

Solar Access Analysis for the proposed development known as Australia Towers, Sydney Olympic Park

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1.0 Executive Summary

An analysis has been undertaken to assess the number of hours of direct solar access to the Living Areas and Private Open Spaces of each residential apartment of the proposed development known as Australia Towers, located at Sydney Olympic Park. The analysis has been undertaken based on architectural drawings prepared by the project architect Bates Smart, received March 28, 2011 (drawing issue P5).

The solar access analysis is carried out using a 3D computer model of the proposed development and surrounding buildings. Topographical effects have also been included on the model. Shadows are able to be cast over the model based on the path of the sun on the mid-winter solstice (June 21). From this, the times of the day when direct solar access is available to the windows of the Living Areas of each residential apartment is determined. Furthermore, the times of the day when direct solar access is available to the Private Open Space (measured at the floor slab level) of each residential apartment is also determined. The results of this study are accurate to within 10 minutes.

The results are calculated on the mid-winter solstice (June 21), between 9am and 3pm. Note that there are a total of 588 residential apartments within the proposed development. Tower 1 contains 267, and Tower 2 contains 321. Furthermore, it should be noted that the louvre-screens along the side of some of the balcony areas of the development have been assumed to be orientated to allow direct solar access through the louvre-screen at the times when this would occur.

The results of the analysis are summarised as follows:

- 72% of the total number of residential apartments achieve at least 2 hours of direct solar access to the window(s) of the Living Area. This comprises of 63% of the apartments in Tower 1, and 79% of the apartments in Tower 2.
- 72% of the total number of residential apartments achieve at least 2 hours of direct solar access to the floor slab of the Private Open Space. This comprises of 63% of the apartments in Tower 1, and 79% of the apartments in Tower 2.

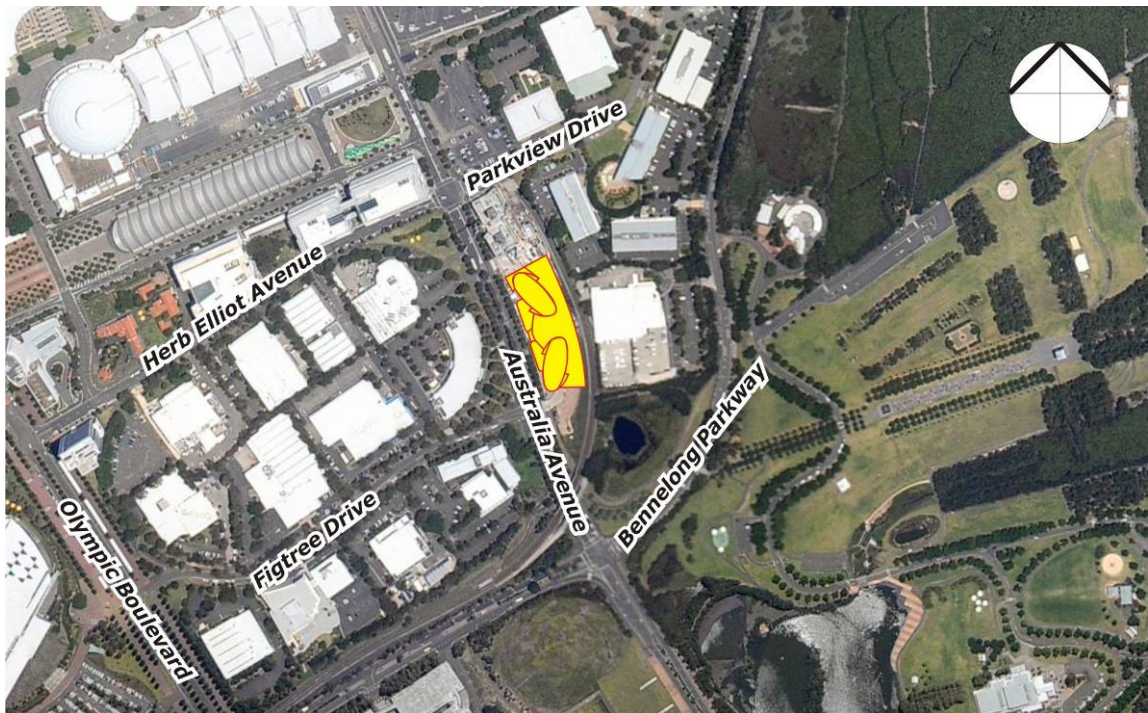
2.0 Description of the Proposed Development

The proposed development contains two residential buildings connected by a podium component at ground level. The podium component has a height of 2 storeys above the Australia Avenue street level. Towers 1 and 2 both have a generally elliptical floor plate. Tower 1 is located at the northern end of the site with its major axis aligned north-west to south-east, and is proposed to be 25 storeys tall (above the Australia Avenue street level). Tower 2 is located at the southern end of the site with its major axis aligned north to south, and is proposed to be 31 storeys tall (above the Australia Avenue street level). Four basement levels are proposed and will be used for car parking.

3.0 Description of the Site and Surrounds

The proposed development site is located on western side of Australia Avenue in Sydney Olympic Park. The site is bound by the Olympic Park railway line to the east, Australia Avenue to the west, and neighbouring the site to the north is Multiplex's residential development known as Site 3 North which is currently under construction and will have a height of approximately 25 storeys above ground. Further to the north of the site is Parkview Drive.

The landform in the local vicinity of the site is relatively flat, although there is a gradual fall down towards the lagoon within Bicentennial Park to the south-east. There is also a cutting for the railway line to the north-east of the development site. Aerial images of the existing site are shown in Figures 1a to 1c.



**Figure 1a: Aerial Image of the Proposed Development Site
(top-down view)**



**Figure 1b: Aerial Image of the Proposed Development Site
(view from the south, facing north)**



**Figure 1c: Aerial Image of the Proposed Development Site
(view from the north, facing south)**

4.0 Solar Access Criteria

Part 03 (Building Design) for Building Amenity of the State Environmental Planning Policy No. 65 (SEPP65), known as the Residential Flat Design Code, requires that Living Rooms and Private Open Spaces for at least 70 percent of apartments in a development should receive a minimum of two hours direct sunlight between 9am and 3pm in mid-winter in dense urban areas.

5.0 Methodology

The solar access analysis is carried out using a 3D computer model of the proposed development and surrounding buildings. Topographical effects have also been included on the model. Perspective images of the computer model used for this study are shown in Figures 2a and 2b.

Shadows are able to be cast over the model based on the path of the sun on the mid-winter solstice (June 21). From this, the times of the day when direct solar access is available to the windows of the Living Areas of each residential apartment is determined. Furthermore, the times of the day when direct solar access is available to the Private Open Space (measured at the floor slab level) of each residential apartment is also determined. The results of this study are accurate to within 10 minutes.



**Figure 2a: Overall Perspective Image of the 3D Computer Model
(view from the west, facing east)**



**Figure 2b: Overall Perspective Image of the 3D Computer Model
(view from the east, facing west)**

6.0 Results

The number of hours of direct solar access to the Living Area and Private Open Space of each residential apartment of the subject development is presented in Table 1. The results are calculated on the mid-winter solstice (June 21), between 9am and 3pm. Note that the times that direct solar access occurs is also indicated in Table 1 (within an accuracy of 10 minutes). Note that there are a total of 588 residential apartments within the proposed development. Tower 1 contains 267, and Tower 2 contains 321. Furthermore, it should be noted that the louvre-screens along the side of some of the balcony areas of the development have been assumed to be orientated to allow direct solar access through the louvre-screen at the times when this would occur.

