SSD 5878. Sydney International Convention, Exhibition and Entertainment Centre Precinct - Mixed use Development in the Southern Haymarket Precinct (Concept Proposal)

Submission by:

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We object to the application on the following grounds:

1. Overshadowing of neighbouring dwellings

2. Excessive building depth

3. Insufficient building separation

4. Lack of view sharing

5. Conflicts between SSD 5878 and SSD 5752, Sydney International Convention, Exhibition and Entertainment Precinct - Redevelopment of convention centre, exhibition centre, entertainment facilities and associated public domain works

6. Darling Drive will have unacceptable levels of service during the peak

The grounds for each objection are discussed in detail in the following sections.

1. Overshadowing of neighbouring dwellings

Summary

The EIS does not contain sufficient information to assess the number of individual dwellings in neighbouring tall buildings which will be overshadowed at any time, and in particular at the winter solstice. It will be too late by the DA stage to belatedly realise that DCP overshadowing guidelines are far from met for a substantial number of individual dwellings.

Detail

The EIS states that no overshadowing controls are applicable to the proposed development (EIS Section 5.9, page 97). This statement has two aspects:

1. Overshadowing within the site

Some may argue that, due to the lack of overshadowing controls, strictly speaking the project is free to destroy public and internal private amenity within the site as it sees fit. This would be a very short-sighted view. It would clearly be preferable to abide by normally adopted overshadowing guidelines, i.e. those set out in the City of Sydney Development Control Plan 2012. In fact the EIS is complacent about overshadowing within the site. It finds that "the majority of podiums do **not** (emphasis added) receive solar access to at least 50% or more of their area during the winter solstice". (Section 5.9, page 98). Nevertheless, the EIS finds this acceptable on the bizarre grounds that residents and visitors are free to go elsewhere if they want some winter sun, and that winter sun is allegedly less important than summer sun.

2. Overshadowing of areas external to the site

Notwithstanding the lack of overshadowing controls applicable within the development, external impacts should be assessed using the normally applicable guidelines, i.e. those set out in the City of Sydney Development Control Plan 2012 ("the DCP"). These state:

> *" (1) Development sites and neighbouring dwellings are to achieve a minimum of 2 hours direct sunlight between 9am and 3pm on 21 June onto at least 1sqm of living room windows and at least 50% of the minimum amount of private open space.*
>
> *(2) New development must not create any additional overshadowing onto a neighbouring dwelling where that dwelling currently receives less than 2 hours direct sunlight to habitable rooms and 50% of the private open space between 9am and 3pm on 21 June. This control does not apply to windows on a side boundary or only separates from a side boundary or passageway.*

*(3) The development application is to include diagrams in plan **and elevation** (emphasis added) that show the shadow impact of the proposal at 9am, 12 noon, and 3pm at midwinter."*

In fact, contrary to the requirements of the DCP, the overshadowing diagrams in the EIS are in plan only (Appendix J, pages 74 - 80). The EIS does not include any overshadowing diagrams in elevation. Therefore it is impossible to assess the extent of overshadowing of individual neighbouring dwellings within tall buildings, i.e. The Peak and The Quay. For example, it is very likely that dwellings in the lower floors of North and West facades of these buildings will receive less than 2 hours direct sunlight to habitable rooms between 9am and 3pm on 21 June. This may also be the case for medium-level floors. It is impossible to tell from the incomplete information contained in the EIS. The EIS does not contain sufficient information to assess the number of individual dwellings in neighbouring tall buildings which will be overshadowed at any time, and in particular at the winter solstice. In the absence of diagrams in elevation, the EIS simply makes the global statement that "The Peak Apartments residential tower (north and west facades only) would be partially overshadowed by the Concept Proposal in the late afternoon at the winter solstice." No information is given to allow assessment of the number of individual dwellings which will no longer meet the DCP guidelines. The EIS says nothing about shadowing of The Quay apartments. That is not good enough. The EIS should have contained overshadowing diagrams in elevation and a detailed analysis of the impact on dwellings in large facades. It will be too late by the DA stage to belatedly realise that DCP overshadowing guidelines are far from met for a substantial number of individual dwellings.

