Chapter 6: Shadows

A. INTRODUCTION

This chapter assesses the potential for the Proposed Actions to cast new shadows that would adversely impact nearby sunlight-sensitive resources. Following the guidelines of the 2020 *City Environmental Quality Review (CEQR) Technical Manual*, sunlight-sensitive resources include publicly accessible parks and open space, features of historic resources that depend on sunlight, and natural resources that depend on sunlight. Therefore, this section is closely linked to the data and assessments presented in Chapter 5, "Open Space," Chapter 7, "Historic and Cultural Resources," and Chapter 9, "Natural Resources."

Per CEQR guidelines, an assessment of shadows is required if the proposed project would result in new structures or additions 50 feet or greater in height, or of any height if the project site is located adjacent to, or across the street from, a sunlight-sensitive resource. As detailed in Chapter 1, "Project Description," the Reasonable Worst-Case Development Scenario (RWCDS) identifies 84 development sites (26 projected development sites and 58 potential development sites) within the Project Area. The Proposed Actions could result in new buildings that are greater than 50 feet in height compared to buildings that could be developed in the No Action condition. In addition, some of these buildings would be adjacent to or across the street from sunlight-sensitive resources. Therefore, a shadow analysis was prepared to determine the potential for development resulting from the Proposed Actions to cause significant adverse shadow impacts to sunlight-sensitive resources.

PRINCIPAL CONCLUSIONS

New development resulting from the Proposed Actions would potentially cause significant adverse shadow impacts to multiple sunlight-sensitive resources, including the stained-glass windows of the Most Precious Blood Church on Baxter Street, the garden in the rear yard of the Merchant's House Museum on East Fourth Street, Grand Canal Court (basketball courts with benches and game tables) at Canal Street and Sixth Avenue, a Greenstreet feature with several trees next to the Grand Canal Court, Petrosino Square, a small park at Centre and Spring Streets, and a future planned open space on East 4th Street between Lafayette Street and Bowery.

Eighteen other open space resources and three other historic resources with sunlight-sensitive features would receive incremental shadows in one or more seasons but these shadows would be limited in extent and/or duration and/or would not significantly affect the public's opportunity to use or appreciate the resource.

B. DEFINITIONS AND METHODOLOGY

This analysis has been prepared in accordance with the guidelines of the *CEQR Technical Manual*.

DEFINITIONS

Incremental shadow is the additional, or new, shadow that a structure resulting from a proposed project would cast on a sunlight-sensitive resource.

Sunlight-sensitive resources are those that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Such resources generally include:

- *Public open space* such as parks, beaches, playgrounds, plazas, schoolyards (if open to the public during non-school hours), greenways, and landscaped medians with seating. Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources.
- *Features of architectural resources that depend on sunlight for their enjoyment by the public.* Only the sunlight-sensitive features need be considered, as opposed to the entire resource. Such sunlight-sensitive features might include design elements that depend on the contrast between light and dark (e.g., recessed balconies, arcades, deep window reveals); elaborate, highly carved ornamentation; stained glass windows; historic landscapes and scenic landmarks; and features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as a historic landmark.
- *Natural resources* where the introduction of shadows could alter the resource's condition or microclimate. Such resources could include surface water bodies, wetlands, or designated resources such as coastal fish and wildlife habitats.

Non-sunlight-sensitive resources include, for the purposes of CEQR:

- *City streets and sidewalks* (except Greenstreets);
- *Private open space* (e.g., front and back yards, stoops, vacant lots, and any private, non-publicly accessible open space); and
- *Project-generated open space*, which cannot experience a significant adverse shadow impact from the project, according to CEQR, because without the project the open space would not exist. However, a discussion of how shadows would affect the new space may be warranted.

A significant adverse shadow impact occurs when the incremental shadow added by a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources. Each case must be considered on its own merits based on the extent and duration of new shadow and an analysis of the resource's sensitivity to reduced sunlight.

METHODOLOGY

Following the guidelines of the *CEQR Technical Manual*, a preliminary screening assessment must first be conducted to ascertain whether a project's shadow could reach any sunlight-sensitive resources at any time of year. The preliminary screening assessment consists of three tiers of analysis. The first tier of analysis determines a simple radius around the proposed building representing the longest shadow that could be cast. If there are sunlight-sensitive resources within this radius, the analysis proceeds to the second tier, which refines the area that could be affected by project shadow. This refinement accounts for the fact that shadows can never be cast between a certain range of angles south of the development site due to the path of the sun through the sky at the latitude of New York City.

If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by project shadow by looking at specific representative days in each season and determining the maximum extent of shadow over the course of each representative day.

If a third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadow resulting from the project. The detailed analysis provides the data needed to assess the shadow impacts. The effects of the new shadows on the sunlight-sensitive resources are described, and their degree of significance compared to shadows anticipated under No Action development is considered. The results of the analysis and assessment are documented with graphics, a table of incremental shadow durations, and narrative text.

C. PRELIMINARY SCREENING ASSESSMENT

Projected and potential developments expected as a result of the Proposed Actions could occur on 84 sites within the Project Area. The maximum building height (not including rooftop mechanical bulkheads) for each projected and potential development in the RWCDS is shown in **Appendix A-2**. To ensure a conservative analysis, rooftop bulkheads ranging in height from 15 to 25 feet (depending on the number of stories and other factors) were added to each projected and potential development site in the RWCDS. All 84 development sites were conservatively included in the shadow study, regardless of the incremental height increase relative to the No Action condition, in which the development sites remain as they currently are in existing conditions.

A base map was developed using Geographic Information Systems (GIS)[1] showing the location of the 84 development sites (see **Figure 6-1**). In coordination with the open space, historic and cultural resources, and natural resources assessments presented in other chapters of the environmental impact statement (EIS), potential sunlight-sensitive resources were identified and shown on the map. Open space resources include publicly accessible parks, community gardens, Greenstreets traffic medians, pedestrian plazas, and privately owned publicly accessible plazas, courtyards, and other spaces available to the public. Sunlight-sensitive features of historic buildings and sites include stained-glass windows, design elements that rely on the contrast of light and shadow, vegetation in historic landscapes, and features for which direct sunlight is described as playing an important role in the resource's significance.

TIER 1 SCREENING ASSESSMENT

For the Tier 1 assessment, the longest shadow that a proposed development could cast is calculated, and, using this length as the radius, a perimeter is drawn around the development site. Anything outside this perimeter representing the longest possible shadow could never be affected by project-generated shadow, while anything inside the perimeter needs additional assessment.

[1] *Software*: Esri ArcGIS Pro; *Data*: multiple City, State, and Federal agencies, including the New York City Department of City Planning (DCP), the New York City Parks Department, the New York City Department of Information Technology and Telecommunications (DoITT), the NYC Landmarks Preservation Commission (LPC), the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), Nearmap imagery service, and AKRF site visits.

According to the *CEQR Technical Manual*, the longest shadow that a structure can cast at the latitude of New York City occurs on December 21, the winter solstice, at the start of the analysis day at 8:51 AM, and is equal to 4.3 times the height of the structure.

For each of the 84 development sites, the maximum height, including rooftop mechanical structures, was used to calculate the longest possible shadow. Using this length as the radius, a perimeter was drawn around each of the development sites. **Figure 6-1** illustrates the combined longest shadow study area determined by the Tier 1 assessment.

The Tier 1 assessment showed that a number of resources with sun-sensitive features were located in the longest shadow study area. Therefore, the potential for new shadows on sunlight-sensitive resources could not be eliminated, the next tier of assessment was warranted.

TIER 2 SCREENING ASSESSMENT

Because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given development site. In New York City this area lies between -108 and +108 degrees from true north. **Figure 6-1** illustrates this excluded area south of the 84 development sites. In many cases, the triangular area south of one given site would be north of another development site located farther south. Only areas too far south to be shaded by *any* development site were included in the excluded Tier 2 area. The complementary portion of the longest shadow study area represents the remaining area that could potentially experience new project-generated shadow. A total of 55 sunlight-sensitive resources were identified within the remaining portion of the Tier 2 longest shadow study area, including 35 existing open spaces (parks, playgrounds, Greenstreets medians, and privately owned publicly accessible spaces), four more open spaces expected to be developed by 2031, a planted area with several Willow Oak trees (a species listed as endangered by New York State), and 15 historic resources with sunlight-sensitive features.

These 55 resources requiring a Tier 3 assessment are listed in **Table 6-1**, along with the Tier 3 analysis results.

TIER 3 SCREENING ASSESSMENT

The direction and length of shadows vary throughout the course of the day and also differ depending on the season. In order to determine whether project-generated shadow could fall on a sunlight-sensitive resource, three-dimensional (3D) computer modeling software[2] is used to calculate and display the RWCDS's shadows on individual representative days of the year. A computer model was developed containing three-dimensional representations of the elements in the base map used in the preceding assessments, the topographic information of the study area, and a reasonable worst-case three-dimensional representation of the development sites. The previous Tier 1 and Tier 2 assessments assumed the maximum building height would cover the entire footprint of the development. However, the Tier 3 assessment accounts for the specific massing and setbacks of buildings on projected and potential development sites, including assumptions for rooftop mechanical equipment and bulkheads as required by the *CEQR Technical Manual*.

[2] Bentley MicroStation

REPRESENTATIVE DAYS FOR ANALYSIS

Following the guidance of the *CEQR Technical Manual*, shadows on the summer solstice (June 21), winter solstice (December 21) and spring and fall equinoxes (March 21 and September 21, which are approximately the same in terms of shadow patterns) are modeled to represent the range of shadows over the course of the year. An additional representative day during the growing season is also modeled, generally the day halfway between the summer solstice and the equinoxes, i.e., May 6 or August 6, which have approximately the same shadow patterns.

TIMEFRAME WINDOW OF ANALYSIS

The shadow assessment considers shadows occurring between one and a half hours after sunrise and one and a half hours before sunset. At times earlier or later than this timeframe window of analysis, the sun is down near the horizon and the sun's rays reach the Earth at very tangential angles, diminishing the amount of solar energy and producing shadows that are very long, move fast, and generally blend with shadows from existing structures. Consequently, shadows occurring outside the timeframe window of analysis are not considered significant under CEQR and their assessment is not required.

TIER 3 SCREENING ASSESSMENT RESULTS

Figures 6-2 to 6-5 illustrate the range of shadows that would occur, in the absence of intervening buildings, from the 84 projected and potential development sites on the four representative days for analysis. As they move clockwise and generally west to east over the landscape, the shadows are shown occurring approximately every 60 minutes from the start of the analysis day (90 minutes after sunrise) to the end of the analysis day (90 minutes before sunset). **Table 6-1** summarizes which analysis day or days each resource could potentially receive project-generated shadow.

The Tier 3 assessment concluded that 29 of the 35 publicly accessible open spaces, all four of the future planned open spaces, and 10 of the 15 historic resources could potentially receive incremental shadow on one or more of the representative analysis days, without accounting for intervening buildings and existing shadows, and these resources (indicated in **Table 6-1**) required a detailed analysis. The other sunlight-sensitive resources analyzed in the Tier 3 assessment could not receive project-generated shadow on any representative day and consequently do not require further assessment.

Table 6-1
Tier 3 Assessment

Map Reference	Name	Dec. 21	March 21/ Sept. 21	May 6/ August 6	June 21
	Publicly Accessible Open Spaces				
1	376 Broadway Plaza	No	No	No	Potential
2	Greenstreet - Sixth Ave / Church St / White St	No	No	No	No
3	Tribeca Park	No	No	No	Potential
4	Plaza around Holland Tunnel Exit	No	No	No	No
5	Greenstreet between Canal St and 6th Ave	No	Potential	Potential	Potential
6	Albert Capsouto Park	No	Potential	Potential	Potential
7	Greenstreet between Thompson St and Canal St	Potential	Potential	Potential	Potential
8	Grand Canal Court	Potential	Potential	Potential	Potential
9	Duarte Square	Potential	Potential	Potential	Potential
10	Greenstreet between Broome St and Watts St	Potential	Potential	Potential	Potential
11	Greenstreet - Canal St / Hudson St / Watts St	No	No	No	No
12	Freeman Plaza	Potential	No	No	No
13	Dominick POPS	Potential	No	No	No
14	SoHo Square	Potential	No	No	No
15	Vesuvio Playground	Potential	Potential	Potential	Potential
16	Father Fagan Park	No	No	No	No
17	Greenstreet - Houston St	Potential	Potential	Potential	Potential
18	Time Landscape	Potential	Potential	No	No
19	LaGuardia Corner Gardens Labyrinth	No	No	No	No
20	Greenstreet on Bleecker St btw LaGuardia Pl and Mercer St	No	No	No	Potential
21	Mercer Playground	Potential	Potential	Potential	Potential
22	240 Hayden Hall Plaza	No	No	Potential	Potential
23	Greenstreet on Mercer St between W3rd St and W 4th St	Potential	Potential	Potential	Potential
24	300 Mercer Street Plaza	Potential	No	No	No
25	Washington Square Park	Potential	No	No	No
26	60 E 8 Street Plaza	No	No	No	No
27	Greenstreet - Astor Place 6 subway entrance	Potential	No	No	No
28	51 Astor Place Plaza	Potential	No	No	No
29	Astor Place Plaza	Potential	No	No	No
30	26 Astor Place Plaza	Potential	No	No	No
31	Cooper Triangle	Potential	Potential	Potential	Potential
32	Cooper Square Plaza	Potential	Potential	Potential	Potential
33	Albert's Garden	No	No	No	Potential
34	DeSalvio Playground	No	No	No	Potential
35	Petrosino Square	No	Potential	Potential	Potential
	Future Open Spaces				
36	Grand & Lafayette Streets New York City Department of Environmental Protection (DEP) Site	Potential	Potential	Potential	Potential
37	Bowery & East 4th Street DEP Site	Potential	Potential	Potential	Potential
38	NYU Expansion Playground	Potential	No	No	No
39	NYU Expansion Open Space	Potential	Potential	Potential	Potential
	Natural Resources				
38	Willow Oaks	No	No	No	No
	Historic Architectural Resources with Sunlight-Sensitive Features				
A	Tribeca Synagogue	No	No	No	No
B	St. Anthony of Padua Church	Potential	Potential	No	No
C	University Village	Potential	No	No	No
D	428 - 434 Lafayette Street buildings	Potential	Potential	Potential	Potential
E	Cooper Union/Foundation Building	Potential	Potential	No	No
F	St. George Ukrainian Catholic Church	Potential	No	No	No
G	Middle Collegiate Church	No	No	No	No
H	Merchant's House Museum (rear garden)	Potential	Potential	Potential	Potential
I	62 East 4th Street	No	No	Potential	Potential
J	New York Marble Cemetery	No	No	No	No
K	Basilica of St. Patrick's Old Cathedral and Cemetery	No	Potential	Potential	Potential
L	New York City Police Headquarters	Potential	Potential	Potential	Potential
M	Holy Trinity Ukrainian Orthodox Cathedral	No	No	No	No
N	Bowery Savings Bank	No	No	No	No
O	Most Precious Blood Church	No	Potential	Potential	Potential

Notes:
See **Figures 6-2 to 6-5** for corresponding resource locations and shadow sweeps.
In the columns representing the representative analysis dates, “No” means project-generated shadow could not reach the resource, even without accounting for intervening buildings. “Potential” means project-generated shadow could potentially reach the resource on this date and requires further assessment.

D. DETAILED SHADOW ANALYSIS

A detailed analysis is warranted when the screening analysis does not rule out the possibility that project-generated shadows would reach sunlight-sensitive resources. The detailed analysis establishes a baseline condition, the future without the Proposed Actions (the "No Action" condition) to illustrate the shadows cast by existing buildings (and other future planned buildings). This baseline is then compared to the future condition with the Proposed Actions (the "With Action" condition) to distinguish the additional (incremental) shadow cast by the projected and potential developments. The purpose of the detailed analysis is to determine the extent and duration of new incremental shadow that would be cast on a sunlight-sensitive resource as a result of the Proposed Actions. Because buildings in the existing No Action condition may already cast shadows on a sunlight-sensitive resource, the Proposed Actions may not result in additional, or incremental, shadows on that resource.

Following the analysis framework described in Chapter 1, "Project Description," the detailed analysis was performed for the analysis year of 2031. In the No Action condition, absent the Proposed Actions, it was assumed that the development sites remain as they currently are in existing conditions. Future planned developments in the study area were added to the No Action baseline using best-available information from publicly available filings with the New York City Department of Buildings and other sources.

Shadows are in constant movement. The computer simulation software utilized for the analysis produces a minute-by-minute animation showing the movement of shadows over the course of each analysis period. The analysis determines the time when incremental shadow would enter each resource, and the time it would exit. Shadow analyses were performed for each of the representative days and analysis periods indicated in the Tier 3 assessment.

DETERMINATION OF IMPACT SIGNIFICANCE

The determination of significance of shadow impacts on a sunlight-sensitive resource is based on (1) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows; and (2) an analysis of the resource's sensitivity to reduced sunlight. The goal of the assessment is to determine whether the effects of incremental shadows on a sunlight-sensitive resource are significant under CEQR.

A shadow impact occurs when the incremental shadow from a proposed project falls on a sunlight-sensitive resource or feature and reduces its direct sunlight exposure. Determining whether this impact is significant or not depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

Per CEQR, a significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- **Vegetation:**
  - A substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the No Action condition). In the growing season, four to six hours a day of sunlight is a minimum requirement.
  - A reduction in direct sunlight exposure where the sensitive feature of the resource is already subject to substandard sunlight (i.e., less than the minimum time necessary for its survival).

- **Historic and Cultural Resources:**
  - A substantial reduction in sunlight available for the enjoyment or appreciation of the sunlight-sensitive features of a historic or cultural resource.
- **Open Space Utilization:**
  - A substantial reduction in the usability of open space as a result of increased shadows, accounting for anticipated new users and the open space's utilization rates throughout the affected time periods.
- **For Any Sunlight-Sensitive Feature of a Resource:**
  - Complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

SUMMARY OF ANALYSIS RESULTS

Of the 33 existing and future open spaces that were included in the detailed analysis, 22 would receive incremental shadows on one or more representative analysis days. In addition, five of the 10 historic resources analyzed would receive incremental shadow on one or more analysis days.

The other 11 open space resources and five historic resources did not receive any incremental shadows, generally due to intervening and surrounding buildings. In these cases, shadows from the projected and potential developments overlapped with existing shadows and did not add new shadows on the open space or historic resource.

Table 6-2 summarizes the entry and exit times and total duration of incremental shadows on each affected sun-sensitive resource. **Figures 6-6 to 6-67** document the results of the analysis by providing graphic representations from the computer animation of times when incremental shadow would fall on a sun-sensitive resource. The figures illustrate the extent of additional, incremental shadow at that moment in time (highlighted in red), and also show existing shadow and remaining areas of sunlight.

- **Figures 6-6 to 6-28** depict southwest Soho and the open spaces around Canal Street and Sixth Avenue
- **Figures 6-29 to 6-39** depict West Houston Street and the NYU Core area to the north
- **Figures 6-40 to 6-52** depict the Cooper Square area
- **Figures 6-53 to 6-61** depict Petrosino Square and the Police Building on Centre Street
- **Figures 6-62 to 6-67** depict Canal and Baxter Streets and the Most Precious Blood Church

Table 6-2:
Incremental Shadow Durations

Map Ref.	Name	Dec. 21	March 21/Sept 21	May 6/Aug6	June 21
Publicly Accessible Open Spaces					
5	Greenstreet between Canal St and 6th Ave	No	No	No	6:27 AM to 6:37 AM Total 10 min
6	Albert Capsouto Park	No	7:36 AM to 8:27 AM Total 51 min	6:27 AM to 8:25 AM Total 1 hr 58 min	5:57 AM to 8:30 AM Total 2 hr 33 min
7	Greenstreet between Thompson St and Canal St	9:00 AM to 9:50 AM 10:25 AM to 10:30 AM 11:50 AM to 12:50 PM Total 1 hr 55 min	7:45 AM to 12:45 PM Total 5 hr	7:55 AM to 12:15 PM 4 hr 20 min	8:15 AM to 12:15 PM Total 4 hr
8	Grand Canal Court	8:51 AM to 1:10 PM Total 4 hr 19 min	7:36 AM to 7:45 AM 9:55 AM to 12:35 PM Total 2 hr 49 min	6:27 AM to 8:40 AM 10:30 AM to 11:40 AM Total 3 hr 23 min	5:57 AM to 8:50 AM 11:15 AM to 11:20 AM Total 2 hr 58 min
9	Duarte Square	8:51 AM to 11:10 AM 2 hr 19 min	7:36 AM to 10:05 AM Total 2 hr 29 min	6:27 AM to 8:00 AM Total 1 hr 33 min	5:57 AM to 7:50 AM Total 1 hr 53 min
10	Greenstreet between Broome St and Watts St	10:30 AM to 11:45 AM 2:00 PM to 2:20 PM 2:30 PM to 2:53 PM Total 1 hr 58 min	12:30 PM to 2:35 PM Total 2 hr 5 min	12:10 PM to 2:35 PM Total 2 hr 25 min	No
14	SoHo Square	9:45 AM to 10:55 AM 12:00 PM to 12:05 PM Total 1 hr 15 min	No	No	No
15	Vesuvio Playground	10:40 AM to 10:45 AM Total 5 min	7:36 AM to 7:45 AM 8:00 AM to 8:05 AM Total 14 min	No	No
17	Greenstreet - Houston St	8:51 AM to 9:35 AM 10:05 AM to 11:30 AM Total 2 hr 9 min	12:30 PM to 3:00 PM 3:15 PM to 3:55 PM Total 3 hr 10 min	4:25 PM to 5:18 PM 5:00 PM to 5:18 PM Total 1 hr 11 min	5:00 PM to 6:01 PM Total 1 hr 1 min
18	Time Landscape	2:10 PM to 2:25 PM Total 15 min	3:15 PM to 4:29 PM Total 1 hr 14 min	No	No
21	Mercer Playground	No	No	6:35 AM to 7:00 AM Total 25 min	6:20 AM to 6:45 AM Total 25 min
23	Greenstreet on Mercer St between W3rd St and W 4th St	No	8:30 AM to 8:40 AM Total 10 min	No	No
27	Greenstreet - Astor Place 6 subway entrance	2:51 PM to 2:53 PM Total 2 min	No	No	No
29	Astor Place Plaza	2:51 PM to 2:53 PM Total 2 min	No	No	No
31	Cooper Triangle	1:30 PM to 2:20 PM Total 50 min	3:35 PM to 4:29 PM Total 54 min	No	No
32	Cooper Square Plaza	1:05 PM to 2:05 PM Total 1 hr	1:05 PM to 1:40 PM Total 35 min	No	No
33	Albert's Garden	No	No	No	5:58 PM to 6:01 PM Total 3 min
35	Petrosino Square	No	No	2:30 PM to 4:55 PM Total 2 hr 25 min	2:30 PM to 5:55 PM Total 3 hr 25 min

Table 6-2 (cont'd): Incremental Shadow Durations

Map Ref.	Name	Dec. 21	March 21/Sept 21	May 6/Aug6	June 21
Future Open Spaces					
36	Grand & Lafayette Streets DEP Site	10:20 AM to 1:05 PM Total 2 hr 45 min	10:30 AM to 12:00 PM Total 1 hr 30 min	5:10 PM to 5:18 PM Total 8 min	5:00 PM to 5:45 PM Total 45 min
37	Bowery & East 4th Street DEP Site	9:25 AM to 12:20 PM 2:05 PM to 2:35 PM Total 3 hr 25 min	10:15 AM to 12:40 PM 1:55 PM to 2:40 PM 2:55 PM to 4:29 PM Total 4 hr 4 min	11:25 AM to 11:45 AM 1:40 PM to 3:55 PM 4:10 PM to 4:25 PM Total 2 hr 50 min	1:30 PM to 4:10 PM Total 2 hr 40 min
38	NYU Expansion Playground	1:30 PM to 2:53 PM Total 1 hr 23 min	No	No	No
39	NYU Expansion Open Space	No	7:36 AM to 7:42 AM Total 6 min	6:35 AM to 7:00 AM Total 25 min	6:30 AM to 6:45 AM Total 15 min
Historic Architectural Resources with Sunlight-Sensitive Features					
C[1]	University Village	12:50 PM to 1:30 PM 2:35 PM to 2:40 PM 2:48 PM to 2:53 PM Total 50 min	No	No	No
D[2]	428 - 434 Lafayette Street buildings	11:30 PM to 12:50 PM Total 1 hr 20 min	No	No	No
H[2,3]	Merchant's House Museum (rear garden)	10:55 AM to 11:50 AM Total 55 min	1:40 PM to 3:05 PM Total 1 hr 25 min	1:00 PM to 2:30 PM Total 1 hr 30 min	12:50 PM to 2:35 PM Total 1 hr 45 min
L[2]	New York City Police Headquarters	2:45 PM to 2:53 PM Total 8 min	3:25 PM to 3:50 PM Total 25 min	3:25 PM to 3:40 PM 4:40 PM to 5:18 PM Total 53 min	3:35 PM to 5:50 PM Total 2 hr 15 min
O[4]	Most Precious Blood Church	No	3:25 PM to 4:50 PM Total 1 hr 25 min	2:10 PM to 5:18 PM Total 3 hr 8 min	2:10 PM to 5:40 PM Total 3 hr 30 min

Notes: Table indicates entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.
Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.
[1] Eligible for Listing on the State and National Registers of Historic Places and New York City Landmark
[2] Listed on the State and National Registers of Historic Places and New York City Landmark
[3] National Historic Landmark
[4] Listed on the State and National Registers of Historic Places as part of the Chinatown/Little Italy Historic District

ASSESSMENT OF SHADOW IMPACTS BY RESOURCE

The following section briefly describes each affected resource that would receive more than 10 minutes of incremental shadow;[3] its sunlight sensitivity; and the extent, duration, and potential effects of incremental shadow. Descriptions of resource condition and utilization rates were taken from Chapter 5, "Open Space." Map reference numbers are included with the name, for convenience.

