

Table 5-20 Car Park Benchmarking

Facility	Venue Capacity (persons)	Car park Spaces	Attendees per Car Park Space
Melbourne Convention and Exhibition Centre	8000	1610	5
Adelaide Convention Centre	9500	1200	8
Brisbane Convention and Entertainment Centre	17500	1600	11
ICC Sydney	8500	1226	7

In conclusion, based on a carpark sizing based on revenue and demand, the following is noted:

- Car park capture rate is 21% of the number of event attendee days
- Daily car park capacity equals 1.25x the number of bays

The analysis of three peak demand scenarios (daytime weekday, daytime weekend and evening) demonstrates that the car park solution provides adequate parking for daytime weekday demand. Excess peak weekend day and evening demand can be serviced by surrounding supply of carparks as there will be excess available capacity outside of working hours.

Such an approach is expected to provide the greatest value for money option for the State by not requiring the construction of additional peak demand infrastructure that is likely to be used less frequently.

It is concluded that the carparking bays of 826 proposed for the PPP plus the 400 space public car park in the southern precinct are sufficient to serve the carparking demands of the events/conventions/exhibitions and at the same time offer the best value for money for the State.

5.5.3 CAR PARKING REQUIREMENTS FOR THE HAYMARKET PRECINCT

On-site car parking provision for The Haymarket is assessed against guidelines listed in the *RMS Guide to Traffic Generating Development (Section 5 – Parking Requirements for Specific Land Uses)* and parking rates approved for similar developments within the City of Sydney LGA (CoS).

Parking rates generally vary by type of land use development and location of development. Factors to be considered include the availability of public transport, mode split, car occupancy, availability of on-street parking, and others.

RMS Guidelines

The RMS Guidelines stipulates parking rates based on surveyed developments and researched conducted by the RMS. For the RMS, the main criterion in the assessment of parking provided for developments is the adequacy of off-street parking to meet the peak parking accumulations observed and thereby discouraging on-street parking thus maintaining the existing levels of service and safety of the road network. Hence, the RMS guidelines stipulate the required minimum parking provision for a specific development. The Guide also notes that potential

variations between local government areas must also be considered. Thus, these parking provision rates will be validated against the City of Sydney Council's rates.

Table 5-21 RMS Parking Rates and Proposed provisions

Land Use Type	Units / Rooms / GLA ³	RMS Suggested Parking Rates	RMS Guidelines for Parking Requirements	Proposed Parking Provision
Residential Studio ¹	122	(0.4 spaces/1 bedroom) ¹	735 spaces	990 spaces
One bedroom	653	0.4 spaces/1 bedroom		
Two Bedroom	558	0.7 spaces/2 bedroom		
Three Bedroom	27	1.2 spaces/3 bedroom		
Visitor parking:		Plus 1 space/7 units	194 spaces	0 ²
Office/ Commercial	25,000 sqm GFA	Unrestrained – 1 per 40sqm Restrained - 1 per 125sqm GFA (assuming Category E, CoS DCP2012) ⁴	200 spaces (25,000 sqm GFA)	50
Retail	7,689 sqm GFA	1/50 sqm GFA	154 spaces	0
TOTAL			1089 spaces	1,040 spaces

¹ No rates stipulated for Studio type, assumes same rate as one-bedroom.

² Visitor parking will be at the public carpark.

³ Indicative only. The site does not fall within an assigned category and the adjacent areas are Category D and F. Based on the above parking rates of the RMS, the estimated minimum car parking requirements for The Haymarket Precinct is 1089 spaces. A total of 1040 spaces will be provided in the precinct plus the 400 space public carpark to be located in the northwest sector. Hence, The Haymarket Precinct development complies with the minimum provision as required from the RMS guidelines.

City of Sydney Council Parking Rates

On the other hand, the City of Sydney Council's Development Control Plan (DCP) states that car parking spaces must be provided to meet the car parking needs of the development having regard to the accessibility of the development and Council's policy of reduced car dependency. Council has clarified that the DCP is written to indicate the maximum number of car parking spaces allowable and not to impose an absolute minimum of car parking spaces required. Various DCPs have been developed by Council to apply to specific areas of the City.