The results of the analysis are summarised as follows:

- 72% of the total number of residential apartments achieve at least 2 hours of direct solar access to the window(s) of the Living Area. This comprises of 63% of the apartments in Tower 1, and 79% of the apartments in Tower 2.
- 72% of the total number of residential apartments achieve at least 2 hours of direct solar access to the floor slab of the Private Open Space. This comprises of 63% of the apartments in Tower 1, and 79% of the apartments in Tower 2.

**Table 1: Solar Access for Each Residential Apartment
(between 9am and 3pm in the mid-winter solstice)**

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T1-L01-U01	3.0	9:00 - 12:00	3.5	9:00-12:00 and 14:30-15:00
T1-L01-U02	4.5	9:00 - 13:30	4.3	9:00 - 13:20
T1-L01-U03	4.5	9:00 - 13:30	4.7	9:00 - 13:40
T1-L01-U04	3.8	9:00 - 12:50	4.8	9:00 - 13:50
T1-L01-U05	4.8	9:00 - 13:50	4.8	9:00 - 13:50
T1-L01-U06	3.2	9:00 - 12:10	4.5	9:00 - 13:30
T1-L01-U07	0.0	N/A	0.8	9:00 - 9:50
T1-L01-U08	1.0	14:00 - 15:00	0.8	14:10 - 15:00
T1-L02-U01	3.0	9:00 - 12:00	3.5	9:00-12:00 and 14:30-15:00
T1-L02-U02	4.5	9:00 - 13:30	4.3	9:00 - 13:20
T1-L02-U03	4.5	9:00 - 13:30	4.7	9:00 - 13:40
T1-L02-U04	4.7	9:00 - 13:40	4.2	9:00 - 13:10
T1-L02-U05	4.7	9:00 - 13:40	4.7	9:00 - 13:40
T1-L02-U06	4.7	9:00 - 13:40	4.7	9:00 - 13:40
T1-L02-U07	4.7	9:00 - 13:40	4.3	9:00 - 13:20
T1-L02-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50
T1-L02-U09	0.0	N/A	0.0	N/A
T1-L02-U10	0.2	14:50 - 15:00	0.2	14:50 - 15:00
T1-L02-U11	0.0	N/A	0.0	N/A
T1-L02-U12	0.0	N/A	0.0	N/A
T1-L02-U13	0.8	14:10 - 15:00	0.8	14:10 - 15:00
T1-L03-U01	3.0	9:00 - 12:00	3.5	9:00-12:00 and 14:30-15:00
T1-L03-U02	4.5	9:00 - 13:30	4.3	9:00 - 13:20
T1-L03-U03	4.5	9:00 - 13:30	4.7	9:00 - 13:40
T1-L03-U04	4.7	9:00 - 13:40	4.2	9:00 - 13:10
T1-L03-U05	4.7	9:00 - 13:40	4.7	9:00 - 13:40
T1-L03-U06	4.7	9:00 - 13:40	4.7	9:00 - 13:40
T1-L03-U07	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L03-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50
T1-L03-U09	0.0	N/A	0.0	N/A
T1-L03-U10	0.2	14:50 - 15:00	0.2	14:50 - 15:00
T1-L03-U11	0.0	N/A	0.0	N/A
T1-L03-U12	0.0	N/A	0.0	N/A
T1-L03-U13	0.8	14:10 - 15:00	0.8	14:10 - 15:00

Table 1: Solar Access for Each Residential Apartment (cont.)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T1-L04-U01	3.0	9:00 - 12:00	3.5	9:00-12:00 and 14:30-15:00
T1-L04-U02	4.5	9:00 - 13:30	4.3	9:00 - 13:20
T1-L04-U03	4.5	9:00 - 13:30	4.7	9:00 - 13:40
T1-L04-U04	4.7	9:00 - 13:40	4.2	9:00 - 13:10
T1-L04-U05	4.7	9:00 - 13:40	4.7	9:00 - 13:40
T1-L04-U06	4.8	9:00 - 13:50	4.8	9:00 - 13:50
T1-L04-U07	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L04-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50
T1-L04-U09	0.0	N/A	0.0	N/A
T1-L04-U10	0.2	14:50 - 15:00	0.2	14:50 - 15:00
T1-L04-U11	0.0	N/A	0.0	N/A
T1-L04-U12	0.0	N/A	0.0	N/A
T1-L04-U13	0.8	14:10 - 15:00	0.8	14:10 - 15:00
T1-L05-U01	6.0	9:00 - 15:00	3.5	9:00-12:00 and 14:30-15:00
T1-L05-U02	4.5	9:00 - 13:30	4.3	9:00 - 13:20
T1-L05-U03	4.5	9:00 - 13:30	4.7	9:00 - 13:40
T1-L05-U04	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L05-U05	4.8	9:00 - 13:50	4.7	9:00 - 13:40
T1-L05-U06	4.8	9:00 - 13:50	4.8	9:00 - 13:50
T1-L05-U07	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L05-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50
T1-L05-U09	0.0	N/A	0.0	N/A
T1-L05-U10	0.2	14:50 - 15:00	0.2	14:50 - 15:00
T1-L05-U11	0.0	N/A	0.0	N/A
T1-L05-U12	0.0	N/A	0.0	N/A
T1-L05-U13	0.8	14:10 - 15:00	0.7	14:20 - 15:00
T1-L06-U01	3.5	9:00 - 12:30	4.0	9:00-12:30 and 14:30-15:00
T1-L06-U02	4.5	9:00 - 13:30	4.3	9:00 - 13:20
T1-L06-U03	4.5	9:00 - 13:30	4.7	9:00 - 13:40
T1-L06-U04	4.7	9:00 - 13:40	4.2	9:00 - 13:10
T1-L06-U05	4.8	9:00 - 13:50	4.7	9:00 - 13:40
T1-L06-U06	4.8	9:00 - 13:50	4.8	9:00 - 13:50
T1-L06-U07	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L06-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50