Times are given in Eastern Standard Time (EST) in all seasons, as mandated by the *CEQR Technical Manual*, but Eastern Daylight Time (EDT) is in effect for all representative analysis days except for December 21, and times are also provided parenthetically in EDT when relevant, for informational purposes.

OPEN SPACE RESOURCES

Albert Capsouto Park (Map #6)

Capsouto Park, located at the triangle between Canal, Varick, and Laight Streets, features lush plantings including a double row of canopy and street trees and three large planting beds filled with low flowering shrubs and colorful perennials. Amenities include several rows of benches and a small cluster of chess tables at the southwestern gate. The centerpiece of Capsouto Park is a large sculptural fountain, with a sunning lawn to its south and granite seat walls on its north side.

The park generally receives less existing shadow than is typical in lower Manhattan because it is mostly surrounded by wide streets and intersections, and the Holland Tunnel entrance/exit to its southwest, rather than tall buildings.

No incremental shadow would fall on the park in winter. On March 21/September 21 incremental shadow would move across the park during the first 51 minutes of the analysis day. It would be large at first, shading nearly the entire park, but after about 30 minutes, by 8:00 AM (9:00 AM EDT), it would shade only half the park and other half would be in sun. The park would be mostly or entirely in sun for the remainder of day.

In the late spring and summer months, incremental shadow would fall on portions of the park from the start of the analysis day until about 8:30 AM (9:30 AM EDT). There would be sunlit areas in the park available to users throughout this period, and the park would be mostly or entire in sun for the remainder of the day in these months.

Given the limited duration and size of incremental shadow on each analysis day, and its early occurrence when usage would likely be even lighter than usual, and the remaining sunlit areas during the affected period, the Proposed Actions would not cause significant adverse impacts to either the use or the plantings of Capsouto Park.

Greenstreet between Thompson St and Canal St (Map #7)

This triangular spur of sidewalk serves as a traffic median where Canal Street, Sixth Avenue, and Thompson Street meet contains several trees in tree pits. The trees appear to be four Japanese

[3] Per *CEQR Technical Manual* guidelines, incremental shadow is not considered significant when its duration is no more than 10 minutes and the resource otherwise continues to receive substantial sunlight. *CEQR Technical Manual*, 2020 edition, page 8-27.

zelkova and one northern pin oak. Both species generally require full sun, i.e., a minimum of six hours. There are no benches or other amenities.

In winter, the space would receive a total of about two hours of incremental shadow, intermittently over the course of the morning and midday, as it moves and overlaps with existing shadows.

In the spring, summer, and fall, incremental shadow primarily from Projected Development Site 6 would fall on the space for four to five hours, throughout the morning, covering much or all of the space at times, particularly in the March to May and July to September periods. Given these species' sun requirements and the generally stressed nature of this location, in small pits surrounded by traffic, it is likely that the Proposed Actions would result in new shadows that would cause significant adverse impacts to the health of these trees.

Grand Canal Court (Map #8)

This park contains full and practice basketball courts, benches, and game tables.

The Proposed Actions would result in substantial new shadows, primarily from Projected Development Sites 5 and 6, lasting for up to three to four hours in the morning, in every season. In fall, winter, and early spring, incremental shadow from Projected Development Site 6 would fall to the north and shade large areas of the court at times and in winter would eliminate remaining sun for nearly two hours. In late spring and summer months, incremental shadow from Projected Development Site 5 would fall to the southwest across the space early in the morning for two to three hours, covering a large area at times and eliminating most or all the remaining sun until about 8:00 AM (9:00 AM EDT).

While not eliminating the utility of the basketball court itself, given the long durations of incremental shadow, the large coverage, and the elimination of remaining sun at times, the Proposed Actions would cause significant adverse shadow impacts to users the Grand Canal Court.

Duarte Square (Map #9)

This triangular park is mostly paved. Its southern half contains several benches and individual trees on the eastern perimeter and one mature tree in the southwest corner but is otherwise empty except for the Citi Bike station and the statue of Juan Pablo Duarte. The smaller northern half contains three large planted areas and nine or ten benches as well as several more individual trees (see **Figure 6-68**). Similar to Capsouto Park to its south, Duarte Square is atypically sunny for a lower Manhattan park, because of the wide avenues and intersections to its east, the lack of structures on the property to its west, and Capsouto Park to its south.

Incremental shadow would fall on portions of this park in the morning in every season. In winter, incremental shadow would pass across the park from the start of the analysis day until about 11:00 AM, covering a large area during the first hour, but there would be sunlit areas of the park throughout the affected period for users seeking sunlight. On the March 21/September 21 analysis day, the incremental shadow would fall on portions of the park, primarily the central and southern portions, for a total of about two and a half hours, until about 10:00 AM (11:00 AM EDT), but would remain small throughout, and plenty of sunlit areas would be available. On the May 6/August 6 analysis day incremental shadow would move across the southern end of the park over the course of an hour and a half but would exit by 8:00 AM (9:00 AM EDT) and plenty of sunlit areas would remain during the affected period. On June 21 incremental shadow would cover a large area for the first hour or so, in the center and northern parts of the square, but the coverage would be less than half the park at its largest, and would be gone before 8:00 AM (9:00 AM EDT).

Sunlit areas would be available throughout the affected period for users seeking sunlit seating areas or other uses.

On each analysis day the size of the incremental shadow would be limited to a portion of the park, while other areas of the park would be in sun. Further, the greatest extent of incremental shadow would generally very early in the morning, when usage would likely be at its lightest. Consequently, this park would not be significantly affected by shadows resulting from the Proposed Actions.

Greenstreet between Broome St and Watts St (Map #10)

This large Greenstreets triangle, bounded by Broome, Watts, and Thompson Streets, contains bench seating, mature trees, flowers, and other plantings.

In winter, when shadows are long, incremental shadow eliminates small patches of sun intermittently throughout the day, for a total duration of two hours. The small patches of additional shadow would not be significant nor likely even noticed by any users, of which there would likely be few, during the cold weather season.

On the March 21/September 21 analysis day a small area of incremental shadow would fall on the northern portion of the triangle for about two hours in the early afternoon, joining some existing shadow at that time, but a portion of the triangle would be in sun throughout this period, and the incremental shadow would remain small. On the May 6/August 6 analysis day, incremental shadow would move across the triangle over the course of two and a half hours, in the early afternoon, but most of the triangle would be in sun during this time. No incremental shadow would occur on June 21.

Given the small size of the incremental shadow throughout the year and that in the spring, summer, and fall months areas of sun would remain on the triangle throughout the affected period, this Greenstreets space with seating would not be significantly affected by shadows resulting from the Proposed Actions.

SoHo Square (Map #14)

This triangular park along Sixth Avenue between Broome and Spring Streets is mostly paved and contains benches, trees and other plantings in large planted areas, and some moveable tables and chairs.

Incremental shadow would fall on this park in winter only, for about an hour and 10 minutes, 9:45 AM to nearly 11:00 AM. The shadow would not be large during this time, and areas of sun would remain in the park. Consequently, the shadow would not significantly impact the park users.

Vesuvio Playground (Map #15)

This playground, mid-block between Sullivan, Thompson, Spring, and Prince Streets, contains a spray feature and pool, ball courts, play structures, benches, and tables.

Minimal incremental shadow would reach this playground: five minutes in winter, and a total of 14 minutes around 8:00 AM (9:00 AM EDT) on March 21 and September 21, with the incremental shadow remaining very small. No incremental shadow would occur on the May through August analysis days. Given its very limited extent and duration, the new shadow resulting from the Proposed Actions would not significantly affect this playground.

Greenstreet - Houston St (Map #17)

Small areas of new shadow would reach portions of the planted medians on Houston Street principally from Potential Development Site DD, ranging from about two hours in winter, three hours on March 21/September 21, and about one hour in late spring and summer. The incremental shadow would be small and move, and all affected areas would continue to receive a minimum of four hours of direct sun on March 21 and September 21 and four to six hours minimum in the May through August heart of the growing season. Given the limited extent of new shadow and the adequate remaining sunlight, the shadow resulting from the Proposed Actions would not significantly affect the plantings in any of the West Houston Street medians.

Time Landscape (Map #18)

This space is densely planted with trees and other plantings native to the island of Manhattan. Its interior is not accessible to the public; it is rather a visual resource to enjoy from the adjacent walkways.

This space would receive 15 minutes of incremental shadow in winter, a very small shadow that would not affect any plants anyway given the season, and would receive an hour and 14 minutes of new shadow in the late afternoon on March 21 and September 21. This shadow would be limited to the southern end of the space, and the affected area would receive minimum six hours of sun earlier in the day, enough for any species, and consequently this resource would not be significantly impacted by the shadows resulting from the Proposed Actions.

Mercer Playground (Map #21)

The Mercer Playground, located on the west side of Mercer Street between Bleecker and West 3rd Streets, contains a water spray feature, play structures, skating and running paths, benches, and trees.

This playground space would receive minimal incremental shadow: 25 minutes very early in the late spring and summer months, small enough in size that it would likely go unnoticed among the substantial existing shadows falling on the playground at this time, approximately 6:45 AM (7:45 AM EDT). The minimal extent and duration would not affect this playground.

Cooper Triangle (Map #31)

This park, west of Third Avenue between East 6th and 7th Streets, contains benches, mature and young trees and other plantings, and a statue honoring Peter Cooper.

In winter, incremental shadow would move onto the park at 1:30 PM and move across it for the next 50 minutes, covering a portion of the park while other parts would be in existing shadow or in sun. On March 21 and September 21, similarly, incremental shadow would fall on a portion of the park for the final 54 minutes of the analysis day, remaining generally small, adding to existing shadows, while a substantial portion of the park remains sunlit. Given the limited coverage of incremental shadow, and the remaining sunlit area, and the limit occurrence of the new shadow over the course of the year, the Proposed Actions would not result in significant adverse shadow impacts to this park.

Cooper Square Plaza (Map #32)

South of Cooper Triangle, this revamped plaza contains large planted areas with trees and other plantings, and benches.

In winter, incremental shadow would move onto the plaza just after 1:00 PM. Small at first, it would move east and, along with shadows form existing buildings, eliminate the remaining sunlight from the plaza from about 1:45 PM to 2:05 PM, after which the plaza would be entirely in existing shadow. At this time, a substantial area of the adjacent Cooper Triangle would be in sun for any users seeking sunlight. Given this fact and the limited duration of new shadow and the typically lighter use of the plaza in the cold weather months, the new shadow would not have a significant effect on this park in winter. On March 21 and September 21, a very small incremental shadow would pass across the southern end of the plaza for about 35 minutes, while the rest of the plaza would be mostly in sun, and the new shadow would not significantly affect the park.

Petrosino Square (Map #35)

This small but heavily used brick-paved park at Centre and Spring Streets contains seating areas with benches, water fountains, trees, and landscaped areas.

The park would not receive any incremental shadow in the fall, winter, and early spring. In the late spring and summer, shadow primarily from Projected Development Site 28 and to a lesser degree from Potential Development Site GG would enter the northern part of the park at about 2:30 PM (3:30 PM EDT) and move eastward. It would eliminate the remaining sun on the northern third of the park from 4:00 PM to 5:00 PM on May 6/August 6 (5:00 PM to 6:00 PM EDT) and on June 21 from 4:30 PM to about 6:00 PM (5:30 PM to 7:00 PM EDT).

Total duration of incremental shadow on these dates would be 2½ to 3½ hours, depending on the month, and for nearly half of that period the incremental shadow would eliminate the remaining sunlit area on the north side of the park. Consequently, given these factors and the popularity of the space in an area underserved with similar spaces, the shadow resulting from the Proposed Actions would cause significant adverse impacts to this park.

FUTURE OPEN SPACE RESOURCES

Grand & Lafayette Streets DEP Site (Map #36)

By 2031, a new publicly accessible open space will be developed on the northwest corner of Grand and Lafayette Streets as part of a DEP infrastructure project. This space will be mostly paved with a landscaped circle with two benches in the center, and planted buffers and benches around the west, north, and east perimeters. Incremental shadow would fall on portions of the planned space on all four analysis days.

On the winter analysis day, incremental shadow would enter the southwest corner of the space at 10:20 AM and move toward the center, adding to large existing shadows during this time, leaving a small area of sunlight near the northern perimeter where some benches are located. By 11:15 AM the incremental shadow would cover about a third of the space, removing nearly all the remaining sunlight for around 10 minutes. The incremental shadow would continue moving across the center of the space toward the northeast corner, with some sunlight returning to the west and south areas of the space. By noon, several benches in the northwest would be in sun, by 12:30 PM more than half the space would be in sun with incremental shadow limited to the north and west quarter, and the incremental shadow would exit at 1:05 PM.

On the March 21/September 21 analysis day, incremental shadow would pass across the southeast corner of the space from 10:30 AM to 12:00 PM (11:30 AM to 1:00 PM EDT), covering less than 10 percent of the space at its maximum extent, and on average much less than that over the course of the 90-minute period. The entire rest of the space would be in sun during this time. In the late

spring and summer months, incremental shadow would fall in the late afternoon on the southern edges of the space, limited in duration to eight minutes on May 6/August 6, and 45 minutes on June 21, and in both cases falling almost entirely on paved area at the entrances, not reaching any benches.

In winter, incremental shadow would last 2 hours and 45 minutes, would cover up to about a third of the space at its largest extent, and would remove nearly all the sunlight for about 10 minutes. However, in the spring, summer, and fall, incremental shadow would be quite limited in extent and duration, and large areas of the space would be in sun for much of the day in these seasons. Therefore, incremental shadow would not significantly impact the space in the spring, summer, and fall. With regard to winter, the greater extent and duration of incremental shadow could potentially adversely impact the use of the space. But given the relatively low usage of passive recreational spaces typical of cold-weather months, and given that incremental shadow would eliminate the remaining sun on seating areas for only 30 to 40 minutes in the late morning, before and after which sunlit benches would be available, the overall impact to the space would not be significant, especially given the minimal impact of incremental shadows in other seasons.

Bowery & East 4th Street DEP Site (Map #37)

By 2031, a new publicly accessible open space will be developed on East 4th Street between Lafayette Street and Bowery (east-adjacent to the Merchant's House Museum and Garden, see Historic Resources, below) as part of a DEP infrastructure project. This space will be mostly paved with a small turf oval in the center, and planted buffers and benches around the west, north, and east perimeters. Incremental shadow would fall on this space in all seasons.

In winter, incremental shadow from Projected Development Sites 1 and 13 would eliminate the remaining sun from the space from 9:25 AM to 11:40 AM, including seating areas on the west side of the space, and would continue to shade a portion of the space until 12:20 PM. Incremental shadow would also fall for 30 minutes in the afternoon in the northeast part of the open space, but would be small and would not eliminate the remaining sun.

On the March 21/September 21 analysis day, incremental shadow from Projected Development Site 13 would move across the southern and central portions of the space from 10:15 AM to 12:40 PM (11:15 AM to 1:40 PM EDT), eliminating up to half the remaining sunlight at times during this period. A small incremental shadow would fall in the southeast area of the space for 45 minutes in the midafternoon, Incremental shadow from Projected Development Site 2 would fall on the space for the final 90 minutes of the analysis day, eliminating the remaining sun for the last 45 minutes.

In the late spring and summer months, incremental shadow from Potential Development Site J, two properties to the west on East 4th Street, would fall across the northern portion of the space in the mid- to late afternoons, for approximately two and a half hours, covering a small area early in that period but a larger area later, including the seating areas in the northeast area of the space.

Given the long durations and at times large extents of incremental shadow that would occur in all seasons, including periods when remaining sunlight would be eliminated, the incremental shadow would cause significant impacts to this future planned open space.

NYU Expansion Playground (Map #38)

A playground is expected to be developed as part of the NYU 2031 expansion plan, located between the landmarked University Village buildings (Silver Towers) and NYU's newly-constructed 181 Mercer Street building.

This playground would receive shadow from the top floor or two and bulkhead of Potential Development Site NN on the winter analysis day, from 1:30 PM to the end of the analysis day at 2:53 PM. The size of the shadow would be small for most of the duration, and sunlit areas would be available in other parts of the space. After 2:30 PM existing shadows would cover most of the playground and the incremental shadow would remove most of the remaining (small) area of sun. Incremental shadow would not reach the playground in other seasons.

Given the limited size and duration of the incremental shadow and its limited seasonal occurrence, and the remaining available sun for most of the affected period, this playground would not be significantly affected by the shadows resulting from the Proposed Actions.

NYU Expansion Open Space (Map #39)

As part of the NYU 2031 expansion plan, additional open space will be developed on the superblock bounded by Bleecker, West 3rd, and Mercer Streets, and LaGuardia Place. Mercer Playground will abut this new space on its eastern side.

This open space would receive minimal incremental shadow, even less than Mercer Playground: 15 to 25 minutes very early in the late spring and summer months, small enough in size that it would likely go unnoticed among the substantial existing shadows falling on this space at this time, approximately 6:45 AM (7:45 AM EDT). The minimal extent and duration would not affect this large open space.

HISTORIC RESOURCES

University Village (Map #C)

University Village, aka "the Silver Towers," is eligible for listing on the State and National Registers of Historic Places (S/NR) and a New York City Landmark (NYCL). The façades of these landmarked towers feature the Brutalist architectural style, and rely on the contrast of sunlight and shadow on the deep window bays and smooth edges for the full aesthetic effect.

On the winter analysis day, incremental shadow primarily from the bulkhead of Potential Development Site NN would reach a portion of the ground floor of the façade of 110 Bleecker Street (Silver Tower 1, closest to West Houston Street). The shadow would move across a portion of the south façade and then east façade from 1:50 PM to 2:30 PM. The vast majority of these façades would be in sun during the 40 minute affected period, and this minimal new shadow would not affect the public's opportunity to appreciate the Brutalist-style façades of the towers on sunny days. The incremental shadow would continue moving east and reach a small area at the base of 100 Bleecker Street (Silver Tower 2) for 10 minutes at the end of the analysis day ending at 2:53 PM. This minimal extent and duration of shadow would not be significant. Incremental shadow would not reach these buildings on any other analysis day.

428 - 434 Lafayette Street buildings (Map #D)

The Lafayette Street façade of the landmarked LaGrange Terrace (S/NR-listed as well as part of the S/NR-eligible NoHo Historic District, and NYCL), also known as Colonnade Row, features a row of two-story-high Corinthian columns and deep portico, which depend on the interplay of sunlight and shadow for the full architectural effect.

On the winter analysis day, incremental shadow would move across the colonnade from 11:30 AM to 12:50 AM. Small at first, the new shadow would be larger after 12:00 PM, reaching its maximum extent around 12:30 PM when it would eliminate most but not all sun for five or 10

minutes. Incremental shadow would not reach the façade in any other season. The limited duration of new shadow, and limited seasonal occurrence, would not result in significant adverse shadow impacts to this resource.

Merchant's House Museum rear garden (Map #H)

This 1832 rowhouse (National Historic Landmark [NHL], S/NR-listed, and NYCL) remains virtually unchanged from the 19th Century, inside and out. Now a museum owned by the New York City Department of Parks and Recreation (NYC Parks), and open six days a week in the afternoons, members (for free) and visitors (for a $25 entrance fee) can enjoy the house, by appointment only. The museum and garden in the rear yard is available for event rentals such as weddings. The garden contains lush plantings, flower beds, and marble benches, and is enclosed by high walls.