With respect to the podium of The Peak Apartments, the EIS states that "The landscaped podium will continue to receive at least 2 hours of daylight access (on 21 June), assuring compliance with the intent of the DCP". Although this statement is true, 2 hours is a major reduction from the existing 21 June daylight access of about 6 hours. Also, the diagrams on page 78 of Appendix J show that on 21 June the majority of the podium is shaded from 1400, not from 1500 as stated in the accompanying text.

The EIS notes "significant overshadowing impacts to the Powerhouse Museum courtyard" but states, without providing any evidence, that "the playground is identified as potentially being redeveloped in the future for a non-residential use" , as if that somehow removed the desirability of avoiding shadowing of open space which is currently public, and may well in future in fact be residential.

2. Excessive Building Depth

Summary

Each of the nine buildings has a proposed depth greater than the maximum 18 metres specified in the Residential Flat Design Code, and the developer fails to address the specific criteria in the Code under which the maximum may be exceeded.

Detail

The proposed building depths of the nine buildings are given in section 5.6.4 on page 88 of the EIS. They range from 19 metres to 24 metres.

The relevant controls are the Building Depth Controls in the Residential Flat Design Code (RFDC). They state on page 26:

• *Whether there is a building envelope or not, the maximum internal plan depth of a building should be 18 metres from glass line to glass line.*

• *The 18 metre guideline generally applies to street wall buildings, buildings with dual and opposite aspect and buildings with minimal side setbacks.*

• *Freestanding buildings (the big house or tower building types) may have greater depth than 18 metres only if they still achieve satisfactory daylight and natural ventilation. Use building depth in combination with other controls to ensure adequate amenity for building occupants. For example, a deeper plan may be acceptable where higher floor to ceiling heights allow sun access or where apartments have a wider frontage*

And on page 27 they state:

- *In general, an apartment building depth of 10-18 metres is appropriate. Developments that propose wider than 18 metres must demonstrate how satisfactory daylighting and natural ventilation are to be achieved.*

The rationale for the Controls is as follows (page 26):

Control over building depth is important as the depth of a building will have a significant impact on residential amenity for the building occupants. In general, narrow cross-section buildings have the potential for dual aspect apartments with natural ventilation and optimal daylight access to internal spaces.

It can be seen that each of the nine buildings has a proposed depth greater than the 18 metre guideline. The largest excess is 6 metres, which is 33% above the 18 metre guideline, but which the EIS describes as being a "relatively minor variation".

It is incumbent upon the developer to demonstrate why deeper plans than the guideline of 18 metres are acceptable in each of the nine buildings. Are higher floor to ceiling heights being proposed? Are wider frontages being proposed? The EIS is silent on these issues. Rather than addressing the specific criteria in the Controls under which deeper plans than 18 metres may be approved, the EIS simply makes the following vague promises:

EIS vague promise	Comment by this submission
"The building depths do not preclude the future buildings from achieving compliance with the solar access 'Rules of Thumb' from a whole of precinct perspective." (Section 5.6.4, page 88)	What does this mean? Does it mean that some buildings will have such outstanding solar access that residents in other buildings will be happy to have poor solar access in their building?
"The proposed building envelopes will achieve a high standard of residential amenity." (Section 5.6.4, page 88)	This vague statement remains to be proven. Prima facie a depth of greater than 18 metres does not provide a high standard of residential amenity.
"The extent of building depth variation is minor (generally being between 2m and 6m) and is considered to be acceptable given that the indicative scheme has demonstrated compliance with other key RFDC objectives." (Section 5.6.4, page 89)	It is surprising that the developer considers a 6 metre variation to be minor. It is 33% more than the 18 metre guideline. The developer is also suggesting here that one RFDC objective can be traded off against other objectives. However there is no provision in the RFDC for one objective to be traded off against other objectives.

3. Insufficient Building Separation

Summary

Within the site, there are 14 separations between buildings. Of these 14 separations, the proposed distances in eight are non-compliant. With the proposed separations in those eight, it is impossible to achieve the intent of the Residential Flat Design Code separation guidelines by detailed designs or any other method.

There is also a non-compliant proposed separation between the NE plot and the Holiday Inn at 68 Harbour St.

Detail

The relevant controls for building separation are the Residential Flat Design Code (RFDC) Primary Development Controls - Building Separation. The objectives and controls are on Page 26 of the RFDC.