Sydney DCP 2012 is the most recent DCP that covers the Pyrmont and Darling Harbour and it supports the Sydney Local Environmental Plan (LEP) 2012 with more detailed planning and design guidelines for developments within the CoS. However, the SICEEP development site is excluded from the area covered under the Sydney LEP 2012 and hence, the parking rates contained in the LEP do not apply to the development proposed. Instead, the development seeks approval for parking rates that are considered appropriate for the development on the basis of comparisons with rates applied to the immediate surrounding areas and known CoS approved rates of comparable land use developments.

Residential

The proposal seeks development approval for a total of 1,360 residential units totalling 124,393 sqm GFA. The parking rates being proposed are:

- Studio apartments – 0 space`
- One bedroom – maximum 0.5 space
- Two bedroom (includes 1 bedroom plus study) – maximum 1 space plus 1 space per 5 units
- Three bedroom and more – maximum 2 spaces

The proposed rates being sought for The Haymarket Precinct residential component are consistent with those approved for comparable developments within the City of Sydney. Comparable developments in the area that have been approved with the above parking rates include:

- Carlton and United Brewery (CUB) site in Chippendale 1400 dwellings with 132,950 sqm GFA. Based on the mix of units, a total of 1,072 parking spaces for residential use
- The Quay site in Haymarket – 271 residential apartments and 270 parking spaces.
- Harold Park – 1,250 dwellings with 120,361 sqm GFA. The parking rates applied to Harold Park differ slightly from the above since the maximum car parking spaces is set out in a site specific LEP.

With the future mix of land uses between The Haymarket and the PPP, demand for parking will balance across different peak periods and consequently, reduce potential impacts associated with parking provision.

Office / Commercial

It is proposed to incorporate a maximum of 25,000 sqm of GFA allocated for office/commercial development and proposes to provide a total of 50 spaces to support the office/commercial space. This equates to 1 space per 300 sqm commercial GFA.

The above rate is comparable to Darling Walk which has a GFA of 64,000 sqm and basement parking with 200 spaces.

Retail + Student Accommodation

No car parking is proposed to support the retail and the student accommodation land uses on the basic premise that the development site has the locational advantage of being in close proximity to existing public transport and active transport modes and it is anticipated to also mainly service the local areas surrounding the site whereby patrons will likely access the site via walking trips. It should be noted that significant enhancements for the active transport network for the immediate area is being proposed as part of the development proposal.

Table 5-22 summarises the parking rates for The Haymarket.

Table 5-22 Summary of Proposed Parking Provision for The Haymarket Precinct

Land Use Type	Proposed Parking Rates for The Haymarket	Proposed Parking Provision
Residential		990 spaces ¹
Studio	0 spaces	
One bedroom	0.5 spaces/1 bedroom	
Two Bedroom	1.2 spaces/2 bedroom	
Three Bedroom	2 spaces/3 bedroom	
Office/ Commercial	1 space / max 300 sqm GFA	50
Retail	No provision	-
Student accommodation	No provision	-

This is based on an indicative design. Final parking provision based on these rates will be finalized with each Stage 2 DA.

Hotel

The hotel development is expected to require minimal parking. The majority of trips to similar developments located near the CBD generate walking trips than vehicular trips. The majority of guests would arrive at the hotel via taxi, coach, mini bus or light rail. A relative small proportion would arrive by private car or hire car. Other hotel patrons who visit the hotel for functions or conferences arrive by private vehicle but will be expected to find parking in the public carparks in the vicinity of the site. Moreover, most Sydney CBD businesses only provide a small number of staff parking spaces and the majority of the staff are expected to use non-car modes for travel to work.

5.6 LOADING FACILITIES

Loading dock facilities to all of the ICC Sydney will be provided during the operational phase of the development, in accordance with the Project Brief. Loading facilities will be provided at three key nodes:

- ICC Bayside Loading Dock
- ICC Exhibition South Loading Dock
- The Theatre Loading Dock

All loading dock facilities will be designed in accordance with Australian Standard AS 2890.2 – Parking Facilities Part 2: Off-street commercial vehicle facilities. The loading dock design for ICC Sydney will allow parking and containment for up to 43 trucks loading at any one time plus trucks accommodated within halls during unloading with significantly improved efficiency compared to existing loading dock arrangements.

