Memo to the Planning Commission

HEARING DATE: FEBRUARY 16, 2017 Continued from the JANUARY 12, 2017 Hearing Suite 400 San Francisco, CA 94103-2479

1650 Mission St.

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 Date:
 February 9, 2017

 Case No.:
 2013.1458DRP-02

Project Address: 198 VALENCIA STREET

Permit Application: 2014.08.05.3094

Zoning: NCT-3 (Moderate Scale Neighborhood Commercial Transit District)

50-X Height and Bulk District

Block/Lot: 3502/108

Project Sponsor: Victor Quan, Valencia Duboce LLC

PO Box 591841

San Francisco, CA 94159

Staff Contact: Jonathan DiSalvo – (415) 575-9182

Jonathan.DiSalvo@sfgov.org

Recommendation: Take DR and Approve the Project with Conditions.

BACKGROUND

On January 12, 2017, the Planning Commission heard the Discretionary Reviews associated with this Project, and continued them to the February 16, 2017 hearing. In requesting the continuance, the Commission asked for additional shadow analysis that would quantify the shading effects of the proposed project on the DR Requestor's property located at 199 Valencia Street, specifically the Zeitgeist beer garden.

CURRENT PROPOSAL

The proposed Project has not been modified since the Commission's hearing on January 12th, and includes the planter box modifications agreed to by the Sponsor and the second DR Requestor, located at 118-120 Duboce Avenue. The Project includes the demolition of the existing one-story, 1,877 square foot automotive service station (dba Oil Changer) and construction a new five-story, 55 foot tall, 33,795 gross square foot mixed-use building that includes two ground floor retail spaces totaling 6,269 square feet, 28 dwelling units on the second through fifth floors, 19 below-grade off-street parking spaces, 29 Class I bicycle parking spaces, and four Class II bicycle parking spaces. The Project includes a dwelling unit mix consisting of twelve (12) two-bedroom units, and sixteen (16) one-bedroom units. Open space for building residents would be provided in private terraces connected to individual dwellings and a common roof deck. The proposed building would include an approximately 16-foot tall elevator penthouse above roof. The Project would remove the two existing curb cuts on Valencia Street and would relocate the existing curb cut on Duboce Avenue.

Memo to Planning Commission Hearing Date: February 16, 2017

ISSUES AND OTHER CONSIDERATIONS

- The Project Sponsor has responded to the Commission's directive to provide a shadow analysis of the shading effect of the proposed project on 199 Valencia Street's beer garden. The study was conducted by Prevision Design and it follows the established methodology for conducting shadow analysis in San Francisco under Section 295 of the Planning Code. The study includes, (1) quantitative calculations of the amount and duration of new shadow cast throughout the year on the beer garden by the Project, (2) graphic shading illustrations that show the extent of existing versus new shadow cast at different times throughout the year, and the date of maximum new shadow, and (3) a quantitative and graphical review of the change in shading effect if the Project were to be reduced in height by five feet. The subject shadow study as developed by Prevision Design is included in the attachments of this Commission Packet.
- On January 26, 2017, the Project Sponsor submitted revisions to Building Permit No. 2014.08.05.3094 to reflect that the two planters (114 square feet and 44 square feet in size), located in the rear yard of the project along the western perimeter of the lot, will be reduced to a height of two feet above the deck. This revision was in response to an agreement made between the Sponsor and the DR Requestor at 118-120 Duboce Avenue. As revised, the Project proposes planters that extend vertically three feet six inches above the roof of the podium level along the entirety of the western property line of the subject lot, save for the two identified planters which have been reduced to a height of two feet above the roof of the podium level. The Project does not propose any railings along the western perimeter of the planters adjacent to the property at 118-120 Duboce Avenue.
- Following the hearing on January 12, 2017, the Department has not received any additional public correspondence in support of, or opposition to, the Project.

RECOMMENDED COMMISSION ACTION

The Department recommends that the Commission take Discretionary Review requested in Application No. 2013.1458DRP-02 and approve Building Permit Application No. 2014.08.05.3094, subject to the following conditions:

- 1. The two planters (114 square feet and 44 square feet in size), located in the rear yard of the project along the western perimeter of the lot, are not permitted to exceed a height of two feet above the roof of the podium level, consistent with the Plans stamped Exhibit A, dated May 26, 2016.
- 2. No railing may be permitted on the planters bordering the western perimeter of the lot, adjacent to the property at 118-120 Duboce Avenue.

BASIS FOR RECOMMENDATION

 The Project complies with the Planning Code and advances the Objectives and Policies of the General Plan. Memo to Planning Commission Hearing Date: February 16, 2017 CASE NO. 2013.1458DRP-02 198 Valencia Street

- The Project is in an appropriate in-fill development that will add 28 new dwelling units to the City's housing stock and 6,269 square feet of commercial space in an area that encourages the development of moderate-scale buildings with a pattern of ground floor commercial with upper story residential units.
- The Project fully respects the character of the adjacent mixed use and residential neighborhoods.
- The Project will include at least four units of on-site, permanently affordable housing.

RECOMMENDATION: Take DR and Approve the Project with Conditions

Attachments:

- Submitted supplemental shadow analysis from Prevision Design and the Project Sponsor
- Submitted correspondence and plans relating to planters bordering 118-120 Duboce Avenue
- Submitted statement from DR Requestor (199 Valencia Street Zeitgeist)

Memo to Planning Commission

CASE NO. 2013.1458DRP-02

Hearing Date: February 16, 2017

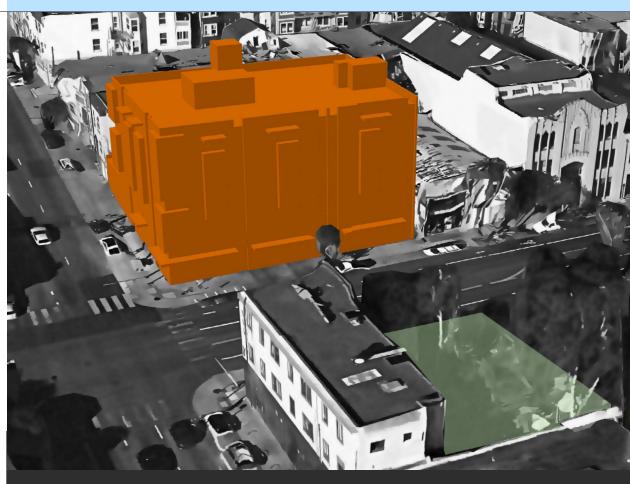
198 Valencia Street

SUPPLEMENTAL SHADOW ANALYSIS

PREVISION DESIGN

JANUARY 25, 2017

SHADOW ANALYSIS OF THE SHADING EFFECTS OF THE PROPOSED 198 VALENCIA STREET PROJECT ON 199 VALENCIA STREET (ZEITGEIST BEER GARDEN)



FROM:
ADAM PHILLIPS
PRINCIPAL
PREVISION DESIGN

TO:

VICTOR QUAN, VALENCIA DUBOSE LLC

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SAN FRANCISCO, CA 94159

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DISCRETIONARY REVIEW SHADOW ANALYSIS

Introduction and Scope of Review

This report describes the results of an analysis conducted by PreVision Design to identify the shadow effects that would be caused by the proposed construction of a five-story residential project at 198 Valencia Street ("the proposed project" or "198 Valencia Street") on the outdoor beer garden area of 199 Valencia Street ("Zeitgeist Beer Garden", or "Beer Garden").

The Zeitgeist Beer Garden is part of a privately-owned business (Zeitgeist) and not a public space, therefore shading impacts are not reviewed nor considered to be impacts under the San Francisco Planning Code nor the California Environmental Quality Act (CEQA). However, the owner of Zeitgeist has filed for a Discretionary Review (DR) of the project due to concerns that additional shadow cast by the project on the Beer Garden would have an adverse affect on the business.

A public hearing was held before the San Francisco Planning Commission on January 12th, 2016 at which time PreVision presented findings pertaining to the amount of quantitative increase in shadow throughout the year. After hearing testimony from the project sponsor, the DR filer, and members of the public, the San Francisco Planning Commission moved to continue the matter to a later date and requested that PreVision Design prepare a more comprehensive report to document the shading effects of the proposed project on the Zeitgeist Beer Garden, specifically:

- Quantitative calculations of the amount of new shadow cast throughout the year by the project on the beer garden, including the duration of new shading when present.
- Shading illustrations, graphically showing the extents of existing vs. new project shadow on the Summer Solstice, Winter Solstice, the Spring/Fall Equinoxes, and the date of maximum new shadow.
- A quantitative and graphical review of the change in shading effect if the project were to be reduced in height by 5 feet.

Analysis Methodology:

The methodology used by this study is based upon the established methods for conducting shadow analysis in San Francisco under Section 295 of the Planning Code (and often for CEQA analysis), described more fully below:

Using a 3D computer model of the proposed project, the affected space, and the surrounding urban environment to simulate and calculate both existing amounts of shading and levels of shading that would be present with the addition of the proposed project starting one hour after sunrise through one hour before sunset. Between these cutoff times, the model performed snapshot analyses at 15-minute intervals and repeated this process for every seven days between the Summer Solstice and Winter Solstice. This half-year is referred to as a "solar year" for purposes of this report, and the data taken from these 27 sample dates throughout the course of the solar year are then mirrored with interim times and dates extrapolated to arrive at the full-year shading calculation. The difference between the current levels of shading and the levels of shading that would be present with the addition of the proposed project yields the total annual increase, measured in square-foot-hours (sfh) of shadow. This increase is taken as a percentage of TAAS of sun on the space (the amount of sun that would fall on the space throughout the year if there were no shading present at any time).

In order to provide a visual understanding of the location, size and extent of new shading, snapshot shadow diagrams are produced on Summer Solstice (6/21), the Vernal/Autumnal Equinoxes (approx 3/20 and 9/20), and the Winter Solstice (12/21) and the date where greatest new shading occurs to accompany the quantitative analysis. Graphics are shown at hourly intervals between one hour after sunrise though one hour before sunset, and at 15-minute intervals when new shadow is present.

NOTE: A few modifications to the established methodology as described above were made for the purposes of this analysis, as described below:

- As the Beer Garden is a part of a business which operates from 9am-2am daily, it including early morning times as part of the analysis would not be appropriate. Accordingly, instead of starting the analysis at one hour after sunrise, 9am was used as the start time.
- 2. Typically, trees and other landscape features are not included as part of shading analysis. In this case, given that several trees are located within the Beer Garden itself, the contribution of their existing shading was felt to be relevant to show the change in shadow conditions with the addition of the project vs. shading conditions which exist today.

Analysis Findings

Figures 1 (next page) summarizes the quantitative existing shading levels, shadow effects the proposed project, and a 5' reduced-height alternative on the Zeitgeist Beer Garden. Shading graphics are included as Exhibits A-D and full quantitative calculations on all 27 analysis dates are included as Exhibit E.

The Beer Garden has a total area of approximately 0.08 acres and currently has 6,617,592 square-foot-hours (sfh) of shadow annually. Based on a theoretical annual available sunlight (TAAS) of 12,422,912 sfh, the Beer Garden is currently shaded 53.27% of the year.

The proposed project would result in new shadows falling on the Beer Garden. The Beer Garden would receive approximately 255,421 net new annual sfh of shadow, increasing sfh of shadow by 2.06% above current levels. New shadows would be present between January 4th and December 7th (348 days) annually. On dates affected by new shadow, shading would occur starting in the mid-to late afternoon and typically remain though the end of the day. No new shadow would be cast during morning hours through early afternoon at any time throughout the year.

The date(s) of maximum new shading would occur on April 26th and August 16th, when some new shadow would be present in locations within the Beer Garden for a period of approximately 2 hours. The largest area of new shadow during this time is 1,225sf, representing approximately 37% of the uncovered Beer Garden area.

Review of 5' Reduced-Height Alternative

Figures 1 also summarizes the quantitative change in shading that would be produced by a 5' reduced-height alternative.

The reduced-height alternative would reduce the levels of shading by 0.02% on an annual basis. The total number of days per year as well as the dates of maximum shadow on the Beer garden would remain unchanged, however the duration of shading on the date of maximum shading would be reduced by approximately 30 minutes and largest new shadow on that day would be reduced by 115sf.

Shading graphics on Exhibits A-D include an outline of where shadow from the reduced-height alternative would fall relative to the project as proposed, and quantitative data for this alternative is also included as part of Exhibit E.

THEORETICAL ANNUAL AVAILABLE SUNLIGHT (TAAS)	
Area of Zeitgeist Rear Yard	0.08 acres (3,338 sf)
Hours of annual available sunlight	3721.4 hrs
TAAS for Zeitgeist Rear Yard (Business Hours Only)	12,422,912 sfh

EXISTING (CURRENT) LEVELS OF SHADING ON ZEITGEIST REAR YARD	
Existing annual total shading on park (sfh)	6,617,592 sfh
Existing shading as percentage of TAAS	53.27%

NEW SHADOW CAST BY THE PROPOSED 198 VALENCIA STREET PROJECT	ZEITGEIST REAR YARD
Total new annual shading on Zeitgeist Rear Yard from Project	255,421 sfh
New shading from Project as percentage of TAAS	2.06%
Total annual shading existing + Project (sfh)	6,873,014 sfh
Shading from existing + Project as percentage of TAAS	55.33%
Number of days when new Project shading occurs	348 days annually
Dates when new Project shadow is cast on Zeitgeist Rear Yard	Approx. January 4 - December 7
Annual range in duration of new Project shadows	Zero to approx. 128 min
Range in size of new shadow (sf)	Zero to 1,225 sf
Average daily duration of new shadow (when present)	Approx. 94 min.
MAXIMUM NEW SHADING BY THE PROPOSED PROJECT	ZEITGEIST REAR YARD
Dates of maximum new shading from proposed project	Apr 26 & Aug 16
Total new shading on date(s) of maximum shading (sfh)	1,383.44 sfh
Percentage new shadow on date(s) of maximum shading	4.14%
Largest new shadow on date(s) of maximum shading (sf)	1,225.26 sf
Percentage of Zeitgeist Rear Yard covered by largest shadow	36.70%
Duration of shading on dates of maximum shading	114 min (+/- 7 min)

NEW SHADOW CAST BY THE PROPOSED PROJECT W/ A 5' HEIGHT REDUCTION	ZEITGEIST REAR YARD
New annual shading from 5' shorter Project only (sfh)	218,239 sfh
Shading from 5' shorter Project only as percentage of TAAS	1.76%
Total annual shading Existing + 5' shorter Project (sfh)	6,835,832 sfh
Shading from Existing + 5' shorter Project as percentage of TAAS	55.03%
Number of days when new 5' shorter Project shading occurs	348 days annually
Dates when new 5' shorter Project shading occurs	Approx. January 4 - December 7
Annual range in duration of new 5' shorter Project shadows	Zero to approx. 114 min
Range in size of new 5' shorter Project shadow (sf)	Zero to 1,151 sf
Average daily duration of 5' shorter Project new shadow (when present)	Approx. 84 min.
5' SHORTER PROJECT MAX SHADING DAY(S)	ZEITGEIST REAR YARD
Dates of maximum 5' shorter Project shading	Apr 26 & Aug 16
Total New Shading on date(s) of maximum shading (sfh)	1,168.49 sfh
Percentage new shadow on date(s) of maximum shading	3.49%
Largest new shadow on date(s) of maximum shading (sf)	1,109.79 sf
Percentage of Zeitgeist Rear Yard covered by largest shadow	33.24%
Duration of shading on date(s) of maximum shading	99 min (+/- 7 min)

FIGURE 1: Quantitative Analysis Results

Peer Review of Shadow Analysis prepared by Manel Heredero

At the request of the project sponsor, PreVision Design reviewed the shading analysis prepared by Manel Heredero (representing Zeitgeist) on August 12, 2016 depicting the 198 Valencia Street Project's shading effects on the Beer garden. Per the cover sheet, the study was intended to show "volumetric alternatives to the current proposed development across Valencia St", but also depicted shading conditions that would be generated by the project as proposed.

It is outside the scope of this review to comment on the viability of any of the proposed alternatives, but in my review of the shadow study itself, I have the following comments:

1. A review of the shading graphics was conducted and the shadows shown appear to not reflect accurate solar angles. As an example, on Page 15 the study depicts the shading of the project as designed on June 21st at 5pm, showing shading reaching about midway into the rear yard. Based on the application of established solar angles at that day and time, this depiction is inaccurate as shading would not reach the rear yard at that time. This error results in the appearance of shadows to be larger/longer than they would actually be at the given dates/time, and appears to be consistent throughout the entire analysis.

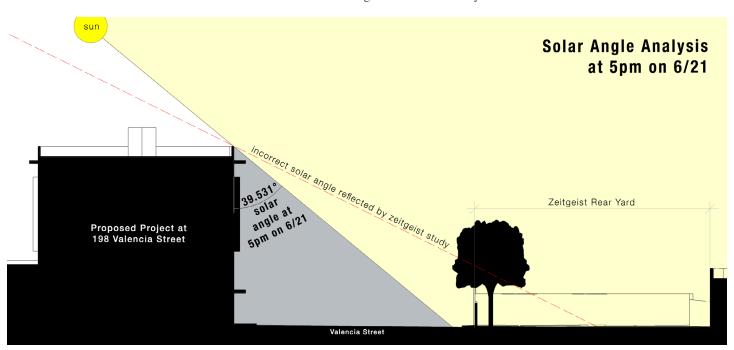


FIGURE 2: Diagram showing the actual solar angle at 5pm on 6/21 vs. what was depicted in the Zeitgeist shadow analysis

The massing of the buildings are unarticulated boxes, not dimensioned, and no graphic scale is provided. Attempting to scale the images to match aerial photography, it appears that the massing of Zeitgeist and the proposed 198 Valencia Project are approximately correct, though it was noted that the project was placed a few feet closer to the rear yard than it actually would be.

- 3. The shadow study does not include any other existing buildings in the area aside from a fence located on the north and western edge of the Beer Garden and an unarticulated box representing the existing building at 199 Valencia Street. Other existing buildings in the vicinity do contribute shadow on the Beer Garden, especially in the late afternoon during times when the project shading occurs. This omission serves to misrepresent the effect of *net new* shadow on the Beer garden. Additionally, the study does not differentiate between existing and net new project-generated shadow, therefore it is not possible to understand what portion of the shadows shown is attributable to the project vs. existing conditions.
- 4. The study depicts two trees located within the rear yard of Zeitgeist, however the location of the trees as well as their size is incorrect. Based on site observations, there are 4 trees present in the space, and most significantly, a large tree with a dense canopy located between the project and the rear yard has been omitted. The model also does not reflect that approximately 1/4 to 1/3 of the area on the southern side of the space is covered by awnings (and therefore would not affected by any new shadow).

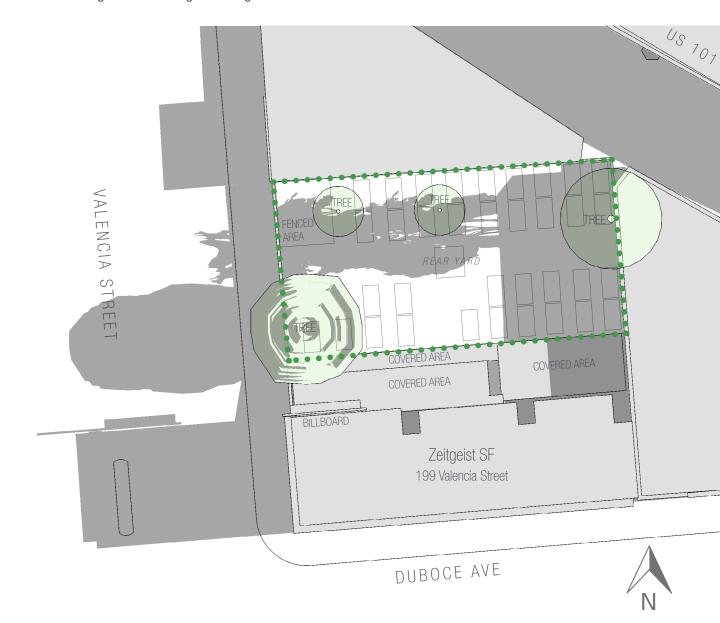
In conclusion, PreVision Design finds the shading depictions contained within this study to be an inaccurate depiction of the actual shading effects of the proposed project.

EXHIBIT A: SHADOW DIAGRAMS ON SUMMER SOLSTICE A1 - June 21 Diagrams at one hour intervals starting at 9am through to one hour prior to sunset, and additionally at 15 minute intervals at times when new shadow is present in the Beer Garden. PREVISION DESIGN | 198 VALENCIA STREET SHADOW ANALYSIS REPORT | JANUARY 25, 2017 PAGE 8



A1.1 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Summer Solstice



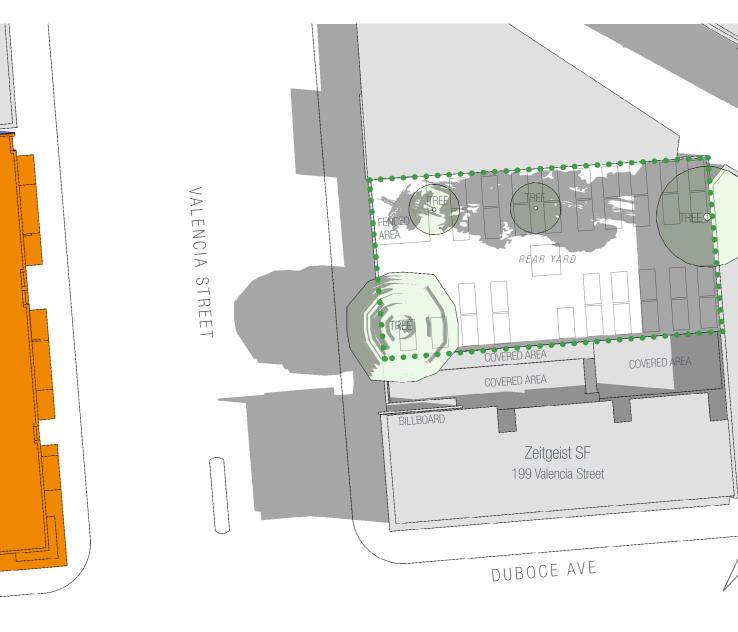
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US 101

A1.2 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Summer Solstice

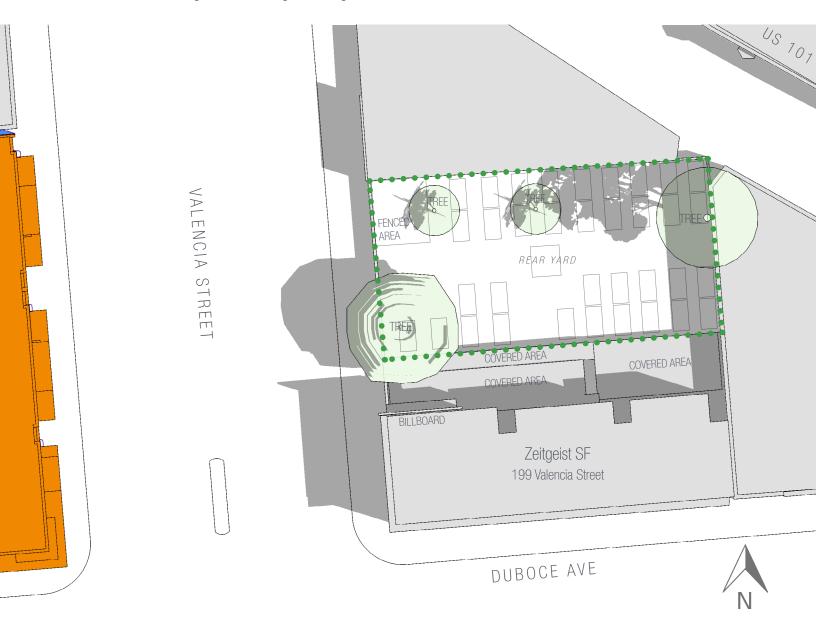


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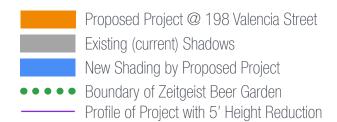


A1.3 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Summer Solstice



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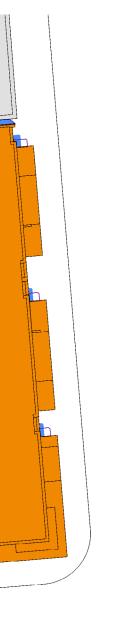




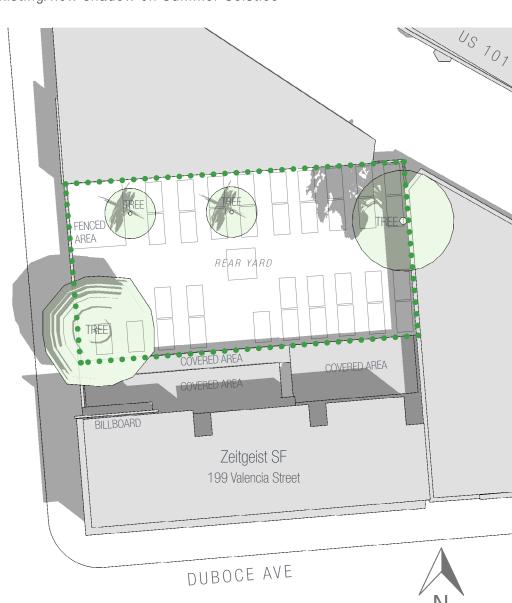
A1.4

198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Summer Solstice



VALENCIA STREET

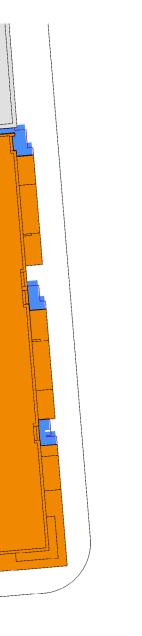


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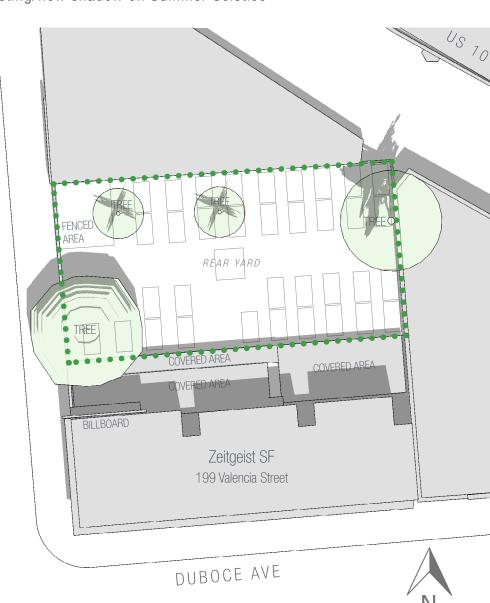


