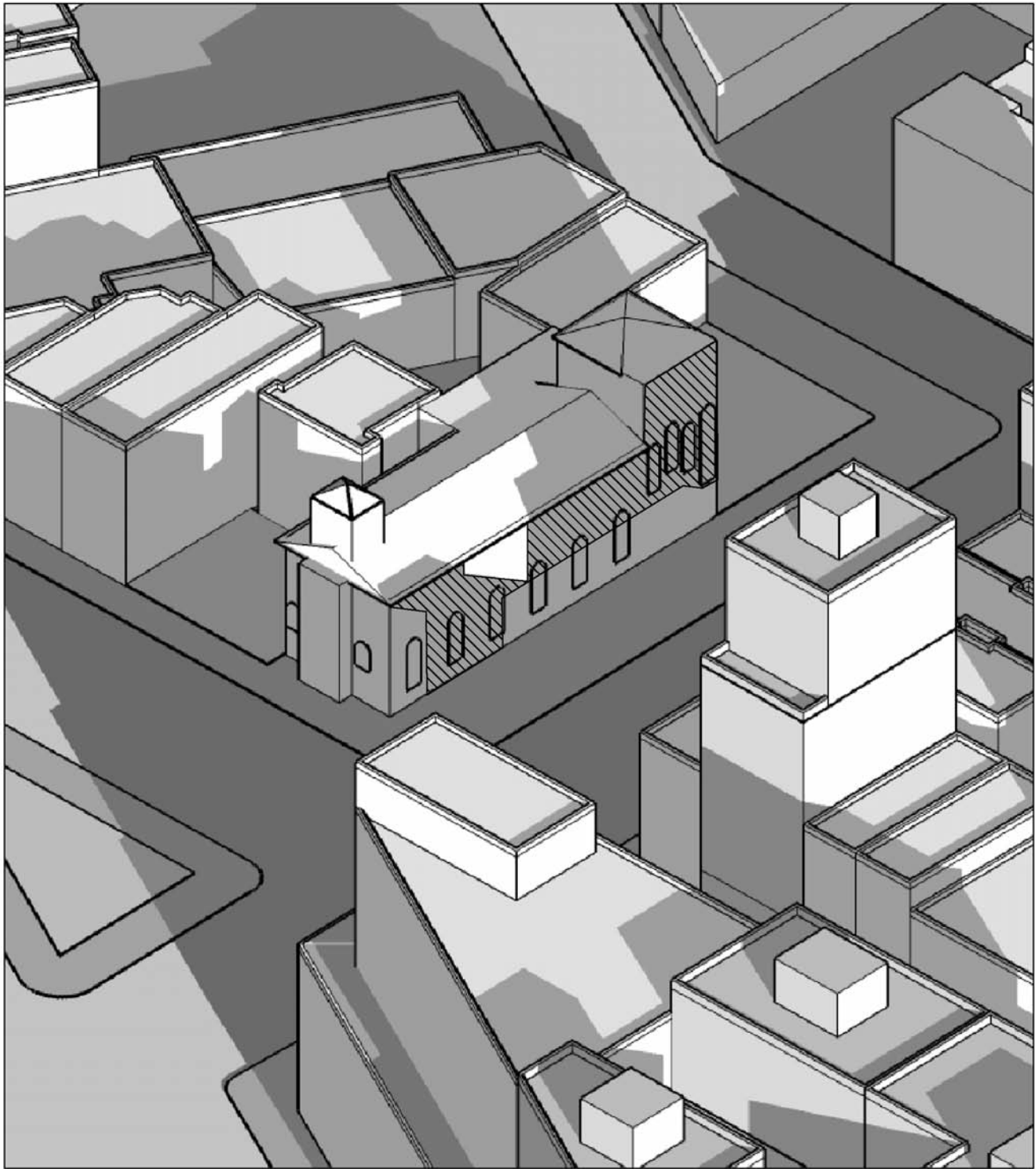
Analyses of alternatives which would eliminate or reduce the impacts of the proposed action are provided in the Alternatives chapter. The conclusion of the Alternatives chapter is that there are no alternatives which would eliminate or substantially reduce these shadow impacts while meeting the goals and objectives of the proposed action.



## CONCLUSION

The proposed action would result in significant adverse shadow impacts on four sunlight-sensitive resources: The Church of St. Joseph of the Holy Family, the Metropolitan Community United Methodist Church, Dream Street Park, and the Adam Clayton Powell, Jr. State Office Building Plaza would receive incremental new shadows as a result of the proposed action that are considered to have a significant adverse impact on these resources. As described above, since the DEIS, the Department of City Planning consulted with the Department of Parks and Recreation (DPR) and concluded that certain improvements at Dream Street Park were feasible, specifically relocation of benches and relocating or replacing plant material, and would partially mitigate the significant adverse shadow impacts. Absent DPR funding to implement these improvements, the significant adverse shadows impacts would remain unmitigated. Additionally, the Department of City Planning has extended an offer to work closely with the State to ensure that the redesign of the Adam Clayton Powell, Jr. State Office Building Plaza takes into consideration the potential shadow impacts and minimizes their significant adverse nature. However, because the redesign plans for the plaza had not been finalized by the time of the FEIS, the significant adverse impact remains unmitigated. For the remaining two sunlight sensitive resources, the Department of City Planning in consultation with the appropriate City and State agencies, will explore potential mitigation measures for these impacts between the Draft and Final EIS. If has concluded that there are no feasible or practicable mitigation measures that can be identified implemented to mitigate these impacts, and the significant adverse shadow impacts on the two historic resources would remain unmitigated.

As discussed above, for all of the other public open space resources analyzed, each would continue to receive a minimum of four hours of sunlight during the growing season and the proposed action would not result in a substantial reduction in sunlight to any sun-sensitive uses or features. As such, the proposed action would not result in significant adverse shadow impacts on those open space resources. Aside from the Church of St. Joseph of the Holy and the Metropolitan Community United Methodist Church, the proposed action would not result in incremental shadows being cast on any other historic resources with sunlight-sensitive features.





 Incremental Shadow on Resource  
 Shadow

0 50 Feet 100 Feet



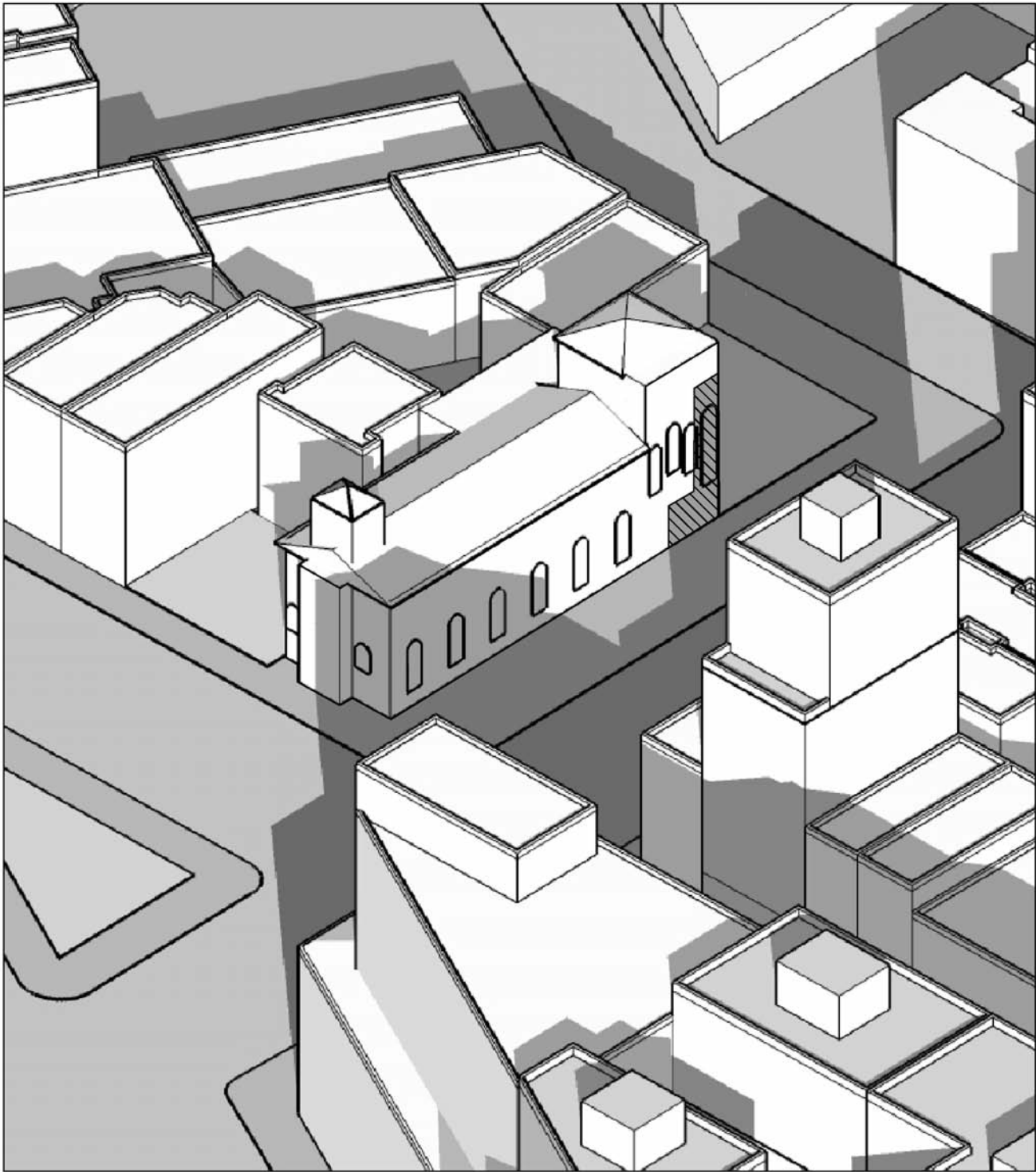
Resource A -  
 Church of St. Joseph of the Holy Family  
 December 21, 9:15



*This graphic has been revised subsequent to the issuance of the DEIS*

**Figure 3.5-2a - Shadow Diagram**

**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**

NYC Department of City Planning



 Incremental Shadow on Resource  
 Shadow

0 50 Feet 100 Feet



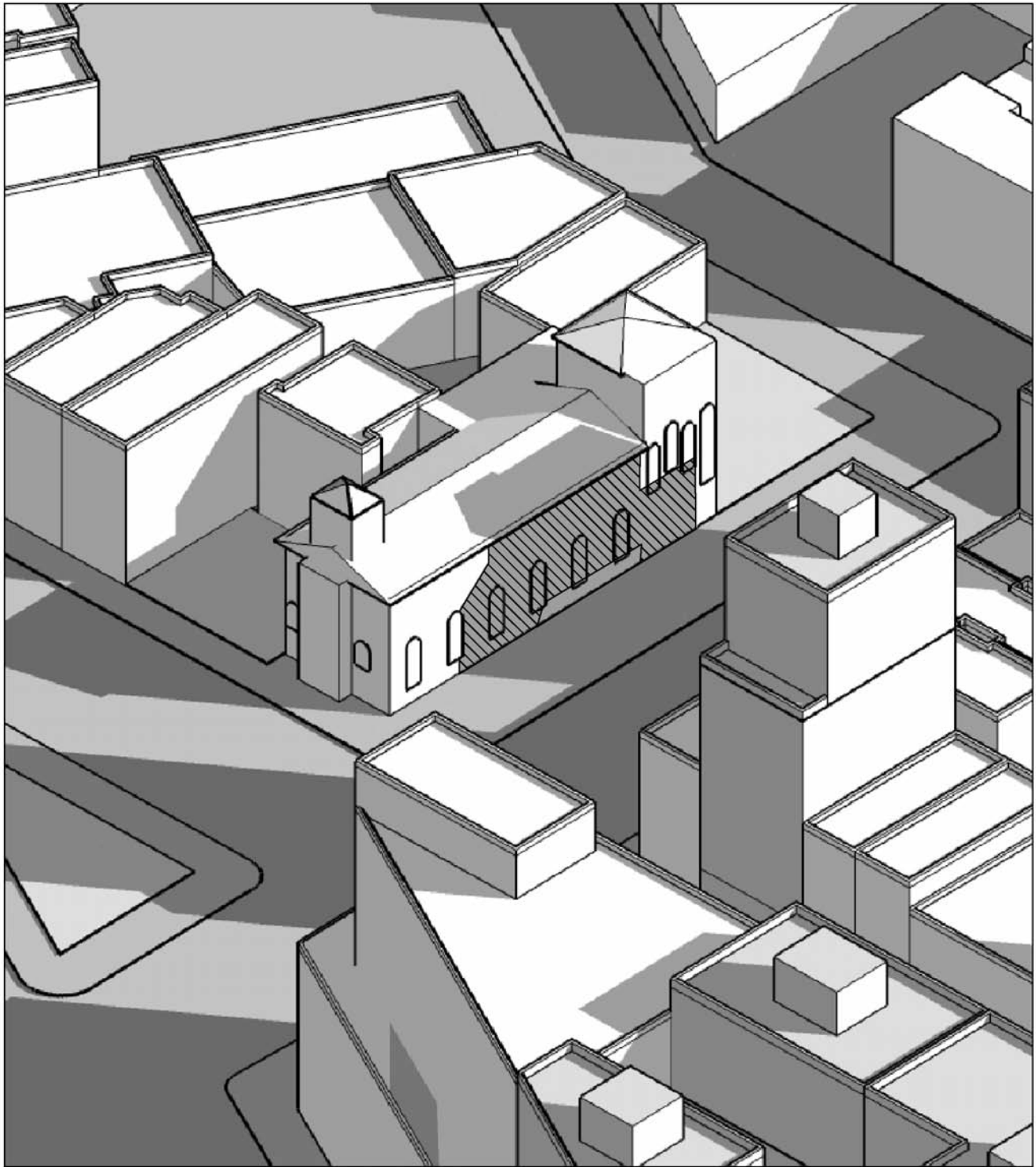
Resource A -  
Church of St. Joseph of the Holy Family  
December 21, 10:30