The overall loading design will accommodate concurrent operation of sufficient loading/unloading positions to all ICC Sydney, during major single and concurrent events. Furthermore, the proposed layouts will ensure that separation between loading vehicle access and public access points to the ICC Sydney is maintained. A suitable off-site truck marshalling yard, for waiting vehicles will be developed at a future date, to allow a bump in/bump out system to operate, as part of the operator's future loading dock traffic and operations management.

Table 5-23 Proposed Loading Dock Capacity

Facility	Capacity
ICC Bayside Loading Facility	
Pantecs / 19.0m articulated vehicles	3
Vans / 8.8m medium size vehicles	4
ICC Exhibition Centre Loading Facility	
RL6.0m - 19.0m articulated vehicle	18
RL21.0m - 19.0 articulated vehicle	14
The Theatre Loading Facility	
19.0m articulated vehicle	3
12.5m HRV	1

5.6.1 THE ICC BAYSIDE LOADING FACILITY

The ICC Bayside loading dock facility is provided at RL2.5m and can accommodate three pantecs (or 19.0m articulated vehicles) and four van bays (or 8.8m medium size vehicles), at any one time. It will serve two purposes: (1) as production loading dock for entertainment events in the 2,500 seat Darling Harbour Theatre as well as OB Van parking and (2) as the In-House Loading dock for the kitchen and general loading deliveries. The theatre and kitchens are located on RL 5.8m and is connected to the loading dock by a lift shaft.

A direct at-grade access to the loading dock facilities to the ICC Bayside is proposed off the southbound lane of Darling Drive. A slip lane approximately 40m in length is proposed adjacent to the southbound lane of Darling Drive, prior to the access point for the ICC Bayside loading dock facility. This slip lane will allow the designated containment and queuing of two 19.0m articulated vehicles.

The loading dock facility is sufficiently large, to allow the turning movements of a 19.0m articulated vehicle to manoeuvre into the loading dock bays without encroaching onto the public roadway.

5.6.2 THE ICC EXHIBITION CENTRE LOADING FACILITY

Loading dock facilities to the ICC Exhibition Centre are proposed in two locations, on the first level (RL 6.0m) and upper level (RL21.0m) of the ICC Exhibition. Access to the first level loading dock is proposed via a slip lane on the southbound lane of Darling Drive. The slip lane is approximately 155m in length, up to the start of the loading dock access ramp. This will provide a traffic management system, allowing the queuing and containment of vehicles in the designated lane, outside of the main public travel lane. Further vehicle queue containment of 150m is provided within the loading dock access ramp and circulation lane, prior to vehicle arrival at the loading dock facility.

The loading dock facilities on the lower level are accessed via a one way circulation system in the clockwise direction leading to a large loading dock facility on the eastern side of the ICC Exhibition building. The one way circulation roadway will eliminate conflict of vehicles, allowing for a more efficient operation of the first level loading dock facility.

This loading dock facility will cater for the containment of eighteen (18) 19.0m articulated vehicles, at any one time. Egress from this loading dock facility is proposed via the one-way

circulation lane, which exits south of the ICC Exhibition, onto Darling Drive. Access and egress arrangements to the surrounding road network will therefore be maintained via the southbound lane of Darling Drive. Vehicles will only have to travel 100m to the Pier Street/Darling Drive roundabout that will enable them to travel northbound, via the northbound Darling Drive lane, or southbound via Darling Drive or Pier Street.

Further loading dock facilities are provided for the ICC Exhibition on the upper level. A new access ramp structure will be constructed above Darling Drive. Access to the upper level loading dock is proposed from the same slip lane off the southbound Darling Drive laneway, as for the first level loading dock. Rather than navigating the first level circulation lane, a supplementary ramp structure, located on the western side of the ICC Exhibition, will link the first level (RL 6.0m) loading dock ramp, with the upper level (RL 21.0m) loading dock.

