



Transport
for NSW

CD13/05724

Director
Metro and Regional Projects South
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Tom Mithen

**SYDNEY INTERNATIONAL CONVENTION, EXHIBITION AND ENTERTAINMENT CENTRE
PRECINCT (SICEEP)
DARLING HARBOUR, CITY OF SYDNEY (SSD 5752 AND SSD 5878)**

Dear Mr Mithen,

Thank you for your letter dated 21 March 2013 regarding your request for Transport for NSW to provide comment on the two State Significant Development (SSD) applications submitted for the above proposal.

Transport for NSW has reviewed the two SSD applications and appreciates the opportunity to provide comment. Issues concerning both SSD applications have been addressed in the one consolidated response and Transport for NSW offers the combined comments of the wider Transport cluster which includes comments from RailCorp and Roads and Maritime Services (RMS). These detailed comments have been provided in **Attachment 1**.

Transport for NSW understands that the SICEEP Project is an important urban renewal opportunity that forms a critical element of the NSW Government's aspiration to *"make NSW number one again"* and is committed to working closely with the Department to facilitate a development outcome that delivers a positive transport outcome for the entire precinct.

The redevelopment of the SICEEP site provides an excellent opportunity to improve the permeability of the site and we encourage the stated aims to facilitate direct and connected walking and cycling connections from Central Station, via Quay Street and then through the development to Darling Harbour (Cockle Bay Wharf). This will ensure good circulation for both pedestrians and cyclists and avoid the creation of any potential pinch points with proposed retail development, outdoor dining and any proposed landscaping works. Where feasible, the separation of cyclists and pedestrian is also encouraged. It is also important that the development provides safe and convenient access to the planned Ultimo Pedestrian Network, along the alignment of the former 'Goods Line'.

Transport for NSW encourages that safe and convenient access be provided to the light rail stations via direct connections by providing easements through the development where required and we believe that the interfaces with the light rail stations are a key component to the success of

the redevelopment proposal and this has been discussed further in **Attachment 1**.

In addition to the above, Transport for NSW and RMS together with the Department of Planning & Infrastructure (DP&I) met with Infrastructure NSW, Lend Lease and their transport and traffic consultants Hyder Pty Ltd on 1 May 2013 to discuss a number of issues with regard to the traffic analysis undertaken for the proposal. It is anticipated that the period of ongoing construction has the potential to be disruptive to commuters, road users and businesses in the vicinity of the site and it is imperative that this is managed in such a way to minimize these impacts. The construction and traffic analysis issues to be addressed by the proponent have also been outlined in **Attachment 1**.

Should you have any questions regarding this matter, please contact Aleks Tancevski on 8202 2811 or Aleks.Tancevski@transport.nsw.gov.au

Yours sincerely,



Mark Ozinga
**Manager, Land Use and Transport Planning
Planning and Programs**

ATTACHMENT 1

Sydney International Convention, Exhibition and Entertainment Precinct

Reference is made to the Traffic and Transport Assessment by Hyder consultants and the Director Generals Requirements (DGRs) issued by DP&I in March 2013. Page numbers below refer to the Traffic and Transport Assessment.

Parking

- The proposal contains no specific provision for car share spaces within allocated parking that would assist in achieving the proposal's objective in reducing private vehicle dependency. There is one small mention of this including *"preferential parking"* (p.100) but no specific mention of actual number of spaces allocated to car share for either workers and/or residents.

Provide details to measures to encourage sustainable transport measures

- The Traffic and Transport Assessment makes general reference (p.100) to way-finding and signage. Given the scale of change in the site, significant investment of new way-finding and signage is required, on and off-site. It is noted that variable message signs would be used to provide information to drivers (p.103) but no commitment has been made to use such signs for pedestrians, which would be the dominant mode of arrival to the site.
- The Traffic and Transport Assessment recommends improvements to existing pedestrian facilities through *"coordination and pedestrian priority at signals and pathway enhancements."* The proposal contains no such provision for such items that would provide benefit to pedestrians.
- The proposal does not make specific provision for future public bus services that may directly serve the SICEEP. Provision has only been made for private bus zones (p.105). The proponent is requested to contact Transport for NSW regarding provision of future bus services to the SICEEP, especially as Transport for NSW is currently planning for changes to the CBD bus network post light rail completion.
- The Traffic and Transport Assessment (p.103) refers to *"provision of new cycling facilities"* yet the proposal only commits to a new cycle path. There needs to be a firmer commitment to bicycle parking for visitor, employee and resident use, as well as end of trip facilities for employees and residents.

