SYDNEY INTERNATIONAL CONVENTION, EXHIBITION AND ENTERTAINMENT PRECINCT

CONSTRUCTION MANAGEMENT PLAN

PPP

DATE	REVISION	PURPOSE	REVIEWED
14/3/13	1 A	2 Final	3 PH
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1.0 INTRODUCTION

This document outlines a Management Plan for the construction works component for the Redevelopment of the new Sydney International Conventional, Exhibition and Entertainment Precinct at Darling Harbour, Sydney.

This plan documents Lend Lease Project Management and Construction (LLPM&C) planning for the Development Application stage for the above mentioned works.

The contents of this document include a brief description of the project, planned project sequencing, an overview of the Environmental Management for the project, project specific Waste, Stormwater, Noise, Vibration, Air, and Traffic/Pedestrian Management Plans.

2.0 PROJECT DESCRIPTION

The Sydney International Convention, Exhibition and Entertainment Precinct (SICEEP) Project involves the redevelopment of the site of the Sydney Convention and Exhibition Centre (SCEC), the Sydney Entertainment Centre (SEC), the SEC Car Park and the surrounding Public Realm into an integrated world class convention, exhibition and entertainment precinct.

The project will involve:

- significant expansion of the convention centre, exhibition and meeting spaces compared to the current facilities, requiring complete re-planning of the existing facilities; with
- relocation of the entertainment centre to the central sector together with increased exhibition space, which will require major changes to the existing exhibition spaces in order to accommodate new entertainment facilities, also
- future developments to the north (PDA) and south of Pier Street (PDA), which do not form part of this Construction Management Plan(CMP), but would enable this CMP to be revised for future Development Approvals.

The SICEEP site is located in Darling Harbour adjacent to the Sydney CBD. The Precinct is broadly defined by Cockle Bay to the north, Harbour Street to the east, Hay Street to the south and Pyrmont Street to the west, covering some twenty hectares. Refer Appendix A

3.0 CONSTRUCTION PLANNING AND METHODOLOGY

Overall

Based on current building designs and the location of new buildings within the nominated boundaries the construction methodology has been assessed on:-

- Structural steel elements creating the bulk of structures.
- Limited space for deliveries and set down areas
- Tower cranes and crawler cranes, make up the bulk of materials handling
- maintaining the public realm and public access to Darling Harbour
- Traffic alignments to Darling Drive.

Bayside Convention Centre

Currently the methodology is to demolish completely the existing Bayside Convention Centre, remove foundations and commence piling and structure from existing ground level. The eastern element of the new

convention building is conventional concrete structure for six levels and a structural steel roof. The western element is a plenary building of intermittent floors, basically constructed of structural steel. A tower crane has been incorporated into the building for the eastern element and crawler crane for the western element. Materials handling is from the west and along northern side of new building from Darling Drive.

Parkside Convention Centre

Due to only a soft demolition to Parkside, that is, to strip back to the existing structural elements, this section is to be progressively decommissioned to allow demolition on the lower two floors to allow new fitout to commence. The top level shall be used initially for construction office and amenities until relocation into south halls to allow completion of this level. Due to the nature of new fitout consisting of new halls, meeting rooms and services, materials handling shall be from west side, Darling Drive existing loading dock.

Exhibition Centre

The existing Exhibition Halls structure shall be demolished down to existing floor level and maintaining the existing carpark underneath this level. New foundations shall be located at carpark level, allowing the erection of a new structural steel double stack and single stack halls over current floor level. The structure is steel with intermittent floors on both east and west sides of the new halls. A full span steel truss roof shall span both new halls. A new delivery truck ramps and loading dock is to be erected over Darling Drive to service the new halls. Materials handling will be from three sides, east, south and west, with tower cranes to each hall and crawler cranes from the external sides.

Multifunction Entertainment Centre

To accommodate the location of the new Entertainment Centre, the existing Exhibition Halls structure shall be demolished down to existing floor level and the existing carpark underneathwill be maintained. New foundations shall be located at carpark level, allowing the erection of a new structural steel centre over the current floor level. The structure is steel with intermittent floors on both east and sides of the new centre. A full span steel truss roof shall span the new centre. A new delivery dock and carpark are to be erected on the western side of the new centre. Materials handling will be from all sides, north, east, south and west, with crawler cranes from the external sides and within for steel erection. Overall Staging for the outlined Construction and Methodology can be located in APPENDIX B.

Public Domain

Taking into account requirements from the bid documents, the public domain works have been programmed and planned around special yearly events within the precinct to maintain it active. Staging of the works will involve completion of the main boulevard to allow a through access from Pier Street to Darling Harbour. The other stages address location and access for both construction and the general public to completion. New inground services are the main element to be incorporated within the planning. Refer to APPENDIX C

4.0 PROJECT SITE ESTABLISHMENT

The Redevelopment Construction Phase is committed to maintain minimal disruption to surrounding precincts, both on a commercial and public domain level. It is our intention to achieve this through a concurrent build with clear lines of safety and demarcation.

All hoardings will comply with all relevant regulations including lighting, signage, daily inspections and maintenance to uphold the appearance and maintain structural integrity. DHL will use a suite of comprehensive

communication channels and procedures to keep iNSW, all stakeholders, including the broader community and users of the Precinct informed of progress and awareness of construction activities and potential impacts.

We are experienced in working on fully operational commercial and public domain sites. DHL understand the focus for safety and clear wayfinding during the Development Phase. DHL also acknowledge that dust, noise and vibration needs to be kept to a minimum for the enjoyment of our neighbours, their patrons and other visitors to the Precinct. Whilst undertaking the smooth delivery of the SICEEP project DHL will ensure that construction traffic is directed and managed appropriately including nominated access routes, lay over areas , nominated access/egress points and a specific Construction Traffic Management Plan to manage deliveries.

Prior to commencing on site DHL will achieve our effective and efficient site management by applying proven systems and processes to the Development Phase

- Providing a developed security plan
- Providing an environmental work health and safety plan
- Providing a risk management plan
- Providing one point of contact for site management, our Senior Site Manager
- Engaging with local Stakeholders through our Stakeholder and Community Involvement Plan and Precinct Interface and Activation Management Plan
- Using wayfinding and technology to communicate with the wider community

Optimising Access and Egress

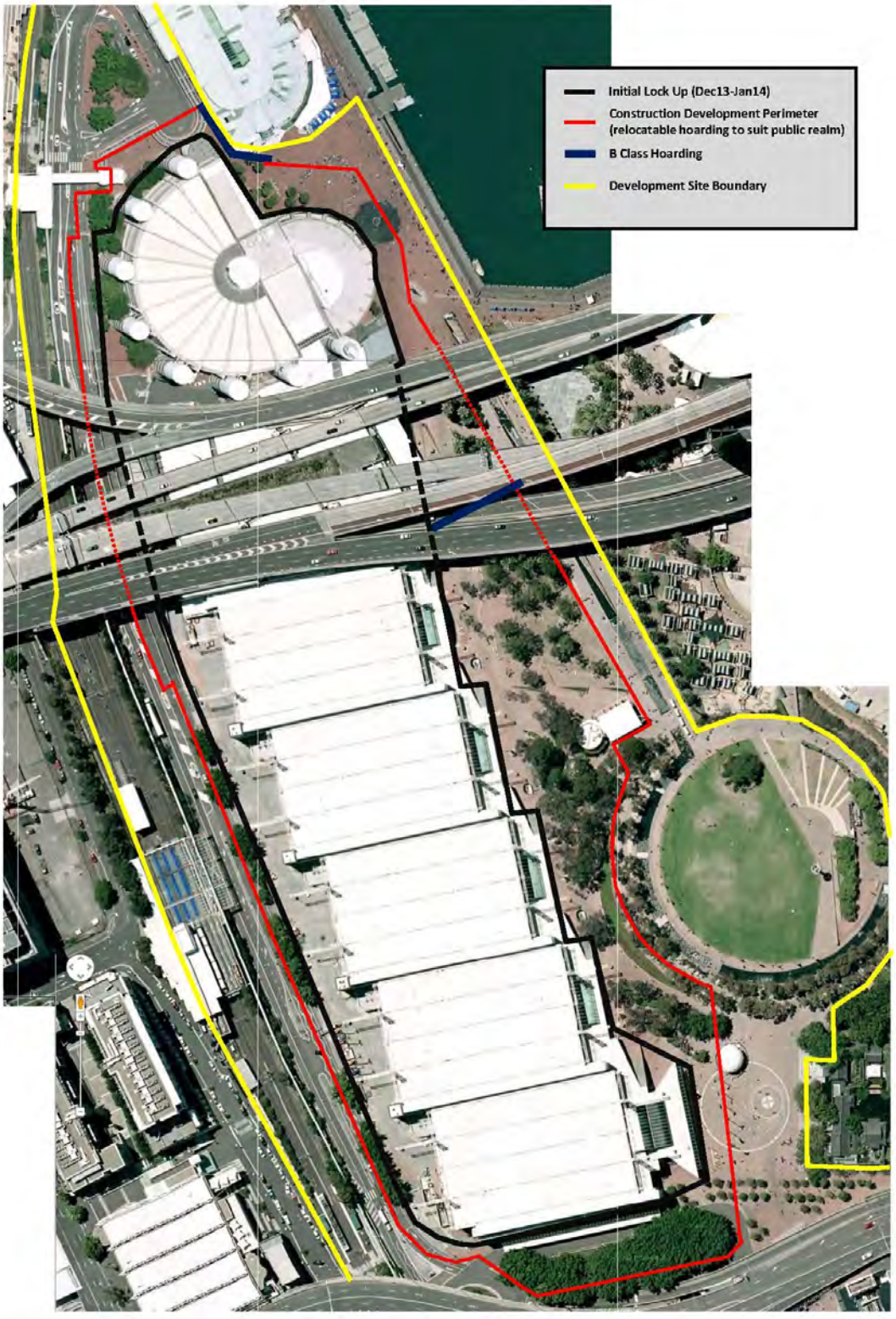
The contents of this section include an outline description and layouts of the planned mitigation arrangements demonstrating how, during the development, the pedestrian and vehicular movements will be addressed to minimise impact.

LLPM&C PPP development solution sees the concurrent build of the new Facilities in the Northern and Central Sector. To enable this, the existing Facilities will be closed down and perimeter hoardings, fences and signage will be erected to establish a secure construction site. During the establishment of this activity certain functions will be addressed to minimise the impact on the Precinct.

LLPM&C will ensure that upon initial onsite setup, the existing buildings shall be locked, barricaded or hoarded closed, to prevent any unauthorised access into the buildings and carpark. This stage also allows for office establishment, decommissioning of buildings and soft demolition to commence internally, reducing noise dust and vibration to a minimum. In adopting this process, only the existing internal spaces shall be affected at this time.

This overall approach allows the current external public domain to be used for the Christmas, New Year and Australia Day functions within the Darling Harbour Precinct for 2013/2014 celebrations. Following the aforementioned celebrations, the development site for construction will be established in early February 2014 by locating fences, hoardings and signage to occupy the area of the precinct required to commence full construction works.

The overlay below depicts the different hoarding boundaries within the Northern and Central Sectors.

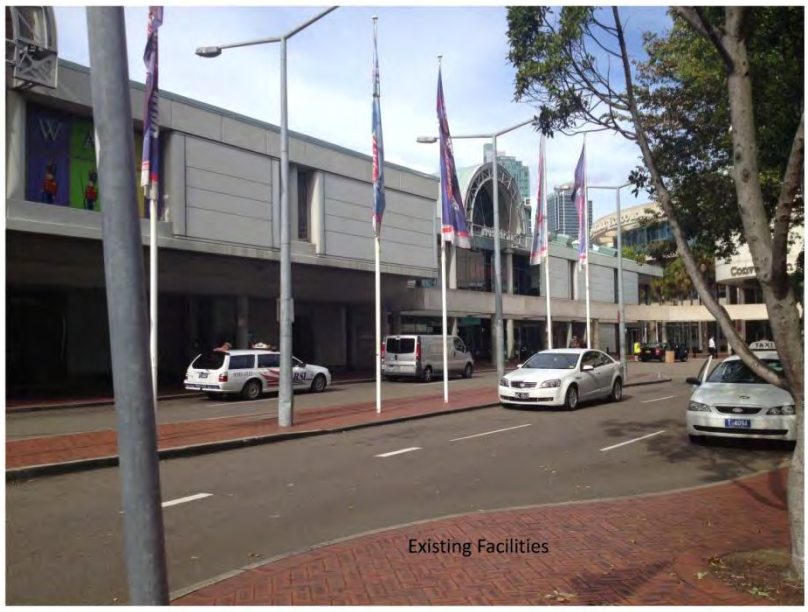


Hoarding Plan

Northern Sector

The existing drop off and pick up area to the west of Harbourside is to be maintained in its current formation, during the PPP works, including existing vehicular access to and from Darling Drive. It is envisaged that this area's function for deliveries and taxi movement, shall not be impeded by construction traffic entering the site to the south. Traffic control to this entry is to be maintained and monitored during the course of the works.

Through consultation with relevant delivery companies and taxi representatives, procedures shall be established to ensure harmony of vehicle movements within the area. This approach is used to ensure that stakeholders of Harbourside are least impacted by the works to the Facilities.



Western view of Harbourside

Current pedestrian movements from the Novotel Car Park, across Darling Drive, shall be by the existing road crossing until the existing overhead pedestrian bridge is removed as part of the monorail removal. The access then shall be redirected north of the current roundabout to allow removal of the pedestrian bridge and new realignment works to Darling Drive.

This will involve protective hoardings/fences and signage to redirect pedestrians to Harbourside, across Darling Drive. The existing public pedestrian access south along Darling Drive, on the eastern side, will be made redundant during the course of construction due to the location of the new Convention Centre building, construction access and egress for vehicle movements and alterations and realignment to Darling Drive.

Northern view of Harbourside/existing Convention Centre

Public access to Darling Harbour shall be provided to the south of the existing Harbourside building. A full overhead protective hoarding 2meters wide, shall be installed for the safety and protection of the general public during the Development Phase of the new Facilities.

Access between Harbourside and hoarding line

The public domain area to the east of the existing Convention Centre, including the Woodward spiral fountain and the 2000 Olympics monument, shall be incorporated within the construction site for the initial demolition of the existing building. During the course of construction it is envisaged that this area could be re-established to provide more public domain with the relocation of nominated fence/hoardings. These elements can be easily relocated and still provide regulatory protection. The movement of these elements could accommodate various seasonal activities such as the erection of the Darling Harbour Christmas tree. Public access to this area will still be maintained between Darling Harbour and the initial and relocated construction hoardings.

Concourse access around hoarding line

The current Western Distributor pedestrian Lift access to Parkside, is to be maintained during the course of the initial onsite setup and other construction activities during the Development Phase. The existing lift and stair shall be maintained until the new relocated lift is completed to allow the progress of construction activity. The existing lift will be maintained to provide access to an overhead protective hoarding, delivering pedestrian flow through the construction area into the public domain. The existing public access to the eastern side of Parkside, adjacent to the stream, is to be maintained during the course of construction but subject to realignment and relocation during the Public Realm works.

Maintained access from existing overpass lift

Central Sector

The existing public pedestrian access north and south along Darling Drive, on the eastern side, and the southern end of the existing Exhibition Halls, will be made redundant during the course of construction due to the location of the new Exhibition Halls, construction access and egress for vehicle movements, materials handling and alterations and realignment to Darling Drive.

This will be facilitated by redirection and relocation, from the west, of the existing pedestrian access from Quarry Street, Pyrmont Street and the lightrail station. This entails the creation of a new pedestrian pathway from the lightrail station, on the western side of Darling Drive , south, under the Pier Street overpass, creating a pedestrian crossing on the southern side of the roundabout accessing Darling Harbour between Pier Street down ramp and the existing multilevel car park within the South Sector. Once these works are completed the existing pedestrian crossing to Darling Drive is to be made redundant.

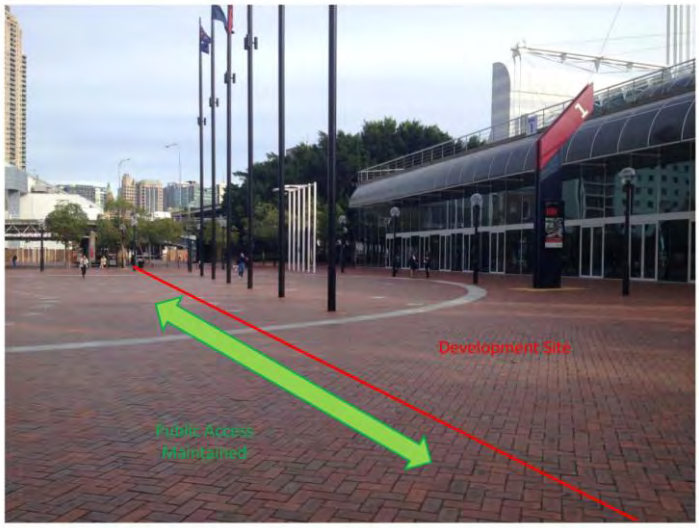
Pedestrian path to west of Darling Drive

The current roadway format to the south of the existing Exhibition Halls is to be redesigned and detailed to create a common and shared access/egress for vehicle movements for the Construction Contractor, Sydney Entertainment Centre and SHFA maintenance activities. This common roadway shall be monitored and maintained with designated traffic controllers to ensure vehicle movements are not impeded. Through consultation with SHFA maintenance personnel a procedure shall be established to ensure notification of vehicle movements are to be collaborated.

The existing public amenities provided to the underside of the Pier Street overpass shall be fully functional throughout the Development Phase. Initially, the existing public amenities north of Tumbalong Park shall be fully functional. These amenities will be substituted to suit staging of the Public Realm works. We are committed to continuing provision of both sets of amenities for the general public during the Development Phase. Refer APPENDIX D

Existing access to southern end maintained

The public walkways around and through Tumbalong Park will remain available during the course of the Facilities construction. This will involve the western walkway around Tumbalong Park, Tumbalong Park and the open area to the front of the Chinese Gardens to be available until the construction of the Public Realm works. This ensures public connectivity from Pier Street to Darling Harbour and vice versa.



Tumbalong Park access maintained

Public realm access maintained

Public realm access maintained

Public realm access maintained

The current perimeter hoarding/fence locations shown are general locations to achieve and maintain public access, with further detailed locations to be accepted and agreed for construction safety requirements and allowing access to existing services for ongoing maintance.

