SYDNEY INTERNATIONAL CONVENTION, EXHIBITION AND ENTERTAINMENT PRECINCT

NORTH WEST PLOT, DARLING SQUARE

TRANSPORT & TRAFFIC IMPACT ASSESSMENT ADDENDUM REPORT

FOR S96 for SSDA4

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SICEEP - DARLING SQUARE (NORTH WEST PLOT)

Transport and Traffic Impact Assessment Addendum Report for S96 for SSDA4

Transport and Traffic Impact Assessment Report for Stage 2 State Significant Development Application (SSDA 4)

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1 Introduction

This report supports an application made under section 96 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to modify Development Consent, SSD-6013 relating to the development of the North West Plot of Darling Square which is part of the Sydney International Convention, Exhibition and Entertainment Precinct (SICEEP).

Development Consent SSD-6013 was granted on 7 May 2014 by the delegate of the Minister for Planning for the following components of development:

- site preparation works including demolition of existing structures, tree removal, minor excavation, and site remediation as required;
- staged construction of a 12 storey building to be used for commercial premises, and above ground car parking;
- various public domain improvements including provision (part) new east-west pedestrian laneway (known as Dickson's Lane) linking Darling Drive to the Boulevard, upgrading of existing footpaths, provision of street trees, and provision of bicycle parking facilities; and
- building identification signage and wall advertising sign.

This section 96 application (the Modification Application) constitutes the first modification to the consent. This Modification Application follows the approval and current assessment of a number of SSDAs within the SICEEP site, including:

- SSDA1 which secured approval for the core convention, exhibition and entertainment facilities of the SICEEP Project;
- SSDA2, a staged application that established a Concept Proposal for a new mixed use neighbourhood at Darling Harbour known as Darling Square;
- SSDA3, SSDA4, and SSDA5 which related to three detailed proposals for use of the development plots within Darling Square;
- SSDA 6 which secured approval for the construction of the ICC Hotel; and
- SSDA7 is currently under assessment and seeks approval for the construction and use of a mixed use development on the North-East Plot of Darling Square.

2 Site Description

The SICEEP Site is located within Darling Harbour. Darling Harbour is a 60 hectare waterfront precinct on the south-western edge of the Sydney Central Business District that provides a mix of functions including recreational, tourist, entertainment and business.

With an area of approximately 20 hectares, the SICEEP Site is generally bound by the Light Rail Line to the west, Harbourside shopping centre and Cockle Bay to the north, Darling Quarter, the Chinese Garden and Harbour Street to the east, and Hay Street to the south (refer to Figure 1).

The Darling Square Site is:

- located in the south of the SICEEP Site, within the northern portion of the suburb of Haymarket;
- bounded by the Powerhouse Museum to the west, the Pier Street overpass and Little Pier Street to the north, Harbour Street to the east, and Hay Street to the south; and
- irregular in shape and occupies an area of approximately 43,807m^2.