A1.5 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Summer Solstice



VALENCIA STREET



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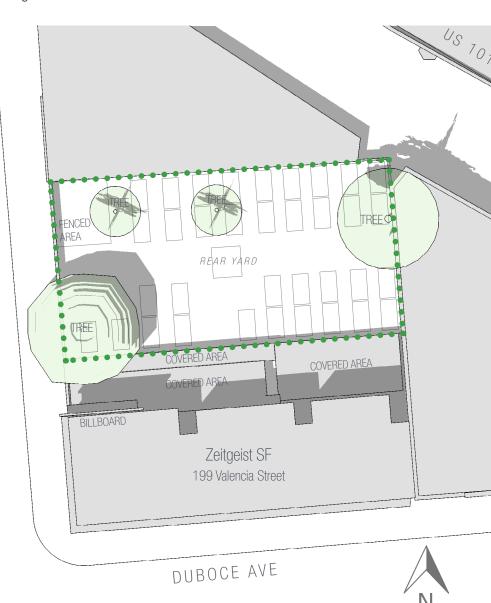


A1.6 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Summer Solstice



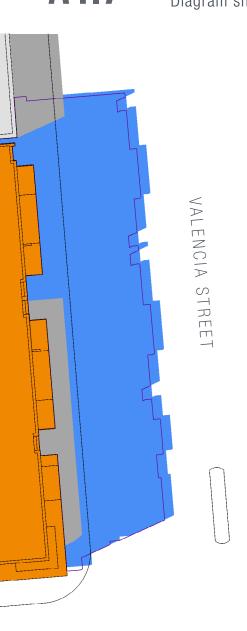
VALENCIA STREET

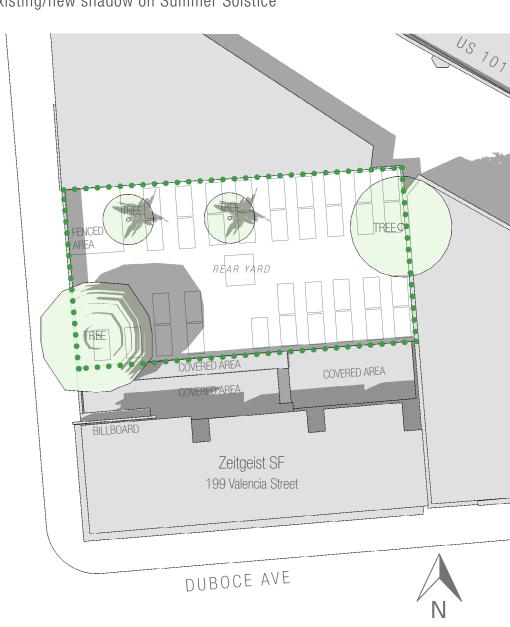


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198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice

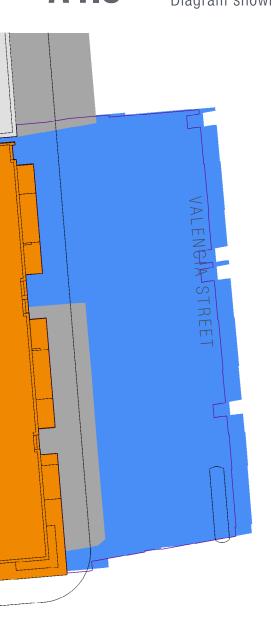


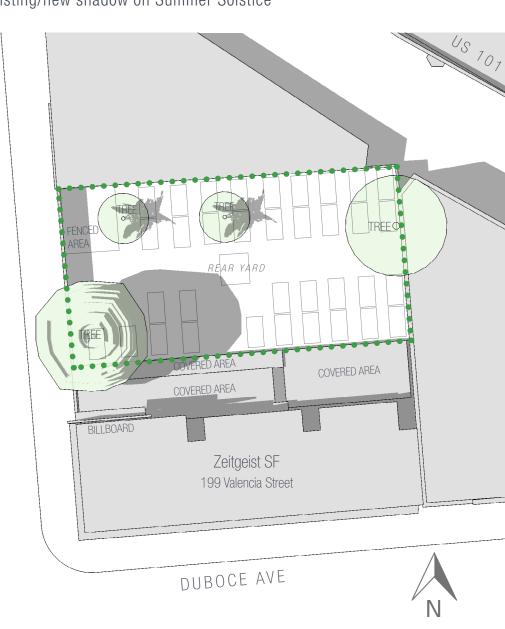


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A 1.8 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice

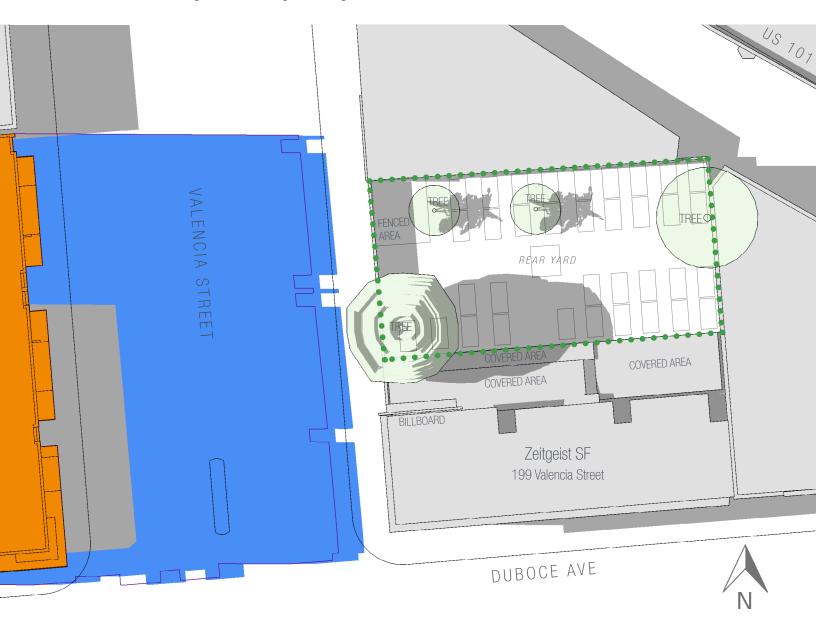




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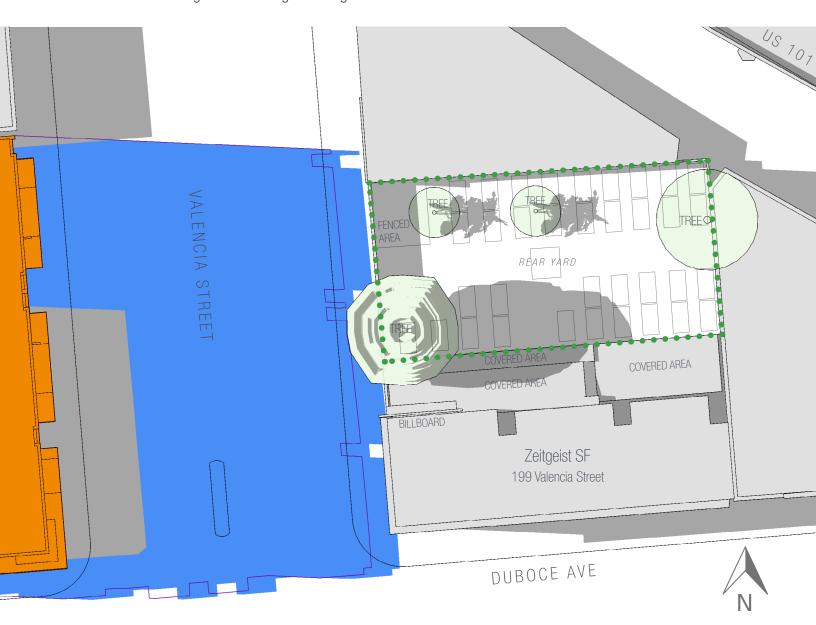
A 1.9 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



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A 1.10 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice

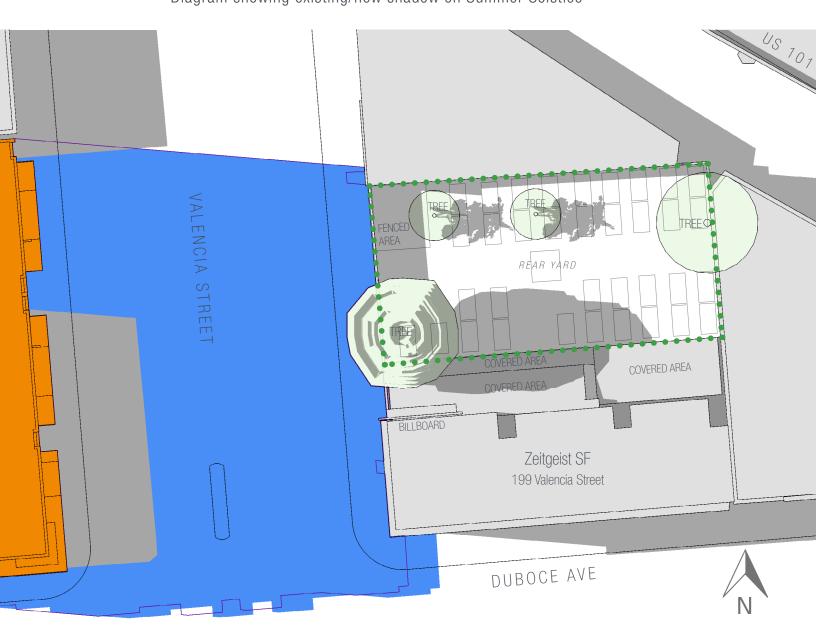


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A 1.11 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice

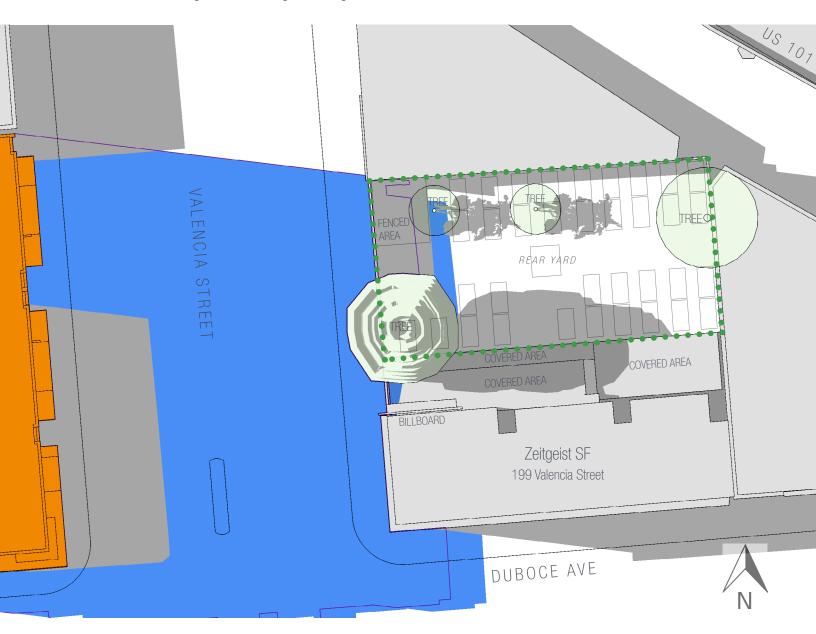


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A 1.12 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



DATE AND TIME June 21 5:45 PM





A 1.13 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



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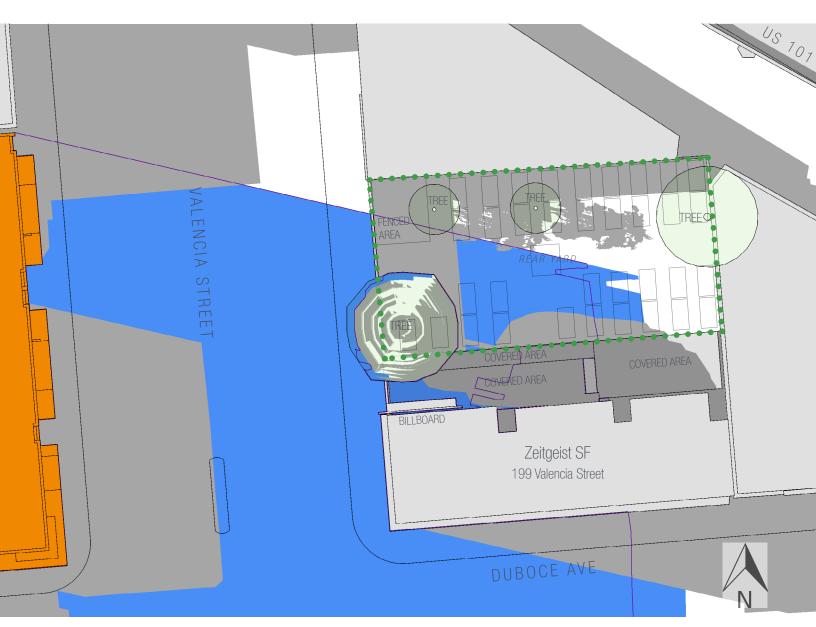
A 1.14 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



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A 1.15 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



DATE AND TIME
JUNE 21

6:30 PM



A 1.16 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



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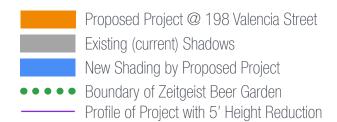


A 1.17 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



DATE AND TIME
JUNE 21

7:00 PM





A 1.18 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



DATE AND TIME
JUNE 21

7:15 PM



A 1.19 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



DATE AND TIME
JUNE 21

7:30 PM



A 1.20 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Summer Solstice



DATE AND TIME June 21 7:35 PM

EXHIBIT B: SHADOW DIAGRAMS ON EQUINOXES B1 - September 20 (Autumnal--March 20 similar) Diagrams at one hour intervals starting at 9am through to one hour prior to sunset, and additionally at 15 minute intervals at times when new shadow is present in the Beer Garden. PAGE 29 PREVISION DESIGN | 198 VALENCIA STREET SHADOW ANALYSIS REPORT | JANUARY 25, 2017



B 1 1 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equipoxe

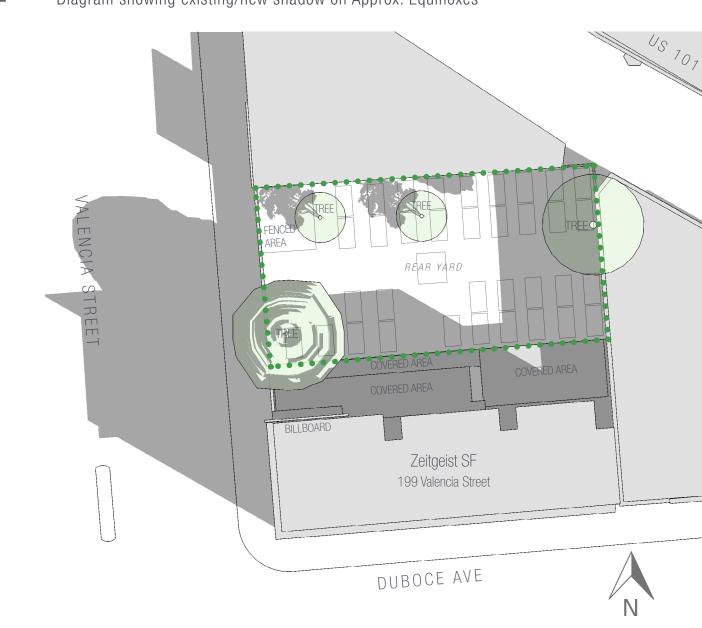


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B 1 2 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equinoxes

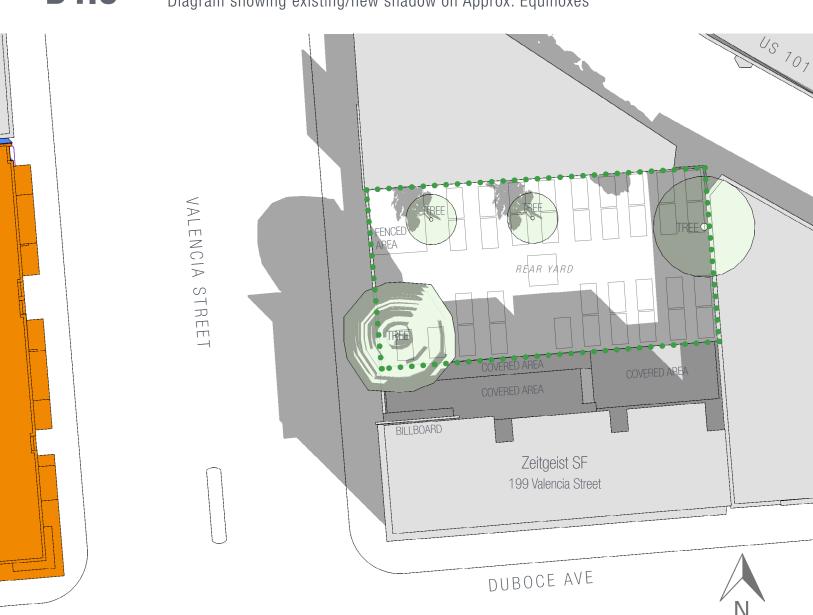


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B 1.3 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equinoxes



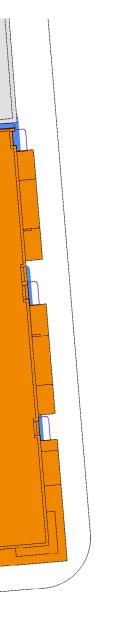
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B1.4 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Approx. Equinoxes



VALENCIA STREET



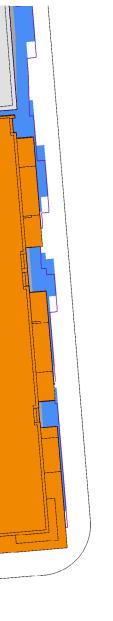
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12:00 PM



B1.5 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Approx. Equinoxes



VALENCIA STREET



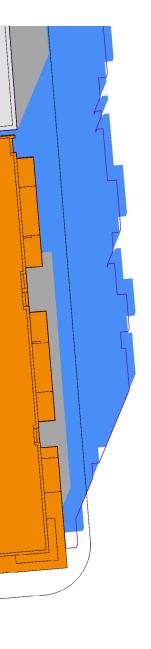
DATE AND TIME SEPTEMBER 20 1:00 PM



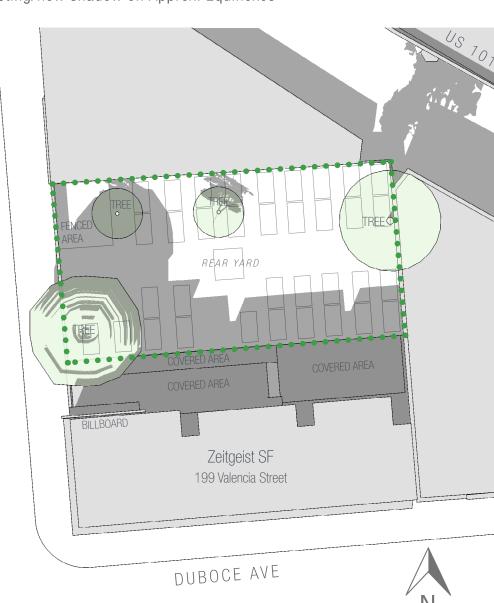
B1.6

198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Approx. Equinoxes

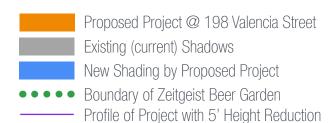


VALENCIA STREET



DATE AND TIME SEPTEMBER 20

2:00 PM





B 1.7 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equinoxes





DATE AND TIME SEPTEMBER 20

3:00 PM



B 1-8 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equinoxes



DATE AND TIME SEPTEMBER 20

4:00 PM



B 1.9 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equinoxes

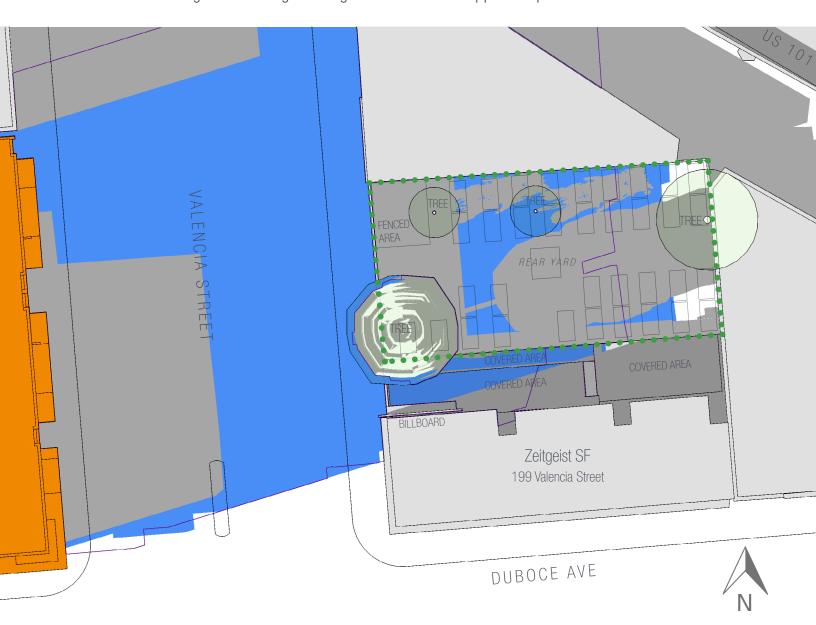


DATE AND TIME SEPTEMBER 20

5:00 PM



B 1. 10 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equinoxes



DATE AND TIME SEPTEMBER 20

5:15 PM



B1.11 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Approx. Equinoxes



DATE AND TIME SEPTEMBER 20 5:30 PM



B 1. 12 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equinoxes



DATE AND TIME SEPTEMBER 20

5:45 PM



B 1. 13 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equinoxes



DATE AND TIME SEPTEMBER 20

6:00 PM



B 1. 14 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Approx. Equinoxes



DATE AND TIME SEPTEMBER 20

6:09 PM

EXHIBIT C: SHADOW DIAGRAMS ON WINTER SOLSTICE C1 - December 21 Diagrams at one hour intervals starting at 9am through to one hour prior to sunset, and additionally at 15 minute intervals at times when new shadow is present in the Beer Garden. PREVISION DESIGN | 198 VALENCIA STREET SHADOW ANALYSIS REPORT | JANUARY 25, 2017 PAGE 44