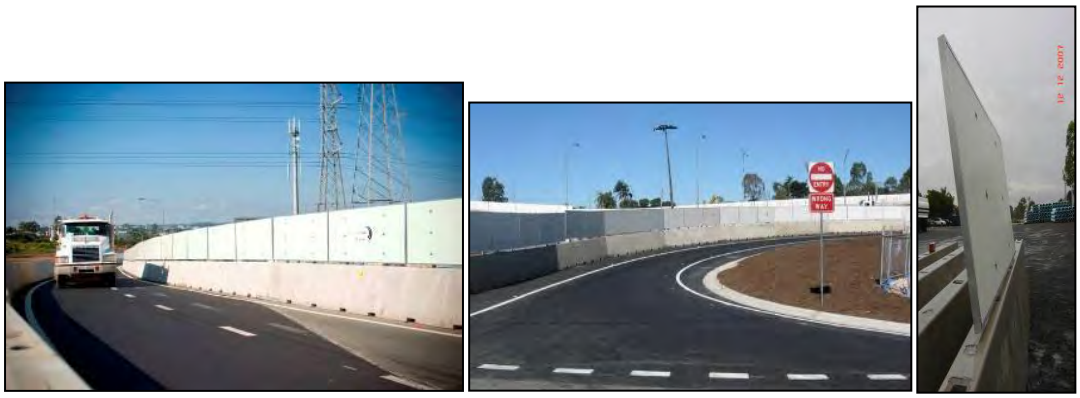
Due to the nature of the site and close proximity to general public, the main site personnel/office access shall be from Darling Drive and eastern side of the site, utilizing the entries already established by the current operators.
Satellite amenities compounds for the workforce, shall be established along the eastern side of the site, to allow ease of access for construction personnel from existing public transport systems. These shall be relocated into the completed halls upon their completion to allow for public works to commence.
Refer APPENDIX E

Based on early/current building design and programming and incorporating the locations of the new facilities, there will be a staged approach within the nominated Development Phase boundaries. These boundaries will be constructed using an easily relocatable form of construction hoarding, based on its ability to be mobilised and relocated with minimal disruption to construction and Precinct activities.

An A-Class hoarding structure of concrete jersey kerbs with ply panels is considered an efficient, safe and reliable method of delineating the Development construction zone and the public realm. These hoardings are easily moved using a forklift vehicle and can be done in a timeframe that encourages the flexibility of the site.This hoarding will often be required in areas of high construction and public vehicle activity and provides the required vehicle impact protection that will ensure site and worker safety.

Movable A Class Hoarding

The majority of the perimeter fence to the site will consist of concrete jersey kerbs topped with a vertical security panel, similar to the images below. These panels provide excellent site security with the ability to be able to be relocated. This will provide flexibility in our site fencing position and may facilitate the provision of additional Public space for specific events and vehicle movements.



B Class Hoardings

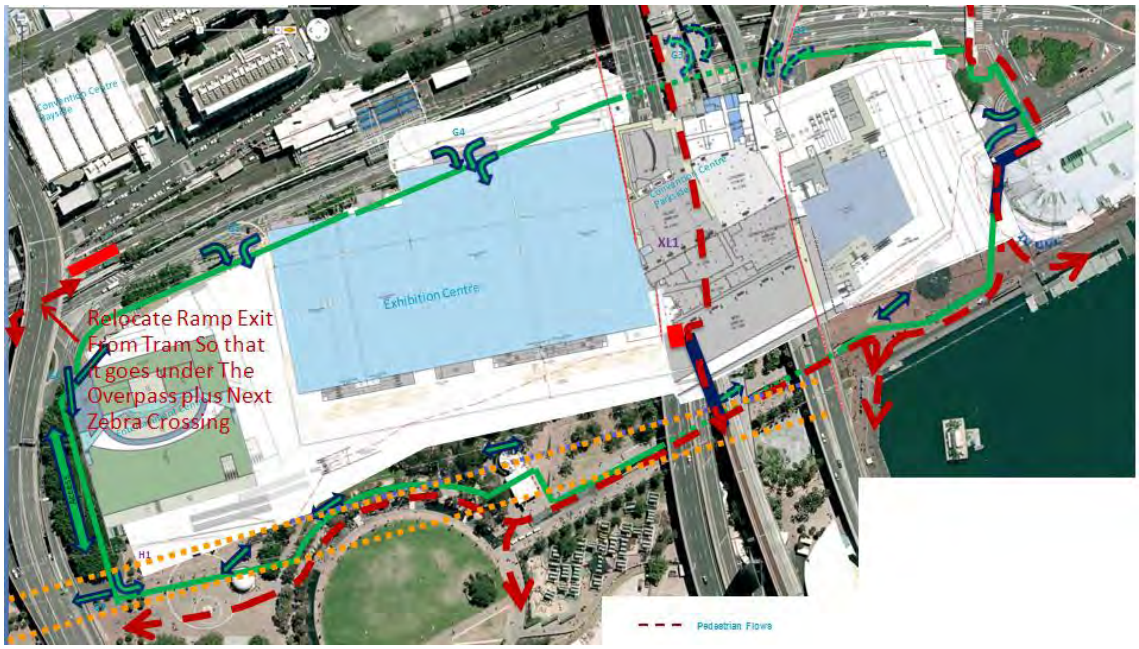
Standard B Class hoarding will be provided where the public come into close proximity to the site during construction phases. These provide overhead protection to ensure safe passage with natural light and ventilation. Refer APPENDIX F

Maintaining egress though and around the site

We have identified the current pedestrian paths as illustrated to be maintained during the development construction phases to the north, central and south sectors.

Pedestrian Movements

Pedestrian movement diversions as detailed below shall be in place to ensure that the Public are diverted safely around the site. This allows, with minor diversions, for the same level of egress as is currently available.



The access to the northern sector shall cross Darling Drive, at the current road crossing as the overhead bridge is to be removed. This access will then be relocated north, past the roundabout, to

allow removal of bridge and realignment works to Darling Drive. Pedestrians will then be directed along Harbourside and into the public domain to the eastern side of the site.

The current Western Distributor pedestrian lift access to Parkside is to be maintained during the course of the initial onsite setup and other construction activities during the development and then relocated to a new position within the design, while maintaining this access.

The Exhibition tram station eastern access is to be altered, so that pedestrians are directed south, under the Pier Street overpass, to a new road crossing installed across Darling Drive, south of the current roundabout. Pedestrians will then be directed down the southern side of the Pier Street overpass and into the public domain to the eastern side of the site. Refer APPENDIX G

"B" Class hoardings shall provide overhead protection where the general public come into close contact with construction activities. These will be placed at:

- The base of the Western Distributor Harris Street pedestrian link elevator to enable pedestrians to pass safely through the site
- In between the existing Convention Centre and Harbourside to the north.
- Any other areas identified to be of concern during construction activities.

Access Site Personnel

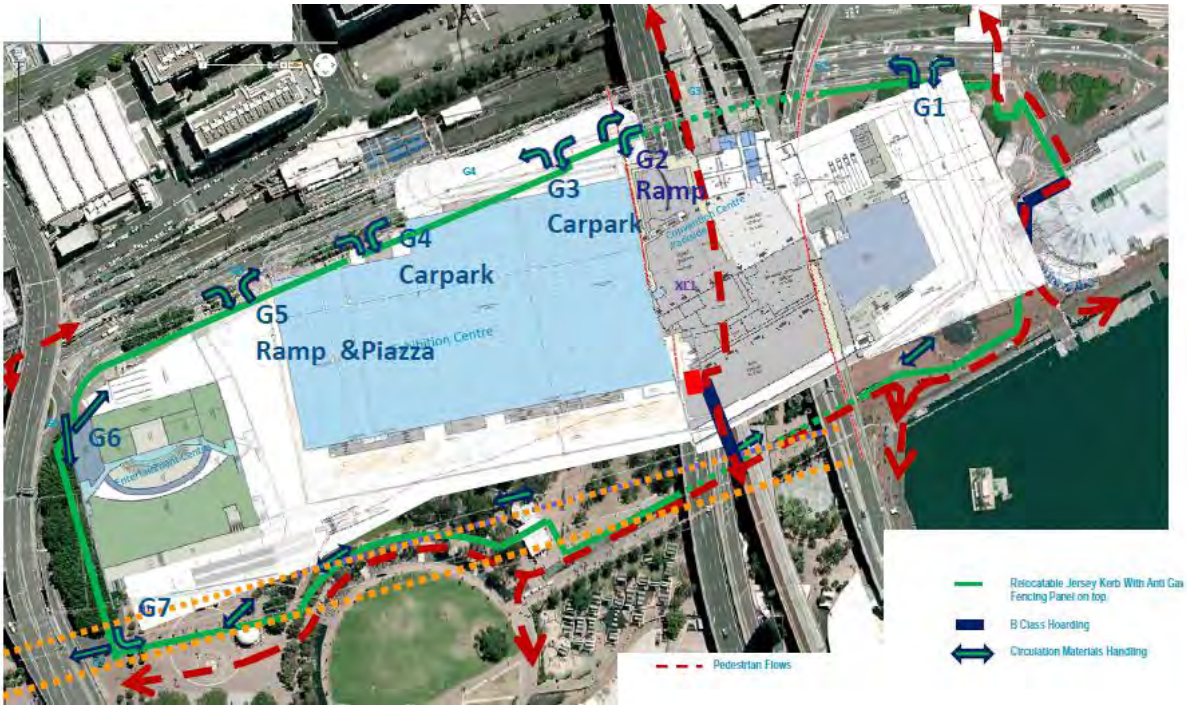
Site personnel will access through security activated turnstiles placed at intervals along the eastern perimeter site boundary. These are activated via an electronic security pass provided once inducted into the site safety procedures. Refer APPENDIX H

Vehicle Site Access

Traffic movements and vehicles will conform to current Roads and Maritime Services (RMS) requirements and the Traffic Management Plan.

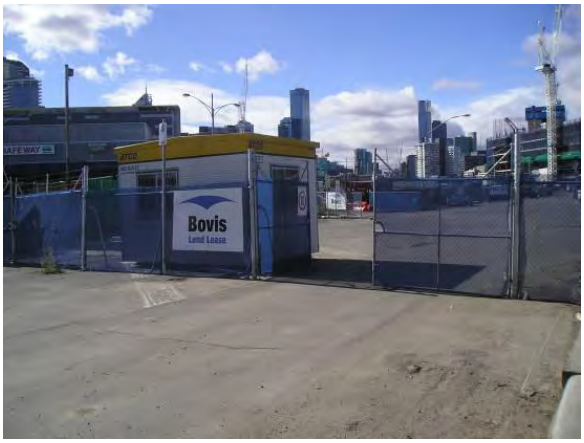
All vehicles accessing the site will conform to the "Traffic controls at work sites" manual, and Australian Standard 1742 – Traffic control, and only certified traffic controllers shall be used to direct vehicles outside of the construction boundaries. Traffic movements and vehicles to the site shall maintain the existing entry and egress points currently used by the existing Precinct, especially to Darling Drive.

All vehicles will use the entry and exit gates G1 to G7 as detailed on the attached layout below. These points shall be established initially and relocated during the works to ensure and maintain safe access and egress for vehicles and pedestrians.



These gates will be activated as the project progress through its various stages Demolition, Structure, Facade & Completion. As detailed these points are outside the pedestrian routes so that the risk to the public is minimised. The existing pedestrian footpath, along Darling Drive east side, shall be redirected into the existing public domain area, to the north and south of the development.

If a vehicle gate is to be a major access point, it shall be manned so that there is no unauthorised access. At all other times they will be locked and monitored. All vehicle movements will be controlled through a vehicle permit system and notification procedure.



Traffic Movements

As the existing Buildings and associated car parks shall be closed during the development, current traffic routes will be reduced to through traffic only.

Although Darling Drive is over 4 lanes wide with its turning and truck parking bays, it is effectively only a single two lane road.

The primary construction heavy vehicle egress will be via the established Darling Drive network to the West of the development. This will involve vehicles accessing Darling Drive from the North using Pyrmont Bridge Road, Pyrmont and vehicles accessing Darling Drive from the South using Ultimo Road and Harris Street, Ultimo. Refer APPENDIX I.

The main entry and exit for construction materials and vehicles shall be from the west, off Darling Drive, and from the south utilizing the current roadway access to the SHFA maintance compound located under the Pier Street overpass.

Following discussions with the Roads and Maritime Services [RMS] and due to the location of the development site, the above primary construction access was deemed to be the most practical. During these discussions with the RMS, various other routes were discussed and highlighted as secondary egress options.

The secondary construction light vehicle egress will be via the established road network systems to the East of the development, including the use of Hay Street, Harbour Street & Pier Street.

On site construction access routes will be established, within the construction boundary, along the east side of the new Exhibition/Entertainment buildings and to the rear of new Convention Centre to facilitate materials handling for tower/crawler cranes and forklifts. Hoists will transport personnel and lighter materials within each building.

Construction traffic to and from the development site will be subject to constraints imposed by the current traffic network. Advice received from the RMS at various meetings is that increased traffic to Darling Drive and surrounding road network would be best suited to non peak hour times as such we will ensure that our bulk deliveries will be coordinated to these times.

It is noted, however, that the construction vehicle movements will not exceed the current vehicular movements that have been monitored, from the existing convention centre, exhibition centre, multi deck car park and entertainment centre into the surrounding road network.

The truck movements anticipated will be spread evenly thoughout the construction programme. Usually the bulk truck movements would be during the excavation phase, however, our adopted design means there is no big bulk excavation activity thereby reducing the heavy vehicle activity upfront.

During the course of the development we anticipate vehicle movements for such trades as Demolition, Civil, Piling, Detail Excavation, Structure, Facade, Internal Finishes & Public Domain works.

Based on the programme and volume of materials required for construction activities, it is estimated that there would be approximately a 3 – 4 trucks increase per hour, above the existing vehicle volume, for the duration of the development. In such instances as concrete pours, this volume will increase on the day, but shall be controlled (as our preferred supply plant is within 1km of the development) to alleviate any congestion to the surrounding traffic network.

The control of vehicle logistics to and from the site shall be managed as follows:

- Traffic Management Plan to form part of tender documents and ultimately part of the Subcontract &/or Supplier Agreements
- Traffic Management Plan will form part of the subcontractor inductions, both on site and in some instances held in the Subcontractor / Supplier place of business.
- Subcontractors / Suppliers will be required to submit a formal delivery booking request 5 business days prior to delivery. All bookings will be registered and controlled by the various manned gates. Predetermined routes and times shall be agreed as part of this process to ensure non congestion of traffic.
- Established holding areas for urgent & emergency vehicle within the development.

Due to the location of the development and close proximity to general public, the main entry and exit for materials handling shall be from the west, off Darling Dive, with established access roads with in the development perimeters to the east side of the new Exhibition/Entertainment buildings and West side of new Convention Centre.

In order to facilitate minimal materials storage on the development our solution is as follows:

Strategic location of construction zones to eliminate double handling of materials delivered to site

- Controlled delivery of materials necessary to maintain programme.
- Nominated and controlled storage areas within the development site hoardings.
- Prefabrication of materials off site will assist in minimizing storage requirements.

In addition to the above, we will have in place current arrangements with local businesses which will assist with offsite storage and handling. These include numerous local sites within Pyrmont, Ultimo and Alexandria. Also we have arrangements with numerous sites further west, including Strathfield to Windsor.

All loads on vehicles removing or delivering materials will be within Roads and Maritime Services Regulations including legal weight limits, only on approved roadways, with loads secured and covered. Vehicles that are frequent to site, such as concrete delivery vehicles, shall be inducted into the Traffic Management Plan to comply with their vehicle movements to and from the site.

During the re-alignment of Darling Drive, to reposition this road, additional space will be provided by the demolition of the monorail, and space freed up by moving the existing building footprint of the Exhibition Centre. This will be carried out in stages as discussed later in this plan, where we will demonstrate that we will be able to maintain two way traffic for most of the construction period.

In addition to this, we will be able to re-align the space for establishing construction zones to the west of the new development, for concrete pumps, vehicle lay over and loading materials by tower cranes. Refer APPENDIX J

These construction zones will be protected by concrete jersey kerbs separating construction personnel from passing traffic and maintained by certified traffic control procedures.

The existing and final loading zone ramps will also be utilised to bring prefabricated components such as structural steel members, directly onto slabs, reducing congestion and minimising double handling as members are off loaded close to their final position.

Appropriate directional signage and traffic control will be provided to ensure vehicles enter and leave the site with minimal disturbance to other road users and so they are advised of any changes in road conditions.

Temporary road closures, single lane access and relocations during the construction period will be subject to coordination with the appropriate authorities. All traffic related issues and changes shall also be presented to Stakeholders as part of the consultation process. These will, wherever and whenever possible, be carried out in non peak periods.

Onsite parking will not be allowed. We will encourage the use of public transport systems already in place for construction staff and workers. Also available around the development are public car parking stations. These will be conveyed through all subcontract documentation and site inductions. Timetables shall be provided for all public transport systems routes, especially the light rail and buses.

Construction of Public Realm through the centre of the Darling Harbour

These works will be carried out as detailed in the attached staging diagrams. This illustrates our intention to maintain safe pedestrian traffic through the precinct and minimise its effect by providing as much public space as possible. Refer APPENDIX K

The programme of works to the realignment of the Public Realm shall be coordinated with relevant authorities, local stakeholders and contractors, to ensure a smooth transition of construction work, general vehicle movements and public access during the various staging of the works.

Construction of Darling Drive in new position

As part of the development, the position of Darling Drive will be relocated west to allow an expansion of the development building footprints and re-establish Darling Drive, by utilising the area, currently monorail corridor, which is to be demolished.

The construction and re-alignment of Darling Drive is to undertaken over three (3) major stages.