Objectives

• *"To ensure that new development is scaled to support the desired area character with appropriate massing and spaces between buildings.*

• *To provide visual and acoustic privacy for existing and new residents.*

• *To control overshadowing of adjacent properties and private or shared open space.*

• *To allow for the provision of open space with appropriate size and proportion for recreational activities for building occupants.*

• *To provide deep soil zones for stormwater management and tree planting, where contextual and site conditions allow."*

Controls

"For buildings over three storeys, it is recommended that building separation increase in proportion to building height to ensure appropriate urban form, adequate amenity and privacy for building occupants. Suggested dimensions within a development, for internal courtyards and between adjoining sites are:

- up to four storeys/12 metres

- 12 metres between habitable rooms/balconies

- 9 metres between habitable/balconies and non-habitable rooms

- 6 metres between non-habitable rooms

- five to eight storeys/up to 25 metres

- 18 metres between habitable rooms/balconies

- 13 metres between habitable rooms/balconies and non-habitable rooms

- 9 metres between non-habitable rooms

- nine storeys and above/ over 25 metres

- 24 metres between habitable rooms/balconies

- 18 metres between habitable rooms/balconies and non-habitable rooms

- 12 metres between non-habitable rooms"

The proposed building separations in the EIS are shown in Figure 48 in Section 5.6.3 on page 87. There are 14 separations between the proposed buildings internal to the site. Of these 14 separations, the proposed distances in eight are non-compliant. The eight non-compliant separations, plus an additional non-compliant separation with a building external to the site, are shown in the table below:

Building Names	**Height of each Building (floors) Section 4.6.2 Table 7 page 59**	**Proposed Separation (metres) Figure 48 in Section 5.6.3 on page 87**	**RFDC control separation (metres)**	**Comment by this submission**
SW1 to NW	25 and 12	8	*- 24 metres between habitable rooms/balconies* *- 18 metres between habitable rooms/balconies and non-habitable rooms* *- 12 metres between non-habitable rooms*	The proposed separation is insufficient for all types of rooms. It is therefore impossible to achieve the intent of the RFDC guidelines by detailed designs or any other method.
N to NE3	6 and 40	8	*- 18 metres between habitable rooms/balconies* *- 13 metres between habitable rooms/balconies and non-habitable rooms* *- 9 metres between non-habitable rooms*	The proposed separation is insufficient for all types of rooms. It is therefore impossible to achieve the intent of the RFDC guidelines by detailed designs or any other method.
SW3 to SW2	40 and 9	9	*- 24 metres between habitable rooms/balconies* *- 18 metres between habitable rooms/balconies and non-habitable rooms* *- 12 metres between non-habitable rooms*	The proposed separation is insufficient for all types of rooms. It is therefore impossible to achieve the intent of the RFDC guidelines by detailed designs or any other method.

Building Names	Height of each Building (floors) Section 4.6.2 Table 7 page 59	Proposed Separation (metres) Figure 48 in Section 5.6.3 on page 87	RFDC control separation (metres)	Comment by this submission
SE1 to SE2	28 and 9	9	- *24 metres between habitable rooms/balconies* - *18 metres between habitable rooms/balconies and non-habitable rooms* - *12 metres between non-habitable rooms*	The proposed separation is insufficient for all types of rooms. It is therefore impossible to achieve the intent of the RFDC guidelines by detailed designs or any other method.
W1 to W2	21 and 21	10	- *24 metres between habitable rooms/balconies* - *18 metres between habitable rooms/balconies and non-habitable rooms* - *12 metres between non-habitable rooms*	The proposed separation is insufficient for all types of rooms. It is therefore impossible to achieve the intent of the RFDC guidelines by detailed designs or any other method.
NE1 to NE3	18 and 40	12	- *24 metres between habitable rooms/balconies* - *18 metres between habitable rooms/balconies and non-habitable rooms* - *12 metres between non-habitable rooms*	The proposed separation is sufficient for non-habitable rooms only. It is therefore possible to achieve the intent of the RFDC guidelines only if all rooms are non-habitable.
SE1 to SE3	28 and 18	18	- *24 metres between habitable rooms/balconies* - *18 metres between habitable rooms/balconies and non-habitable rooms* - *12 metres between non-habitable rooms*	The proposed separation is sufficient only if there are no habitable rooms/balconies on the exterior of both buildings.
SW1 to SW3	25 and 40	18	- *24 metres between habitable rooms/balconies* - *18 metres between habitable rooms/balconies and non-habitable rooms* - *12 metres between non-habitable rooms*	The proposed separation is sufficient only if there are no habitable rooms/balconies on the exterior of both buildings.
Unspecified building on NE plot to Holiday Inn at 68 Harbour St	Over 12 and 12	EIS states that separation is non-compliant on floors 9 to 12 (page 88), but does not state the proposed separation	- *24 metres between habitable rooms/balconies* - *18 metres between habitable rooms/balconies and non-habitable rooms* - *12 metres between non-habitable rooms*	Cannot comment. EIS needs to show the proposed separation.