C1.1 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Winter Solstice



DATE AND TIME DECEMBER 21

9:00 AM



198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Winter Solstice

VALENCIA STREET REAR YARD BII LBOARD Zeitgeist SF 199 Valencia Street DUBOCE AVE

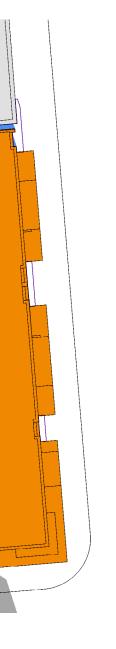
DATE AND TIME DECEMBER 21

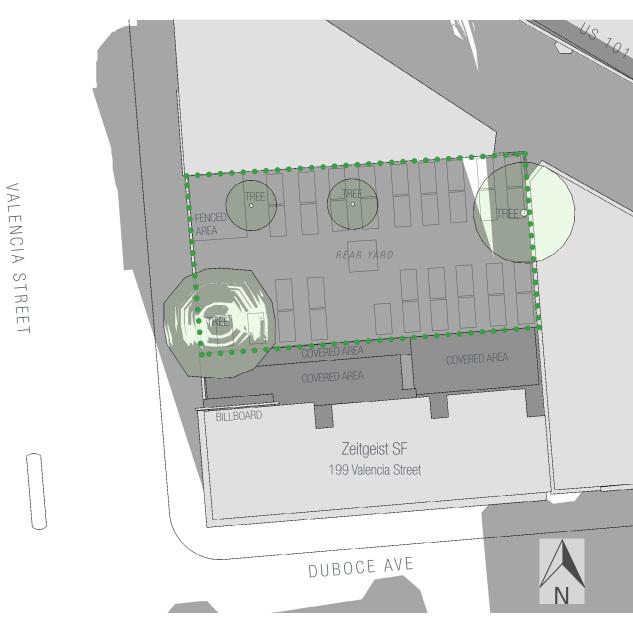
10:00 AM



C1.3 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Winter Solstice





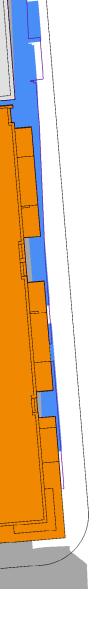
DATE AND TIME **DECEMBER 21**

11:00 AM

C1.4

198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Winter Solstice



VALENCIA STREET

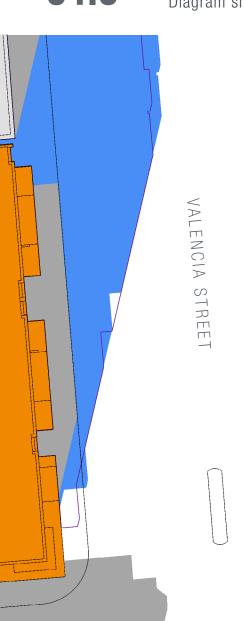


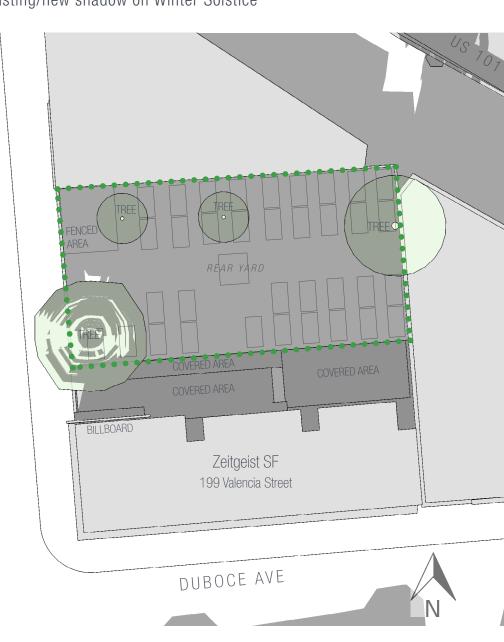
DATE AND TIME DECEMBER 21

12:00 PM



C1.5 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Winter Solstice





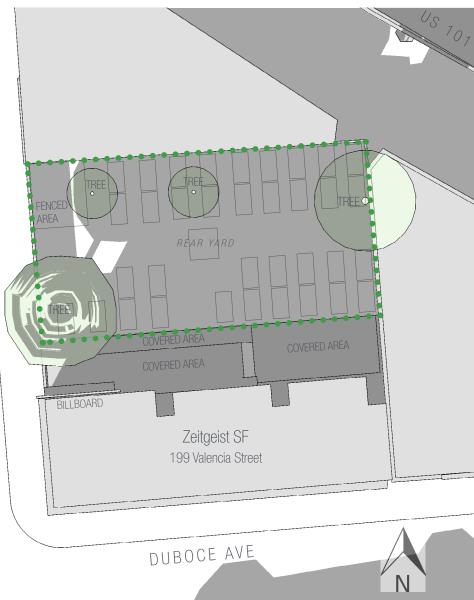
DATE AND TIME DECEMBER 21

1:00 PM



198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Winter Solstice





DATE AND TIME DECEMBER 21

2:00 PM



C1.7 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Winter Solstice

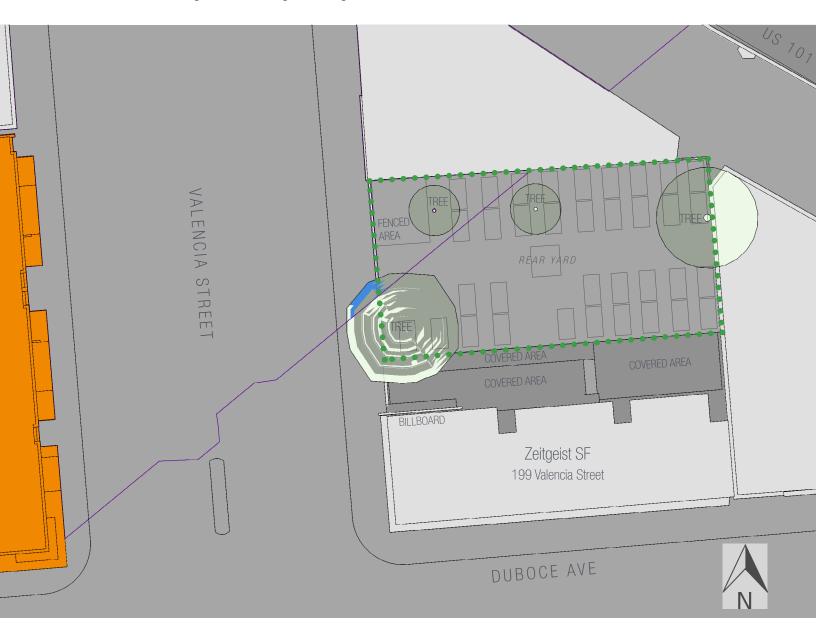


DATE AND TIME DECEMBER 21

3:00 PM



C1.8 198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Winter Solstice



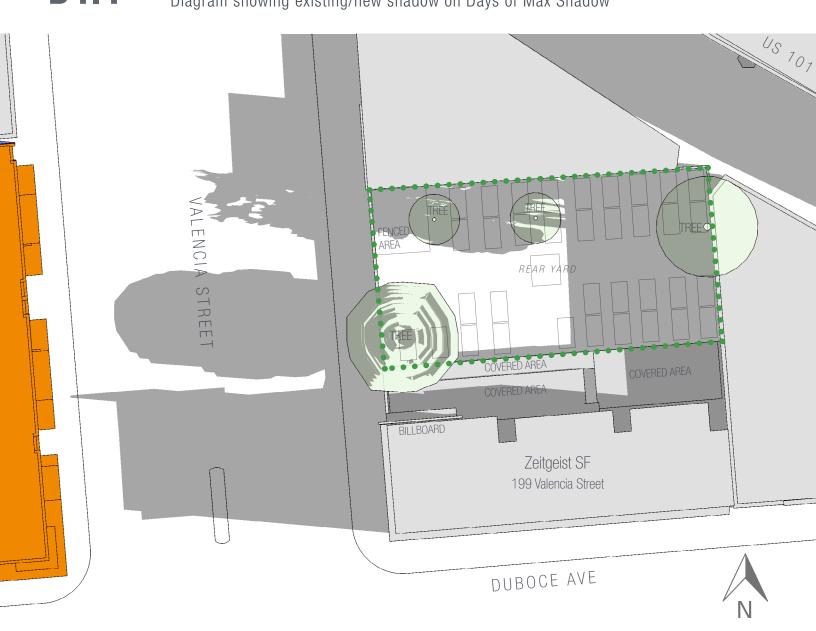
DATE AND TIME DECEMBER 21

3:55 PM

EXHIBIT D: DATES OF MAXIMUM NEW SHADING ON ZEITGEIST BEER GARDEN D1 - April 26 & August 16 Diagrams at one hour intervals starting at 9am through to one hour prior to sunset, and additionally at 15 minute intervals at times when new shadow is present in the Beer PREVISION DESIGN | 198 VALENCIA STREET SHADOW ANALYSIS REPORT | JANUARY 25, 2017 PAGE 53



198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow



DATE AND TIME APRIL 26 / AUGUST 16

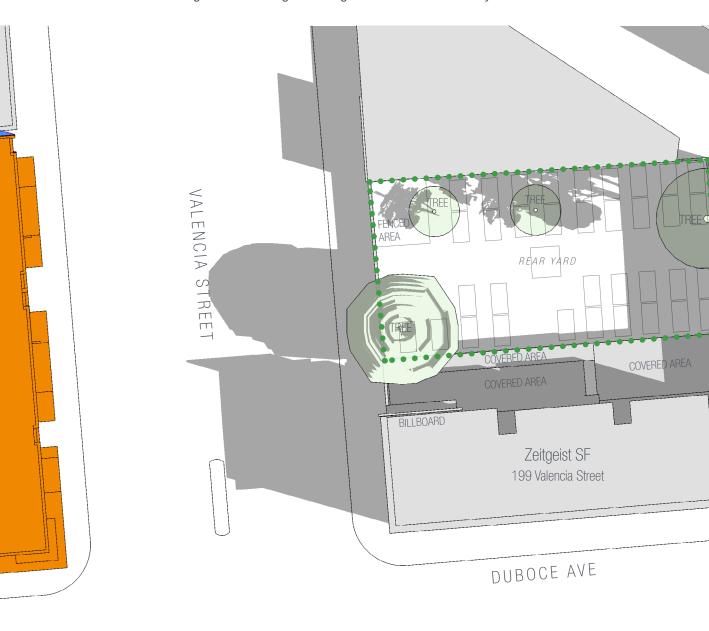
9:00 AM



US 107

D1.2 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Days of Max Shadow



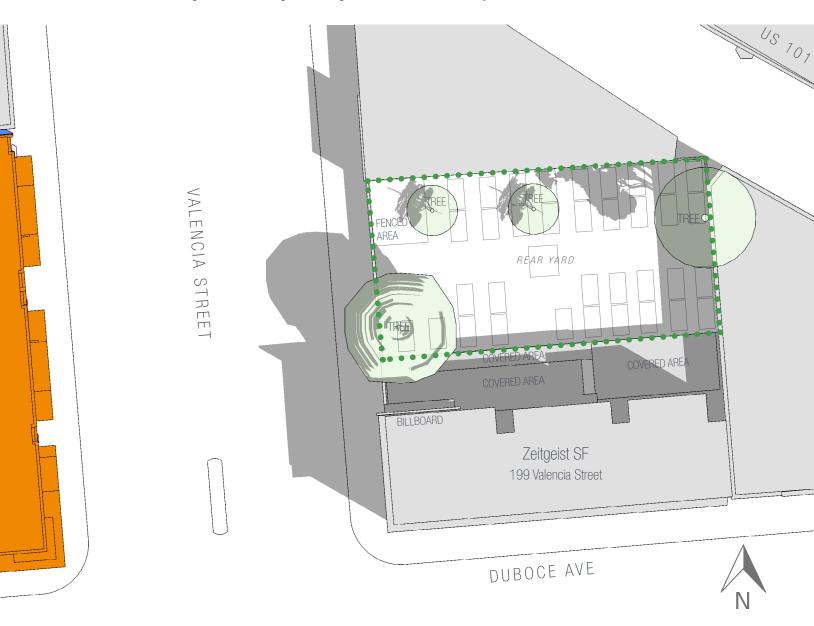
DATE AND TIME APRIL 26 / AUGUST 16

10:00 AM



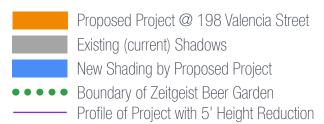
D1.3 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Days of Max Shadow



DATE AND TIME APRIL 26 / AUGUST 16

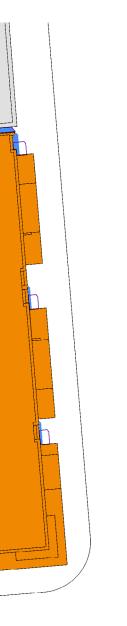
11:00 AM



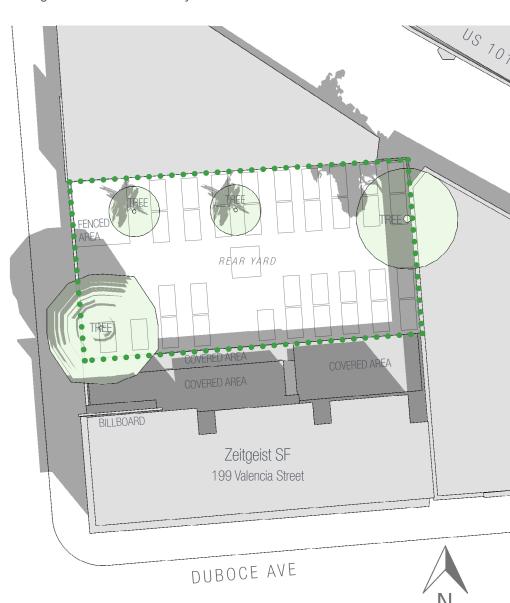


D1.4 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Days of Max Shadow



VALENCIA STREET



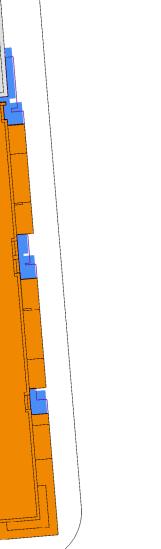
DATE AND TIME APRIL 26 / AUGUST 16

12:00 PM



D1.5 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Days of Max Shadow



VALENCIA STREET



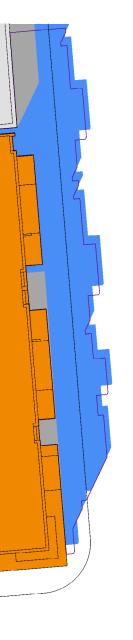
DATE AND TIME APRIL 26 / AUGUST 16

1:00 PM



D1.6 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Days of Max Shadow



VALENCIA STREET



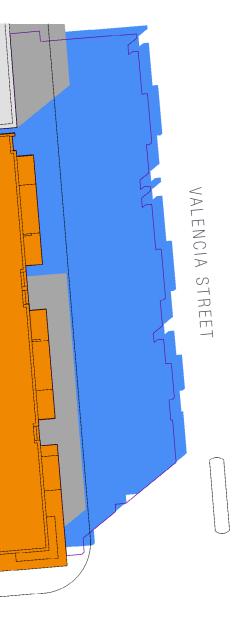
DATE AND TIME APRIL 26 / AUGUST 16

2:00 PM



D1.7 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Days of Max Shadow



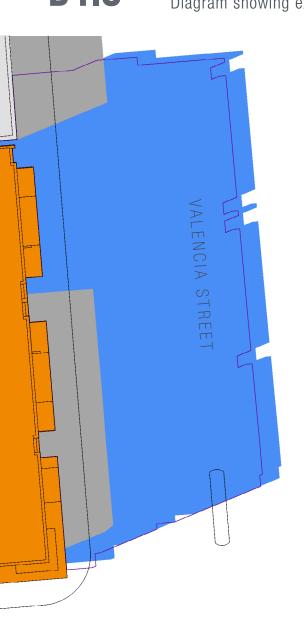


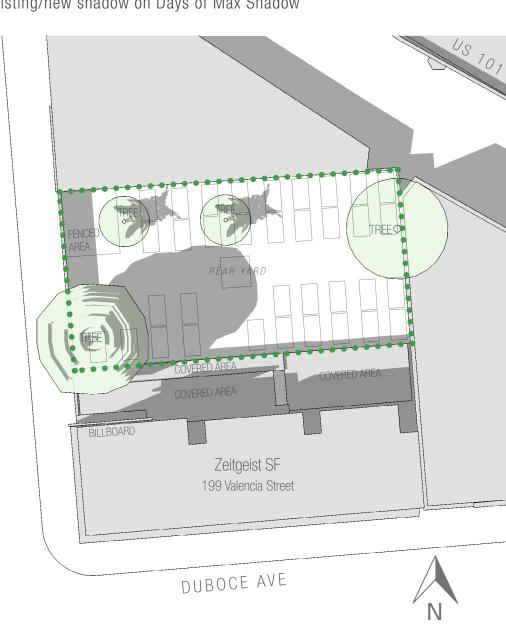
DATE AND TIME APRIL 26 / AUGUST 16

3:00 PM



198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow



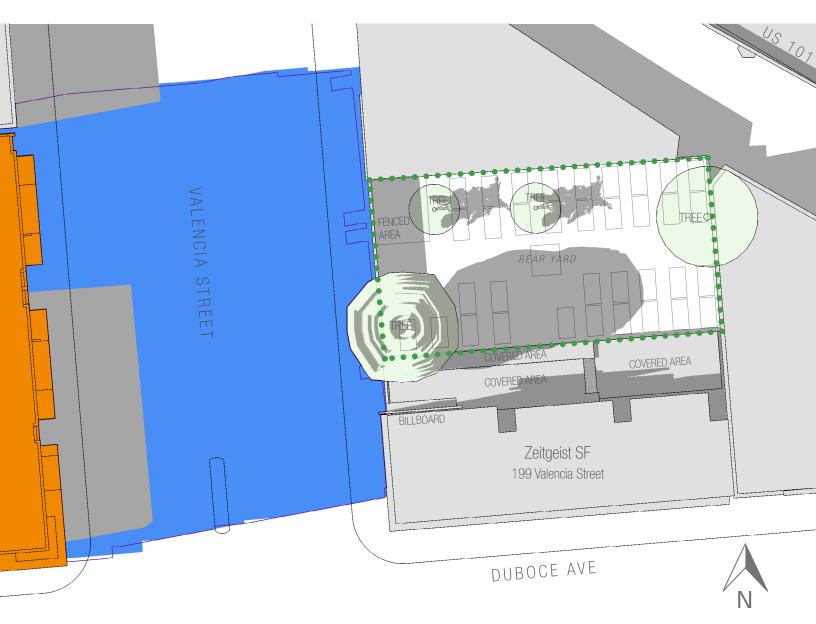


DATE AND TIME APRIL 26 / AUGUST 16

4:00 PM



198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow

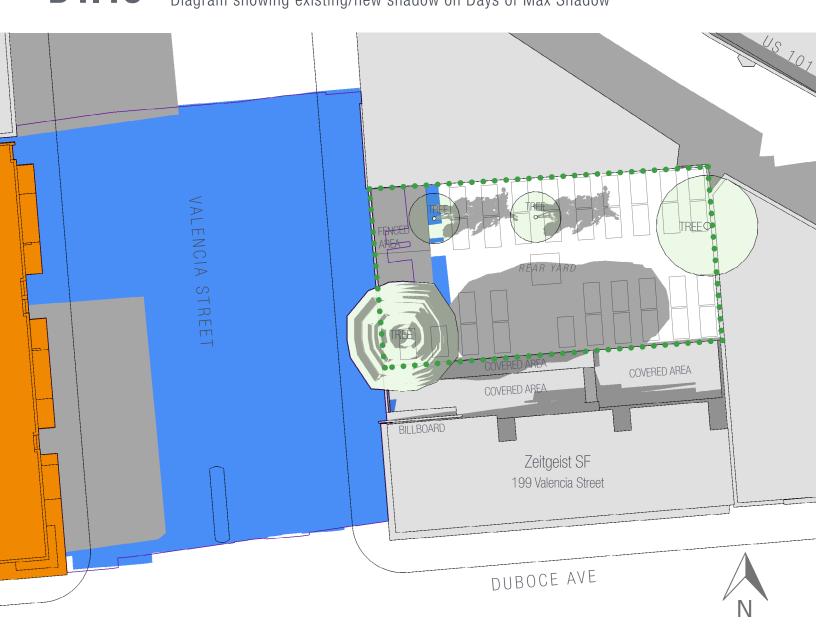


DATE AND TIME APRIL 26 / AUGUST 16

5:00 PM



D1.10198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow

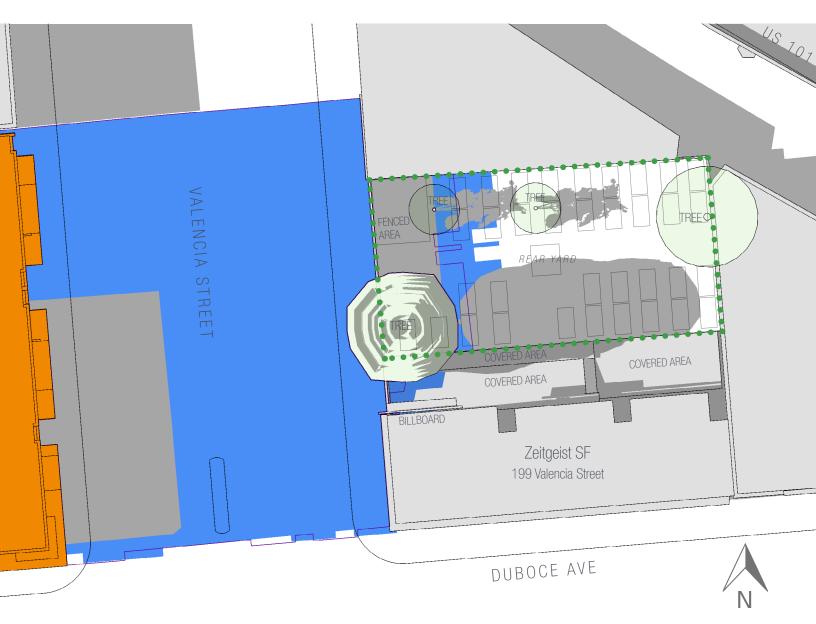


DATE AND TIME APRIL 26 / AUGUST 16 5:15 PM



D1.11 198 VALENCIA STREET / ZEITGEIST BEER GARDEN

Diagram showing existing/new shadow on Days of Max Shadow



DATE AND TIME APRIL 26 / AUGUST 16

5:30 PM



D1.12198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow



DATE AND TIME APRIL 26 / AUGUST 16

5:45 PM



D1.13198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow



DATE AND TIME APRIL 26 / AUGUST 16

6:00 PM



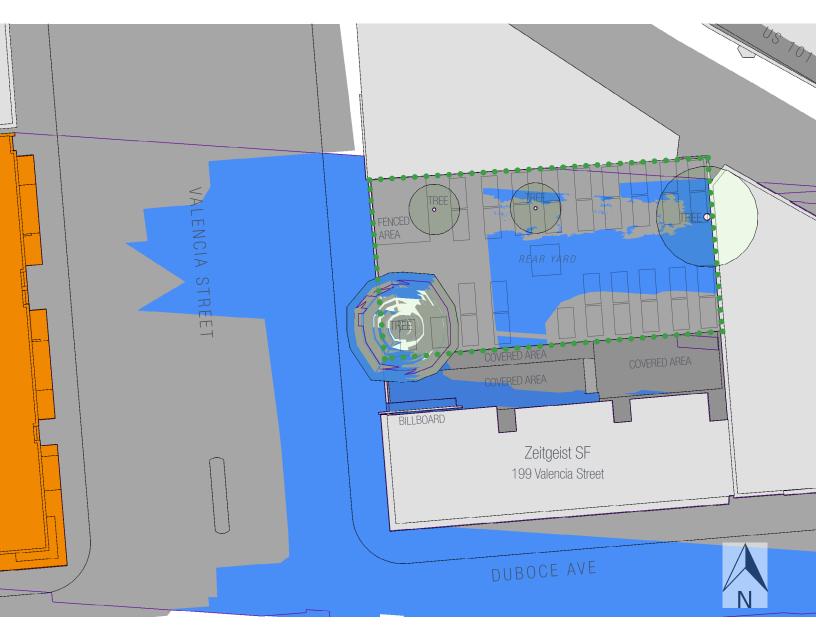
D1.14198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow



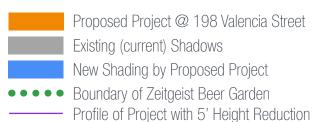
DATE AND TIME APRIL 26 / AUGUST 16 6:15 PM



D1.15198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow



DATE AND TIME APRIL 26 / AUGUST 16 6:30 PM

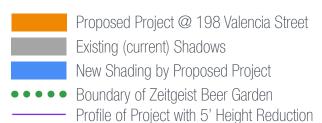




D1.16198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow

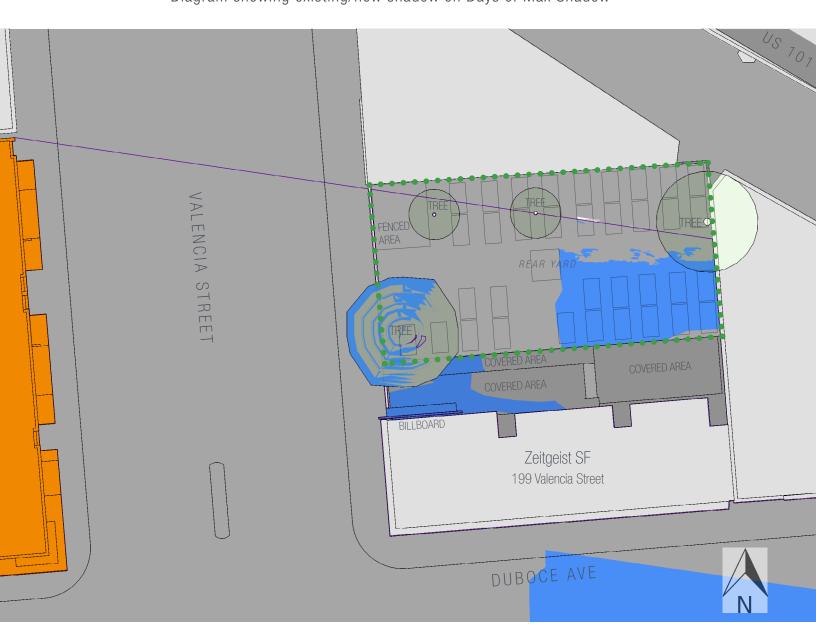


DATE AND TIME APRIL 26 / AUGUST 16 6:45 PM





D1.17198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow



DATE AND TIME APRIL 26 / AUGUST 16 7:00 PM

Proposed Project @ 198 Valencia Street
Existing (current) Shadows
New Shading by Proposed Project

Boundary of Zeitgeist Beer Garden
Profile of Project with 5' Height Reduction



198 VALENCIA STREET / ZEITGEIST BEER GARDEN Diagram showing existing/new shadow on Days of Max Shadow



DATE AND TIME APRIL 26 / AUGUST 16 7:01 PM

Proposed Project @ 198 Valencia Street
Existing (current) Shadows
New Shading by Proposed Project

Boundary of Zeitgeist Beer Garden
Profile of Project with 5' Height Reduction

EXHIBIT E: QUANTITATIVE SHADING DATA Quantitative Annual Shading Data Shadow data reflecting the shadow effects at intervals throughout the year, including existing conditions, new shading from project as proposed, and shading from a 5' height reduction project alternative. PREVISION DESIGN | 198 VALENCIA STREET SHADOW ANALYSIS REPORT | JANUARY 25, 2017 PAGE 72