Construction phase

- The Traffic and Transport Assessment (p.96) states *"Through consultation with relevant bus and taxi representatives procedures shall be established to ensure harmony of vehicle movements within the area."* Whilst this is a procedure that forms part of a detailed construction management plan, it is unclear how such consultation would be facilitated as there are multiple taxi and coach operators. Transport for NSW recommends direct consultation with the NSW Taxi Council and the NSW Bus and Coach Association.
- Whilst the timing of the removal of the monorail around the site is yet to be confirmed, it may coincide with construction activities for the SICEEP. The proponent is advised to liaise with Transport for NSW regarding any activities that may impact on the removal of the monorail.

- During the construction period, operation of light rail services should not be affected and pedestrian access to light rail stations within the vicinity of the site should be maintained.
- A Construction Transport Management Plan should be prepared in consultation with Transport for NSW prior to the commencement of construction to address transport and access issues.
- An Operational Transport Management Plan shall be prepared in consultation with Transport for NSW prior to the commencement of operation to address transport and access issues associated with the operation of the facilities during special event and non-special event times.

Mixed Use Development at Haymarket

Reference is made to the Transport and Traffic Impact Assessment by Hyder consultants and the DGRs issued by DP&I in March 2013. Page numbers below refer to the Transport and Traffic Impact Assessment by Hyder consultants.

- The proposal contains no specific provision for car share spaces within allocated parking that would assist in achieving the SICEEP's objective in reducing private vehicle dependency given the development's significant residential/student population.
- In terms of supporting cycling, the proposal only commits to a new cycle path on Darling Drive. There needs to be a firmer commitment to bicycle parking particularly for residents/students rather than recommending the installation facilities (p.46).
- The road safety assessment should have included an assessment of cycling conditions including cyclist crash history.
- Whilst the timing of the removal of the monorail around the site is yet to be confirmed, it may coincide with demolition activities for the Sydney Entertainment Centre and associated car park. The proponent is advised to liaise with Transport for NSW regarding any activities that may impact on the removal of the monorail.

Metro Transport Sydney Offices

The proposed modifications to the Metro Transport Sydney Offices are supported by Transport for NSW 'in principle'. Notwithstanding this, further detailed designs must be submitted to Transport for NSW for review and approval prior to works commencing. Accordingly, it is recommended that the following condition be applied by DP&I as part of any planning consent for the SSD proposals.

Condition:

Any proposed works to the Metro Transport Sydney Offices shall be developed in consultation with Transport for NSW. The Proponent must submit detailed designs and relevant management plans to Transport for NSW for approval at least one month prior to the commencement of relevant works affecting the Metro Transport Offices.

Light Rail Infrastructure Interfaces

Note: *The comments and conditions provided below are applicable to both the State Significant Development Application (SSD 5752) and the State Significant Development Concept Proposal (SSD 13_5878).*

Due to the proximity of the proposed development to the Light Rail corridor, further detailed assessment is required in relation to the following:

Noise and Vibration

A detailed noise and vibration assessment should be undertaken to quantify the likely impacts from current and future light rail operations upon future sensitive receivers which will be part of the Haymarket development. This assessment should be prepared in accordance with the DP&I guideline 'Development near rail corridors and busy roads, 2008'.

Visual

It is noted that the assessments do not contain a visual assessment of potential impacts of the proposed light rail infrastructure improvements on future users of adjacent structures. In particular, the buildings and built form should promote the use of public transport infrastructure within the precinct through improved view corridors, permeability and signage to the Light Rail stops. Accordingly, it is recommended that the following condition be applied by DP&I as part of any planning consent for the SSD proposals:

Condition:

The proponent shall prepare and implement an Urban Design and Stop Access Plan for areas which interface with the Light Rail. The plan shall be prepared by an appropriately qualified person(s) and shall include but not necessarily be limited to the following:

- (a) *identification of design principles and standards based on:*
 - i. *local environmental values;*
 - ii. *urban design context;*
 - iii. *sustainable design and maintenance (including consideration of anti graffiti materials);*
 - iv. *transport and land use integration and system functionality;*
 - v. *passenger and community safety and security;*
 - vi. *community amenity and privacy; and*
 - vii. *relevant design standards and guidelines;*
- (b) *location and identification of existing and proposed landscaping through the use of indigenous and endemic species;*
- (c) *design details of the built elements of the project, including:*
 - i. *infrastructure measures identified in the pedestrian and cycle access reviews;*
 - ii. *retaining walls, embankments, bridges, underpasses, substations and the like;*
 - iii. *fencing, noise barriers, lighting, privacy screening;*
 - iv. *signage (including wayfinding);*
 - v. *stop infrastructure and passenger facilities; and*
 - vi. *measures to minimise the impact of these elements, particularly with respect to the impacts on adjoining residences, education facilities, open space and heritage items and landscapes.*
- (d) *consideration of relevant legislation such as the Disability Discrimination Act 1992 and design standards and policies, such as Water Sensitive Urban Design, Transport for NSW's Sustainable Design Guidelines, Crime Prevention Through Urban Design, Design Guidelines to avoid, minimise and improve the appearance of Shotcrete (RTA 2005), AS4282-1997 Control of the Obtrusive Effects of Outdoor Lighting and the relevant Agency and Council design standards;*
- (e) *restoration of work sites and rehabilitation measures; and*
- (f) *measures to maintain stops and landscaping works, including weed control, to the design standards established in the Plan, where necessary.*

The Plan is to be developed in consultation with Transport for NSW, RailCorp, Sydney Harbour Foreshore Authority and the City of Sydney, and submitted to the Director-General of DP&I for

approval.

Transport & Access

An assessment of the potential impacts on transport and access to the Light Rail stops will be required. This should take into account any opportunities to improve transport and access for current and future users during both construction and operation. Access to the stops during construction and operation for people with disabilities should also comply with the *Disability Discrimination Act 1992 (Cth)* and other applicable/relevant guidelines.

Light Rail Operations

Consultation with Transport for NSW and the Light Rail operator should be undertaken to ensure the ongoing reliability of light rail operations as a result of the SICEEP development.

Safety

Due to the proximity of the Light Rail corridor, the ongoing safety of both light rail users and future users of the precinct must be addressed through consultation with the Light Rail operator and Transport for NSW.

Light Rail Infrastructure Requirements

Consultation with Transport for NSW should be ongoing throughout design development in order to accommodate light rail infrastructure requirements and ensure there is adequate capacity within the precinct to accommodate any future amplification of services, modification and/or expansion of the light rail network.

Accordingly, it is recommended that the following condition be applied by DP&I as part of any planning consent for the SSD proposals.

Condition: [applicable to SSD 13_5878]

Consultation with Transport for NSW shall be ongoing throughout the detailed design and construction of the project to ensure potential light rail impacts in terms of noise, visual, transport, access and safety impacts, and the potential impacts on current and future light rail infrastructure and operations are satisfactorily considered. Detailed designs and management plans must be submitted to Transport for NSW for approval prior to the lodgement of a development application for 'The Haymarket' and prior to the commencement of any works.

Condition: [applicable to SSD- 5752]

Consultation with Transport for NSW shall be ongoing throughout the detailed design and construction of the project to ensure potential light rail impacts in terms of noise, visual, transport, access and safety impacts, and the potential impacts on current and future light rail infrastructure and operations are satisfactorily considered. Detailed designs and management plans must be submitted to Transport for NSW for approval prior to the commencement of any works.

Any proposed works impacting on the light rail infrastructure will need to be undertaken by a rail accredited contractor and will need to undergo the appropriate design review process, in consultation with Transport for NSW.

It should also be noted that the proposed Student Accommodation buildings are located over a parcel of land under the ownership of RailCorp (Lot 33 of DP870306) and the Light Rail corridor. Any works adjoining or on these lands will need to undergo a detailed design analysis and approval process.

Accordingly, it is recommended that the following condition be applied by DP&I as part of any planning consent for the SSD proposals.

Condition:

The proponent must consult with Transport for NSW, the Light Rail Operator, and the land owner regarding the development of plans for the proposed Student Accommodation. Issues to be considered as part of the consultation where buildings encroach upon the corridor include, but are not limited to:

- any impacts on services or the requirement for augmentation of these services
- structural and built form requirements including, but not limited to overhead protection and deflection walls
- the creation and registration of easements including for electrolysis, noise and vibration
- Documentation is to be submitted to the relevant design authority at least one month prior to the commencement of relevant works, or earlier if required by the relevant design authority.