Consequently, this provides a similar traffic management system, allowing vehicles to queue in a designated queue lane, approximately 155m in length, outside of the main public travel lane. The upper loading dock facility for the ICC Exhibition, will cater for the containment of fourteen (14) 19.0m articulated vehicles, at any one time

Access to the upper level loading dock is made from the southern end, with vehicles exiting on the northern end of the loading dock. This will alleviate conflict of vehicle movements within the upper level loading dock, providing separate access and egress at opposite ends of the upper level loading dock.

Egress from the upper level ICC Exhibition loading dock facility, is proposed via two ramps connecting the upper level to the first level, and then the first level with the southbound lane of Darling Drive. Vehicles exiting the upper level loading dock will not have to circulate around the ICC Exhibition building on the first level, as a separate exit point is proposed along Darling Drive. This will assist with the operation of concurrent loadings on both the first and upper levels of the ICC Exhibition.

The location of the lower loading dock under the exhibition building will reduce truck noise impacting the surrounding neighbourhood while the upper level loading dock will be acoustically treated to ensure noise levels are within the required boundary noise requirements.

5.6.3 THE THEATRE LOADING FACILITY

Loading dock access to The Theatre will be provided in a similar location, to the current loading dock arrangement to the existing Exhibition Centre building. Access to The Theatre will be via a loading dock access ramp, located off the existing Darling Drive / Pier Street roundabout.

The Theatre loading dock will allow for the containment of three (3) 19.0m articulated vehicles and one (1) 12.5 HRV, within the loading dock facility, at any one time. Access and egress to The Theatre loading dock facility will be maintained with similar connections to the existing road network, via the northbound and southbound lanes of Darling Drive; and from the Pier Street off-ramp and on-ramp lanes.

There is unlikely to be queuing of vehicles, within the public roadway when entering The Theatre loading dock, as the proposed loading dock access ramp will accommodate the containment of two (2) 19.0m articulated vehicles. The Theatre loading dock access ramp will allow the passing of vehicles, entering and egressing the facility concurrently.

5.6.4 LOADING FACILITY IN THE HAYMARKET

The design layout for The Haymarket is still currently being finalised. The preliminary drawings include provisions for loading facilities within carparks. The loading areas are designed to accommodate mainly delivery vans/service vehicles/8.8m medium size vehicles.