Stage 1

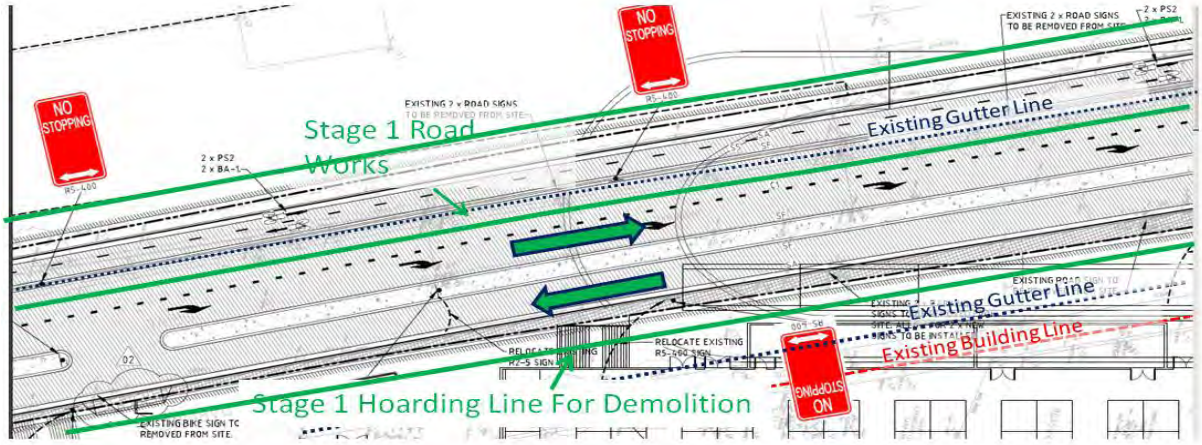
This stage shall consist of the following activities, as attached diagram below,

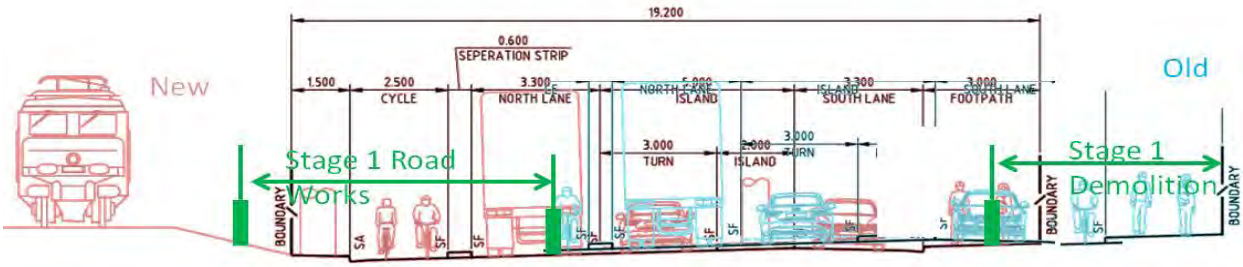
Establish relocation of Quarry Street pedestrian access to the south of Pier Street.

Establish hoarding lines to the east of Darling Drive for demolition of existing structures.

Establish and maintain traffic corridors for vehicle and cycle movements north and south.

Establish hoarding line for civil works to western side of Darling Drive and complete the realignment works.





TYPICAL CROSS SECTION - PROPOSED DARLING DRIVE

Stage 2

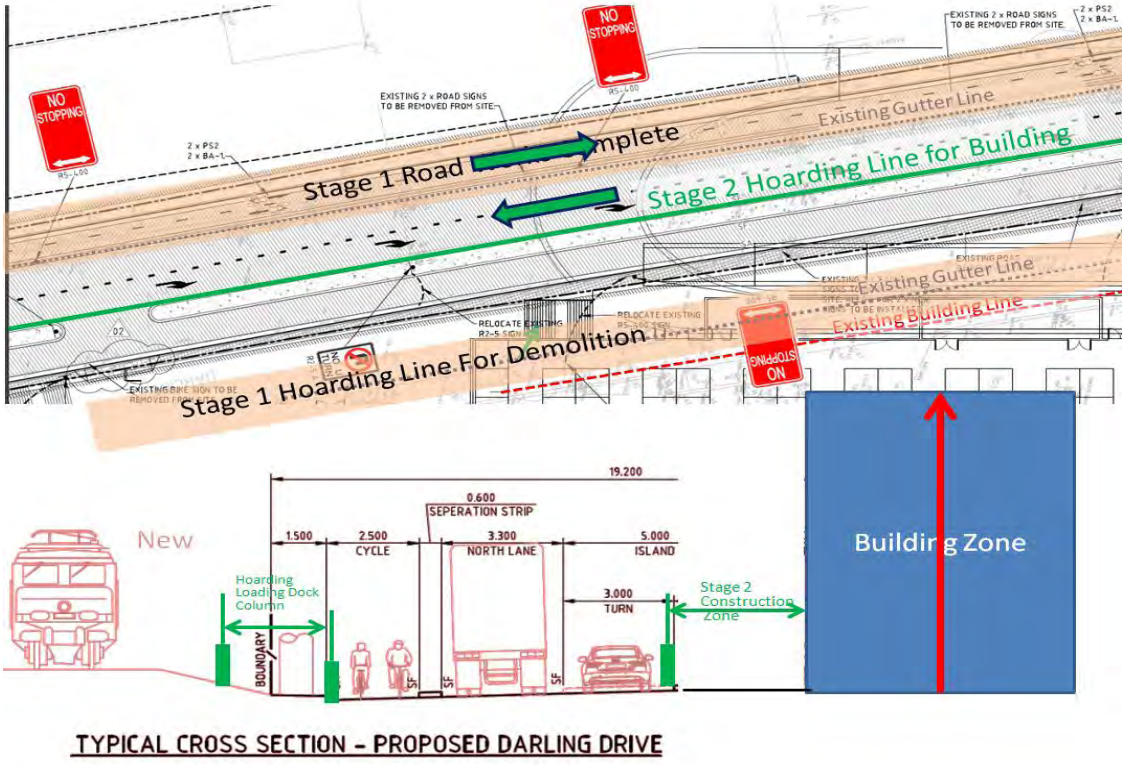
This stage shall consist of the following activities, as attached diagram below,

Relocate hoarding lines for the new cycleway to the west of Darling Drive.

Establish hoarding lines to the west of new cycleway for construction of structures within the light rail corridor.

Relocate and maintain traffic corridors for vehicle movements north and south.

Re-locate hoarding line on eastern side of Darling Drive for construction works to the new development.



TYPICAL CROSS SECTION – PROPOSED DARLING DRIVE

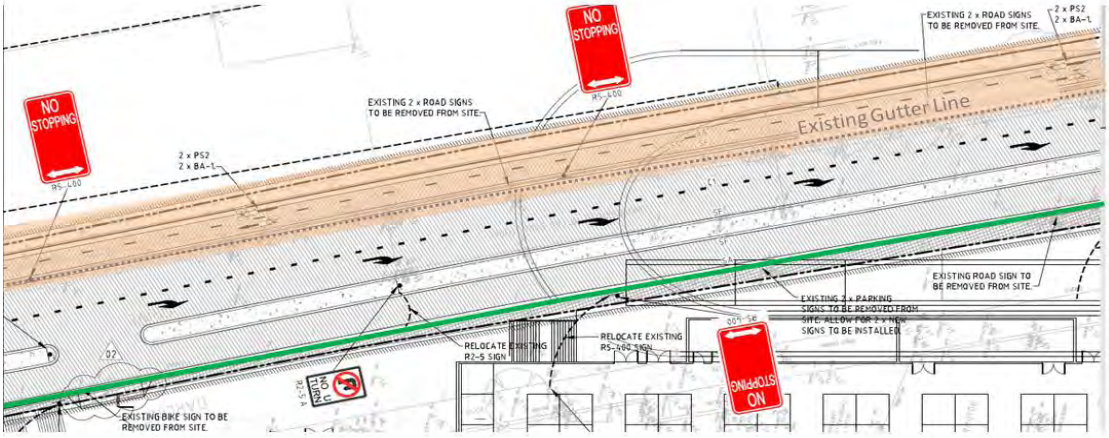
Stage 3

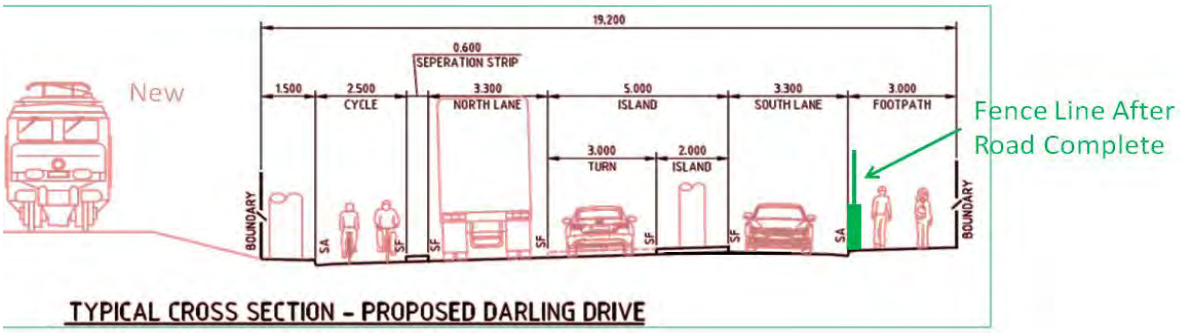
This stage shall consist of the following activities, as attached diagram below,

Remove hoarding lines to the west of Darling Drive.

Relocate and maintain traffic corridors for vehicle movements north and south on Darling Drive.

Re-locate hoarding line on eastern side of Darling Drive for construction works to the new development.





The programme of works to the realignment of Darling Drive shall be coordinated with relevant authorities, local stakeholders and contractors, to ensure a continuous and smooth transition of general vehicle movements. The procedures to conduct the realignment works shall incorporate controls to include pedestrian access and maintaining cycle ways to Darling Drive.

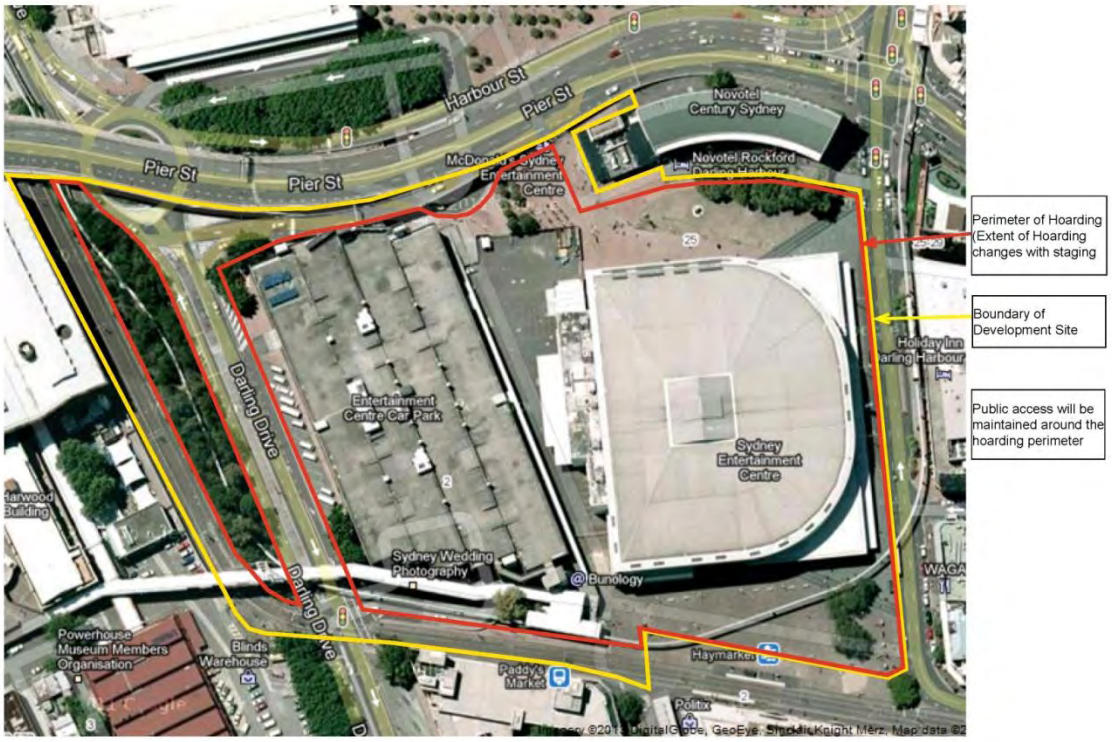
Maintenance of Taxi Cab and Bus Access to the west of Harbourside

During the initial stages of the SICEEP project, in particular in relation to the PPP works, they will have minimal effect on this space. This area has been designated as the Hotel development site under the PDA component. Once the size of footprint for this building has been resolved, through consultation with Stakeholders and authorities, this plan will be amended to address all requirements such as relocation of bus/taxi ranks to Maritime Museum and pedestrian's diversion across Darling Drive from the west.

Surrounding Developments

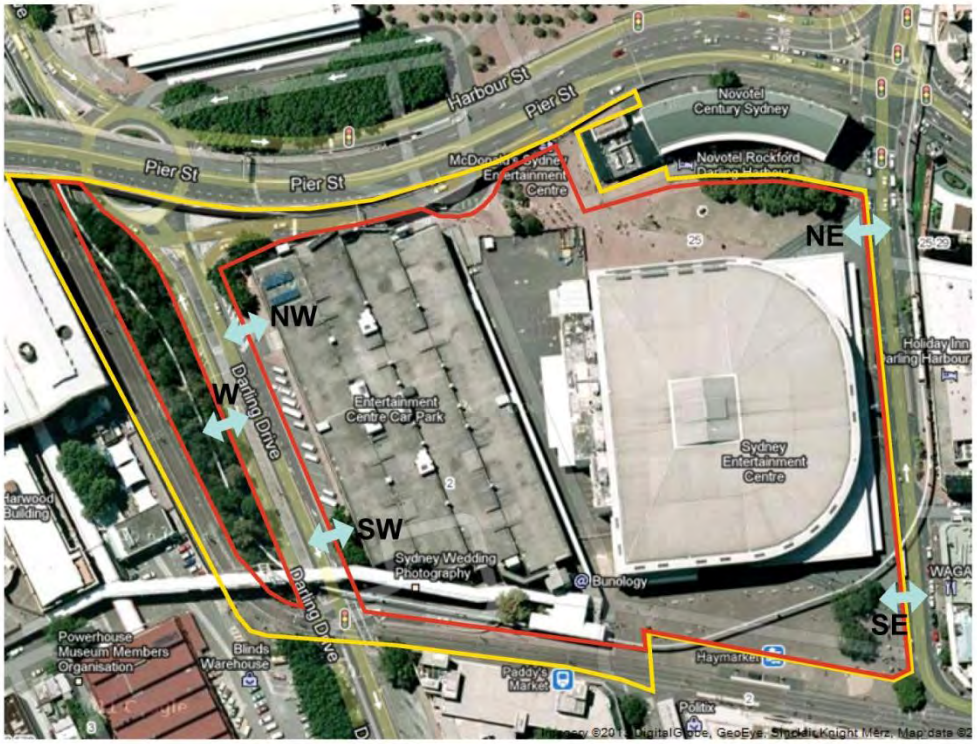
Development of the southern sector (PDA) will be undertaken in stages with access adjusted progressively to respond to those stages. Future Stage 2 DAs will provide further detail regarding vehicle and pedestrian access during construction.

The indicative hoarding locations shown below within the southern sector, identifies areas accessible to the general public and areas cordoned for the construction works.



The main and entry for construction materials and vehicles servicing the west, north west and south west development lots shall be from the west, off Darling Drive. The south east, north east and north development lots will be access from Harbour Street.

All vehicles will use the entry and exit gates located generally as shown:



On site construction access routes will be established within the construction boundaries with hoists transporting personnel and materials within each building.

Pedestrian access during PDA construction will generally adopt the following principles:

- Hoardings will be erected to prevent public entry into construction areas;
- Public access along existing desire lines around construction areas will generally be maintained unless noted otherwise below;
- The existing elevated pedestrian walkway from Harris Street will be terminated at the western side of the light rail corridor with a new lift and stairway provided to connect with Hay Street;
- The elevated walkway between the SEC Carpark and the SEC will be closed from commencement of demolition of the SEC Carpark;
- The southern portion of the Boulevard will be completed by December 2016 to connect with the Northern and Central Sector portion of the Boulevard;
- Pedestrian access along Darling Drive will be controlled during realignment works to facilitate the staged construction of the road works and to ensure public safety.

Education

All site personnel will be inducted into the construction site and traffic management systems and protocols that will be operating for their sequence of the works during the site induction program and updated through daily pre-starts and toolbox talks.

5.0 LEND LEASE APPROACH TO ENVIRONMENTAL AND SAFETY MANAGEMENT

The design and delivery phase of this project, presents many opportunities to contribute to Lend Lease Project Management & Construction and construction industry benchmarks for Environmental, Health and Safety (EHS) management through developing and implementing Occupational Health and Safety, and ecologically sustainable practices.

EHS management during construction is the responsibility of each and every member of the project construction team. Identification of potential EHS aspects and impacts is an ongoing activity. Potential impacts will be identified at both the design and construction phase via the project risk Assessment and safe work practices procedures.

This Project EHS Plan is to be maintained to the requirements of the Lend Lease Project Management & Construction Bluebook and the forms, guides, policy's, etc are to be obtained from the related information in Bluebook. Where the Lend Lease Project Management & Construction forms are required to be amended, altered or developed these shall be undertaken in consultation with appropriate Senior Management (ie EHS Manager, Operations Manager, Executive Project Manager or Management System Manager).

5.1 ENVIRONMENTAL VISION

Lend Lease Project Management & Construction recognizes how closely linked our business activities are to environmental issues, on a global, regional and local level and is committed to minimising our environmental impacts and to meeting the environmental challenges facing our industry.

Lend Lease Project Management & Construction is eager to achieve this by investing in environmental technology in responsive building techniques and in environmentally sound business practices.

Lend Lease Project Management & Construction aims to minimise any environmental effect by adherence with all applicable environmental legislation and requirements and by developing a comprehensive reporting and data collection ability, so that it can be analysis in an effort to provide continuous improvement of our performance.

Lend Lease Project Management & Construction Australia's Environment Vision presents a basic approach of active environmental managed activities with the aim to enhance and protect the environment in which we interact.

5.2 INCIDENT AND INJURY FREE VISION

Lend Lease Project Management & Construction will operate Incident & Injury Free (IIF) and we are committed to realising this wherever we have a presence.

We will:

- Invest in what it takes to achieve this vision
- As employees be empowered to lead in making this vision real
- Proactively work with all stakeholders, including clients, designers, contractors and the workforce to make this vision a reality and be prepared to walk away rather than compromise our commitment to safety

- Own and act on our vision.
- This requires a mindset intolerant of any injury regardless of frequency or severity.

