

San Francisco Recreation & Park Department

530 Sansome St

Shadow Review

Joint Recreation and Park Commission & Planning Commission

Thursday, July 29, 2021



Inspire, Connect, Play!

Shadow Policy Overview

PROP K - THE SUNLIGHT ORDINANCE

BACKGROUND

Prop K was passed by the citizens of San Francisco on the June 1984 Ballot in response to a growing concern about shadow impacts of buildings on the city's open spaces. The ordinance included all properties under the jurisdiction of or designated for acquisition by the Recreation and Park Commission.

Section 295 of the city planning code requires the planning commission, prior to the issuance of a permit for a project that exceeds 40 feet in height, to make a finding that any shadow on property under the jurisdiction of Recreation and Park department cast by the project is insignificant.

Planning Code Section 295:

"The City Planning Commission shall conduct a hearing and shall disapprove the issuance of any building permit governed by the provisions of this Section if it finds that the proposed project will have any adverse impact on the use of the property under the jurisdiction of, or designated for acquisition by, the Recreation and Park Commission because of the shading or shadowing that it will cause, unless it is determined that the impact would be insignificant. The City Planning Commission shall not make the determination required by the provisions of this Subsection until the general manager of the Recreation and Park Department in consultation with the Recreation and Park Commission has had an opportunity to review and comment to the City Planning Commission upon the proposed project."

PROP K HOURS

Shadow Analyses are based on a June 21st to December 21st solar year to provide a sample of representative sun angles throughout the solar year.



DEFINING QUANTITATIVE TERMS

SQUARE-FOOT-HOURS

Square-foot-hours are defined as "the unit of measure in analysis of shadows. A square-foot-hour of sunshine means that a square foot of space in a park is in sunshine for one hour. The total square-foot-hours of a park are determined by multiplying the size of the park in square feet by 3,721 which is the total number of hours year round between one hour after sunrise and one hour before sunset."

ABSOLUTE CUMULATIVE LIMIT (ACL)

Absolute Cumulative Limit is defined as "the additional square-foot-hours expressed as a percentage of the total square-foot-hours for each park over a period of one year."

QUANTITATIVE CRITERIA

	CURRENT ANNUAL SHADING PERCENTAGE	1989 GUIDANCE
PARKS <2 ACRES	≤20%	NO STANDARD
	>20%	+0.0%
PARKS >2 ACRES	≤20%	+1.0%
	20-40%	+0.1%
	>40%	NO STANDARD

GUIDANCE FROM 1989 FOR FOLLOWING PARKS:

SMALL PARKS <2 ACRES

ACL: 0%

Boeddeker Park

Gene Friend Rec Center
(formerly South of Market Park)

Huntington Park

Maritime Plaza

Portsmouth Square

St. Mary's Square

Sue Bierman Park
(formerly Embarcadero Plaza I North)

Willie Woo Woo Wong PG
(formerly Chinese Playground)

LARGER PARKS >2 ACRES SHADOWED 20-40%

ACL: +0.1%

Justin Herman Plaza
(formerly Embarcadero Plaza II South)

Union Square

ACL: 0%

Joe Dimaggio Playground
(formerly North Beach PG)