Table 1: Solar Access for Each Residential Apartment (cont.)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T1-L06-U09	0.0	N/A	0.0	N/A
T1-L06-U10	0.2	14:50 - 15:00	0.2	14:50 - 15:00
T1-L06-U11	0.0	N/A	0.0	N/A
T1-L06-U12	0.0	N/A	0.0	N/A
T1-L06-U13	0.8	14:10 - 15:00	0.8	14:10 - 15:00
T1-L07-U01	3.5	9:00 - 12:30	4.0	9:00-12:30 and 14:30-15:00
T1-L07-U02	4.5	9:00 - 13:30	4.3	9:00 - 13:20
T1-L07-U03	4.5	9:00 - 13:30	4.7	9:00 - 13:40
T1-L07-U04	4.7	9:00 - 13:40	4.2	9:00 - 13:10
T1-L07-U05	5.0	9:00 - 14:00	4.7	9:00 - 13:40
T1-L07-U06	5.0	9:00 - 14:00	5.0	9:00 - 14:00
T1-L07-U07	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L07-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50
T1-L07-U09	0.0	N/A	0.0	N/A
T1-L07-U10	0.2	14:50 - 15:00	0.2	14:50 - 15:00
T1-L07-U11	0.0	N/A	0.0	N/A
T1-L07-U12	0.0	N/A	0.0	N/A
T1-L07-U13	0.8	14:10 - 15:00	0.8	14:10 - 15:00
T1-L08-U01	3.5	9:00 - 12:30	4.0	9:00-12:30 and 14:30-15:00
T1-L08-U02	4.5	9:00 - 13:30	4.3	9:00 - 13:20
T1-L08-U03	4.7	9:00 - 13:40	4.7	9:00 - 13:40
T1-L08-U04	4.8	9:00 - 13:50	4.2	9:00 - 13:10
T1-L08-U05	5.0	9:00 - 14:00	4.8	9:00 - 13:50
T1-L08-U06	5.0	9:00 - 14:00	5.0	9:00 - 14:00
T1-L08-U07	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L08-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50
T1-L08-U09	0.0	N/A	0.0	N/A
T1-L08-U10	0.2	14:50 - 15:00	0.2	14:50 - 15:00
T1-L08-U11	0.0	N/A	0.0	N/A
T1-L08-U12	0.0	N/A	0.0	N/A
T1-L08-U13	0.8	14:10 - 15:00	0.8	14:10 - 15:00
T1-L09-U01	3.5	9:00 - 12:30	4.0	9:00-12:30 and 14:30-15:00
T1-L09-U02	4.5	9:00 - 13:30	4.3	9:00 - 13:20
T1-L09-U03	4.7	9:00 - 13:40	4.7	9:00 - 13:40

Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T1-L09-U04	4.8	9:00 - 13:50	4.2	9:00 - 13:10
T1-L09-U05	5.0	9:00 - 14:00	4.8	9:00 - 13:50
T1-L09-U06	5.0	9:00 - 14:00	5.2	9:00 - 14:10
T1-L09-U07	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L09-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50
T1-L09-U09	0.0	N/A	0.0	N/A
T1-L09-U10	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L09-U11	0.0	N/A	0.0	N/A
T1-L09-U12	0.0	N/A	0.0	N/A
T1-L09-U13	0.8	14:10 - 15:00	0.8	14:10 - 15:00
T1-L10-U01	3.8	9:00 - 12:50	4.5	9:00-12:50 and 14:20-15:00
T1-L10-U02	4.7	9:00 - 13:40	4.3	9:00 - 13:20
T1-L10-U03	4.8	9:00 - 13:50	4.8	9:00 - 13:50
T1-L10-U04	4.8	9:00 - 13:50	4.2	9:00 - 13:10
T1-L10-U05	5.2	9:00 - 14:10	4.8	9:00 - 13:50
T1-L10-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L10-U07	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L10-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50
T1-L10-U09	0.0	N/A	0.0	N/A
T1-L10-U10	0.8	14:10 - 15:00	0.8	14:10 - 15:00
T1-L10-U11	0.0	N/A	0.0	N/A
T1-L10-U12	0.0	N/A	0.3	14:40 - 15:00
T1-L10-U13	0.8	14:10 - 15:00	0.8	14:10 - 15:00
T1-L11-U01	3.8	9:00 - 12:50	5.0	9:00-12:50 and 13:50-15:00
T1-L11-U02	4.8	9:00 - 13:50	5.0	9:00-13:40 and 14:40-15:00
T1-L11-U03	4.8	9:00 - 13:50	5.0	9:00 - 14:00
T1-L11-U04	5.0	9:00 - 14:00	4.2	9:00 - 13:10
T1-L11-U05	5.3	9:00 - 14:20	5.0	9:00 - 14:00
T1-L11-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L11-U07	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L11-U08	3.2	9:00 - 12:10	3.8	9:00 - 12:50
T1-L11-U09	0.0	N/A	0.0	N/A
T1-L11-U10	0.5	14:30 - 15:00	0.7	14:20 - 15:00
T1-L11-U11	0.0	N/A	0.0	N/A

Table 1: Solar Access for Each Residential Apartment (cont.)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T1-L11-U12	0.0	N/A	0.2	14:50 - 15:00
T1-L11-U13	0.8	14:10 - 15:00	0.7	14:20 - 15:00
T1-L12-U01	5.8	9:00-13:20 and 13:30-15:00	5.3	9:00-13:30 and 14:10-15:00
T1-L12-U02	5.0	9:00-13:40 and 14:40-15:00	5.3	9:00-13:50 and 14:30-15:00
T1-L12-U03	5.0	9:00 - 14:00	4.8	9:00 - 13:50
T1-L12-U04	5.0	9:00 - 14:00	4.5	9:00 - 13:30
T1-L12-U05	5.3	9:00 - 14:20	4.8	9:00 - 13:50
T1-L12-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L12-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L12-U08	0.0	N/A	0.0	N/A
T1-L12-U09	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L12-U10	0.0	N/A	0.0	N/A
T1-L12-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L13-U01	6.0	9:00 - 15:00	5.5	9:00-13:40 and 14:10-15:00
T1-L13-U02	5.5	9:00-14:00 and 14:30-15:00	5.3	9:00-14:00 and 14:40-15:00
T1-L13-U03	5.3	9:00 - 14:20	5.2	9:00 - 14:10
T1-L13-U04	5.0	9:00 - 14:00	4.5	9:00 - 13:30
T1-L13-U05	5.3	9:00 - 14:20	5.0	9:00 - 14:00
T1-L13-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L13-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L13-U08	0.0	N/A	0.0	N/A
T1-L13-U09	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L13-U10	0.0	N/A	0.0	N/A
T1-L13-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L14-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L14-U02	5.8	9:00-14:20 and 14:30-15:00	5.7	9:00-14:10 and 14:30-15:00
T1-L14-U03	5.7	9:00-14:30 and 14:50-15:00	5.5	9:00 - 14:30
T1-L14-U04	5.0	9:00 - 14:00	4.5	9:00 - 13:30
T1-L14-U05	5.3	9:00 - 14:20	4.8	9:00 - 13:50
T1-L14-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L14-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L14-U08	0.0	N/A	0.0	N/A

Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T1-L14-U09	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L14-U10	0.0	N/A	0.0	N/A
T1-L14-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L15-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L15-U02	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L15-U03	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L15-U04	5.0	9:00 - 14:00	4.5	9:00 - 13:30
T1-L15-U05	5.3	9:00 - 14:20	5.0	9:00 - 14:00
T1-L15-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L15-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L15-U08	0.0	N/A	0.0	N/A
T1-L15-U09	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L15-U10	0.0	N/A	0.0	N/A
T1-L15-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L16-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L16-U02	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L16-U03	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L16-U04	5.0	9:00 - 14:00	4.5	9:00 - 13:30
T1-L16-U05	5.3	9:00 - 14:20	4.8	9:00 - 13:50
T1-L16-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L16-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L16-U08	0.0	N/A	0.0	N/A
T1-L16-U09	0.9	14:03 - 15:00	0.8	14:10 - 15:00
T1-L16-U10	0.0	N/A	0.0	N/A
T1-L16-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L17-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L17-U02	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L17-U03	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L17-U04	5.2	9:00 - 14:10	4.5	9:00 - 13:30
T1-L17-U05	5.3	9:00 - 14:20	4.8	9:00 - 13:50
T1-L17-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L17-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L17-U08	0.0	N/A	0.0	N/A
T1-L17-U09	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L17-U10	0.0	N/A	0.0	N/A
T1-L17-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00

Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T1-L18-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L18-U02	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L18-U03	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L18-U04	5.0	9:00 - 14:00	4.5	9:00 - 13:30
T1-L18-U05	5.3	9:00 - 14:20	4.8	9:00 - 13:50
T1-L18-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L18-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L18-U08	0.0	N/A	0.0	N/A
T1-L18-U09	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L18-U10	0.0	N/A	0.0	N/A
T1-L18-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L19-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L19-U02	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L19-U03	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L19-U04	5.0	9:00 - 14:00	4.5	9:00 - 13:30
T1-L19-U05	5.3	9:00 - 14:20	4.8	9:00 - 13:50
T1-L19-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L19-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L19-U08	0.0	N/A	0.0	N/A
T1-L19-U09	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L19-U10	0.0	N/A	0.0	N/A
T1-L19-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L20-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L20-U02	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L20-U03	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L20-U04	5.0	9:00 - 14:00	4.5	9:00 - 13:30
T1-L20-U05	5.5	9:00 - 14:30	4.8	9:00 - 13:50
T1-L20-U06	5.2	9:00 - 14:10	5.2	9:00 - 14:10
T1-L20-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L20-U08	0.0	N/A	0.0	N/A
T1-L20-U09	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L20-U10	0.0	N/A	0.0	N/A
T1-L20-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L21-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L21-U02	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L21-U03	6.0	9:00 - 15:00	6.0	9:00 - 15:00

Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T1-L21-U04	5.0	9:00 - 14:00	4.5	9:00 - 13:30
T1-L21-U05	5.7	9:00 - 14:40	4.8	9:00 - 13:50
T1-L21-U06	5.7	9:00 - 14:40	5.2	9:00 - 14:10
T1-L21-U07	4.5	9:00 - 13:30	4.2	9:00 - 13:10
T1-L21-U08	0.0	N/A	0.0	N/A
T1-L21-U09	0.5	14:30 - 15:00	0.8	14:10 - 15:00
T1-L21-U10	0.0	N/A	0.0	N/A
T1-L21-U11	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L22-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L22-U02	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L22-U03	6.0	9:00 - 15:00	4.5	9:00 - 13:30
T1-L22-U04	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L22-U05	5.7	9:00 - 14:40	5.2	9:00 - 14:10
T1-L22-U06	1.8	9:00 - 10:50	3.7	9:00 - 12:40
T1-L22-U07	0.7	14:20 - 15:00	0.8	14:10 - 15:00
T1-L22-U08	0.0	N/A	0.0	N/A
T1-L22-U09	0.8	14:10 - 15:00	0.3	14:40 - 15:00
T1-L23-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L23-U02	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L23-U03	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L23-U04	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T1-L23-U05	5.3	9:00 - 14:20	5.7	9:00 - 14:40
T1-L23-U06	4.8	9:00 - 13:50	4.3	9:00 - 13:20
T1-L23-U07	2.2	9:00 - 11:10	3.8	9:00 - 12:50
T1-L23-U08	0.0	N/A	0.7	14:20 - 15:00
T1-L23-U09	0.2	14:50 - 15:00	0.0	N/A
T1-L23-U10	0.5	14:30 - 15:00	0.7	14:20 - 15:00
T2-L01-U01	3.3	9:00-11:50 and 14:30-15:00	4.0	9:00-12:10 and 14:10-15:00
T2-L01-U02	3.8	9:00 - 12:50	3.8	9:00 - 12:50
T2-L01-U03	3.0	9:00 - 12:00	3.8	9:00 - 12:50
T2-L01-U04	1.7	9:00 - 10:40	3.5	9:00 - 12:30
T2-L01-U05	1.0	9:00 - 10:00	0.7	9:00 - 9:40
T2-L02-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L02-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L02-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00

**Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)**

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L02-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L02-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L02-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L02-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L02-U08	0.0	N/A	0.0	N/A
T2-L02-U09	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L02-U10	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L02-U11	1.8	13:10 - 15:00	1.7	13:20 - 15:00
T2-L02-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L03-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L03-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L03-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L03-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L03-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L03-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L03-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L03-U08	0.0	N/A	0.0	N/A
T2-L03-U09	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L03-U10	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L03-U11	1.8	13:10 - 15:00	1.7	13:20 - 15:00
T2-L03-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L04-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L04-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L04-U03	2.5	9:00 - 11:30	2.7	9:00 - 11:40
T2-L04-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L04-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L04-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L04-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L04-U08	0.0	N/A	0.0	N/A
T2-L04-U09	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L04-U10	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L04-U11	1.8	13:10 - 15:00	1.7	13:20 - 15:00

Table 1: Solar Access for Each Residential Apartment (cont.)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L04-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L05-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L05-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L05-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L05-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L05-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L05-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L05-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L05-U08	0.0	N/A	0.0	N/A
T2-L05-U09	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L05-U10	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L05-U11	1.8	13:10 - 15:00	1.7	13:20 - 15:00
T2-L05-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L06-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L06-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L06-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L06-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L06-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L06-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L06-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L06-U08	0.0	N/A	0.0	N/A
T2-L06-U09	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L06-U10	2.0	13:00 - 15:00	1.8	13:10 - 15:00
T2-L06-U11	1.8	13:10 - 15:00	1.7	13:20 - 15:00
T2-L06-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L07-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L07-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L07-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L07-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L07-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L07-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L07-U07	0.7	9:00 - 9:40	0.0	N/A

Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L07-U08	0.0	N/A	0.0	N/A
T2-L07-U09	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L07-U10	2.0	13:00 - 15:00	2.0	13:00 - 15:00
T2-L07-U11	1.8	13:10 - 15:00	1.7	13:20 - 15:00
T2-L07-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L08-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L08-U02	3.3	9:00 - 12:20	3.0	9:00 - 12:00
T2-L08-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L08-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L08-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L08-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L08-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L08-U08	0.0	N/A	0.0	N/A
T2-L08-U09	2.2	12:50 - 15:00	2.2	12:50 - 15:00
T2-L08-U10	2.0	13:00 - 15:00	1.8	13:10 - 15:00
T2-L08-U11	1.8	13:10 - 15:00	1.7	13:20 - 15:00
T2-L08-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L09-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L09-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L09-U03	2.5	9:00 - 11:30	2.7	9:00 - 11:40
T2-L09-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L09-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L09-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L09-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L09-U08	0.0	N/A	0.0	N/A
T2-L09-U09	2.3	12:40 - 15:00	2.2	12:50 - 15:00
T2-L09-U10	2.2	12:50 - 15:00	2.0	13:00 - 15:00
T2-L09-U11	1.8	13:10 - 15:00	1.7	13:20 - 15:00
T2-L09-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L10-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L10-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L10-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00

Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L10-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L10-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L10-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L10-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L10-U08	0.0	N/A	0.0	N/A
T2-L10-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L10-U10	2.3	12:40 - 15:00	2.0	13:00 - 15:00
T2-L10-U11	2.0	13:00 - 15:00	1.7	13:20 - 15:00
T2-L10-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L11-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L11-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L11-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L11-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L11-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L11-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L11-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L11-U08	0.0	N/A	0.0	N/A
T2-L11-U09	2.7	12:20 - 15:00	2.2	12:50 - 15:00
T2-L11-U10	2.7	12:20 - 15:00	2.3	12:40 - 15:00
T2-L11-U11	2.0	13:00 - 15:00	1.8	13:10 - 15:00
T2-L11-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L12-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L12-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L12-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L12-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L12-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L12-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L12-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L12-U08	0.0	N/A	0.0	N/A
T2-L12-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L12-U10	2.8	12:10 - 15:00	2.7	12:20 - 15:00
T2-L12-U11	2.2	12:50 - 15:00	1.8	13:10 - 15:00

Table 1: Solar Access for Each Residential Apartment (cont.)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L12-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L13-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L13-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L13-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L13-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L13-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L13-U06	2.8	9:00 - 11:50	0.8	9:00 - 9:50
T2-L13-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L13-U08	0.0	N/A	2.2	12:50 - 15:00
T2-L13-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L13-U10	3.0	12:00 - 15:00	2.8	12:10 - 15:00
T2-L13-U11	2.7	12:20 - 15:00	2.2	12:50 - 15:00
T2-L13-U12	2.3	10:00-10:50 and 13:30-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L14-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L14-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L14-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L14-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L14-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L14-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L14-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L14-U08	0.0	N/A	0.0	N/A
T2-L14-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L14-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L14-U11	3.0	12:00 - 15:00	2.2	12:50 - 15:00
T2-L14-U12	2.5	10:00-10:50 and 13:20-15:00	2.2	10:20-10:50 and 13:20-15:00
T2-L15-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L15-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L15-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L15-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L15-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L15-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L15-U07	0.7	9:00 - 9:40	0.0	N/A

Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L15-U08	0.0	N/A	0.0	N/A
T2-L15-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L15-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L15-U11	3.0	12:00 - 15:00	2.2	12:50 - 15:00
T2-L15-U12	3.0	10:00-11:00 and 13:00-15:00	3.2	10:10-10:50 and 12:30-15:00
T2-L16-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L16-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L16-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L16-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L16-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L16-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L16-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L16-U08	0.0	N/A	0.0	N/A
T2-L16-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L16-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L16-U11	3.0	12:00 - 15:00	2.2	12:50 - 15:00
T2-L16-U12	3.3	10:00-11:00 and 12:40-15:00	3.2	10:10-10:50 and 12:30-15:00
T2-L17-U01	3.2	9:00 - 12:10	4.0	9:00-12:10 and 14:10-15:00
T2-L17-U02	3.3	9:00 - 12:20	3.8	9:00 - 12:50
T2-L17-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L17-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L17-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L17-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L17-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L17-U08	0.0	N/A	0.0	N/A
T2-L17-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L17-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L17-U11	3.0	12:00 - 15:00	2.2	12:50 - 15:00
T2-L17-U12	4.0	10:10-11:00 and 11:50-15:00	3.2	11:50 - 15:00
T2-L18-U01	3.2	9:00 - 12:10	4.1	9:00-12:10 and 14:00-15:00
T2-L18-U02	3.3	9:00 - 12:20	4.0	9:00 - 13:00
T2-L18-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00

Table 1: Solar Access for Each Residential Apartment (cont.)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L18-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L18-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L18-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L18-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L18-U08	0.0	N/A	0.0	N/A
T2-L18-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L18-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L18-U11	3.0	12:00 - 15:00	2.2	12:50 - 15:00
T2-L18-U12	4.8	10:10 - 15:00	4.3	10:45 - 15:00
T2-L19-U01	3.3	9:00 - 12:20	4.5	9:00-12:10 and 13:40-15:00
T2-L19-U02	3.3	9:00 - 12:20	4.2	9:00 - 13:10
T2-L19-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L19-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L19-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L19-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L19-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L19-U08	0.0	N/A	0.0	N/A
T2-L19-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L19-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L19-U11	3.0	12:00 - 15:00	2.2	12:50 - 15:00
T2-L19-U12	4.8	10:10 - 15:00	4.2	10:50 - 15:00
T2-L20-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L20-U02	3.3	9:00 - 12:20	4.8	9:00-13:40 and 14:50-15:00
T2-L20-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L20-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L20-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L20-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L20-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L20-U08	0.0	N/A	0.0	N/A
T2-L20-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L20-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L20-U11	3.0	12:00 - 15:00	2.2	12:50 - 15:00
T2-L20-U12	4.8	10:10 - 15:00	3.2	11:50 - 15:00
T2-L21-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L21-U02	3.3	9:00 - 12:20	6.0	9:00 - 15:00

Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L21-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L21-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L21-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L21-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L21-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L21-U08	0.0	N/A	0.0	N/A
T2-L21-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L21-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L21-U11	3.0	12:00 - 15:00	2.2	12:50 - 15:00
T2-L21-U12	5.0	10:00 - 15:00	4.2	10:50 - 15:00
T2-L22-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L22-U02	3.3	9:00 - 12:20	6.0	9:00 - 15:00
T2-L22-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L22-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L22-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L22-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L22-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L22-U08	0.0	N/A	0.0	N/A
T2-L22-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L22-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L22-U11	3.3	11:40 - 15:00	2.2	12:50 - 15:00
T2-L22-U12	5.0	10:00 - 15:00	4.2	10:50 - 15:00
T2-L23-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L23-U02	3.3	9:00 - 12:20	6.0	9:00 - 15:00
T2-L23-U03	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L23-U04	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L23-U05	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L23-U06	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L23-U07	0.7	9:00 - 9:40	0.0	N/A
T2-L23-U08	0.0	N/A	0.0	N/A
T2-L23-U09	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L23-U10	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L23-U11	3.3	11:40 - 15:00	3.3	11:40 - 15:00
T2-L23-U12	4.8	10:10 - 15:00	4.2	10:50 - 15:00
T2-L24-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L24-U02	2.5	9:00 - 11:30	3.0	9:00 - 12:00

Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L24-U03	2.3	9:00 - 11:20	2.0	9:00 - 11:00
T2-L24-U04	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L24-U05	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L24-U06	0.7	9:00 - 9:40	0.0	N/A
T2-L24-U07	0.0	N/A	0.0	N/A
T2-L24-U08	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L24-U09	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L24-U10	3.3	11:40 - 15:00	3.3	11:40 - 15:00
T2-L24-U11	4.0	11:00 - 15:00	5.7	9:20 - 15:00
T2-L25-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L25-U02	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L25-U03	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L25-U04	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L25-U05	0.7	9:00 - 9:40	0.0	N/A
T2-L25-U06	0.0	N/A	0.0	N/A
T2-L25-U07	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L25-U08	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L25-U09	3.3	11:40 - 15:00	3.3	11:40 - 15:00
T2-L25-U10	4.5	10:30 - 15:00	4.0	11:00 - 15:00
T2-L26-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L26-U02	2.5	9:00 - 11:30	3.0	9:00 - 12:00
T2-L26-U03	2.0	9:00 - 11:00	2.0	9:00 - 11:00
T2-L26-U04	2.8	9:00 - 11:50	3.0	9:00 - 12:00
T2-L26-U05	0.7	9:00 - 9:40	0.0	N/A
T2-L26-U06	0.0	N/A	0.0	N/A
T2-L26-U07	2.5	12:30 - 15:00	2.2	12:50 - 15:00
T2-L26-U08	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L26-U09	3.3	11:40 - 15:00	3.3	11:40 - 15:00
T2-L26-U10	4.5	10:30 - 15:00	4.0	11:00 - 15:00
T2-L27-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L27-U02	2.3	9:00 - 11:20	3.0	9:00 - 12:00
T2-L27-U03	0.3	9:00 - 9:20	2.0	9:00 - 11:00
T2-L27-U04	0.7	9:00 - 9:40	2.0	9:00 - 11:00
T2-L27-U05	3.0	12:00 - 15:00	3.2	11:50 - 15:00
T2-L27-U06	3.3	11:40 - 15:00	3.3	11:40 - 15:00
T2-L27-U07	4.5	10:30 - 15:00	4.0	11:00 - 15:00

**Table 1: Solar Access for Each Residential Apartment (cont..)
(between 9am and 3pm in the mid-winter solstice)**

Unit Number	Living Areas		Private Open Spaces	
	Number of Hours	Times of Occurrence	Number of Hours	Times of Occurrence
T2-L28-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L28-U02	2.3	9:00 - 11:20	3.0	9:00 - 12:00
T2-L28-U03	0.3	9:00 - 9:20	2.0	9:00 - 11:00
T2-L28-U04	1.0	9:00 - 10:00	0.0	N/A
T2-L28-U05	3.0	12:00 - 15:00	3.2	11:50 - 15:00
T2-L28-U06	3.3	11:40 - 15:00	3.3	11:40 - 15:00
T2-L28-U07	4.5	10:30 - 15:00	4.0	11:00 - 15:00
T2-L29-U01	6.0	9:00 - 15:00	6.0	9:00 - 15:00
T2-L29-U02	2.3	9:00 - 11:20	3.0	9:00 - 12:00
T2-L29-U03	0.3	9:00 - 9:20	2.0	9:00 - 11:00
T2-L29-U04	1.2	9:00 - 10:10	0.0	N/A
T2-L29-U05	3.0	12:00 - 15:00	3.0	12:00 - 15:00
T2-L29-U06	3.3	11:40 - 15:00	3.3	11:40 - 15:00
T2-L29-U07	4.5	10:30 - 15:00	4.0	11:00 - 15:00