We believe:

- That working Incident & Injury Free is a choice and a basic human right.
- The leaders in our industry will be those who succeed in the transformation to making an Incident & Injury Free industry a given

We recognise:

- That this vision is achievable if we are committed.
- This commitment to Incident & Injury Free requires taking a personal stand, great courage and trust.

5.3 OBJECTIVES

The Project Team has the following objectives with respect to Environmental Health & Safety (EHS):

- Identify and eliminate potential Class 1 and Class 2 incidents and occurrences;
- Maintain statutory compliance with respect to EHS;
- Conform to company EHS Management System, Standards, Instructions and EHS Business Plans,
- Provide, training, skilling, awareness and Best Practice to meet Legislative and Lend Lease Project Management & Construction requirement;
- Maintain accurate reporting and record keeping.
- Report, support and enhance Senior Management
- Undertake Positive Performance activities with the Project Team, Subcontractors, Client, Site personnel and other interested parties i.e. audits, tool box and neighbourhood consultation, PCG, etc
- Achieve the incident and injury free objectives for the project
- Ensure the effective management of environmental issues to reduce our impact on the natural environment.

An Environmental, Health and Safety Plan (EHSP) will be prepared to demonstrate Lend Lease Project Management & Construction's understanding of EHS management and controls required for construction activities.

This EHS Plan is intended to ensure that any EHS commitments made and other requirements of the proposed development are identified and their incorporation in the works proposed is planned and implemented.

The EHS Plan is a working document to be updated as necessary and forms part of the contract documentation for the project.

It is a commitment of Lend Lease Project Management & Construction that Best Practice EHS Management is adopted and implemented at the all projects.

5.4 ENVIRONMENT HEALTH & SAFETY AND REHABILITATION POLICIES

The Lend Lease Corporation Environment, Health and Safety Policy, and Rehabilitation Policy form the foundation for the EHS and Rehabilitation performance of each group company. The Policies represent the commitment of Lend Lease Project Management & Construction to meeting EHS and Rehabilitation objectives on a project specific basis to all project personnel.

The *Lend Lease Project Management & Construction Policies* are to be clearly displayed within the Site Office, be accessible by the project team (e.g. Project Notice board) and intent clearly communicated through the Project induction to persons working on site.

5.5 EHS STANDARDS

Objective

The Project team are to set Project specific EHS Standards/Rules to meet the Region's legislative and regulatory requirements, Lend Lease Project Management & Construction *Means and Methods* and industry best practice to provide an incident and injury free environment.

Key Management Issue

- Tenderers are expected to meet the project EHS Rules and Lend Lease Project Management & Construction Means and Methods;
- Site inductions will be conducted in accordance with EHS Rules and Lend Lease Project Management & Construction Means and Methods;
- All personnel and visitors to the project will undertake their activities in accordance with the project EHS Rules and Lend Lease Project Management & Construction Means and Methods;

Actions

- The projects Project Manager(PM), Construction Manager(CM) and Site Manager(SM) are responsible for developing project rules in accordance with Lend Lease Project Management & Construction Means and Methods;
- The project CM will ensure tenderers are aware of project EHS Rules and Lend Lease Project Management & Construction Means and Methods
- The project SM will ensure site inductions are in accordance with Lend Lease Project Management & Construction Means and Methods and Lend Lease Project Management & Construction Induction Guide;
- The project SM will ensure personnel and visitors to the project will conduct their activities in accordance with Lend Lease Project Management & Construction EHS Means and Methods and project rules
- All visitors must report to the site office and enter their details in the *Site Visitor's Register* and advise the name of the person / organisation they wish to meet. All visitors must be accompanied at all times by site inducted persons, who are also responsible for ensuring visitors complies with project rules and are signed out when leaving.
- All vehicles entering the Project need to obtain and display the *Vehicle Entry Permit.*

5.6 ROLES AND RESPONSIBILITIES

Lend Lease Project Management & Construction is the Principal Contractor and as such is responsible for the overall management of the Project's Environment Health and Safety. All Lend Lease Project Management & Construction Subcontractors, Consultants and Visitors are responsible to comply with their EHS Management system, Lend Lease Project Management & Construction Means and Methods and Legislative requirements

The designated Lend Lease Project Management & Construction EHS person responsible for Site implementation, compliance and the weekly documented inspection of EHS and Means and Methods will be the *Construction Manager/Site Manager or their nominated delegate.*

Lend Lease Project Management & Construction Project staff is required to:

- lead by example;
- utilise the Project EHS Plan and treat it as a living document;
- encourage and support workers to work safely and with care for the environment;
- set priorities that reinforce safe and environmentally aware activities; and
- display ownership of areas under their control and assist project team members in overall EHS management

Project Roles and Responsibilities for EHS will be detailed in the elements of the projects EHS Plan.

6.0 WASTE MANAGEMENT PLAN

Objectives:

The objectives of the Waste Management Plan are based on the hierarchy of avoidance/reduce, re-use, recycle, treat and dispose as outlined in the National Waste Minimisation and Recycling Strategy.

To re-use and/or recycle a minimum of 80% of all Hard Waste Material, and Soft Waste Material generated on the construction site, thus achieving up to 80% reduction/avoidance in waste to landfill.

Best Practice should be adopted wherever possible, to achieve waste minimisation and reduction. Key areas that will be targeted in the Waste Management Plan are:

- To avoid, whenever possible, the generation of wastes
- Demolition Materials (including hazardous building materials i.e. asbestos)
- Construction Materials
- Excavated Fill Materials
- Domestic & Human Waste
- Wastewater
- Litter generation due to construction activities

In addition the project will:

- liaise with Subcontractors to identify areas where they can reduce waste and reuse materials in their respective trades;
- meet local, state and federal waste minimisation legislation and environmental standards;
- prevent pollution and damage to the environment; and
- Protect the safety and health of our employees, site personnel and the public.

Key Management Issue:

The waste management strategy has been developed from best practice models.

Waste Materials generated on site are to be managed such that recycling is maximised and the volume of waste transported to landfill is minimised.

Construction waste minimisation requires early planning and establishment of “Waste minimisation Culture” by all participants in the Design, Construction and End User process. Waste minimisation is a key element in life cycle analysis, material selection and specification.

Materials selected must be fit for use. The use of building materials that are fully recycled and/or include recycled material in their production will be maximised where practicable.

All disposal documentation from construction processes should be supplied to Lend Lease Project Management & Construction and filed in the site records for verification purposes.

Site Controls:

Planning

A Waste Management Contractor will be involved in the early stage of the project to ensure effective planning for the waste management.

Major Subcontractors will be asked to submit prior to commencement on site waste minimisation details including as a minimum the following:

- practical measures associated with their works to prevent waste entering on site;
- waste streams resulting from their works which can be recycled and will be actively managed as part of their waste reduction plan; and
- Alternative products containing recycled material that could be utilised in their works, in place of more traditional materials, which conform and meet with the design specification.

All suppliers of building materials will be encouraged to nominate packaging minimisation and reuse initiatives, which have been implemented, as part of product supply to the project.

Bulk handling and reusable/returnable transport containers will be encouraged.

Site set up should include measures to prevent litter entering the stormwater drains and waterways feeding to the adjacent stormwater systems and Darling Harbour.

Waste Management will be addressed at any or all of the design coordination meetings.

A Waste storage and Handling Diagram will be prepared for the site showing details of the designated storage locations of bins, segregated waste, water / washout waste etc.

Pre Construction Phase:

Demolition

Specialist subcontractors will be used to remove classified material identified in any Hazardous Materials Buildings Survey that is to be performed on-site prior to demolition works commencing. These materials will be removed separately first and disposed of in accordance with relevant Authority requirements. Once all this material is removed a qualified Occupational Hygienist will provide certification that all classified material has been removed.

Demolition of the remaining components of the existing buildings will be conducted in a manner to maximise material recycling.

A demolition strategy will be developed and further consideration of sorting and segregating waste for reuse and disposal will be defined as the project progress.

Construction Phase:

Excavated Fill Materials

Any fill materials identified as requiring excavation from within development footprints will, where suitable, be re-used on the site as part of the site engineering or landscape works.

In the event that excavated soils are deemed unsuitable for re-use on site, the excavated fill materials will require initial waste classification testing in accordance with relevant authorities. Depending on the outcome of the waste classification, a suitably licensed landfill will be chosen to receive and dispose of the soils. Appropriate waste documentation and permits will be maintained throughout this process.

Options for either re-use or off-site disposal of excavated soil materials will be assessed through out the project.

Waste Materials Bin System

The demolition and construction waste management system to be adopted on site will be through the use of the separation bins for the various recyclable materials, and non-recyclable waste materials.

Signs will be located on each bin, indicating type of bin and what waste may be placed in that bin.

The Subcontractors will be responsible for the daily cleaning of their respective work areas and placing of their waste in the correct bins.

Additional bins will be provided where possible to further separate waste. Adequate number of litter bins will be made available within the construction site areas, including work and lunch areas. These bins must be regularly emptied.

The Subcontractors working on site will place all their waste in the correct bins on site.

If a particular bin is found to be "contaminated" by waste material from a subcontractor that particular Subcontractor will be liable for the cost associated with tipping or sorting of waste.

Waste Water / Washout Areas

Washout processes and facilities for paint and/or finishing trades are to be minimised and water recycling for these activities are encouraged where possible.

Utilisation of Lend Lease Project Management & Construction guidelines/management plan for disposal of paint and associated wastes are to be implemented.

Finishing trades washout facilities should **NOT** be plumbed to any building services and will be of a stand-alone nature. The maintenance of these facilities should be the subcontractor's responsibility and should comply with all appropriate Environmental Legislation and local authority guidelines.

Packaging

All suppliers of building materials will be encouraged to nominate packaging minimisation and reuse initiatives, which have been implemented, as part of product supply to the project. Bulk handling and reusable transport containers will be encouraged.

Recycled Materials

Suppliers will be encouraged to nominate products that include a recycled component and ability/opportunity for recycling of unused components in accordance with the specified 80% waste reduction target. Product selection will include a selection factor associated with recyclability and percent of recycled product.

Domestic & Human Waste

All domestic waste including litter will be managed via a similar bin system that will be provided in the vicinity of designated eating areas, change areas and amenities. Materials collected for recycling should include:

- Paper/Cardboard
- Food waste
- Aluminium Cans
- Drink containers: Glass & co-mingled
- General waste

Construction and demolition waste bins and domestic waste bins will be located in separate designated areas on the site to ensure appropriately safe storage and collection of waste. Waste areas will be clearly signposted and colour coordinated to define acceptable waste types suited for each bin and secured where

required. The location of the waste bins and recycling areas will be marked on the site waste management plans.

All human waste and associated waste water will be collected via the provision of portable toilet and sanitary systems during the construction and demolition period. Where practicable, temporary connection will be made to the existing sewer services on site. Where these facilities are too remote to prevent connection, a licensed waste contractor will be appointed to manage the waste collection and disposal in addition to general maintenance and cleaning of the toilets.

Training:

Communication and education material on the waste management system will be part of the Site Environmental Awareness Program that will be incorporated into the site induction program.

Additional third party training will be investigated when a waste contractor is nominated.

The responsibility to ensure that waste materials go into the correct bins will be with everyone on site.

Performance Measures:

- A Waste Management Contractor will be involved in the early stage of the project to ensure effective planning for the waste management.
- The Waste Management Contractor will coordinate waste recycling, recovery and disposal of all waste during all stages of the project.
- The waste system (bins / signage / training) is in place prior to any major waste generation works.
- All waste transportation and disposal documentation to be maintained on-site and signed as received or disposed by the appropriate contractor or waste receiving facility.
- Destination of all wastes to be approved by the receiving waste facility prior to the commencement of works.

Monitoring and Reporting:

The Waste Management Contractor will be responsible for providing monthly reports to the SM: the number and size of bins taken away, tonnages and m^3 taken away and tonnage's and m^3 recycled. This will include the final destination of materials for recycling.

The Waste Management Contractor will be responsible for providing dockets to the SM for the removal and appropriate disposal of scheduled waste from the project.

The SM will produce monthly reports and other statistic information as per Lend Lease Project Management & Construction EHS requirements.

The Lend Lease Project Management & Construction Project EHS Manager will formally audit the progress on waste management from the above monthly reports to ensure waste reduction targets are met and appropriate waste documentation maintained.

Correctives Actions :

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor and Lend Lease Project Management & Construction SM/CM if applicable shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence.

Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the CM to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the action proposed; desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the Project EHS Manager.

Waste Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Waste Identification					
16 A Waste storage and Handling Diagram will be prepared for the site showing details of the designated storage locations of Segregated waste, water / washout waste etc.	17 Prior to works commencing	18 In accordance with the Waste Management Plan.	19 CM/SM/Waste Contractor.	20 Review of Diagram prior works commencing.	21 Diagram Map prepared & containing all relevant details.
22 Hazardous building materials to be identified in Hazardous Materials Building Survey	23 prior demolition works commencing	24 Independent surveyor to prepare a Hazardous Materials Register	25 CM	26 To be reviewed by PM and incorporated into WMP.	27 Preparation of a functioning HazMat Register for building materials.
28 Project waste types to be identified and quantified.	29 Prior to works commencing	30 Bins will be supplied for the nominated waste streams in accordance with the Waste Management Plan.	31 CM/ PM/Waste Contractor.	32 To be reviewed by PM and incorporated into Waste Management Plan.	33 List of relevant waste streams and volumes from construction & demolition.
34 **Waste Disposal**					
5 Remove all hazardous building materials off-	36 Prior	37 Appropriately	38 SM/Demoli	39 Air quality	40 Non detect

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
site.	demolition works	licensed contractor to remove and transport waste to licensed landfill	tion Contractor.	monitoring daily. Clearance Survey by hygienist as required.	asbestos during ambient air monitoring. Landfill disposal dockets.
41 Segregation and storage construction/ demolition and domestic waste prior offsite disposal.	42 At all times	43 Waste contractor to address and follow legislative requirements.	44 SM	45 Weekly inspection of Waste Collection Areas.	46 No cross contamination of wastes. No spillage or loss of wastes from collection containers in storage compound. Waste Dockets.
47 Transport and handling of demolition/ construction waste and domestic waste by licensed contractors.	48 At all times	49 Only approved contractor to be used. Appropriate SWMS for transportation of waste	50 SM	51 Random inspection of waste transport licenses. Random inspection of waste transport vehicles.	52 Correct covers and containers for waste transfer. No spillages/loss of waste during transport.
53 Demolition/ construction and domestic waste disposal to correct licensed waste receiving facilities.	54 All times	55 Only approved waste receiving facilities to be used.	56 SM	57 Waste classification reports. Inspect as required.	58 Waste disposal dockets correspond to waste types/ volumes.
59 Disposal of excavated fill materials deemed for off-site disposal.	60 Prior construction	61 Waste soils (if any) classified in accordance with relevant authority Guidelines (e.g.: DEC, EPA etc). Licensed waste contractor and	62 SM	63 Waste classification reports. Inspect as required.	64 Waste disposal dockets correspond to waste types/ volumes.

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
		landfill used			
65 Collection and storage of wastewater from site operations (i.e. paint washing) or temporary facilities (i.e. toilets).	66 At all times.	67 Design and installation of appropriate wastewater collection/storage system.	68 SM	69 Weekly inspection of bunds, drains and sumps.	70 No wastewater spills or uncontrolled discharges.
Appropriate disposal of all wastewater from site operations (i.e. paint washing) or temporary facilities (i.e. toilets).	71 At all times	72 Collection and disposal of wastewater by approved licensed contractor	73 SM	74 As required	75 Waste disposal dockets correspond to waste types/ volumes.
76 **Recycling**					
77 Waste building or demolition materials (i.e. concrete, timber, steel, etc) to be segregated and stored in separate site bins.	78 All times	79 Appropriately designed waste storage areas with designated recycling bins.	80 SM/Waste Contractor	81 Weekly inspection	82 Clean waste bin area. No cross contamination of waste types.
83 Segregated waste building/demolition materials are appropriately recycled.	84 All times	85 Approved waste recycling contractor to collect bins for recycling.	86 SM/Waste Contractor (Environment Manager if appropriate)	87 Established collection schedule. Audit actual recycling volumes compared to waste recycling targets (%).	88 Waste recycling dockets. Waste recycling targets are met.
89 **Minimisation**					
90 Excavated material to be reused or recycled where possible.	91 As required	92 Independent contractor to test soils for environmental/ geotechnical	93 CM/SM	94 Soil testing report to confirm suitability for re-uses.	95 No contaminated soils re-used on site.

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
		parameters.		Review by Environment Manager.	
96 Any fill imported onto the site is to consist of certified clean material only	97 As required	98 Indentation of material	99 CM/SM	100 Certificate of suitability.	101 Certificate provided prior to bring to site.
102 Minimise packaging and maximise use of recycled products by contractors.	103 At all times	104 Review contractor materials and packaging proposals	105 CM/SM	106 Inspect material deliveries/ specifications.	107 Proven examples of minimal packaging and recycled materials.
108 **Site Offices**					
109 Recycling bins shall be provided with the site working area.	110 As required	111 Coordinated with existing operational facility	112 CM/SM	113 Ensure waste is disposed in accordance with existing operations	114 monthly EHS Managers review
115 Site amenities shall be provided on-site as required	116 Prior to works commencing	117 Coordinated with site population numbers	118 CM/SM	119 Ensure waste is disposed in accordance with existing facilities requirements	120 all waste disposed of appropriate

7.0 STORMWATER & EROSION MANAGEMENT PLAN

Objectives

To avoid erosion, contamination and sedimentation occurring as a result of the construction or demolition activities associated with the redevelopment.

To control the quality of stormwater leaving the construction site such that no unacceptable impact occurs to adjoining natural watercourses or stormwater drains discharging into these water bodies.

Minimise disturbance to the hydrologic regime of the surrounding landscape and maximise opportunities for stormwater recycling on the site.

Key Management Issues

Construction and demolition activity on the project site involves removal of existing structures to ground level and excavation to facilitate the proposed development and services. In addition the site soils and the proximity to groundwater would suggest that dewatering of site excavations will be required.

The construction and demolition works have the potential to adversely impact ecosystems and water quality within adjacent surface water bodies via sediment loads and potential contaminants contained in runoff. Potential impacts to the site environment, including existing soils and groundwater also need to be considered as part of any stormwater and erosion management plan. Other physical impacts to be considered include the susceptibility of the site to potential flooding events.

