

Lend Lease (Millers Point) Pty Ltd
Level 4, 30 The Bond
30 Hickson Rd
Millers Point NSW 2000

Level 10
201 Kent Street
Sydney
NSW 2000
Australia

t +61 2 9320 9320
d +61 2 9320 9658
f +61 2 9320 9321

jorg.kramer@arup.com
arup.com.au

17 February 2012

Dear Sir/Madam

Barangaroo South - Commercial Building C3 - Preferred Project Report Reflectivity Statement

This letter has been prepared by Arup for Lend Lease (Millers Point) Pty Ltd to support the Preferred Project Report (PPR) for the Commercial Building C3. The PPR follows further design development in response to the public and agency submissions received in respect of Project Application MP11_0044 for Commercial Building C3.

The Preferred Project for the C3 building modifies the building design and shape from that of the Project Application submitted in November 2011. The changes include:

- A floor plate with minor layout alterations, mainly to core layout;
- Modified podium facades.

Arup has reviewed the following drawing series prepared in respect of the PPR as below:

- Architectural drawings of Ground Level and above prepared by Rogers Stirk Harbour & Partners (RSHP), Rev B, dated 24 February 2012;
- Architectural drawings of C3 Podium West facades prepared by Tony Caro Architecture (TCA), dated 6 February 2012;
- Architectural drawings of C3 Podium East facades prepared by PTW Architects, dated 9 February 2012.

The Reflectivity Study Report – Rev A (dated 18 October 2011), prepared by Arup to support the original Project Application assessed impact of potential reflections off the building facades, and found that these would not exceed limits of acceptability according to the Hassall methodology adopted in the study.

The findings of the reflectivity study are predominantly dependant on the location and orientation of potentially reflective facade cladding planes. The modifications to the tower layout do not significantly change any angles, sizes and orientations of facade planes relative to external observers.

The proposed Podium facade designs by TCA and PTW show the majority of specular reflective surfaces (glazing) in the planes analysed in the reflectivity study. Exceptions to this such as faceted entrance glazing at the north east corner, set back entrance glazing at south east corner, and operable folding glazing on the east and south elevations, have been assessed by Arup. They have been found to not produce reflections in excess of acceptable limits for any materials within the allowable maximum of 20% external reflectivity. The podium designs additionally introduce significant elements such as non-reflective fins and overhangs blocking reflections, which will further reduce reflections off the facade.

The modifications to C3 as part of the PA submission are therefore within the scope of the original report.

On this basis, Arup is of the opinion that the proposed modification as contained in the PPR submission for MP11_0044 will not result in any glare impact of reflections off the facade in addition to that identified within the Reflectivity Study Report and requires no further investigation or analysis at this stage of planning and design.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Jorg Kramer', with a long horizontal stroke extending to the right.

Jorg Kramer
Facade Consultant