Washington Square

LARGER PARKS >2 ACRES SHADOWED <20%

ACL: +1.0%

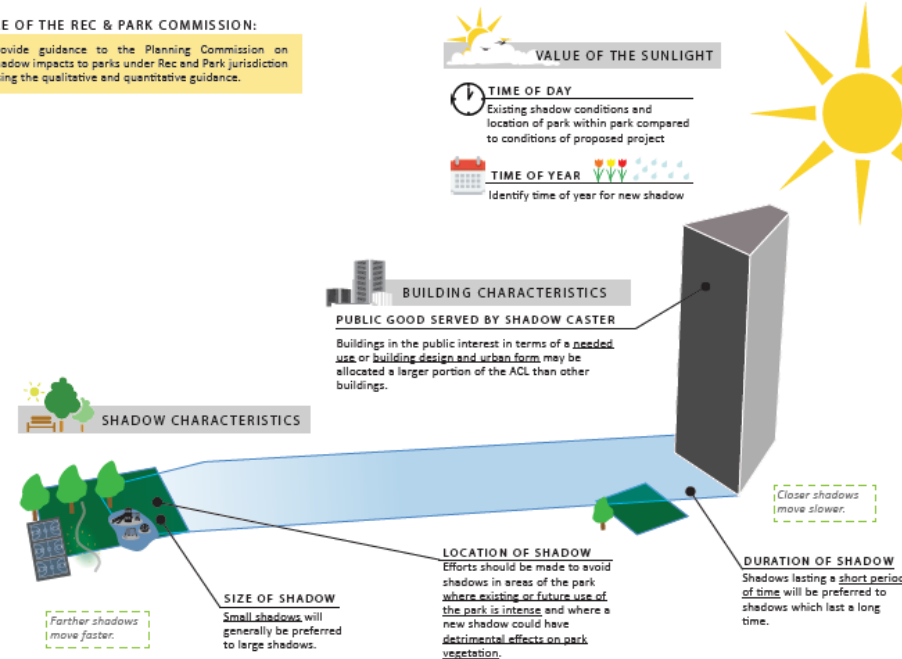
Civic Center Plaza

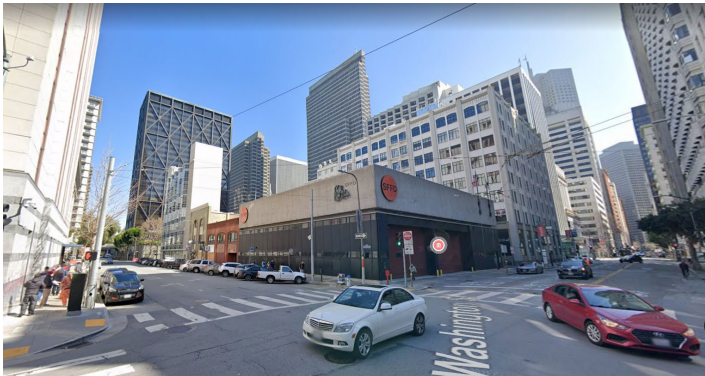
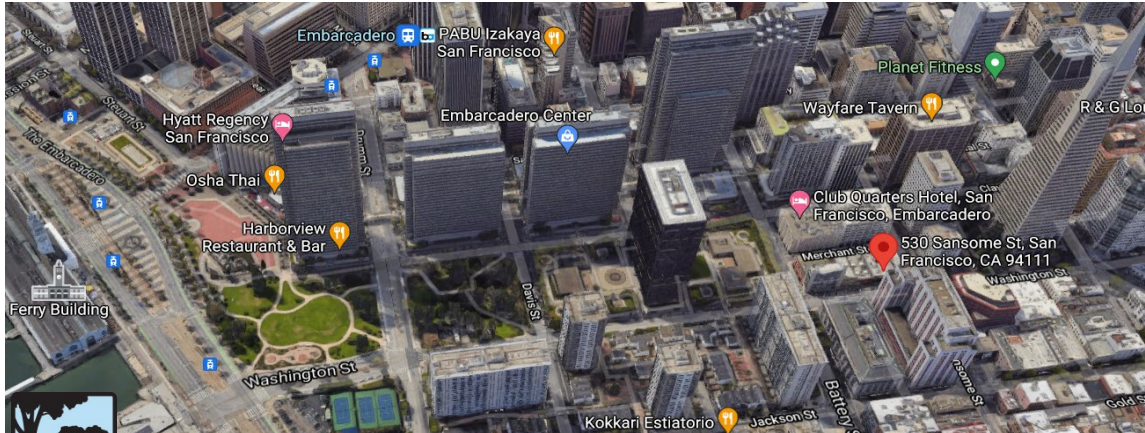
Individual project shadows within the ACL should be allocated according to the qualitative criteria for each park. See backside for qualitative criteria →

QUALITATIVE CRITERIA GUIDANCE FROM 1989 MEMO

ROLE OF THE REC & PARK COMMISSION:

Provide guidance to the Planning Commission on shadow impacts to parks under Rec and Park jurisdiction using the qualitative and quantitative guidance.