The garden's walls and the townhouse itself cast shadows on the garden. However, the garden receives substantial sun in the late morning and early afternoon, particularly in the spring, summer, and fall. With the Proposed Actions, the west-adjacent Potential Development Site J would cast new shadow on the garden during these times throughout the year, for approximately an hour up to an hour 45 minutes depending on the season, eliminating all the sunlight for most of these periods. Consequently the Proposed Actions would result in significant adverse shadow impacts to this historic resource.

New York City Police Headquarters (Map #L)

Known as the Police Building, at 240 Centre Street between Grand and Broome Streets, this monumental, Beaux Arts-style landmark (S/NR-listed and NYCL) has a projecting dome encircled with windows and columns, and colonnades on its Centre Street façade, in the middle and at its north and south ends, and columns on its north and south façades. The Centre Street (west) and Grand Street (south) façades face toward development sites.

Minimal incremental shadow (8 minutes) would reach the columns on the Centre Street façade in winter, and incremental shadow would pass across the Centre Street columns briefly, for 25 minutes, on the March 21 and September 21 analysis day.

On May 6 and August 6, incremental shadow from Projected Development Site 4 would move across portions of the columns at the south end of the Centre Street façade from 3:25 PM to 3:40 PM and again from 4:40 PM to 5:18 PM. Other columns on the Centre Street façade and/or the Grand Street façade would be in sunlight during these times, visible to pedestrians from any location where the columns shaded by Projected Development Site 4 would be visible. On June 21, incremental shadow would fall on the same colonnade at the southern end of the Centre Street façade from 3:35 PM to 5:15 PM. Small at first, it would be largest from 4:15 PM to 4:45 PM when it would cover half or nearly half the colonnade. However, portions of this and other colonnades would remain sunlit. Incremental shadow would also shade the columns on the Grand Street façade from 4:30 PM to 5:50 PM, eliminating all the sun from the colonnade approximately 5:00 PM to 5:30 PM, but the colonnade on the Centre Street side of the corner at Grand Street would be mostly or fully in sun at that time.

Substantial portions of the building's colonnades would remain partially or entirely in sun throughout the affected periods of incremental shadow, and consequently the new shadow would not significantly affect people's opportunity to appreciate these sunlight-sensitive architectural features.

Most Precious Blood Church (Map #O)

This historic church (part of the S/NR-listed Chinatown/Little Italy Historic District) has large stained-glass windows on its front (west), Baxter Street façade and a row of stained-glass windows on its south façade, both of which face projected development sites, primarily Projected Development Site 27.

The stained-glass windows would not receive any new shadows in winter, but would receive an hour and a half of new shadow on March 21 and September 21 afternoons and three to three and a half hours of new shadow on late spring and summer afternoons.

On March 21 and September 21 the incremental shadow would move onto the front façade windows at 3:25 PM (4:25 PM EDT) and would eliminate all sun from 4:00 PM to 4:50 PM (5:00 PM to 5:50 PM EDT). On May 6 and August 6, incremental shadow would move onto the front façade windows at 2:10 PM (3:10 PM EDT) and from 2:40 PM to 3:40 PM (3:40 PM to 4:40 PM EDT) cover all the front façade windows, and would continue to eliminate all sun (along with existing shadow) from 3:40 PM until 5:18 PM (6:18 PM EDT). Similarly, on June 21, incremental shadow would move onto the front façade windows at 2:10 PM (3:10 PM EDT) and from 2:35 PM to 3:35 PM (3:35 PM to 4:35 PM EDT) cover all the front façade windows, and would continue to eliminate all sun (along with existing shadow) from 3:35 PM until 5:40 PM (6:40 PM EDT). Incremental shadow would also reach the south façade windows beginning at 4:40 PM and eliminating all sun for 45 minutes until approximately the end of the analysis period.

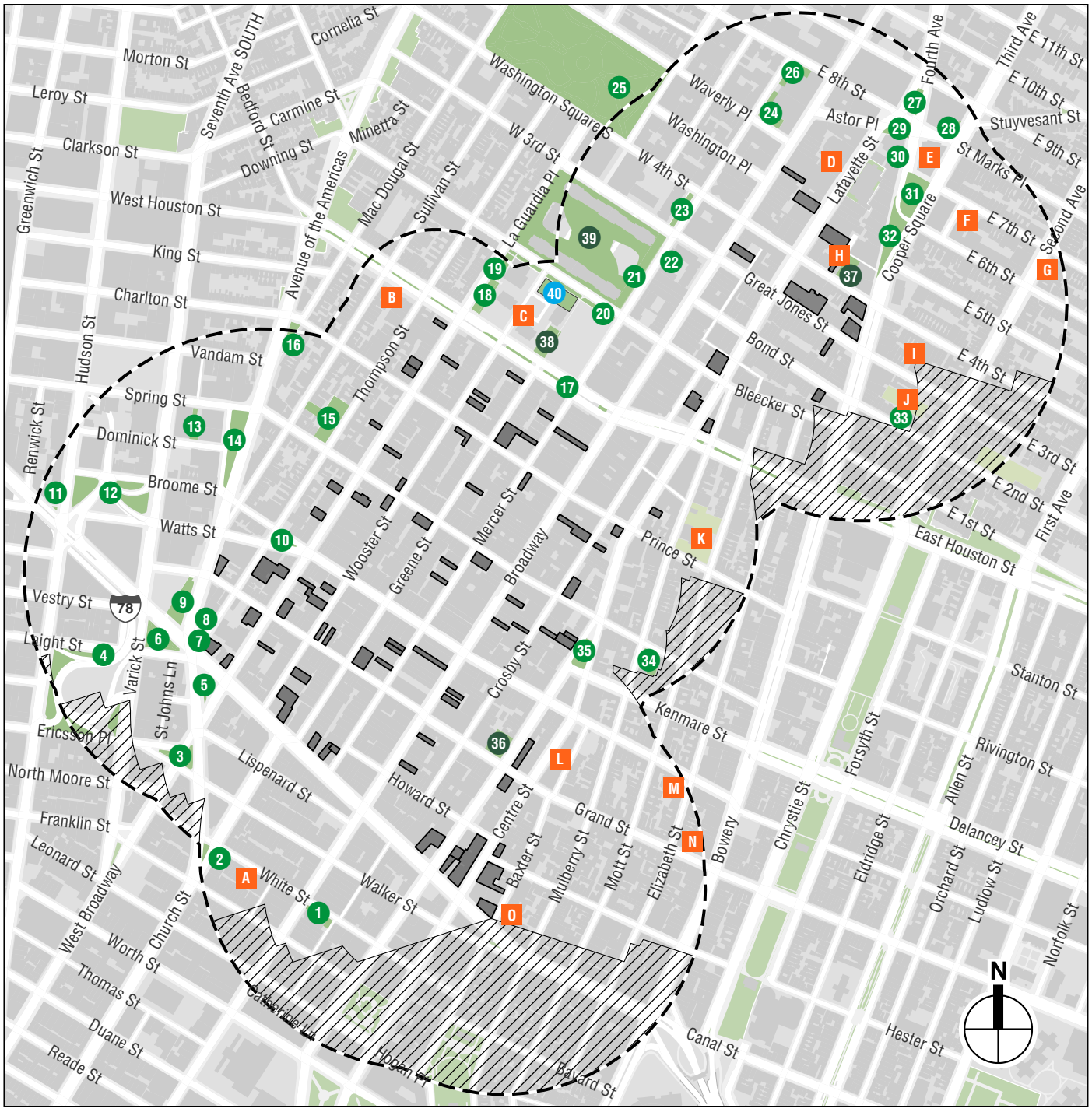
Given the extent and duration of incremental shadows, and the elimination of sun for 50 minutes to an hour in the late afternoons of the spring, summer, and fall months, the shadows resulting from the Proposed Actions would cause significant adverse impacts to this historic church.

E. CONCLUSIONS

The projected and potential developments would cast new shadows in the Project Area. Most of this new shadow would not reach sunlight-sensitive resources due to existing buildings, and future buildings being developed irrespective of the Proposed Actions. However, the detailed analysis found that 20 parks or other open space resources and five historic sites with sunlight-sensitive features could receive new shadows in one or more seasons.

New development resulting from the Proposed Actions would potentially cause significant adverse shadow impacts to six sunlight-sensitive features or resources, including the stained-glass windows of the historic Most Precious Blood Church on Baxter Street, the garden in the rear yard of the historic Merchant's House Museum on East Fourth Street, Grand Canal Court (basketball courts with benches and game tables) at Canal Street and Sixth Avenue, a Greenstreet feature consisting of several trees next to the Grand Canal Court, Petrosino Square, a small park at Centre and Spring Streets, and a future planned park on East 4th Street between Lafayette Street and Bowery.

Eighteen other open space resources and three other historic resources with sunlight-sensitive features would receive incremental shadows in one or more seasons but these shadows would be limited in extent and/or duration and/or would not significantly affect the public's opportunity to use or appreciate the resource. ✷



Tier 1 and Tier 2 Assessments

SOHO/NOHO NEIGHBORHOOD PLAN **Figure 6-1**

4.30.21



Projected or Potential Development Site

Publicly Accessible Open Space (see Table 6-1 for resource key)

Future Publicly Accessible Open Space (see Table 6-1 for resource key)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1 for resource key)

This figure illustrates the range of shadows that would occur from the Proposed Development on the analysis day representing the winter. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (90 minutes after sunrise) to the end of the analysis day (90 minutes before sunset). The Tier 3 assessment does not account for future No Action shadows, and the shadows shown in this figure do not represent incremental shadows. The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed building's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings, by project-generated shadow. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

Tier 3 Assessment:
December 21

4.30.21



Projected or Potential Development Site

Publicly Accessible Open Space (see Table 6-1 for resource key)

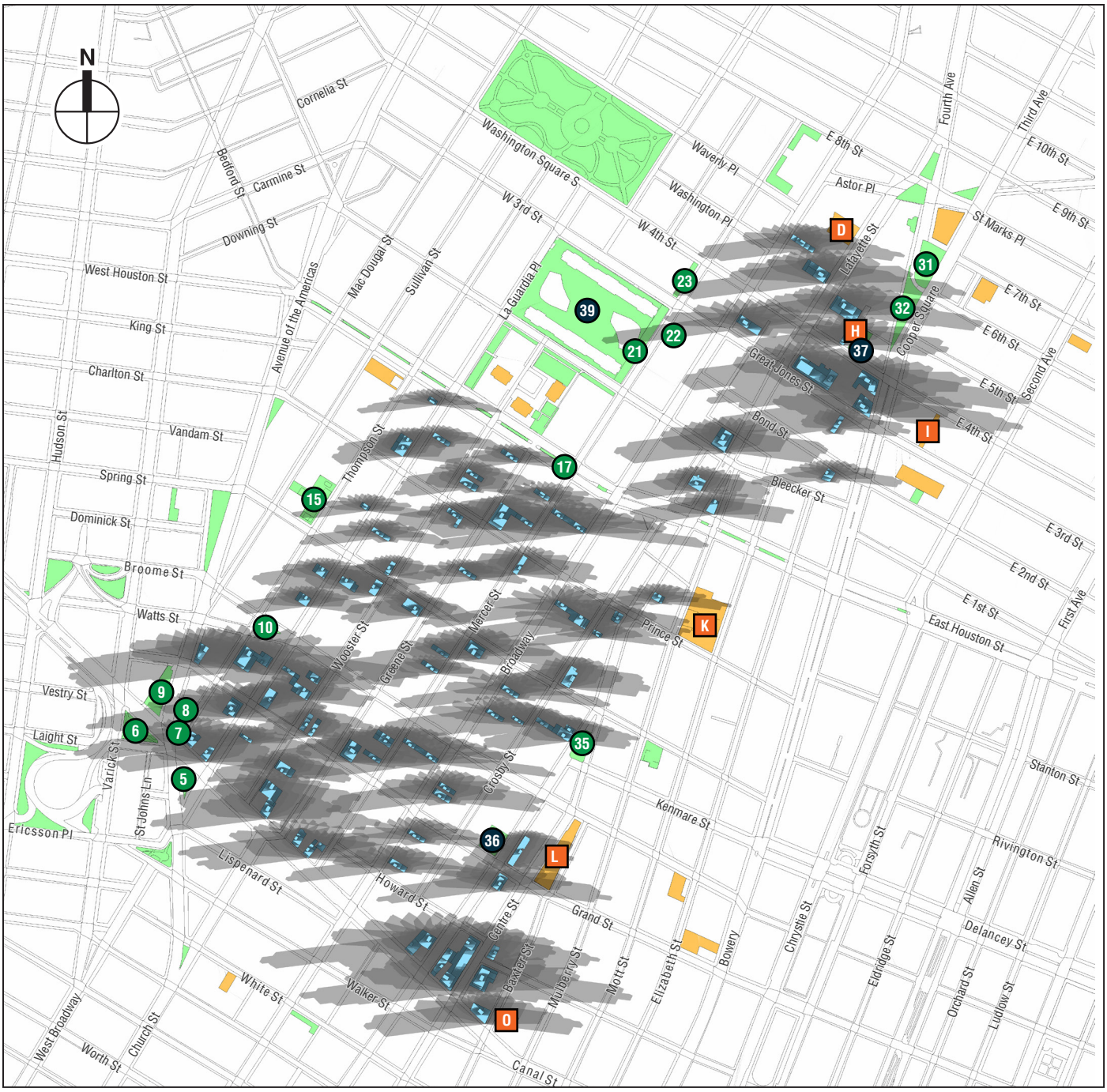
Future Publicly Accessible Open Space (see Table 6-1 for resource key)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1 for resource key)

This figure illustrates the range of shadows that would occur from the Proposed Development on the analysis day representing the early spring and the fall. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (90 minutes after sunrise) to the end of the analysis day (90 minutes before sunset). The Tier 3 assessment does not account for future No Action shadows, and the shadows shown in this figure do not represent incremental shadows. The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed building's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings, by project-generated shadow. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

Tier 3 Assessment: March 21 / September 21

4.30.21



Projected or Potential Development Site

Publicly Accessible Open Space (see Table 6-1 for resource key)

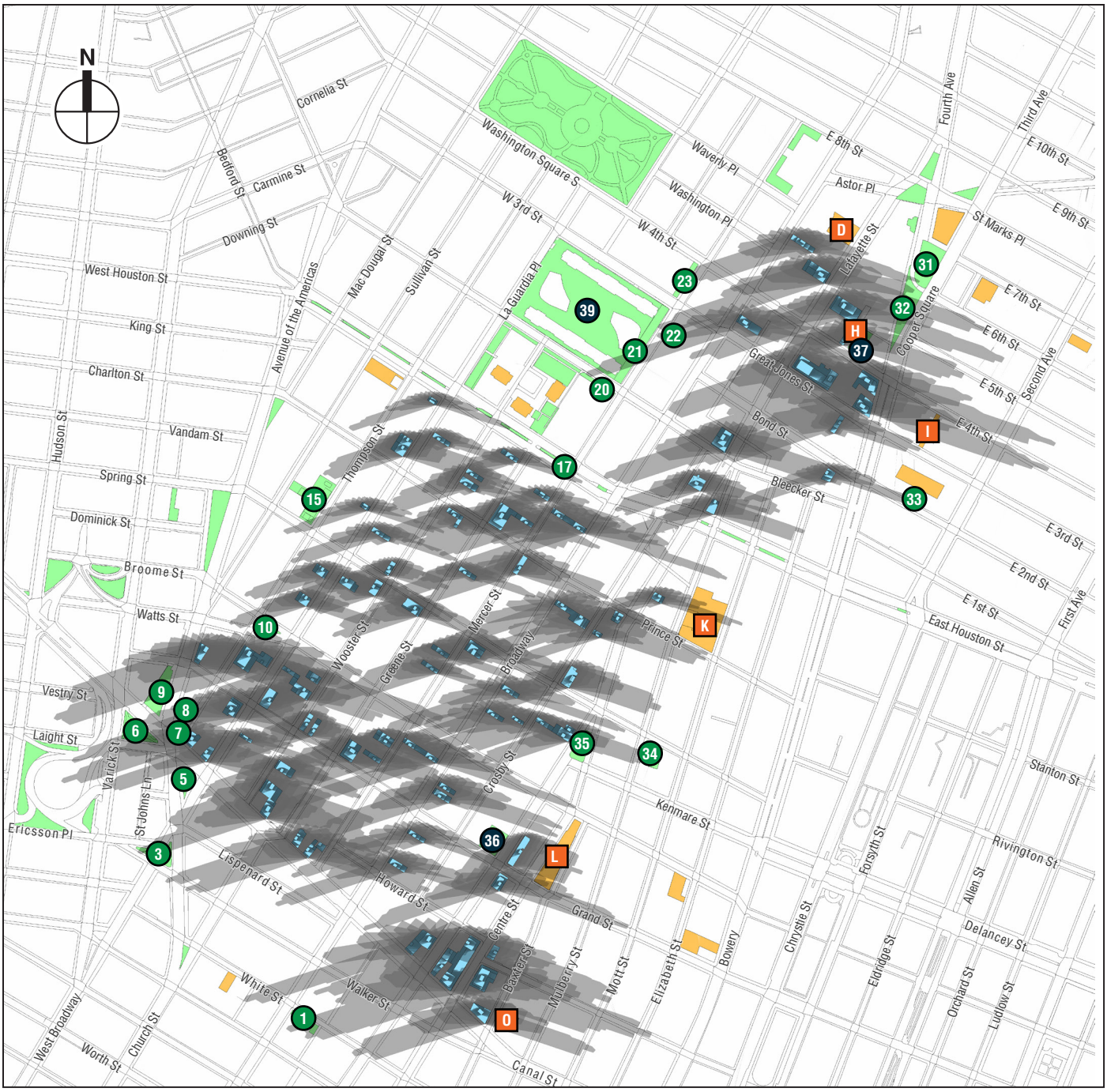
Future Publicly Accessible Open Space (see Table 6-1 for resource key)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1 for resource key)

This figure illustrates the range of shadows that would occur from the Proposed Development on the analysis day representing the spring and summer growing season period. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (90 minutes after sunrise) to the end of the analysis day (90 minutes before sunset). The Tier 3 assessment does not account for future No Action shadows, and the shadows shown in this figure do not represent incremental shadows. The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed building's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings, by project-generated shadow. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

Tier 3 Assessment: May 6 / August 6

4.30.21



Projected or Potential Development Site

Publicly Accessible Open Space (see Table 6-1 for resource key)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1 for resource key)

This figure illustrates the range of shadows that would occur from the Proposed Development on the analysis day representing summer. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (90 minutes after sunrise) to the end of the analysis day (90 minutes before sunset). The Tier 3 assessment does not account for future No Action shadows, and the shadows shown in this figure do not represent incremental shadows. The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed building's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings, by project-generated shadow. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