The following activities are expected to be the key risk sources during construction:

- Site clearing , spoil and material stockpiling.

The following management issues have been identified:

- Sediment laden water from the construction site may potentially flow into the stormwater system and/or adjacent surface water bodies (Environmental Class P2 Risk);
- Stormwater with excessively high or low pH values could run-off from the selected stockpiles stabilisation area (Environmental Class P3 Risk);
- Stormwater collected in excavations and requiring disposal (Environmental Class P3 Risk);
- Groundwater entering excavations and requiring disposal after dewatering (Environmental Class P1 Risk).
- Site cut off drains eroding and increasing site water sediment loads (Environmental Class P3 Risk);
- Vehicles leaving the construction site depositing dirt/mud on public roads after rain periods (Environmental Class P3 Risk);
- Removal of bulk material off site escaping from vehicles and polluting roadways (Environmental Class P3 Risk); and
- Debris and litter collecting along roads and in catch drains and consequently could affect nearby water bodies quality (Environmental Class P2 Risk).

- Site contamination through the potential for an overflow of fuel/chemical storage containers and contamination from the equipment and plant repair area (Environmental Class P1 Risk)
- Stormwater runoff coming into contact with potential contaminated soils may potentially flow into the stormwater inlets and natural water courses could be affected and consequently reduce water quality (Environmental Class P2 Risk);

Site Actions

The prevention of soil erosion by water and wind and by sediment pollution are key components of the Stormwater and Erosion Management Plan for the site.

An overall Stormwater & Erosion Control Plan (Refer APPENDIX L) will be prepared prior to site activity. This Plan shall be used as a basis to develop detailed controlled plans for each work areas, detailing collection points, temporary drainage flows, sediment controls and general stormwater overflow management.

Construction stage water quality impacts shall be minimised by incorporation of appropriate erosion and sediment control measures in the detailed design, specification and contract arrangements and quality assurance inspection during construction.

Adopt best practice environmental management strategies in accordance with the principles outlined in the Department for Infrastructure, Planning & Natural Resources document titled “Guidelines for Erosion & Sediment Control on Building Sites” and other key reference documents and legislation previously outlined.

Planning

- Locate all stockpiled soils away from surface waters, potential watercourses and flood prone areas.
- Limit land disturbance to the area needed, especially in the vicinity of existing stormwater drainage.
- Cease works if excess dust is being generated and resolve the problem prior to recommencing works.
- Restrict construction and demolition traffic to designated traffic routes that are well drained and all weather.
- Annual weather patterns to be taken into account when planning general site operations and in particular during planned excavations or land disturbance activities.
- Clearly identify, demarcate and fence off areas of vegetation or landscape on or near the boundaries of proposed excavation and demolition footprint to indicate these areas are not to be entered or disturbed.

Controls

- Divert up slope runoff around disturbed areas;
- Construct earth bunds and similar diversion drains to divert surface water runoff around the perimeter of the proposed demolition or construction areas. Where possible, seed all diversion channels to dissipate water velocity.

- Install temporary sediment and erosion controls to prevent the erosion of soil from disturbed construction areas and stockpiles. Measures may include filter barriers (straw bails or silt fence), temporary covering or revegetation with hydro-mulching and native seeding.
- Control access to construction areas by limiting entry and exit points. Ensure all approved access points shall be marked prior to the commencement of construction within that area.
- Reduce the erosive energy (concentrated flow and velocity) of water using measures such as temporary storage, dissipaters, level spreaders and drain grass planting's.
- Prevent deposition of sediment on the public road network due to truck / equipment movements to and from the site via a purpose built truck/wheel wash facilities at site exit point.
- Collection of stormwater into temporary detention basins (refer to de-watering procedure)
- Progressive landscaping and rehabilitation of disturbed areas

Sediment Fences / Devices:

Sediment fences and devices will be used in areas where temporary sediment control is required. These relatively simple devices will dissipate stormwater velocity and collect moving solids.

Throughout the Construction period, temporary sediment fences and devices will need to be positioned where erosion is most severe.

Sediment fences will be placed downstream of stockpiles and disturbed areas. It is important that sediment is collected adjacent to these areas to prevent loss of material downstream.

Sediment devices will be placed in areas where energy dissipation is required. When constructed these systems are commonly known as check dams and are placed in areas where a major flow path exists. Straw bales filter coarse sediments but tend to be less effective with fine sediments. For this reason all Straw bales will be lined on the upstream side with a geotextile filter fabric where appropriate. Straw bales will be secured with three stakes and positioned so the bale twine does not degrade due to direct sunlight.

Rehabilitation

On completion of works decommission sediment traps constructed as part of the temporary works by removing all silt material from the base of the trap, removing the trap wall and filling the trap with compacted fill. The diversion drains will be graded to match surface levels.

Temporary silt traps or sediment control devices will not be removed for landscape or streetscape works, but shall only be removed following stabilisation of disturbed areas.

For rehabilitated areas, maintenance will continue until vegetation is well established.

Maintenance of Controls:

Perform routine maintenance inspections of the stormwater diversions and sediment and erosion controls, particularly after rainfall events or extremely windy conditions.

Where required, clean or repair diversion drains, storage basins, silt fences and other related control structures to ensure the continued effective operation of these over the duration of the construction and demolition period.

Stormwater Re-use:

- Any stormwater entering the excavation or works areas will be collected and retained for re-use on-site for uses ranging from dust suppression on construction roads to landscape watering.

Controlled Discharges (Dewatering):

Lend Lease Project Management & Construction is committed to Stormwater Management during construction, and as such, operates without formal licences but in accordance with industry best practice for the management of stormwater and de-watering discharge.

All site waters during construction and landscaping shall be contained on site, and released only when suspended solids are less than 50mg/L (for storms less than 1 in 5 year time of concentration) in order to avoid pollutants entering the stormwater drainage system.

The collection of stormwater/ground water on a project could be discharged to the stormwater system if it meets certain criteria. This would involve an analysis of the quality of receiving waterways and the collected water within the project boundary. This analysis would need to be carried out by a NATA accredited laboratory and the results and final report supplied to Lend Lease Project Management & Construction.

The analysis would need to demonstrate that the collected water within the project boundary does not exceed the tested parameters and have no evidence of the following substances detected:

- nutrients, from fertilisers;
- herbicides and pesticides used in landscaping;
- acids from washing;
- building wastes and litter;
- paint and paint wastes; and
- oils, grease and fuel, from equipment operation and maintenance.

Note:

This initial analysis should be engaged by the Lend Lease Project Management & Construction site project team to an Environmental Consultant to prepare and interpreted the results for verification and acceptability before any pump-out work can commence.

An on site treatment with discharge to stormwater system could be implemented providing that there is no chemical contamination (as listed above) and water quality during construction must comply with any

specific requirements of the Local Planning Authority. In addition to the schedule of analytes outlined below, the potential for contamination of the retained waters should also be determined and if required, additional analysis performed to meet criteria.

- pH is between 8.5 and 6.5
- suspended solids is less than 50 mg/L,

Note:

This site treatment should be sub contracted to an appropriate contractor and the test results supplied to Lend Lease Project Management & Construction and filed in the site records for verification purposes.

Treatment options could include the use of a mobile specialist plant for this procedure and may prove more cost effective than a procedure of pumping out and/or on site storage of this water.

Ongoing water quality monitoring would need to performed and the contractor engaged to do this work would need to provide a safe work method statement (SWMS) detailing the frequency of sampling and on site procedures to ensure discharge does not exceed the criteria.

Training

Communication and education material on the stormwater, erosion and sediment controls will be part of the Site Environmental Awareness Program that will be incorporated into the site induction program.

Performance Measures

- Control structures constructed and operational prior to earthworks commencing in the nominated area.
- All site cut-off drains unobstructed.
- All major site drains adequately stabilised.
- All controls maintained and functional.
- All stockpiled material adequately stabilised and protected.
- No de-watering stormwater/ground water discharge from the site in a 5 year ARI storm event have a suspended solid content of less than 50mg/L.
- Appropriate parameters for any contaminants of concern (if present) meet the relevant ANZECC (2000) criteria.
- No complaints concerning mud/organic debris on the surrounding public roads to the site.

Monitoring and Reporting

At least weekly, the Bulk Earthworks or Maintenance Subcontractor or nominated Stormwater/ Sediment Control contractors will inspect (and document) the site and, providing particular attention to the following matters:

- Perform daily visual inspection of stormwater diversions and sediment/ erosion control devices ensuring they are operating effectively and at full capacity.
- Maintain erosion and sediment control measures in a functioning condition until all earthwork activities are completed and the site is rehabilitated.
- Devise and implement appropriate remedial measures where any controls or devices are not functioning effectively or are inappropriate.

- Ensure rehabilitated lands have effectively reduced the erosion hazard and initiate upgrading or repair as appropriate.
- The SM will maintain records and comments on the condition of existing erosion and run-off controls (drains, silt fences, catch drains etc.) de-watering procedures and test results, and any site instruction issued to Subcontractors to undertake remedial works.
- Rainfall data will be filed on site by SM and discussed where reports of poor drainage areas occur.
- Water quality parameters meet relevant discharge limits for either re-use on-site or via a controlled discharge.
- All daily inspection reports, environmental incidents and controlled discharge records will be maintained and may be reviewed during any Environmental Audit performed on the site.

Corrective Actions

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor (and EM/ CM/ SM if applicable) shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence. Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the EM to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the actions proposed, desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the EM.

Stormwater & Erosion Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Planning					
121 Prepare a Stormwater & Erosion Control Diagram outlining environmental safeguards.	122 Prior to works commencing	123 In accordance with the Stormwater & Erosion Management Plan.	124 CM/SM	125 Review of Diagram prior works commencing.	126 Diagram prepared & containing all relevant details.
127 Installation of Stormwater & Erosion environmental safeguards.	128 Prior to works commencing	129 In accordance with Stormwater & Erosion	130 CM/SM	131 Weekly inspection	132 Pre-construction check and daily there after.

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
		Management Plan & Civil Engineering consultant's documentation.			
133 **Stormwater & Erosion Controls**					
134 Silt stop filter fences to be located below disturbed areas and across all potential runoff sites.	135 Prior to works commencing	136 In accordance with the Stormwater & Erosion Management Plan.and Civil Engineering consultant's documentation.	137 CM/SM	138 Daily visual inspection & Weekly documented inspection.	139 Pre construction check. Silt collected at base of fence. No breach of fence line
140 Truck wheel wash/ shake facility to be installed near construction access.	141 Prior to construction commencing	142 Detailed work method statement to be prepared by sub-contractor.	143 CM/SM	144 Pre-construction check and daily /weekly maintenance inspections.	145 Pre-construction check. No mud/silt tracked onto roadways.
146 Stockpiles located away from watercourses, sensitive ecosystems or flood prone areas.	147 Prior to construction commencing	148 Contractor to perform in accordance with the Stormwater & Erosion Management Plan.	149 CM/SM	150 Pre-construction check and daily /weekly maintenance inspections.	151 Pre-construction check. No mud/silt migration into waterways, ecosystems or off-site.
152 Stockpiles left for > one month to be temporarily seeded using sterile crops.	153 1 month after stockpile placement	154 In accordance with the Stormwater & Erosion Management Plan.	155 SM/EM	156 Weekly monitoring.	157 No erosion from stockpiles.
158 Stormwater inlet sediment traps to be	159 Prior to constructi	160 In accordance with the	161 CM/SM	162 Weekly inspection	163 Sediment collected in

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
installed.	on commencing	Stormwater & Erosion Management Plan & Civil Engineering consultant's documentation			traps.
164 All erosion controls to be maintained until potential for erosion and sedimentation passed.	165 At all times	166 In accordance with the Stormwater & Erosion Management Plan.	167 SM/ EM	168 Weekly inspection	169 Retaining all controls effective. No uncontrolled discharges of sediment off-site or into waterways.
Stormwater & Runoff					
170 Site facilities to be of aggregate material.	171 Prior to construction commencing	172 In accordance with the Stormwater & Erosion Management Plan.	173 CM/SM	174 Pre-construction inspection	175 No sedimentation from site facilities.
176 Collected stormwater to meet reuse onsite or discharge requirements.	177 On going	178 In accordance with the Stormwater & Erosion Management Plan and WMS to be prepared by sub-contractor.	179 EM	180 Daily inspection and NATA test results.	181 No discharge to exceed controlling Authority criteria.
182 Install sediment control devices upstream of existing stormwater pits.	183 Prior to construction	184 In accordance with the Stormwater & Erosion Management Plan and Civil Engineering	185 CM/ SM	186 Monitor for siltation and sedimentation at downstream locations.	187 Effective sediment traps.

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
		consultant's documentation .			
188 Stormwater pipes and pits should be well maintained and kept clear of debris and sediment.	189 On going	190 In accordance with the SEMP.	191 SM/ EM	192 Daily/weekly inspection	193 Free flowing pipes capable of discharging maximum flows. Monitor for potential blockages.
194 **Sediment Retention**					
95 If required a Sedimentation basin size and construction to meet requirements of the publication mentioned in the Key legislation under key management issues.	196 Prior to construction	197 In accordance with the publication mentioned in the Key legislation under key management issues	198 CM	199 Daily/weekly inspection	200 Effective basin that is easily cleaned and maintained. Monitor for sediment build-up and litter collection.
201 Within 24hrs of a 1in 5 year ARI storm event, inspect the sediment/detention basin and stormwater treatment devices and remove any build up of debris.	202 As required by storm events	203 In accordance with the Stormwater & Erosion Management Plan.	204 EM	205 Daily/weekly inspection	206 Basin clear of storm debris.
Rehabilitation					
Stabilisation works & landscaping of batters, open drain etc will be given high priority to ensure that bare ground is rehabilitated.	207 As required	208 In accordance with the Stormwater & Erosion Management Plan & Landscape scope of	209 CM/ SM/ EM	210 Daily/weekly inspection Project planning and design meetings.	211 Appropriate stabilisation of works.

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
		works			

8.0 NOISE & VIBRATION MANAGEMENT PLAN

Objectives

To minimise the generation of noise and vibration from construction activities occurring on site and its impact on site operations and workers.

To minimise the generation of noise and vibration from construction activities occurring on site and its impact on the neighbouring residents, businesses and associated building structures.

Establish and maintain good relations with community and neighbouring sites.

Key Management Issues

Noise generated during the demolition and construction works, will be primarily associated with vehicle movements, generators, heavy machinery (eg: Excavators) and hand-held machinery and tools. Some additional vehicle noise may be generated by the thoroughfare of vehicles using transport corridors to and from the site.

As no blasting is proposed all the works will be conducted within the hours detailed by the condition of consent, potential noise impacts are predicted to be negligible and expected to pose a minor impact (if any) to the nearest residences to the west and north of the site. In view of this, the following management issues have been identified:

- Noise and vibration generated during construction and demolition works affecting nearby properties (Environmental Class P2 Risk).
- Vibration generated during construction and demolition works affecting site structures, including western distributor and lightrail (Environmental Class P1 Risk).
- Establish and maintain good relations with community and neighbouring sites.

Site Actions – Noise

All construction and demolition activities have been planned to be performed in accordance with the proposed hours as outlined below:

- 7:00am to 7:00pm on Mondays to Fridays, inclusive;
- 7:00am to 5:00pm on Saturdays; and
- No work on Sundays or public holidays.

Any noisy activities proposed outside the hours detailed above will require prior written consent from the nominated approval authority and subject to conditions of consent.

Noise limits during the demolition and construction works are to meet the Maximum Allowable Noise Contribution as specified in the conditions of consent.

No construction works shall commence unless the Subcontractor has submitted a Work Method Statement which details the schedule of demolition / excavation equipment which describes the equipment types to be

used, noise levels these will generate, expected time and duration of use, and any measures required to ensure the noise levels are acceptable (such as screen mufflers).

The Major Subcontractors generating noise should consider engaging an acoustic consultant to monitor construction noise level during its identified noisy activities.

Ensure traffic access to and from the site will be via designated entry/exit points.

Fit and maintain appropriate mufflers on construction and earth-moving equipment as required.

Lend Lease Project Management & Construction will utilise existing Noise Impact Assessment data, where required, to determine noise sources and confirm ambient background levels or will conducting baseline noise monitoring prior to construction work commencing and may engage an acoustic consultant to monitor construction noise level during its activities.

Personnel safety measures shall be implemented wherever noise exceeds 85dB(A).

All typical plant and equipment used during the construction and demolition works will be within the maximum noise levels specified (at 7 metres) refer to **Table 8.1**.

TABLE 8.1: TYPICAL NOISE LEVELS

ITEM	TYPICAL PLANT OR EQUIPMENT	MAX NOISE LEVEL (at 7 metres)
Excavator	212 30T Hammer	213 97
Excavator	214 30T General Works	215 86
216 Front End Loader	217 Wheeled	218 90
Jack Hammers	219 With silencing bags	220 85
Air Track Drill	221 800 CFM Compressor	222 96
Piling	223 Rig for Bored Piles	224 93
Load/unload	225 Backhoe/Bobcat	226 88
Grader	227 Caterpillar 16	228 85
Compactor	229 Caterpillar 825	230 85
Compactor	231 Vibrating Plate	232 92
233 Vibratory Roller	234 10-12 Tonne	235 89
Water Cart	236 15T Truck/Sweeper	237 88
Truck and Dog	238 35 Tonne	239 96
Excavator	240 20T General Works	241 83

Rock Breaker	242 Hydraulic on Excavator	243 98
Truck	244 15-20T Flat tops	245 80
Crane	246 Truck Mounted	247 85
Compressor	248 600 CFM	249 75
Compressor	250 1500 CFM	251 80
Generator	252 Diesel	253 79
Spreader	254 Asphalt, concrete	255 70
Asphalt Truck	256 15T General	257 92
Asphalt Paver	258 15T General	259 89
Tip Truck	260 15T General	261 83
262 Tower Cranes	263 Diesel	264 98
265 Spraying Machine	266 15T General	267 75
268 Mechanical Broom	269 Various sizes	270 83
271 Forklift	272 2.5T – 16T	273 92
274 Concrete truck	275 Mobile	276 83
277 Concrete Pump	278 Static	279 84
280 Concrete Vibrators	281 Flexible	282 80
283 Drill	284 Air	285 85
286 Drill	287 Pneumatic	288 85
289 Welders	290 Mobile	291 85
292 Concrete Saw	293 Mobile	294 93
295 Concrete Leveller	296 Mobile	297 90
298 Cherry Picker	299 On Truck	300 80

Site Actions - Vibration

When planning for construction work, that will include vibration, all practical efforts to protect vibration sensitive buildings and the amenity of the occupier's of buildings shall be considered and apply a practical and economical combination of vibration control measures to manage vibration impacts such as:

- Substitution by an alternative process

- Restricting times when work is carried out
- Screening or enclosures
- Consultation with affected residents.