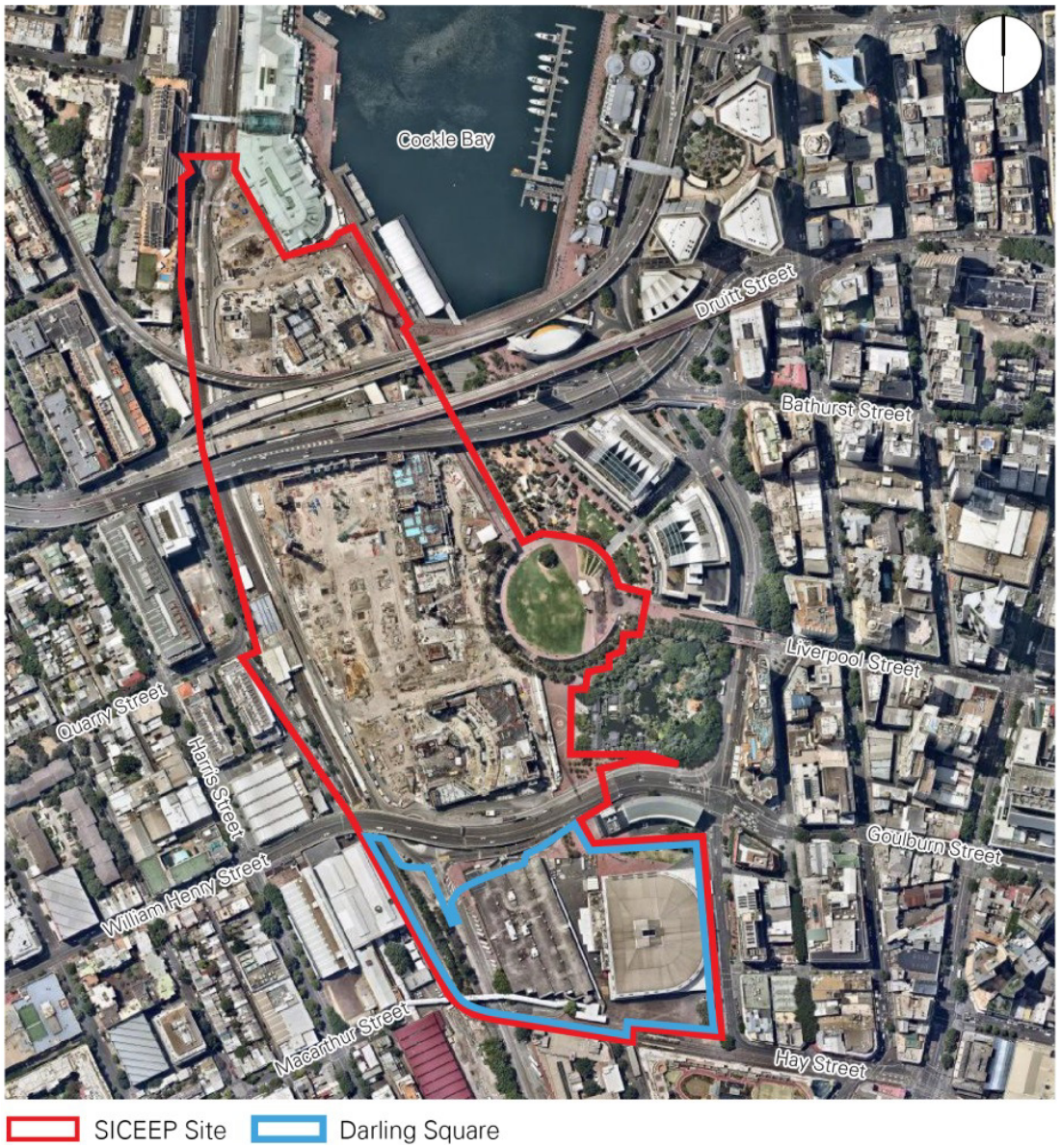

Figure 1 Aerial Photograph of the SICEEP Site

The Modification Application Site relates to the North West Plot and surrounds as detailed within the architectural and landscape plans submitted in support of Modification Application. **Figure 2** illustrates the North West Plot in the approved Concept Proposal.