Tier 3 Assessment:
June 21

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

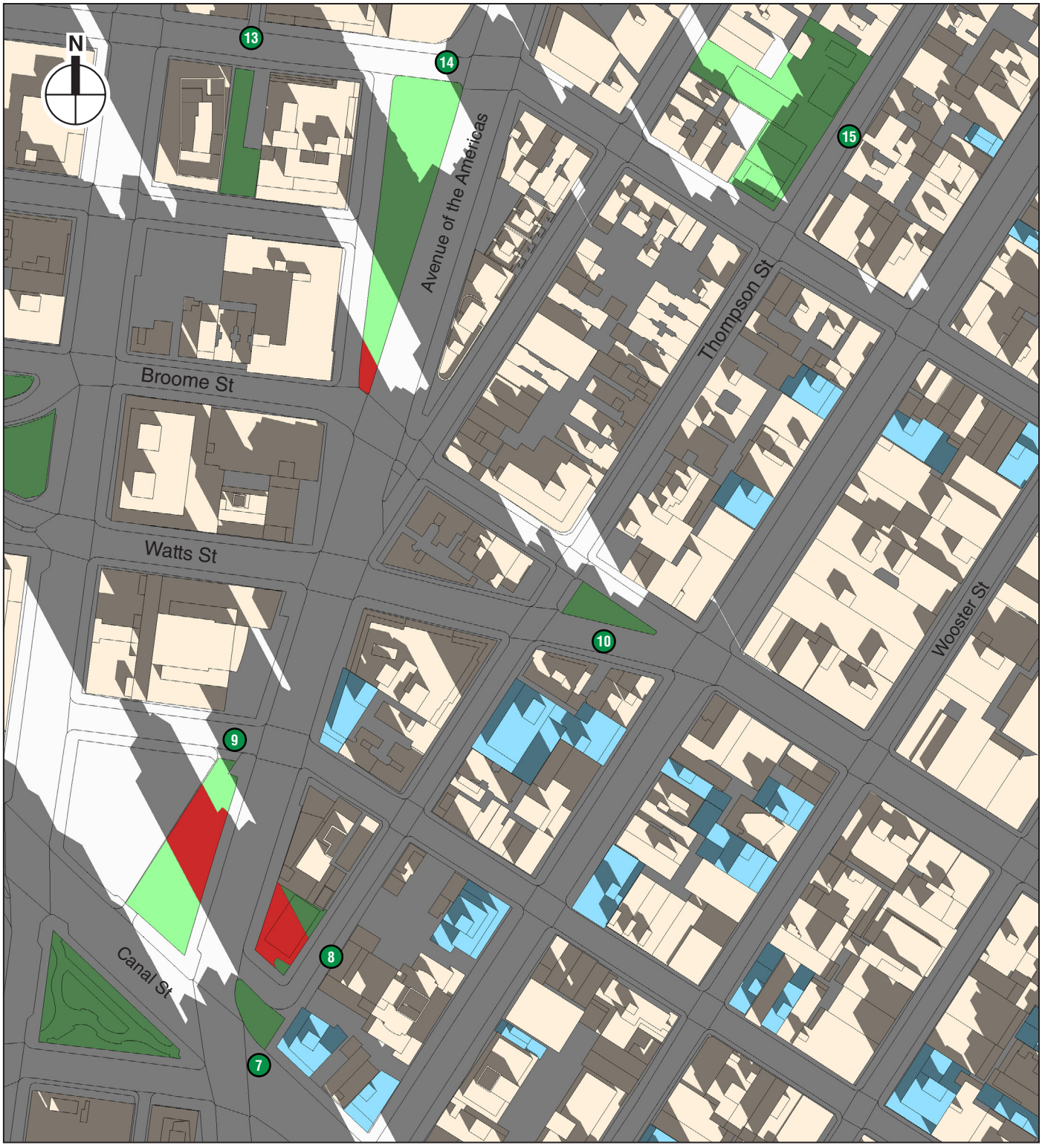
9:00 AM

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-6

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

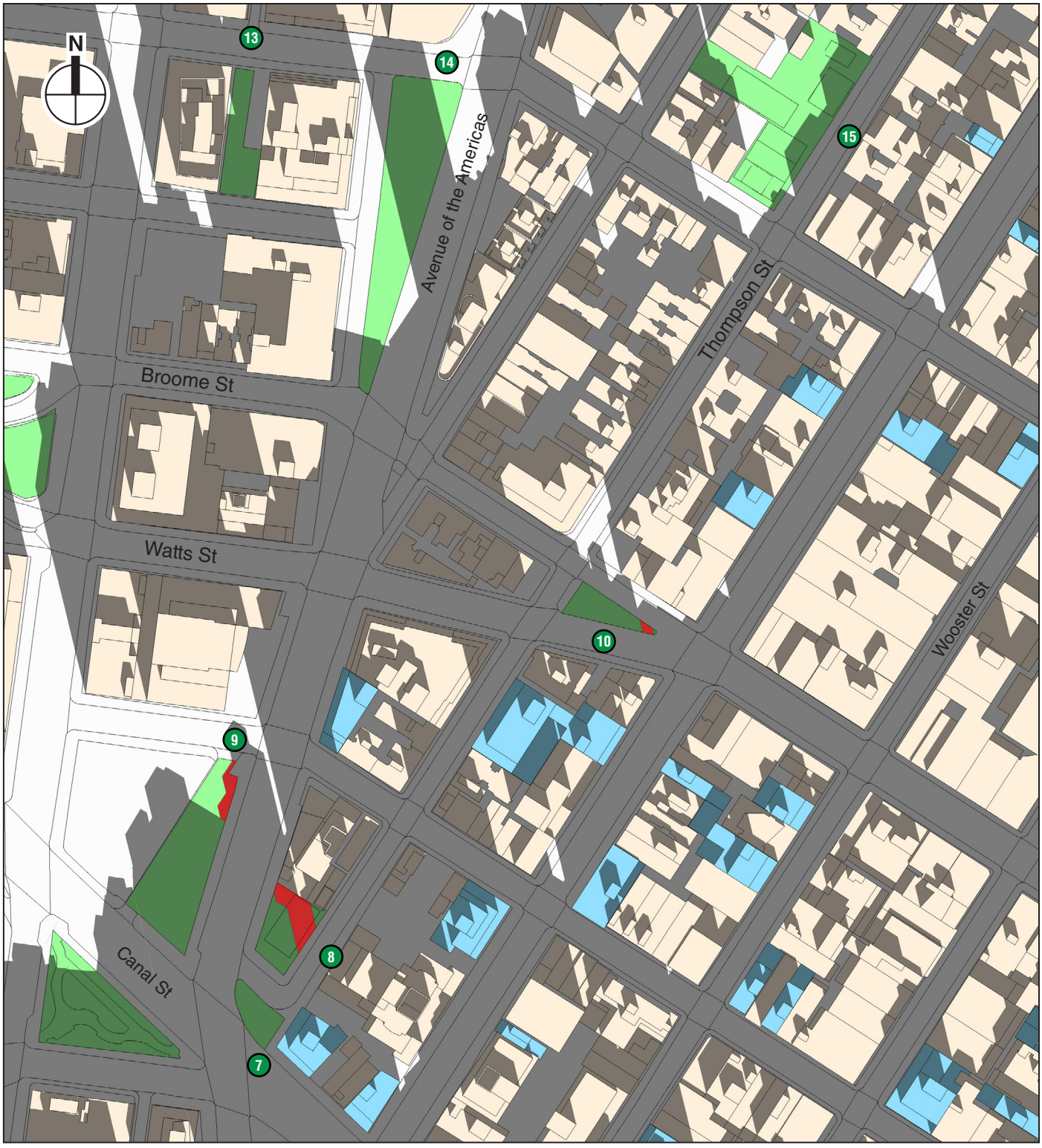
10:00 AM

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-7

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

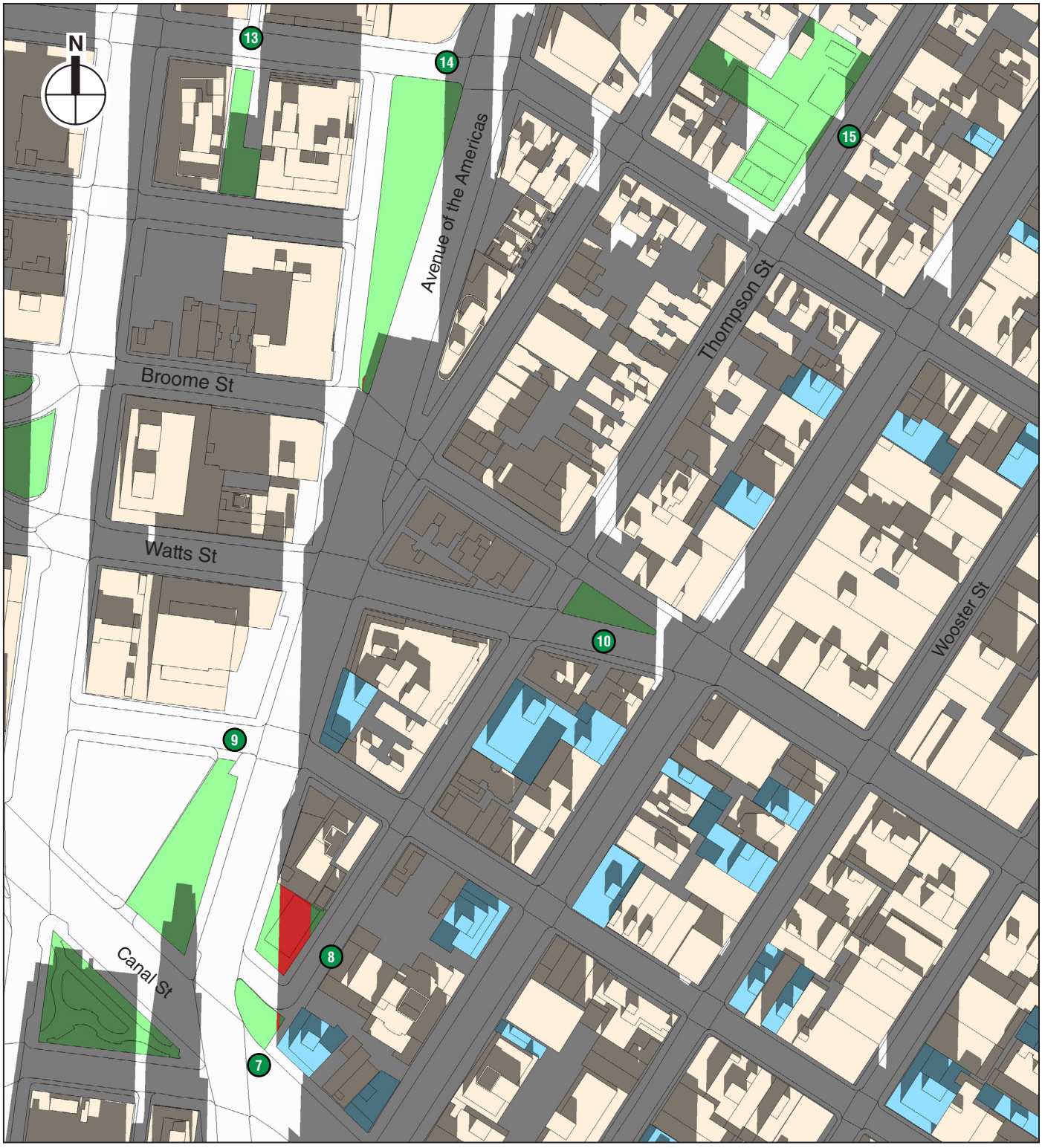
11:00 AM

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-8

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

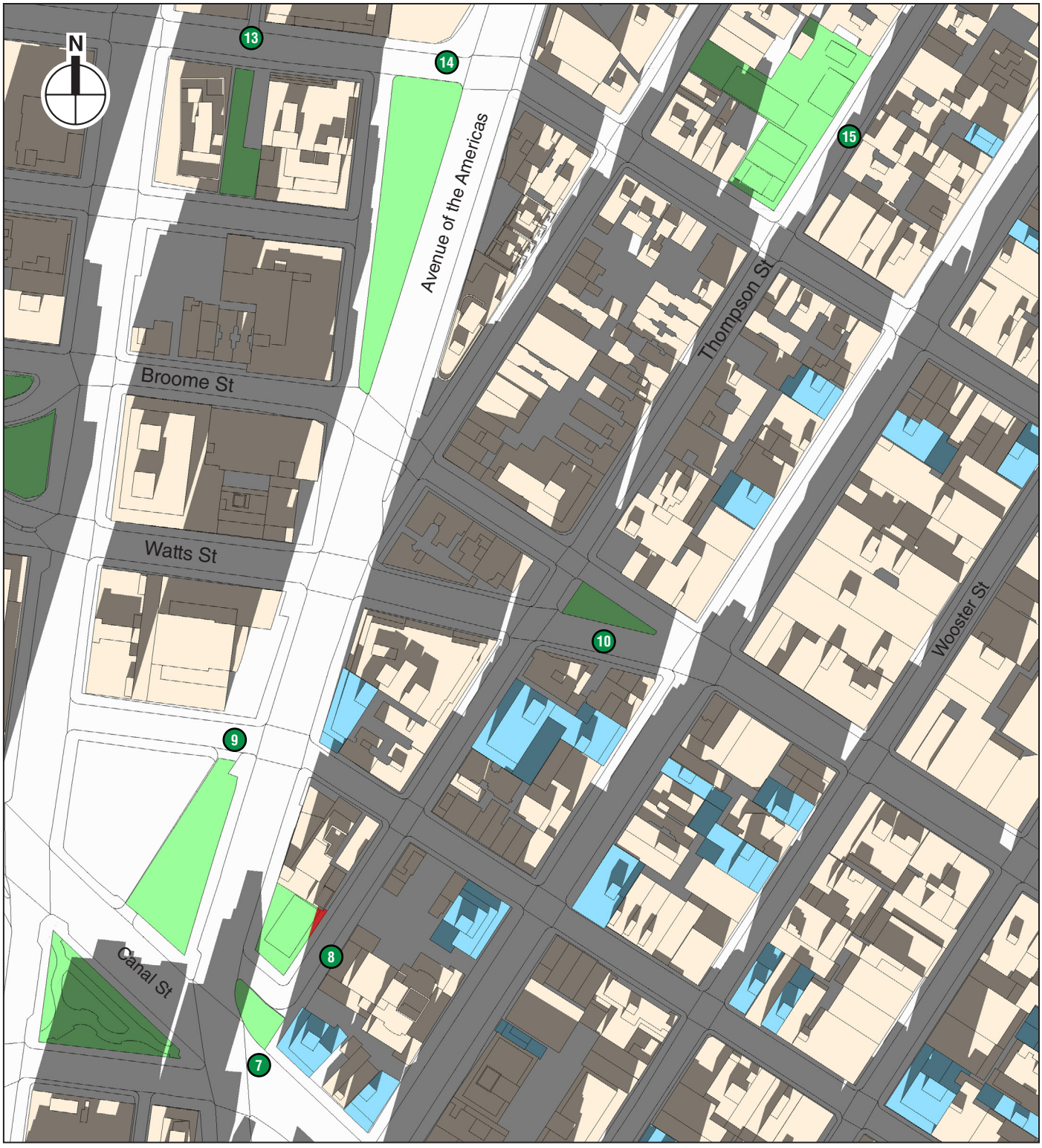
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

12:00 PM

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-9



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

1:00 PM

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-10

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

8:00 AM

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-11

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

9:00 AM

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-12

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

10:00 AM

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-13

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

11:00 AM

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-14

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

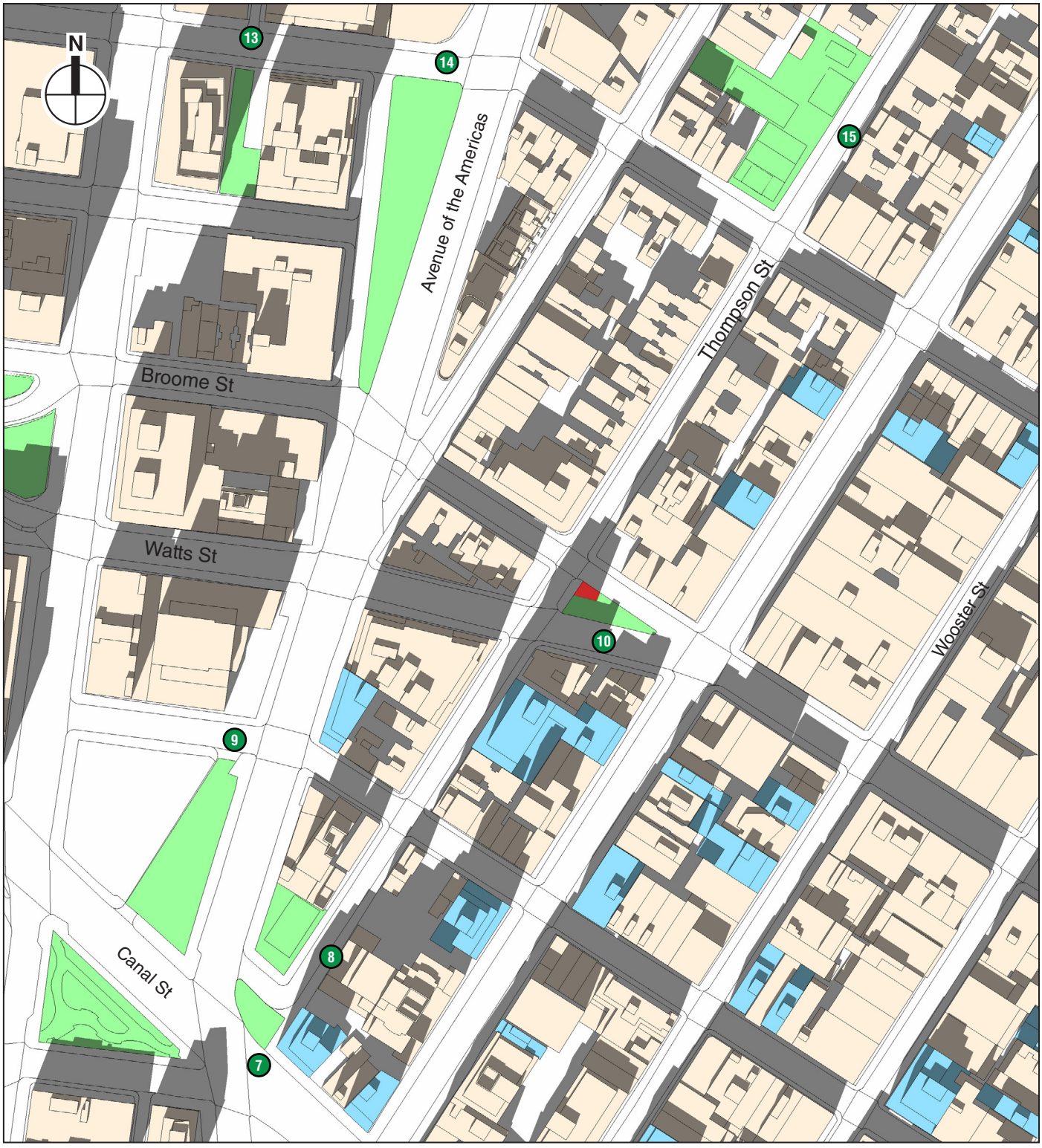
Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

12:00 PM

Detailed Analysis
March 21 / September 21

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

1:00 PM

Detailed Analysis
March 21 / September 21

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

7:00 AM

Detailed Analysis
May 6 / August 6

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

8:00 AM

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-18

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

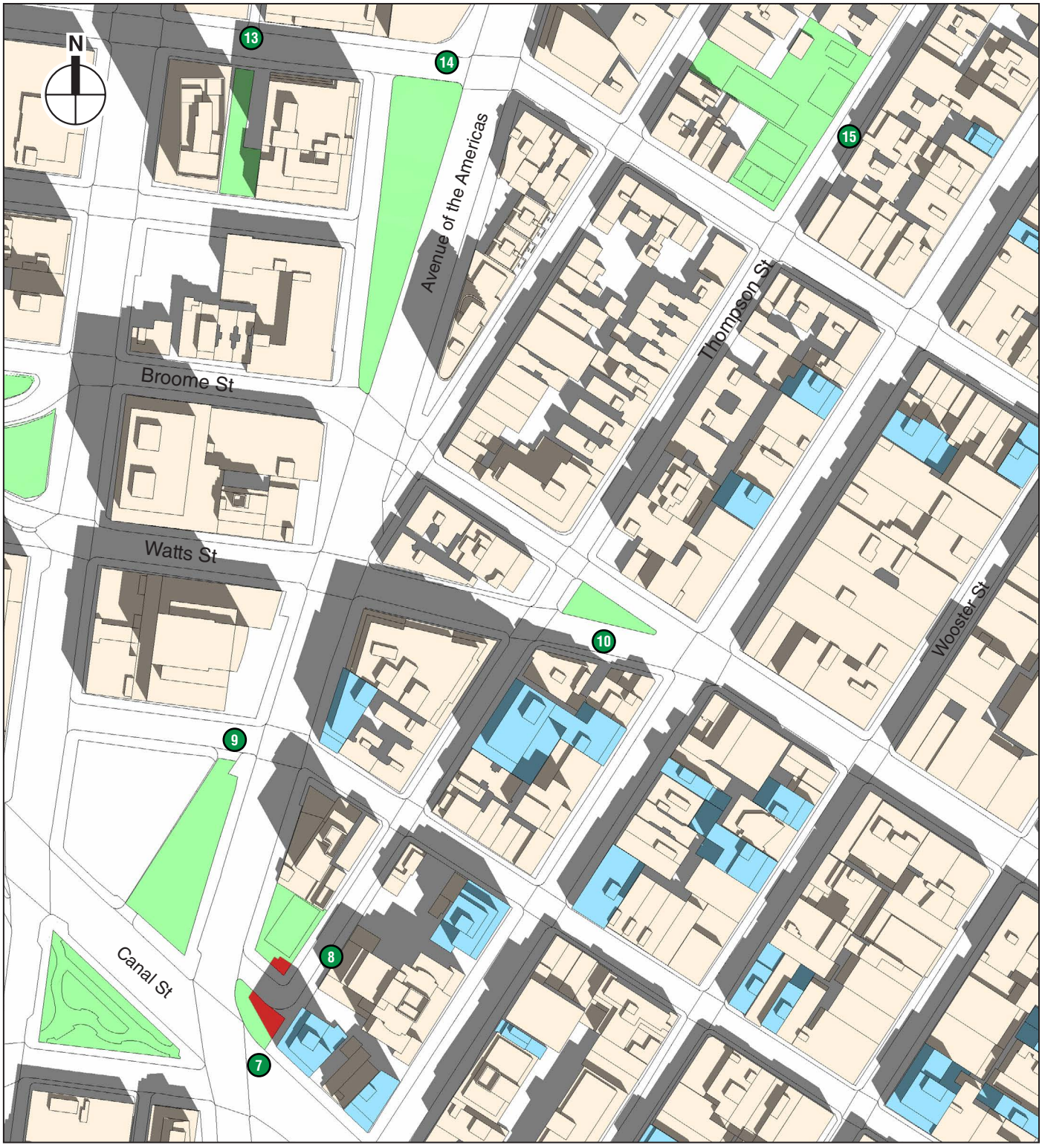
9:30 AM

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-19

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

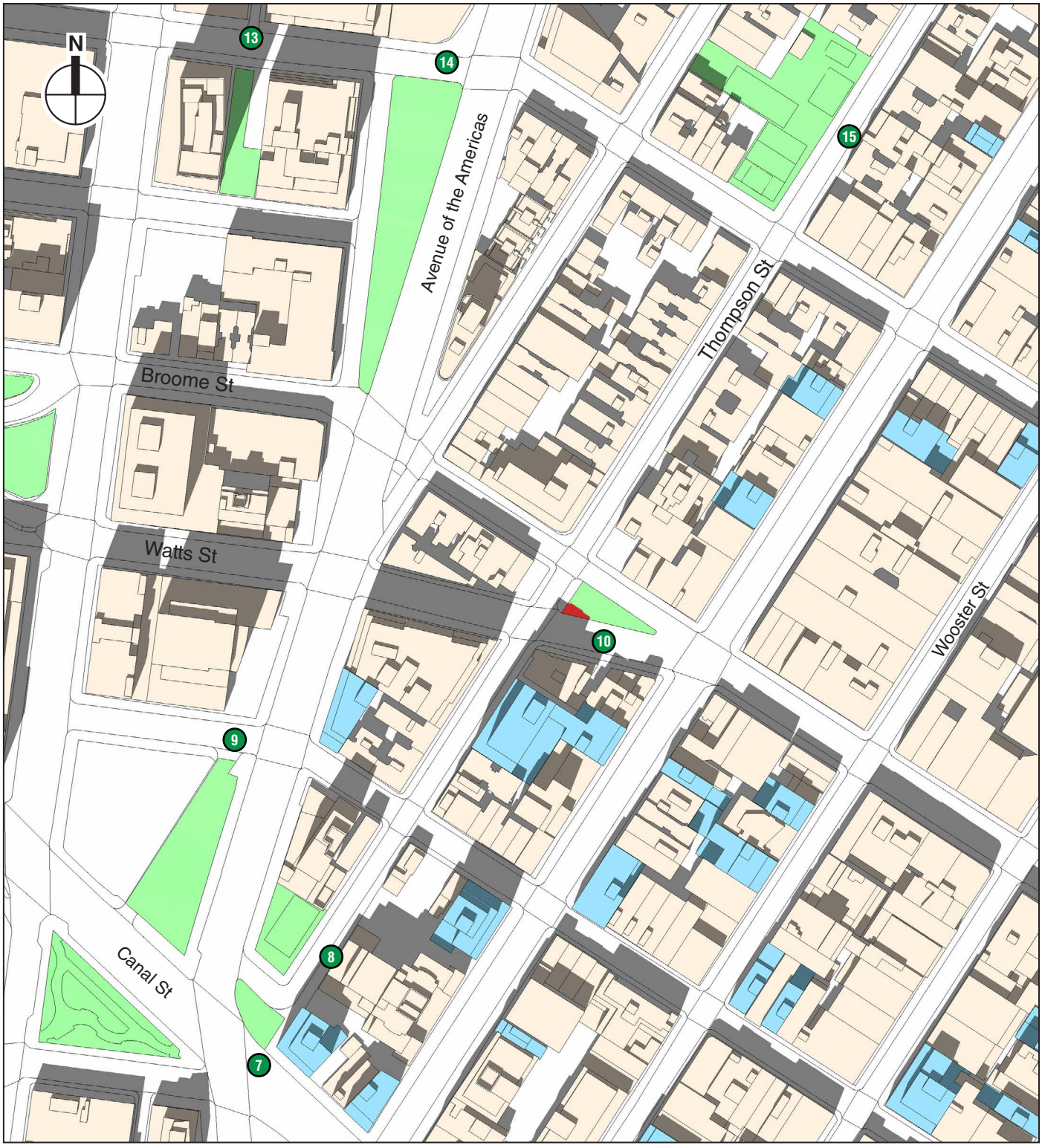
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