During leisure hours, vibration disturbance from construction operation must be kept to a minimum. The basis for this vibration management strategy will be to limit the times that certain vibration producing activities may be carried out. Generally, this will be accomplished by performing such work during weekdays, when the majority of residents are either not present or engaged in less vibration sensitive activities.

No construction or demolition works is permitted within a nominated vicinity of any heritage listed items or features of cultural significance. Any activities, potentially resulting in vibrations should be planned to avoid disturbance of these protected items, in particular feature monuments located on the site.

No blasting will be performed as part of the proposed construction works program.

All activities involving vibrating rollers will be performed in accordance with the safe working distances to buildings and structures as outlined in **Table 8.2.**

TABLE 8.2 GUIDELINES FOR RESTRICTION

Roller Class & Weight Range	Centrifugal Force Range	Example of Rollers	Distance from Building A B	Remarks
Very Light Less than 1.25 tonnes	301 10-20kN	302 Coates 32RD tandem Davleco 32CR tandem	303 3m --	304 Maintenance and patching rollers. Generally not restricted for normal
Light 305 1 to 2 tonnes	306 20-50kN	307 Coates 42RD tandem Pannell 54T drawn	308 5m --	309 Generally not restricted for normal road use.
Medium 310 2 to 4 tonnes	311 50-100kN	312 Coates 66Tdrawn Davleco 66 drawn	313 6m 12m	
Medium-Heavy 314 4 to 6 tonnes	315 100-200kN	316 Coates 72Tdrawn Davleco 72 drawn Pacific V12 drawn Raypo Rascal 400	317 12m 24m	318 Not advised for city and suburban streets.
Heavy 319 7 to 11 tonnes	320 200-300kN	321 Coates 78Tdrawn Pacific V24D drawn	322 25m 50m	323 Restricted. Not advised built-up areas.

		Raypo Rascal 600		
Very Heavy 324 12 tonnes and over	325 Over 300kN	326 Coates 96Tdrawn Pacific V36D drawn	327 25m 50m	328 Restricted to major construction areas away from structures and buildings.

A – to prevent damage to buildings

B- Values suggested to keep claims and complaints to an acceptably low level. For complaints to be stopped completely in residential areas, these values may need to be increased still further.

Training

Communication and education material on the noise and vibration controls and procedures will be part of the Site Environmental Awareness Program that will be incorporated into the site induction program.

Performance Measures

- Non exceedance of specified noise limits during monitoring event
- No noise or vibration complaints received from adjoining operations or from the community.
- The maximum noise level (LA max), when measured at a distance of 7 metres from any item of plant or equipment and must not exceed the maximum noise level.
- Assessment of performance by number of complaints received from adjoining operations or from statutory Authorities.
- No warnings/notices received from statutory authorities for exceeding noise levels or work outside the approved work hours as set out in the conditions of consent.

Monitoring and Reporting

All subcontractors shall submit noise monitoring compliance certificate or monitoring results for all major plant and equipment on the project within one month of use on site demonstrating conformance with any operational licence.

Routine inspections of plant and equipment should include reference to acoustic performance. Subcontractors to provide details of acoustic performance of plant and equipment on site as part of these inspections.

Any noise complaints or feedback from adjoining properties or from the operational facility on site are to be recorded, reported and monitored.

The SM may require the Subcontractor to carry out additional noise monitoring if a complaint regarding construction noise is received.

The SM in consultation with the EM will advise the monitoring location and the monitoring required will be manned monitoring.

Corrective Actions

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor (and EM/ CM/ SM if applicable) shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence. Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the EM to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the action proposed, desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the EM.

Noise & Vibration Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Planning					
329 Prepare a Specific Noise and vibration report for construction.	330 Prior to works commencing. Review prior following works stages.	331 Base provisions on construction equipment and staging.	332 CM	333 Review of base provisions prior works commencing.	334 Report covers all key areas and site-specific considerations, which will include detailing the locations and type of equipment .
Working Hours					
335 No work shall occur outside permitted working hours, unless approved.	336 At all times	337 Hours and times as specified in conditions of consent.	338 CM	339 Continuous	340 No complaints from public or authorities.
341 Construction noise not to be exceeded next to neighbouring and residential premises.	342 At all times	343 Hours and acceptable noise levels as specified in conditions of consent.	344 CM	345 Continuous	346 No complaints from public or authorities.
347 Adjoining properties likely to	348 Reasonable	349 Provide written	350 CM	351 Continuo	352 No complaints

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
be affected by noise to be notified.	notice prior to works.	notice to residences as soon as practicable.		us	from public or authorities. Record of notifications.
Plant & Equipment					
353 Plant & Equipment Register kept detailing approved equipment, noise compliance certificates and relevant restrictions/ conditions of use (if any).	354 Prior construction	355 Sub-contractor to submit Plant & Equipment Register.	356 SM	357 Included in sub-contractors work method statements. Sub-contractor audit	358 Records maintained.
359 Plant & Equipment to be operated in a proper and efficient manner.	360 At all times	361 Subcontractor to submit SWMS prior to works.	362 SM	363 Continuous inspection of operators and activities.	364 All operators are licensed. No inappropriate use of plant or equipment.
365 Ensure traffic access is through designated entry/ exit points	366 Ongoing	367 Traffic Management Plan.	368 CM/SM	369 Continuous monitoring.	370 No complaints from public or authorities.
371 Demolition to be conducted in accordance with AS 2601:1991	372 Prior to engagement	373 Detailed in subcontractor SWMS. Approved licensed contractor used.	374 CM/ SM	375 At tender review.	376 Registration cited. SWMS provided.
377 **Mitigation Measures**					
378 Plant to be fitted with engine covers and residential class mufflers.	379 Prior construction	380 Included into sub-contractors tenders.	381 SM	382 Pre-construction inspection. Included in routine	383 Compliance certificates provided. No complaints

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
				environment Audit.	
384 PPE including ear muffs and plugs to be issued and worn where noise exceeds 85dB(A)	385 At all times	386 In accordance with the Noise & Vibration Management Plan	387 SM	388 Pre construction inspection. Continuous inspection.	389 Register of use. Personnel using PPE.

9.0 AIR QUALITY MANAGEMENT PLAN

Objectives

Construction and demolition must not prejudice air quality.

Maintain the current levels of local air quality during construction activities.

To minimise the generation of dust on the project site.

To implement appropriate controls to suppress dust and other suspended particulates in accordance with the consent conditions and risk management requirements.

To minimise all potential odour issues relating to contaminated soil or groundwater.

Key Management Issues

Major sources of air emissions from the proposed demolition and construction works at the site are primarily associated with traffic movements, minor excavation /stockpiling and handling of soils on site and the demolition of some existing buildings and structures. In addition, the likely presence of existing soils/groundwater on the site may give rise to potential odour emissions as a result of minor excavation or soil disturbance.

The generation of dust, air emissions or odours from the site can be a major nuisance to adjacent land users, create unsafe working conditions on site and result in environmental degradation via the loss of topsoil and placement of dust onto sensitive ecosystems and adjacent water bodies. In view of this, the following management issues have been identified:

- Dust/Odours generating from construction activities from the site affecting adjoining properties or public access (Environmental Class P2 Risk).
- Dust generated on the construction site affecting site operations (Environmental Class P2 to P1 Risk).
- Odours emitted from any disturbed soils/ groundwater affecting site workers or site personnel (Environmental Class P2 Risk).

Site Controls

The minimisation of air-borne pollution is a key component for this environment management plan for the site. Construction and demolition phase air quality impacts shall be minimised or avoided by incorporation of appropriate air quality control measures.

Air Quality Monitoring Equipment Diagram will be prepared prior to site activity, detailing the locations and type of equipment eg dust gauges or dust loggers to be installed and monitored.

The installation and application of air quality controls during the construction phase shall be in accordance with the following principles:

Planning

- Ensure that all equipment used and all facilities erected on site are designed and operated to control the emission of smoke, dust, fumes and any other air impurity into the atmosphere;
- spray earthworks, roads and other surfaces as necessary with water;
- seal temporary haul roads where appropriate which will be in use for prolonged periods;

Construction & Demolition Phase

- Schedule the civil works program in a manner to minimise the length of time that excavations and stockpiles are left exposed.
- Provide adequate truck washdown and wheel washing facilities on site to preventing tracking of muds/ sediment onto public roadways and generating dust.
- Transport routes and traffic areas shall be clearly defined by marker posts or other suitable barriers to prevent unnecessary vehicle movement onto other areas. These roads shall operate under defined speed limits.
- A water cart will be employed as required to dampen work areas and exposed soils to prevent the emission of excessive dust from the site.
- Trucks transporting material from the site shall be covered immediately after loading to prevent wind blown dust emissions and spillages. The covering must be maintained until immediately before unloading the trucks.
- All access roads shall be surfaced in selected materials and where required, hard surfaced. Mud stone, clay stone and shale stone shall not be used.
- Subcontractors will maintain all construction equipment to ensure exhaust emissions comply with the relevant Air Regulations issued under State Legislation.
- All waste material will be removed from the site in a manner described in the Waste Management Plan.
- No cleared vegetation, demolition materials and other waste material shall not be burnt on the site.
- No excavation or similar works involving disturbance of large volumes of soil will be permitted during extremely windy conditions.
- Progressively revegetate and landscape disturbed areas to minimise long durations of soils exposed to weathering. Seed stockpiles with local grasses.
- Development and implementation of an Asbestos (& Hazardous Building Materials) Management Plan as part of the demolition phases.

Training

Communication and education material on the air quality and dust controls and procedures will be part of the Site Environmental Awareness Program that will be incorporated into the site induction program.

Performance Measurements

- Achieve air quality monitoring targets.
- No visible dust for more than 15 continuous minutes during construction activities.
- No odour or dust complaints received from adjoining operations, nearby residents or from statutory Authorities.

Monitoring and Reporting

The SM will perform air quality monitoring to determine of the acceptable air quality thresholds are being met for each of the nominated monitoring parameters. This information will be used to determine the effectives of existing air quality mitigation measures and provide for any remedial actions if required.

The Site Manager will visually monitor levels of dust deposition and air quality, the effectiveness of dust emission controls and the construction site and the impacts of any nuisance on adjoining properties.

The SM may require the Subcontractor to carry out additional Air monitoring if a complaint regarding Air Quality is received.

The SM in consultation with the EM will advise the monitoring location and the monitoring required will be manned monitoring.

Corrective Actions

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor (and EM/ CM/ SM if applicable) shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence. Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the CM to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the actions proposed, desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the EM.

Air Quality Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Planning					
390 Prepare an Air Quality Management Plan, Detailing the controls to be implemented.	391 Prior to works commencing. Review prior to work stages.	392 Base provisions on approved requirements by nominated consultant.	393 CM	394 Review of plan prior works commencing.	395 Plan covers all key areas and site specific considerations to maintain and document controls.
396 Design, implement and maintain Air Quality Monitoring Program and Plan.	397 Prior to works commencing	398 Based on Air Quality Management Plan and to be prepared by Environmental Consultant.	399 CM	400 Air Quality Monitoring Program/Plan to detail key parameters, methodology and guidance levels. Monitoring Plan to show monitoring locations.	401 Not to exceed target values for each parameter. Scheduled air monitoring performed correctly.
402 Areas to be disturbed will be limited in order to minimise surface with potential to generate dust.	403 Prior to works commencing.	404 In accordance with Air Quality Management Plan.	405 SM	406 Weekly inspection or as required.	407 No visible dust. Acceptable dust monitoring levels.
Dust Controls					
408 Exposed surfaces and stockpiles to be kept moist by spraying with water or dust suppressant	409 Daily or as necessary when dry and windy weather conditions prevail.	410 In accordance with the Air Quality Management Plan.	411 SM	412 Daily inspection and monitor activities for dust generation.	413 No visible dust. No reported dust monitoring exceedances.
Exposed surfaces and stockpiles left for longer than 4 week to	414 Four weeks from completion	415 In accordance with the Air Quality	416 SM	417 Daily inspection and monitor moisture	418 No visible dust. No reported dust

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
be stabilised by sealing, seeding or spraying with water or dust suppressant.	of activity.	Management Plan		content of exposed areas.	monitoring exceedances.
419 Avoid soil disturbance works during periods of high wind or other extreme weather conditions.	420 At all times.	421 In accordance with Air Quality Management Plan.	422 SM	423 Monitoring of predicted meteorological conditions.	424 No works performed during high wind or rainfall events.
425 Immediate stabilisation works & landscaping batters of disturbed grounds undergoing rehabilitation.	426 As required	427 In accordance with the SEMP & landscaping works	428 CM/ SM	429 Daily/weekly inspection Project planning and design meetings.	430 Appropriate stabilisation of works. No areas left exposed for prolonged periods.
431 Truck wheel wash/shaker facility to be installed near access gate	432 Prior to construction commencing	433 Detailed work method statement to be prepared by sub-contractor	434 CM	435 Pre-construction inspection.	436 No dust generated by traffic on leaving site
437 Maintain clean traffic routes and 10km/hr speed limit within site and at site entrance/exist.	438 Ongoing	439 Appoint street sweeper and water kart.	440 SM	441 Weekly inspection of exterior roadways or immediately after rainfall events.	442 No complaints from public or authorities. No dust from exterior roads. No speeding vehicles.
443 All site internal roads to be sealed or constructed from gravel or non-dust generating materials.	444 Prior to construction	445 In accordance with the Air Quality Management Plan	446 SM	447 Pre-construction inspection.	448 No breakdown of surface material. No loose material.
449 Trucks	450 At all	451 In	452 SM	453 To be put	454 No

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
transporting loose material to and from the site to be covered.	times	accordance with the Air Quality Management Plan.		into tenders for sub-contractors. Compulsory inspection at gate prior to entrance/exit to site.	visible loose material from trucks. No community complaints.
Dust Quality Controls					
455 Minimise potentially contaminated dusts being generated from any contaminated site soils.	456 At all times	457 In accordance with Air Quality Management Plan.	458 SM	459 Dust Monitoring Plan to include parameters when contaminated soils encountered or disturbed.	460 No contaminants detected in dust monitoring samples.
461 **Vapour & Emission Controls**					
462 No vapours within work areas.	463 At all times	464 In accordance with Air Quality Management Plan.	465 CM/SM	466 Intensive air vapour monitoring (and personal air monitoring if required) during and after works by consultant.	467 No elevated vapours detected during works. No works performed whilst elevated vapours are detected in work areas.
468 Combustible waste material shall not be burnt on site	469 At all times	470 Covered in site induction.	471 SM	472 Continuous monitoring. To be put into tenders for sub-contractors.	473 No fires or incineration on site from construction or demolition works.
474 Plant and equipment to be fitted with standard pollution/noise control devices as a minimum.	475 Prior to construction commencing	476 In accordance with the Air Quality Management Plan	477 SM	478 Routine inspection. To be put into tenders for sub-	479 Copies of compliance certificates to be supplied. No complaints

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
				contractors.	from site personnel or adjacent land users.

10.0 TRAFFIC & PARKING MANAGEMENT PLAN

Objectives

To minimise any potential conflict associated with demolition and construction site traffic and nominated traffic routes over the duration of the proposed works and to prevent injury to persons from moving plant onsite.

Powered mobile plant is extremely hazardous when it is operated in situations where people or other vehicles are sharing the same area. Workers are particularly vulnerable in areas where mobile plant and machinery is operated and the operator's vision may be restricted and plant, which is apparently idle, may move with little warning.

To minimise any adverse environmental impacts related to fauna, flora, air emissions, water quality and soil contamination.

Maintain ecological integrity and surrounding residents amenity.

Key Management Issues

A Construction Traffic Management Plan will nominate and set out access points, heavy vehicle routes to external roads, and controlled circulation within the site to reduce traffic congestion or vehicle conflict.

The location of the site and careful vehicle management will ensure that conflicts between construction and other operational facilities and community activities in the area, will be controlled.

Construction traffic is subject to constraints imposed by site conditions and public traffic movements.

The primary issues that affect the construction phases include:

- construction and demolition areas with site access and egress;
- interaction with existing operational facilities around the site;
- the controls of roadways;
- the timing and extent of material deliveries;
- traffic conflicts with both existing vehicles and other construction traffic;
- traffic congestion and conflicts on external roads; and
- signage and directions.

Use of specific measures to eliminate or control risks in work areas will be:

- Isolating vehicles and plant used in or around the site and work area from persons on the site or work area. This is to be co-ordinated daily with site foreman and subcontractors.
- Maintain a controlled permit system for vehicles at access gates.
- Use of fencing, barriers, temporary warning or control signs to secure the area where moving plant is used.
- Planning the direction that plant moves so the visibility of operators is not restricted.

- Using spotters to control traffic movement.
- Implementing safe working distances and exclusion zones.
- Reversing alarms on plant and flashing lights.
- Designated walkways to be established and maintained for areas where workers and plant interact.
- Establish notifications of public transport systems and local parking stations to site workers.

Vehicle Access

Access to the site is to be detailed on a Construction Traffic Plan and diagrams, taking into account the staging of construction and demolition works over the duration of the works, by establishing:

- Main Access Gates, with Controllers, signage and a controlled vehicle permit system in place. General entry for all vehicles and delivery's will be from Darling Drive at the western boundary of the project.
- All vehicles enter through advised gates in an forward direction speed limit 10 kmh
- Those directed onto site, will be located in nominated marked layover spaces and wait for unloading or loading.
- Deliveries will directed out of the way of other moving vehicles and wait instructions for delivery.
- If reversing is necessary the vehicle will be directed by a suitably trained person who will give direction and keep other persons from entering the area.
- After delivery, vehicles will leave site through gates, whenever possible, in a forward direction.
- General entry requirements to be included in the Site Induction with all regular vehicle delivery companies.
- general site access and egress and these routes and points clearly signposted
- restricted points of access during the construction and demolition phase.
- Maintain specific access corridors for each construction stage
- Reduce opportunities for vehicle –borne transfer of sediments off-site.