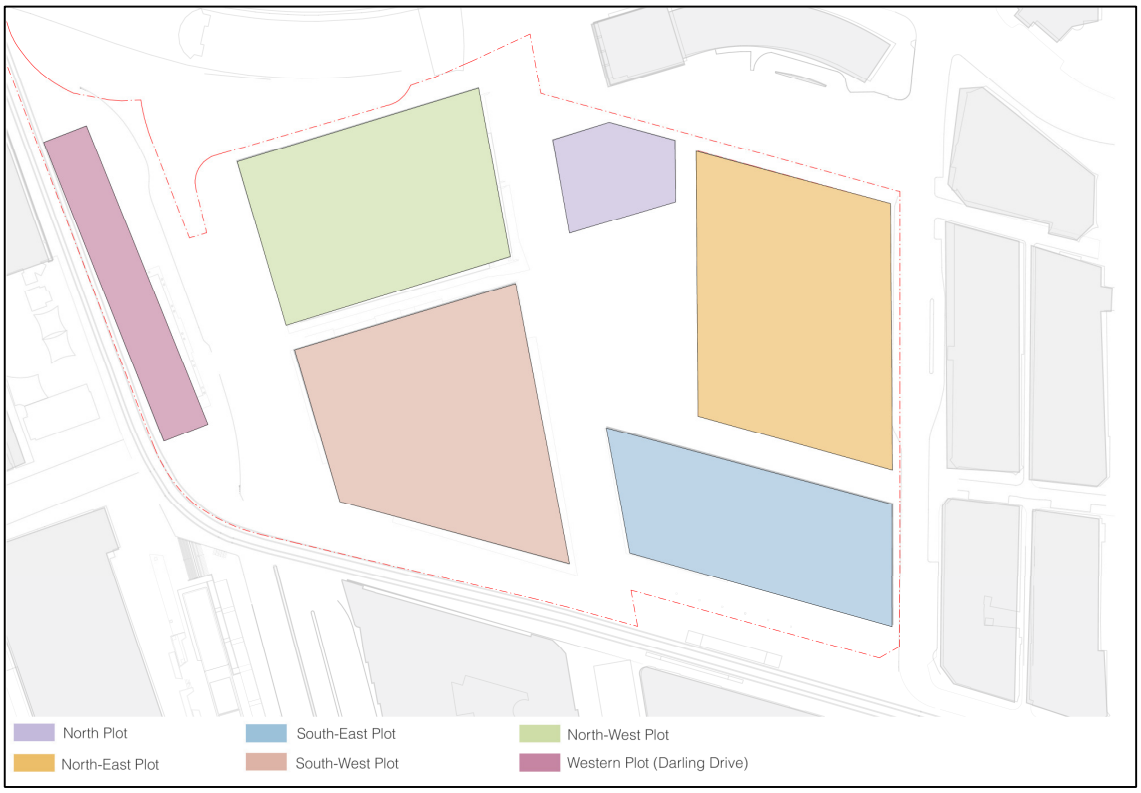

Figure 2 Concept Proposal Development Plots

3 Purpose of this Addendum

The purpose of this Addendum report is to investigate the implications on the traffic assessment previously undertaken for the SSDA4 submission and to provide commentary of the likely impacts of the proposed amendments on the current findings of the traffic assessment.

This Addendum Report incorporates the new peak hour traffic generation rates suggested in Technical Direction document (TDT 2013/04) released by the Roads and Maritime Services as an update to the Guide to Traffic Generating Development (2002) for selected land uses (i.e. residential/commercial). TDT 2013/04 supplements the RMS Guide which was first released in 1991 and revised in 2002.

This Addendum Report should be read in conjunction with the *Traffic and Transport Assessment for SSDA4 prepared by Hyder Consulting Pty Ltd and dated 11 June 2013*.

4 Assessment of the SSDA 4 Proposal

The assessment of the SSDA4 Proposal references the traffic and transport analysis undertaken for SSDA1. The traffic and transport component of SSDA1 provides the overarching assessment of the Whole of Precinct development of the SICEEP site. A micro-simulation model was developed for the core study area (SSDA1) bounded by Darling Drive to the West, Harbour Street to the East, Hay Street to the South and Pyrmont Bridge to the North. The traffic modelling encompasses the Whole of Precinct (WOP) and investigates cumulative impacts from the development of the PPP, Darling Square and the ICC Hotel. The future modelling scenario for the Friday PM peak and Saturday PM peak represent 'worst case scenario' analysis and accounts for design proposals developed at the time of the DA

submission. Details of the modelling are reported in the SSDA1 reports (Main Report and subsequent Addendum Reports).

The assessment of the whole of precinct included the North West plot development component.

An indication of the peak hour traffic generation potential of the future development within Darling Square has been based on the Roads and Maritime Services Guide to Traffic Generating Developments" (2002). The RMS's Guide provides a series of traffic generation rates for a variety of land uses based on generic surveys undertaken by the RMS. These rates are generally applied to the Gross Floor Area (GFA) or Gross Leasable Floor Area (GLFA).

The typical peak hour traffic generation rates applied in SSDA4 for the commercial land use at the North West plot of Darling Square is as follows:

- Office/Commercial evening peak vehicle trips - 2 vehicle trips per hour per 100sqm GFA

TDT 2013/04 provides new traffic generation rates for office/commercial blocks. The generation rates are based on new surveys conducted in 2009 for office blocks within Sydney, with locations close to public transport. The updated rates suggest lower vehicle trip generation trends and a reduction by 40% of the previous rates. The updated peak hour (PM) trip generation rate is 1.2 vehicle trips/100 m^2 GFA. The updated peak hour (PM) trip generation rate is based on a mean employee density of 1 employee per 24 m^2 GFA. This generally implies that the rates used in the previous traffic modelling are considered conservative.