Exhibition Stop

Transport for NSW generally supports the proposed connectivity improvements to the Light Rail Exhibition stop. However, the information provided does not contain sufficient detail (e.g. concept plans) identifying the extent and location of the proposed improvements, or the interface of these elements with existing Light Rail infrastructure. To ensure the proposed improvements are compatible with the Light Rail infrastructure and operational requirements, consultation with Transport for NSW during design development will be essential.

The proponent will be required to submit detailed design plans for any works within, or in proximity to the Light Rail corridor to the relevant design authority for review and approval prior to the commencement of works. Similarly, all corresponding construction activities may only be carried out by a rail accredited contractor.

Accordingly, it is recommended that the following condition be applied by DP&I as part of any planning consent for the SSD proposals.

Condition:

Any proposed works within, or in proximity to the Light Rail corridor, or related to the Light Rail stops shall be developed in consultation with Transport for NSW. Detailed designs and management plans must be submitted to Transport for NSW for approval at least one month prior to the commencement of relevant works.

The proponent must also submit detailed design documentation to the relevant design authority for review and approval prior to the commencement of works. Documentation is to be submitted to the relevant design authority at least one month prior to the commencement of relevant works, or earlier if required by the relevant design authority.

Cumulative Impacts

Further detailed assessment is required in relation to the potential cumulative construction impacts of the following major transport infrastructure projects:

- CBD & South East Light Rail Project
- Inner West Light Rail Extension
- Monorail Removal Project
- Wynyard Walk Project

The cumulative construction impacts should be addressed as part of a Construction Environmental Management Plan to be developed in consultation with Transport for NSW. The potential operational impacts with regards to current and future light rail infrastructure requirements should be addressed through a collaborative design process between the proponent, Transport for NSW (as operator of Light Rail) and RailCorp (as the land owner).

Traffic Analysis

- The Aimsun Model Calibration and Validation is only based around GEH criteria. The calibration and validation ignores other criteria (as indicated within RMS's Traffic Modelling Guidelines) such as travel times and queue lengths. In addition, for simulation models, the guideline recommends detailed analysis of critical movements to ensure they do affect modelled outcomes. Therefore, Hyder will be required to demonstrate to the satisfaction of the RMS that the base Aimsun traffic model has been suitably calibrated and validated against all agreed key criteria within RMS's Traffic Modelling Guidelines – RMS 13.184. This document can be downloaded at the following link:

http://whome.rta.nsw.gov.au/doingbusinesswithus/downloads/technicalmanuals/technicalmanuals_dl1.html

For one of the GEH criteria (Links with difference in flow within 15% for flows between 700 and 1700vph) - The target required is 85%. Yet on the Friday PM peak they only reach 64%. The report then explains the following: *"Large traffic flow difference is observed at Goulburn Street / Sussex Street and Sussex Street / Hay Street due to upstream and downstream congestion. However, it does not impact on the study area"*. This would be acceptable to RMS on the proviso that Hyder can clearly demonstrate that their model reflects conditions outside the study area, if such impacts are felt within the study area.

- The proposal will now force vehicles leaving both the proposed Haymarket carpark (400 spaces) and Theatre carpark (107 spaces) to travel southbound towards Ultimo Road. Yet, there is no traffic analysis (either Aimsun or SIDRA) conducted for the intersection of Darling Drive / Ultimo Road. However, the report concludes in the section titled (Next Steps) that *"Detailed assessment of the Darling Drive / Ultimo Road intersection is to be carried out as part of the relevant DA submissions"*. This should be done now as the changes caused by this current application would affect this intersection.
- Traffic distribution is as follows: 60% arrive/depart from the north via Darling Drive north; 10% arrive/depart from the east via Goulburn Street and George Street; 15% arrive from south via Darling Drive south; 25% depart to south via Darling Drive south; 10% arrive from north via Harbour Street north; 15% depart to the north via Harbour Street north; 5% arrive from east via George Street / Hay Street. The report states: *"This traffic distribution follows the observed directional flows taken from Hyder's Sydney Strategic Model"*. Strategic models are for strategic modelling, not detailed distribution at a very local level. Therefore, traffic distribution should be determined through survey data of patrons attending functions at this precinct or other observations.
- In Appendix C, detailed SIDRA outputs for the *"Future Intersection Performance"* have not been included within the report. RMS would appreciate receiving such information for review.
- The Aimsun intersection analysis identifies intersection operational issues at a number of intersections yet no clear recommendations (re: feasible road infrastructure improvements) are provided on how to minimise the problem at the key intersection of Harbour Street / Liverpool Street. This shall be satisfactorily examined and addressed by the proponent.