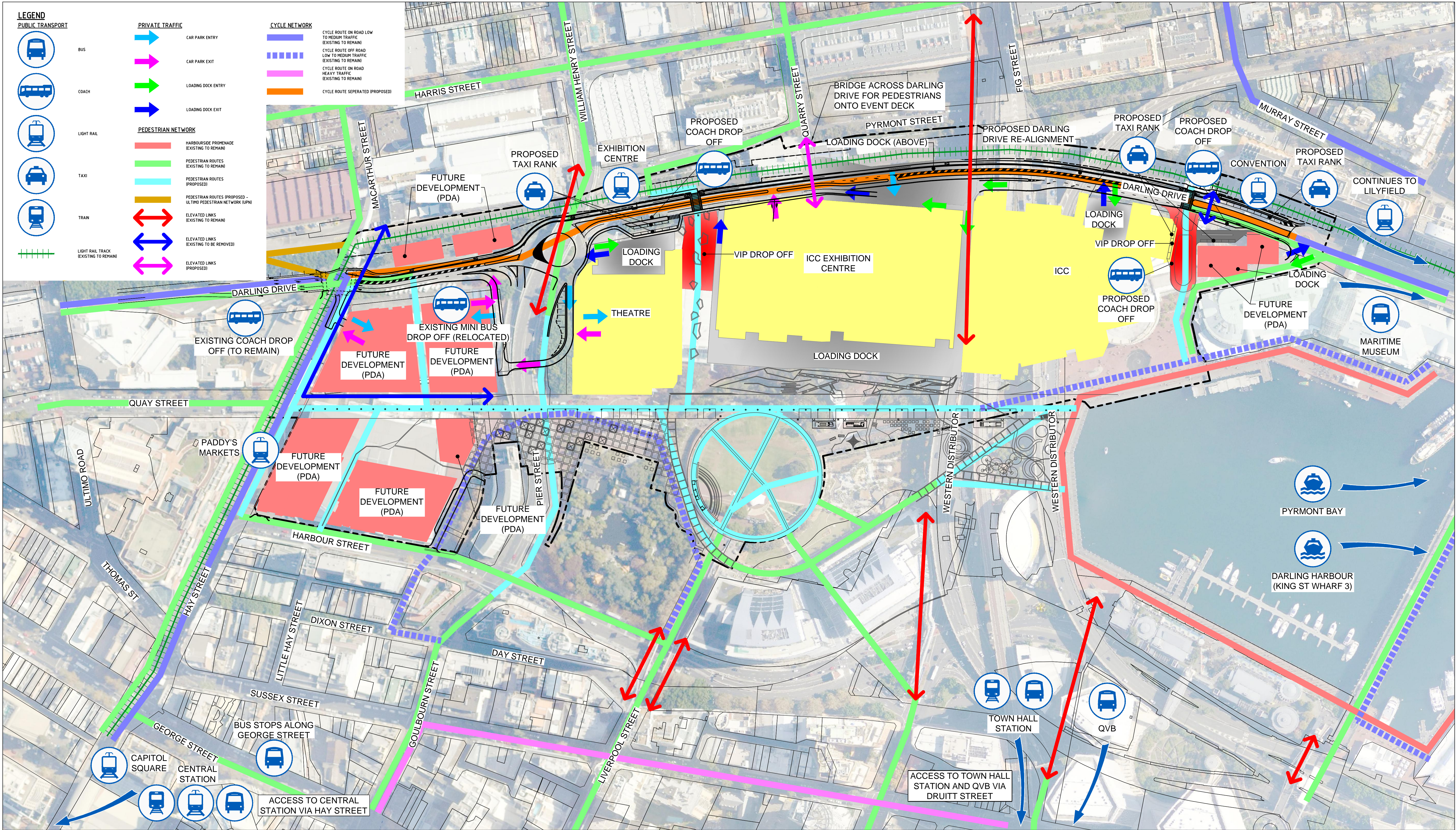
A service area is also being proposed south of the student accommodation block to accommodate mainly service vehicles/delivery vans for the student residents moving furniture and white goods to the student accommodation.

5.7 PEDESTRIAN NETWORK

The proposed pedestrian network builds on the initiatives introduced with the Ultimo Pedestrian Network and the Chinatown Public Domain Plan and provides interfacing with the improved pedestrian network around South Darling Harbour. Aside from maintaining existing routes, the design will extend the UPN to Darling Drive to improve access and strengthen linkages between Central Station, the education precinct (UPS/TAFE), Haymarket, Chinatown from the south towards the Powerhouse Museum and Darling Harbour to the north. The reconfiguration of Darling Drive and the new pedestrian connections will enhance accessibility to Quarry Street to the west and create new east-west connections through Tumbalong Place.

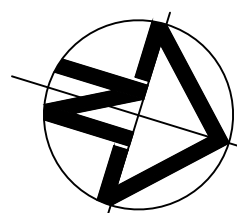
The design proposes to enhance at-grade pathways through the Haymarket towards Tumbalong Park creating a direct north-south promenade extending from Quay Street to the Harbourside and linking major public gathering spaces (Haymarket Square, Tumbalong Park and Harbourside) within the Precinct.

The Traffic Transport and Access Plan (shown in Figure 5-24) illustrates the proposed pedestrian connections and linkages



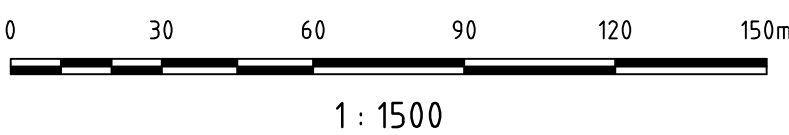
DARLING HARBOUR LIVE

REFERENCE MAP



NOTES:

- DO NOT SCALE FROM DRAWINGS. WORK TO WRITTEN DIMENSIONS ONLY.
- ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
- ALL COORDINATES TO MGA. ALL LEVELS TO AHD.
- ALL DIMENSIONS, COORDINATES AND LEVELS TO BE VERIFIED ON SITE BEFORE PROCEEDING WITH WORK. HYDER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACTS, SPECIFICATIONS AND DRAWINGS.
- PRECINCT BOUNDARIES ARE INDICATIVE ONLY AND ARE SUBJECT TO CHANGE.