*This graphic has been revised subsequent to the issuance of the DEIS*

### **Figure 3.5-2b - Shadow Diagram**

**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**

NYC Department of City Planning



 Incremental Shadow on Resource  
 Shadow

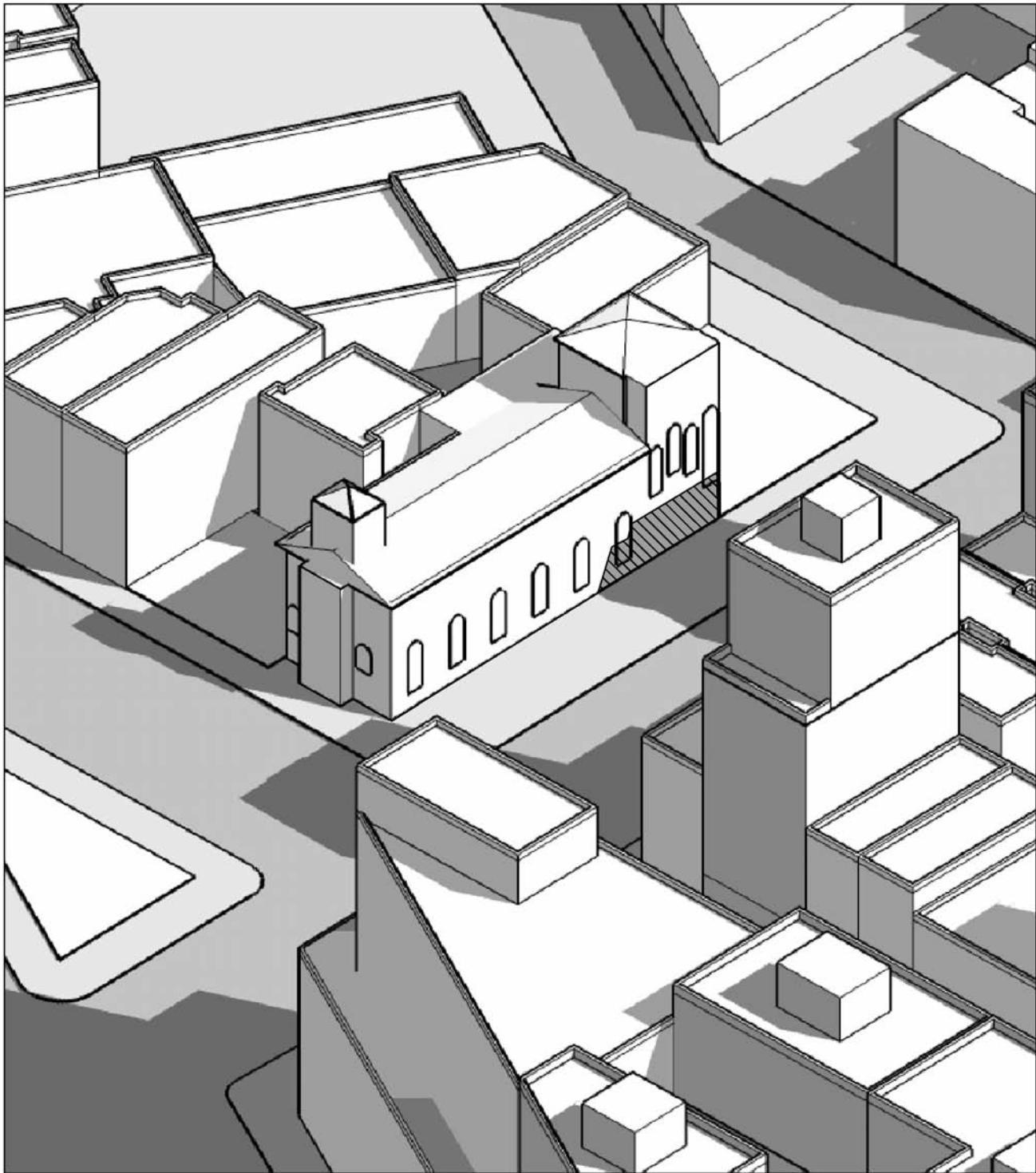
0 50 Feet 100 Feet



Resource A -  
Church of St. Joseph of the Holy Family  
June 21, 08:00

*This graphic has been revised subsequent to the issuance of the DEIS*

**Figure 3.5-3a - Shadow Diagram**  
**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**  
NYC Department of City Planning



 Incremental Shadow on Resource  
 Shadow

0 50 Feet 100 Feet



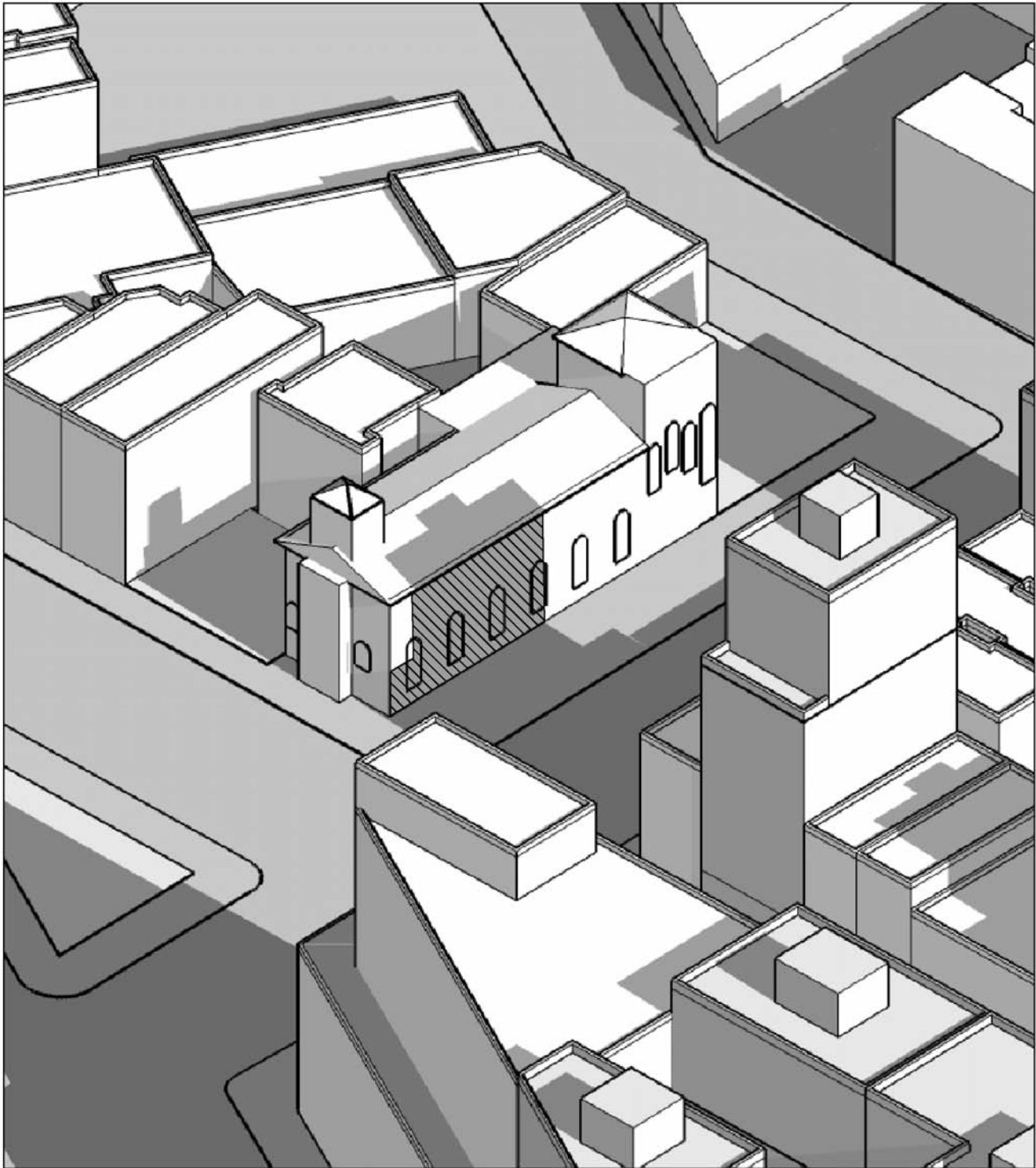
Resource A -  
Church of St. Joseph of the Holy Family  
June 21, 09:15



*This graphic has been revised subsequent to the issuance of the DEIS*

### **Figure 3.5-3b - Shadow Diagram**

**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**  
NYC Department of City Planning





-  Incremental Shadow on Resource
-  Shadow

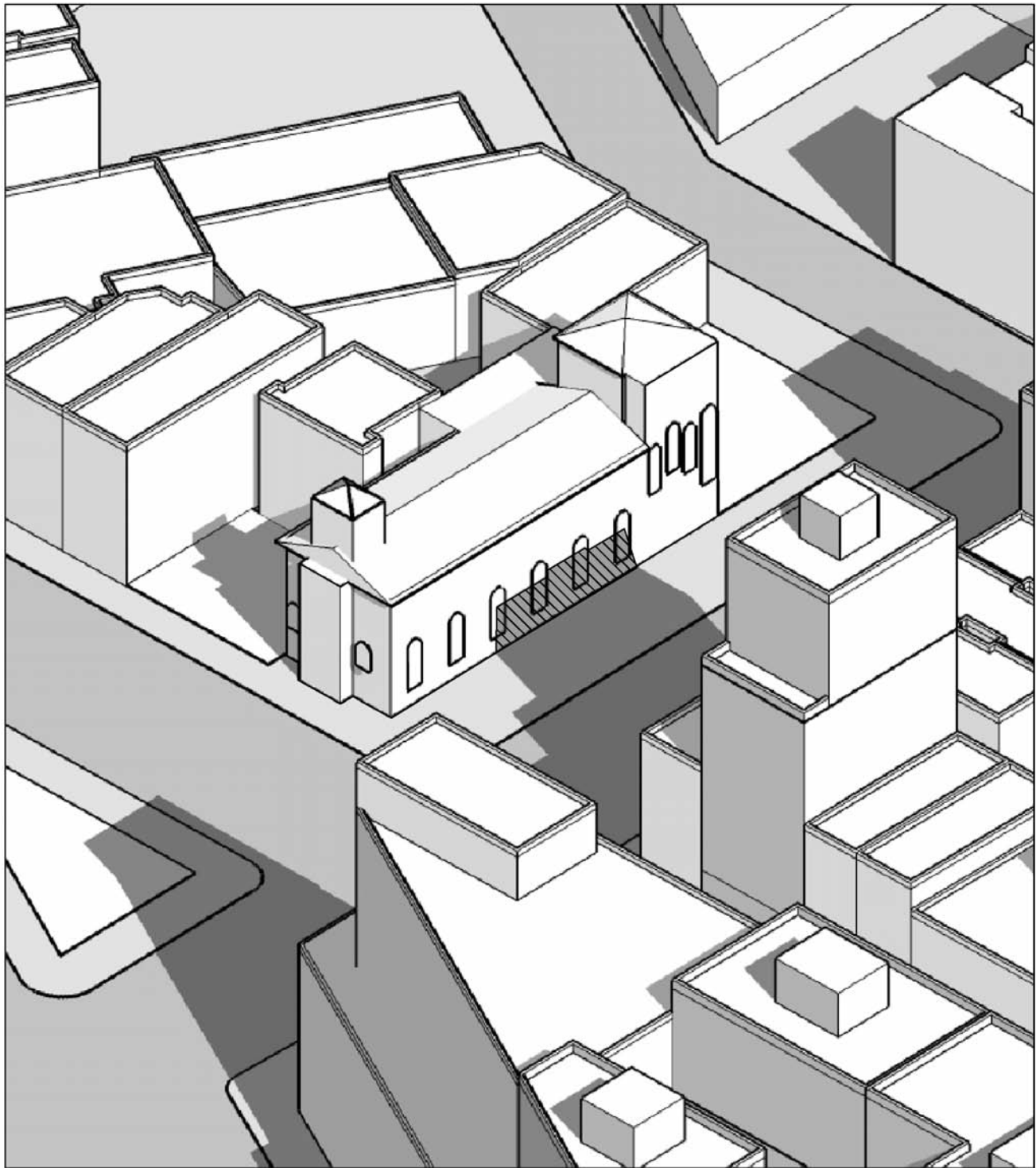
0 50 Feet 100 Feet





Resource A -  
Church of St. Joseph of the Holy Family  
March 21, 09:45

*This graphic has been revised subsequent to the issuance of the DEIS*

**Figure 3.5-4a - Shadow Diagram**  
**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**  
NYC Department of City Planning