Park Layout

Maritime Plaza West



< MARITIME PLAZA WEST (BATTERY BLOCK)

- 1 Alcoa Building (One Maritime Plaza)
- 2 Lawn
- 3 Sculpture Garden
- 4 Fountain
- 5 Landscape/Seating Areas
- 6 Punchline San Francisco (private)
- 7 Private Offices

MARITIME PLAZA EAST (DAVIS BLOCK) >

Maritime Plaza East



Note: Images provided by Prevision Design, Shadow Analysis Report for 530 Sansome Street



Maritime Plaza Shadow Analysis

530 Sansome St Shadow

Quantitative Summary

Maritime Plaza Park Size: 1.99 acres
(or 86,676 sf)

	Percentage (of TAAS)
Theoretical Annual Available Sunlight (TAAS)	100%
Existing Shadow	67.88 %
New Shadow	0.71%/0.69% (R)
Total Shadow with Proposed Project	68.59%/68.57% (R)

Max Net New Shadow



FIGURE 16: Max net new shadow on Maritime Plaza (4/19 and 8/23 at 6:00 pm)

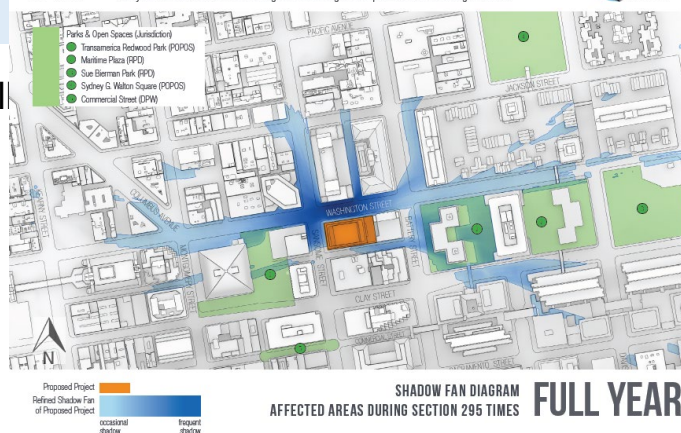
Qualitative Summary

- March 2nd – Oct 10th (Winter-Fall most pronounced in Spring)
- In late afternoon (after 4pm)
- Avg Daily Duration: 2 hours 31 mins
- Area Covered by New Shadow:
 - Central lawn, landscape/seating area

A1.1

530 SANSOME STREET PROJECT SHADOW FAN

Full year net new shadow fan diagram factoring in the presence of existing shadows



PREVISION DESIGN

SHADOW FAN DIAGRAM
AFFECTED AREAS DURING SECTION 295 TIMES FULL YEAR



Note: Images provided by Prevision Design, Shadow Analysis Report for 530 Sansome Street

Park Layout

Sue Bierman Park West

Sue Bierman Park East



- 1 Park Entries
- 2 Lawn/Grassy Areas
- 3 Natural Area
- 4 Landscape/Grassy Areas
- 5 Sculpture
- 6 Pedestrian Pathway
- 7 SFPUC Property (not part of park)
- 8 Children's Play Area

Note: Image provided by Prevision Design, Shadow Analysis Report for 530 Sansome Street

Quantitative Summary

Sue Bierman Park Size: 4.08 acres
(or 177,577 sf)

	Percentage (of TAAS)
Theoretical Annual Available Sunlight (TAAS)	100%
Existing Shadow	42.6054 %
New Shadow	0.0001% (Both)
Total Shadow with Proposed Project	42.6055% (Both)

Max Net New Shadow

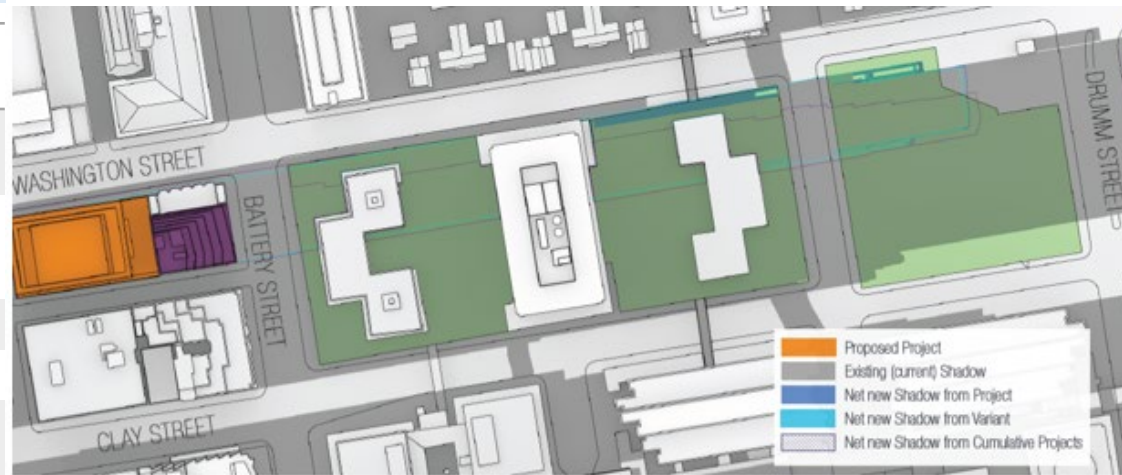


FIGURE 14: Max net new shadow on Sue Bierman Plaza (9/20 and 3/22 at 6:00 pm)