11:00 AM

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-20



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

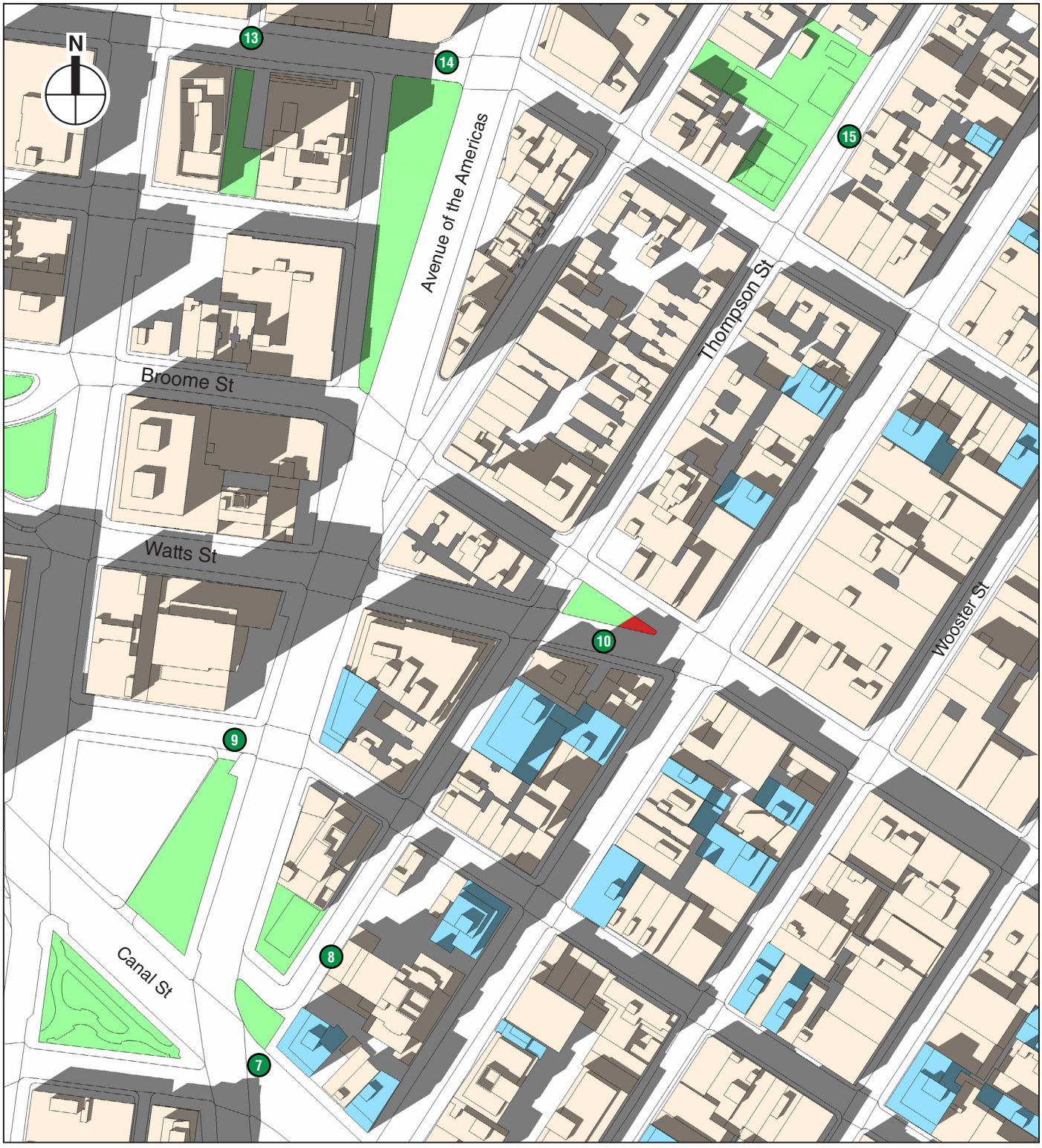
Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

12:30 PM

Detailed Analysis
May 6 / August 6

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

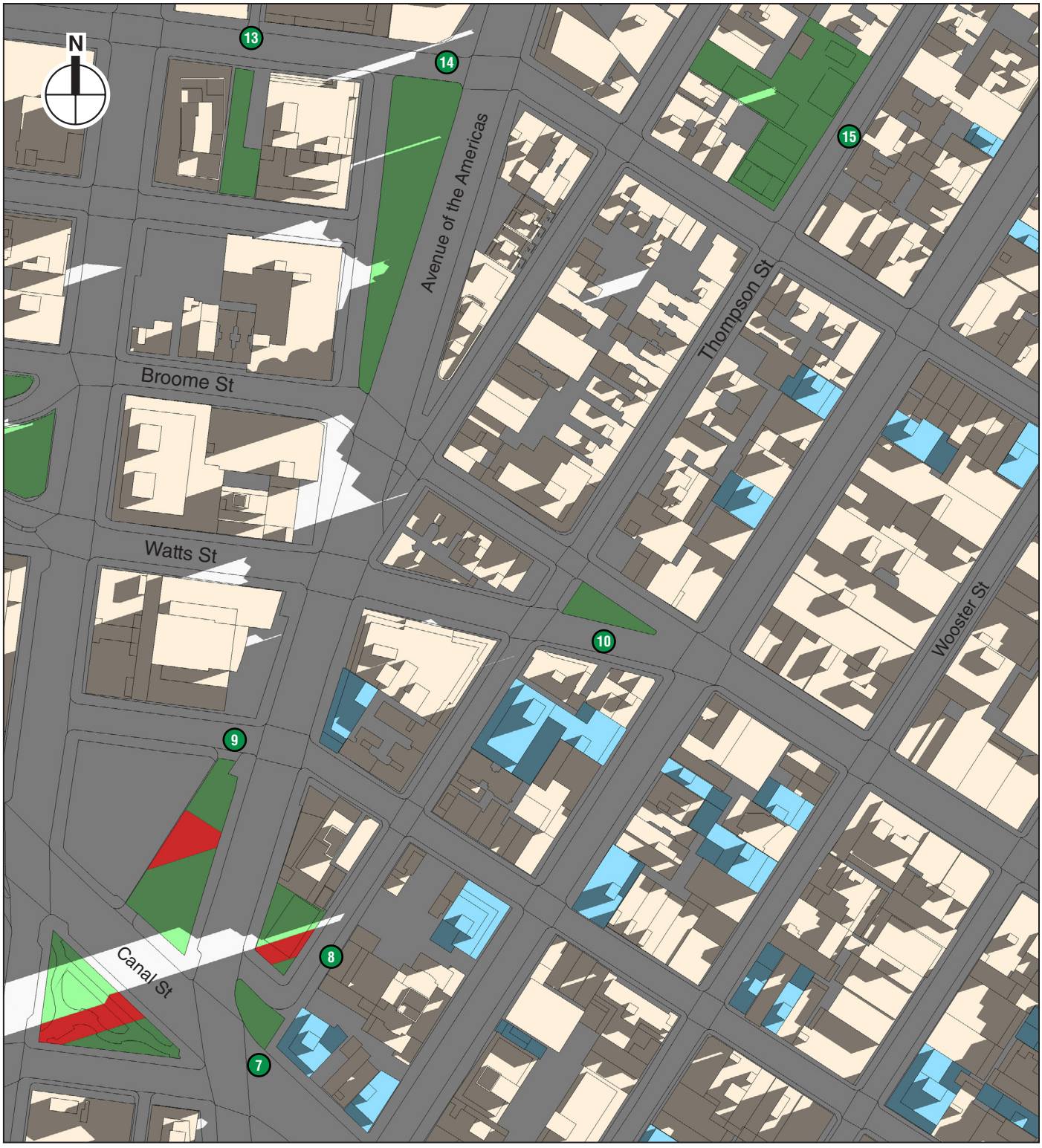
2:00 PM

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-22

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

6:00 AM

Detailed Analysis
June 21

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

7:00 AM

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-24

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

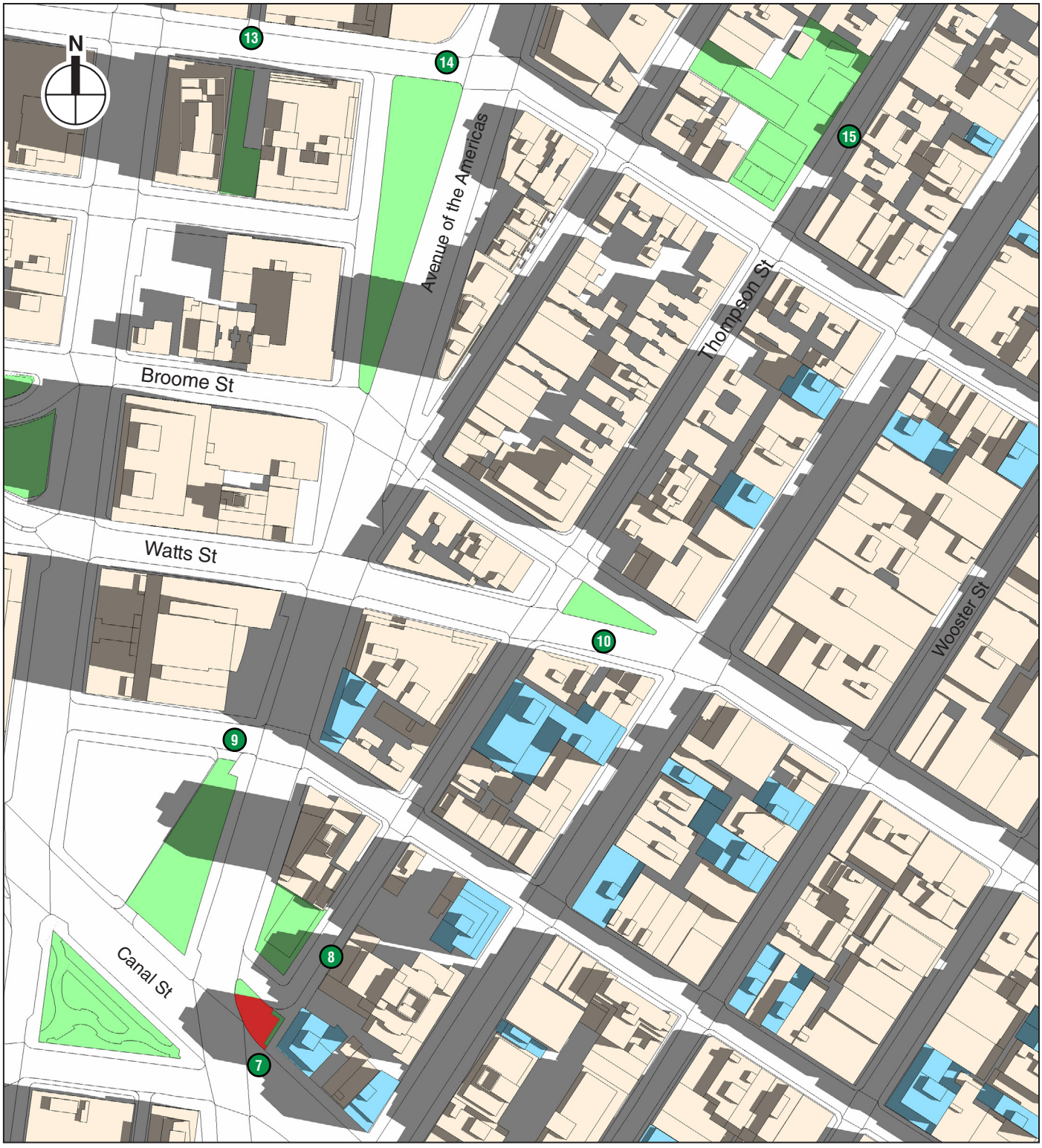
8:00 AM

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-25

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

9:00 AM

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-26

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

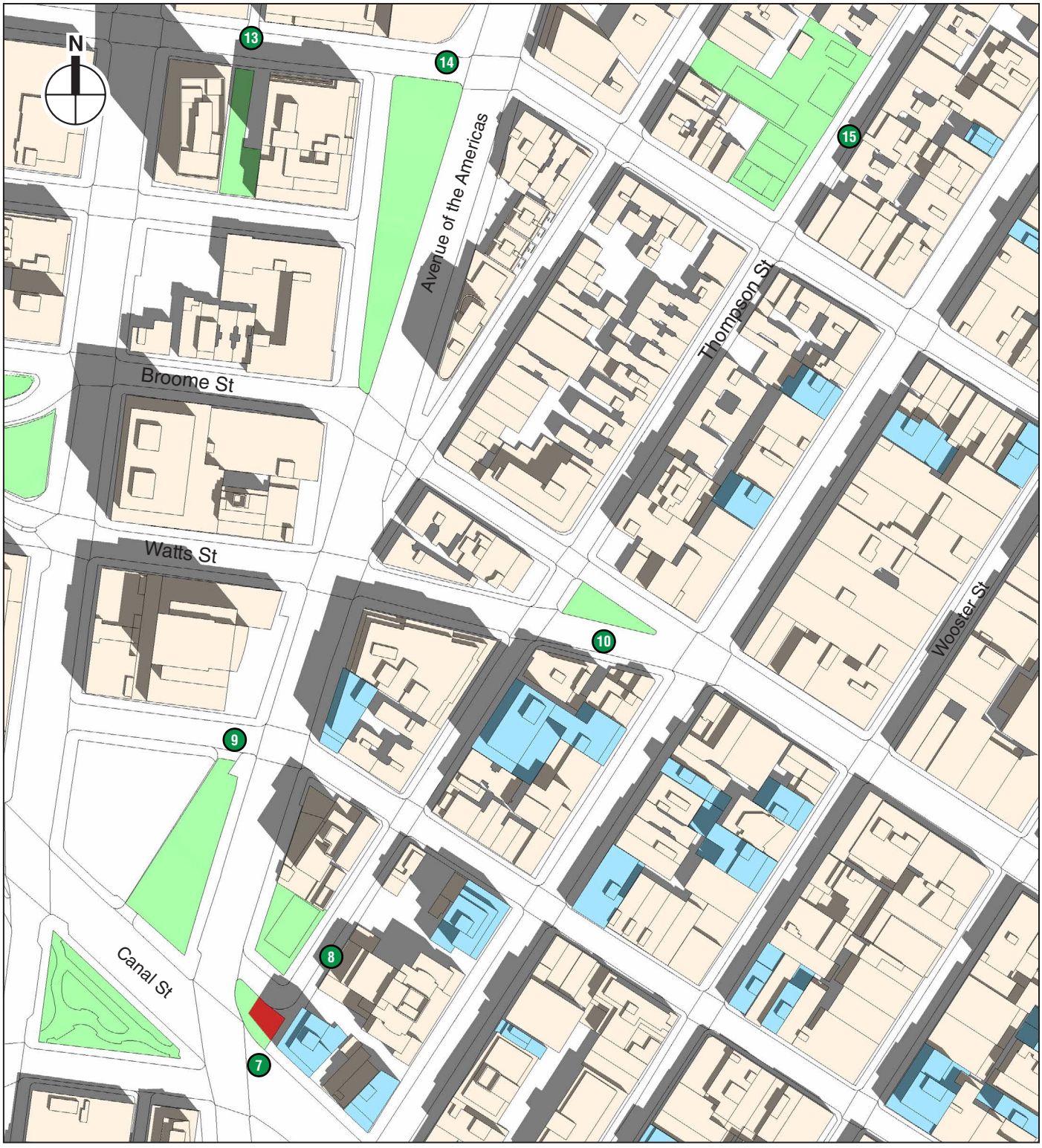
10:00 AM

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-27

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

11:00 AM

Detailed Analysis
June 21

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

11:00 AM

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-29

5.3.21



1:00 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-30

5.3.21



2:15 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

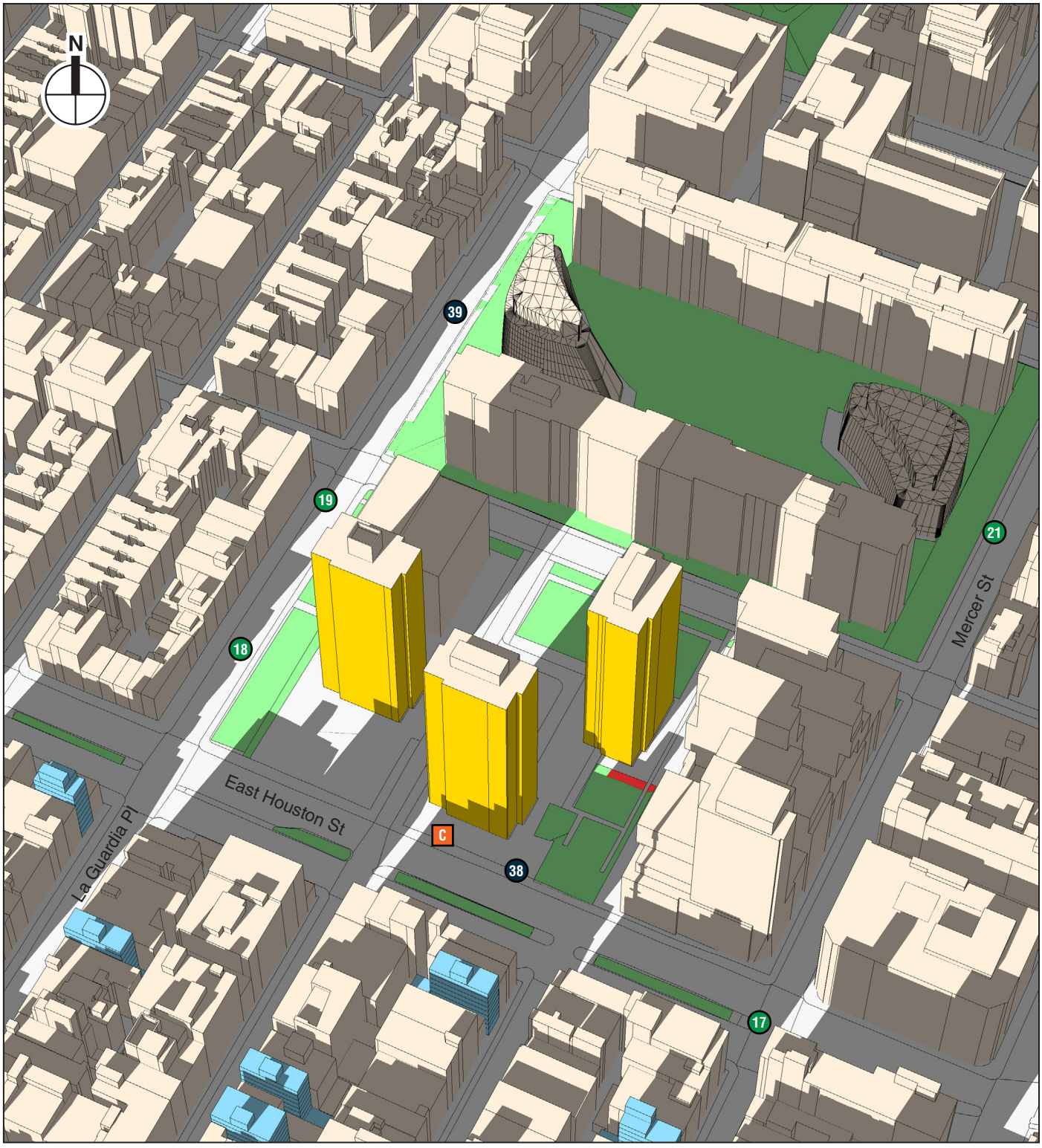
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-31

5.3.21



2:50 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

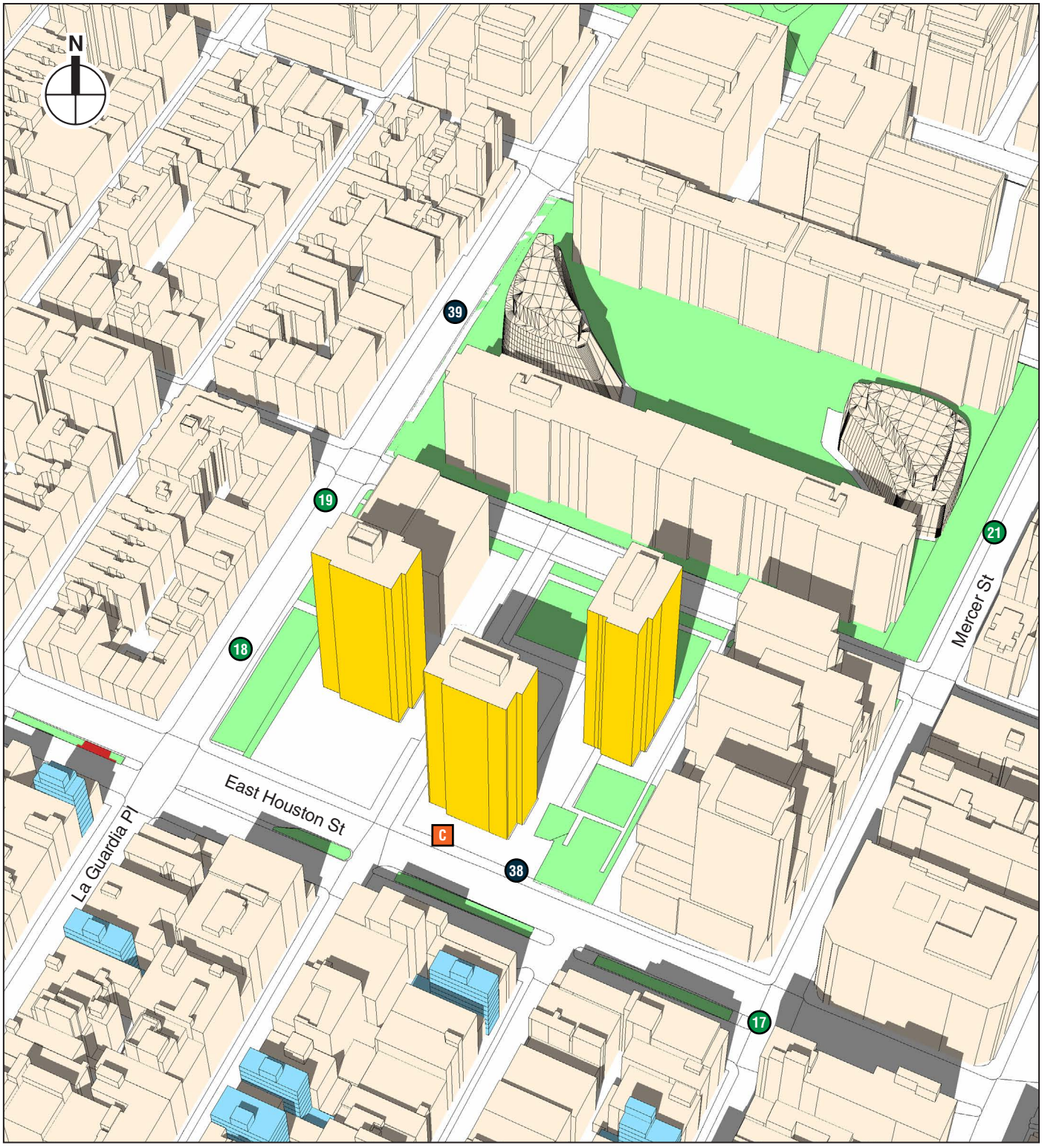
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-32