-  Incremental Shadow on Resource
-  Shadow

0 50 Feet 100 Feet

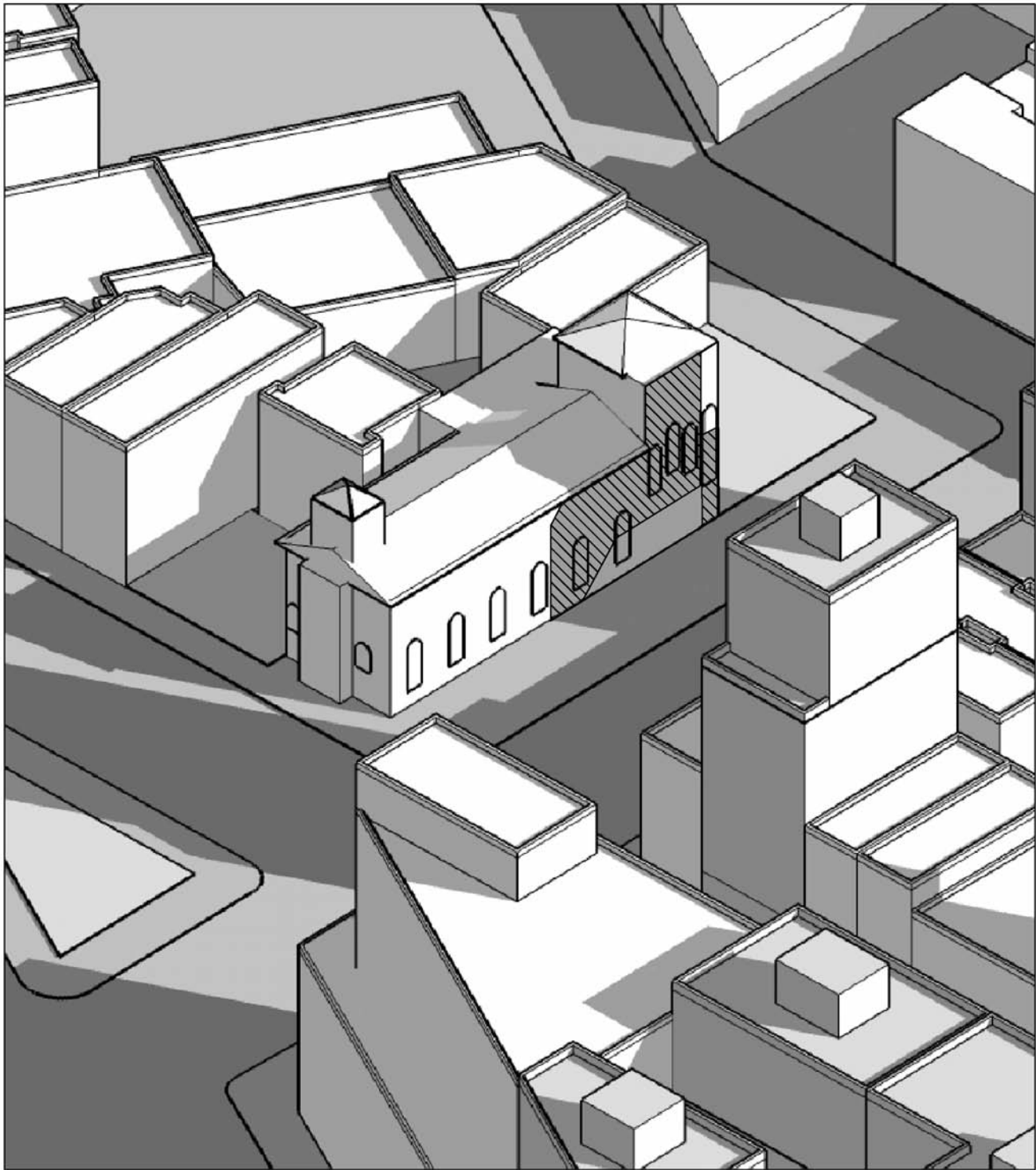




Resource A -  
Church of St. Joseph of the Holy Family  
March 21, 10:45

*This graphic has been revised subsequent to the issuance of the DEIS*

### **Figure 3.5-4b - Shadow Diagram**

**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**  
NYC Department of City Planning



-  Incremental Shadow on Resource
-  Shadow

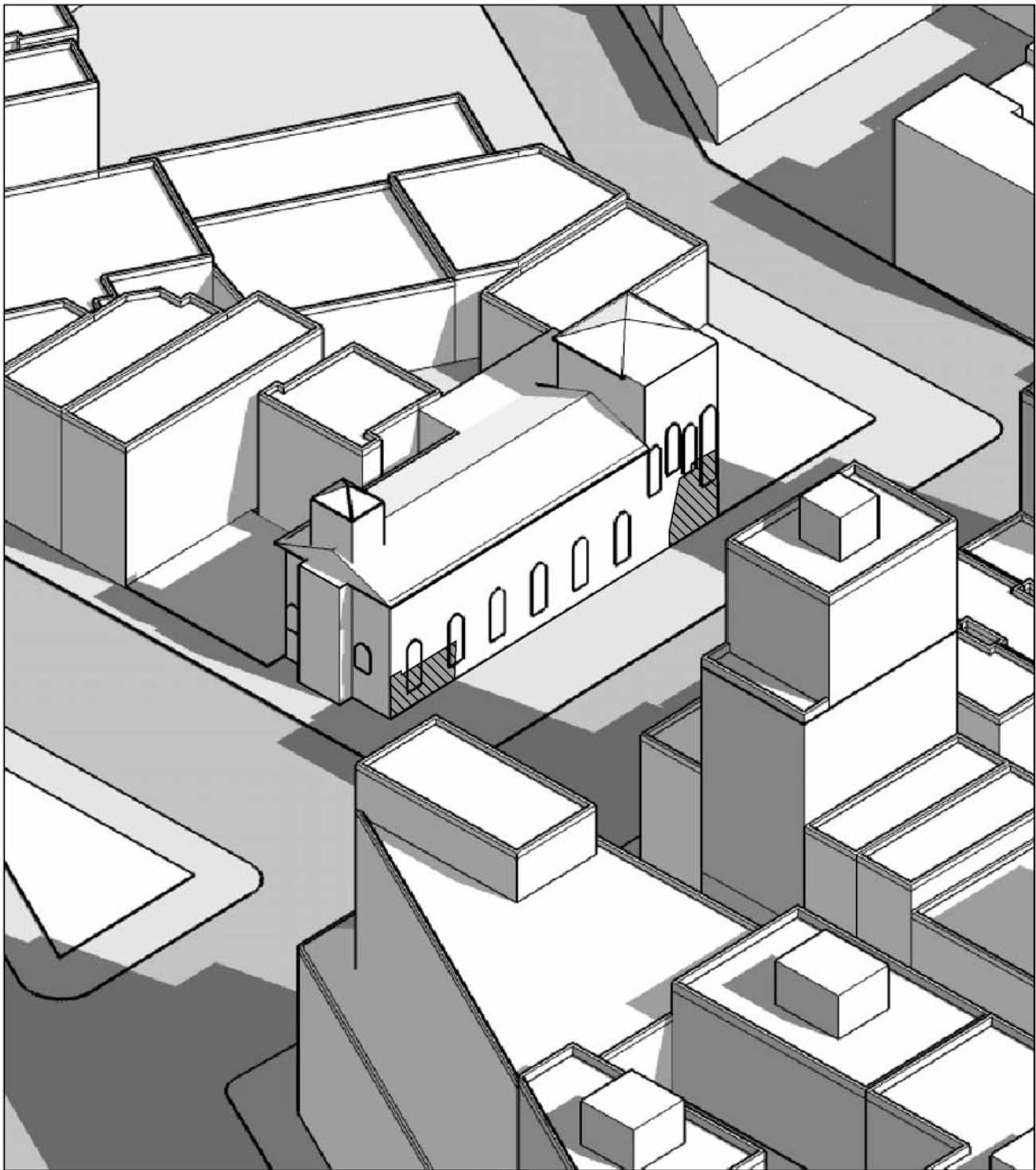
0 50 Feet 100 Feet




Resource A -  
Church of St. Joseph of the Holy Family  
May 6, 08:15

*This graphic has been revised subsequent to the issuance of the DEIS*

**Figure 3.5-5a - Shadow Diagram**  
**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**  
NYC Department of City Planning



-  Incremental Shadow on Resource
-  Shadow

0 50 Feet 100 Feet



Resource A -  
Church of St. Joseph of the Holy Family  
May 6, 09:30



*This graphic has been revised subsequent to the issuance of the DEIS*

### **Figure 3.5-5b - Shadow Diagram**

**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**

NYC Department of City Planning



 Incremental Shadow on Resource  
 Shadow

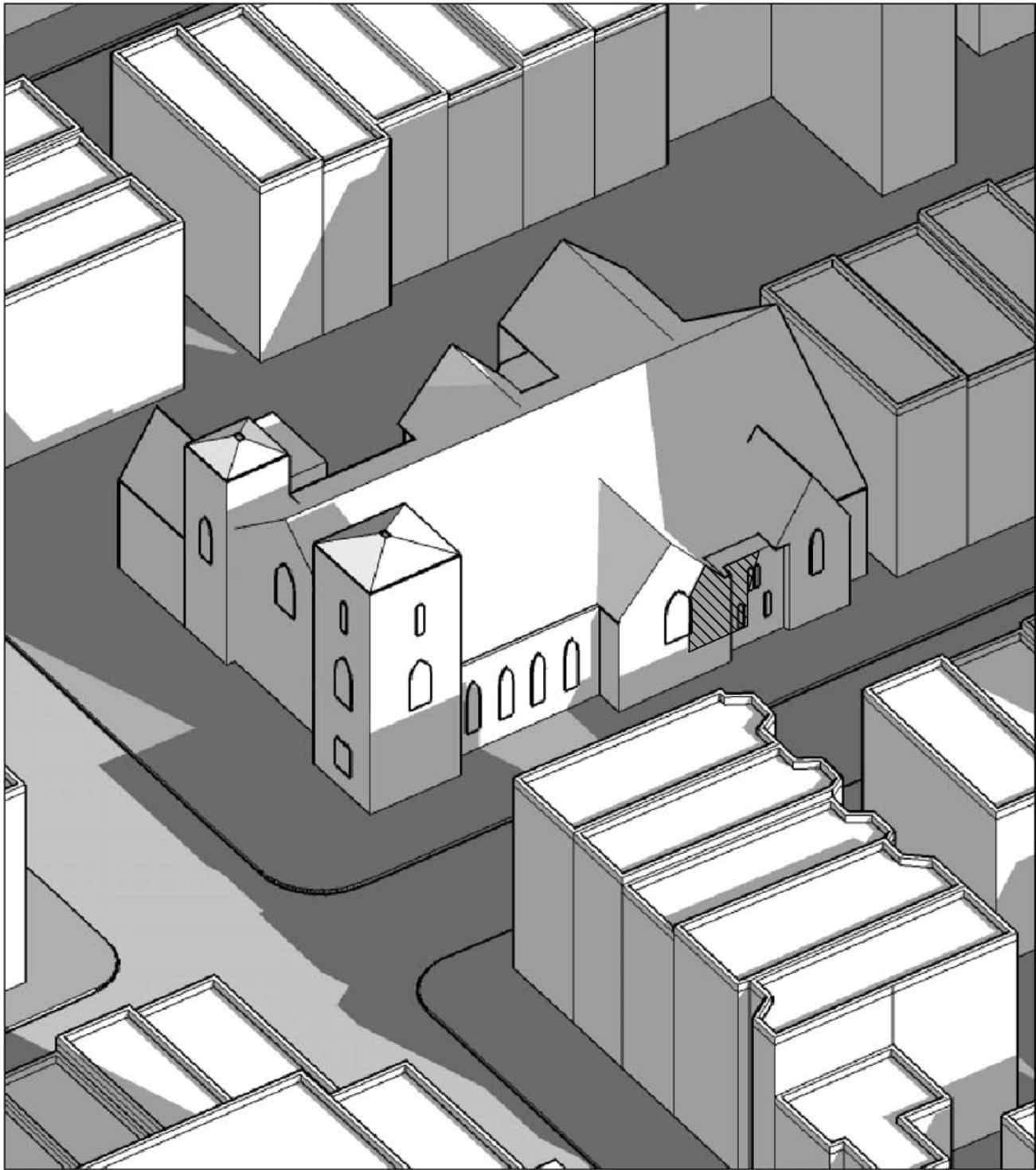
0 25 Feet 50 Feet





Resource of Concern B -  
Metropolitan Community United Methodist Church  
December 21, 09:30

*This graphic has been revised subsequent to the issuance of the DEIS*

**Figure 3.5-6 - Shadow Diagram**  
**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**  
NYC Department of City Planning



 Incremental Shadow on Resource  
 Shadow

0 25 Feet 50 Feet



Resource of Concern B -  
Metropolitan Community United Methodist Church  
December 21, 12:30

*This graphic has been revised subsequent to the issuance of the DEIS*

**Figure 3.5-7 - Shadow Diagram**  
**125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS**  
NYC Department of City Planning



- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern

SCALE OF FEET  
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



**Resource of Concern C**  
**William B. Washington Memorial Garden**  
**December 21, 08:30**

Shadow Diagram  
 125th Street Corridor

*Figure 3.5-8 - Shadow Diagram*  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern

SCALE OF FEET  
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**Resource of Concern C**  
**William B. Washington Memorial Garden**  
**December 21, 10:30**

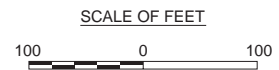
Shadow Diagram  
 125th Street Corridor

**Figure 3.5-9 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning





- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern







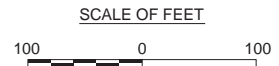
**Resource of Concern C**  
**William B. Washington Memorial Garden**  
**June 21, 16:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-10 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern



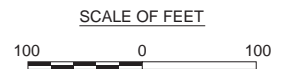
**Resource of Concern C**  
**William B. Washington Memorial Garden**  
**March 21, 13:30**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-11 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern



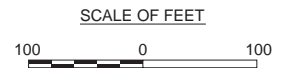
**Resource of Concern C**  
**William B. Washington Memorial Garden**  
**May 6, 15:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-12 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



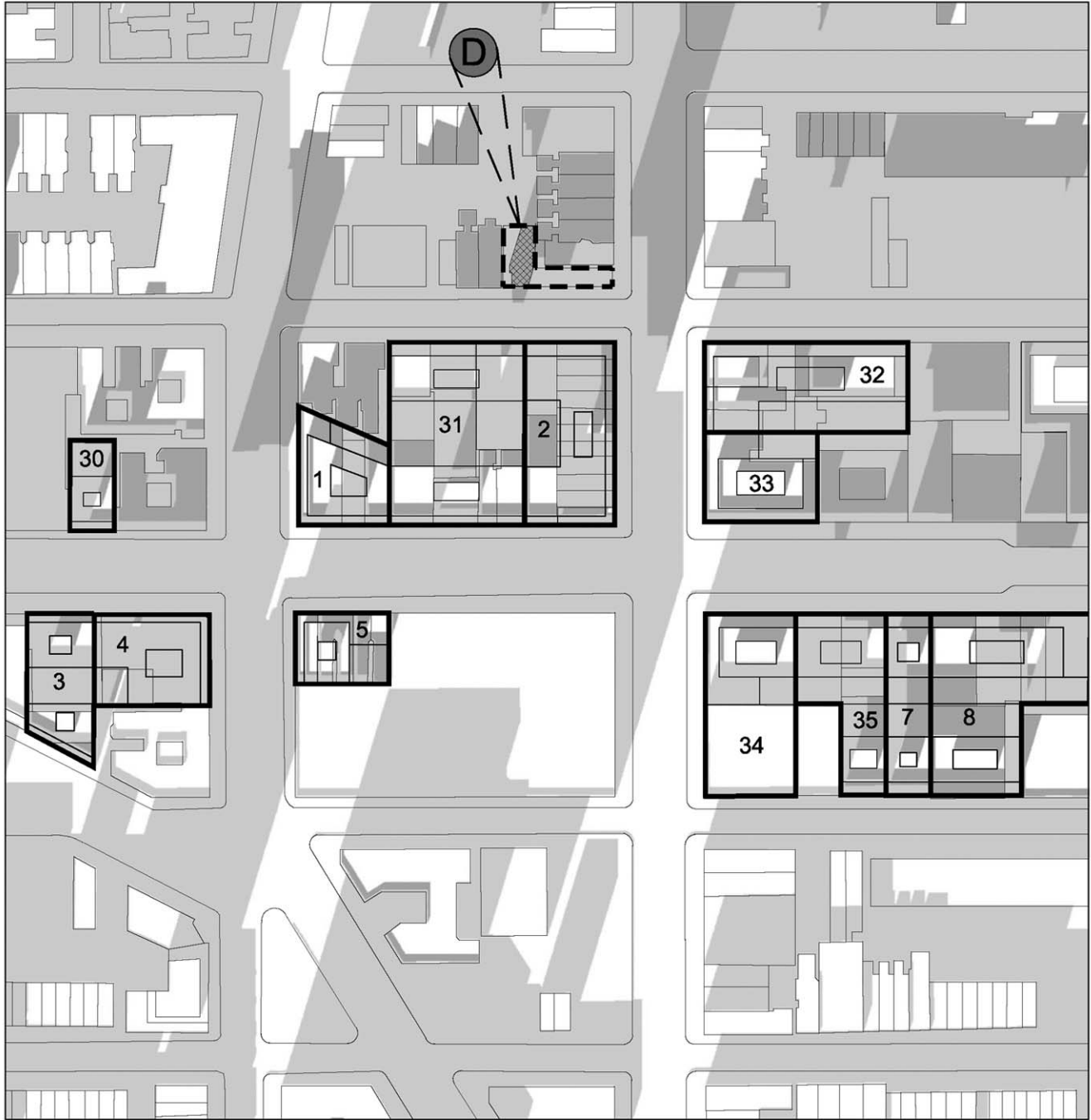
- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern







**Resource of Concern D**  
**Clayton Williams Garden**  
**December 21, 12:30**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-13 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern

SCALE OF FEET  
 100 0 100







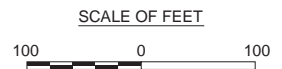
**Resource of Concern D**  
**Clayton Williams Garden**  
**December 21, 15:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-14 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern



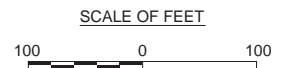
**Resource of Concern D**  
**Clayton Williams Garden**  
**June 21, 16:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-15 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern



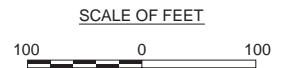
**Resource of Concern D**  
**Clayton Williams Garden**  
**March 21, 14:30**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-16 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern



**Resource of Concern D**  
**Clayton Williams Garden**  
**March 21, 17:40**

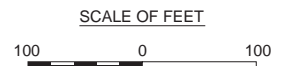
Shadow Diagram  
 125th Street Corridor

**Figure 3.5-17 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning





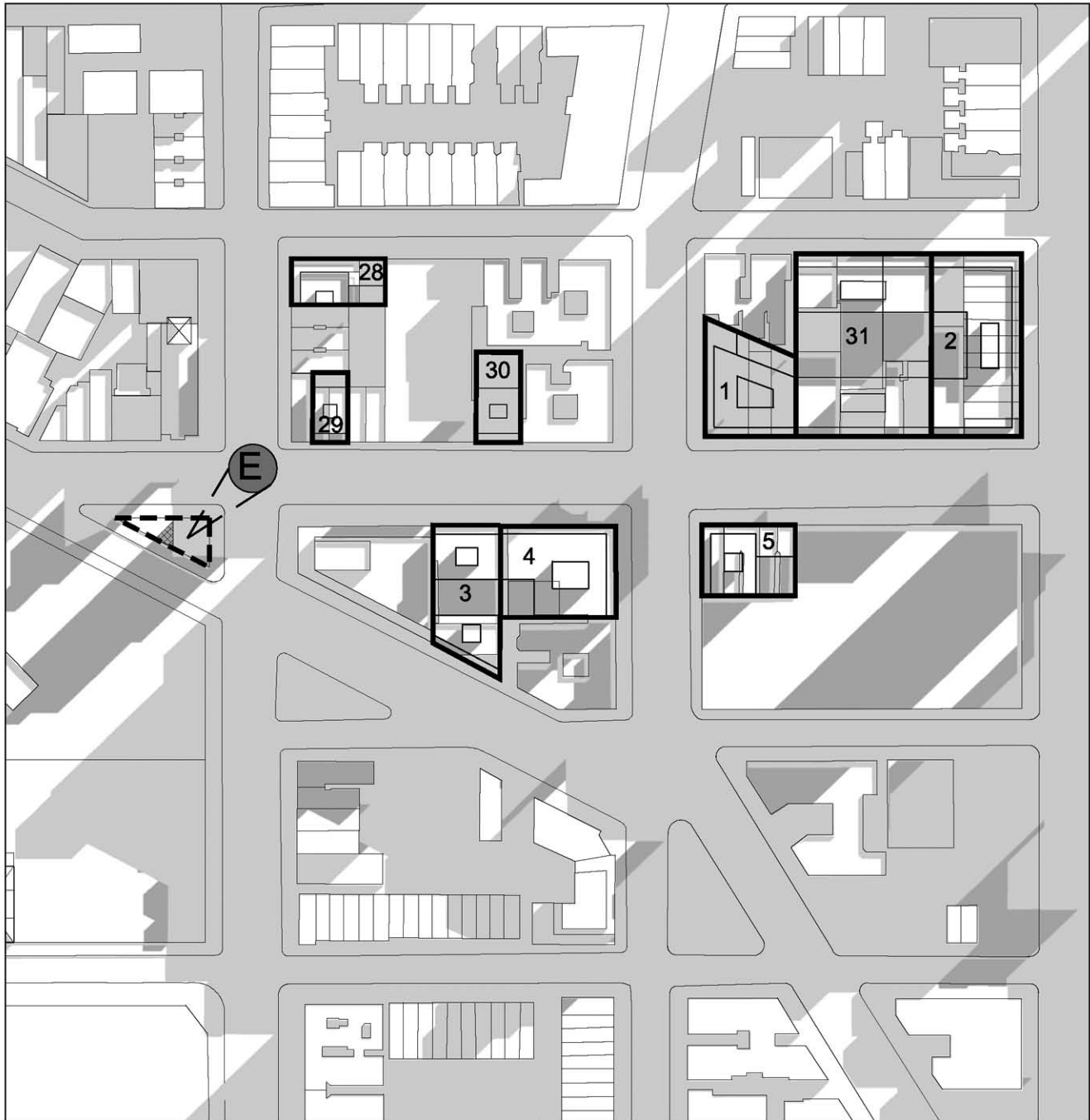
- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern







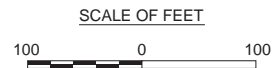
**Resource of Concern D**  
**Clayton Williams Garden**  
**May 6, 17:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-18 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern







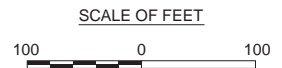
**Resource of Concern E**  
**Roosevelt Triangle**  
**June 21, 07:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-19 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



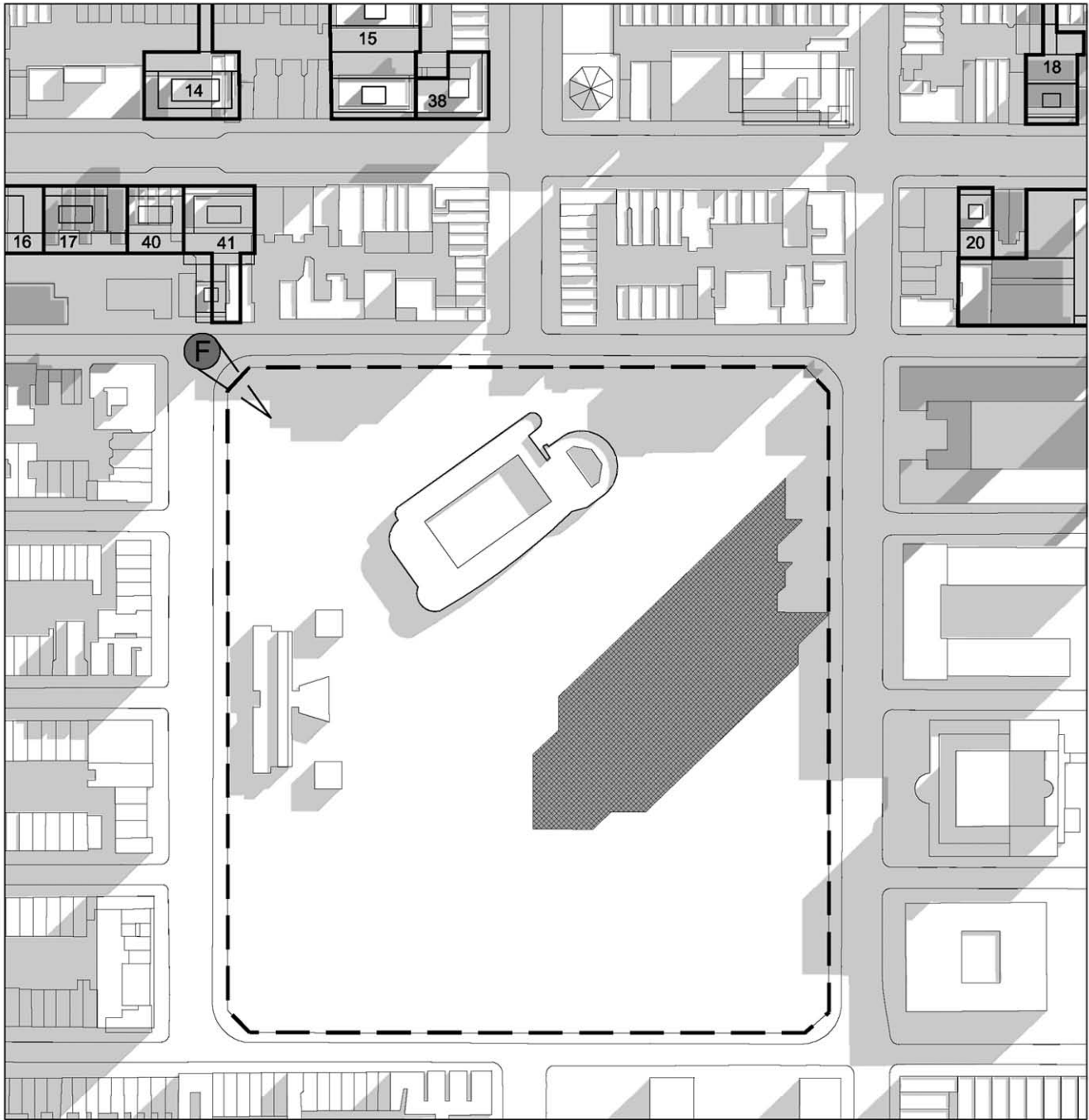
-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern







**Resource of Concern E**  
**Roosevelt Triangle**  
**May 6, 07:40**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-20 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern

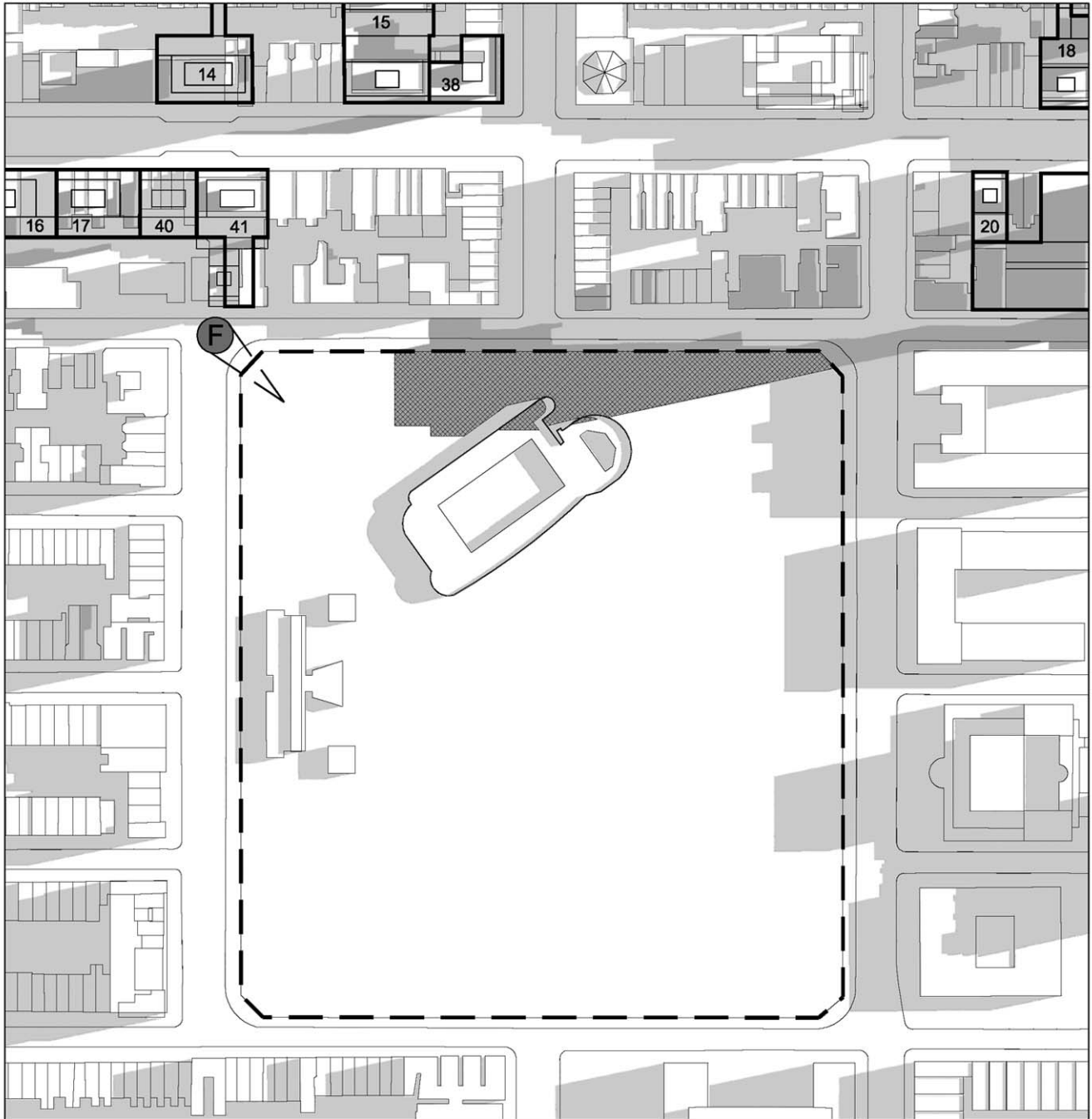
SCALE OF FEET  
 100 0 100





**Resource of Concern F**  
**Marcus Garvey Park**  
**June 21, 7:00**



Shadow Diagram  
 125<sup>th</sup> Street Corridor

**Figure 3.5-21 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern

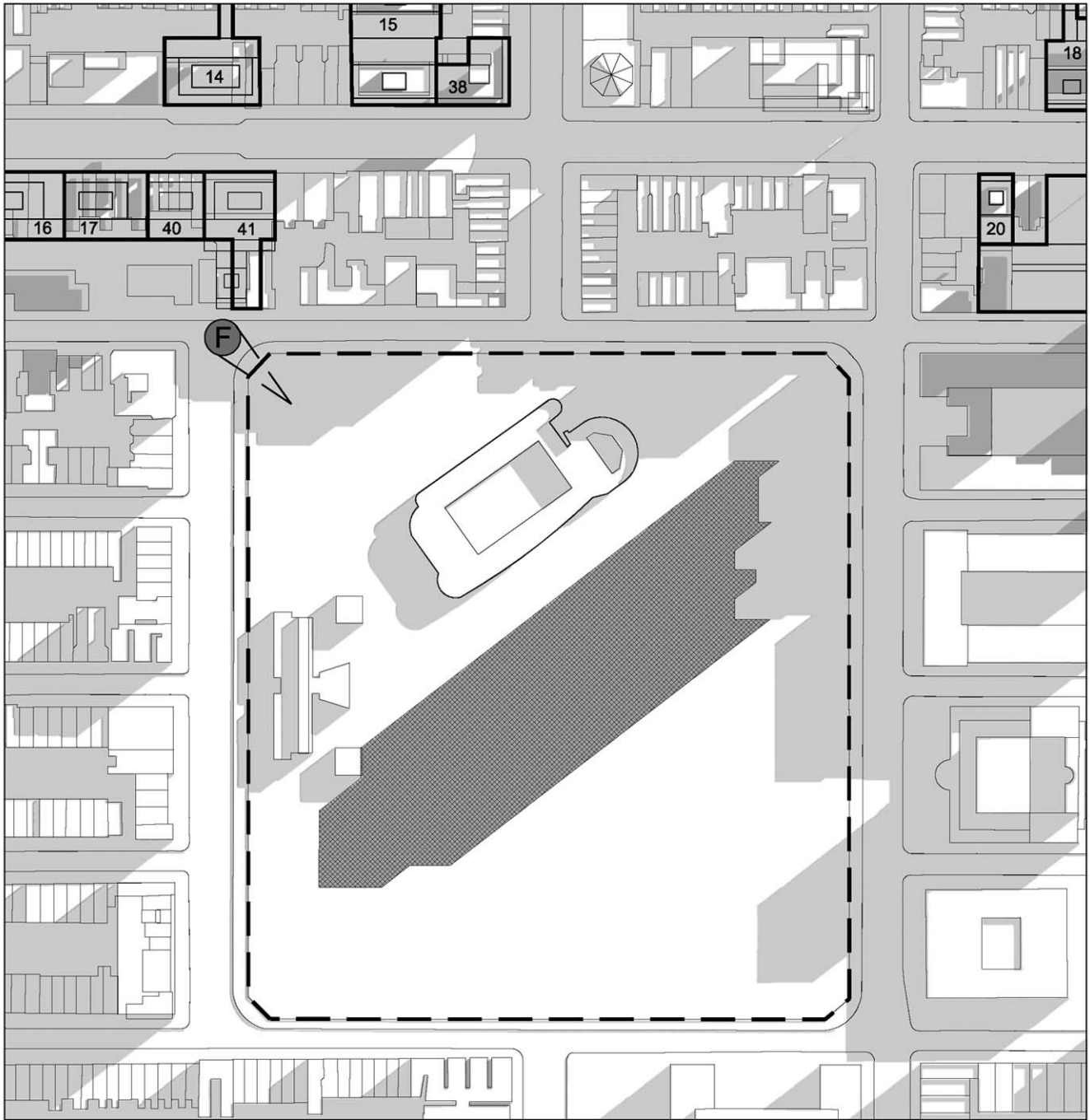
SCALE OF FEET  
100 0 100







**Resource of Concern F**  
**Marcus Garvey Park**  
**March 21, 8:30**

Shadow Diagram  
125th Street Corridor

**Figure 3.5-22 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern

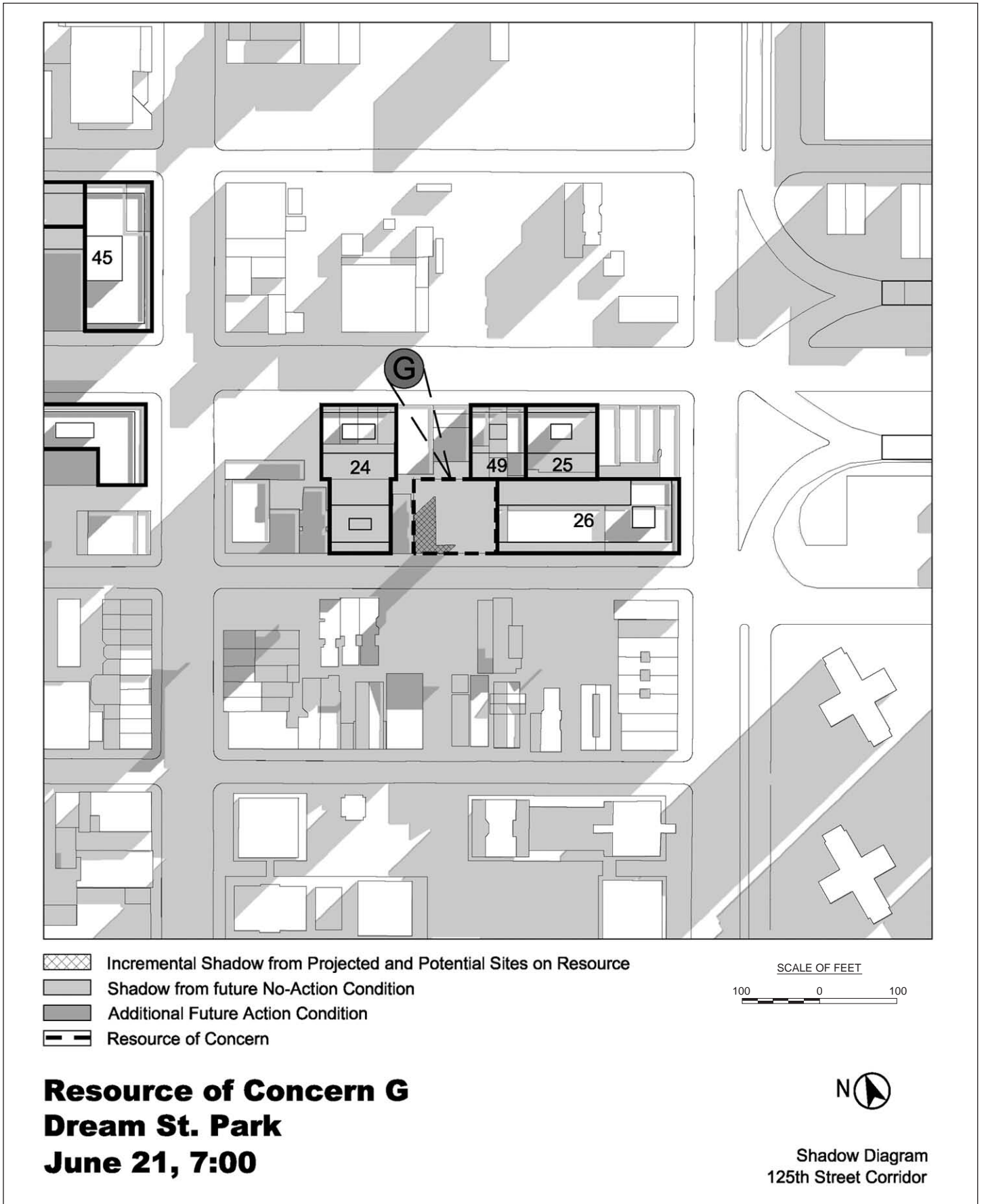
SCALE OF FEET  
 100 0 100



**Resource of Concern F**  
**Marcus Garvey Park**  
**May 6, 7:00**





Shadow Diagram  
 125th Street Corridor

**Figure 3.5-23 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



**Figure 3.5-24 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern

SCALE OF FEET  
 100 0 100

**Resource of Concern G**  
**Dream St. Park**  
**June 21, 8:00**







Shadow Diagram  
 125th Street Corridor

**Figure 3.5-25 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning





-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern

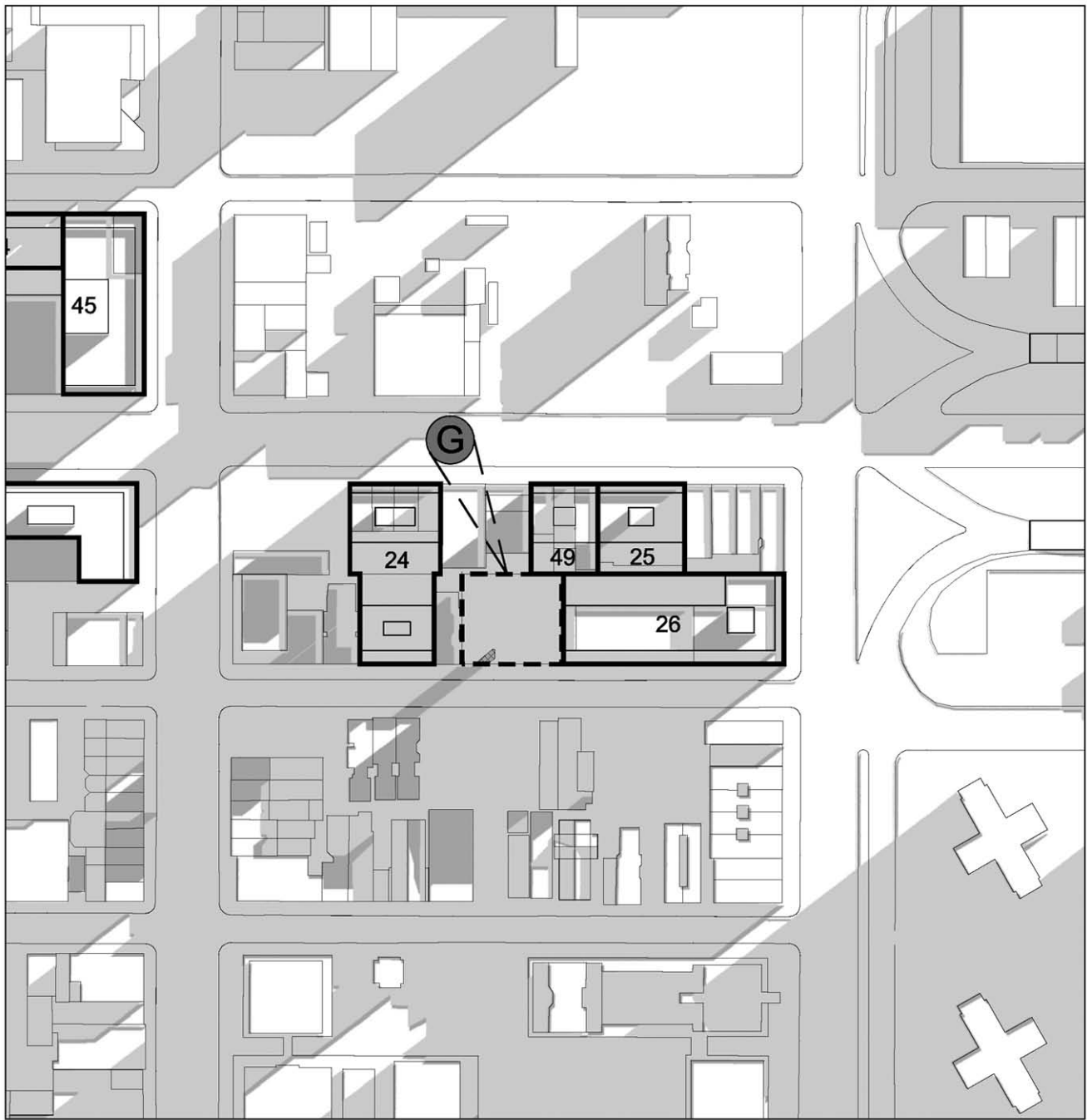
SCALE OF FEET  
 100 0 100

**Resource of Concern G**  
**Dream St. Park**  
**March 21, 10:15**

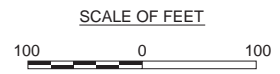


Shadow Diagram  
 125th Street Corridor

**Figure 3.5-26 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



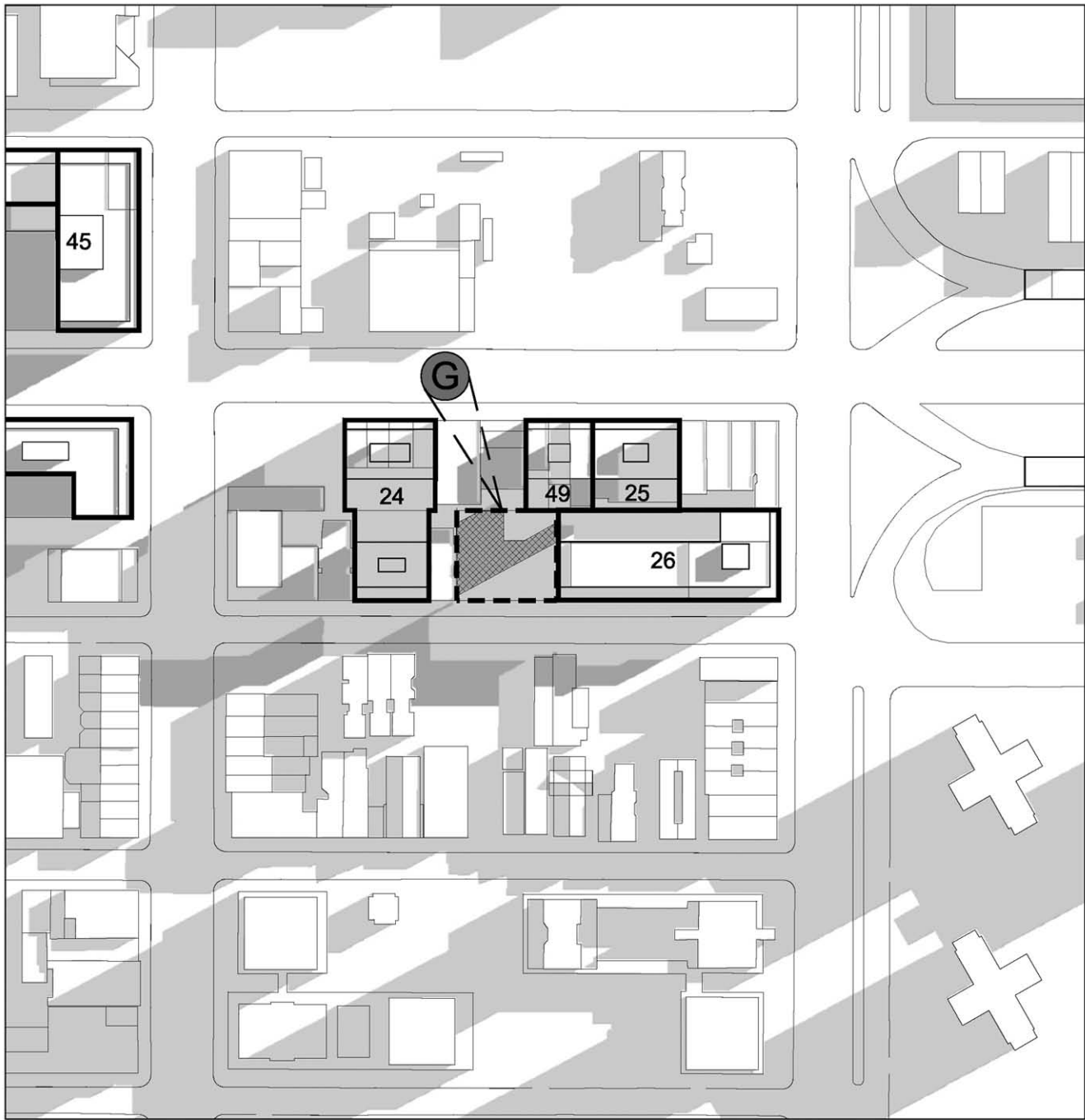
- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern



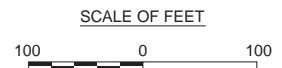
**Resource of Concern G**  
**Dream St. Park**  
**May 6, 07:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-27 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