Note: Max Net New Shadow Figure 14 provided by Prevision Design, Shadow Analysis Report for 530 Sansome Street

Qualitative Summary

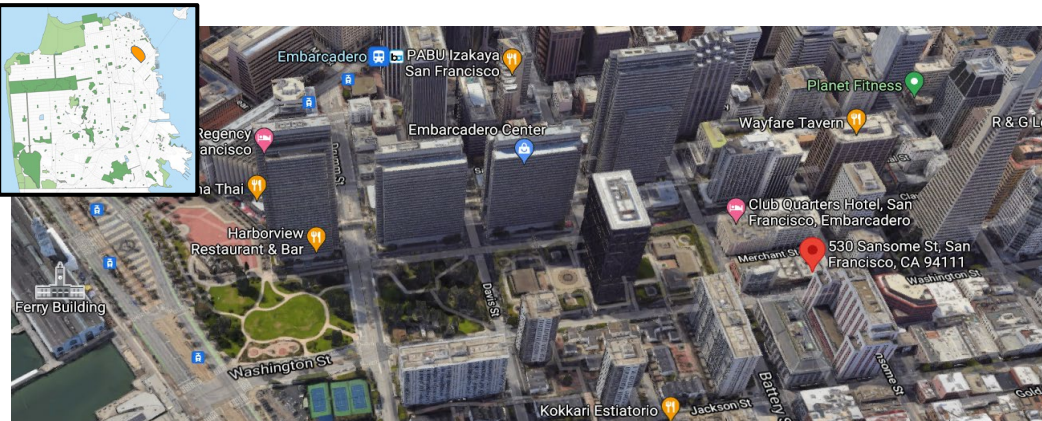
- (March 16- 28 and Sept 14-26)
(Spring and Fall months)
- In late afternoon (after 4pm)
- Avg Daily Duration: 12.3 minutes
- Area Covered by New Shadow:
 - Narrow lawn area along Washington St sidewalk



Project Summary

530 Sansome St Shadow

Qualitative Criteria: Time of day, time of year, shadow size, shadow duration, shadow location, and public benefit served by the project.



Agenda Item 2A: Discussion and possible Joint Action by the Planning Commission and the Recreation and Park Commission to raise the cumulative shadow limit for Maritime Plaza and set the absolute cumulative shadow limit for Sue Bierman Park, pursuant to the jointly-approved Planning Code Section 295 (the Sunlight Ordinance) Implementation Memo adopted in 1989, in order to accommodate new shadow cast by the proposed project at 530 Sansome Street.

Agenda Item 2B: Discussion and possible action by the Recreation and Park Commission to adopt a resolution recommending to the Planning Commission regarding whether or not the new shadow cast by the proposed project at 530 Sansome Street will have a significant adverse impact on the use of Maritime Plaza and Sue Bierman Park, as required by Planning Code Section 295 (the Sunlight Ordinance).

Project Site In Relation To Shadowed Parks

1989 Memo Guidance

Maritime Plaza

	CURRENT ANNUAL SHADING PERCENTAGE	1989 GUIDANCE
PARKS < 2 ACRES	≤ 20 %	NO STANDARD
	> 20 %	+ 0.0 %
PARKS > 2 ACRES	≤ 20 %	+ 1.0 %
	20 - 40 %	+ 0.1 %
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Sue Bierman Park