- With regard to the sensitivity analysis undertaken for George Street Light Rail the report states that *"An indicative model run was carried out using Hyder's Sydney Strategic Model to determine the likely impact on traffic flow on the surrounding network. The model indicated the shift of vehicle movements onto Harbour Street and increasing Harbour Street traffic volume by 10%".* The analysis was conducted for the following two intersections using SIDRA:
 - Harbour Street / Pier Street / Goulburn Street
 - Harbour Street / Liverpool Street

This should have been done using Aimsun as the above intersections are affected by queue spillback and the SIDRA analysis would not have taken this into account. In addition, the sensitivity analysis should also model and consider other nearby potential closures / changes to the local street system, which include changed traffic conditions in Thomas Street between Hay Street and Ultimo Road (i.e. reduction from two lanes to one lane southbound). Details of these changes can be obtained from City of Sydney Council.

Other Traffic and Road Safety Issues

- The proposal intends to reduce parts of Darling Drive (southbound) to one lane per direction. The plans highlight a number of changes which will add to the traffic delays for southbound vehicles which include the following:
 - Currently if the entry capacity into the Exhibition Centre car park is temporarily exceeded, there is the opportunity for vehicles to queue out into the kerbside lane along Darling Drive. However, under the proposed changes, such a scenario will result in the full blockage of southbound traffic along Darling Drive.
 - Pedestrian demands to cross the proposed marked foot crossing across Darling Drive (located between the Exhibition Centre and the Theatre) will increase significantly. The increased pedestrian crossing volumes will further delay southbound traffic.
- In addition, concerns are raised in relation to traffic growth along Darling Drive (i.e. 5-10 years post development) and mid block flows associated with Friday / Saturday PM peak hours plus concurrent Theatre event / concert traffic conditions. The proponent must demonstrate to the satisfaction of RMS / Council that the mid-block capacity of Darling Drive (within the areas of the proposed reduction to one lane) will not be exceeded, and that Darling Drive will not become blocked as a result of the issues raised above.
- The report states: *"North of the Darling Drive / Pier Street roundabout the dual lane two-way segregated cycle-way will be provided along the western side of Darling Drive, until it meets the proposed scramble crossing in the northern sector by the ICC and Hotel".* Before RMS will consider this matter further, the proponent will need to submit detailed information to RMS for review which details the need for this crossing along with details demonstrating that warrants can be met.
- The proposed marked foot crossing across Darling Drive (located between the Exhibition Centre and the Theatre) crosses multiple lanes of traffic along Darling Drive. To address pedestrian safety and to comply with RMS requirements, consideration shall be given to providing signals at this crossing location.
- RMS also requires further information relating to the at-grade pedestrian / cyclist crossings along Darling Drive and whether grade separation of such movements was investigated for feasibility.

- With regard to the cumulative impacts from surrounding construction sites the report states: *"It is noted that construction at the Barangaroo site has the option to transport by sea transport via Darling Harbour"*. Hyder is advised that sea transport for construction at the Barangaroo site is no longer feasible, which will therefore result in increased road based construction traffic impacts. The report should be mindful of this change and suitably demonstrate to the satisfaction of Council / RMS that cumulative traffic impacts from surrounding construction sites will not detrimentally impact key roads within and around the Sydney CBD.
- The report does pick up on the fact that there are quite a number of crashes at the Darling Drive / Pier Street roundabout. No mention is made in the report about how to improve or address this. However, the report does mention the need for a more detailed road safety audit to determine future measures (with regard to pedestrian safety on Darling Drive and also pedestrian safety along Harbour Street). Therefore, it is recommended that the proposed road safety audit will also need to examine this intersection in more detail and recommend any suitable ameliorative measures to improve road safety.
- The report recommends road infrastructure improvements at Goulburn Street incorporating a westbound right turning bay extension at the intersection with Harbour Street. However, the proponent will need to have a closer look at this proposed improvement as there appears to be difficulties in lengthening this bay. There might be scope to provide a triple right turn from Goulburn Street into Harbour Street northbound. This should be examined further in consultation with the RMS.
- The previous MottMacDonald report prepared for Infrastructure NSW (which is Appendicised to the Hyder Report) makes the following key statements with regard to Goulburn / Pier Street / Harbour Street:

"This intersection is currently underperforming during major events and is in need of an ameliorative treatment. There are currently three turning lanes from Pier Street into Harbour Street... Three lanes are insufficient to provide an acceptable level of service or saturation level for this movement. However... relocation of the Sydney Entertainment Centre which would redirect a significant pedestrian travel path across this intersection. In turn, this will further deteriorate the intersection's performance. The intersection will need to be redesigned with a view to increase the capacity of the left turn from Pier Street into Harbour Street as well as increasing the storage capacity of the islands (for pedestrians)".

The Hyder report does not make any clear comments about this matter and / or how to address these issues. This issue must be addressed by the proponent.

- The report for the Haymarket Precinct examined the potential for queue spillback from the Goulburn Street / Pier Street / Harbour Street intersection back to the proposed Haymarket Precinct egress driveways onto Harbour Street. However, the methodology used to analyse this is incorrect due to the fact that it didn't take into account that queue spillback occurs during the peak periods from downstream intersections along Harbour Street back to the Goulburn Street / Pier Street / Harbour Street intersection. The proponent must re-examine this matter and provide satisfactory evidence that the proposed Haymarket Precinct egress driveways onto Harbour Street will not be affected by queue spillback from the Goulburn Street / Pier Street / Harbour Street intersection

Standard Conditions / Requirements:

1) Construction Traffic Management Plan

Individual Traffic Management Plans (TMP) shall be prepared for each construction site in consultation with RMS, Transport Management Centre (TMC), Council and other agencies, prior to the commencement of substantial construction on each site. The TMPs would be forwarded to RMS / TMC for review and approval. Where Council is the Roads Authority approval of the TMP shall be sought from Council, in consultation with the RMS/TMC.

All TMPs shall be certified by the Contractor's Traffic Manager and subject to road safety audits by the Contractor.

The TMPs must include, but not be limited to the following:

- a. An introduction to the construction phasing and brief narrative on proposed work
- b. A description of the Construction Activities for all areas affected by the Plan and integration with the adjacent work areas
- c. A description of existing traffic conditions, including length, direction and type of road (regional, local road function etc), important access points, brief description of current AM, business and PM peak traffic volumes, a description of number and type of lanes applying to both weekdays and weekends and a description of parking/loading zones applying to both weekdays and weekends
- d. Details of Construction Program
- e. Constraints affecting construction, including:
 - Working hours
 - Impact on utilities such as traffic signal controllers, TCS posts, smart poles, traffic signal roadway duct, stormwater and other utilities
- f. Results of traffic modelling, results of bus travel time surveys etc as required
- g. Traffic Construction Impacts, including
 - Any restriction of access and any intermittent stoppage to traffic
 - Any affects on specific road users, in particular buses.
 - Impact on pedestrians and cyclists and access to properties and use of barricades and advisory signs, as necessary, to warn and guide pedestrians around the construction site, and redirection to alternative pedestrian crossing points
 - Traffic impacts, including changes to traffic signal phasing
 - Construction site traffic generation and access, including spoil access routes, type of truck to be used, consideration of geometry and manoeuvring requirements on the route, separate routes for contaminated spoil removal. In principle priority will be given to the use of State or Council roads (may require separate Haulage Management Plan)
 - Impact on bus operations
 - Impact on other public transport
- h. Traffic control construction program, including:
 - Provision of traffic barriers
 - Alteration to lane lines
 - Minimum lane widths
 - Alterations to pedestrian crossings
 - Security fencing
 - Night time delineation such as flashing lanterns, linemarking incorporating glass beads, raised reflective pavement markers, lighting
 - Provision of signposting – directional, advisory, regulatory
- i. Details of advertising and communication, including radio, newspaper and letterbox distribution.
- j. Use of Variable Message Signs under TMC control

- k. Request to use any VMS under TMC control
- l. Notification of Authorities, including Police, STA and Council

The applicant must meet all costs in regards to the provision of any supplementary staff or technical services provided by Transport Management Centre (TMC).

2) A Road Occupancy Licence (ROL) must be obtained from the TMC for any activity likely to impact on the operational efficiency of the (state) road network. The ROL allows the applicant to use a specified road space at approved times, provided certain conditions are met. Proponents must allow a minimum of 10 working days for processing from date of receipt. Traffic Control Plans are to accompany each ROL application.