JUNE 21 PDT

Analysis Hours: 9:00am-7:35pm (local time) Summer Solstace

SUMMER SOLSTICE

Calculation	on Period		CURRENT SHADOV	I	NEW SHADOV	V FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEI	GHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	1,973.38	59.1%	481.36	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	1,877.51	56.2%	459.20	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,796.07	53.8%	436.57	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,696.51	50.8%	410.59	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,588.17	47.6%	381.17	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,461.20	43.8%	350.89	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,345.90	40.3%	325.01	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,254.19	37.6%	303.00	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,169.83	35.0%	280.83	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,076.83	32.3%	259.16	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	996.47	29.9%	241.53	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	935.76	28.0%	226.66	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	877.53	26.3%	212.48	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	822.32	24.6%	199.44	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	773.21	23.2%	187.78	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	729.05	21.8%	177.38	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	689.95	20.7%	170.43	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	673.53	20.2%	168.59	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	675.23	20.8%	171.30	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	695.19	21.9%	178.13	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	729.88	23.0%	187.03	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	766.34	24.1%	196.18	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	803.09	25.2%	205.62	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	841.86	26.5%	215.83	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	884.74	27.9%	226.90	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	930.44	29.2%	238.24	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	975.49	30.6%	249.43	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,019.93	31.9%	260.60	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,064.85	33.3%	271.97	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,110.94	34.7%	283.52	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,157.25	37.1%	299.32	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,237.30	39.7%	320.18	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,324.16	42.3%	341.92	0.00	0.0%	0.00	0.00	0.0%	0.00
5:15 PM	5:30 PM	1,411.21	44.9%	363.78	0.00	0.0%	0.00	0.00	0.0%	0.00
5:30 PM	5:45 PM	1,499.06	47.5%	385.71	0.00	3.8%	15.88	0.00	0.0%	0.00
5:45 PM	6:00 PM	1,586.58	50.1%	407.50	127.04	9.6%	55.78	0.00	4.6%	19.01
6:00 PM	6:15 PM	1,673.41	52.7%	428.94	319.18	14.9%	102.26	152.12	10.4%	62.21
6:15 PM	6:30 PM	1,758.13	56.2%	454.32	498.92	19.7%	144.60	345.53	15.5%	107.93
6:30 PM	6:45 PM	1,876.44	59.6%	483.37	657.91	19.7%	161.45	517.89	17.3%	137.09
6:45 PM	7:00 PM	1,990.56	65.7%	522.93	633.65	19.0%	124.49	578.86	17.3%	117.64
7:00 PM	7:15 PM	2,192.89	77.0%	595.48	362.23	10.9%	59.46	362.22	10.9%	59.46
7:15 PM	7:30 PM	2,570.95	97.5%	728.04	113.42	3.4%	14.27	113.42	3.4%	14.27
7:30 PM	7:35 PM	3,253.38	100.0%	274.65	0.76	0.0%	0.03	0.76	0.0%	0.03
7:35 PM	END	3,338.20			0.00			0.00		

JUNE 28 PDT

Analysis Hours: 9:00am-7:36pm (local time) Similar conditions on June 14

SIMILAR CONDITIONS ON JUNE 14

Calculation	on Period		CURRENT SHADOV	l	NEW SHADOV	V FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEI	GHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	1,984.38	59.4%	484.50	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	1,891.63	56.7%	463.16	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,813.63	54.3%	440.42	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,709.72	51.2%	414.21	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,603.97	48.0%	384.91	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,475.32	44.2%	353.78	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,354.92	40.6%	327.23	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,262.94	37.8%	305.28	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,179.28	35.3%	283.09	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,085.44	32.5%	261.24	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,004.47	30.1%	243.46	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	943.17	28.3%	228.54	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	885.17	26.5%	214.38	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	829.90	24.9%	201.30	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	780.47	23.4%	189.59	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	736.21	22.1%	179.18	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	697.24	20.9%	171.75	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	676.79	20.3%	169.49	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	679.15	20.8%	171.86	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	695.72	21.9%	178.34	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	731.03	23.0%	187.31	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	767.47	24.1%	196.47	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	804.33	25.2%	205.86	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	842.54	26.5%	216.01	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	885.53	27.9%	227.06	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	930.96	29.3%	238.48	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	976.91	30.6%	249.84	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,021.83	32.0%	261.06	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,066.69	33.3%	272.49	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,113.27	34.7%	284.10	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,159.50	36.9%	298.92	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,231.85	39.5%	318.97	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,319.92	42.2%	340.96	0.00	0.0%	0.00	0.00	0.0%	0.00
5:15 PM	5:30 PM	1,407.74	44.8%	363.06	0.00	0.0%	0.00	0.00	0.0%	0.00
5:30 PM	5:45 PM	1,496.72	47.5%	385.17	0.00	3.5%	14.49	0.00	0.0%	0.00
5:45 PM	6:00 PM	1,584.65	50.1%	407.20	115.93	9.4%	53.70	0.00	4.3%	18.12
6:00 PM	6:15 PM	1,672.92	52.7%	428.86	313.71	14.7%	100.68	144.99	10.2%	60.60
6:15 PM	6:30 PM	1,757.95	56.0%	453.62	491.72	20.0%	144.72	339.84	15.5%	107.22
6:30 PM	6:45 PM	1,871.05	59.5%	482.14	666.03	20.2%	167.49	517.92	18.2%	140.60
6:45 PM	7:00 PM	1,986.05	65.1%	519.86	673.92	20.2%	135.02	606.85	18.2%	126.64
7:00 PM	7:15 PM	2,172.85	76.1%	588.97	406.28	12.2%	68.41	406.28	12.2%	68.41
7:15 PM	7:30 PM	2,538.93	93.5%	707.71	141.03	4.2%	18.22	141.03	4.2%	18.22
7:30 PM	7:36 PM	3,122.77	100.0%	323.05	4.72	0.1%	0.24	4.72	0.1%	0.24
7:36 PM	END	3,338.20			0.00			0.00		

JULY 5 PDT

Analysis Hours: 9:00am-7:35pm (local time) Similar conditions on June 7

SIMILAR CONDITIONS ON JUNE 7

Calculation	on Period		CURRENT SHADOV	I	NEW SHADOV	V FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEI	GHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	1,990.47	59.6%	488.28	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	1,915.76	57.4%	469.45	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,839.88	55.1%	446.61	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,733.04	51.9%	419.87	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,625.90	48.7%	389.05	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,486.53	44.5%	356.25	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,363.43	40.8%	329.11	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,269.47	38.0%	306.83	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,185.15	35.5%	284.86	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,093.72	32.8%	263.58	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,014.89	30.4%	246.02	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	953.28	28.6%	231.03	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	894.97	26.8%	217.00	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	841.02	25.2%	204.08	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	791.61	23.7%	192.41	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	747.67	22.4%	182.12	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	709.31	21.2%	174.47	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	686.47	20.7%	172.10	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	690.31	21.1%	174.25	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	703.70	22.2%	180.45	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	739.88	23.3%	189.51	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	776.19	24.4%	198.65	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	813.04	25.5%	208.12	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	851.92	26.8%	218.38	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	895.15	28.2%	229.51	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	940.97	29.6%	241.06	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	987.49	31.0%	252.65	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,033.70	32.3%	264.18	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,079.73	33.8%	275.89	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,127.41	35.2%	287.80	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,175.01	36.9%	300.97	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,232.76	39.6%	319.49	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,323.13	42.3%	342.07	0.00	0.0%	0.00	0.00	0.0%	0.00
5:15 PM	5:30 PM	1,413.42	45.1%	364.76	0.00	0.0%	0.00	0.00	0.0%	0.00
5:30 PM	5:45 PM	1,504.65	47.8%	387.43	0.00	3.8%	15.71	0.00	0.0%	0.00
5:45 PM	6:00 PM	1,594.81	50.5%	409.93	125.68	9.9%	56.91	0.00	4.7%	19.78
6:00 PM	6:15 PM	1,684.67	53.0%	431.94	329.60	15.2%	104.61	158.20	10.5%	63.40
6:15 PM	6:30 PM	1,770.85	56.3%	456.35	507.29	21.1%	151.35	349.02	16.2%	111.29
6:30 PM	6:45 PM	1,879.97	59.8%	484.38	703.51	22.5%	182.03	541.26	20.1%	151.70
6:45 PM	7:00 PM	1,995.03	65.0%	520.55	752.72	22.5%	154.13	672.32	20.1%	144.08
7:00 PM	7:15 PM	2,169.39	75.7%	587.08	480.31	14.4%	83.09	480.31	14.4%	83.09
7:15 PM	7:30 PM	2,527.22	91.7%	698.34	184.41	5.5%	24.78	184.41	5.5%	24.78
7:30 PM	7:35 PM	3,059.53	100.0%	266.57	13.80	0.4%	0.57	13.80	0.4%	0.57
7:35 PM	END	3,338.20			0.00			0.00		

JULY 12 PDT

Analysis Hours: 9:00am-7:32pm (local time) Similar conditions on May 31

Calculation	on Period		CURRENT SHADOV	V	NEW SHADOV	W FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEI	GHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,001.53	60.0%	493.49	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	1,946.36	58.3%	477.32	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,872.20	56.1%	453.79	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,758.10	52.7%	425.30	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,644.33	49.3%	392.49	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,495.61	44.8%	358.17	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,369.78	41.0%	330.66	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,275.52	38.2%	308.11	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,189.33	35.6%	286.14	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,099.80	32.9%	265.51	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,024.31	30.7%	248.52	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	963.86	28.9%	233.86	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	907.03	27.2%	220.21	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	854.66	25.6%	207.51	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	805.43	24.1%	195.86	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	761.47	22.8%	185.71	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	724.23	21.7%	178.11	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	700.67	21.2%	175.93	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	706.81	21.6%	178.28	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	719.44	22.7%	184.50	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	756.58	23.8%	193.74	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	793.35	24.9%	202.95	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	830.24	26.1%	212.50	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	869.75	27.4%	222.90	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	913.42	28.8%	234.17	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	959.93	30.2%	245.99	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,008.03	31.6%	258.00	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,056.00	33.1%	269.94	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,103.52	34.6%	282.13	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,153.53	36.0%	294.61	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,203.33	37.5%	307.01	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,252.76	40.0%	323.43	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,334.66	42.8%	345.44	0.00	0.0%	0.00	0.00	0.0%	0.00
5:15 PM	5:30 PM	1,428.83	45.7%	369.16	0.00	0.0%	0.00	0.00	0.0%	0.00
5:30 PM	5:45 PM	1,524.42	48.5%	392.86	0.00	4.8%	19.88	0.00	0.0%	0.00
5:45 PM	6:00 PM	1,618.46	51.3%	416.22	159.03	10.5%	63.57	0.00	5.3%	22.29
6:00 PM	6:15 PM	1,711.31	53.9%	438.91	349.53	16.6%	113.03	178.35	11.3%	69.47
6:15 PM	6:30 PM	1,799.98	57.0%	462.96	554.73	23.3%	166.71	377.37	17.8%	121.60
6:30 PM	6:45 PM	1,903.71	60.4%	490.18	778.99	25.5%	203.89	595.47	23.3%	171.54
6:45 PM	7:00 PM	2,017.69	65.4%	525.10	852.17	25.5%	179.80	776.86	23.3%	170.39
7:00 PM	7:15 PM	2,183.11	76.0%	589.86	586.25	17.6%	104.21	586.25	17.6%	104.21
7:15 PM	7:30 PM	2,535.76	91.7%	699.79	247.46	7.4%	34.65	247.46	7.4%	34.65
7:30 PM	7:32 PM	3,062.56	98.2%	105.67	29.74	0.9%	0.67	29.74	0.9%	0.67
7:32 PM	END	3,277.94			10.19			10.19		

JULY 19 PDT

Analysis Hours: 9:00am-7:29pm (local time) Similar conditions on May 24

Calculation	on Period		CURRENT SHADOV	I	NEW SHADOV	V FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	GHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,019.46	60.5%	499.80	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	1,978.95	59.3%	485.89	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,908.15	57.2%	461.11	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,780.74	53.3%	427.50	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,639.26	49.1%	391.97	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,496.47	44.8%	358.26	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,369.64	41.0%	330.66	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,275.67	38.2%	308.10	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,189.10	35.6%	286.31	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,101.39	33.0%	267.02	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,034.78	31.0%	251.30	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	975.64	29.2%	237.13	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	921.38	27.6%	223.86	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	869.49	26.0%	211.25	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	820.50	24.6%	199.83	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	778.17	23.3%	190.04	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	742.14	22.2%	182.68	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	719.30	21.8%	181.00	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	728.74	22.2%	183.86	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	742.11	23.3%	190.09	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	778.65	24.5%	199.49	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	817.28	25.6%	209.15	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	855.94	26.8%	218.99	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	895.94	28.2%	229.61	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	940.91	29.6%	241.21	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	988.80	31.1%	253.35	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,037.99	32.6%	265.77	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,088.13	34.1%	278.35	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,138.70	35.7%	291.27	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,191.42	37.3%	304.47	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,244.31	38.8%	317.60	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,296.51	40.6%	331.39	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,354.63	43.6%	351.25	0.00	0.0%	0.00	0.00	0.0%	0.00
5:15 PM	5:30 PM	1,455.35	46.6%	376.54	0.00	0.0%	0.00	0.00	0.0%	0.00
5:30 PM	5:45 PM	1,556.97	49.7%	401.83	0.00	6.1%	25.65	0.00	0.0%	0.00
5:45 PM	6:00 PM	1,657.64	52.6%	426.56	205.19	11.8%	75.08	0.00	7.1%	29.43
6:00 PM	6:15 PM	1,754.83	55.3%	449.94	395.42	18.9%	128.42	235.47	13.3%	84.91
6:15 PM	6:30 PM	1,844.67	58.3%	473.83	631.95	26.2%	188.15	443.79	20.0%	138.95
6:30 PM	6:45 PM	1,945.98	61.5%	500.01	873.28	28.1%	226.38	667.83	27.4%	197.94
6:45 PM	7:00 PM	2,054.07	91.3%	534.16	937.72	28.1%	205.60	915.67	27.4%	202.85
7:00 PM	7:15 PM	2,219.19	91.3%	597.80	707.11	21.2%	130.19	707.11	21.2%	130.19
7:15 PM	7:29 PM	2,563.17	91.3%	654.44	334.40	10.0%	46.67	334.40	10.0%	46.67
7:29 PM	END	3,046.33			65.63			65.63		

JULY 26 PDT

Analysis Hours: 9:00am-7:23pm (local time) Similar conditions on May 17

Calculati	on Period		CURRENT SHADOV	V	NEW SHADO	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEI	GHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,056.58	61.6%	509.10	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	2,016.25	60.4%	492.54	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,924.07	57.6%	462.40	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,775.11	53.2%	426.35	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,635.67	49.0%	390.46	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,488.02	44.6%	356.32	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,362.51	40.8%	329.14	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,270.63	38.1%	307.15	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,186.53	35.5%	286.72	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,107.19	33.2%	268.80	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,043.24	31.3%	253.69	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	986.27	29.5%	239.96	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	933.44	28.0%	227.14	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	883.68	26.5%	215.25	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	838.35	25.1%	204.51	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	797.73	23.9%	195.23	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	764.15	22.9%	188.44	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	743.35	22.7%	187.47	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	756.38	23.1%	190.98	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	771.45	24.2%	197.35	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	807.31	25.4%	206.96	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	848.33	26.6%	217.16	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	888.92	27.9%	227.48	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	930.94	29.3%	238.63	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	978.08	30.8%	250.68	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	1,027.33	32.3%	263.14	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,077.82	33.8%	275.97	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,129.91	35.5%	289.34	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,184.78	37.2%	303.31	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,241.66	38.9%	317.56	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,298.81	40.6%	331.72	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,354.97	42.2%	345.59	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,409.78	44.7%	362.93	0.00	0.0%	0.00	0.00	0.0%	0.00
5:15 PM	5:30 PM	1,493.69	48.1%	387.22	0.00	0.7%	2.76	0.00	0.0%	0.00
5:30 PM	5:45 PM	1,604.08	51.3%	414.77	22.06	8.0%	36.13	0.00	1.9%	7.75
5:45 PM	6:00 PM	1,714.07	54.5%	441.56	267.01	14.5%	94.01	61.98	9.3%	46.53
6:00 PM	6:15 PM	1,818.38	56.9%	464.90	485.03	21.4%	150.00	310.30	16.0%	105.42
6:15 PM	6:30 PM	1,900.85	60.0%	487.95	714.94	30.4%	216.03	533.05	23.1%	163.17
6:30 PM	6:45 PM	2,002.71	63.2%	514.04	1,013.28	30.4%	252.50	772.33	30.1%	222.20
6:45 PM	7:00 PM	2,109.60	68.4%	548.92	1,006.72	30.2%	228.16	1,005.31	30.1%	227.98
7:00 PM	7:15 PM	2,281.75	78.5%	612.72	818.53	24.5%	157.17	818.53	24.5%	157.17
7:15 PM	7:23 PM	2,620.00	86.1%	366.37	438.84	13.1%	41.62	438.84	13.1%	41.62
7:23 PM	END	2,875.53			185.40			185.40		

AUGUST 2 PDT

Analysis Hours 9:00am-7:17pm (local time) Similar conditions on May 10

Calculati	on Period		CURRENT SHADOV	V	NEW SHADO	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEI	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,120.58	63.5%	519.99	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	2,039.35	61.1%	492.83	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,903.28	57.0%	458.30	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,763.11	52.8%	421.86	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,611.77	48.3%	385.67	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,473.57	44.1%	353.43	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,353.87	40.6%	326.51	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,258.25	37.7%	304.37	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,176.71	35.2%	285.57	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,107.85	33.2%	269.42	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,047.47	31.4%	255.17	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	993.86	29.8%	242.32	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	944.70	28.3%	230.42	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	898.67	26.9%	219.56	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	857.80	25.7%	209.78	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	820.44	24.6%	201.26	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	789.65	23.7%	195.34	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	773.06	23.6%	195.31	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	789.46	24.2%	199.61	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	807.45	25.3%	206.34	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	843.28	26.6%	216.27	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	886.87	27.9%	227.13	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	930.15	29.2%	238.18	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	975.31	30.7%	250.02	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	1,024.83	32.2%	262.57	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	1,075.74	33.8%	275.55	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,128.62	35.4%	288.91	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,182.68	37.2%	302.94	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,240.85	39.0%	317.97	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,302.88	40.9%	333.67	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,366.50	42.8%	349.33	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,428.13	44.7%	364.91	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,491.19	46.6%	380.95	0.00	0.0%	0.00	0.00	0.0%	0.00
5:15 PM	5:30 PM	1,556.39	50.0%	403.08	0.00	3.7%	15.26	0.00	0.0%	0.00
5:30 PM	5:45 PM	1,668.23	53.7%	432.49	122.06	10.1%	57.39	0.00	4.5%	18.85
5:45 PM	6:00 PM	1,791.69	56.6%	460.19	337.09	18.0%	117.43	150.78	11.8%	68.16
6:00 PM	6:15 PM	1,889.83	58.9%	481.88	602.32	25.4%	181.31	394.51	19.1%	128.82
6:15 PM	6:30 PM	1,965.19	61.9%	504.14	848.15	33.3%	244.80	636.09	27.9%	196.13
6:30 PM	6:45 PM	2,067.93	65.4%	531.47	1,110.27	33.3%	265.76	932.97	30.4%	243.60
6:45 PM	7:00 PM	2,183.85	70.9%	568.92	1,015.81	30.4%	236.51	1,015.81	30.4%	236.51
7:00 PM	7:15 PM	2,367.54	82.3%	639.29	876.26	26.2%	168.33	876.26	26.2%	168.33
7:15 PM	7:17 PM	2,746.78	86.8%	94.07	470.35	14.1%	13.17	470.35	14.1%	13.17
7:17 PM	END	2,897.49			319.65			319.65		

AUGUST 9 PDT

Analysis Hours 9:00am-7:09pm (local time) Similar conditions on May 3

Calculation	on Period		CURRENT SHADOW	I	NEW SHADOV	V FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,161.83	64.8%	523.09	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	2,022.87	60.6%	486.17	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,866.51	55.9%	449.68	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,730.92	51.9%	414.96	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,588.72	47.6%	380.13	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,452.35	43.5%	347.99	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,331.60	39.9%	321.61	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,241.24	37.2%	301.56	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,171.22	35.1%	284.88	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,107.85	33.2%	269.88	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,051.19	31.5%	256.62	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	1,001.77	30.0%	245.01	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	958.33	28.7%	234.41	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	916.97	27.5%	224.83	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	881.70	26.4%	216.36	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	849.22	25.4%	209.02	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	822.91	24.7%	204.68	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	814.50	25.0%	205.96	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	833.19	25.6%	210.90	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	854.00	26.6%	217.74	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	887.92	28.0%	227.67	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	933.42	29.4%	239.18	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	980.05	30.8%	251.19	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	1,029.47	32.4%	263.84	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	1,081.25	34.0%	276.95	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	1,134.34	35.6%	290.36	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,188.51	37.3%	304.40	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,246.65	39.2%	319.45	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,308.97	41.2%	335.55	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,375.42	43.3%	352.77	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,446.75	45.4%	370.40	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,516.44	47.6%	388.35	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,590.35	50.0%	407.26	0.00	0.0%	0.00	0.00	0.0%	0.00
5:15 PM	5:30 PM	1,667.73	52.5%	427.56	0.00	6.3%	26.25	0.00	0.3%	1.12
5:30 PM	5:45 PM	1,752.78	56.7%	455.84	210.01	13.0%	80.30	8.97	7.6%	32.85
5:45 PM	6:00 PM	1,893.96	58.8%	482.14	432.35	21.4%	143.29	253.81	15.7%	97.26
6:00 PM	6:15 PM	1,963.15	61.0%	500.04	713.99	32.5%	224.67	524.31	23.5%	163.63
6:15 PM	6:30 PM	2,037.20	64.2%	522.65	1,083.38	33.8%	276.49	784.69	33.5%	238.06
6:30 PM	6:45 PM	2,144.00	68.2%	552.70	1,128.53	33.8%	264.88	1,119.82	33.5%	263.79
6:45 PM	7:00 PM	2,277.58	73.9%	592.97	990.53	29.7%	231.21	990.53	29.7%	231.21
7:00 PM	7:09 PM	2,466.22	83.1%	393.00	859.15	25.7%	105.53	859.15	25.7%	105.53
7:09 PM	END	2,773.72			547.90			547.90		

AUGUST 16 PDT

Analysis Hours 9:00am-7:01pm (local time) Similar conditions on April 26

Calculati	on Period		CURRENT SHADOV	V	NEW SHADO	W FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,157.87	64.6%	518.19	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	1,987.68	59.5%	477.34	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,831.03	54.9%	440.16	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,690.29	50.6%	404.84	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,548.43	46.4%	371.50	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,423.56	42.6%	342.38	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,315.47	39.4%	318.98	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,236.36	37.0%	300.70	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,169.22	35.0%	284.94	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,110.29	33.3%	271.18	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,059.17	31.7%	259.13	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	1,013.85	30.4%	248.60	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	974.97	29.2%	239.23	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	938.90	28.1%	230.93	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	908.53	27.2%	223.90	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	882.66	26.4%	218.01	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	861.44	25.9%	215.94	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	866.09	26.6%	219.46	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	889.56	27.5%	225.91	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	917.73	28.6%	234.17	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	955.65	30.1%	244.90	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	1,003.55	31.5%	256.81	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	1.050.95	32.9%	268.80	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	1,099.46	34.4%	280.84	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	1,147.29	36.0%	293.78	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	1.202.96	37.8%	308.00	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,261.07	39.6%	323.03	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,323.17	41.6%	339.04	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,389.17	43.7%	356.20	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,460.47	46.1%	374.79	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1.537.83	48.5%	394.81	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,620.65	51.2%	416.17	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,708.68	54.0%	439.06	0.00	3.3%	13.66	0.00	0.0%	0.00
5:15 PM	5:30 PM	1,803.82	57.1%	463.70	109.28	9.1%	51.50	0.00	4.5%	18.72
5:30 PM	5:45 PM	1,905.82	59.4%	486.02	302.72	17.3%	109.95	149.73	11.1%	64.97
5:45 PM	6:00 PM	1,982.36	60.9%	502.07	576.88	25.7%	179.24	370.04	19.6%	128.23
6:00 PM	6:15 PM	2,034.24	63.3%	518.40	857.06	36.7%	260.29	655.83	31.0%	211.45
6:15 PM	6:30 PM	2,112.94	66.8%	542.66	1.225.26	36.7%	291.88	1,035.81	33.2%	268.20
6:30 PM	6:45 PM	2.228.32	71.3%	575.91	1.109.79	33.2%	255.85	1.109.79	33.2%	255.85
6:45 PM	7:00 PM	2,378.95	77.8%	622.19	936.97	28.1%	209.34	936.97	28.1%	209.34
7:00 PM	7:00 PM	2,598.60	79.9%	43.89	737.78	22.1%	11.73	737.78	22.1%	11.73
7:00 PM	FND	2.668.41	. 5.070	.0.00	669.28			669.28		

AUGUST 23 PDT

Analysis Hours 9:00am-6:51pm (local time) Similar conditions on April 19

Calculation	on Period		CURRENT SHADOV	I	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIG	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,145.16	64.3%	512.90	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	1,958.08	58.7%	468.94	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,793.44	53.7%	431.19	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,656.08	49.6%	397.20	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,521.49	45.6%	366.24	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,408.44	42.2%	339.21	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,305.22	39.1%	317.28	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,232.99	36.9%	300.48	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,170.86	35.1%	286.70	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,122.75	33.6%	275.47	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,081.02	32.4%	265.77	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	1,045.10	31.3%	257.45	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	1,014.49	30.4%	249.96	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	985.16	29.5%	242.96	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	958.51	28.7%	236.75	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	935.48	28.0%	231.95	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	920.16	28.0%	231.89	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:20 PM	934.93	28.3%	234.85	0.00	0.0%	0.00	0.00	0.0%	0.00
1:20 PM	1:45 PM	943.88	29.7%	241.97	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	991.85	30.9%	253.11	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	1,033.01	32.6%	265.02	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	1,087.12	34.2%	278.68	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	1,142.32	35.8%	292.36	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	1,196.58	37.5%	305.95	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	1,251.00	39.1%	319.36	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	1,303.90	40.6%	332.32	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,354.63	42.3%	345.76	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,411.45	44.4%	361.79	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,482.86	46.7%	380.42	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,560.49	49.2%	400.57	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,644.08	52.1%	422.78	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,738.14	55.3%	448.02	0.00	0.0%	0.00	0.00	0.0%	0.00
5:00 PM	5:15 PM	1,846.03	58.9%	476.55	0.00	7.0%	29.07	0.00	0.8%	3.49
5:15 PM	5:30 PM	1,966.33	62.8%	507.80	232.53	12.5%	81.39	27.90	8.1%	37.22
5:30 PM	5:45 PM	2,096.03	62.8%	523.16	418.56	20.3%	136.96	269.84	15.5%	98.22
5:45 PM	6:00 PM	2,089.26	63.0%	524.03	677.13	33.6%	224.92	515.90	24.6%	166.94
6:00 PM	6:15 PM	2,103.01	65.5%	536.22	1,122.26	34.5%	284.21	819.61	34.5%	246.38
6:15 PM	6:30 PM	2,186.75	69.2%	562.09	1,151.44	34.5%	272.45	1,151.45	34.5%	272.46
6:30 PM	6:45 PM	2,310.01	74.2%	598.20	1,028.19	30.8%	236.35	1,028.19	30.8%	236.35
6:45 PM	6:51 PM	2,475.56	77.9%	253.87	862.64	25.8%	79.95	862.64	25.8%	79.95
6:51 PM	END	2,601.78			736.42			736.42		