5.3.21



1:00 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-33

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

2:00 PM

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-34

5.3.21



4:00 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-35

5.3.21



7:00 AM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-36

5.3.21



4:45 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-37

5.3.21



6:45 AM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-38

5.3.21



5:45 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-39

5.3.21



10:30 AM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

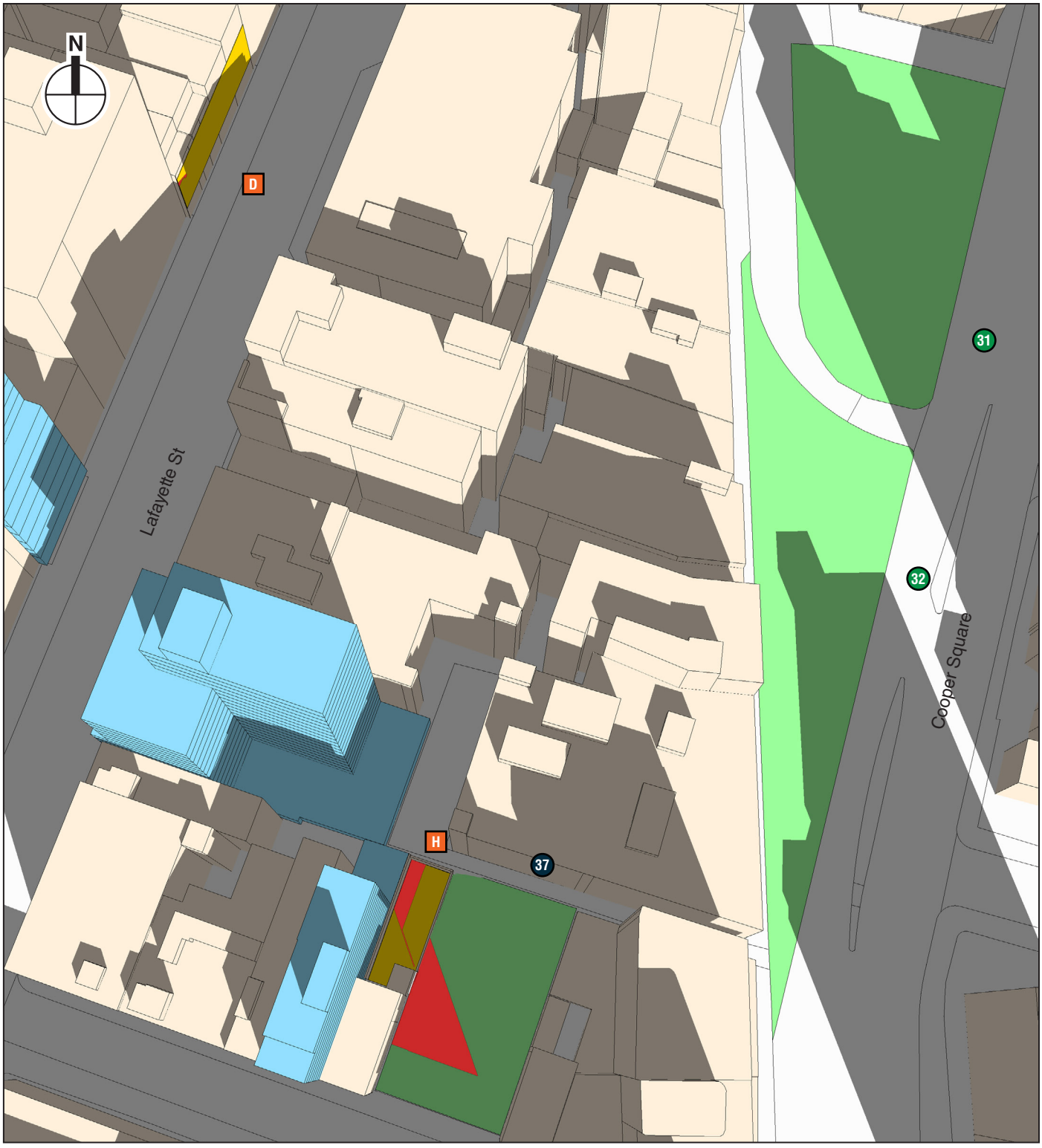
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-40

5.3.21



11:30 AM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

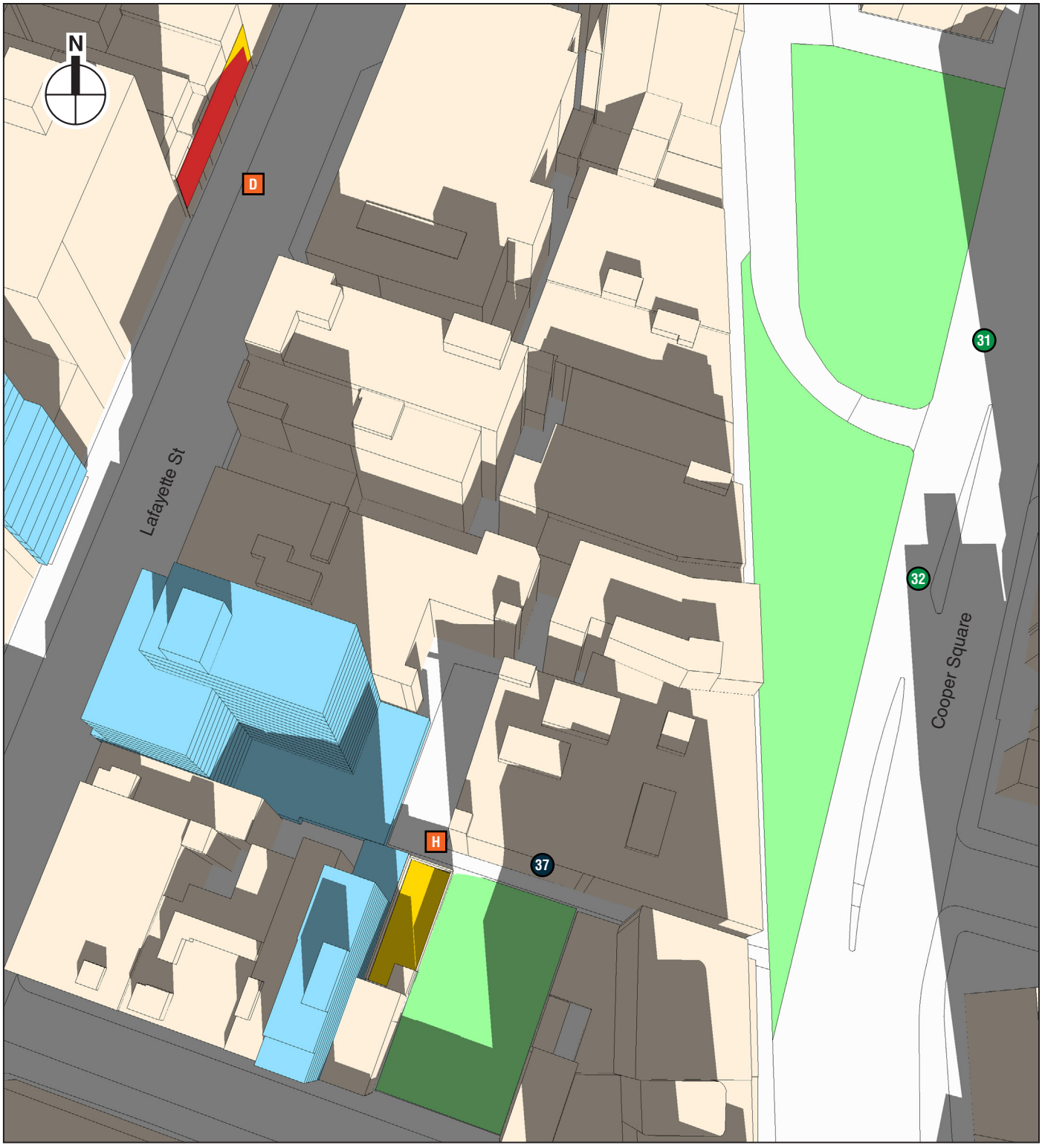
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-41

5.3.21



12:30 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-42

5.3.21



1:45 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-43

5.3.21



2:15 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

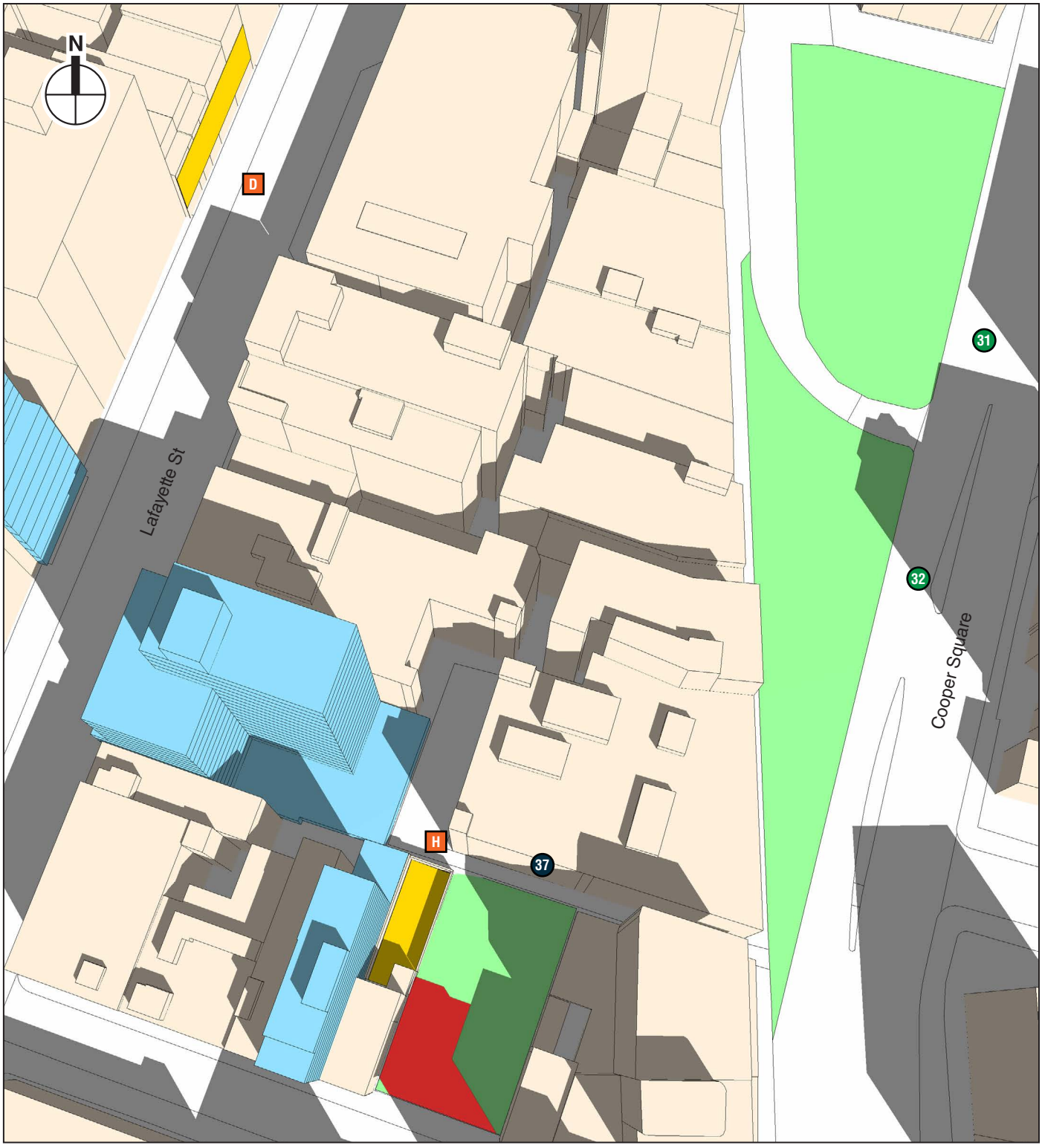
Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-44



11:15 AM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

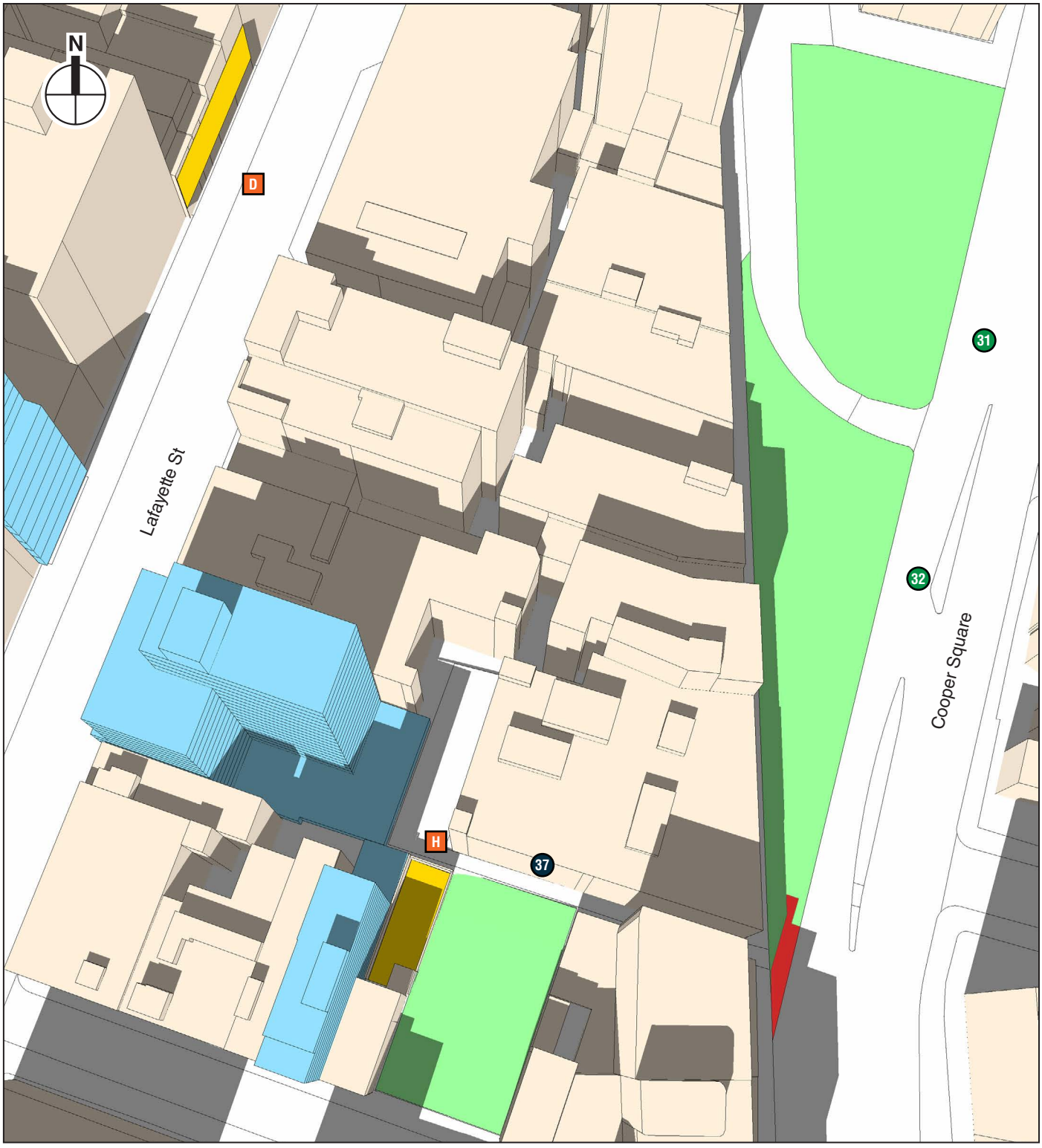
Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
March 21 / September 21

5.3.21



1:30 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
March 21 / September 21

5.3.21



2:30 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-47

5.3.21



4:00 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
March 21 / September 21

5.3.21



1:45 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-49

5.3.21



3:15 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-50

5.3.21



1:45 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
June 21

5.3.21



3:15 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

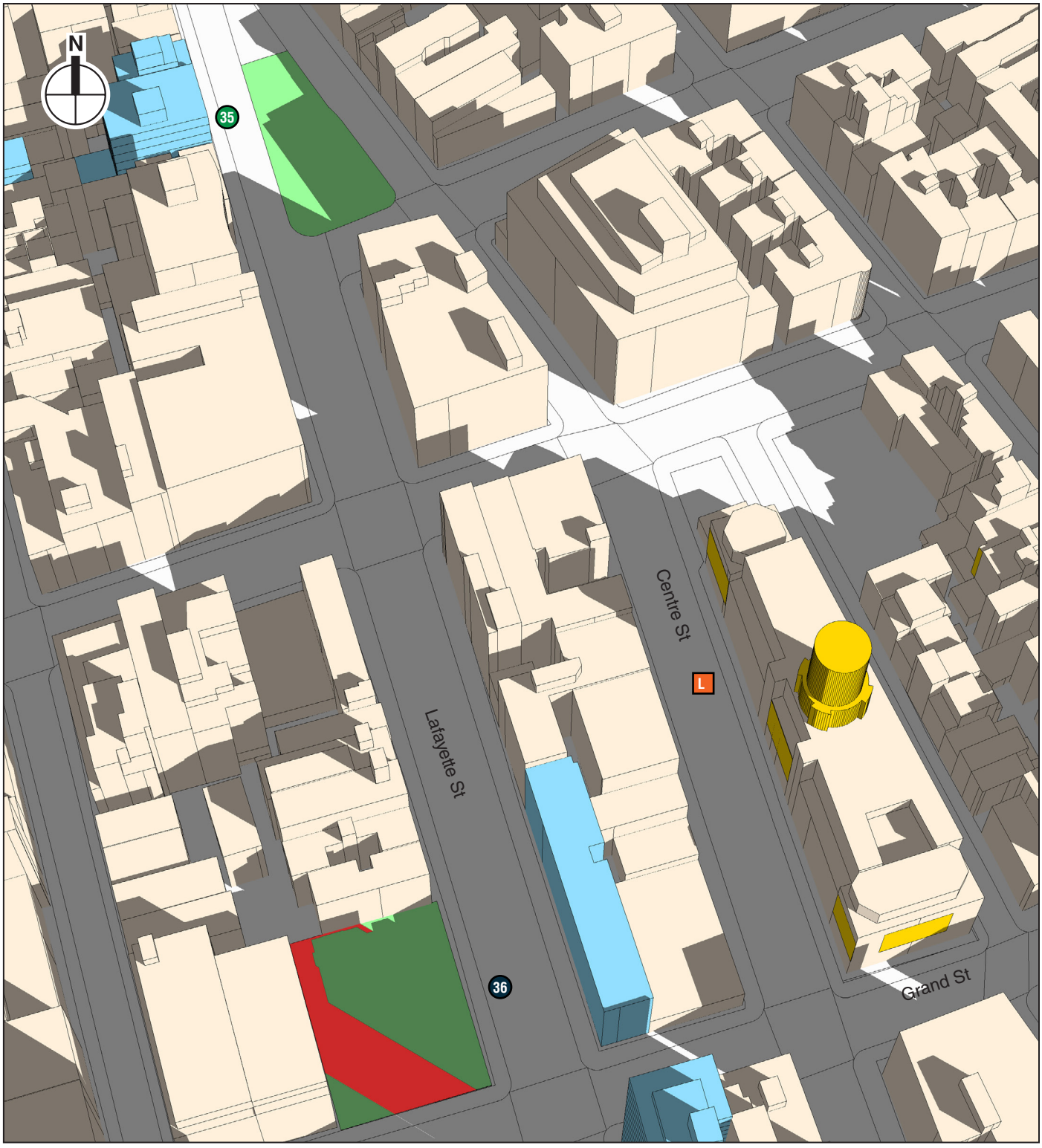
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-52

5.3.21



11:15 AM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

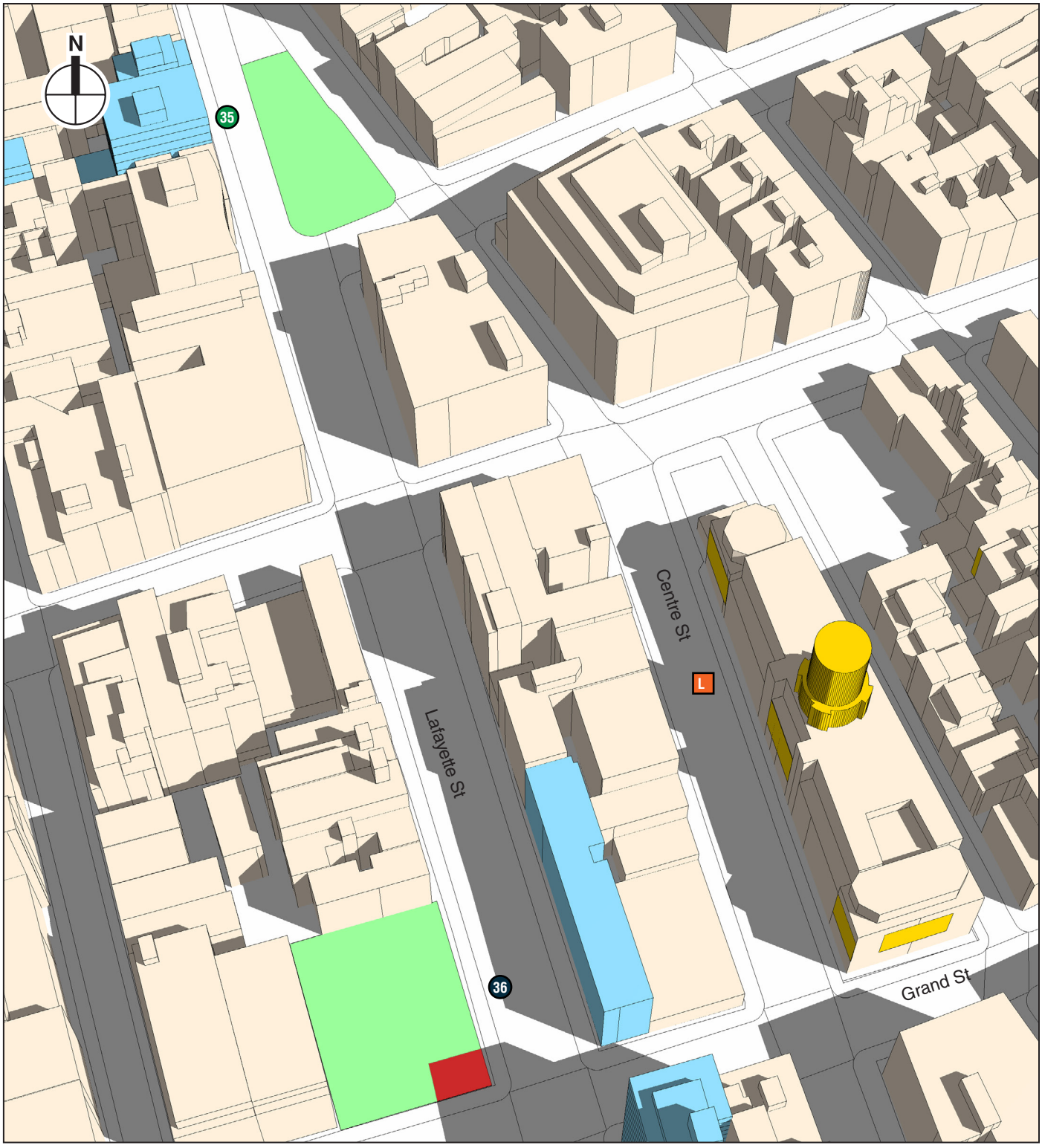
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings.