The EIS notes the non-compliance with building separation requirements and offers several reasons why the non-compliance is allegedly acceptable. The EIS statements and the corresponding comments by this submission are shown in the table below:

EIS vague promise	Comment by this submission
"Although some of the proposed envelopes do not meet the minimum separation requirements of the RFDC, the indicative internal apartment layouts provided in the Design Report (Appendix J) suggest that the intent of the RFDC guidelines can be readily achieved by the detailed designs and their positioning within the approved envelopes." (Section 5.6.1 on page 86)	For five separations, the proposed separation is insufficient for all types of rooms. It is therefore impossible to achieve the intent of the RFDC guidelines by detailed designs or any other method. For another two separations, the proposed separation is sufficient only if there are no habitable rooms/balconies on the exterior of both buildings. For another one separation, the proposed separation is sufficient for non-habitable rooms only. It is therefore possible to achieve the intent of the RFDC guidelines only if all rooms are non-habitable.
" The building separation distances do not affect the ability of the indicative floor plates to demonstrate compliance (from a whole of precinct perspective) with the daylight access 'Rule of Thumb' under the RFDC." (Section 5.6.3 on page 87)	Daylight access to adjacent properties is only one objective of the separation controls. The other objectives are: • *"To ensure that new development is scaled to support the desired area character with appropriate massing and spaces between buildings.* • *To provide visual and acoustic privacy for existing and new residents.* • *To control overshadowing of (adjacent properties and) private or shared open space.* • *To allow for the provision of open space with appropriate size and proportion for recreational activities for building occupants.* • *To provide deep soil zones for stormwater management and tree planting, where contextual and site conditions* *allow."* The EIS needs to explain how all of these other objectives can be achieved with separations less than the control separation.
" The Concept Proposal minimises overshadowing impacts to key areas of the public domain through the use of podiums and setbacks from Haymarket Square. These break up the scale of development when viewed from key areas of the Public Domain, reducing perceived bulk at the 'human scale'." (Section 5.6.3 on page 87)	It is true that the use of podiums and setbacks is desirable. But this does not dispense with the need to observe control separations. Observing control separations is the most direct way to "break up the scale of development".
"Adequate open space and deep soil zones can be provided across the Site." (Section 5.6.3 on page 87)	On a given site with a given number of buildings, it is a truism that the smaller the separations, the greater the usable areas of large open space. This does not dispense with the need to observe control separations.

4. Lack of View Sharing

Summary

The new public facilities and open spaces could be created without adversely impacting on existing private views or outlooks. It is the new private towers which adversely impact on existing private views and outlooks. Therefore view sharing is required.

The EIS pays lip service to view sharing, but it is unwilling to adopt any of the four concrete measures which would promote view sharing, namely avoiding tower crowding, maintaining adequate building separation between towers, building slender towers and creating view corridors.

Detail

Public and private goods

This submission accepts the planning principle that *"The public good has precedence over the private good whenever and whatever change is proposed for Sydney Harbour or its foreshores"* as stated in Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.

This submission also supports the maintenance and creation of view corridors from the new public domain to Darling Harbour.

However, the actual situation is not one of a conflict between public and private goods. There would be no conflict if the proposal contained only low-rise public buildings and public open space, with no high-rise apartments and offices. The actual situation is that one private good, namely views and outlooks from existing private buildings, is being very adversely impacted by the creation of another **private** good, namely views and outlooks from new private buildings. The EIS fails to document or even mention the embarrassing fact that the new private buildings will have excellent views of Darling Harbour, Sydney Harbour and Anzac Bridge. That is surely not a coincidence.