3) Prior to the issue of any construction certificate(s), the proponent will need to provide details to the satisfaction of Council regarding a suitable off-site truck marshalling yard, for waiting vehicles in order to facilitate bump-in / bump-out to events.

4) Prior to the issue of any occupation certificate, the proponent must prepare an Event Management Plan and Traffic and Pedestrian Management Plan in consultation with RMS, TMC, Council, Transport Agencies, NSW Police, CBD Parking Operators. These plans must be forwarded to RMS, TMC, Council and Transport for NSW for approval.

The plans should be prepared to address the following matters:

- a. Maximising public transport use.
- b. Traffic and crowd management.
- c. Safe and efficient access to and from the venue.
- d. Minimising disruption to public transport prior to and after events.
- e. Enhancing access to car parking / minimising traffic congestion at the end of events.
- f. Uninhibited access for emergency vehicles.
- g. Efficient access / egress for heavy vehicles.
- h. Establishing processes / procedures for individual Event Management Plans.

5) Transport for NSW supports and recommends that the proponent implement the following Travel Behaviour Change initiatives, as mentioned within the Transport and Traffic Assessment report:

- Tickets with subsidised public transport.
- Preferential parking for car share operations / reduced parking fees.
- Way-finding, signage and infrastructure providing real time information on travel operations.
- End trip facilities (ie. bicycle facilities, lockers, showers, change rooms, etc).
- Green Travel Plan implementation.
- Incentives for public transport users.
- Car park design / Dynamic Parking signage (VMS) – illustrating parking availability

In addition, to further facilitate the effective management of traffic around the Precinct, the proponent (in consultation with RMS, TMC and Council) will also be required to install VMS on key roads / streets in approach to the site along with CCTV at agreed locations. This must be implemented prior to any occupation certificate.

6) The layout of the proposed car parking areas associated with the subject development (including, driveways, grades, turn paths, sight distance requirements, aisle widths, aisle lengths, and parking bay dimensions) should be in accordance with AS 2890.1- 2004 and AS 2890.2 – 2002 for heavy vehicle usage.

7) The proponent must ensure that the car park entries / exits are designed in such a manner as to ensure that the future queuing areas and capacity requirements comply with Appendix D of AS 2890.1-2004 and that right turn bays along Darling Drive are of a sufficient length to ensure that there is no queuing out of the bay into the adjacent through lane.

8) RMS Sydney Asset requirements:

- a) Any excavation adjacent to RMS infrastructure will need to comply with RMS Technical direction GTD 2012/011.
- b) If any new structures or footings are proposed near or adjacent to the existing deep raked piles associated with the Western Distributor piers, then RMS approval and consultation must be obtained prior to any construction commencing.
- c) No permanent infrastructure is to be constructed by the proponent within at least two metres of the surface of any part of the Authority's structures.
- d) The Development must permit 24 hour inspection and maintenance access to the Authority's bridge structure without any cost to the Authority.
- e) Proposal(s) for any modification of RMS structure(s) require RMS prior approval. In this regard, detail proposal(s) need to be submitted for RMS approval at least six weeks prior to construction commencing.
- f) Wherever there may be limited clearance between the roof of the proposal and the Western Distributor viaduct, the roof area under the viaduct will need to be designed as a work platform so that it can carry men and material during inspection maintenance works.

9) Proposed civil works to the Western Distributor viaduct, changes at the signalised intersections of Pyrmont Bridge Road / Darling Drive / Murray Street, Goulburn Street / Pier Street / Harbour Street, Darling Drive / New Laneway at Hay Street (TCS #2836) and potential new signalised crossings along Darling Drive shall be designed in accordance with Austroads with RMS supplements, RMS' Traffic Signal Design Manual other Australian Codes of Practice. Design plans shall be prepared by a suitably qualified practitioner and submitted to RMS for consideration and approval prior to commencement of any road works.

10) The proponent will be required to enter into a Works Authorisation Deed (WAD) for the abovementioned traffic signal and civil works. The Works Authorisation Deed (WAD) will need to be executed prior to RMS' assessment of the detailed design plans.

11) The proponent shall be responsible for all public utility adjustment/relocation works, necessitated by the above work and as required by the various public utility authorities and/or their agents.

12) All works / regulatory signage associated with the proposed development are to be at no cost to the RMS.