For the purpose of vehicle traffic generation calculations, the minor retail and other land uses are considered to be non-car trips.

5 Overview of Proposed Amendment

This Modification Application seeks approval for the following amendments:

- increase in Gross Floor Area to accommodate a modified built form meeting tenant requirements;
- increase of a single storey and associated building height increase, remaining within the approved maximum height limit of the Concept Proposal;
- internal floor plate amendments including the introduction of a new atrium; and
- Public domain improvements at the ground plane.

A range of other minor amendments resulting from design development and in response to commercial tenant requirements are illustrated on the amended Architectural Drawings, largely relating to façade articulation, internal layouts and materials. These design development and tenant driven changes are to be expected in any project, especially given the nature and scale of the approved North West Plot development.

6 Implications of the Proposed Amendment on the Traffic Assessment for SSDA4

- Office/Commercial Land Use

For office/commercial land use, there is minimal change in the GFA for the modified SSDA4. The Traffic and Transport Impact Assessment Report for SSDA4 assessed a GFA of 23,000 m^2 for the office/commercial component of the development. The modified SSDA4 proposes a minimal increase of approximately 1,800 m^2.

The updated peak hour (PM) trip generation rate of 1.2 vehicle trips/100 m^2 GFA for office/commercial land use equates to an additional 22 vehicle trips for the PM peak hour.

The net difference in vehicle trips modelled versus new total for vehicle trips based on the proposed amendment is 21 vehicle trips (excess).

It should be noted that the North West plot has a locational advantage of being in close proximity to public transport and is accessible by walking and cycling. Hence, there is potential for low vehicle (private car) trip generation and a high attraction for public transport usage cycling.

- Retail Land Use

It should be noted that in the assessment of the SSDA4 proposal, the traffic generation associated with minor retail and other land uses were considered to be non-car trips. However, it is recognised that for the proposed amendment, there is an increase in the GFA for minor retail and active uses from approximately 1,715 m^2 to approximately 2,148 m^2.

The RMS's Guide to Traffic Generating Developments provides traffic generation rates for retail land use but more in the form of shopping centres and bulky goods retail stores. The Guide suggests average peak hour traffic generation rates for shopping centre areas with less than 10,000 m^2 GLFA to be in the range of 12.3 to 16.3 vehicles per 100m^2 GLFA. Another prediction method uses floor area categories and floor areas where specialty shops and secondary retail are assigned a trip generation factor of 56[1] vehicle trips per 1000 m^2 of GLFA. For the modified SSDA4, the increase in GLFA is approximately is 325 m^2.

Trip generation associated to minor retail and active uses in a location similar to the SSDA4 and within a building occupied by office /commercial uses are generally likely to be linked trips rather than 'stand alone' or primary trips. For the purpose of this assessment, it is assumed that the incidence of linked and multi-purpose trips is potentially high and the proportion of non-car trips will dominate. A conservative discount factor of 25%[2] is applied to determine worst case scenario estimate for vehicle trip generation attributed to the retail or active use component of the SSDA4 proposed amendment.

Hence, the vehicle trips attributed to the retail component of the SSDA4 proposed amendment is approximately in the order of 14 vehicle trips

- Parking Provision

The motorcycle parking provision has been reduced from 75 to 37. This is consistent with the City of Sydney DCP 2012 and it is an appropriate level of provision.

7 Summary and Conclusions

As noted earlier, there is minimal change to the GFA for office/commercial land use. The additional peak hour vehicle trips is estimated at 21 (11 In and 10 Out) vehicle trips.

For the retail component, the additional peak hour vehicle trips is estimated to be 14 (7 In and 7 Out) vehicle trips.

This additional volume is considered minor and is not likely to generate adverse traffic implications in excess of what has already been considered and included in the modelling for

[1] RMS Guide to traffic Generating Developments, Friday peak period is considered in order to be consistent with SSDA1 modelling assumptions. As a general guide ^{100m2} GFA equals 75 m^2 GLFA.

[2] RMS Guide suggests 25% discount factor.

the SSDA 1 and subsequently for the SSDA 4. The proposed amendment is not likely to change the outcomes reported in the traffic assessment for the SSDA 1 and SSDA 4.