Appendix

Images of Direct Solar Access for the Proposed Development



Figure A1: Eastern Aspects – 9am, June 21

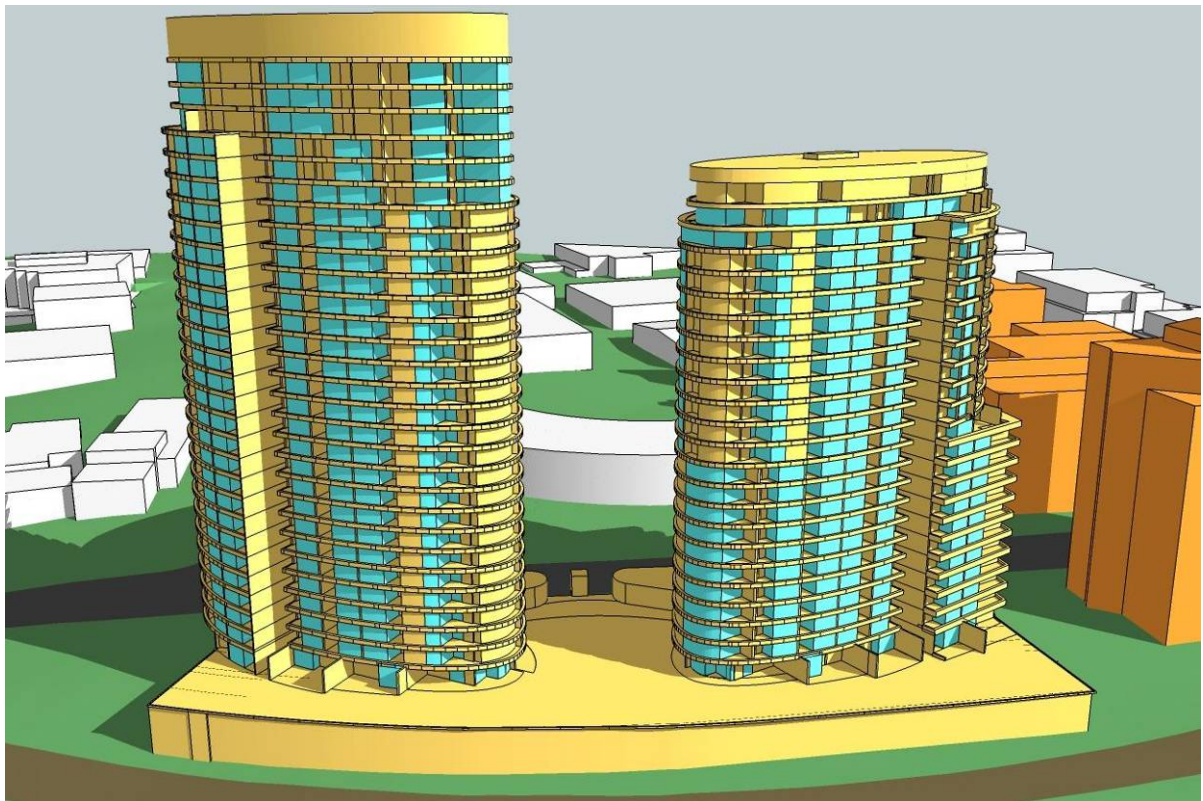


Figure A2: Eastern Aspects – 11am, June 21

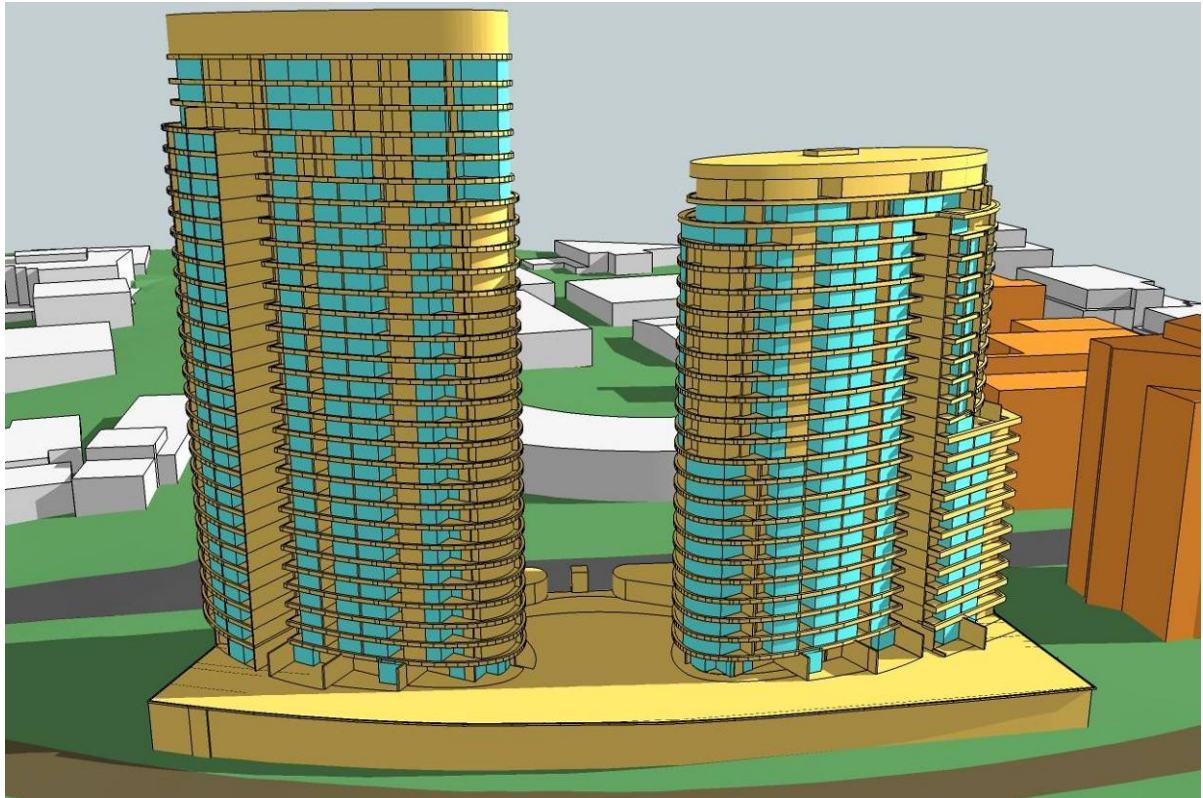


Figure A3: Eastern Aspects – 1pm, June 21



Figure A4: Eastern Aspects – 3pm, June 21