AUGUST 30 PDT

Analysis Hours 9:00am-6:41pm (local time) Similar conditions on April 12

Calculati	on Period		CURRENT SHADOV	V	NEW SHADO	W FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIG	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,128.84	63.8%	508.95	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	1,942.77	58.2%	465.23	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,779.03	53.3%	429.05	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,653.38	49.5%	399.60	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,543.41	46.2%	374.01	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,448.70	43.4%	353.30	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,377.67	41.3%	336.89	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,317.48	39.5%	322.75	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,264.51	37.9%	310.49	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,219.37	36.5%	300.11	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,181.47	35.4%	291.40	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	1,149.74	34.4%	284.23	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	1,124.08	33.7%	278.05	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	1,100.31	33.0%	272.26	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	1,077.73	32.3%	267.22	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	1,059.99	31.8%	263.26	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	1,046.07	32.2%	265.30	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	1,076.30	33.1%	272.68	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	1,105.18	34.0%	280.03	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	1,135.08	35.1%	288.51	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	1,172.97	36.5%	299.11	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	1,219.87	38.0%	310.88	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	1,267.19	39.4%	322.99	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	1,316.72	41.0%	335.81	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	1,369.73	42.8%	349.86	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	1,429.17	44.6%	364.87	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,489.78	46.4%	379.74	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,548.16	48.3%	394.98	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,611.67	50.4%	411.61	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,681.17	53.0%	431.17	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,768.20	56.2%	455.56	0.00	0.0%	0.00	0.00	0.0%	0.00
4:45 PM	5:00 PM	1,876.24	60.0%	484.94	0.00	3.9%	16.25	0.00	0.0%	0.00
5:00 PM	5:15 PM	2,003.31	64.6%	519.81	129.97	9.9%	57.60	0.00	5.6%	23.28
5:15 PM	5:30 PM	2,155.18	67.4%	550.84	330.85	16.7%	110.88	186.27	11.9%	72.73
5:30 PM	5:45 PM	2,251.51	67.4%	558.77	556.20	24.7%	172.73	395.58	19.5%	130.62
5:45 PM	6:00 PM	2,218.61	66.5%	550.53	825.67	34.5%	247.28	649.35	32.5%	216.94
6:00 PM	6:15 PM	2,185.66	67.4%	554.64	1,152.54	34.5%	279.91	1,086.17	32.6%	271.62
6:15 PM	6:30 PM	2,251.43	70.7%	576.59	1,086.77	32.6%	257.96	1,086.77	32.6%	257.96
6:30 PM	6:41 PM	2,361.32	77.2%	452.66	976.88	29.3%	159.34	976.88	29.3%	159.34
6:41 PM	END	2,576.81			761.39			761.39		

SEPTEMBER 6 PDT

Analysis Hours 9:00am-6:31pm (local time) Similar conditions on April 5

Calculati	on Period		CURRENT SHADOV	V	NEW SHADOV	V FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,167.15	64.9%	519.61	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	1,989.77	59.6%	480.99	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,858.13	55.7%	450.93	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,749.28	52.4%	424.33	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,645.35	49.3%	400.96	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,562.34	46.8%	382.15	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,494.85	44.8%	366.46	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,436.83	43.0%	352.83	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,385.83	41.5%	340.80	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,340.56	40.2%	330.60	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,304.22	39.1%	322.46	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	1,275.46	38.2%	316.17	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	1,253.90	37.6%	311.00	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	1,234.13	37.0%	306.18	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	1,215.33	36.4%	302.26	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	1,202.77	36.0%	299.96	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	1,196.91	37.2%	304.83	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	1,241.75	38.2%	314.50	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	1,274.26	39.1%	322.53	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	1,305.98	40.3%	331.59	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	1,346.74	41.8%	342.59	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	1,393.97	43.3%	354.82	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	1,444.56	44.9%	367.76	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	1,497.49	46.6%	381.54	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	1,554.87	48.3%	396.07	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	1,613.72	49.9%	409.90	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,665.50	51.5%	423.01	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,718.57	53.4%	437.57	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	1,781.99	55.6%	454.60	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	1,854.80	58.4%	475.63	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	1,950.26	61.6%	500.86	0.00	1.0%	3.97	0.00	0.0%	0.00
4:45 PM	5:00 PM	2,056.59	65.5%	530.53	31.73	7.7%	36.05	0.00	3.1%	12.86
5:00 PM	5:15 PM	2,187.68	70.5%	567.67	256.69	13.2%	87.09	102.85	9.3%	51.86
5:15 PM	5:30 PM	2,353.66	71.4%	591.98	440.01	18.8%	133.29	312.05	15.1%	102.19
5:30 PM	5:45 PM	2,382.16	71.4%	591.51	626.35	28.9%	198.81	505.46	23.7%	161.97
5:45 PM	6:00 PM	2,349.96	70.4%	583.67	964.10	30.5%	247.86	790.33	30.5%	226.14
6:00 PM	6:15 PM	2,319.40	69.5%	575.82	1,018.80	31.5%	258.73	1,018.81	31.5%	258.73
6:15 PM	6:30 PM	2,287.19	71.8%	585.48	1,051.01	31.5%	249.07	1,051.01	31.5%	249.07
6:30 PM	6:31 PM	2,396.69	72.5%	40.14	941.51	28.2%	15.50	941.51	28.2%	15.50
6:31 PM	END	2,419.54			918.66			918.66		

SEPTEMBER 13 PDT

Analysis Hours 9:00am-6:20pm (local time) Similar conditions on March 29

Calculati	on Period		CURRENT SHADOV	V	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,250.99	67.4%	543.13	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	2,094.08	62.7%	509.01	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	1,977.98	59.3%	481.91	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	1,877.27	56.2%	456.50	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,774.71	53.2%	433.29	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,691.65	50.7%	414.60	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,625.18	48.7%	399.18	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,568.23	47.0%	385.97	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,519.57	45.5%	374.64	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,477.52	44.3%	364.79	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,440.82	43.2%	356.99	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	1,415.11	42.4%	351.48	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	1,396.75	41.8%	347.19	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	1,380.78	41.4%	343.58	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	1,367.89	41.0%	340.95	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	1,359.72	41.0%	341.05	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	1,368.71	42.5%	348.47	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	1,419.03	43.4%	358.48	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	1,448.78	44.5%	366.90	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	1,486.38	45.9%	377.23	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	1,531.47	47.4%	389.35	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	1,583.31	49.1%	402.67	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	1,638.03	50.8%	416.91	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	1,697.26	52.9%	433.00	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	1,766.76	54.9%	449.83	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	1,831.90	56.5%	464.84	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	1,886.85	58.1%	478.22	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	1,938.92	59.9%	492.44	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	2,000.63	62.2%	509.55	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	2,075.78	65.4%	532.35	0.00	0.0%	0.00	0.00	0.0%	0.00
4:30 PM	4:45 PM	2,183.01	68.9%	560.45	0.00	5.7%	23.89	0.00	0.0%	0.00
4:45 PM	5:00 PM	2,300.63	73.1%	592.41	191.10	10.3%	66.98	0.00	7.4%	30.79
5:00 PM	5:15 PM	2,438.63	74.7%	616.60	344.78	15.0%	105.87	246.33	12.9%	84.47
5:15 PM	5:30 PM	2,494.14	74.8%	624.06	502.17	24.2%	163.73	429.40	18.1%	129.27
5:30 PM	5:45 PM	2,498.35	74.8%	623.24	807.67	25.5%	207.29	604.76	25.5%	181.93
5:45 PM	6:00 PM	2,487.56	74.5%	617.81	850.65	26.5%	216.74	850.65	26.5%	216.74
6:00 PM	6:15 PM	2,454.91	73.5%	605.25	883.29	28.5%	229.30	883.29	28.5%	229.30
6:15 PM	6:20 PM	2,387.06	71.5%	198.35	951.14	28.9%	79.83	951.14	28.9%	79.83
6:20 PM	END	2,373.31			964.90			964.90		

SEPTEMBER 20 PDT

Analysis Hours 9:00am-6:09pm (local time) Similar conditions on March 22

Calculati	on Period		CURRENT SHADOV	V	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIG	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfr
9:00 AM	9:15 AM	2,372.69	71.1%	576.22	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	2,237.06	67.0%	545.56	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	2,127.40	63.7%	518.87	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	2,023.57	60.6%	493.36	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	1,923.33	57.6%	470.21	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,838.38	55.1%	451.17	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,770.99	53.1%	435.74	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,714.94	51.4%	423.02	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,669.22	50.0%	412.22	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,628.52	48.8%	402.57	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,592.04	47.7%	395.58	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	1,572.56	47.1%	391.75	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	1,561.44	46.8%	389.24	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	1,552.44	46.5%	387.26	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	1,545.67	46.3%	385.86	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	1,541.24	46.8%	388.04	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	1,563.04	48.2%	396.66	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	1,610.21	49.1%	406.14	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	1,638.92	50.3%	414.79	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	1,679.38	51.7%	425.54	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	1,724.93	53.3%	438.23	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	1,780.91	55.2%	453.14	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	1,844.17	57.2%	469.40	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	1,911.01	59.6%	487.78	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	1,991.24	61.4%	505.28	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	2,050.97	63.0%	519.18	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	2,102.49	64.7%	532.61	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	2,158.40	66.6%	547.66	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	2,222.90	69.3%	566.92	0.00	0.0%	0.00	0.00	0.0%	0.00
4:15 PM	4:30 PM	2,312.43	72.6%	592.05	0.00	3.4%	14.04	0.00	0.0%	0.00
4:30 PM	4:45 PM	2,423.98	76.4%	621.97	112.30	8.0%	47.31	0.00	4.9%	20.63
4:45 PM	5:00 PM	2,551.79	78.8%	647.87	266.19	12.3%	84.81	165.00	10.0%	62.15
5:00 PM	5:15 PM	2,631.13	78.8%	656.82	412.25	17.3%	123.67	332.18	14.1%	100.44
5:15 PM	5:30 PM	2,623.46	78.8%	656.70	577.13	21.2%	160.65	471.35	21.2%	147.43
5:30 PM	5:45 PM	2,630.14	78.8%	656.95	708.06	21.4%	177.60	708.06	21.4%	177.60
5:45 PM	6:00 PM	2,625.44	78.6%	646.47	712.76	23.7%	188.09	712.76	23.7%	188.09
6:00 PM	6:09 PM	2,546.28	76.3%	379.73	791.92	24.6%	121.00	791.92	24.6%	121.00
6:09 PM	END	2,516.83			821.37			821.37		

SEPTEMBER 27 PDT

Analysis Hours 9:00am-5:58pm (local time) Similar conditions on March 15

Calculati	on Period		CURRENT SHADOV	V	NEW SHADOV	W FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	GHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,519.57	75.5%	613.76	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	2,390.49	71.6%	584.13	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	2,282.58	68.4%	557.93	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	2,180.85	65.3%	533.37	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	2,086.15	62.5%	510.74	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	1,999.78	59.9%	491.43	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	1,931.65	57.9%	475.69	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	1,873.89	56.1%	462.94	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	1,829.66	54.8%	452.58	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,790.99	53.7%	443.51	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,757.07	52.6%	437.64	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	1,744.06	52.2%	435.32	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	1,738.54	52.1%	434.24	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	1,735.35	52.0%	433.29	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	1,730.93	51.9%	432.81	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	1,731.51	52.9%	437.30	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	1,766.85	54.2%	447.01	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	1,809.25	55.3%	456.86	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	1,845.62	56.7%	467.14	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	1,891.48	58.1%	478.73	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	1,938.38	59.8%	491.69	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	1,995.18	61.8%	507.44	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	2,064.33	64.1%	525.69	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	2,141.20	66.2%	543.87	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	2,209.78	68.0%	560.14	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	2,271.36	69.8%	575.17	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	2,330.00	71.5%	589.77	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	2,388.14	73.6%	605.50	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	2,455.89	76.6%	626.48	0.00	0.1%	0.38	0.00	0.0%	0.00
4:15 PM	4:30 PM	2,555.92	79.7%	652.20	3.04	5.9%	25.07	0.00	2.6%	10.90
4:30 PM	4:45 PM	2,661.67	82.6%	677.56	197.54	10.1%	66.67	87.19	7.4%	41.75
4:45 PM	5:00 PM	2,758.77	82.6%	686.80	335.83	13.8%	99.36	246.77	12.2%	81.91
5:00 PM	5:15 PM	2,735.67	81.9%	681.49	459.08	18.6%	135.13	408.51	16.5%	119.81
5:15 PM	5:30 PM	2,716.27	81.9%	681.14	621.93	18.6%	153.41	549.97	18.1%	144.42
5:30 PM	5:45 PM	2,732.84	81.9%	677.20	605.36	19.6%	157.35	605.36	19.6%	157.35
5:45 PM	5:58 PM	2,684.75	80.4%	576.62	653.45	21.0%	146.66	653.45	21.0%	146.66
5:58 PM	END	2,637.89			700.31			700.31		

OCTOBER 4 PDT

Analysis Hours 9:00am-5:48pm (local time) Similar conditions on March 8

Calculati	on Period		CURRENT SHADOV	V	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	GHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,682.61	80.4%	656.58	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	2,570.01	77.0%	630.12	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	2,470.97	74.0%	605.33	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	2,371.70	71.0%	581.20	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	2,277.94	68.2%	558.24	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	2,187.94	65.5%	537.56	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	2,112.54	63.3%	520.60	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	2,052.26	61.5%	507.33	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	2,006.38	60.1%	497.12	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	1,970.62	59.0%	488.89	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	1,940.47	58.1%	483.69	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	1,929.07	57.8%	481.59	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	1,923.67	57.6%	480.51	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	1,920.42	57.5%	479.10	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	1,912.35	57.4%	478.58	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	1,916.26	58.7%	484.37	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	1,958.71	60.0%	495.16	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	2,002.61	61.4%	506.47	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	2,049.16	62.8%	518.35	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	2,097.66	64.3%	530.50	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	2,146.33	66.0%	543.51	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	2,201.73	68.0%	558.88	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	2,269.33	70.3%	576.92	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	2,346.02	71.9%	593.46	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	2,401.67	73.7%	607.92	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	2,461.68	76.0%	624.68	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	2,535.72	78.2%	643.23	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	2,610.09	80.6%	662.66	0.00	0.0%	0.00	0.00	0.0%	0.00
4:00 PM	4:15 PM	2,691.17	82.7%	681.64	0.00	3.9%	16.16	0.00	0.0%	0.00
4:15 PM	4:30 PM	2,761.99	85.0%	700.04	129.31	7.7%	48.49	0.00	5.9%	24.54
4:30 PM	4:45 PM	2,838.36	85.0%	706.22	258.65	10.9%	77.66	196.31	9.6%	64.80
4:45 PM	5:00 PM	2,811.40	84.2%	697.83	362.63	16.4%	113.68	322.10	13.9%	98.16
5:00 PM	5:15 PM	2,771.28	83.1%	693.01	546.85	16.9%	139.03	463.17	16.9%	128.57
5:15 PM	5:30 PM	2,772.82	83.1%	690.38	565.38	17.6%	144.17	565.38	17.6%	144.17
5:30 PM	5:45 PM	2,750.19	82.4%	680.94	588.01	19.2%	153.61	588.01	19.2%	153.61
5:45 PM	5:48 PM	2,697.31	80.8%	134.31	640.88	19.9%	32.60	640.88	19.9%	32.60
5:48 PM	END	2,675.02			663.18			663.18		

OCTOBER 11 PDT

Analysis Hours 9:00am-5:37pm (local time) Similar conditions on March 1

Calculati	on Period		CURRENT SHADOV	V	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,842.60	85.2%	699.78	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	2,755.65	82.5%	679.01	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	2,676.47	80.2%	658.00	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	2,587.51	77.5%	635.52	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	2,496.62	74.8%	612.86	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	2,406.29	72.1%	591.46	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	2,325.35	69.7%	573.05	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	2,259.03	67.7%	558.49	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	2,208.89	66.2%	548.23	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	2,176.99	65.2%	540.41	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	2,146.33	64.3%	534.74	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	2,131.57	63.9%	531.92	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	2,123.83	63.6%	529.93	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	2,115.65	63.4%	527.98	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	2,108.19	63.3%	527.82	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	2,114.38	64.7%	534.26	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	2,159.68	66.0%	545.18	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	2,201.77	67.5%	556.93	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	2,253.70	68.9%	569.35	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	2,301.12	70.4%	581.40	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	2,350.06	72.0%	594.38	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	2,404.96	74.0%	609.40	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	2,470.28	75.9%	625.44	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	2,533.25	77.3%	639.33	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	2,581.38	79.1%	652.82	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	2,641.20	81.6%	670.56	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	2,723.29	84.2%	691.94	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	2,812.26	86.4%	712.26	0.00	1.5%	6.14	0.00	0.0%	0.00
4:00 PM	4:15 PM	2,885.83	87.2%	724.49	49.13	4.5%	24.92	0.00	3.2%	13.49
4:15 PM	4:30 PM	2,910.06	87.2%	724.24	150.24	7.9%	51.56	107.93	7.2%	43.51
4:30 PM	4:45 PM	2,883.86	86.4%	712.60	262.22	10.3%	75.69	240.15	10.3%	72.93
4:45 PM	5:00 PM	2,816.94	84.4%	700.06	343.30	14.9%	104.98	343.30	14.7%	104.08
5:00 PM	5:15 PM	2,783.52	83.4%	692.95	496.53	17.3%	134.33	489.31	17.3%	133.42
5:15 PM	5:30 PM	2,760.12	82.7%	687.90	578.08	17.8%	146.65	578.08	17.8%	146.65
5:30 PM	5:37 PM	2,743.06	82.2%	318.08	595.15	18.8%	71.37	595.15	18.8%	71.37
5:37 PM	END	2,709.78			628.42			628.42		

OCTOBER 18 PDT

Analysis Hours 9:00am-5:28pm (local time) Similar conditions on February 23

Calculati	on Period		CURRENT SHADOV	V	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	OHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	2,986.56	89.5%	739.08	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	2,926.06	87.7%	722.99	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	2,857.90	85.6%	707.08	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	2,798.71	83.8%	690.16	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	2,722.53	81.6%	669.90	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	2,636.68	79.0%	648.87	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	2,554.31	76.5%	629.47	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	2,481.44	74.3%	613.94	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	2,430.08	72.8%	603.86	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	2,400.83	71.9%	596.04	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	2,367.46	70.9%	589.78	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	2,350.82	70.4%	586.12	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	2,338.11	70.0%	582.86	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	2,324.78	69.6%	580.50	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	2,319.19	69.8%	581.18	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	2,330.28	71.1%	587.96	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	2,373.39	72.2%	597.82	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	2,409.19	73.6%	608.36	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	2,457.66	75.0%	620.20	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	2,503.98	76.5%	632.05	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	2,552.39	78.0%	644.73	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	2,605.44	80.0%	659.48	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	2,670.38	81.4%	673.28	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	2,715.90	82.7%	684.48	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	2,759.92	84.4%	697.19	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	2,817.60	86.9%	714.69	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	2,899.94	89.8%	737.02	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	4:00 PM	2,996.22	90.5%	752.00	0.00	2.4%	10.04	0.00	0.4%	1.85
4:00 PM	4:15 PM	3,019.79	90.5%	749.63	80.33	4.4%	28.31	14.81	3.8%	17.70
4:15 PM	4:30 PM	2,977.24	89.2%	734.06	146.11	6.7%	46.06	126.78	6.7%	43.65
4:30 PM	4:45 PM	2,895.24	86.7%	714.71	222.40	9.7%	68.13	222.40	9.7%	68.13
4:45 PM	5:00 PM	2,822.42	84.5%	699.72	322.62	12.9%	94.13	322.62	12.9%	94.13
5:00 PM	5:15 PM	2,775.38	83.1%	690.49	430.42	17.4%	126.20	430.42	17.4%	126.20
5:15 PM	5:28 PM	2,748.57	82.3%	593.25	579.22	18.3%	128.90	579.22	18.3%	128.90
5:28 PM	END	2,727.60			610.60			610.60		

OCTOBER 25 PDT

Analysis Hours 9:00am-5:19pm (local time) Similar conditions on February 16

Calculati	on Period		CURRENT SHADOV	V	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	3,117.45	93.4%	772.01	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	3,058.60	91.6%	757.07	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	2,997.97	89.8%	745.69	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	2,967.52	88.9%	736.66	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	2,925.78	87.6%	721.56	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	2,846.70	85.3%	702.43	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	2,772.74	83.1%	685.18	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	2,708.72	81.1%	671.87	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	2,666.22	79.9%	662.62	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	2,634.74	78.9%	654.01	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	2,597.34	77.8%	646.99	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	2,578.59	77.2%	642.17	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	2,558.79	76.7%	637.69	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	2,542.73	76.2%	635.17	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	2,538.63	76.4%	636.13	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	2,550.44	77.5%	642.12	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	2,586.55	78.4%	650.56	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	2,617.92	79.7%	659.95	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	2,661.69	81.1%	670.99	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	2,706.19	82.4%	682.00	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	2,749.83	83.8%	693.40	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	2,797.35	85.2%	705.38	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	2,845.67	86.4%	716.32	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	2,884.90	87.8%	727.05	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	2,931.49	89.5%	739.70	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	2,986.13	91.7%	756.06	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	3,062.39	93.8%	774.30	0.00	0.4%	1.57	0.00	0.0%	0.00
3:45 PM	4:00 PM	3,132.00	93.8%	778.36	12.58	1.8%	9.05	0.00	1.4%	5.68
4:00 PM	4:15 PM	3,094.92	92.7%	761.31	59.85	3.4%	21.87	45.47	3.4%	20.08
4:15 PM	4:30 PM	2,995.56	89.7%	736.34	115.15	5.6%	37.94	115.15	5.6%	37.94
4:30 PM	4:45 PM	2,895.15	86.7%	715.34	188.35	8.6%	59.51	188.35	8.8%	60.07
4:45 PM	5:00 PM	2,827.58	84.7%	698.23	287.69	11.1%	82.42	292.24	12.1%	87.03
5:00 PM	5:15 PM	2,758.26	82.6%	687.77	371.69	15.4%	110.82	404.01	16.1%	117.50
5:15 PM	5:19 PM	2,743.93	82.2%	182.70	514.83	17.3%	36.45	535.99	16.7%	36.48
5:19 PM	END	2,737.01			578.59			558.42		

NOVEMBER 1 PDT

Analysis Hours 9:00am-5:11pm (local time) Similar conditions on February 9

Calculation	on Period		CURRENT SHADOV	I	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	GHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	3,229.42	96.7%	799.07	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	3,163.13	94.8%	785.92	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	3,124.27	93.6%	776.18	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	3,085.17	92.4%	766.93	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	3,050.24	91.4%	757.51	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	3,009.83	90.2%	745.30	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	2,952.58	88.4%	732.69	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	2,908.96	87.1%	723.55	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	2,879.41	86.3%	716.75	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	2,854.60	85.5%	710.16	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	2,826.67	84.7%	703.80	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	2,803.73	84.0%	698.22	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	2,782.01	83.3%	693.63	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	2,767.04	82.9%	691.56	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	2,765.44	83.2%	693.05	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	2,778.97	84.0%	697.85	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	2,803.85	84.7%	704.00	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	2,828.16	85.8%	711.61	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	2,864.74	87.0%	721.08	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	2,903.87	87.9%	729.70	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	2,933.76	88.9%	737.65	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	2,967.42	89.9%	746.25	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	3,002.56	91.2%	755.72	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	3,043.19	92.5%	766.30	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	3,087.23	93.4%	775.76	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	3,118.89	94.6%	784.78	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	3,159.39	94.6%	789.25	0.00	0.1%	0.58	0.00	0.0%	0.00
3:45 PM	4:00 PM	3,154.58	94.5%	782.00	4.61	0.7%	3.45	0.00	0.7%	2.79
4:00 PM	4:15 PM	3,101.40	92.9%	762.83	23.01	2.4%	12.97	22.28	2.4%	12.88
4:15 PM	4:30 PM	3,001.22	89.9%	738.48	80.74	4.7%	29.61	80.74	4.7%	29.61
4:30 PM	4:45 PM	2,906.65	87.1%	715.05	156.14	6.8%	48.08	156.14	7.5%	50.61
4:45 PM	5:00 PM	2,813.74	84.3%	697.89	228.48	10.5%	72.37	248.70	9.9%	72.23
5:00 PM	5:11 PM	2,769.42	83.0%	506.77	350.47	13.5%	73.31	329.10	12.0%	66.88
5:11 PM	END	2,758.94			449.31			400.49		

NOVEMBER 8 PST

Analysis Hours 9:00am-4:04pm (local time) Similar conditions on February 2

Calculati	on Period		CURRENT SHADOW	l	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	3,123.97	93.6%	775.34	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	3,078.76	92.2%	766.29	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	3,051.57	91.4%	762.89	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	3,051.53	91.8%	764.50	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	3,064.47	91.8%	764.64	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	3,052.65	91.4%	761.12	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	3,036.35	91.0%	756.30	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	3,014.07	90.3%	750.44	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	2,989.48	89.6%	745.62	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	2,975.47	89.2%	744.27	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	2,978.65	89.6%	746.35	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	2,992.16	90.1%	749.97	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	3,007.59	90.7%	754.26	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	3,026.45	91.5%	759.92	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	3,052.93	92.2%	766.32	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	3,077.67	92.5%	770.83	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	3,089.01	93.4%	775.91	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	3,118.25	94.0%	781.86	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	3,136.67	94.6%	787.00	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	3,159.36	95.2%	792.25	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	3,178.64	95.5%	795.66	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	3,186.63	95.5%	795.62	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	3,178.32	95.2%	791.08	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	3,150.34	94.4%	780.70	0.00	0.2%	0.90	0.00	0.2%	0.90
3:00 PM	3:15 PM	3,095.27	92.7%	762.14	7.24	1.4%	6.68	7.24	1.4%	6.68
3:15 PM	3:30 PM	3,001.89	89.9%	738.74	46.24	3.4%	20.06	46.24	3.5%	20.59
3:30 PM	3:45 PM	2,908.06	87.1%	714.05	114.22	5.6%	37.80	118.48	6.2%	40.70
3:45 PM	4:00 PM	2,804.38	84.0%	699.30	188.21	8.1%	57.36	207.15	6.7%	53.82
4:00 PM	4:04 PM	2,790.00	83.6%	185.89	270.67	9.0%	19.01	223.44	7.9%	16.25
4:04 PM	END	2,786.83			299.62			264.08		

