

11 April 2019

RJC:KV15-166

The Secretary
NSW Department of Planning and Environment
Level 29, 320 Pitt Street
Sydney NSW 2000

**Attention: Mr. Karl Fetterplace
Senior Planning Officer, Key Sites Assessments**

Dear Karl,

**Re: State Significant Development Application: SSD 7693
InterContinental Hotel and Transport House
Response to request for additional information**

I write with reference to the above application and in response to your email of 22 March 2019 (5:15pm) requesting additional information to assist in your assessment of the development application.

The matters raised in your email are set out in bold type below with our responses thereto interposed as appropriate.

- (a) The shadow diagrams submitted are difficult to interpret. Revised shadow diagrams are to be submitted in a similar format to those prepared by Hassel Architects (example shown below). The shadow diagrams are to be overlayed with an aerial image and any additional overshadowing caused by the proposed building envelope when compared to existing development is to be shown in red.**



Response: Shadow diagrams have been prepared consistent with the previous presentation format as requested by the Department – see Shadow Presentation Items A, B and C provided in **Attachment 1**.

- (b) Shadow diagrams are to be provided in hourly intervals from 9am to 4pm for the winter solstice. In addition, shadow diagrams for half hour intervals are to be provided from 2pm-4pm on winter solstice in order to clearly understand the overshadowing impact to the Royal Botanic Gardens. The extent (i.e. duration and area in m²) of overshadowing to the Royal Botanic Gardens (RBG) shall also be quantified.**

Response: Shadow diagrams have been provided for the requested intervals 9am to 4pm at the Winter Solstice – see Items A (Hourly 9am to 2pm) and B (Hourly and half-hourly 2pm to 4pm).

- (c) Clarify how the increase in overshadowing at 3pm (as shown on Drawing No. ST1-DA_808) is attributed solely to the extension of the building envelope over the Transport House lift motor room (described in Section 4.3 of your letter dated 1 March 2019, as replicated below) and not as a result of the overall building envelope over the Transport House.**

4.3 Shadow Impact

Following revisions to the building envelope of the proposed ballroom a revised shadow drawing has been prepared (see Attachment 6) which shows a small additional area of overshadowing at 3pm on the winter solstice. This results from a small extension to the proposed ballroom building envelope above Transport House Lift Motor Room required for fire egress purposes.

Response: Shadow diagrams have been provided to show that the increase in overshadowing at 3pm is attributed to the extension required for egress via the lift motor room on Transport House only and not the proposed overall building envelope over Transport House – see Item C. Drawing titled Solar Analysis – RBG Shadows 1 and numbered ST1-DA_Addendum 7 Revision A shows the location of the proposed extension required for egress over the lift motor room on Transport House. This drawing also shows the small extent of additional overshadowing on The Royal Botanic Gardens land between Macquarie Street and the Cahill Expressway at 3pm.

In order to further analyse this impact, shadow diagrams have been produced for 10 minute intervals from 2.30pm to 4pm, principally to identify the area of overshadowing as requested by the Department. Drawings titled Solar Analysis – RBG Shadows 2-5 show the location and area extent in square metres of overshadowing for each 10 minute interval. The shadow impact from the emergency egress extension on Transport House is shown in table form overleaf:-

Time	Area of Shadow (m ²)	Location
2.30pm	0m ²	Nil
2.40pm	11m ²	Royal Botanic Gardens
2.50pm	20m ²	Royal Botanic Gardens
3.00pm	12m ²	Royal Botanic Gardens
3.10pm	18m ²	Footpath and road
3.20pm	15m ²	Footpath and road
3.30pm	25m ²	Footpath and road
4.00pm	0m ²	Nil

In summary, this shows that egress extension on Transport House casts a small shadow over The Royal Botanic Gardens site for approximately 30 minutes in mid-winter. The extent of this shadow reaches a maximum area of 20m² at 2.50pm.

It is also noted that this further analysis (using more detailed modelling) shows a very small additional shadow occurring over The Botanic Gardens at approximately 2.30pm in mid-winter – see Drawing Solar Analysis RGB Shadows 2. This is attributed to proposed adjustments to the tower roof and is of such short duration it is not evident by 2.40pm. We do not consider this material but wanted to draw your attention to it nevertheless.

Further Action

If any clarification is needed of our comments set out above, please do not hesitate to contact the undersigned on 9211 4099. Similarly, if any other matters arise from the assessment of the application, we would be pleased to respond further.

Yours faithfully
BBC Consulting Planners



Robert Chambers
Director
 Email bob.chambers@bbcplanners.com.au