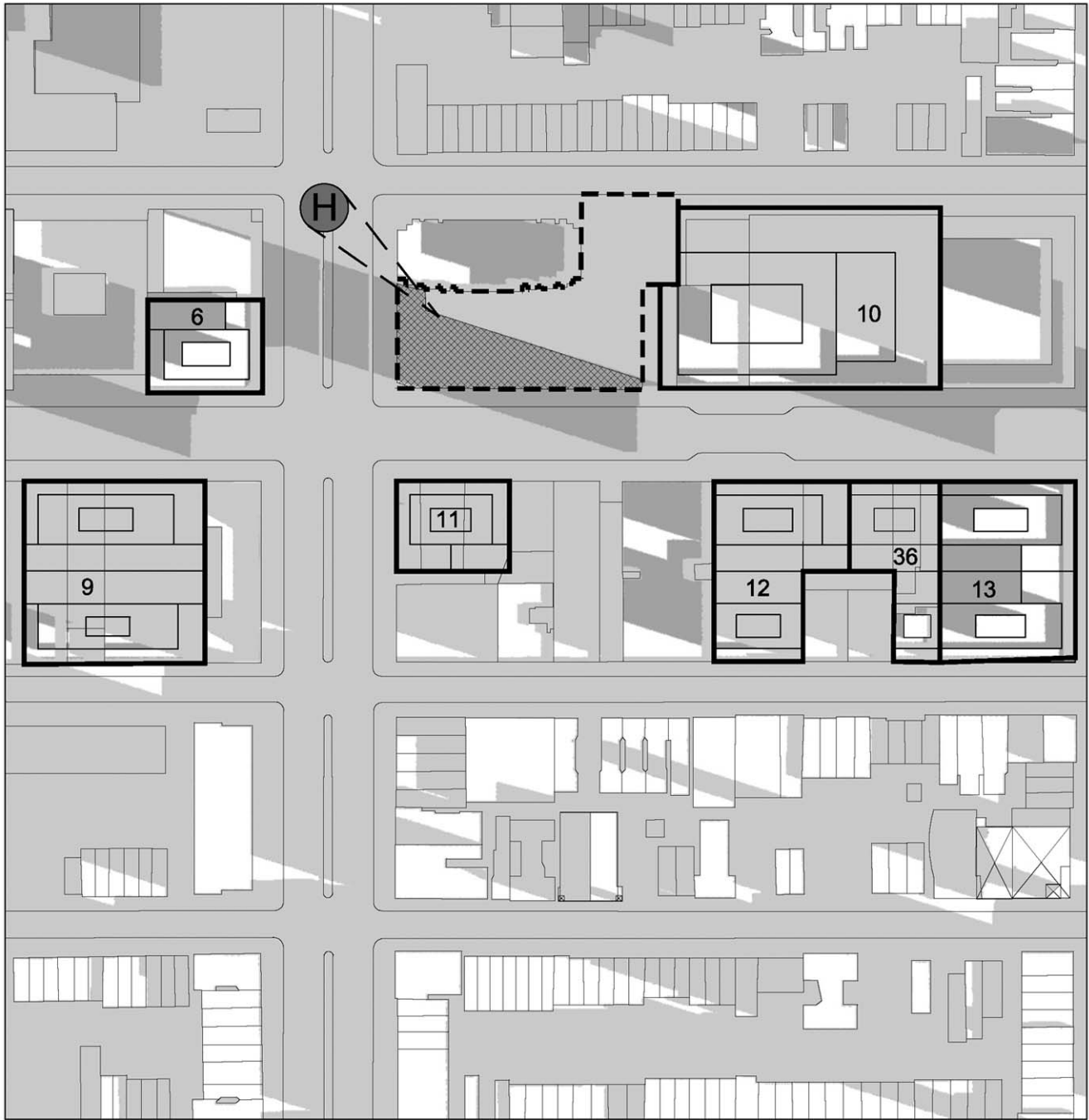
- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern







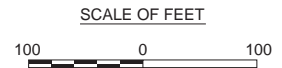
**Resource of Concern G**  
**Dream St. Park**  
**May 6, 8:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-28 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



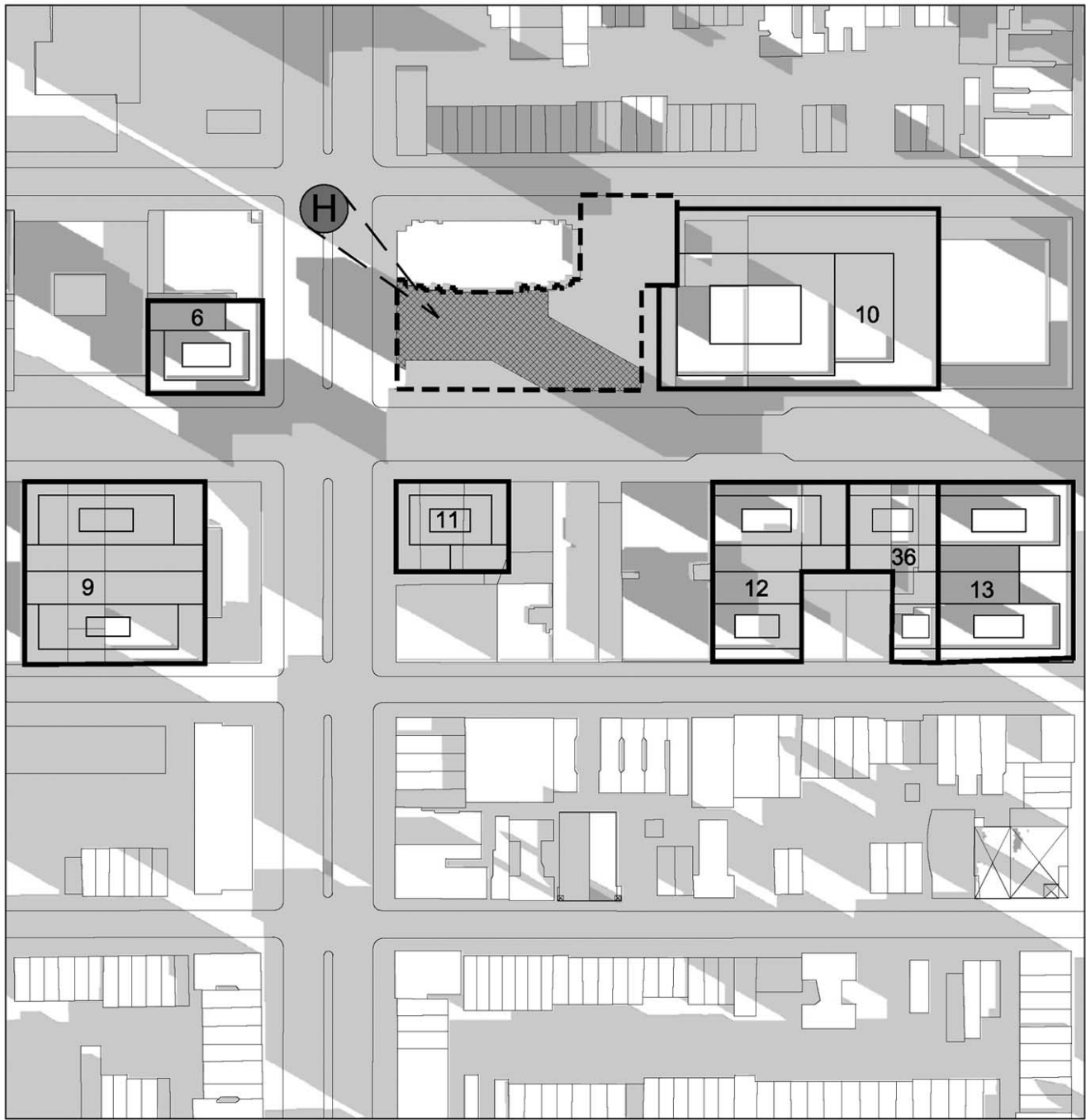
-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern



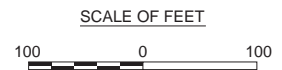
**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**December 21, 8:30**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-29 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



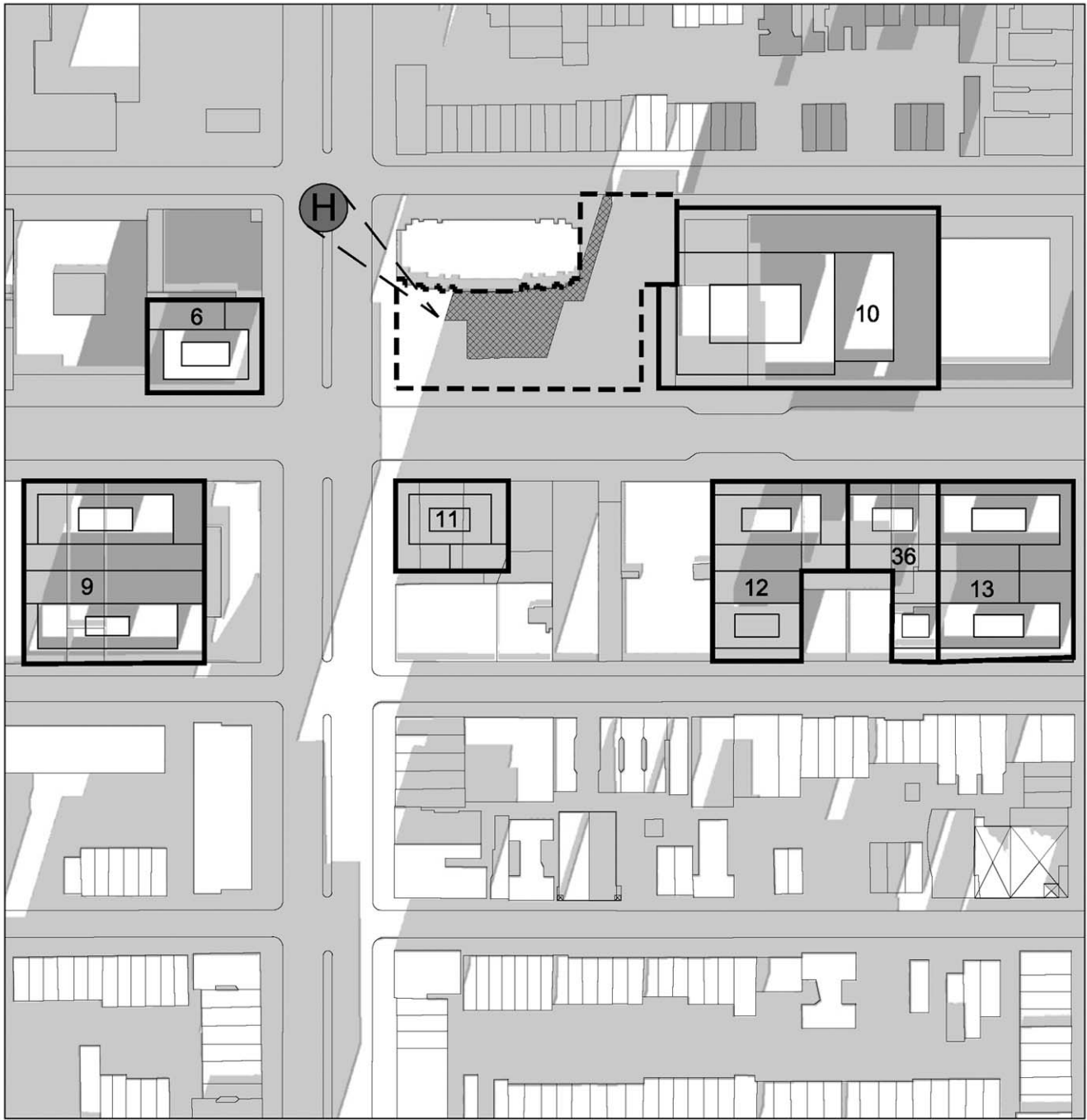
- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern



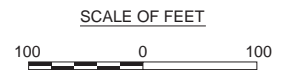
**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**December 21, 09:30**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-30 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



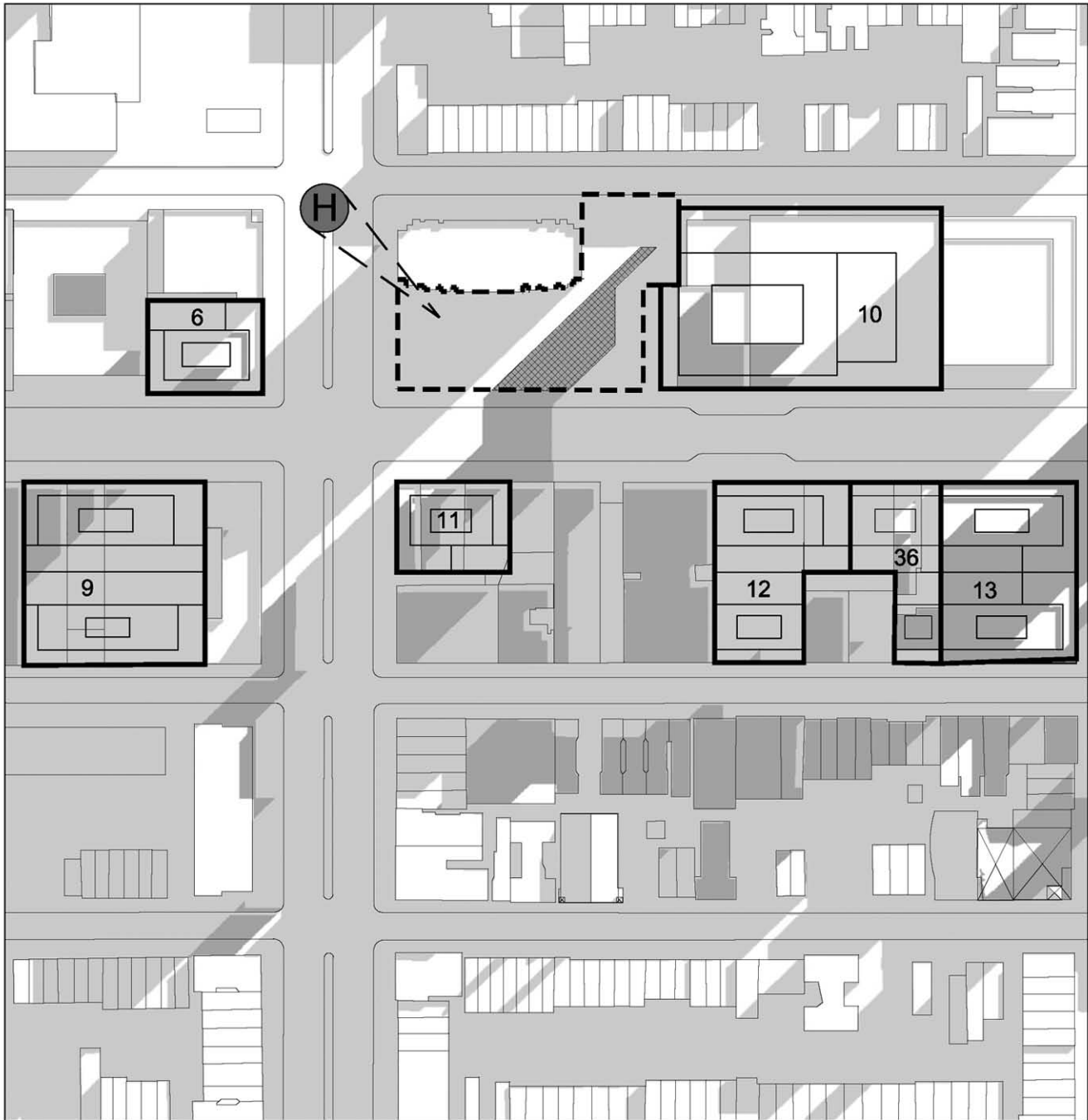
- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern







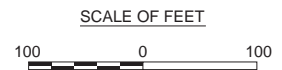
**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**December 21, 15:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-31 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



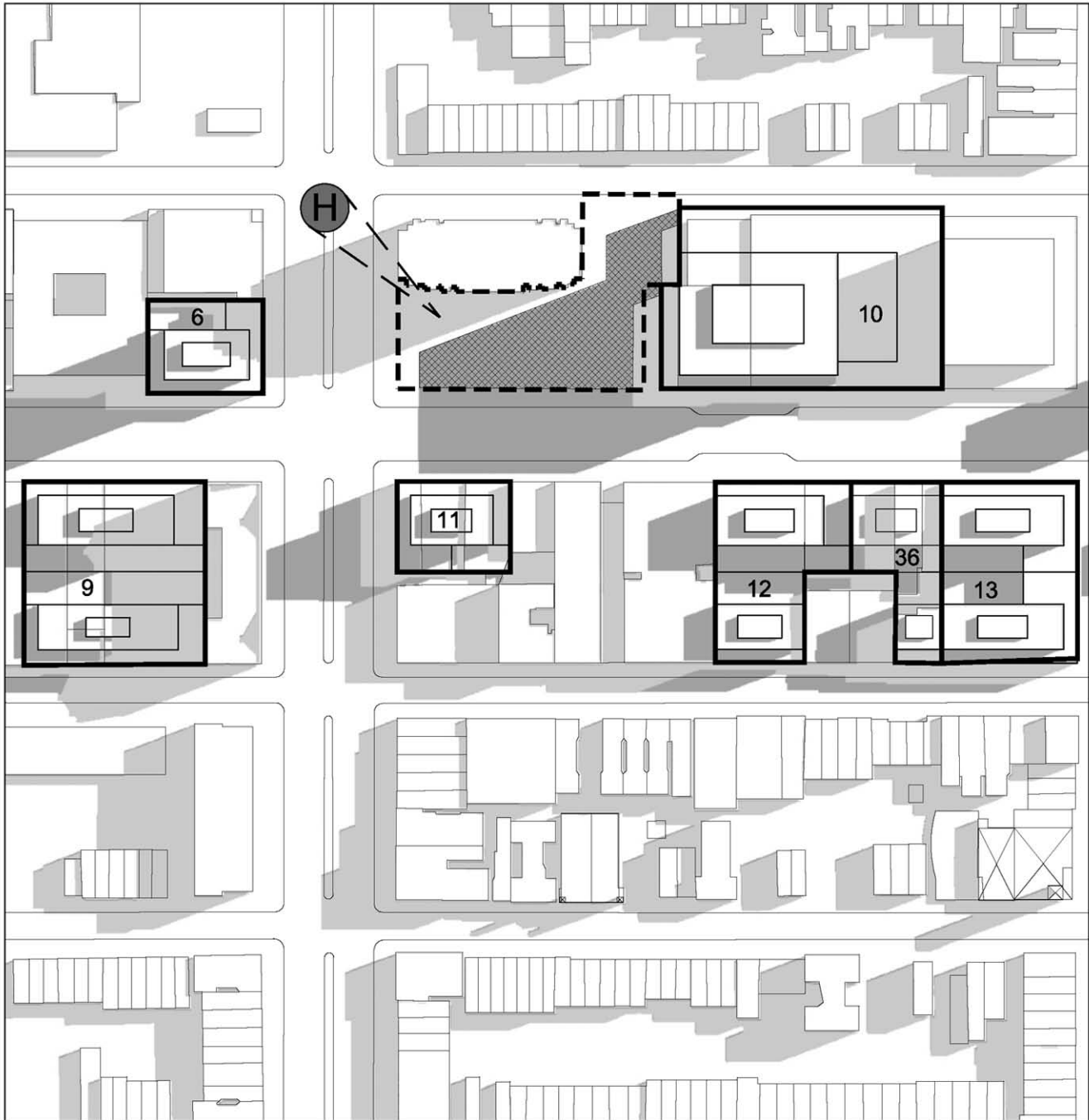
-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern







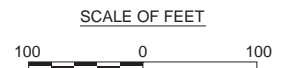
**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**June 21, 07:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-32 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern

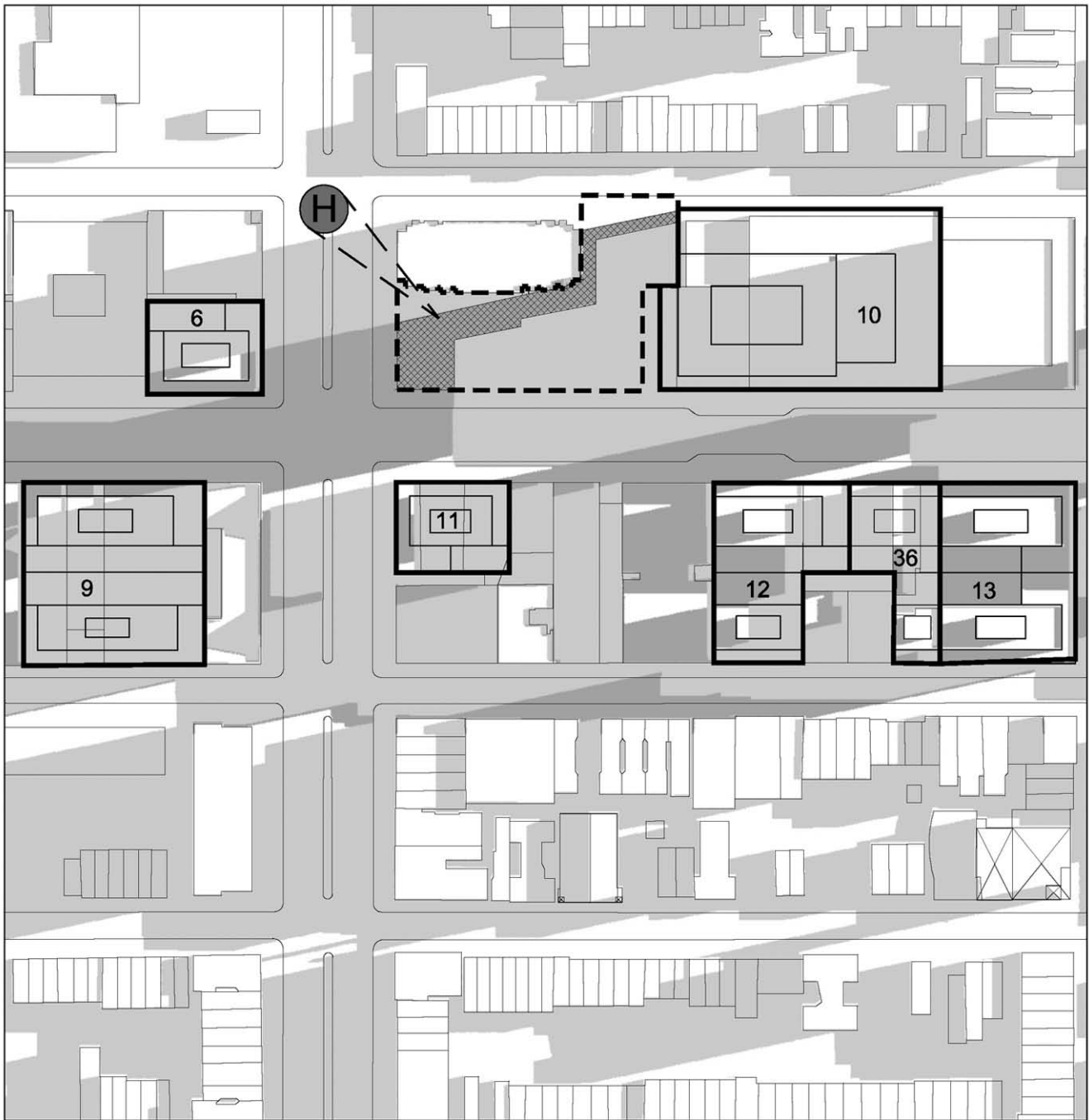


**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**June 21, 09:30**

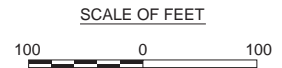
Shadow Diagram  
 125th Street Corridor

**Figure 3.5-33 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning





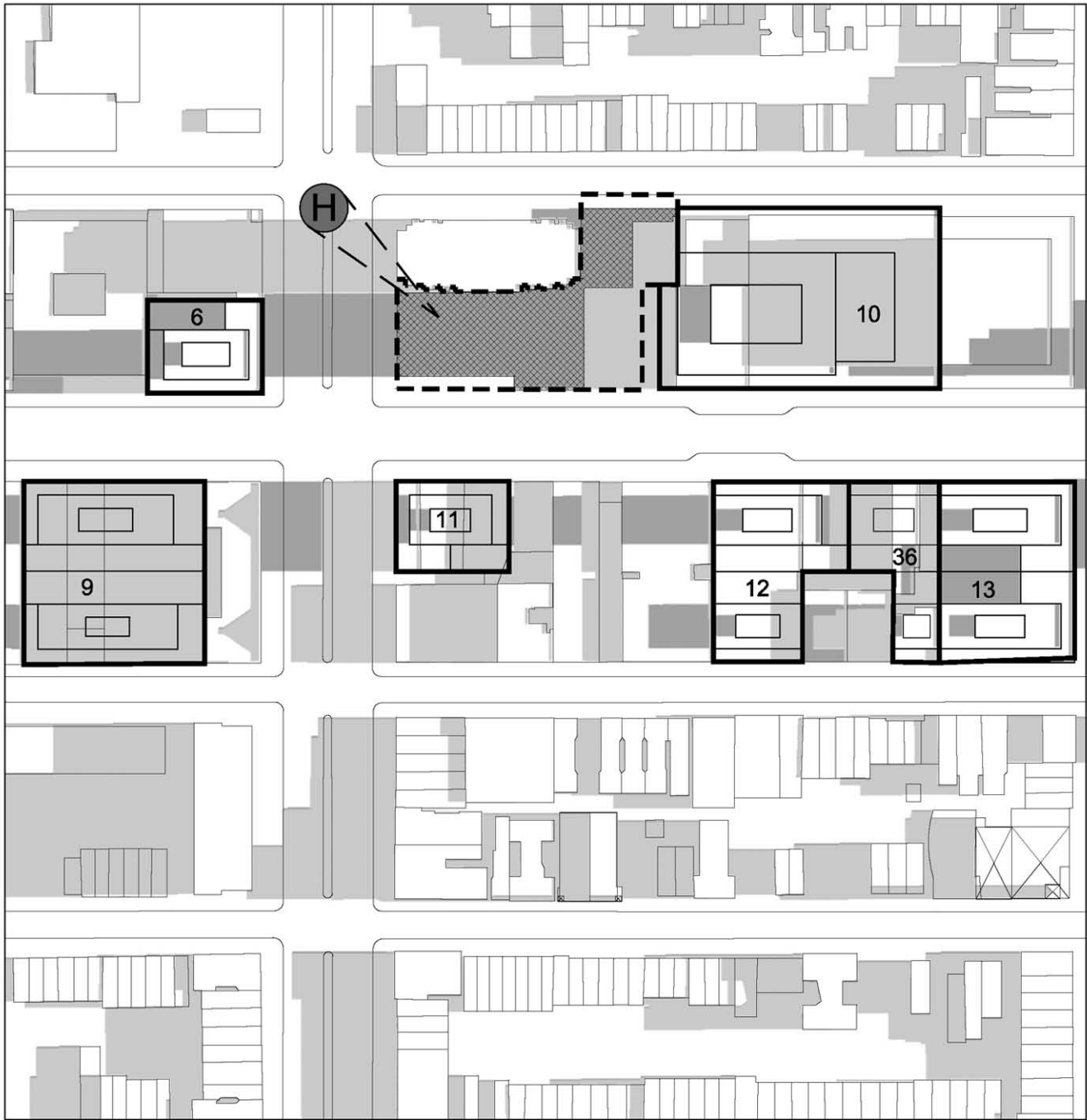
- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern







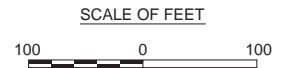
**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**March 21, 08:30**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-34 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