NOVEMBER 15 PST

Analysis Hours 9:00am-3:58pm (local time) Similar conditions on January 26

Calculati	on Period		CURRENT SHADOV	V	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	3,191.23	95.6%	791.22	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	3,138.51	94.0%	781.50	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	3,113.46	93.3%	778.46	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	3,114.24	93.7%	780.31	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	3,128.22	94.2%	784.18	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	3,145.23	94.8%	788.64	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	3,163.92	95.4%	793.45	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	3,183.71	95.4%	795.61	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	3,181.18	95.3%	793.94	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	3,170.32	95.2%	793.51	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	3,177.78	95.5%	795.85	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	3,189.01	95.7%	797.79	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	3,193.27	95.9%	799.43	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	3,202.14	96.3%	802.01	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	3,213.92	96.4%	804.16	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	3,219.39	96.6%	805.49	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	3,224.56	97.5%	809.75	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	3,253.44	97.7%	814.35	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	3,261.37	97.7%	813.80	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	3,249.01	97.3%	809.82	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	3,229.57	96.7%	804.19	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	3,203.95	96.0%	797.20	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	3,173.63	95.1%	789.53	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	3,142.62	94.1%	779.48	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	3,093.24	92.7%	763.02	0.00	0.2%	0.75	0.00	0.2%	0.75
3:15 PM	3:30 PM	3,010.88	90.2%	738.96	6.03	1.5%	7.07	6.03	2.2%	10.04
3:30 PM	3:45 PM	2,900.76	86.9%	715.91	50.55	4.2%	23.85	74.32	3.5%	23.96
3:45 PM	3:58 PM	2,826.51	84.7%	611.04	140.23	4.3%	30.76	117.35	3.8%	26.53
3:58 PM	END	2,813.89			143.70			127.52		

NOVEMBER 22 PST

Analysis Hours 9:00am-3:54pm (local time) Similar conditions on January 19

Calculati	on Period		CURRENT SHADOW	I	NEW SHADOV	V FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEIO	HT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	3,252.97	97.4%	805.93	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	3,194.50	95.7%	795.10	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	3,166.27	94.8%	790.78	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	3,159.99	94.9%	790.96	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	3,167.69	95.3%	793.77	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	3,182.45	95.9%	798.06	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	3,202.00	96.5%	802.97	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	3,221.80	97.0%	807.41	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	3,237.48	97.5%	811.40	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	3,253.71	98.2%	816.35	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	3,277.06	98.8%	821.83	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	3,297.58	98.9%	824.94	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	3,301.95	99.1%	826.46	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	3,309.69	99.1%	827.09	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	3,307.04	99.1%	826.04	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	3,301.25	98.9%	824.53	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	3,295.01	98.7%	823.53	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	3,293.19	98.7%	821.47	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	3,278.56	98.2%	817.35	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	3,260.26	97.7%	811.68	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	3,233.15	96.9%	804.51	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	3,202.90	95.9%	796.57	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	3,169.63	94.9%	788.20	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	3,136.01	93.9%	778.41	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	3,091.28	92.6%	762.66	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	3,009.97	90.2%	739.03	0.00	0.0%	0.08	0.00	0.8%	3.23
3:30 PM	3:45 PM	2,902.25	86.9%	719.01	0.63	2.2%	9.34	25.81	1.1%	7.98
3:45 PM	3:54 PM	2,849.85	93.4%	447.60	74.11	2.2%	10.85	38.01	2.1%	8.00
3:54 PM	END	3,118.15			70.58			68.67		

NOVEMBER 29 PST

Analysis Hours 9:00am-3:51pm (local time) Similar conditions on January 12

Calculati	on Period		CURRENT SHADOV	I	NEW SHADOV	N FROM 198 VALE	NCIA STREET	198 VALENCIA	STREET: 5' HEI	OHT REDUCTION
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	3,304.01	99.0%	818.46	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	3,243.68	97.2%	806.83	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	3,210.97	96.2%	800.90	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	3,196.22	95.8%	799.22	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	3,197.54	96.1%	800.49	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	3,206.39	96.5%	803.44	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	3,221.15	97.1%	807.72	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	3,240.62	97.8%	813.05	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	3,263.82	98.5%	819.19	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	3,289.74	99.2%	825.26	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	3,312.33	99.7%	830.09	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	3,328.42	99.7%	831.54	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	3,323.90	99.6%	830.82	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	3,322.65	99.5%	829.87	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	3,316.35	99.4%	829.27	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	3,317.85	99.4%	828.44	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	3,309.66	99.1%	826.19	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	3,299.87	98.9%	822.93	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	3,283.60	98.4%	818.41	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	3,263.66	97.8%	812.10	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	3,233.14	96.9%	804.34	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	3,201.60	95.9%	796.24	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	3,168.34	94.9%	787.61	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	3,132.55	93.8%	777.94	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	3,090.94	92.6%	762.84	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	3,011.82	90.2%	741.55	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	2,920.58	89.2%	737.43	0.00	0.7%	2.97	0.00	0.3%	1.18
3:45 PM	3:51 PM	2,978.83	99.1%	314.38	23.72	0.7%	1.75	9.42	0.3%	1.04
3:51 PM	END	3,308.78			11.30			11.30		

DECEMBER 6 PST

Analysis Hours 9:00am-3:51pm (local time) Similar conditions on January 5

Calculation Period		CURRENT SHADOW			NEW SHADOW FROM 198 VALENCIA STREET			198 VALENCIA STREET: 5' HEIGHT REDUCTION		
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	3,335.01	99.9%	827.36	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	3,283.86	98.4%	816.34	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	3,246.90	97.3%	808.94	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	3,224.63	96.6%	805.54	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	3,219.71	96.6%	805.44	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	3,223.80	96.9%	807.26	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	3,234.25	97.3%	810.48	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	3,249.58	97.9%	814.81	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	3,268.91	98.6%	820.05	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	3,291.53	99.3%	825.93	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	3,315.90	100.0%	831.76	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	3,338.20	100.0%	834.05	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	3,334.16	99.9%	832.58	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	3,326.51	99.6%	830.65	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	3,318.68	99.4%	829.67	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	3,318.72	99.4%	828.80	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	3,311.65	99.2%	826.52	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	3,300.50	98.9%	823.25	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	3,285.53	98.4%	819.01	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	3,266.54	97.9%	812.70	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	3,235.03	96.9%	804.67	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	3,202.32	95.9%	796.51	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	3,169.77	95.0%	787.85	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	3,133.03	93.9%	778.27	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	3,093.14	92.7%	764.55	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	3,023.28	90.6%	744.85	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	2,935.52	93.7%	757.91	0.00	0.1%	0.32	0.00	0.1%	0.32
3:45 PM	3:51 PM	3,127.79	100.0%	323.30	2.55	0.1%	0.13	2.55	0.1%	0.13
3:51 PM	END	3,338.20			0.00			0.00		

DECEMBER 13 PST

Analysis Hours 9:00am-3:51pm (local time) Similar conditions on December 29

SIMILAR CONDITIONS ON DECEMBER 29

Calculation Period		CURRENT SHADOW			NEW SHADOW FROM 198 VALENCIA STREET			198 VALENCIA STREET: 5' HEIGHT REDUCTION		
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	3,338.20	100.0%	831.51	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	3,313.86	99.3%	823.41	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	3,273.45	98.1%	814.80	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	3,244.98	97.2%	809.89	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	3,234.17	96.9%	808.61	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	3,234.73	97.1%	809.57	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	3,241.86	97.5%	812.02	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	3,254.28	98.0%	815.64	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	3,270.85	98.6%	820.22	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	3,290.95	99.2%	825.51	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	3,313.15	100.0%	831.23	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	3,336.70	100.0%	834.15	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	3,336.50	99.9%	833.04	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	3,327.79	99.7%	830.94	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	3,319.70	99.4%	829.64	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	3,317.40	99.4%	828.77	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	3,312.75	99.2%	826.83	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	3,301.88	98.9%	823.74	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	3,288.08	98.5%	819.75	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	3,269.92	98.0%	813.68	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	3,239.48	97.0%	805.65	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	3,205.73	96.0%	797.42	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	3,173.65	95.1%	788.82	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	3,136.88	94.0%	779.47	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	3,098.88	92.8%	766.97	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	3,036.90	91.0%	749.00	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	2,955.11	94.3%	763.09	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	3:51 PM	3,149.60	100.0%	324.39	0.00	0.0%	0.00	0.00	0.0%	0.00
3:51 PM	END	3,338.20			0.00			0.00		

DECEMBER 21 PST

Analysis Hours 9:00am-3:55pm (local time) Winter Solstice

WINTER SOLSTICE

Calculation Period		CURRENT SHADOW			NEW SHADOV	V FROM 198 VALE	NCIA STREET	198 VALENCIA STREET: 5' HEIGHT REDUCTION		
Start Time	End Time	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)	Initial Area (sf)	Max Coverage	Area/Time (sfh)
9:00 AM	9:15 AM	3,338.20	100.0%	833.99	0.00	0.0%	0.00	0.00	0.0%	0.00
9:15 AM	9:30 AM	3,333.72	99.9%	828.03	0.00	0.0%	0.00	0.00	0.0%	0.00
9:30 AM	9:45 AM	3,290.51	98.6%	818.56	0.00	0.0%	0.00	0.00	0.0%	0.00
9:45 AM	10:00 AM	3,257.94	97.6%	812.37	0.00	0.0%	0.00	0.00	0.0%	0.00
10:00 AM	10:15 AM	3,241.04	97.1%	809.99	0.00	0.0%	0.00	0.00	0.0%	0.00
10:15 AM	10:30 AM	3,238.88	97.2%	810.31	0.00	0.0%	0.00	0.00	0.0%	0.00
10:30 AM	10:45 AM	3,243.63	97.5%	812.21	0.00	0.0%	0.00	0.00	0.0%	0.00
10:45 AM	11:00 AM	3,254.02	97.9%	815.35	0.00	0.0%	0.00	0.00	0.0%	0.00
11:00 AM	11:15 AM	3,268.81	98.5%	819.52	0.00	0.0%	0.00	0.00	0.0%	0.00
11:15 AM	11:30 AM	3,287.32	99.1%	824.46	0.00	0.0%	0.00	0.00	0.0%	0.00
11:30 AM	11:45 AM	3,308.36	100.0%	830.62	0.00	0.0%	0.00	0.00	0.0%	0.00
11:45 AM	12:00 PM	3,336.64	100.0%	834.36	0.00	0.0%	0.00	0.00	0.0%	0.00
12:00 PM	12:15 PM	3,338.20	100.0%	833.48	0.00	0.0%	0.00	0.00	0.0%	0.00
12:15 PM	12:30 PM	3,329.66	99.7%	831.42	0.00	0.0%	0.00	0.00	0.0%	0.00
12:30 PM	12:45 PM	3,321.67	99.5%	829.80	0.00	0.0%	0.00	0.00	0.0%	0.00
12:45 PM	1:00 PM	3,316.73	99.4%	828.96	0.00	0.0%	0.00	0.00	0.0%	0.00
1:00 PM	1:15 PM	3,314.96	99.3%	827.43	0.00	0.0%	0.00	0.00	0.0%	0.00
1:15 PM	1:30 PM	3,304.49	99.0%	824.51	0.00	0.0%	0.00	0.00	0.0%	0.00
1:30 PM	1:45 PM	3,291.60	98.6%	820.79	0.00	0.0%	0.00	0.00	0.0%	0.00
1:45 PM	2:00 PM	3,274.69	98.1%	815.23	0.00	0.0%	0.00	0.00	0.0%	0.00
2:00 PM	2:15 PM	3,247.14	97.3%	807.55	0.00	0.0%	0.00	0.00	0.0%	0.00
2:15 PM	2:30 PM	3,213.24	96.3%	799.27	0.00	0.0%	0.00	0.00	0.0%	0.00
2:30 PM	2:45 PM	3,180.90	95.3%	790.80	0.00	0.0%	0.00	0.00	0.0%	0.00
2:45 PM	3:00 PM	3,145.53	94.2%	781.73	0.00	0.0%	0.00	0.00	0.0%	0.00
3:00 PM	3:15 PM	3,108.33	93.1%	770.24	0.00	0.0%	0.00	0.00	0.0%	0.00
3:15 PM	3:30 PM	3,053.57	91.5%	753.75	0.00	0.0%	0.00	0.00	0.0%	0.00
3:30 PM	3:45 PM	2,976.42	90.3%	748.71	0.00	0.0%	0.00	0.00	0.0%	0.00
3:45 PM	3:55 PM	3,013.22	100.0%	529.29	0.00	0.0%	0.00	0.00	0.0%	0.00
3:55 PM	END	3,338.20			0.00			0.00		



Memo to Planning Commission

CASE NO. 2013.1458DRP-02

Hearing Date: February 16, 2017

198 Valencia Street

CORRESPONDENCE AND PLANS RELATING TO PLANTERS BORDERING 118-120 DUBOCE AVENUE

From DiSalvo, Jonathan (CPC)

David Sternberg: Victor Quan: Urbano Ezquerro Re: 198 Valencia, Krooth DR Thursday, February 02, 2017 12:16:37 PM Cc:

Yes, Mr. DiSalvo. I would like you to incorporate this aspect of the stipulation into the condition for the permit approval. This part of the stipulation is not a proposal. Thank you,

On Feb 2, 2017, at 11:29 AM, DiSalvo, Jonathan (CPC) < jonathan.disalvo@sfgov.org > wrote:

Hello Mr. Krooth.

As reflected in the plans, the project does not propose any railings along the western perimeter of the planters adjacent to the property at 188-120 Duboce Avenue. The project proposes planters that extend vertically 3 feet 6 inches above the roof of the podium level along the entirety of the western property line of the subject lot, save for the two identified planters which have been reduced to a height of 2 feet above the roof of the podium level

To clarify, are you also seeking a Condition of Approval to require that no railing, or perhaps a railing not to exceed a certain defined height, be allowed along the western perimeter of the planters if a railing were to be proposed on top of the planters in the future?

Thank you.

Jonathan DiSalvo

Planner, Current Planning Division

Planning Department, City and County of San Francisco 1650 Mission Street, Suite 400, San Francisco, CA 94103

Direct: 415-575-9182 | Fax: 415-558-6409

Website | Hours of Operation | Property Information Map

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From: Karl Krooth [mailto:krooth@comcast net] Sent: Wednesday, February 01, 2017 8:23 PM To: DiSalvo, Jonathan (CPC)

Cc: David Sternberg; Victor Quan; Urbano Ezquerro Subject: Re: 198 Valencia, Krooth DR

I appreciate your email and respectfully request a response once again for confirmation of something you did not mention in reciting the stipulation. What omissions you made about the stipulation include: (1) reduction of the height of a railing on a proposed deck adjacent to the furthest north window of 118-120 Duboce Avenue; and (2) reduction of the height of any railings on the other two decks containing planters that you correctly mentioned as subject to modification. I otherwise agree to what you said and to the means of service on the Commission. The aforementioned requirements are substantive parts of the stipulation, to which i am agreeable only so long as it's all incorporated as an express condition of approval of the building permit application. Thank you,

Karl Krooth, Esq.

On Feb 1, 2017, at 1:47 PM, DiSalvo, Jonathan (CPC) < jonathan.disalvo@sfgov.org> wrote:

Hello Mr. Krooth.

I have indeed received your email below dated January 31, 2017. In compliance with the directive of the Commission Secretary, the subject correspondence chain provided below, in addition to the plan sheets provided by Mr. Sternberg on January 25, 2017, will be included as an attachment to the update memorandum in the Commission Packet for this DR, which will be delivered to the Planning Commissioners on Thursday, February 9,

To clarify, please confirm whether or not the following would be satisfactory:

- <!--[if !supportLists]-->- <!--[endif]-->The subject plans show that two planters (respectively 114 square feet and 44 square feet in size) will be reduced to a height of two feet. The reduction in height of these subject planters to two feet would represent an acceptable stipulation to
- <!--[if !supportLists]-->- <!--[endif]-->The aforementioned delivery method to the Planning Commissioners of the below correspondence and referenced plans would be acceptable.
- <!--[iff !supportLists]-->- <!--[endif]-->That a Condition of Approval of Building Permit Application No. 201408053094 be requested of the Planning Commission to require that the subject planters be reduced to a height of two feet, as shown in the referenced plans

Thank you,

Jonathan DiSalvo Planner, Current Planning Division

Planning Department, City and County of San Francisco 1650 Mission Street, Suite 400, San Francisco, CA 94103

Direct: 415-575-9182 | Fax: 415-558-6409

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 $\underline{<} image013.png> \underline{<} image001.png> \underline{<} image015.png> \underline{<} image016.png> \underline{<} image002.png> \underline{<} image018.png>$

From: Karl Krooth [mailto:krooth@comcast.net] Sent: Tuesday, January 31, 2017 10:46 PM

To: David Sternberg

Cc: DiSalvo, Jonathan (CPC); Victor Quan; Urbano Ezquerro Subject: Re: 198 Valencia, Krooth DR

Dear Mr. DiSalvo:

Please confirm receipt of this email and take what Mr. Sternberg submitted to you as a stipulation of ours and pass it along to the Commissioners. You made a commitment to do so, and I detrimentally relied on it, at the last Commission hearing. Your promise to do so, and my reliance on it, now results in a promissory estoppel on you and Mr. Sternberg from taking a position contrary to the stipulation. The Commissioners made abundantly clear at the last hearing that they would accept an informal filing from you. Please personally follow the informal procedures for emailing the Commission that you explained to me verbally at the last Commission hearing, or present the drawings to the Commission under the procedure described in your previous email. I would appreciate your attention to this matter.

Very truly yours, Karl Krooth

On Jan 31, 2017, at 1:47 PM, David Sternberg dsternberg@sternberg@sternbergbenjamin.com wrote:

Hello Mr. Krooth:

Please see the attached revised drawings that were submitted, yesterday, to be routed to Jonathan DiSalvo, Planner.

Best, Dave S.

<PastedGraphic-12.tiff>

<198 Valencia-A2.0 1st Floor Plan PLANTER.pdf>

<198 Valencia-A3.4 Building Section Planter.pdf>

On Jan 31, 2017, at 12:08 PM, Karl Krooth < krooth@comcast.net > wrote:

I hope that your week off was restful. Can you please elaborate on what you will file, when you will file, and whether your filing will comply with the regimented protocols that Mr. DiSalvo has laid out in his role as the planner on this matter? Thank you,

Karl Krooth

From: David Sternberg [mailto:dsternberg@sternbergbenjamin.com]

Sent: Monday, January 23, 2017 5:32 PM To: Karl Krooth < krooth@comcast.net >

Cc: DiSalvo, Jonathan (CPC) < jonathan.disalvo@sfgov.org >; Victor Quan < vquan.sf@gmail.com >; Urbano Ezquerro

<urbanoez@gmail.com>

Subject: Re: 198 Valencia, Krooth DR

Hello Mr. Krooth:

I will be out of town for the remainder of the week, but will have periodic access to email. Hopefully, we can resolve this next week.

If you need to resolve it sooner, please contact Victor or Urbano.

Thank You,

<image001.png>

On Jan 22, 2017, at 8:40 PM, Karl Krooth < krooth@comcast.net> wrote:

Dear Mr. Sternberg,

Please promptly confirm when you plan to comply with the procedural protocols that Mr. DiSalvo detailed. What measures exactly will you be taking? I would appreciate you for following the protocols of the notification process.

Thank you, Karl Krooth

On Jan 20, 2017, at 4:07 PM, DiSalvo, Jonathan (CPC) < ionathan.disalvo@sfgov.org> wrote:

In regard to the January 12th request to forward the correspondence and plans reflecting the changes to the planters, this was forwarded to the Commission Secretary on 1/13/17. The response by the Director of Commission Affairs was to, "include this material as part of an update memo for your case in the Commission Packets delivered to them one week before the hearing. Forwarding it to them now seems a bit disjointed.". This subject correspondence is attached to this

Do you wish to also forward the plans forwarded to me on 1/17/17 with the highlighted windows and proposed planter to the Planning Commission? Or should the 1/17/17 plans supersede the previous 1/13/17 submittal? Thank you in advance for any clarification.

For your reference, I am including below the procedures for submitting materials to for Planning Commission hearings. This language can be located at the end of Planning Commission Hearing Agendas (http://sf-planning.org/meetings/17)

"Hearina Materials

Advance Submissions: To allow Commissioners the opportunity to review material in advance of a hearing, materials must be received by the Planning Department eight (8) days prior to the scheduled public hearing. All submission packages must be delivered to1650 Mission Street, Suite 400, by 5:00 p.m. and should include fifteen (15) hardcopies and a .pdf copy must be provided to the staff planner. Correspondence submitted to the Planning Commission after eight days in advance of a hearing must be received by the Commission Secretary no later than the close of business the day before a hearing for it to become a part of the public record for any public hearing.

Correspondence submitted to the Plannina Commission on the same day, must be submitted at the hearing directly to the Planning Commission Secretary. Please provide ten (10) copies for distribution. Correspondence submitted in any other fashion on the same day may not become a part of the public record until the following hearing.

Correspondence sent directly to all members of the Commission, must include a copy to the Commission Secretary (commissions.secretary@sfgov.org) for it to become a part of the public

These submittal rules and deadlines shall be strictly enforced and no exceptions shall be made without a vote of the Commission.

Persons unable to attend a hearing may submit written comments regarding a scheduled item to: Planning Commission, 1650 Mission Street, Suite 400, San Francisco, CA 94103-2414. Written comments received by the close of the business day prior to the hearing will be brought to the attention of the Plannina Commission and made part of the official record."

On a slightly different topic, I am including further clarification below in regard to options for integrating the subject design changes for the project's planters:

To accommodate these changes, the Project Sponsor can submit revisions to the building permit set for sheets reflecting the modifications to the design of the planters. At the hearing, the staff memo to the Planning Commission could include a recommendation to the Commission to take DR to approve the project as modified for the DR filed in regard to 118-120 Duboce Ave. It will detail that due to consultation between the DR Requestor and the Sponsor, the Sponsor has modified the planters and the project and building permit has been revised to reflect these changes

After the hearing, this will also be recorded in the DR Action Memo.

If the Sponsor intends to submit changes to the building permit set, the sponsor will notify me, and submit revisions to DBI on the second floor at 1660 Mission Street to be included in the Building

Another option is, if the DR requestor is satisfied with the revisions to the project, as well as the idea that the changes are being integrated into the building permit set, the DR Requestor has the option to withdraw the DR Application. The DR Requestor would withdraw the DR application by sending me a written confirmation via email that they wish to withdraw. If the DR Requestor withdraws, I would note in my presentation that the subject DR application was withdrawn due to changes made by the Sponsor which were satisfactory to the DR Requestor. The DR item would then not be heard at the hearing, nor would the modifications made to the project relative to the subject DR be recorded in the DR Action Memo for the reason that the Commission would not be making any ruling on the withdrawn DR.

I hope this clarifies things a bit. Please do not hesitate to contact me with any questions or concerns.

Regards,

Jonathan DiSalvo Planner, Current Planning Division Planning Department, City and County of San Francisco 1650 Mission Street, Suite 400, San Francisco, CA 94103

Direct: 415-575-9182 | Fax: 415-558-6409

Website | Hours of Operation | Property Information Map

<image013.png> <image014.png> <image015.png> <image016.png> <image017.png> <image018.png>

From: Karl Krooth [mailto:krooth@comcast.net]
Sent: Wednesday, January 18, 2017 1:51 AM To: DiSalvo, Jonathan (CPC) Cc: David Sternberg; Victor Quan; <u>urbanoez@gmail.com</u> Subject: Re: 198 Valencia, Krooth DR

I enjoyed meeting you at the DR before the Commission last week. I am grateful to you for agreeing to promptly email the revised drawing that project sponsor David Sternberg developed for the Honorable Commission President Richards and other venerable Commissioners. You will recall that Mr. Sternberg and the two developers stipulated with me to the revised drawing as the final as to my property line. Please carbon copy all in your correspondence by email with the Commissioners. You will accordingly ensure that the stipulated drawing as revised lands in my inbox well as those of Mr. Sternberg and the two developers joining the stipulation with me.