There is no construction parking provided on site. Use of current public transport types shall be informed to all through tender interviews and site inductions.

Vehicle Site Entry

Entry gates onto the construction work will be manned to ensure that all vehicles comply with procedures and controls in place for entry and exit from the various gates located around the site. Personnel access and egress shall be through security controlled ID swipe card gates located to the eastern side of the site.

General requirements for all plant and vehicles while on site will be

- All vehicles entering the site will be maintained in a safe and serviceable condition (ie road registered or complying to Lend Lease Project Management & Construction plant requirements ie qualified person sign off and daily inspection). Operators of plant (including all moving plant ie EWP's) will hold

appropriate WorkCover certificate of competency or where this is not required be appropriately trained, instructed and supervised into its safe operations.

- Prior to moving a vehicle on site the Supervisor responsible will assess (ie walk) the path of access to ensure it is suitable for entry of that vehicle.
- Those drivers delivering onsite will remain in their vehicle under the instruction of the Supervisor/Subcontractor unless brought in as an inducted person or visitor with the inducted subcontractor. Operators and drivers of plant are to be aware of anyone in the work area.
- All vehicles moving on site will move in a forward direction, if reversing a trained person with full view and knowledge of surrounding activity will guide the vehicle at all times. All plant is required to have a reversing beeper and a flashing light on top of vehicle.
- Repairs on machines need to be carried out by competent person. All mechanics working out on site with machines need to be inducted or sign visitors' book and be with inducted worker.
- All subcontractors moving vehicles on site will provide to Lend Lease Project Management & Construction a copy of their Vehicle Movement Plan (VMP) for review prior to locating on site. Examples will be:

    a. **Concrete deliveries**. Prior to commencing, an induction shall be held at the nominated plant `s yard to deliver drivers with routes and gate locations. When ordering concrete, a gate location to enter site can be given and operators/drivers have upfront knowledge of location allowing traffic movement in and out of site. Concrete pours will have traffic controllers for location of trucks to pumps and associated area clearly defined with signage and barriers.

    b. **Mobile Cranes**. Prior to commencing, an induction shall be held at the nominated crane yard to deliver drivers with routes and gate locations. When ordering cranes, a gate location to enter site can be given and operators/drivers have upfront knowledge of location allowing traffic movement in and out of the site. Mobile Cranes will have exclusion zones for setup and documents for each crane is kept in Lend Lease Project Management & Construction site office, filed in EHS filing system. Area Foreman will review daily inspection prior to commencing on site.

- If a subcontractor requires bringing an item of plant on an irregular basis the Subcontractor in charge are required to complete a "Supply of Plant Permit", which has access rules and diagrams attached and return to Lend Lease Project Management & Construction the day before of plant arriving on site. The permit requires the attachment of the SWMS, Inductions and Plant and equipment inspection report . All subcontractors are responsible to ensure those they bring on site meet all Lend Lease Project Management & Construction requirements for site entry.
- A review of the risk assessment and control measures associated with vehicle movement will be undertaken as a part of the subcontractor's weekly inspection (or more frequent were required) and where necessary the control measures will be upgraded. Weekly safety walk is to inspect all number gates for signage etc.
- Construction Site entry requirements to be included in the Company Specific Induction.

Signage

The CM will be responsible for providing the signage on site regarding traffic management and the updating and maintenance of the signs as required.

On-site signage, speed limits and speed reducers will be used to ensure drivers use appropriate routes through the site and to and from the site access points.

Training

All site personnel will be inducted into the construction traffic management system that will be operating for the site during the site induction and education program.

An ongoing site education update on changes to any traffic operations shall be reviewed and notified through meetings, correspondence and site notice boards.

Performance Measures

- Access provided prior to works commencing;
- Provision and maintance of fencing and gates;
- No complaints received from adjoining operations, statutory authorities or local road users;
- Accurate recording and prompt resolution of public complaints (if any); and
- Regular checks of vehicle access and egress points for efficiency.

Monitoring and Reporting

The CM will report when required on the implementation of the Traffic & Parking Plan.

The plan will be periodically updated to include but not be limited to: -

- access points in use and regular checking of access corridors and designated layover areas for congestion;
- location of access points;
- variations to traffic management plans to suit various staging works around the site;
- identification of any safety or operational incidents and actions taken to address the conditions that caused the incidents;
- monitoring complaints and corrective actions;
- Accurate recording and prompt resolution of public complaints; and
- Apprioate signage to internal and external roads and maintained to comply.

Corrective Actions

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor (and EM/ CM/ SM if applicable) shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence. Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the CM to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the action proposed, desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the EM.

Traffic & Parking Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Planning					
480 Development of a Construction Traffic Circulation Diagram.	481 Prior to works commencing.	482 In accordance with the Traffic & Parking Management Plan and Transport and Traffic Impact Assessment.	483 CM	484 Pre-construction inspection.	485 Diagram covers all key areas of traffic circulation internal and external. It must clearly show traffic circulation routes, loading/ unloading areas and gates.
486 **Construction & Demolition Operations**					
487 Only site personnel and authorised visitors shall be permitted to enter the work areas.	488 At all times	489 In accordance with the Traffic & Parking Management Plan	490 CM	491 Monitor for unauthorised access.	492 No unauthorised access, parking or deliveries.
493 Material deliveries to be scheduled to minimise disruption to site	494 Any times	495 In accordance with the Traffic & Parking Management	496 CM	497 Ensure deliveries arrive at scheduled times.	498 No complaints received. No deliveries outside specified

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Planning					
operations and the local community.		Plan			working hours.
499 All construction traffic for internal works shall access the site via the main site access points	500 At all times	501 In accordance with the Traffic & Parking Management Plan	502 CM	503 Monitor unauthorised access.	504 No unauthorised access.
505 Truck movements to be restricted to specified routes.	506 At all times	507 In accordance with the Traffic & Parking Management Plan To be included in sub-contractor tenders.	508 CM	509 Specified routes detailed during site induction. Routes shown on traffic circulation map in TPMP.	510 No complaints from residents, regulatory authorities or site operations.
511 Delivery areas to be clearly marked.	512 Prior to commencing and on going.	513 In accordance with the TPMP.	514 CM	515 Monitoring designated areas for compliance.	516 No Deliveries within unauthorised areas. Site Gates clearly signposted.
517 Speed limit of 10km/h shall be adhered to at all times.	518 At all times	519 In accordance with the TPMP.	520 CM/ All personnel.	521 Monitor compliance.	522 No complaints from residents, regulatory authorities or site operations.
523 Vehicles departing the site shall be not release mud, dust or other matter onto public roadways.	524 At all times.	525 Wheel wash and shaking racks to remove mud. All loads covered by contractor.	526 EM	527 Monitor compliance.	528 No complaints from residents, regulatory authorities or site operations.

11.0 COMPLAINTS MANAGEMENT PLAN

The purpose of this section of the plan is to detail the communication protocols and procedures to be employed across all phases of the project. Darling Harbour Live will work in collaboration with Infrastructure NSW to develop joint protocols for all consultation and engagement, ensuring that from Day One there is a consistent, coordinated and proactive approach to the management of complaints.

The proposed approaches and frameworks outlined in this section aim to assist in the early identification of both existing and emerging issues and the development of appropriate and agreed responses. It also provides clear background and direction for the management of stakeholders and the community over the three phases of the project. It is intended that these protocols will form the foundation for planning all activities that require stakeholder or community consultation, engagement or issue management.

It is anticipated that these projects protocols will evolve and be reviewed and agreed collaboratively by Infrastructure NSW and Darling Harbour Live.

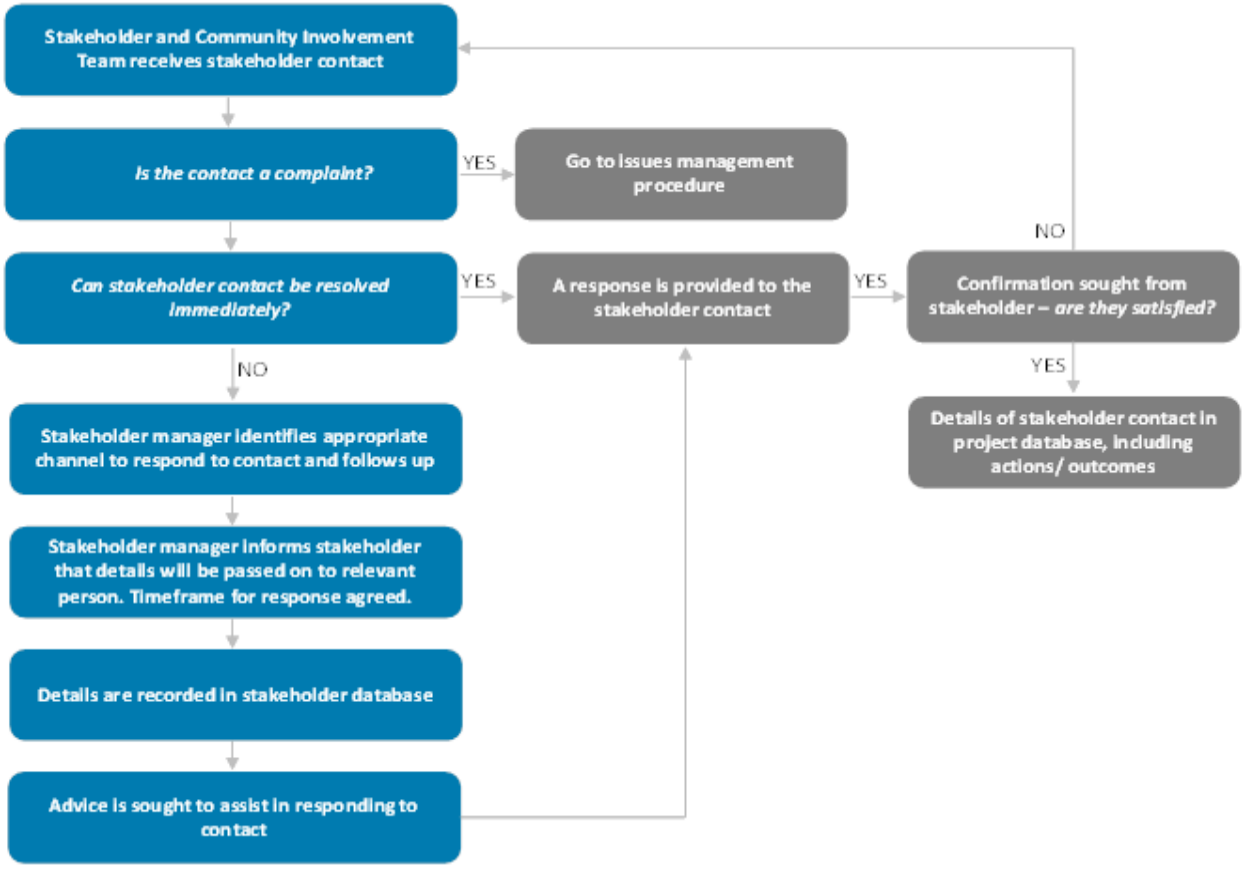
Complaints will be recorded on the community consultation database. The record will be filed and actioned and distributed as necessary to those involved in the contact. A stakeholder and community contact database will be maintained to track contacts and records.

The following information will be captured on the stakeholder and community contact database:

- Persons full name and contact details;
- Date and time of enquiry /complaint;
- Description of issues raised by the stakeholder;
- Nature of the contact (i.e. conciliatory, conflicted, hostile);
- Action required and timing, particularly if any commitments have been made around timeframes;
- Person responsible for the action.

The following figure represents the stakeholder contact procedure, and incorporates the communications infrastructure described above. It details the system to be followed when receiving a contact from an external stakeholder.

It is anticipated that these contacts will generally relate to individual residents or community groups, however there may be occurrences when they relate to other stakeholders or organisations



An issues (or complaint) can be defined as any communication received from a stakeholder or community member that expresses dissatisfaction with any aspect the project, its delivery or ongoing management. Management of issues is of critical importance for developing and maintaining meaningful relationships with stakeholders and community members throughout the life of the project.

The procedure will assist in identifying issues that may escalate (from low to medium or medium to high) and offer mitigation measures. Darling Harbour Live recognise the need to be flexible in the classification of key issues to ensure the team, including Infrastructure NSW, respond appropriately to each issue as it arises. Similarly these classifications will be identified based upon both the complaint and the stakeholder member involved.

This procedure is supported by an issues classification matrix that identifies and defines three categories of issues as detailed as follows. All issues raised will be reported as part of the monthly project communications working group via the stakeholder and community issues report.

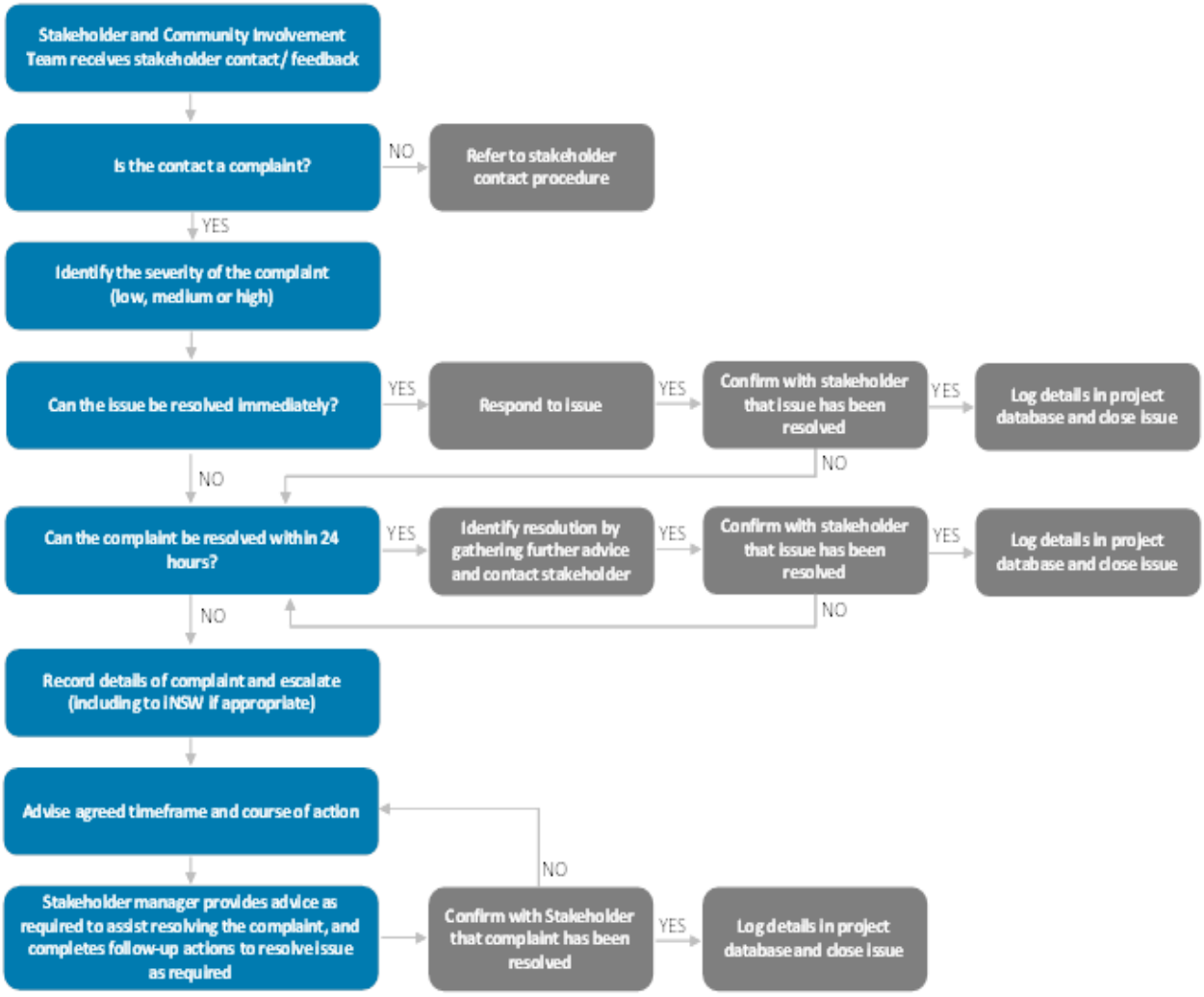
CLASSIFICATION	DESCRIPTION	ACTION
High (*issue cannot be resolved by the project team*)	Involves negative media coverage Involves political and/or government agencies Relates to safety or security	Immediate verbal report to the Darling Harbour Live Project Director and Infrastructure NSW Project Director (followed by written advice).
529 Medium (*issue cannot be immediately resolved*)	Involves an individual or group expressing negative sentiments towards the project with the threat of further action. The stakeholder raising the issue is not satisfied with the response provided.	Issue an action to the relevant Darling Harbour Live team member through consultation manager Follow up via email, to infrastructure NSW within 48 hours
530 Low (*issue can be responded to immediately*)	Involves an individual or group expressing negative sentiments towards the project. There is no threat of further action	Communities Team member responds appropriately.