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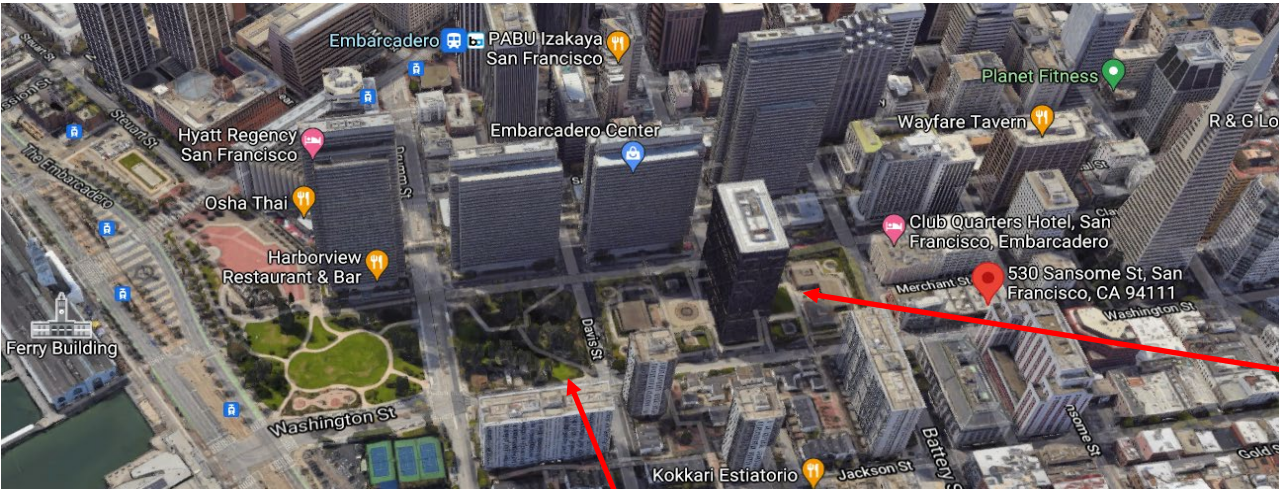
Thank You

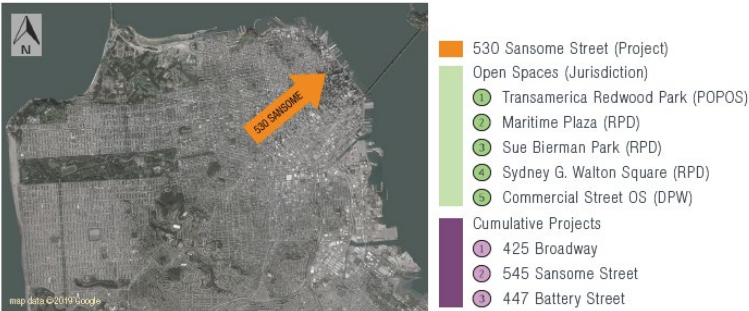


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Maritime Plaza and Sue Bierman Park- Existing Site Photos

530 Sansome St Shadow





Prevision Design additionally received and verified a list of qualifying cumulative projects in the vicinity of this project that have the potential to generate net new shadow on one or more of the open spaces affected by the proposed project and residential variant, as listed below in Table 1.

CUMULATIVE PROJECT ADDRESS	PROJECT HEIGHT	DATE OF DESIGN DATA	PROJECT DESCRIPTION
220 Battery Street	Approx. 78'	08/23/2019	Four-story vertical addition to existing building
447 Battery Street	Approx. 220'	03/01/2019	18-story hotel/residential building
545 Sansome Street	Approx. 125'	01/30/2020	Horizontal/penthouse addition to existing 9-story building
425 Broadway	Approx. 86'	08/25/2020	New 6-story mixed-use building with 34 dwelling units

TABLE 1: Cumulative Projects List

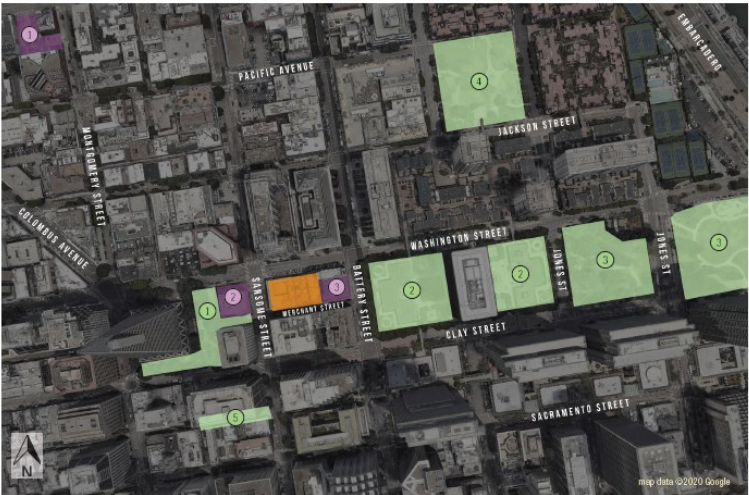


FIGURE 2: Vicinity Map

Proposed Project

Commercial Variant (248k sf):