REV	DESCRIPTION	DATE
01	ISSUE FOR DEVELOPMENT APPLICATION	05/03/2013

CLIENT

Lend Lease
PROJECT MANAGEMENT & CONSTRUCTION
LEVEL 4, THE BOND, 30 HICKSON RD
MILLERS POINT, NSW 2000

CONSULTANTS
AECOM
MECHANICAL / ELECTRICAL / FIRE SERVICES
LEVEL 21, 420 GEORGE ST, SYDNEY
NSW 2000

Robert Bird Group
STRUCTURAL SERVICES
LEVEL 5, 9 CASTLEREAGH ST, SYDNEY
NSW 2000

HASSELL + POPULOUS
ARCHITECT
LEVEL 2, 88 CUMBERLAND STREET,
SYDNEY NSW 2000

CIVIL / TRAFFIC / FACADES

HYDER CONSULTING PTY LTD
ABN 76 104 485 289
LEVEL 5, 141 WALKER ST,
NORTH SYDNEY NSW 2060
AUSTRALIA

Tel: +61 (0)2 8907 9000
Fax: +61 (0)2 8907 9001
www.hyderconsulting.com
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PROJECT
SICEEP
DARLING HARBOUR
PRIVATE PUBLIC PARTNERSHIP (PPP)



DRAWING TITLE

**TRAFFIC, TRANSPORT
AND ACCESS PLAN**

STATUS

DEVELOPMENT APPLICATION

SCALE @ A1 1 : 1500	DRAWN KMc	DESIGNED -	REVIEWED JH	APPROVED GI
PROJECT NUMBER AA004399	DRAWING NUMBER PP-CI-0011	REV 01		

5.8 CYCLE NETWORK

Darling Harbour Live proposes to build upon the initiatives of City of Sydney to improve connectivity in the Precinct with the cycle network and new public transport linkages. The proposal will create new cycling routes through the Public Domain by:

- Extending the cycling route in the east west direction and providing a new shared pedestrian and cycle pathway linking the Precinct to the west along the Darling Drive corridor link and;
- Enhancing the north-south connections at Quay Street to Harbourside via a through route between the ICC Exhibition Centre and Tumbalong Park.

As part of the realignment and reconfiguration of Darling Drive, cycle connections will be enhanced via the dual lane two-way segregated cycle path on the west side of Darling Drive. Further connections to the existing routes will be provided through new linkages on the existing road network.

The proposed cycle way will be segregated to improve the safety of cyclists along Darling Drive and will run along the western side of Darling Drive.

The dual lane cycle way will tie into a shared space zone, in the southern sector, south of the Darling Drive / Pier Street roundabout. Within this shared space zone, the dual cycle way will split and link into the existing single lane, one-way cycle way network, on either side of Darling Drive.

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. At this junction the proposed cycle-way will utilise the proposed scramble crossing to allow a safe connection to the existing single lane, one-way cycle way network, on the eastern side of Darling Drive. Consequently, the proposed cycle way will revert back to a single lane, one-way cycle way, and link into the existing cycle network on both sides of Darling Drive.

5.9 TAXIS, COACHES AND BUSES

The preferred masterplan includes provision for the following:

- Parking provision for 12 minibuses. It is noted, however, that due to the new theatre exit arrangements, storage of mini buses will occur within the various PPP loading docks (particularly, the east loading dock of the ICC Exhibition Centre) subject to this being an operator managed function;
- Parking provision for 12 coaches adjacent to the University of Technology Sydney (UTS);
- New drop-off and pick-up facilities for taxis (18 in the northern and 11 in the southern);
- Five new drop-off and pick-up taxi bays for the Hotel in Bayside;
- VIP access and drop-off at the loop road for the ICC and Hotel as well as in a shared space between the ICC Exhibition Centre and The Theatre;
- New drop-off facilities for buses and coaches (one in the south of the Precinct and one in the north). These new facilities will replace the drop-off under the Pier Street viaduct; and
- emergency vehicle access to all areas of the Precinct.