View sharing between private buildings

This submission accepts the principle that view sharing between private buildings is desirable. The new private buildings will have excellent views and outlooks. They must share their views and outlooks with existing private buildings.

View sharing can be achieved via a combination of the following measures:

- avoiding tower crowding
- creating view corridors
- maintaining adequate building separation between towers
- building slender towers.

The EIS pays lip service to view sharing, but it is unwilling to actually adopt any concrete measures to enable view sharing. Each measure is discussed in turn below.

Avoiding tower crowding

A tower is a building of more than 10 stories from the ground. (City of Sydney, Issue 3 Design Excellence and Building Massing, Appendix 18 Planning and Built Form Considerations of Appendix I Consultation Report). In the same document the City states that "*The City's initial work shows that any more than three (emphasis added) towers south of Pier Street will result in tower crowding"* (in Section 05 Built Form). City of Sydney also point out that avoiding "big boxes" would be in keeping with the low-rise character of adjoining Chinatown.

Woods Bagot give an example of how view corridors at South Darling Harbour can be respected in the diagram on Page 23 of Urban Design and Public Realm Guidelines, Appendix 19 of Appendix I Consultation Report. In their example, there are only two new towers south of Pier Street.

How many towers does the EIS propose? The EIS contains nine buildings of more than 10 stories south of Pier Street. They are:

NE1 RL68.38 18 storeys

NE3 RL138.63 40 storeys

SE1 RL99.85 28 storeys

SE3 RL68.38 18 storeys

SW1 RL91.38 25 storeys

SW3 RL138.63 40 storeys

NW RL53.60 12 Storeys

W1 RL75.20 21 Storeys

W2 RL75.20 21 Storeys

(EIS, Height of each Building (floors) Section 4.6.2 Table 7 page 59)

The fact that the EIS proposes at least three times as many towers south of Pier Street as either the City of Sydney or Woods Bagot demonstrates that, while paying lip service to view sharing, the project makes no attempt to avoid tower crowding.

Creating view corridors

The EIS states in Section 4.6 "*The Haymarket development has sought to provide for reasonable view sharing and to create view corridors through the SICEEP site in a northerly direction towards Darling Harbour and Sydney Harbour through the positioning of building footprints and the configuration of public domain corridors."*

It is true that there will be a view corridor along The Boulevarde from public space towards Darling Harbour. However, that is not relevant to view sharing between private buildings. The view along The Boulevarde is not accessible from any of the dwellings in The Peak apartments, which are located to the East of the proposed Boulevarde. It is very misleading to suggest that creating a view corridor which is not visible from a given private dwelling somehow promotes view sharing between private buildings. The EIS does not propose any view corridor which actually enables view sharing between private buildings.

Maintaining adequate building separation between towers

The EIS says on page 31 of Appendix N, "The design guidelines provide for the detailed design of built form to maintain adequate building separation between built forms for view sharing." In fact most of the proposed building separations are non-compliant with Residential Flat Design Code separation guidelines. The non-compliance is so great that it is impossible to achieve the intent of the Residential Flat Design Code separation guidelines by detailed designs or any other method. The EIS pays lip service to view sharing, but it makes no attempt to maintain adequate building separation between towers. Building separations are considered in detail elsewhere in this submission.

Building slender towers

Proposed building depths are given in section 5.6.4 on page 88 of the EIS. They range from 19 metres to 24 metres. Each has a proposed depth greater than the maximum 18 metres specified in the Residential Flat Design Code. While paying lip service to view sharing, the project makes no attempt to build slender towers. Building depths are considered in detail elsewhere in this submission.

5. 5. Conflicts between SSD 5878 and SSD 5752, Sydney International Convention, Exhibition and Entertainment Precinct - Redevelopment of convention centre, exhibition centre, entertainment facilities and associated public domain works

(a) Expansion of the Exhibition Centre at ground level is prevented

The land on which the Entertainment Car Park stands is required in order to enable expansion of the Exhibition Centre at ground level. The proposed new Exhibition Centre building in SSD 5752 is multi-level. That is inefficient and inconvenient. If the Exhibition Centre expansion is not at ground level, Sydney's facilities will remain inadequate.