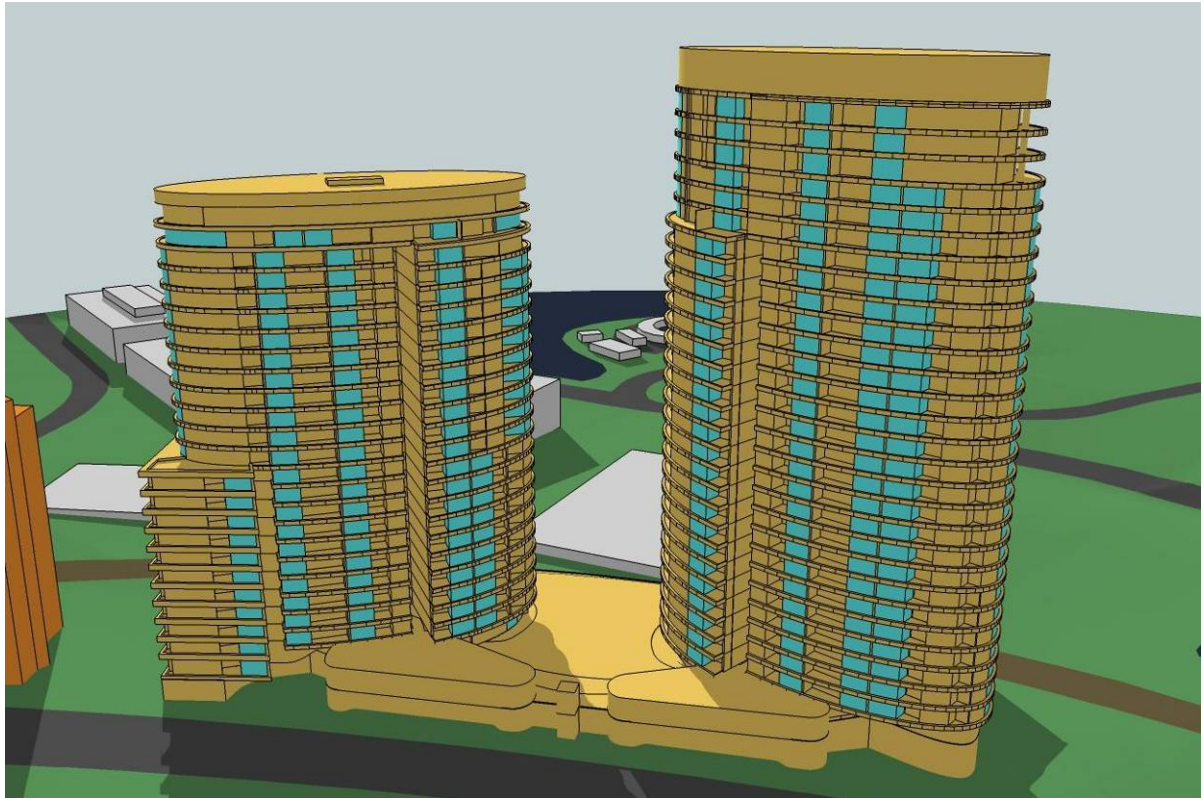


Figure A5: Western Aspects – 9am, June 21

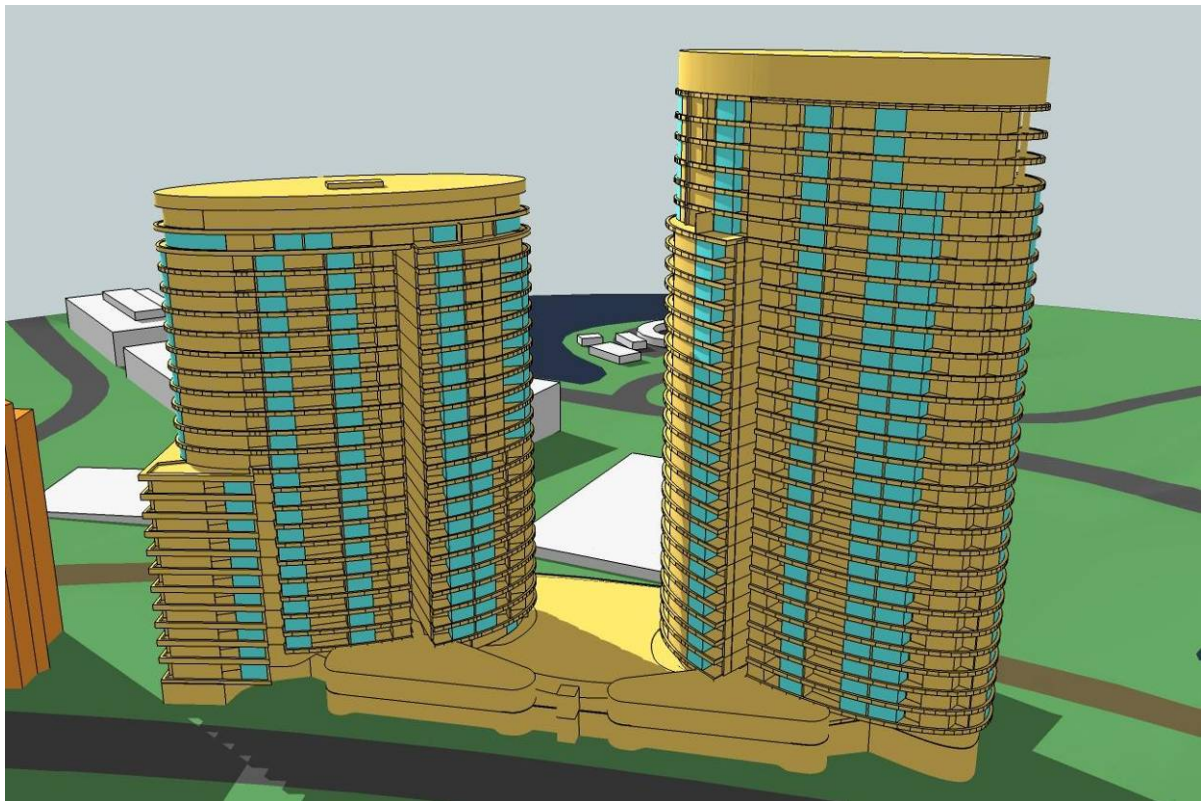


Figure A6: Western Aspects – 11am, June 21

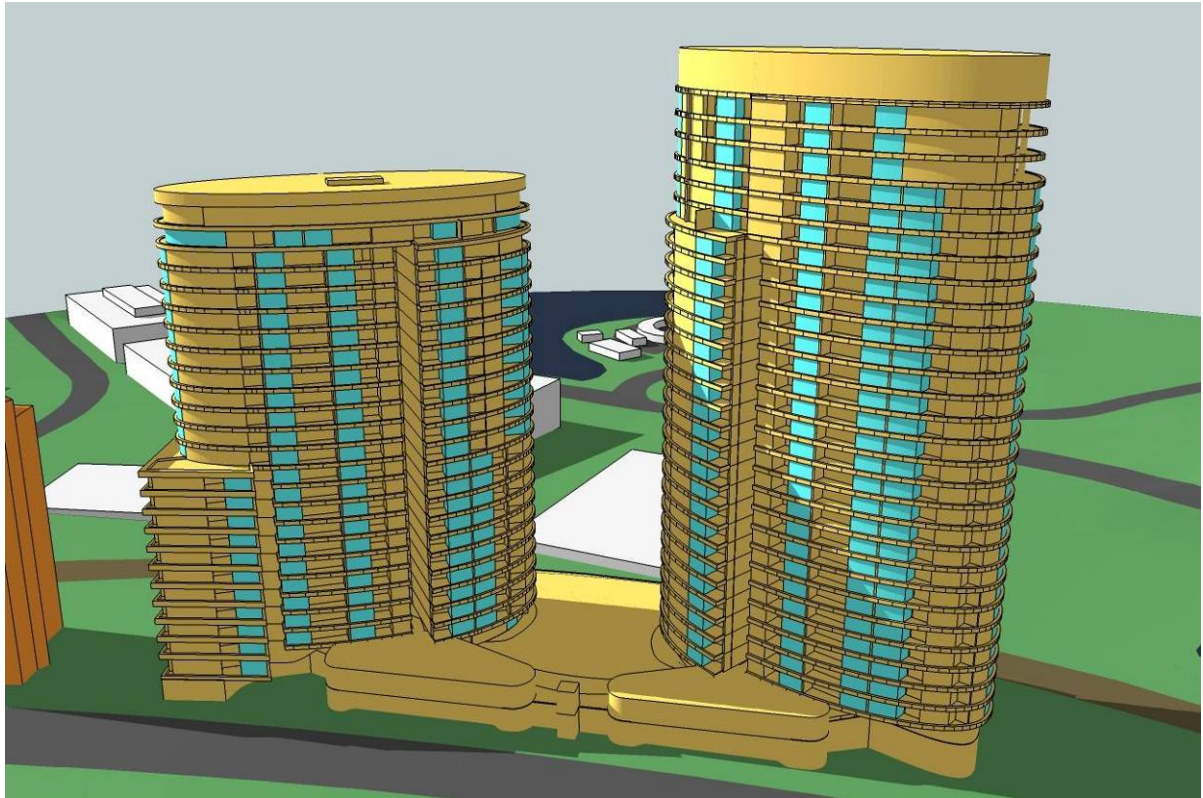


Figure A7: Western Aspects – 1pm, June 21

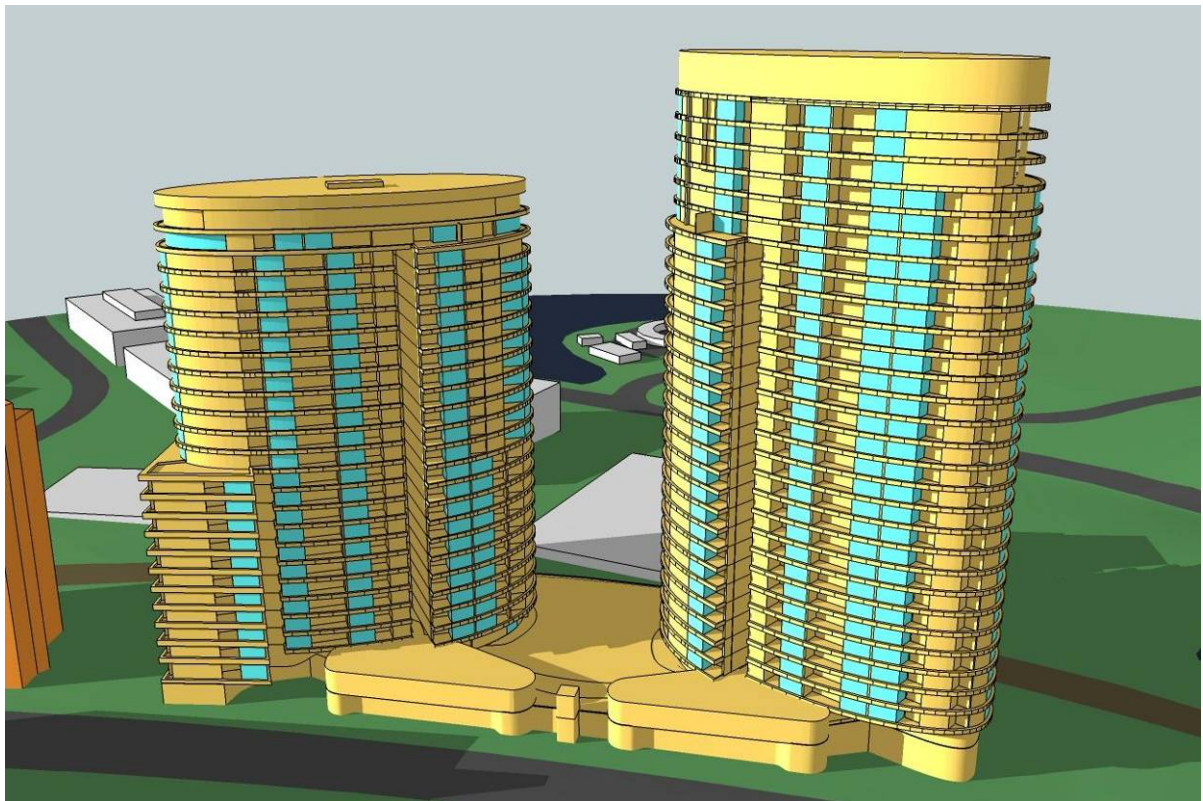


Figure A8: Western Aspects – 3pm, June 21