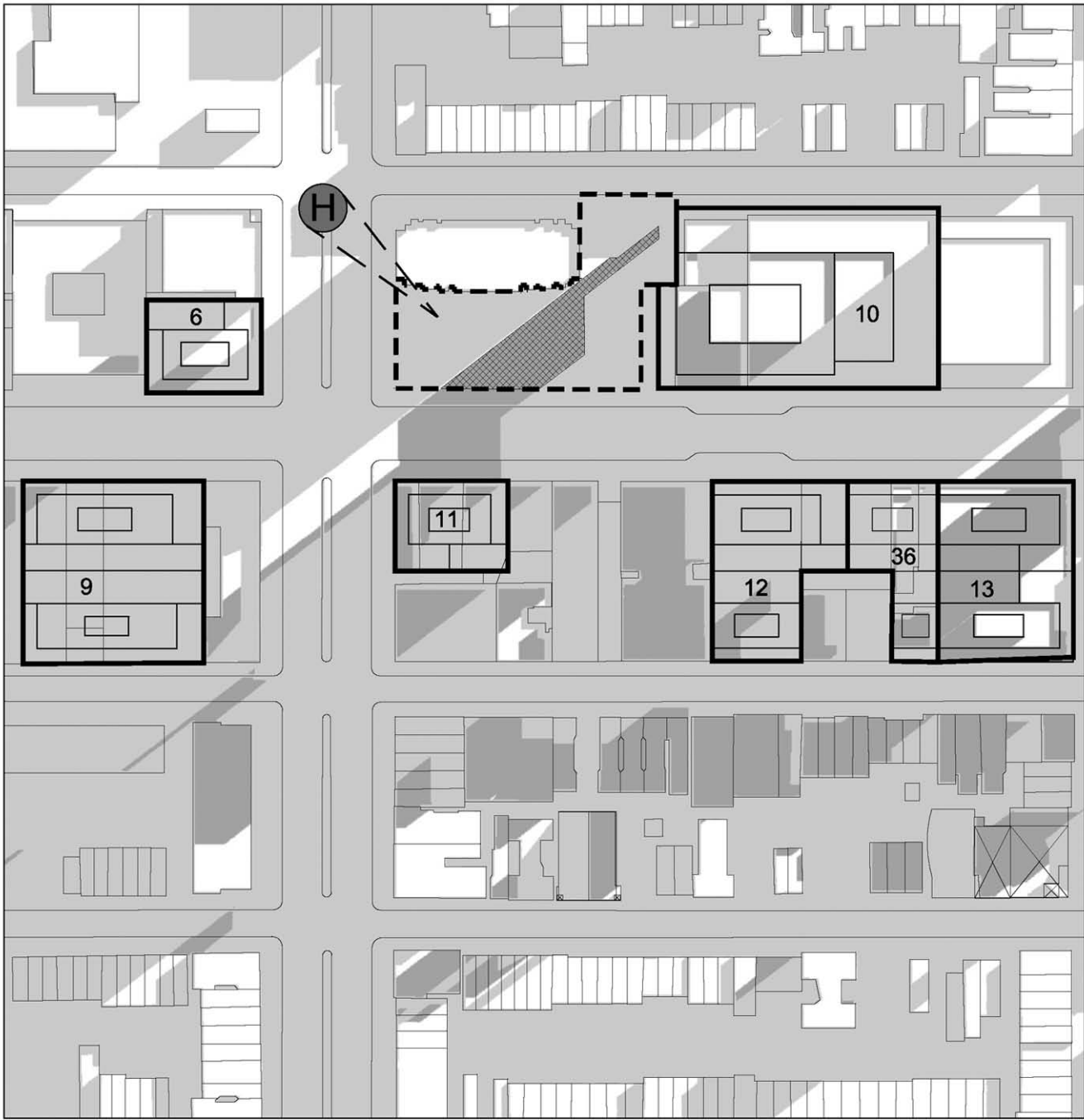
-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern







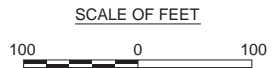
**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**March 21, 09:30**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-35 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



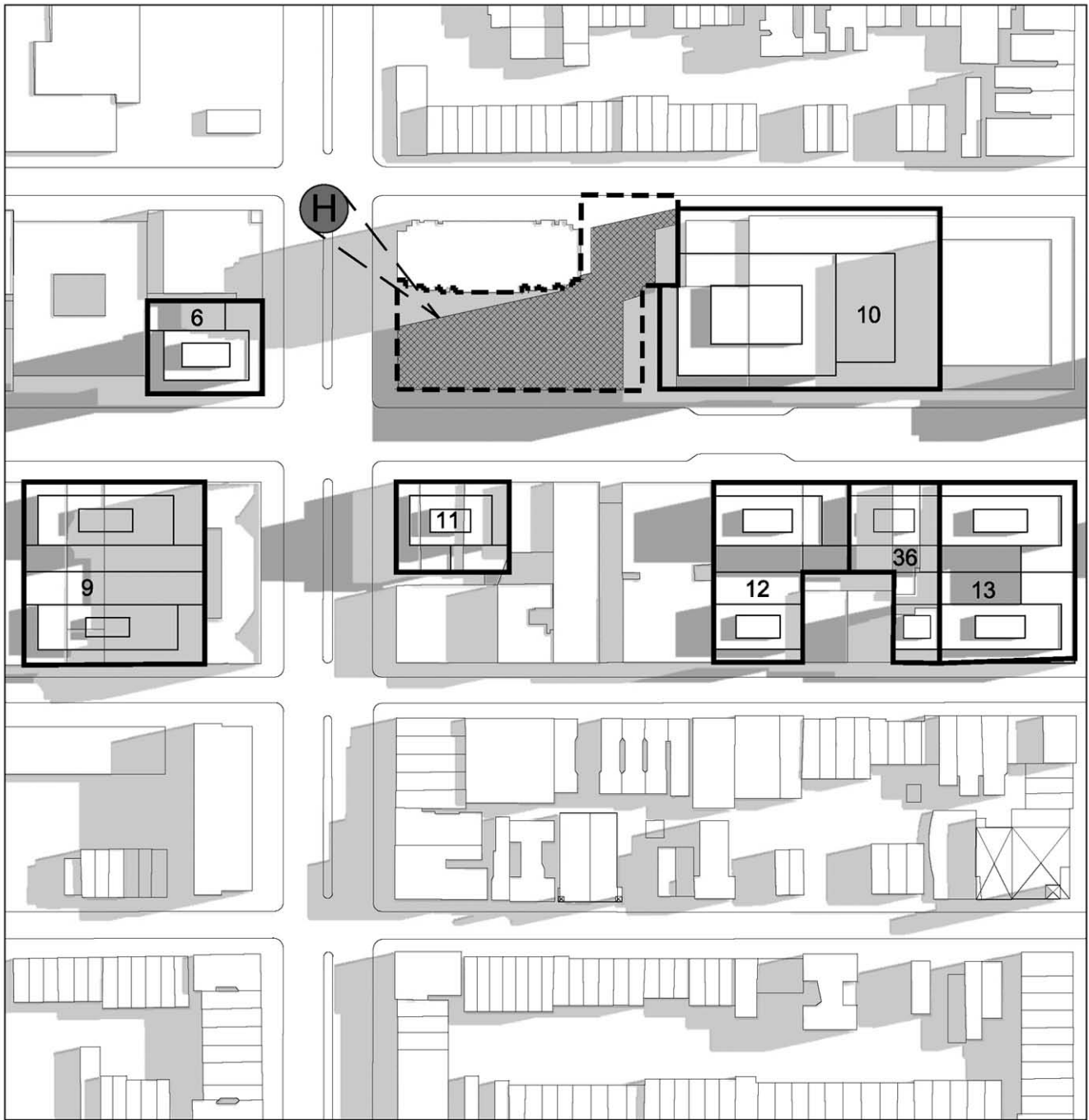
-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern



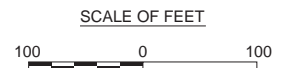
**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**May 6, 07:00**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-36 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



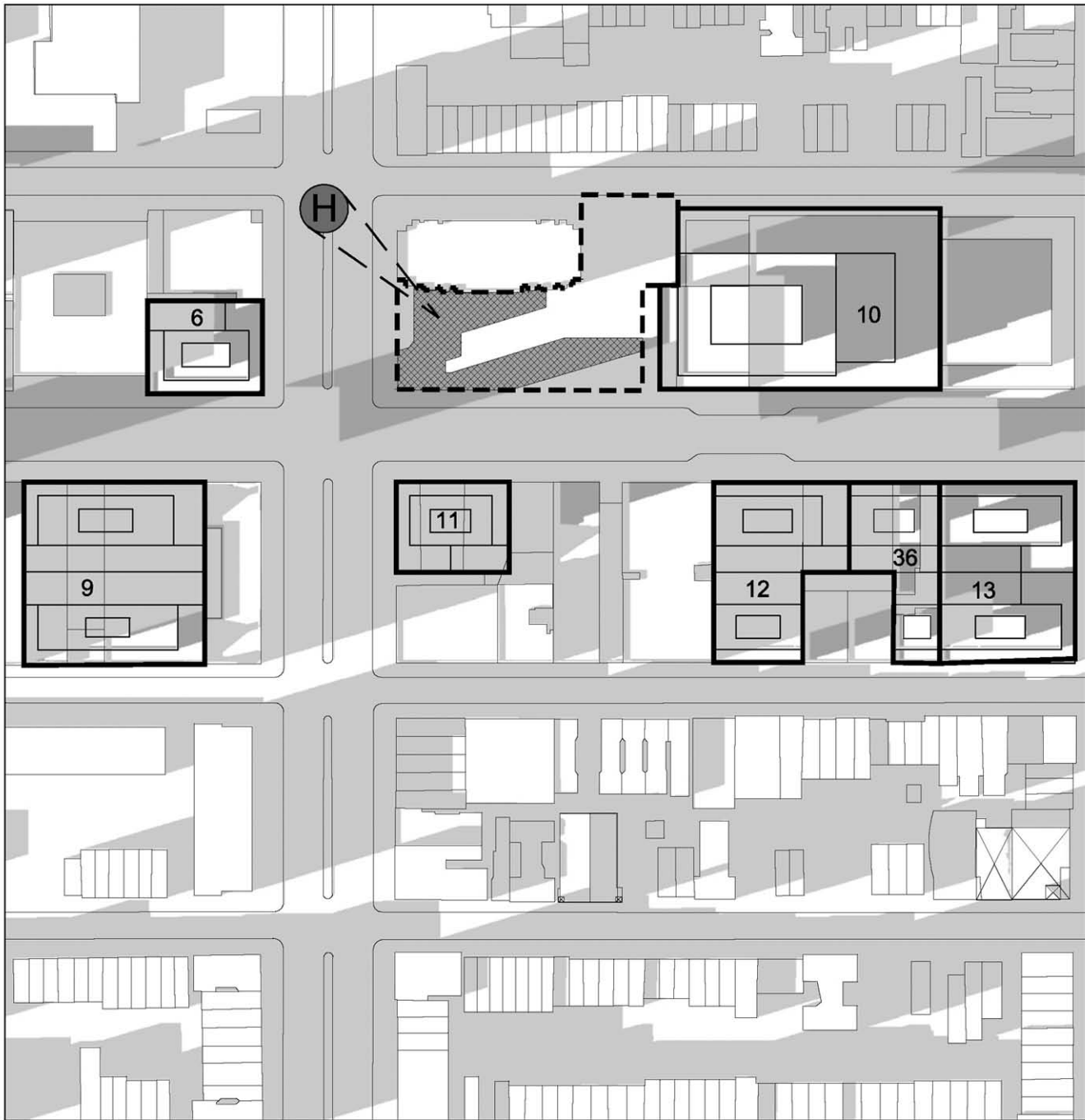
- Incremental Shadow from Projected and Potential Sites on Resource
- Shadow from future No-Action Condition
- Additional Future Action Condition
- Resource of Concern







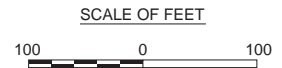
**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**May 6, 09:30**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-37 - Shadow Diagram**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
 NYC Department of City Planning



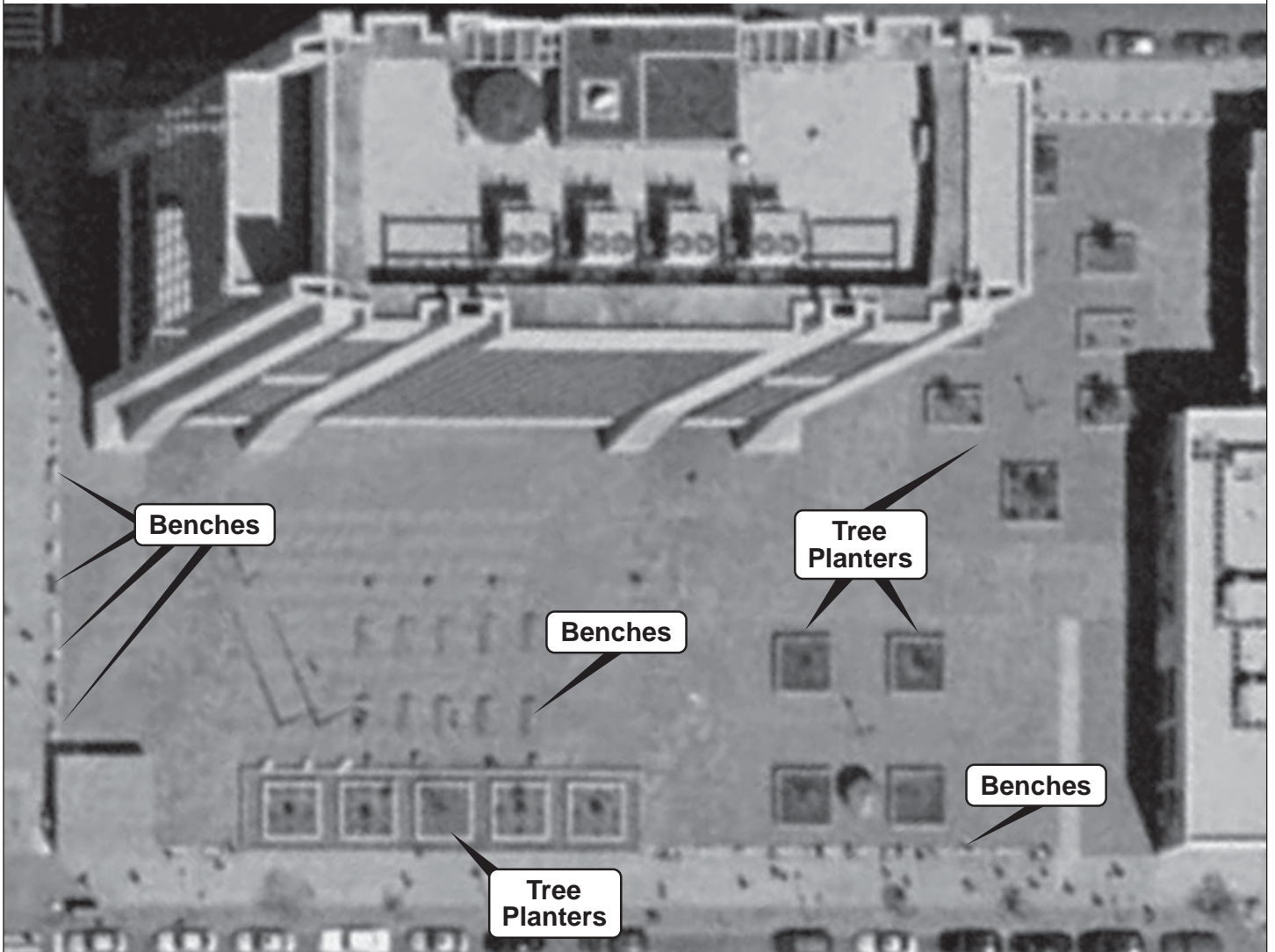
-  Incremental Shadow from Projected and Potential Sites on Resource
-  Shadow from future No-Action Condition
-  Additional Future Action Condition
-  Resource of Concern



**Resource of Concern H**  
**Adam Clayton Powell Jr.**  
**State Office Building Plaza**  
**May 6, 18:30**

Shadow Diagram  
 125th Street Corridor

**Figure 3.5-38 - Shadow Diagram**  
 125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS  
 NYC Department of City Planning



**Resource of Concern H  
Adam Clayton Powell Jr.  
State Office Building Plaza**



125th Street Corridor

SCALE OF FEET



**Figure 3.5-39 - Resource Detail**  
*125<sup>th</sup> Street Corridor Rezoning and Related Actions EIS*  
NYC Department of City Planning