(b) Reduction in capacity of CBD music venue

The existing Entertainment Centre has a capacity of 12,000.

The new theatre in SSD 5752 will have a capacity of 8,000.

There is debate about which venue has the better sight-lines.

No evidence has been presented to suggest that the usable capacity will increase.

The CEO of the relevant industry association, Live Performance Australia, the peak body of the entertainment industry, was quoted in the Sydney Morning Herald of 17 December 2012 as saying that every major Australian capital city except Brisbane had a major music venue located in the central business district and that ''If this is the design that has got to take the city through the next 10, 15, 20 years, then it just doesn't make sense to reduce your capacity in a city that's quite rapidly growing,'' she said of the proposal for Sydney. ''I think it's a missed opportunity."

If it is not possible to build an expanded theatre in SSD 5752, then the existing facility should be retained and refurbished.

6. Darling Drive will have unacceptable levels of service during the peak

Summary

The Transport and Traffic Impact Assessment contains self-contradictory estimates of current usage. Actual observations show that current traffic levels are already very close to the maximum capacity which can be carried by one lane.

The proposal to reduce Darling Drive to one lane in both directions when it is already at or near full capacity for one lane will cause unacceptable levels of service during the peak.

Detail

Section 6.4 on page 24 of the TRANSPORT AND TRAFFIC IMPACT ASSESSMENT prepared by Hyder states "It is estimated that the PM peak hour volume on Darling Drive is approximately in the order of 900 vehicles per hour in the southbound direction and 400 vehicle per hour in the northbound per direction." (sic). This is a total of 1,300 vehicles per hour.

But the graph on page 10 in Section 4.1.2 of the same report shows that, as at March 2012, the highest traffic flows on Darling Drive are the Saturday pm peak. That is about 1,500 vehicles/hour totalled over both directions. This is an actual observation, not an estimate. Therefore the statement that the total peak flow is 1,300 vehicles per hour in both directions is clearly an underestimate.

Even if one accepts the underestimate of 1,300 vehicles per hour, the southbound flows are already very close to the maximum capacity which can be carried by one lane. The AUSTROADS Guide to Traffic Engineering Practice - Part 2: Roadway Capacity states that the typical one-way mid-block lane capacities on urban roads under interrupted flow conditions are 900-1,000 vehicles/hour/lane. We are already almost there.

The proposal to reduce Darling Drive to one lane in both directions when it is already at or near full capacity for one lane will cause unacceptable levels of service during the peak because of increased usage arising from:

•the new car parks

•the new public buildings and hotel in other parts of Darling Harbour

•shoppers in the new shops. Contrary to what is stated on page 30 in Section 6.6 of the Report, the new shops will NOT be limited to mainly serving the local areas. Market City and Paddy's Market already serve the whole of Sydney. There is a welcome suggestion by City of Sydney Council to site a Farmer's Market in the retail area, and this would also attract shoppers from a wide area

•owners of the new shops. Owners of the new shops will probably work long hours and they will wish to drive to and from work. Owners of existing shops already drive to work and park illegally in surrounding apartment buildings for the same reason

•some of the 1,000 students in the new student accommodation will inevitably own or rent cars, despite the best wishes of paternalistic authorities to deprive them of cars

•completion of 270 new apartments in The Quay on the corner of Quay St and Ultimo Road

•natural growth over time of through traffic.

Levels of service will also be further reduced by:

•two additional pedestrian crossings

•increased frequency of trams on the level crossing after the line is extended to Dulwich Hill

•accidents blocking the one and only lane

•dropping off and picking up of passengers will slow down traffic, e.g. at the new student accommodation where there will be loading facilities only for students moving in and out.

Hyder seem to be aware that the proposed reduction to one lane is problematic. Therefore in Section 5.2 on page 46 of the Appendix they falsely state "It is estimated that the average peak hour volume on Darling Drive is approximately in the order of 550 vehicles per hour per direction." This peak estimate of 1,100 vehicles per hour conveniently evenly distributed in both directions is inconsistent with the peak estimates of 1,300 (900 southbound and 400 northbound) and the actual observation of 1,500 (Saturday pm peak) contained elsewhere in their own report. Hyder appear to be making up numbers as they go along in order to support their dubious desired conclusion that future peak flows can be accommodated in one lane.