- 19-story, 217'-7" tall
- New SF Fire Dept Station
- 200 Hotel Rooms (141k sf)
- Office (37k sf)
- Gym (32k sf)
- Restaurant (7,900 sf)

Residential Variant (283k sf):

- 21-story, 218'-0" tall
- New SF Fire Dept Station
- 256 Dwelling Units (247k sf)
- 69 parking spaces (2 car share, 3 loading)
- 143 Class 1 bicycle spaces
- 21 Class 2 bicycle spaces



Proposed Bldg Rendering

530 Sansome St Shadow



Vicinity Map

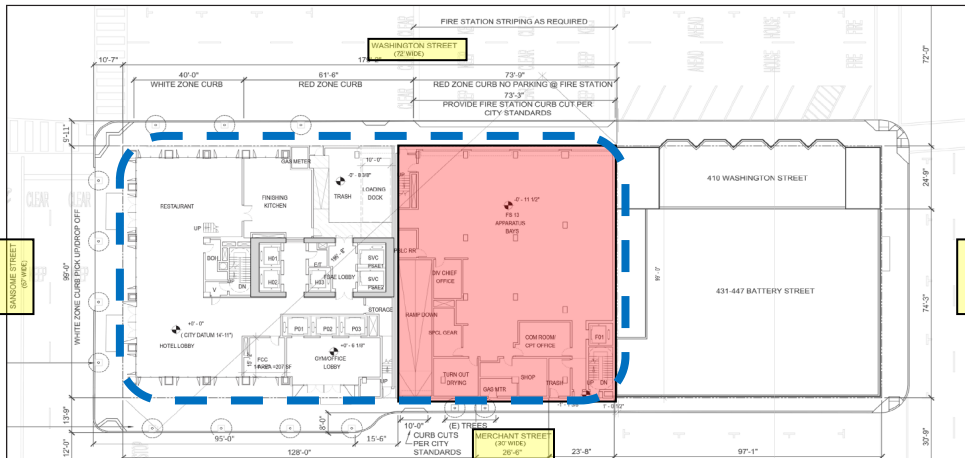


FIGURE 3: Project Site Plan (Residential Variant similar)



Project West Elevation



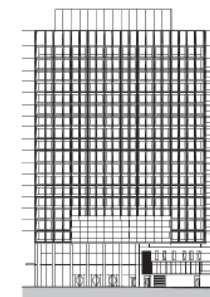
Project South Elevation



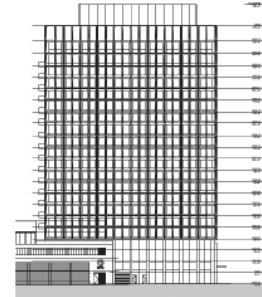
Project North Elevation



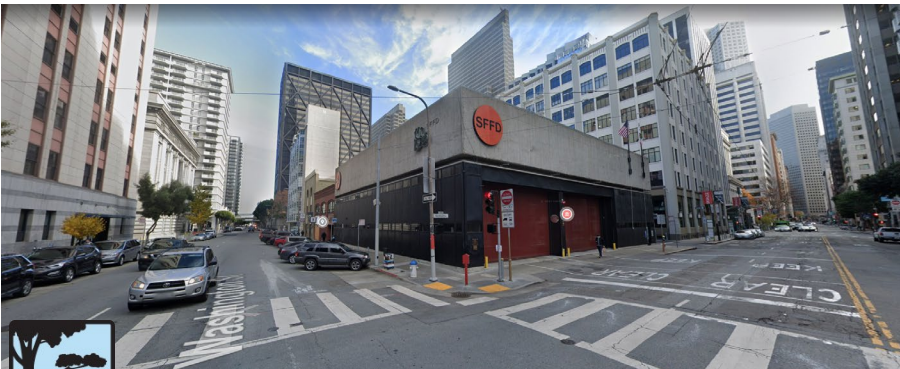
Residential Variant West Elevation



Residential Variant South Elevation



Residential Variant North Elevation



Note: Rendering and Elevations provided by Prevision Design, Shadow Analysis Report for 530 Sansome Street