Thank you, Karl Krooth

On Jan 17, 2017, at 6:12 AM, Karl Krooth < krooth@comcast.net> wrote:

Dear Mr. DiSalvo:

I have highlighted the location of the three windows on the east facade of 118 Duboce and proposed planters on the drawing below. Sternberg has lowered the height of the planters opposite of your

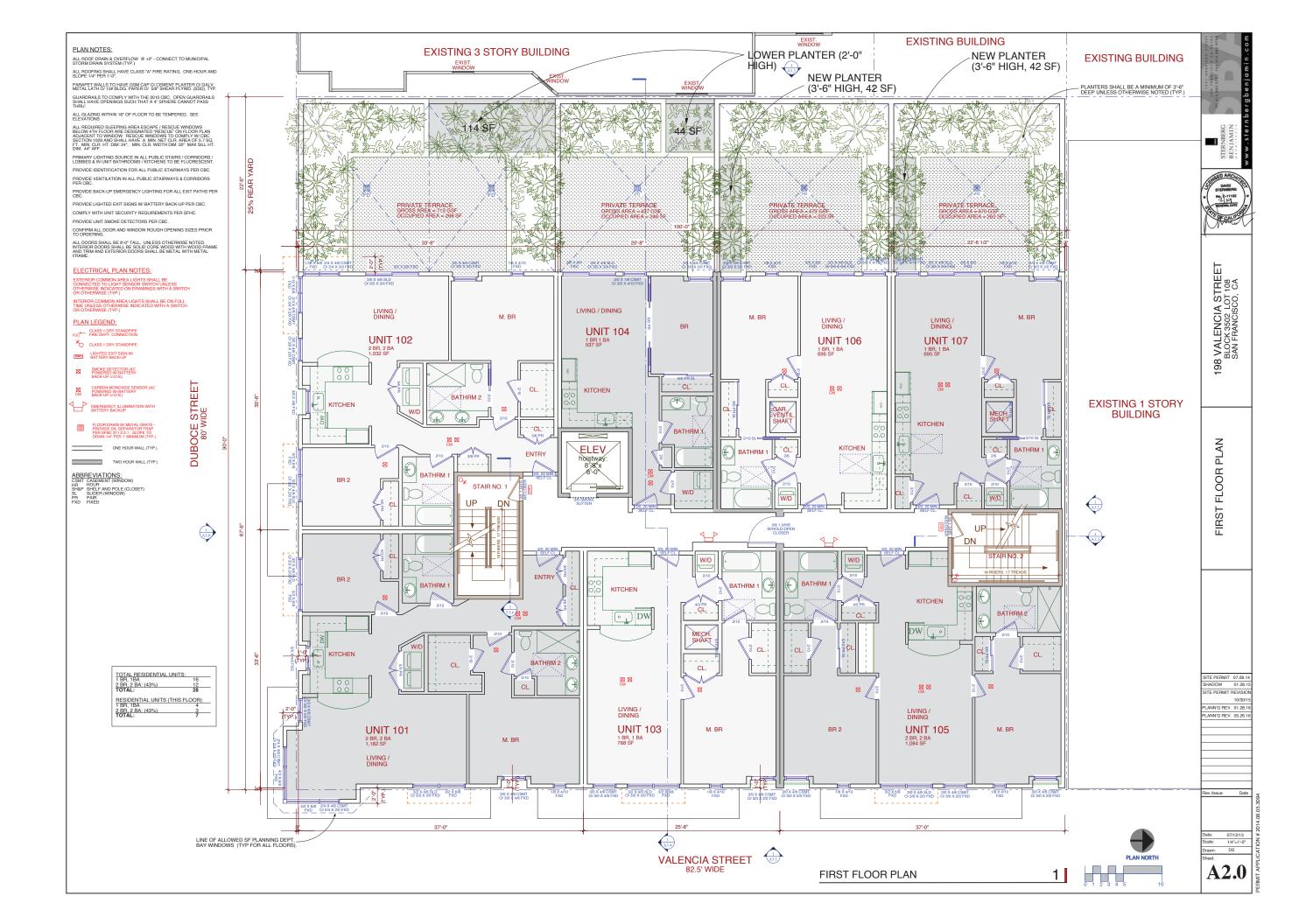
windows so the top of the planters should fall just below your window sills. $\,$

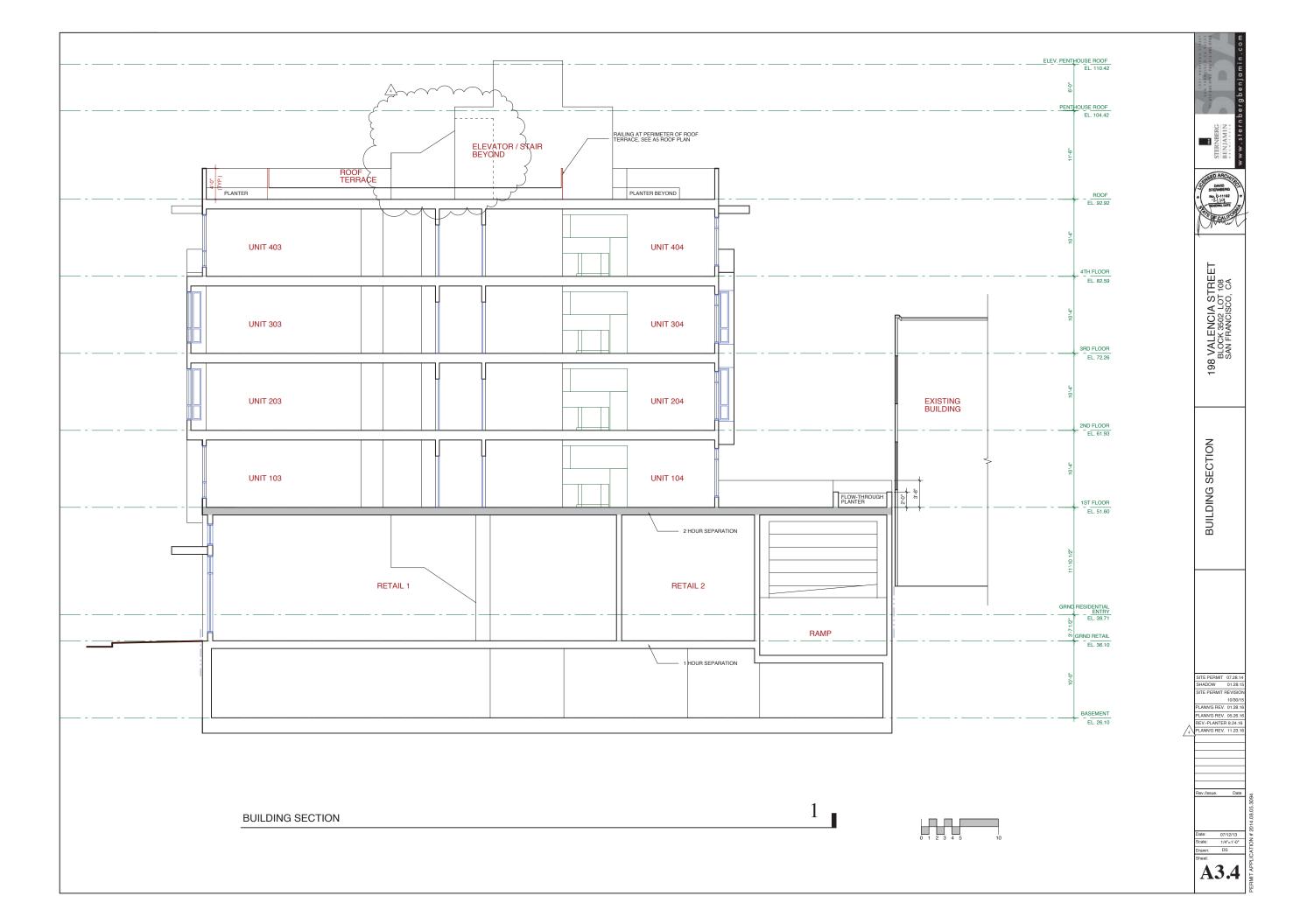
Karl Krooth

<duboce updates.JPG>

<RE_ 2013.1458DRP-02 - 198 Valencia - Krooth DR Correspondence to forward to Commissioners per Request.pdf>
<198 Valencia-A2.0 1st Floor PlanPLANTER.pdf>
<198 Valencia-A3.4 Building Section.pdf>
<Krooth letter to Sternberg - 198 Valencia St - 2013.1458DRP-02.pdf>
<Re_ 198 Valencia, Krooth DR_Correspondence.pdf>

<198 Valencia-A2.0 1st Floor Plan PLANTER.pdf> <198 Valencia-A3.4 Building Section Planter.pdf>





6

Memo to Planning Commission Hearing Date: February 16, 2017

STATEMENT FROM DR REQUESTOR (199 VALENCIA STREET - ZEITGEIST)

ZEITGEIST STATEMENT ON NEW DEVELOPMENT - 198 VALENCIA ST

February 8, 2017

Lara Burmeister Chief of Business Strategy RBCC, Inc dba Zeitgeist 199 Valencia Street San Francisco, CA 94103

EXECUTIVE SUMMARY

In advance of the 2/16/2017 Planning Commission Meeting, Zeitgeist thanks the commissioners for reviewing this packet of information. The key takeaways, covered in more depth within the sections referenced below, are as follows.

Overarching Ask of the Commission: There exist various viable code-compliant design options that can meet the overarching objective of reducing the shading on Zeitgeist while maintaining the 28 residential count of the proposed development. As the developer has refused to meet with Zeitgeist outside of this forum, *the DR hearings*, Zeitgeist implores the Planning Commissioners to take Discretionary Review and require the reasonable modifications discussed below in Section 2.

Section 1: Shading Impact of the Original Proposal

The shading impact on the beer garden from the proposed development of 198 Valencia is significant in that:

- 1) The new shading directly overlaps with our peak business hours and season.
- 2) The proposal takes away all remaining sun in the beer garden for our key evening hours (effectively transforming our garden from a sunny beer garden to a non-sunny beer garden)
- 3) Sunlight has a direct impact on our customers' interest in coming to Zeitgeist as shown both through quantitative sales comparison of sunny and overcast (non-rainy) days, and other evidence.
- 4) Zeitgeist is a unique site worth protecting as a 40-year old Legacy Business in San Francisco.

Section 2: The Design Alternatives to Meet the Objective

- 1) The five-foot height reduction (based on converting the commercial space into non-commercial space on the ground floor) *does* demonstrate significant gains back in sunlight to the beer garden.
 2) Additionally, there are other code-compliant alternatives that meet the objective of minimizing the shading on Zeitgeist while maintaining the 28-unit count. Detailed discussion of design alternatives can be found in pages 6-7. These alternatives should additionally be considered:
 - a) **Parapet**: by redesigning the 4-foot parapet as a translucent railing, the overall height can be reduced by 3 additional feet (yielding in total an 8-foot reduction from original plan). The developer identified this as a design option in a 12/22/2016 email to Zeitgeist.

b) **Placement of the Rear Garden to the North Side of the Lot**: Given the corner location of the building, the rear garden can be placed on either the West or North side and meet the code requirements of Code Section 134 - Rear Yards. By placing the rear garden on the North side, the building massing would be "thinner" along the Valencia side, which would further limit shading during the summer season (our peak season).

Section 3: Track Record of Unwillingness to Cooperate on the Part of the Developer

It is our conclusion, given the evidence outlined below, that the developer feels no inclination to engage with Zeitgeist in this issue beyond the DR hearing in front of the Planning Commissioners. As Zeitgeist is left with no means of obtaining cooperation from the developer outside of this action, we request that the Planning Commission take Discretionary Review and require proposed modifications outlined in Section 2 below. The developer's words and actions demonstrate that the developer sees no responsibility to engage critical stakeholders in their process.

- 1) Since becoming aware of the proposed development in May of 2016, Zeitgeist has made 5 attempts to work with the developer.
- 2) After filing the DR request, Zeitgeist reached out to the developer and was granted one meeting on 12/8. In response to our follow up request made on 12/19, the developer refused to continue discussion in an email on 12/22 stating "Given that the building complies with the permitted height limit under the Planning Code, we see no reason for any further discussions".
- 3) Since the 1/12/17 DR hearing, none of the collaboration requests from Zeitgeist to the developer have received any response.
- 4) On 2/6, Board Supervisor Jeff Sheehy's office offered to mediate a discussion between parties. Zeitgeist confirmed its willingness to participate. We are still awaiting any response from the developers.

PART 1 - SHADING IMPACT

How the new development impacts the Zeitgeist and why it matters

1.1. Shading study by the developer

The shading study carried out by the developer puts emphasis on the existing elements in the beer garden, such as the existing building, the trees or the umbrellas. It is misleading to compare the unavoidable shade cast by a tall, fully-opaque building across the street, to the natural elements that form a beer garden. These natural elements provide shading that is *flexible* and *not-opaque*:

- **The umbrellas** can be opened and closed according to the unique temperate and sky conditions to maximize the comfort of our customers.
- All 4 trees get trimmed periodically and have "windows" to allow for filtered light. The
 filtered light they provide allows our customers to choose the level of sun exposure that
 they feel most comfortable within our site. This diversity of sunlight levels is key to the
 customer experience.
- **The Zeitgeist building** sits to the South of the beer garden. Thus, the shade it casts is minimal due to both the height of the sun and the timing during the day (as the shade occurs around noon which is outside peak business hours).

The following image has been extracted from the shading study commissioned by the developer and submitted to us on Friday February $3rd^1$. The image shows the new shade cast by the proposed development on September 20th at 5:30pm. The image shows the blue area of new shadow from the new development and the existing shade as grey. As you can see, the new shadow renders the beer garden completely in shade. In the current status, and for the last forty years, the beer garden still has over ¼ of the beer garden (i.e. the areas below shaded in blue) bathed in sunlight at this time.

-

¹ Report 'Shadow Analysis of the Shading Effects of the Proposed 198 Valencia Street Project on 199 Valencia Street (Zeitgeist Beer Garden), dated January 25th)



Figure 1. Image 100% shading on the beer garden on September 20th, 5pm

In addition, we have the following issues with the shading study submitted by the developer:

- An arbitrary selection of the boundary of the beer garden to limit new shading percentages: The specialist decided to limit the shading study to the boundary indicated with dotted line (Mark 1), purposely leaving out the covered area (Mark 2), although as the above image depicts the area under the covered area is 50% covered in light (which the new development casts shadow on).
- The representation of the southwest tree as fully opaque: The study shows the difference between the current shade and the new shade, claiming that the current shade already takes away more than half the sunlight. This is obviously misrepresented, as the tree shade is not fully opaque (Mark 4 and reference image below).
- **Not accounting for Table Height**: Additionally, the study contemplated the shade at ground level (Mark 3), which helps making the developer's case of minimal additional shade, when the table top height should be the reference point.



1.2. Impact on sales

The sunny beer garden is a fundamental part of Zeitgeist's brand identity and the loss of such identity results in a serious impact to Zeitgeist's business. The Zeitgeist's beer garden is well known amongst our clients as a place to go to enjoy a beer in the sun. It is renowned as a *sunny* beer garden, and especially so during peak business hours, which start at 5pm until sunset, from April to September. We benefit especially from the late afternoon western sun which coincides with the end of the work day. Currently, during our peak season on any sunny day, our customers know that they are *guaranteed* to find a place in the sun at 6 pm when they get off from work. That sunshine guarantee is a critical part of our brand identity. The proposed development will take away that guarantee. For instance in early August, you can see that at 6 pm, only 6% of sunlight is left within our garden due to the proposed development (when currently it has 39% of area covered sunlight left at that time)².

Cross-subsidization of "fat" days over our "thin" days

The restaurant and bar industry is a difficult industry, especially in San Francisco, with the number of competing businesses. Our business relies on a select set of very strong peak season sunny days to offset our mediocre days where the cost of operating outweighs the daily revenues. The proposed building's shadow will affect the viability and profitability of those "fat" days as it is the warm late afternoon sunlight which brings our customers in the door. As you know, the climate of San Francisco is as different as the city is from the rest of the country - we do not have a full summer of hot temperature days. We need to bank on the especially sunny days to get us through the year. Shadowing our beer garden is anticipated to take a large chunk out of our business.

Sales sensitivity to overcast conditions

We have looked at the sales data of the last three years as well as the weather conditions on each day. We identified a number of days in 2014 which were overcast (and not-rainy) AND the same day in 2015 was sunny AND the same day in 2016 was sunny. These days all had similar temperature conditions. It is to be noted that we compared Mondays to Mondays, Tuesdays to Tuesdays, and so on, as weekend sales can't be compared to weekday sales. Simply put, we were able to isolate the sunlight component in this dataset and control for other factors.

For example, we compared the first Tuesday of September across 2014, 2015 and 2016. **The first Tuesday of September 2014 was overcast and the sales on that day were 30% lower than the 1st Tuesdays in 2015 and 2016 which were both sunny days.** The graph below shows further instances of the sales in a given non-sunny (and not rainy) day in 2014, and compares it to the average sales of the same day in 2015 and 2016, when those days were sunny. The overcast sales days (i.e. in the orange line) are represented as the percentage of sales relative to the 100% baseline of the sunny day sales of 2015 and 2016. As you can see below, while a certain variability

² Note these are based upon the numbers as prepared by Prevision Design in study on 1/25, and do not address the issues of underrepresentation of new shade, which was addressed in an earlier section.

is observed, sales of overcast (non-rainy) are consistently lower than the sales in sunny days, ranging between 50% and 10% lower. In average, **we observe a loss of sales of 30%** in non-sunny and non-rainy days when compared to sunny days. **This represents clearly that our sales are directly impacted by the amount of sunlight within our beer garden.**

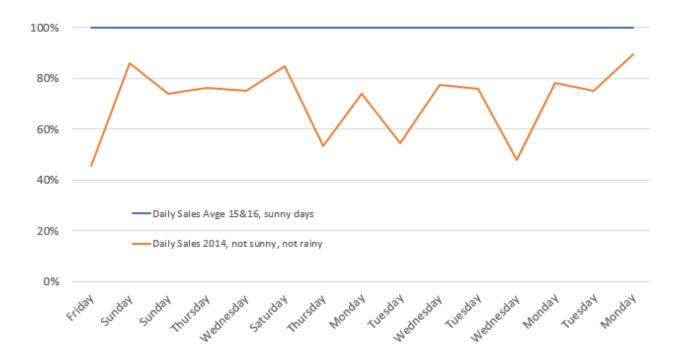


Figure 2: Analysis of the sales sensitivity to overcast days, compared to sunny days

1.2. About the importance of sunlight in beer gardens

We feel we cannot stress enough how important sunlight is for a beer garden. For these reasons we have added to this report a handful of references to articles written by 3rd parties which will convey the intimate relationship between beer gardens and sunlight:

The best beer garden bars in the Bay. Time Out Magazine, March 2016

The article literally starts like this: "Top-notch beer garden spots are few and far between in San Francisco, land of crazy high rent and cold summers. Blame Karl the Fog, or the price of real estate." Then places the Zeitgeist beer garden as number two of their list, behind Biergarten. About the Zeitgeist, this is the first paragraph: "San Francisco is a chill city, and it doesn't get chiller than this outdoor spot. Sipping a beer at one of Zeitgeist's sunny picnic tables with very relaxed smokers is a definitive SF experience." It's worth mentioning here that TimeOut is travel and entertainment magazine that aims at inspiring and enabling people to experience the best of cities. It

operates in 108 cities, across 39 countries, and it has an average monthly global audience reach of over **137 million** across all platforms.

Soak up the sun at next-gen beer gardens, Jake Blumgart, Keystone Edge, July 2016

About pop-up beer gardens being extremely popular in Philadelphia. No need to say that pop-up beer gardens enjoy the perk of not having to operate on bad weather days.

Smartphone app that can tell you which pub garden will be basking in warm rays at any time of the day, Deni Kirkova, The Daily Mail, July 2016

Article about a web app developed by a British company that informs which pub gardens are in the sunlight at any given time. "One of our developers Eric (@errkk) discovered we had a problem when the sun rather unexpectedly came out over London and we went to our local pub for a couple of post-work drinks. Having bought our pints, we stepped outside to bask in the fleeting, life-affirming glory of the London sun. Only to find, as is often the case in London, that we were in the shadow of an adjacent building. A problem, but not without exception"

Review in Trip Advisor, September 2016

You can't come to San Francisco without stopping by Zeitgeist. Apart from a generous beer selection that includes clearly marked dark and local options, they also have pretty good burgers and a huge patio area full of seating for sunny days.

1.3. This business has unique significance to San Francisco

The Zeitgeist beer garden should be given special consideration given its designation as a Legacy Business within San Francisco and its overall uniqueness to San Franciscans. As the public commenters attested in the 1/12/2017 hearing, the Zeitgeist has essentially been a communal backyard for many San Franciscans over many years. In that way, it is not dissimilar from a basketball court or a park. In 2014, San Franciscans voted yes on Proposition J to take action to protect Legacy Businesses within San Francisco in recognition of 1) their value to the city and 2) the market forces that make it difficult for them to survive.

The Historic Preservation Fund is more of a symbolic measure to signal support rather than a mechanism to keep these businesses alive. In reality, the funds we receive account for only 0.48% of our annual expenses. Beyond that, we provide benefit to the city. We employ over 40 people, 99% of whom live in the city. Almost 50% are full-time employees, receiving full benefits. Some of our employees have worked here for over 15 years. We contribute thousands of dollars monthly to the San Francisco's Health Care Security Ordinance. Almost all of our food and beverage vendors are local to the bay area. Zeitgeist is a significant player in the Bay Area's small-business community.

The impact on the community should be considered, we are not just compromising with a developer, we are compromising with the livelihood of a community of people who have been depending on the business at Valencia and Duboce for many years.

PART 2 - DESIGN ALTERNATIVES

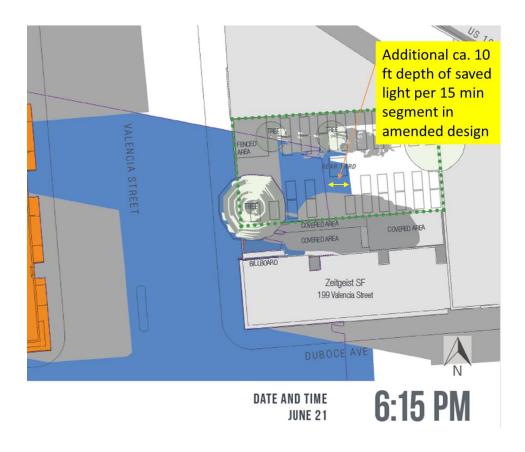
Additional Code Compliant Measures that Can Meet the Objective

The 1/12/2017 hearing ended with a discussion of the potential 198 Valencia design changes that could mitigate the shading impact of the proposed building upon the Zeitgeist beer garden, while simultaneously maintaining the 28-unit count. This represents the objective - a minimized impact of shading on the beer garden while maintaining the residential unit count of 198 Valencia.

During the 1/12 hearing, the only option discussed was the conversion of the commercial space on the ground floor to residential space. This yields a 5-foot reduction in overall height. In consulting with experienced architects within San Francisco, Zeitgeist believes additional design measures could be taken that can further meet this shared objective. We discuss the 5-foot reductions and the two other additional code-compliant design options below.

2.1. Residential ground floor [5-foot reduction]

As the images, as provided within the Prevision Shading Study prepared on 1/25/2017, demonstrate, the 5-foot reduction on the overall height of the building represents a relevant decrease in shading to the Zeitgeist beer garden. As established, given the overlap in shading period during the peak sales period of Zeitgeist, this incremental gain of sunlight during these hours do present positive gains to Zeitgeist above the original design proposal. As you can see in the image below, on the *least* impacted day of our peak season (June 21), the 5-foot reduction results in roughly a 10-foot depth of additional sunlight across period of first hitting the beer garden at 5:30 and onwards. This is a significant gain, especially when one considers that all of the other days during the peak season will have greater than the roughly 10-foot depth of saved light per 15 minute increment.



2.2. Adjustment to the Parapet Design [yielding an additional 3-foot reduction with is an 8-foot height reduction overall]

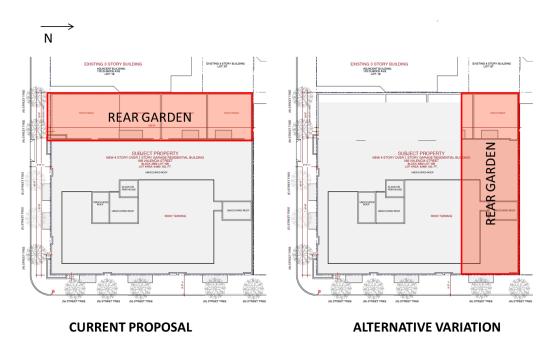
The current proposed design of the parapet is opaque and stands 4 feet above the roof line. This parapet can be altered to a light railing with only a 1 foot opaque base - a design variant which meets the code requirement. See image below as an illustrative idea of this concept. More importantly, the developer already offered to adjust the parapet by 3 feet as a shading mitigation option in an email on $12/22/2016^3$. We reminded the developers of that proposed option via email on 2/4/17 and requested that the shading expert include a variant with that parapet adjustment (which would yield a total 8' reduction of the proposed building). The shading expert did not prepare this alternative. Be that as it may, it is clear that this design change can further meet the communal objective here of minimizing the shade while maintaining the unit count.



³ See Email from Jon Jernigan to Klaus Burmeister on 12/22/2016 in Appendix.

2.3. Placement of the rear garden [Code section 134 Rear Yards, Section 134(4)e-n]

The rear garden could be placed along the north side of the building (Valencia side), instead of the west side (Duboce) and meet all of the code requirements within the code section listed above. By placing the rear garden on the Valencia side, the building could be reconfigured to be "thinner" along the Valencia side. This would limit the length of shadow and impact of the shadow on the Zeitgeist garden during the peak late summer period (as the sun position sits more north during that time period). Additionally, the tenant within the building would benefit from having gardens that have more afternoon sunlight. Given that the major traffic is on Duboce street (due to the corridor from the Duboce 101 exit), the tenants would also gain from having the rear gardens experience less traffic noise.



2.4. The combination of these changes could yield significant reductions in shading on the Zeitgeist beer garden

Our view is that there are a handful of design options worth discussing between the developer and Zeitgeist in order to find a design solution that is acceptable to both parties. Given the complexity of this matter, a combination of design options is likely required with further discussion amongst the two parties. Thus far, as the following section can attest, the developer has refused to meet with Zeitgeist to work towards a solution. At this point, the commissioner DR hearing has become the only forum for Zeitgeist to engage the Developer in the discussion.

PART 3 - LACK OF COOPERATION TO FIND A SOLUTION

3.1. Unwillingness to cooperate

Throughout this process, the developer has demonstrated an unwillingness to cooperate with Zeitgeist in order to adequately address the valid impact that this proposal has on our business. We recount the sequence of interactions during this last 10 months and implore the Planning Commission to recognize that the developers are actively choosing to ignore this issue, hoping that the Planning Commission will approve their proposal in the 2/16 meeting. In our view, the developers have followed the "letter of the law" rather than the "spirit of the law" in holding the required Pre-Application Meeting, but not actually discussing and addressing the concerns of the stakeholders.

In May of 2016, after learning of the proposed development at 198 Valencia St., Zeitgeist reached out to Victor Quan and his associates to discuss their upcoming project. Shortly thereafter, we welcomed Victor and his associates to Zeitgeist for a neighborly meeting. After reviewing the building design, we quickly realized that the development would cast a significant shadow on our much-loved beer garden. Victor and his associates listened to our concerns and offered to look into alternatives to mitigate our concerns. Our next interaction with Victor and his team confirmed our fears even further. At the Pre-Application Meeting in July, we had a second opportunity to view the "updated" plans for the building. These plans showed no modification to the original design. Upon further questioning, David Sternberg stated that they had brought outdated plans to the meeting but changes had been considered. In August, Zeitgeist decided to file for Discretionary Review of 198 Valencia St. Our concerns were going unnoticed from Victor and his team and despite efforts to work towards a mutually beneficial goal together, we were not gaining any ground and felt that our voice was not heard.

