

17 December 2013

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Dear Tom

# Old Canterbury Road, Lewisham Solar Access to Central Open Space

#### 1 Introduction

SLR Consulting Pty Ltd (SLR) has been commissioned by Meriton Apartments Pty Ltd (Meriton) to assess the environmental impact of the approved concept plan of the proposed development at Old Canterbury Road, Lewisham with respect to solar access to the Central Open Space (COS) to the south.

#### 1.1 Site Description

The development site is bounded to the north by Longport Street, to the west by Old Canterbury Road and to the south by Hudson Street. There is also a rail line along the western boundary. Low-rise residential premises are located to the east of the site and there are some commercial buildings to the south.



Figure 1 shows the aerial view of the development site location.

## 1.2 Development Description

The proposed development consists of 7 residential blocks, labelled as Building A to G with some commercial tenancies in buildings A and C.

### Figure 2 Development Site Layout



#### 1.3 Solar Access Results and Analysis

## 1.3.1 21<sup>st</sup> of June

Using the approved concept floor plans MP08\_0195, elevations (DWG files) and a 3D DWG model provided by Tony Owen Partners, a solar access model was developed for the proposed development.

The total area for the COS highlighted in green in Figure 3 to Figure 5 is approximately 3000 m<sup>2</sup>.

Shadows from the scheme complying with the approved building envelopes were calculated at the best 2 hours of solar access on the 21<sup>st</sup> of June. Shadow diagrams are shown in **Figure 3** to **Figure 5**.

# Figure 3 Shadow Diagram at 10:00am - Plan View



Figure 4 Shadow Diagram at 11:00am - Plan View



#### Figure 5 Shadow Diagram at 12:00am - Plan View



**Table 1** below shows the areas of the COS with 2 hours of direct sunlight on June 21 and their percentage area of the communal open spaces.

#### Table 1Area of COS with Direct Sunlight on June 21

Time	un-shaded area (m <sup>2</sup> )	%
10.00 am	1136.5	37.9%
11.00 am	1402.6	40.2%
12.00 am	957.1	31.9%

Note 1: The total area of the Central Open Space (COS) is 3000 m<sup>2</sup>

### 1.3.2 March/September 21 (Equinox)

Shadows from the scheme complying with the approved building envelopes were calculated at the best 2 hours of solar access on March/September 21 (Equinox). Shadow diagrams are shown in **Figure 6** to **Figure 8**.

#### Figure 6 Shadow Diagram at 10:00am - Plan View



Figure 7 Shadow Diagram at 11:00am - Plan View



#### Figure 8 Shadow Diagram at 12:00am - Plan View



**Table 1** below shows the areas of the COS with 2 hours of direct sunlight on June 21 and their percentage area of the communal open spaces.

### Table 2 Area of COS with Direct Sunlight on March/September 21

Time	un-shaded area (m <sup>2</sup> )	%
10.00 am	1910.5	63.7%
11.00 am	2075.7	69.6%
12.00 am	2083.2	69.8%

Note 1: The total area of the Central Open Space (COS) is 3000  $\ensuremath{\mathsf{m}}^2$ 

## 2 Conclusions

The Central Open Space (CoS) with a total area of 3000m<sup>2</sup> receives 2 contiguous hours solar access as follows:

#### Approved Concept Floor Plan - Mid-winter (June 21<sup>st</sup>)

- 10.00am (37.9% solar access over the surface of the park);
- 11.00am (40.2% solar access over the surface of the park); and
- 12.00am (31.9% solar access over the surface of the park).

#### Approved Concept Floor Plan - March/September 21 (Equinox)

- 10.00am (63.7% solar access over the surface of the park);
- 11.00am (69.6% solar access over the surface of the park); and
- 12.00am (69.8% solar access over the surface of the park).

Please do not hesitate to call if require any further information.

Yours sincerely

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