Detailed Analysis
December 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-53

5.3.21



11:15 AM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

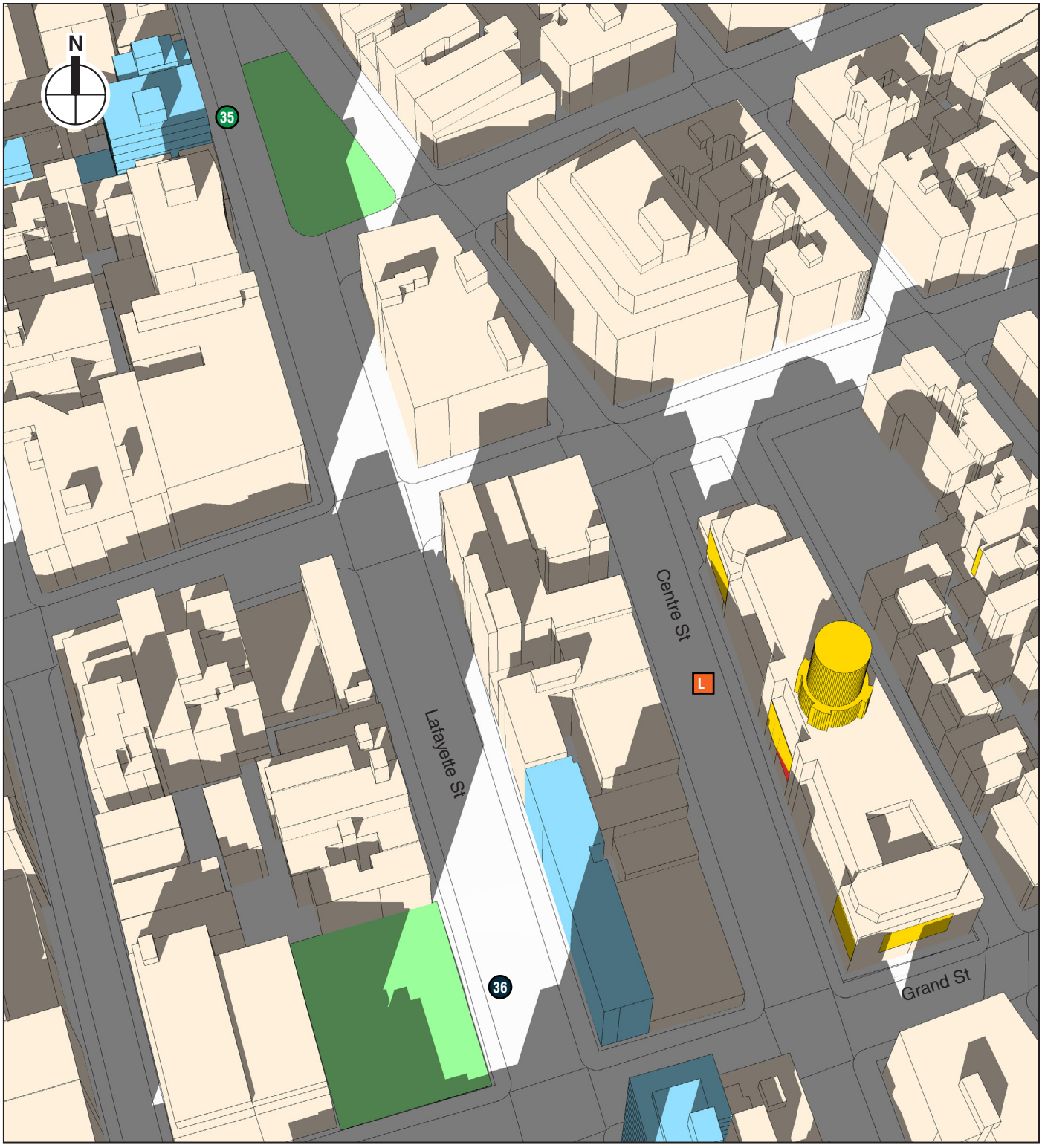
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-54

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

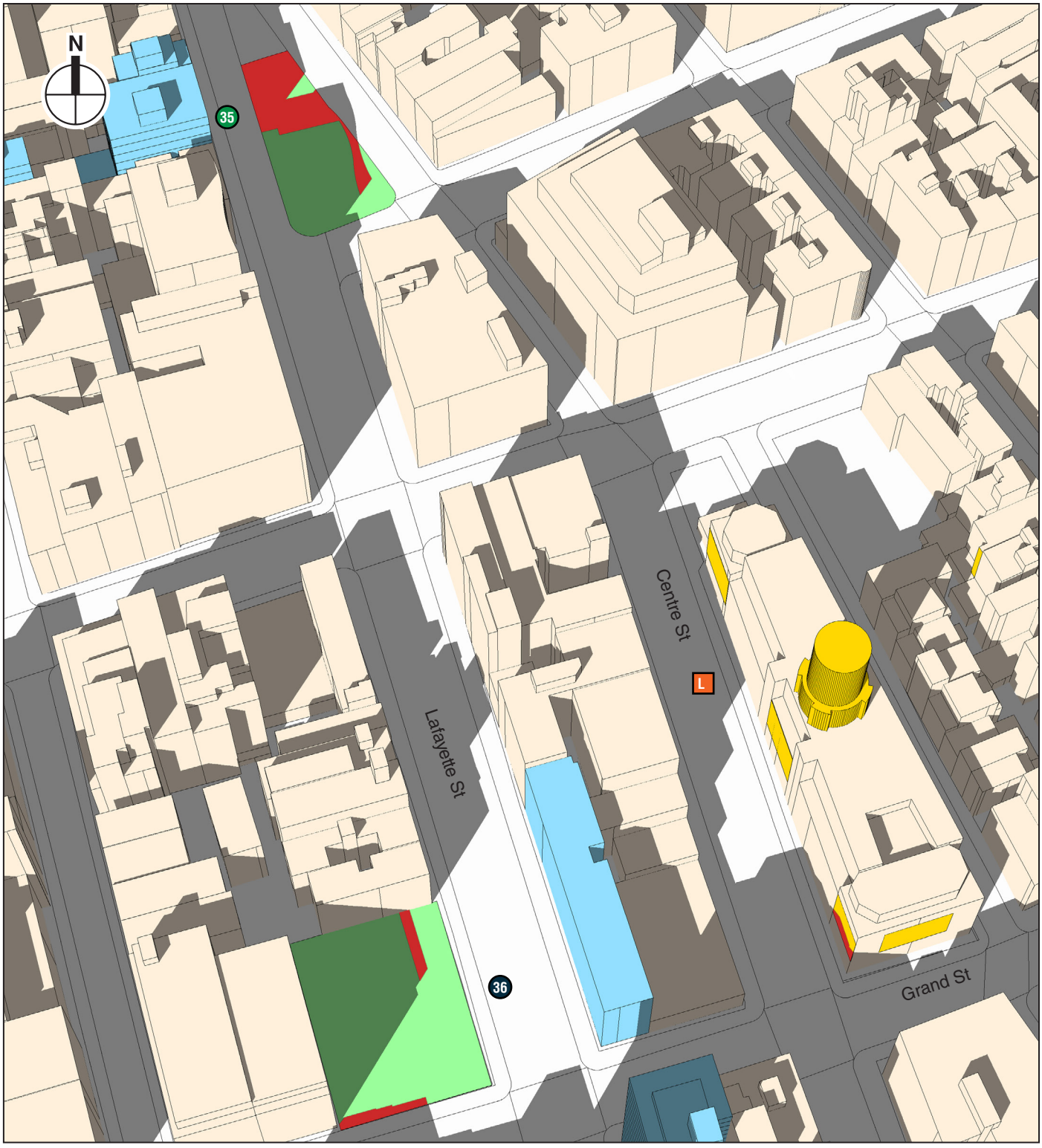
3:45 PM

Detailed Analysis
March 21 / September 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-55

5.3.21



3:30 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

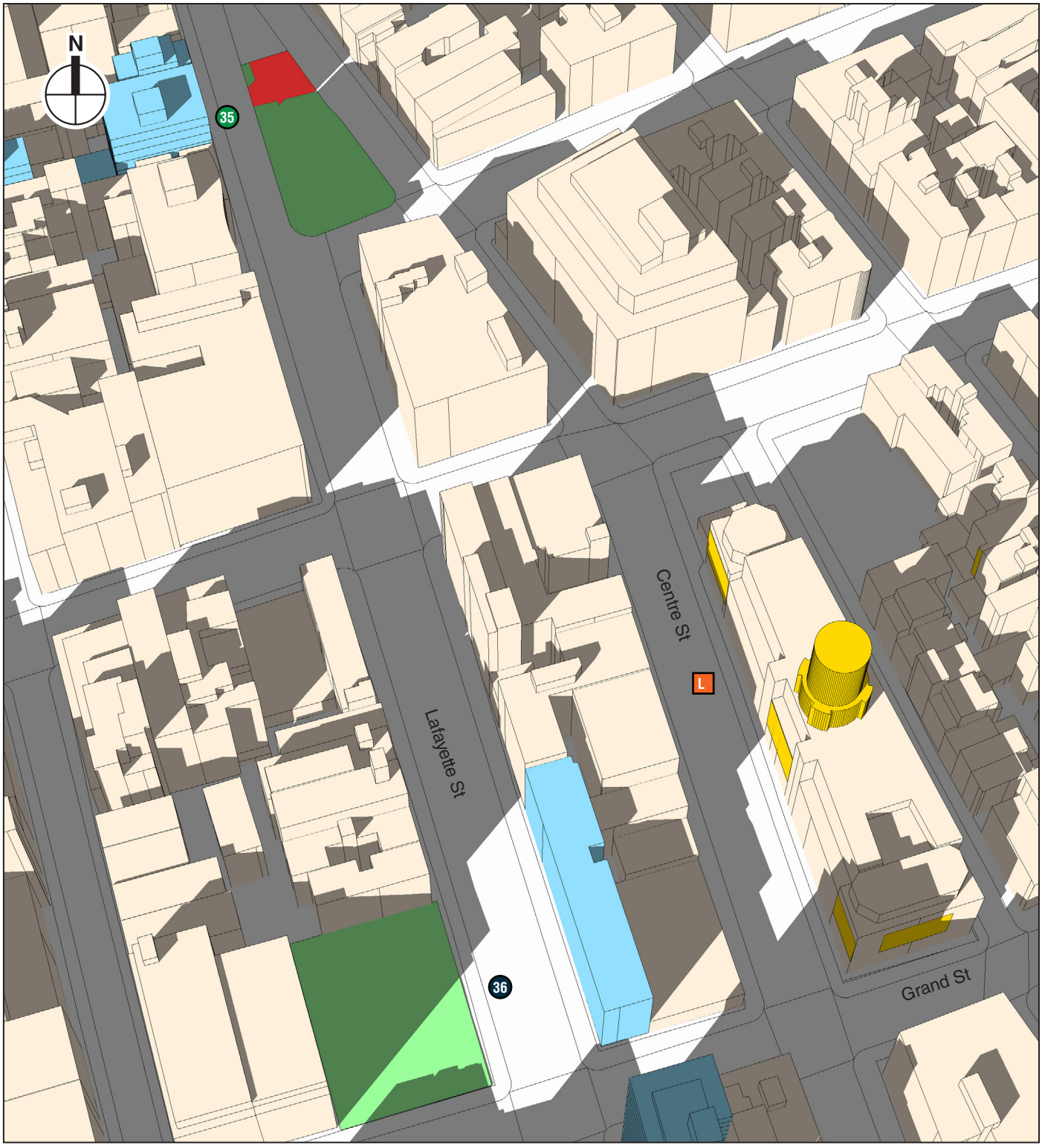
Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
May 6 / August 6

5.3.21



4:15 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

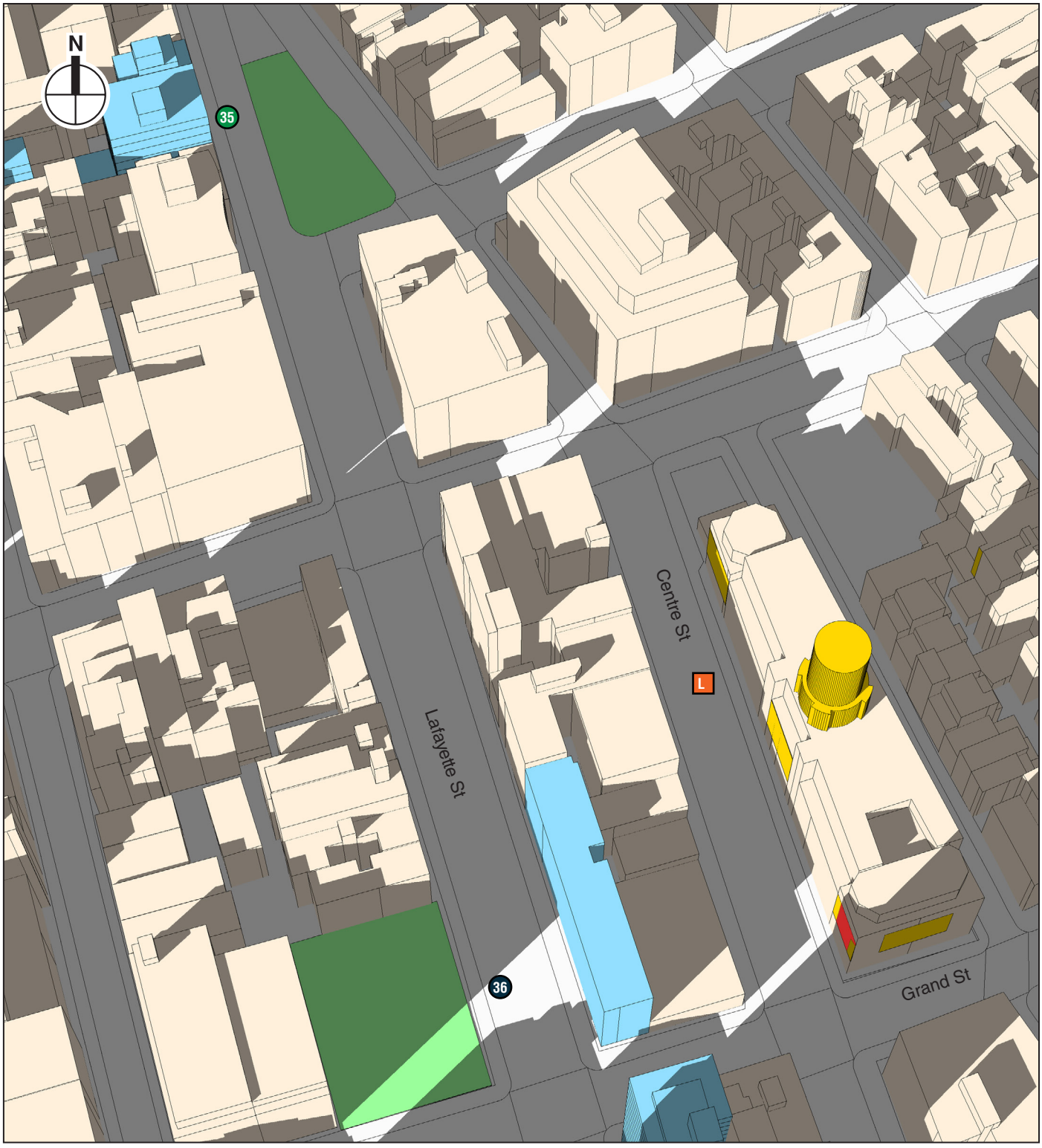
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-57

5.3.21



5:00 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

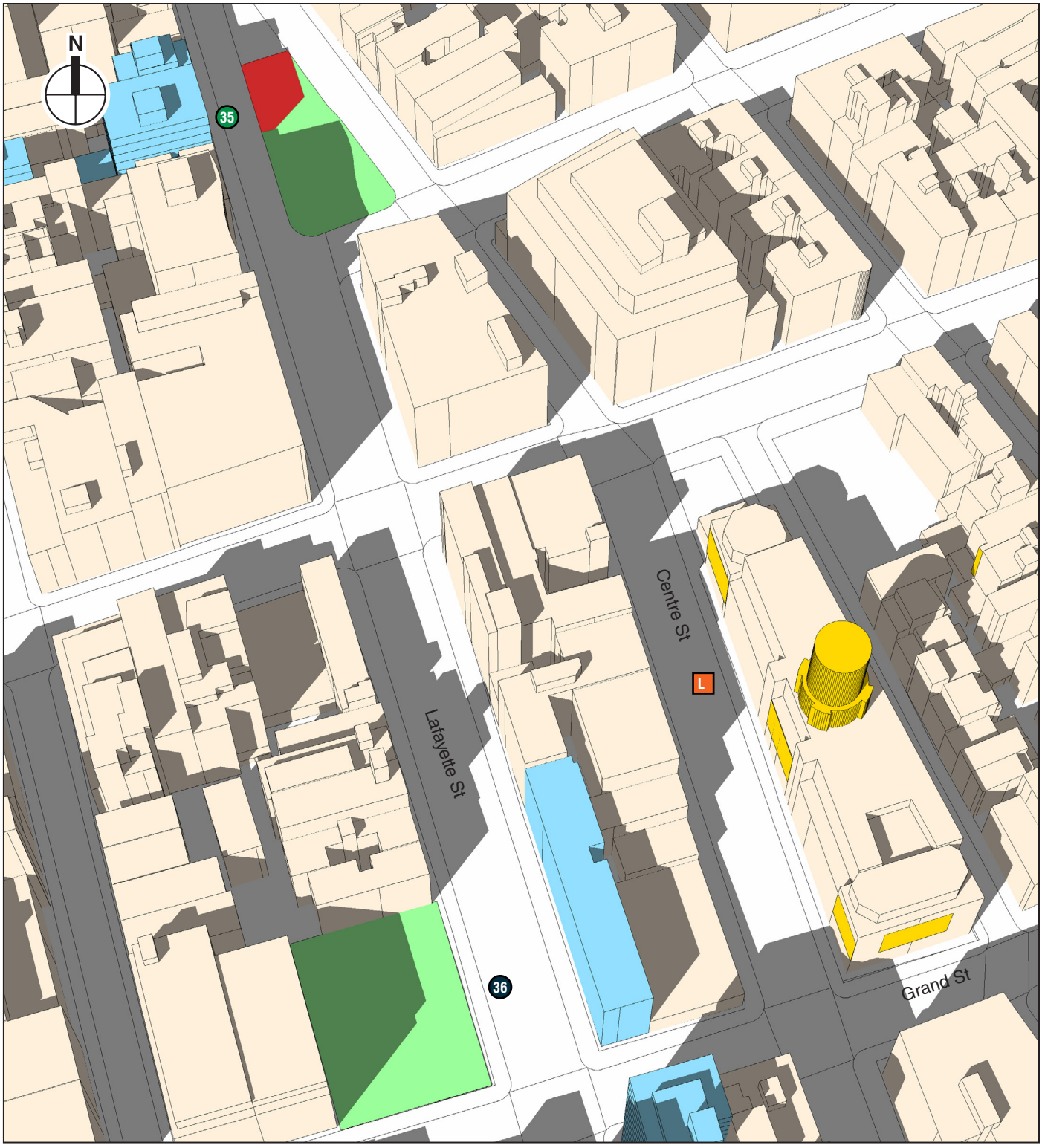
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-58