In December, Klaus Burmeister offered to meet with the developers ahead of Discretionary Review to make another good faith effort towards finding common ground. The developers obliged to our meeting request and joined us at Zeitgeist on 12/8. At this meeting, we showed our shading study (the same as presented in the 1/12 meeting) and the demonstrated negative impact the building as currently designed would have on our cherished beer garden. We then offered the developers different design options that would allow them to amend their project and provide housing while also mitigating the shadow on our beer garden. The developers left this meeting stating they would "get back to us" after review. Ten days later, Klaus followed up with the developers to inquire about their thoughts as we had no follow up from Victor or his team. Three days later Jon Jernigan of the developer team replied via email stating, "Given that the building complies with the permitted height limit under the planning code, we see no reason for any further discussion." This was disappointing to read.

Since the 1/12/2017 hearing before the Planning Commission, Klaus has twice attempted to schedule a meeting to discuss the alternative options with the developers ahead of the 2/16/2017

hearing. As of 2/7, we have not received any response to our request. Thus, we can only conclude that the developers have refused to work towards a common goal and have truly ceased "further discussion" despite efforts on our part and the specific direction from the Planning Commission.

3.2 Timeline of communications

Within the Appendix, we have included full copies of the email correspondence for reference.

5/6/2016– Initial meeting at Zeitgeist with development team. Concerns raised over shading from building and future nuisance claims from new tenants.

• 5/12/2016 – Shadow Study Received from Victor Quan / Entertainment Venue Disclosure Received from Victor Quan

7/6/2016 – Pre-Application Meeting – Changes discussed had not been made on Architectural Plans. Missing design changes blamed on outdated plans brought to meeting.

• No follow up response from developers to address outdated plans.

8/1/2016 – Klaus Burmeister drafts email to Jonathan Disalvo to address Zeitgeist's concerns regarding proposed development at 198 Valencia and lack of communication from developers post meeting.

7/18/2016 - Discretionary Review Filed

12/5/2016 – Klaus writes Developers requesting a meeting to address concerns and view independent shadow study with building design alternatives

• 12/5/2016 - David Sternberg confirms meeting

12/8/2016 – Meeting held at Zeitgeist. Alternative building designs are discussed and working together towards a common goal is stressed by Klaus

12/19/2016 – Klaus follows up with Development team regarding meeting. Suggests giving more time if needed to review alternatives

• 12/22/2016 - Jon Jernigan responds stating there is "No reason for further discussion."

1/16/2017 – Request for Discretionary Review Hearing

2/1/2017 – Klaus writes developers asking to let "bygones be bygones" and "start working jointly to find a common solution."

• No response from developers.

2/6/2017 – Andres Powers reaches out to provide mediation for both parties at Zeitgeists request.

• 2/6/2017 - Zeitgeist confirms participation in mediation. Awaiting response from developers.

Appendix I – Emails between Zeitgeist, Developers and San Francisco Planning Department Regarding 198 Valencia project



198 Valencia Street Development Project - Comments & Meeting Request

5 messages

Klaus@ZG <klaus@zeitgeistsf.com>

Mon, Aug 1, 2016 at 10:57 AM

To: Jonathan.Disalvo@sfgov.org

Cc: Zeitgeist "> Gideon Bush <gideon@zeitgeistsf.com, Finance Department Finance@zeitgeistsf.com, Finance Department Finance@zeitgeistsf.com, Finance Department

Dear Jonathan,

Per my earlier voice mail to you, I am enclosing our initial letter and enclosures for your consideration of the 198 Valencia Street project. We appreciate your diligence in this matter and look forward to working with you in the planning and approval process.

Thank you,

Klaus Burmeister

President

Zeitgeist

9 attachments

- Appendix_ShadingImpact.pdf 1139K
- Zeitgeist Letter to SF Planning Dept 01-08-2016.pdf 318K
- 9 classic U.S. dive bars CNN.pdf
- 36 Hours in San Francisco The New York Times.pdf 198K
- America's Best Beer Gardens _ Travel + Leisure.pdf 357K
- Gallery_ The Best Places to Drink Beer Outside in San Francisco and the East Bay_ Serious Eats _ Serious Eats.pdf
 1247K
- San Francisco's most popular bars, according to Lyft and Uber SFGate.pdf 219K
- The top bars in SF, chosen by Uber riders.pdf
- Appendix_ShadingImpact.pdf
 1139K

Cc: Zeitgeist <lara@zeitgeistsf.com>, Gideon Bush <gideon@zeitgeistsf.com>, Finance Department <finance@zeitgeistsf.com>

Hello Klaus,

I believe our call was dropped. Feel free to give me a call at your convenience. I will be away from my desk both today and tomorrow from 2:45 to 5 pm. I will try you again tomorrow morning if we are unable to connect today.

Regards,

Jonathan DiSalvo Planner, Southeast Quadrant, Current Planning

Planning Department, City and County of San Francisco 1650 Mission Street, Suite 400, San Francisco, CA 94103 **Direct:** 415-575-9182 **Fax:** 415-558-6409

Email: Jonathan.DiSalvo@sfgov.org

Web: www.sfplanning.org











From: Klaus@ZG [mailto:klaus@zeitgeistsf.com]

Sent: Monday, August 01, 2016 10:58 AM

To: DiSalvo, Jonathan (CPC)

Cc: 'Zeitgeist'; 'Gideon Bush'; 'Finance Department'

Subject: 198 Valencia Street Development Project - Comments & Meeting Request

Importance: High

[Quoted text hidden]

DiSalvo, Jonathan (CPC) < jonathan.disalvo@sfgov.org>

Tue, Aug 2, 2016 at 11:07 AM

To: "Klaus@ZG" <klaus@zeitgeistsf.com>

Cc: Zeitgeist <lara@zeitgeistsf.com>, Gideon Bush <gideon@zeitgeistsf.com>, Finance Department <finance@zeitgeistsf.com>

Hello Klaus,

Per our conversation today, attached are the notes from the July 6th meeting.

Please do not hesitate to contact me with further questions or concerns.

Regards,

Jonathan DiSalvo Planner, Southeast Quadrant, Current Planning

Planning Department, City and County of San Francisco 1650 Mission Street, Suite 400, San Francisco, CA 94103

Direct: 415-575-9182 Fax: 415-558-6409

Email: Jonathan.DiSalvo@sfgov.org

Web: www.sfplanning.org











From: Klaus@ZG [mailto:klaus@zeitgeistsf.com]

Sent: Monday, August 01, 2016 10:58 AM

To: DiSalvo, Jonathan (CPC)

Cc: 'Zeitgeist'; 'Gideon Bush'; 'Finance Department'

Subject: 198 Valencia Street Development Project - Comments & Meeting Request

Importance: High

Dear Jonathan.

[Quoted text hidden]



198 Valencia meetingnotes July 6 2016.pdf 95K

Klaus@ZG <klaus@zeitgeistsf.com>

Tue, Aug 2, 2016 at 1:43 PM

To: "DiSalvo, Jonathan (CPC)" <jonathan.disalvo@sfgov.org>

Cc: Zeitgeist <lara@zeitgeistsf.com>, Gideon Bush <gideon@zeitgeistsf.com>, Finance Department <finance@zeitgeistsf.com>

Thank you for sending the notes, Jonathan. Are you free to share the identity of other commentators on the project with us?

Hope to meet you at Zeitgeist someday,

Klaus

From: DiSalvo, Jonathan (CPC) [mailto:jonathan.disalvo@sfgov.org]

Sent: Tuesday, August 02, 2016 11:07 AM To: Klaus@ZG <klaus@zeitgeistsf.com>

Cc: 'Zeitgeist' < lara@zeitgeistsf.com>; 'Gideon Bush' < gideon@zeitgeistsf.com>; 'Finance Department'

<finance@zeitgeistsf.com>

Subject: RE: 198 Valencia Street Development Project - Comments & Meeting Request

[Quoted text hidden]

DiSalvo, Jonathan (CPC) < jonathan.disalvo@sfgov.org>

To: "Klaus@ZG" <klaus@zeitgeistsf.com>

Cc: Zeitgeist <lara@zeitgeistsf.com>, Gideon Bush <gideon@zeitgeistsf.com>, Finance Department <finance@zeitgeistsf.com>

Hello Klaus,

The sign-in sheet for the July 6th meeting is attached. This represents the people who attended this meeting.

Regards,

Jonathan DiSalvo Planner, Southeast Quadrant, Current Planning

Planning Department, City and County of San Francisco 1650 Mission Street, Suite 400, San Francisco, CA 94103

Direct: 415-575-9182 Fax: 415-558-6409

Email: Jonathan.DiSalvo@sfgov.org

Web: www.sfplanning.org











From: Klaus@ZG [mailto:klaus@zeitgeistsf.com]

Sent: Tuesday, August 02, 2016 1:43 PM

To: DiSalvo, Jonathan (CPC)

Cc: 'Zeitgeist'; 'Gideon Bush'; 'Finance Department'

[Quoted text hidden]

[Quoted text hidden]



198 Valencia outreach July 6 2016 sign in sheet.pdf



Re: Shading Impact of Proposed 198 Valencia Street Project

Victor Quan <vquan.sf@gmail.com>

Mon, Dec 5, 2016 at 12:15 PM

To: Klaus Burmeister <burmeisters@comcast.net>

Cc: Zeitgeist <lara@zeitgeistsf.com>, David Sternberg <dsternberg@sternbergbenjamin.com>, Gideon Bush <gideon@zeitgeistsf.com>, Finance Department <finance@zeitgeistsf.com>

Hi Klaus.

I am unfortunately, out of town so I won't be able to meet until after 12/24. I think one of my other partners is out as well, but someone in our group will be able to get back to you.

Who is the consultant working with you? Thanks.

Regards, Victor 415-531-8311

On Dec 5, 2016 8:46 PM, "Klaus Burmeister" < burmeisters@comcast.net> wrote:

Gentlemen:

As we have discussed in the past, Zeitgeist is very concerned about the potential shading impact your proposed development would have on its operation. Accordingly, we have requested a discretionary review of the proposed development.

In the interim, we have engaged an expert who has (1) confirmed the very significant shading caused by your project during the peak occupancy periods in our beer garden, and (2) modeled alternative configurations of the size and configuration of the structure proposed by you. We would like to discuss these alternatives with you as soon as possible. Our expert would be available to meet with you and us and present his findings later this week. The holiday season and other commitments would make it very difficult thereafter. Would you be willing to join us at Zeitgeist either this Thursday afternoon or Friday morning? Our schedule is flexible during these periods. You can reach me at (510) 693-0069.

Thank you very much for your cooperation,

Klaus Burmeister

President

Zeitgeist



Re: Shading Impact of Proposed 198 Valencia Street Project

Klaus@ZG <klaus@zeitgeistsf.com>

Mon, Dec 19, 2016 at 12:28 PM

To: Victor Quan <vquan.sf@gmail.com>, Jon Jernigan <jonjernigan@general-realty.com>, dsternberg@sternbergbenjamin.com, Renaldo Gamundi <rygamundi@earthlink.net>, Urbano Ezquerro <urbanoez@gmail.com>

Cc: Gideon Bush <gideon@zeitgeistsf.com>, Finance Department <finance@zeitgeistsf.com>, Zeitgeist <lara@zeitgeistsf.com>, burmeisters@comcast.net, Manel Heredero <manel@evocaproject.com>

Gentlemen:

Thank you again for meeting with us at our offices on December 8, 2016 and discussing our concerns about the essentially permanent shading by your proposed development of our beer garden during our critical occupancy and sales period. I saw that our expert Manel Heredero sent David an electronic copy of his study for circulation among you.

More than 10 days have passed since our meeting, and we are wondering whether you have had the chance to review the shading study and discuss among yourselves our concerns and possible solutions. Would you please let us know as soon as possible whether or not you are willing to work with us in finding a feasible compromise? If you do, but need more time, I suggest that we ask that the discretionary review hearing be postponed for an appropriate period. Would that be acceptable to you?

Thank you for your courtesy and cooperation with us,

Klaus Burmeister

President

RBCC, Inc. d/b/a "Zeitgeist"

From: Lash, Gayle E [mailto:glash@general-realty.com]

Sent: Tuesday, December 06, 2016 11:21 AM

To: burmeisters@comcast.net

Cc: Jon Jernigan <jonjernigan@general-realty.com>; gideon@zeitgueists.com; dsternberg@sternbergbenjamin.com; laura@zeitgeusts.com; Victor Quan <vquan.sf@gmail.com>; Renaldo Gamundi (rygamundi@earthlink.net) <rygamundi@earthlink.net>; Urbano Ezquerro (urbanoez@gmail.com) <urbanoez@gmail.com>

[Quoted text hidden]

[Quoted text hidden]

Hi Klaus,

[Quoted text hidden]



Re: Shading Impact of Proposed 198 Valencia Street Project

Klaus Burmeister <burmeisters@comcast.net> Thu, Dec 22, 2016 at 10:00 PM To: Lara Burmeister <lara@zeitgeistsf.com>, Gideon Bush <gideon@zeitgeistsf.com>, Angela Scott <finance@zeitgeistsf.com>, manel.heredero@gmail.com, Klaus Burmeister <burmeisters@comcast.net>

Sent from my iPhone

Begin forwarded message:

From: "Lash, Gayle E" <glash@general-realty.com>

Date: December 22, 2016 at 1:04:37 PM PST

To: "burmeisters@comcast.net" <burmeisters@comcast.net>

Cc: Jon Jernigan <jonjernigan@general-realty.com>, Victor Quan <vquan.sf@gmail.com>, "Urbano

Ezquerro (urbanoez@gmail.com)" <urbanoez@gmail.com>, "Renaldo Gamundi (rygamundi@earthlink.net)"

<rygamundi@earthlink.net>

Subject: FW: Shading Impact of Proposed 198 Valencia Street Project

Klaus,

We apologize for the delayed response, as Victor, who's our point person is out of the country. We note that we have made the concessions below to you to address your concerns:

-As a result of our May, 2016 meeting with Zeitgeist representatives, we agreed to set the roof deck back an additional 5' from the eastern edge of the building to address Zeitgeist's shadow and privacy concerns for a total 8' setback.

-We are willing to discuss a reduction of the 4' parapet on the Valencia elevation by 3.0' subject to the Planning Department's approval. This is a major concession on our part, because it will significantly change the appearance of the aesthetics of a prominent corner building. The Building Department may have concerns as to the water flow from the roof, and might require somewhat higher parapet as well.

Both of these concessions will minimize shadow on your property.

However, as we have consistently stated, we do not believe nor have we seen convincing evidence that the proposed 5-story building will envelope your beer garden in shadow in the amount and for the duration you have stated. We have also been consistent in our commitment to bring 28 new housing units in this neighborhood onto the market. Your primary concession is that the building be reduced by 2 stories. Doing so would result in the loss of 14 units, including 2 BMR units. We do not see an equal benefit between the loss of 14 rental units and whatever shadow will be cast on your property. The latter will not prevent your customers from enjoying your drinks outdoor in your beer garden, while the former would deprive the City of 28 housing units.

Given that the building complies with the permitted height limit under the Planning Code, we see no reason for any further discussions. We have made concessions that will lessen the shadow on your property, but will not agree to forfeit 2 stories of housing that is desperately needed in San Francisco.

Typed by Gayle for

Jon Jernigan

California Real Estate License

DRE# 00215283 775 Baywood Drive Ste. #318 Petaluma, CA 94954 (707) 769-7793 Office

(415) 699-4765 Cell (707) 769-7839 Fax jonjernigan@general-realty.com

From: Klaus@ZG [mailto:klaus@zeitgeistsf.com]

Sent: Monday, December 19, 2016 12:28 PM

To: 'Victor Quan'; Jon Jernigan; dstemberg@sternbergbenjamin.com; 'Renaldo Gamundi'; 'Urbano

Ezquerro'

Cc: 'Gideon Bush'; 'Finance Department'; 'Zeitgeist'; burmeisters@comcast.net; 'Manel Heredero'

Subject: RE: Shading Impact of Proposed 198 Valencia Street Project

Importance: High

[Quoted text hidden]



Requested Cooperation in Planning Matter

Klaus Burmeister <burmeisters@comcast.net>

Wed, Feb 1, 2017 at 12:32 PM

To: vguan.sf@gmail.com

Cc: burmeisters@comcast.net, Jon Jernigan <jonjernigan@general-realty.com>, Urbano Ezquerro <urbanoez@gmail.com>, Renaldo Gamundi <rygamundi@earthlink.net>

Hi Victor,

I am sorry that emotions ran a bit high after the last planning commission hearing and apologize for whatever part I may have had in it. Part of the frustration on our side was and continues to be the flat refusal by your partners and advisors to engage with us in any discussions for the purpose of finding a workable compromise. Let me remind you of our previous meetings and exchanges:

- 1. During our first meeting on May 6, 2016, you showed us draft plans of the development, which you characterized to be subject to pending revisions. We assured you that Zeitgeist had no objections to your group's intention to build housing on 198 Valencia Street, but we did identify some issues to you, including privacy concerns of our patrons and the risk of future nuisance claims. Most importantly, however, we asked that the development not excessively shade our beer garden, since the proposed building, including its roof-top penthouse, seemed to be rather high. You told us that you would consider moving the roof-top deck to other end of the roof and represented to us that sound absorbent windows would be used and that future rental conditions would prevent nuisance claims based on the Zeitgeist operations. Concerning our shading concerns, you mentioned that a shading study for the neighboring parks had found little impact.
- 2. When we received the link to the shading study a week later, however, we noticed that based on your own expert's analysis - significant shading of the beer garden was to be expected during very important late afternoon business hours. We, thus, mentioned our shading concern again to you at the community outreach meeting on July 6, 2016 (see your own meeting notes). When we looked at the plans presented by your architect at that meeting, we also noticed that only minimal changes had been made to the plans regarding our concerns. At that time, you informed us and the participants in the meeting that an outdated copy of the plans had been brought. You did not follow up on my statement that the shading issue needed to be discussed.
- 3. Accordingly, on August 1, 2016, we wrote a letter to the planner and explained our concerns in writing. You did not respond to us in any form, which forced us to request the discretionary review by the August 18, 2016 deadline. Even after seeing our discretionary review application, you preferred to have your lawyer write a factually incorrect and misleading response over seeking further exploratory discussions with us. We only saw Ms. Dick's letter as part of the information package for the commissioners on January 9, 2017, and had no chance to correct her statements.
- 4. In the interim, Zeitgeist engaged shading expert Manel Heredero for the purpose of exploring the shading impact of several modified configurations of your proposed development. Mr. Heredero applied the very same assumptions as Adam Phillips/Prevision Design, the author of the shading study originally requested by the Planning Department, and developed several models that might allow you to build nearly as much as proposed without causing severe damage to Zeitgeist's business.
- 5. When some of your partners and architect met with us on December 8, 2016, Mr. Heredero walked them through his analysis process, your proposed and four alternative design options, the resulting shading consequences of each, and the financial impact of beer garden shading based on Zeitgeist's past and current business experience. I offered to provide your side with the financial background data if you had any questions about the expected financial impact. As I

again explained to the attendees, Zeitgeist wished to collaborate with your side to find a reasonable compromise, rather than take an "all-or-nothing" approach. Since you, being the point man for this project, were in China at that time, your partners stated they would have to discuss the matter with you and get back to us.

- 6. Not having hear from your side by December 19, 2016, I followed up with an email to you and your partners, asked for a status report, and offered to agree on a later hearing date if you needed more time to explore possible solutions. I must admit that it was a slap in my face to read that "given that the building complies with the permitted height limit under the Planning Code, we see no reason for any further discussions" in your partners' December 22, 2016 email.
- 7. I was also disappointed to hear Ms. Dick on January 12, 2017 misrepresent to the Planning Commission that until that very evening Zeitgeist had demanded that the 2 top floors of the proposed building be removed. Either your partners and architect did not inform her of our December discussions or she chose to provide "alternative facts".
- 8. Similarly, your shading expert misled the commissioners about the consistency (or lack thereof) between the 2 shading studies. The fact of the matter is that Mr. Heredero relied on the factual findings in Prevision Design's study. As Mr. Phillips knew or should have known upon review of Mr. Heredero's work product, the perceived shading difference resulted, not from applying improper solar angles (as claimed at the hearing), but rather from Ms. Heredero's consistent use of standard time as opposed to his own use of daylight savings time. When the same time method is applied, there are no material differences. A simply inquiry and cooperation, as offered by me in December, would have been much more productive than taking potshots at a hearing.
- 9. Unfortunately, Mr. Phillips after the hearing again refused to cooperate with Mr. Heredero in putting together a common and acceptable shading presentation for the February 16, 2017 hearing. Not only does this run directly counter to the clear suggestion of Planning Commission Chair Richards and other commissioners; it also begs the question why Mr. Phillips seems to be uncomfortable with peer review.

I doubt that when the dust has settled any lack of cooperation will have been helpful to your position. Accordingly, I would like to offer you that we let bygones be bygones and start working jointly on finding a common solution. Perhaps, we could also try to have an independent mediator assist us in this effort. According to his testimony before the Planning Commission, Mr. Phillips expected to be done with the graphic shading impact presentation by now. It would be a good start if we had the chance to review what he has prepared such that we can ask any questions we might have before the February 16, 2017 hearing. Fair?

What do you think? I look forward to your response at your earliest convenience.

Sincerely,

Klaus Burmeister

President

RBCC, Inc. d/b/a Zeitgeist



Fwd: 198 Valencia Street and Zeitgeist - Invitation for mediation

Zeitgeist < lara@zeitgeistsf.com>

Mon, Feb 6, 2017 at 11:54 AM

To: Manel Heredero <manel.heredero@gmail.com>, Finance Department <finance@zeitgeistsf.com>, Gideon Bush <gideon@zeitgeistsf.com>

FYI. Thoughts?

Sent from my iPhone

Begin forwarded message:

From: "Power, Andres (BOS)" <andres.power@sfgov.org>

Date: February 6, 2017 at 11:03:16 AM PST

To: Victor Quan <vquan.sf@gmail.com>, Klaus <klaus@zeitgeistsf.com>, "Lara@zeitgeistsf.com"

<Lara@zeitgeistsf.com>

Cc: "DiSalvo, Jonathan (CPC)" < jonathan.disalvo@sfgov.org>

Subject: 198 Valencia Street and Zeitgeist - Invitation for mediation

Hi Victor, Klaus, Lara, and Jonathan,

I've reached out to you all individually, but I'd like to formally extend an invitation to attempt a mediation for the 198 Valencia Street development proposal.

I'd like to suggest the following time and location for the mediation:

- This Friday morning from 9:30-11:30 in City Hall room 284

Given the challenges of finding time that will work for everyone, I ask that you be flexible with your schedule.

Two ground rules:

- 1. I ask that you let me know who you'll bring and that each party not bring more than three or four people. I will distribute a list of attendees before we meet.
- 2. Each party must have someone present who is authorized to make a deal.

Thank you,

Andres

Andres Power

Office of Supervisor Jeff Sheehy

415-554-6968



Fwd: 198 Valencia Street and Zeitgeist - Invitation for mediation

Gideon Ledlie Bush <gideon@zeitgeistsf.com>

Mon, Feb 6, 2017 at 11:58 AM

To: Zeitgeist <lara@zeitgeistsf.com>

Cc: Manel Heredero <manel.heredero@gmail.com>, Finance Department <finance@zeitgeistsf.com>

I think we should participate in this mediation. It establishes another good faith effort on our end to works towards a common goal with the developers. If they decide not to participate, it's just another arrow in our quiver at the hearing.

Gideon

[Quoted text hidden]

Appendix II – Letters of Support for Zeitgeist



February 2, 2017

Duncan Ley
California Music & Culture Association
2209 Polk St.
San Francisco, CA 94109

To Whom It May Concern,

I am writing on behalf of the California Music & Culture Association (CMAC) in support of Zeitgeist as they attempts to mitigate the impact of the new housing development at 198 Valencia Street on their iconic outdoor patio.

It is hard to overstate the role that Zeitgeist and its patio play in the SF nightlife universe. In a town with fewer and fewer affordable venues for socializing, Zeitgeist stands out. For decades it has provided thousands, if not millions, of diverse patrons with down to earth, affordable offerings. Also in a town that is more and more polarized, Zeitgeist has provided a space where young professionals, techies, hipsters, bikers, community organizers and artists can all gather together and mingle as one.

With SO FEW outdoor spaces left in San Francisco, we are extremely concerned about the impacts that significant shading will have on Zeitgeist, both to the customers' experience and to the bar's economic viability. We hope very much that you will take into account how much of a cultural asset Zeitgeist is to our city when making decisions around the shade being cast on them by their new neighbors.

Sincerely,

Duncan Ley Co-Chairman

BUncan Ley

California Music & Culture Association



February 4, 2017

Ben Bleiman San Francisco Bar Owners Alliance 2360 Polk St. San Francisco, CA 94109

To Whom It May Concern,

I am writing on behalf of a group of 310 bar owners in San Francisco to ask you to do anything in your power to help preserve the wonderful, sunny patio at Zeitgeist in San Francisco. Zeitgeist is one of the most important bars in San Francisco, hands down, and we are terrified that the new development at 198 Valencia Street will destroy this bar which has peacefully coexisted with the neighborhood for years and brought so much joy to so many people in San Francisco and beyond.

There must be measures you can all take to help us preserve the sunny outdoor space in a business so important as Zeitgeist to our city's collective identity. Our town is changing so quickly and big money is so dominant in how these changes are happening. Sometimes it feels like we are powerless to control our future. We ask that you please consider what Zeitgeist offers to the soul of our city, not just the bottom line of a new condo development. We must all pitch in to defend places like Zeitgeist that make us proud to live in San Francisco, and we hope you will do your part as well!

Thank you kindly,

Benny Bleiman

Ben Bleiman Founder/President San Francisco Bar Owner Alliance