5.3.21



3:30 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

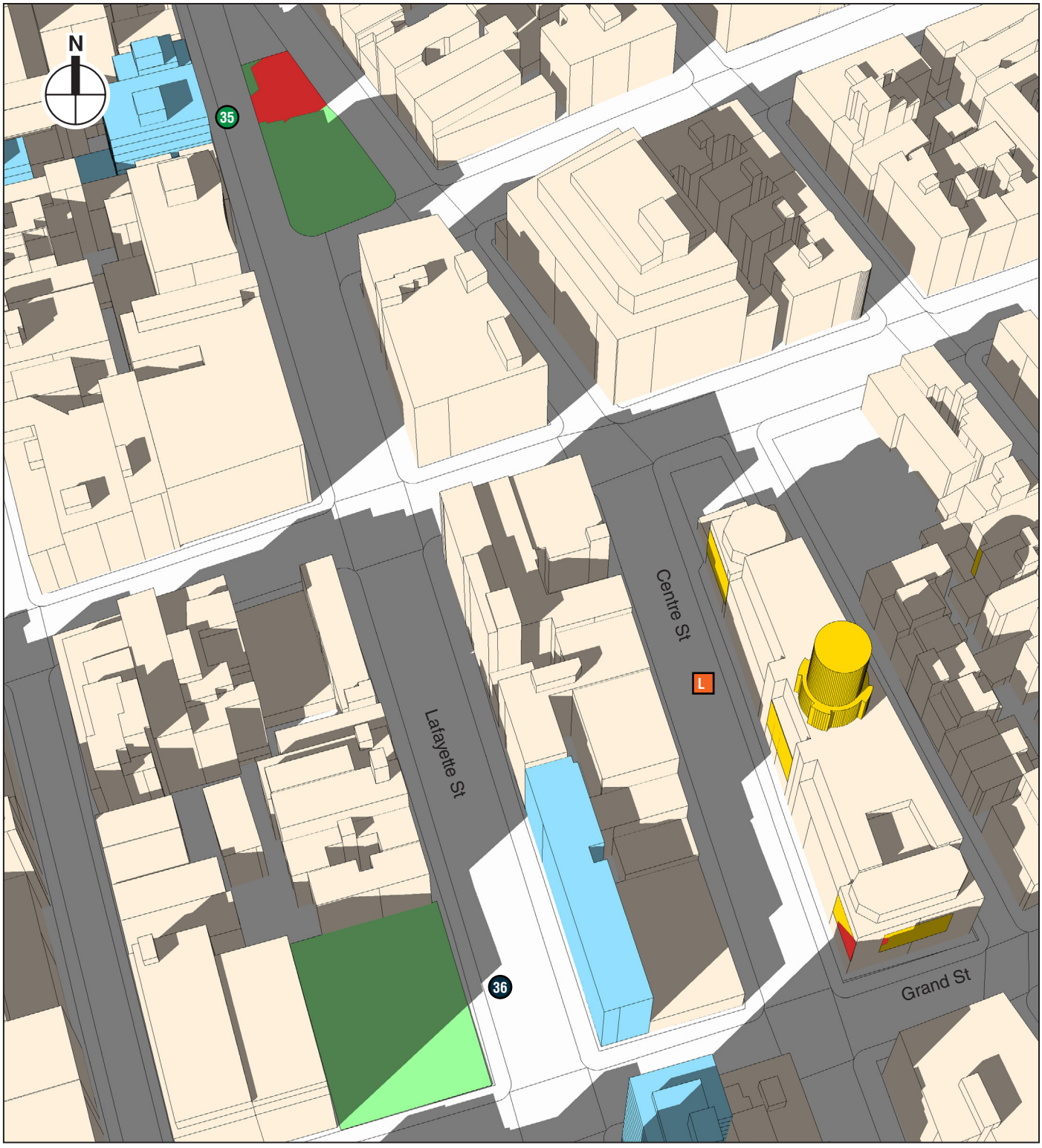
Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
June 21

5.3.21



4:30 PM

Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

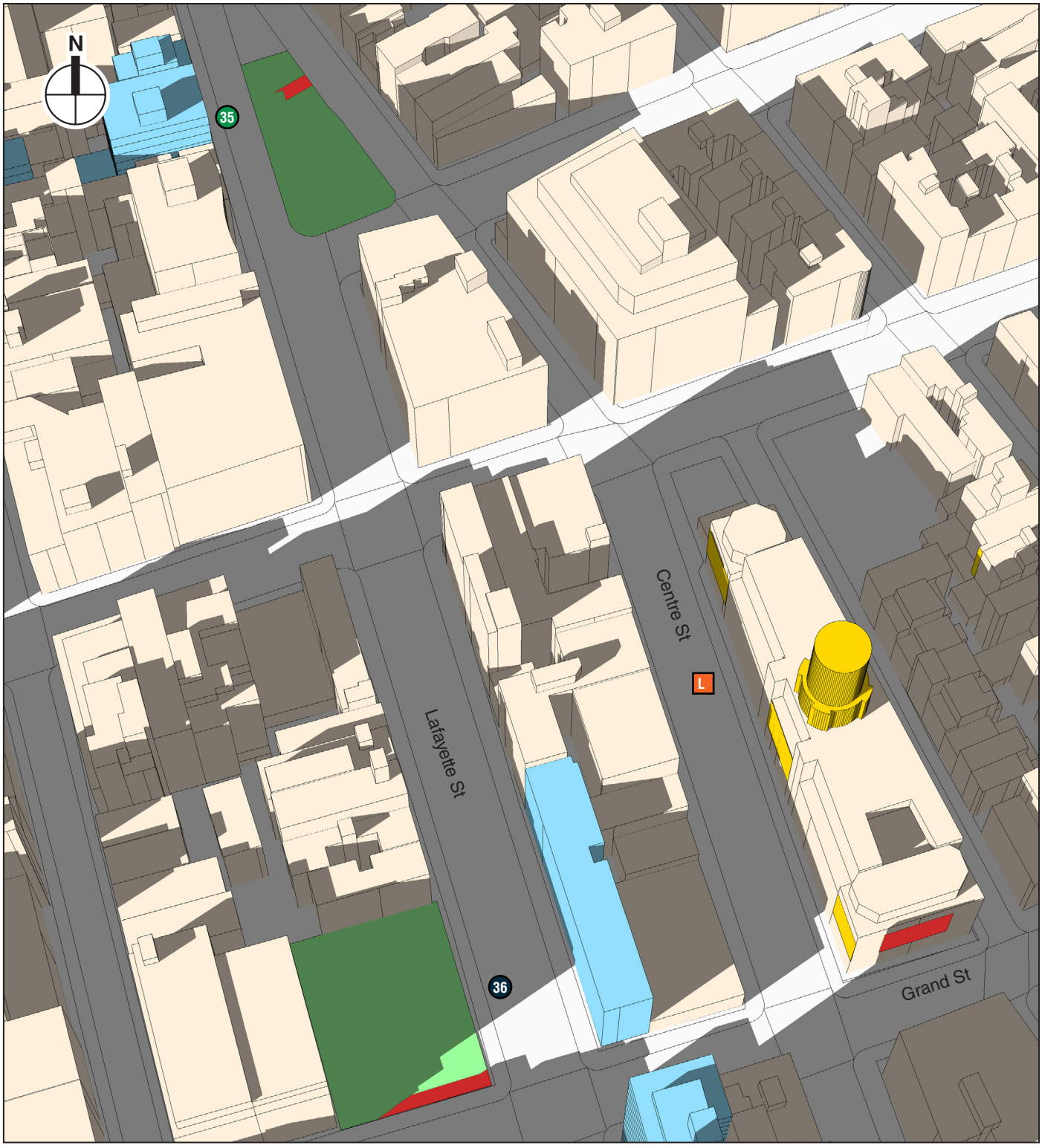
NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-60

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Future Publicly Accessible Open Space (see Table 6-1)

Historic Resource with Sunlight-Sensitive Features (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

5:30 PM

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-61

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

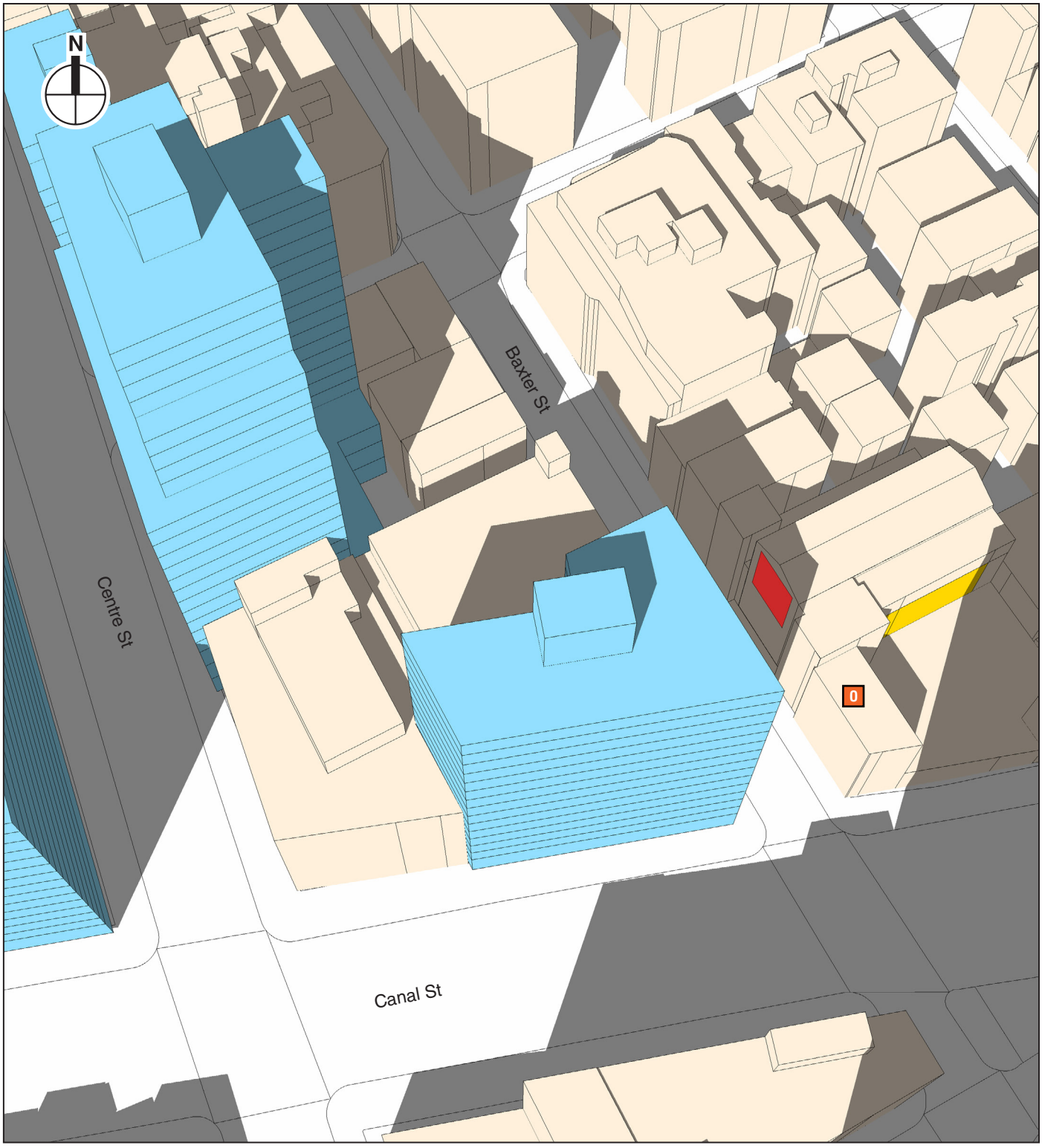
Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

4:00 PM

Detailed Analysis
March 21 / September 21

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

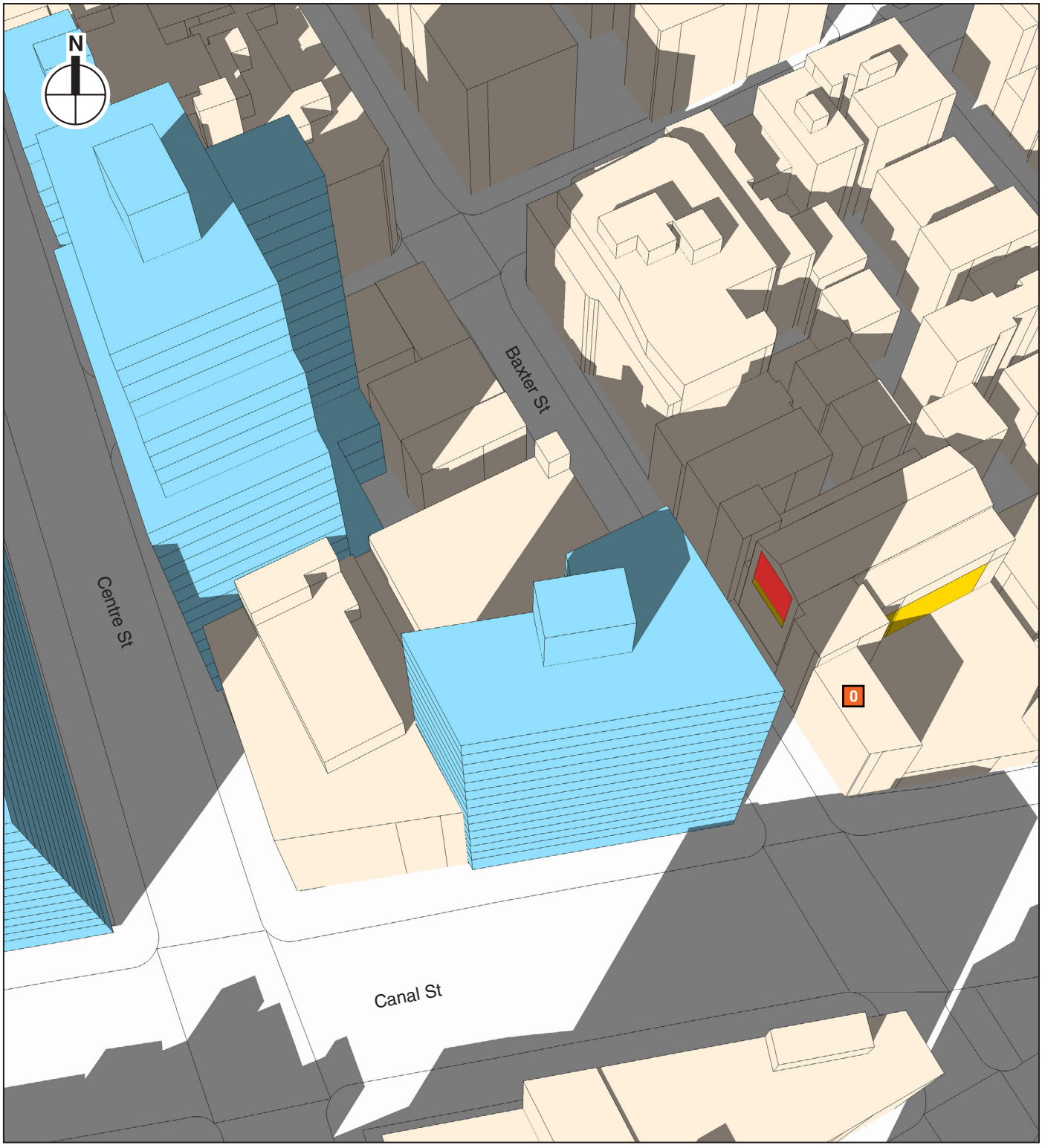
3:00 PM

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-63

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

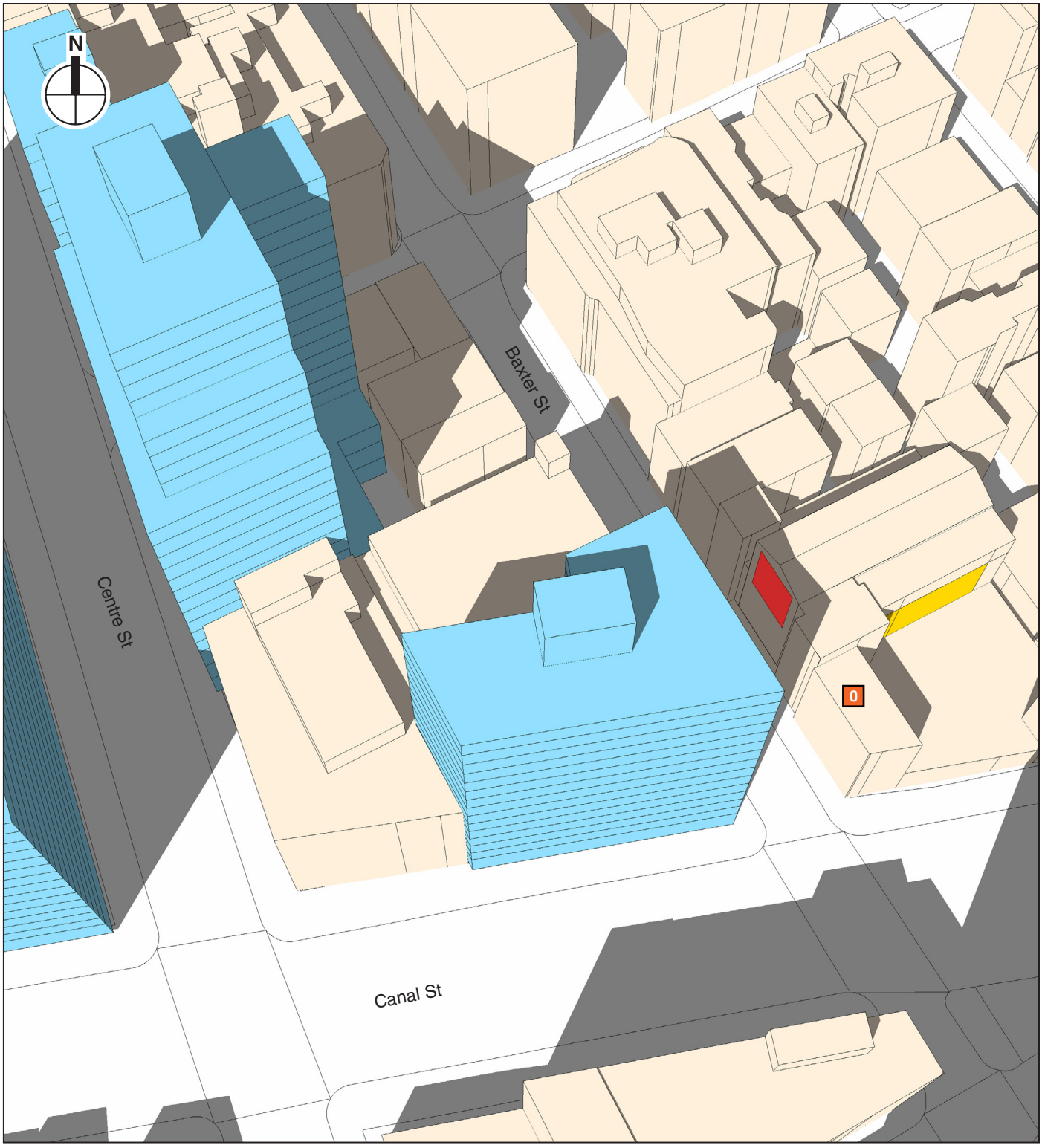
4:00 PM

Detailed Analysis
May 6 / August 6

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-64

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

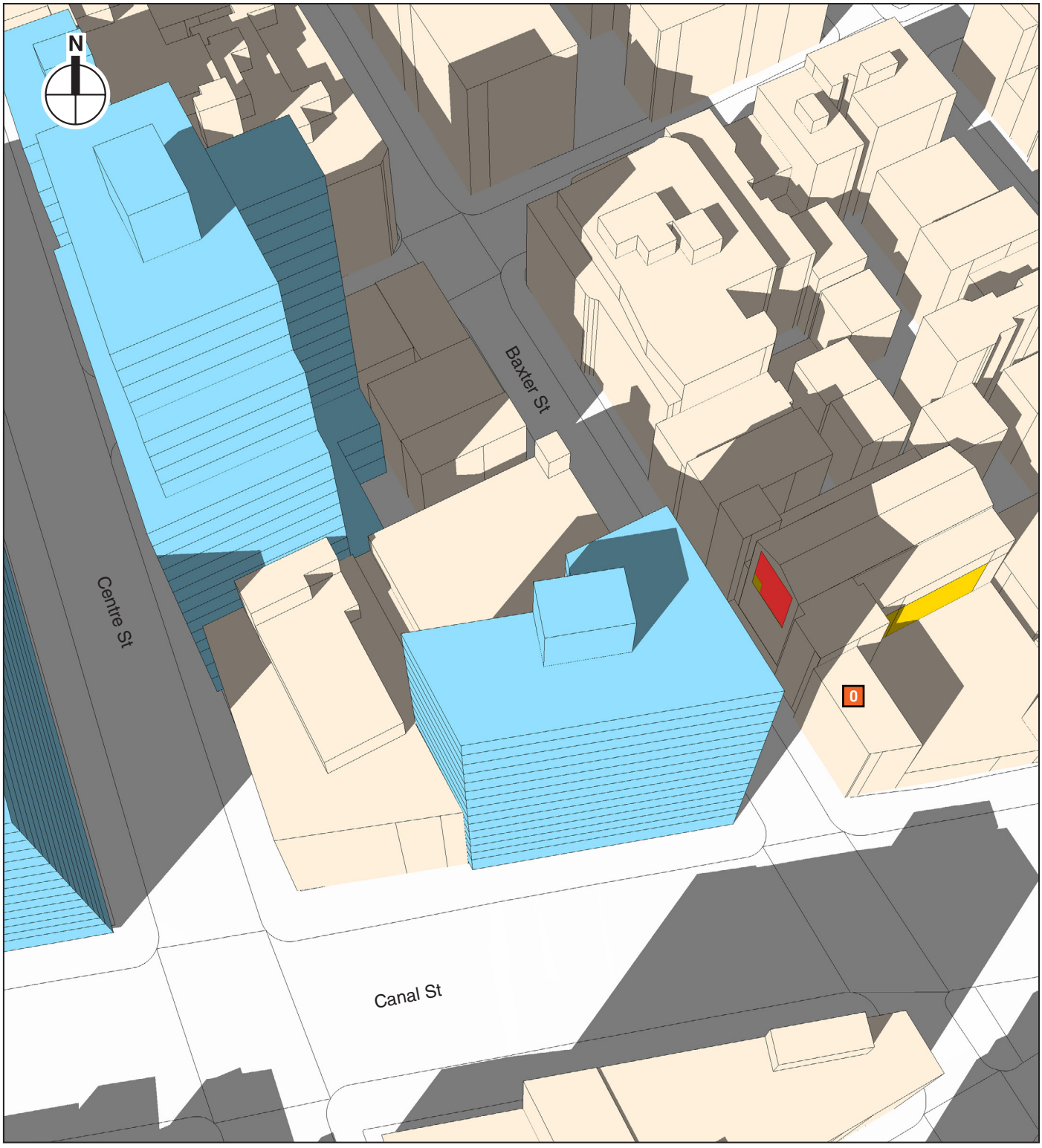
3:00 PM

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-65

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

4:00 PM

Detailed Analysis
June 21

5.3.21



Projected and Potential Development Sites

Incremental Shadow On Sunlight-Sensitive Resource

Publicly Accessible Open Space (see Table 6-1)

Sunlight-Sensitive Historic Feature (see Table 6-1)

NOTES:
Only the areas of shadow highlighted in red represent incremental shadow resulting from the Proposed Project. All other shadow is future No Action shadow, i.e. baseline shadow from existing and future No Action buildings. Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add one hour to the given times to determine the actual clock time.

5:00 PM

Detailed Analysis
June 21

SOHO/NOHO NEIGHBORHOOD PLAN

Figure 6-67

5.3.21



Leaf-on



Leaf-off

1 *Benches*

2 *Planted areas*

○ *Individual trees*

3 *Bronze statue of Juan Pablo Duarte*

4 *Citi Bike station*

Duarte Square Site Plan