Contact response targets have been defined as:

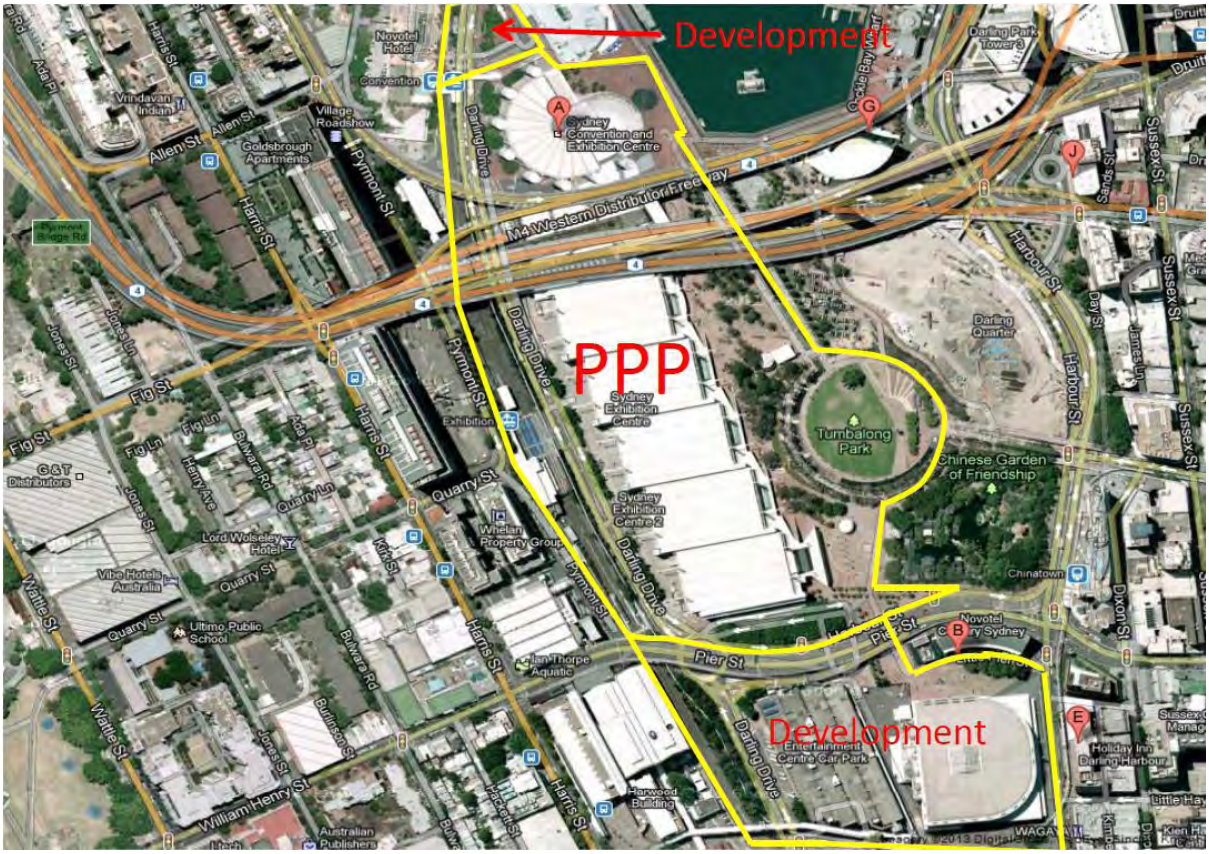
- Same day acknowledgement of stakeholder enquiries;
- 48-hour response target for all routine business and community inquiries, e.g. questions about project basics, timeframes or high-level milestones. This timeframe can be extended where more detailed information is required, provided the stakeholder is advised of the reason for delay;
- 72-hour response target for complex or policy-related inquiries, e.g. a detailed request from an events industry association or peak body.

These response targets are consistent with those specified in the *Infrastructure NSW Stakeholder and Community Involvement Strategy* to ensure consistency across all components of the SICEEP project for stakeholders and community members.

The following figure represents the issues management procedure that will be adhered to by the project team.


Stakeholder and Community Involvement Team receives stakeholder contact/ feedback
Is the contact a complaint?
NO
Refer to stakeholder contact procedure
YES
Identify the severity of the complaint (low, medium or high)
Can the issue be resolved immediately?
YES
Respond to issue
YES
Confirm with stakeholder that issue has been resolved
YES
Log details in project database and close issue
NO
NO
Can the complaint be resolved within 24 hours?
YES
Identify resolution by gathering further advice and contact stakeholder
YES
Confirm with stakeholder that issue has been resolved
YES
Log details in project database and close issue
NO
NO
Record details of complaint and escalate (including to INSW if appropriate)
Advise agreed timeframe and course of action
NO
Stakeholder manager provides advice as required to assist resolving the complaint, and completes follow-up actions to resolve issue as required
Confirm with Stakeholder that complaint has been resolved
YES
Log details in project database and close issue

APPENDIX – A – SICEEP PRECINCT BOUNDARY



APPENDIX – B – CONSTRUCTION STAGING

B. Construction Staging 1

B. Construction Staging 2

B. Construction Staging 3

APPENDIX – C – OVERALL PUBLIC DOMAIN STAGING

Overall Strategy & Goals

- To have all facilities open by December 2016
- To minimise impact on Public during construction works
- To stage public domain to allow maximum public space available at any point in time

Construction Strategy

- Construction broken up into four zones of Convention Centre (inc Parkside), Exhibition Centre, MFEC & Public Domain/External Works
- Demolition of existing Convention Centre and Exhibition Centre commenced concurrently to allow new construction to be commenced as soon as possible
- Demolition of Exhibition Halls Staged to allow adjacent civil works to take place concurrently
- Structure Construction of New Convention Centre, Exhibition Centre, MFEC undertaken concurrently utilising dedicated construction delivery teams for each building

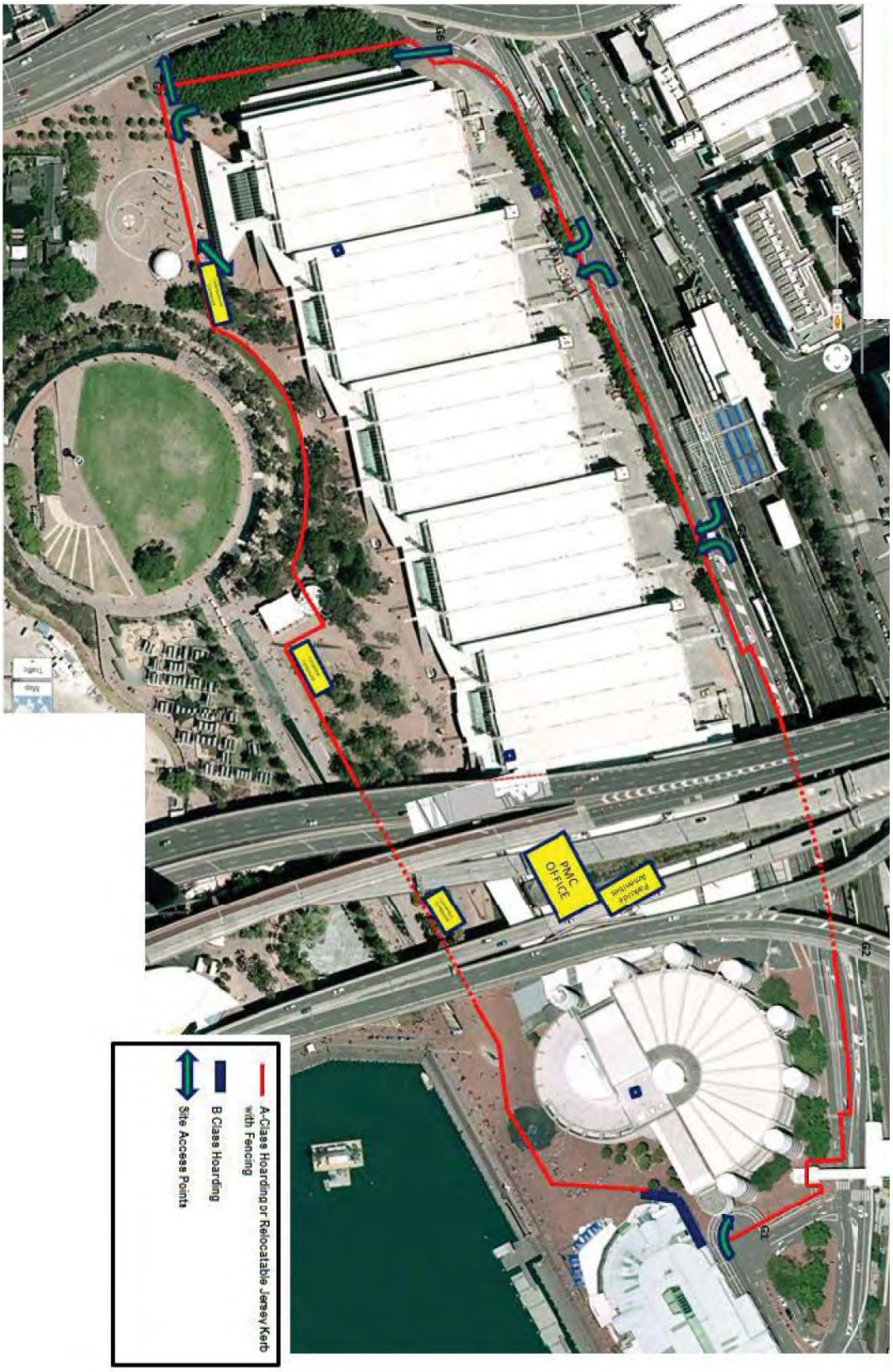
Public Domain Strategy

Public Realm works have been staged to take account for:

- Construction interface with the MFEC, Exhibition & Convention Centre
- Major Events of New Years Eve and Australia Day
- Only taking areas that are required for construction works to commence
- Opening key areas ahead of final completion (e.g. boulevard open for New Years Eve 2015)

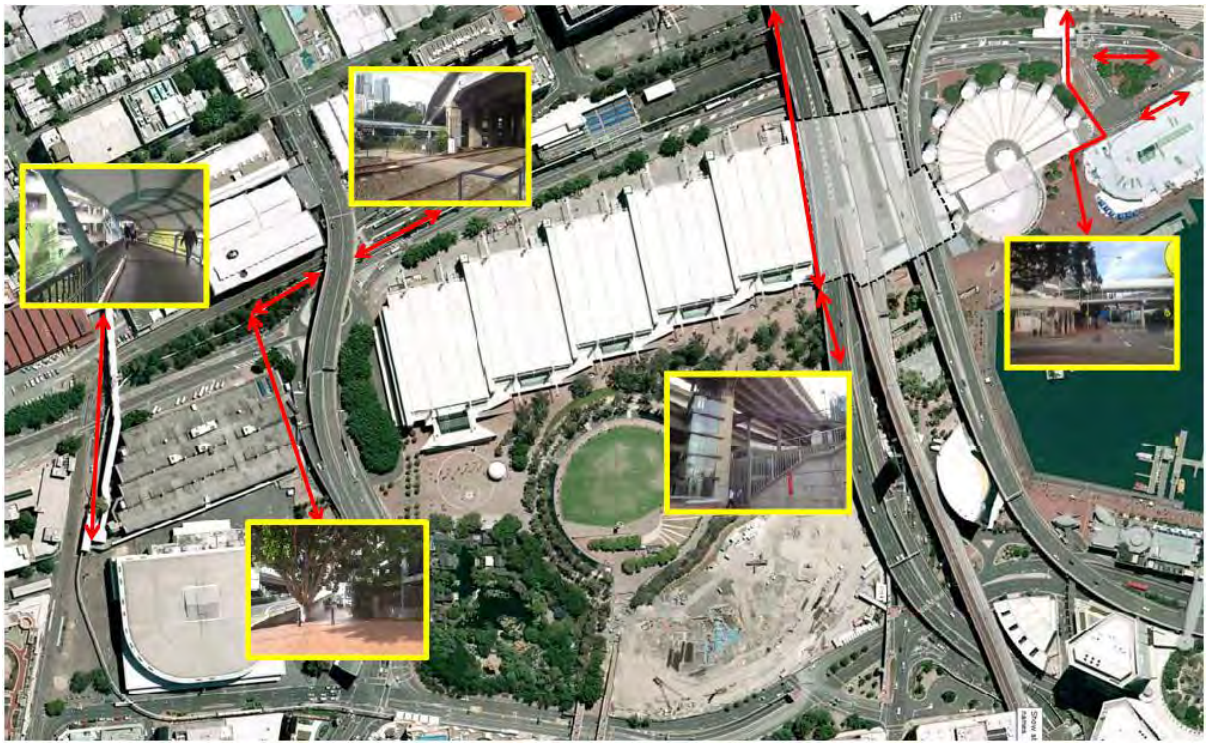
APPENDIX – D – WHOLE OF PRECINCT AMENITIES

APPENDIX – E – SITE ESTABLISHMENT

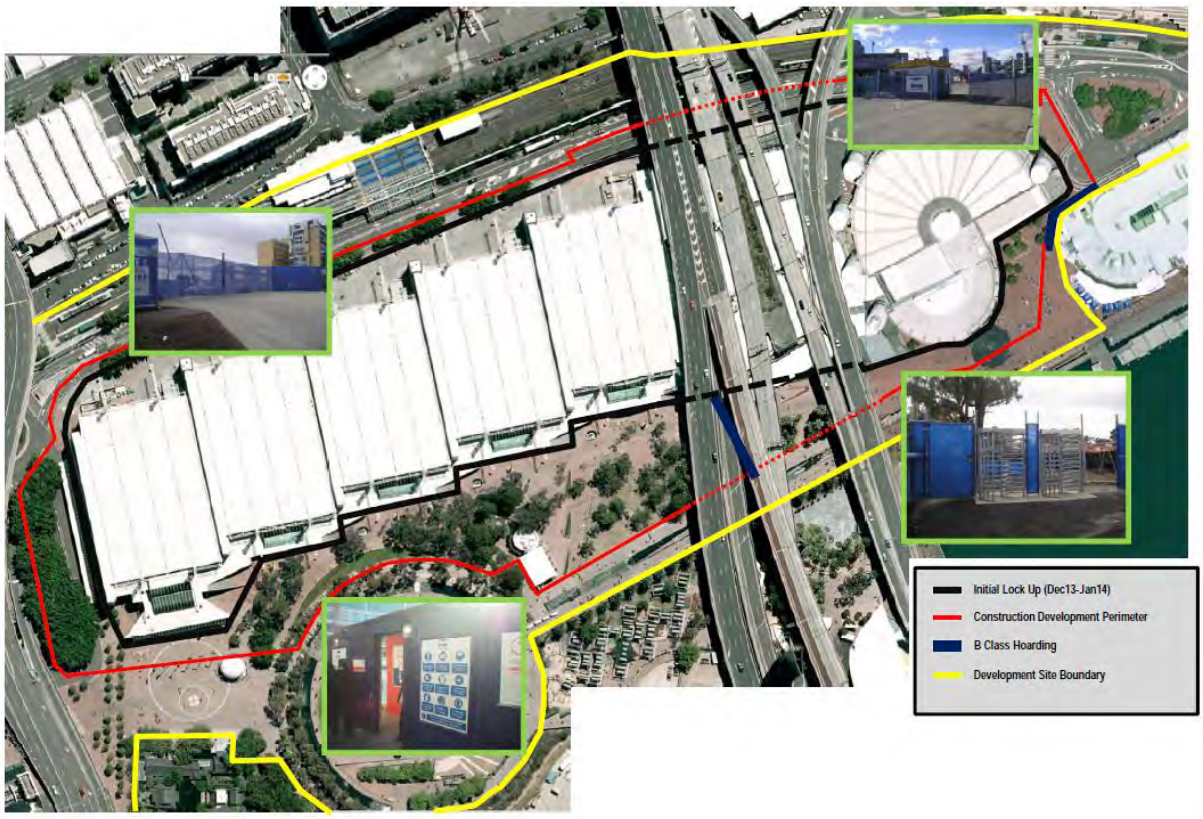

G3
G5
G2
G1
PMC OFFICE
A-Class Hoarding or Relocatable Jersey Kerb with Fencing
B Class Hoarding
Site Access Points

APPENDIX – F – PERIMETER PROTECTION

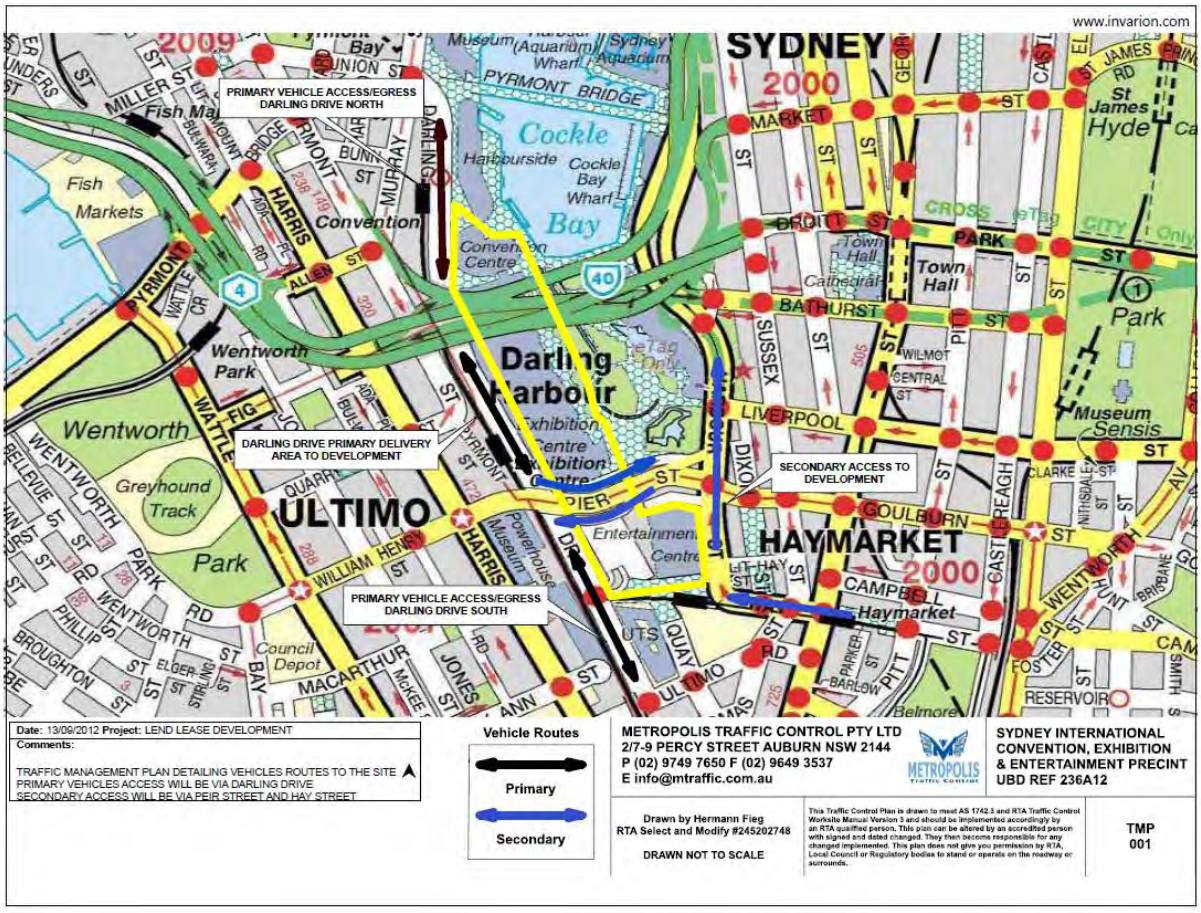
APPENDIX – G – PEDESTRIAN LINKS



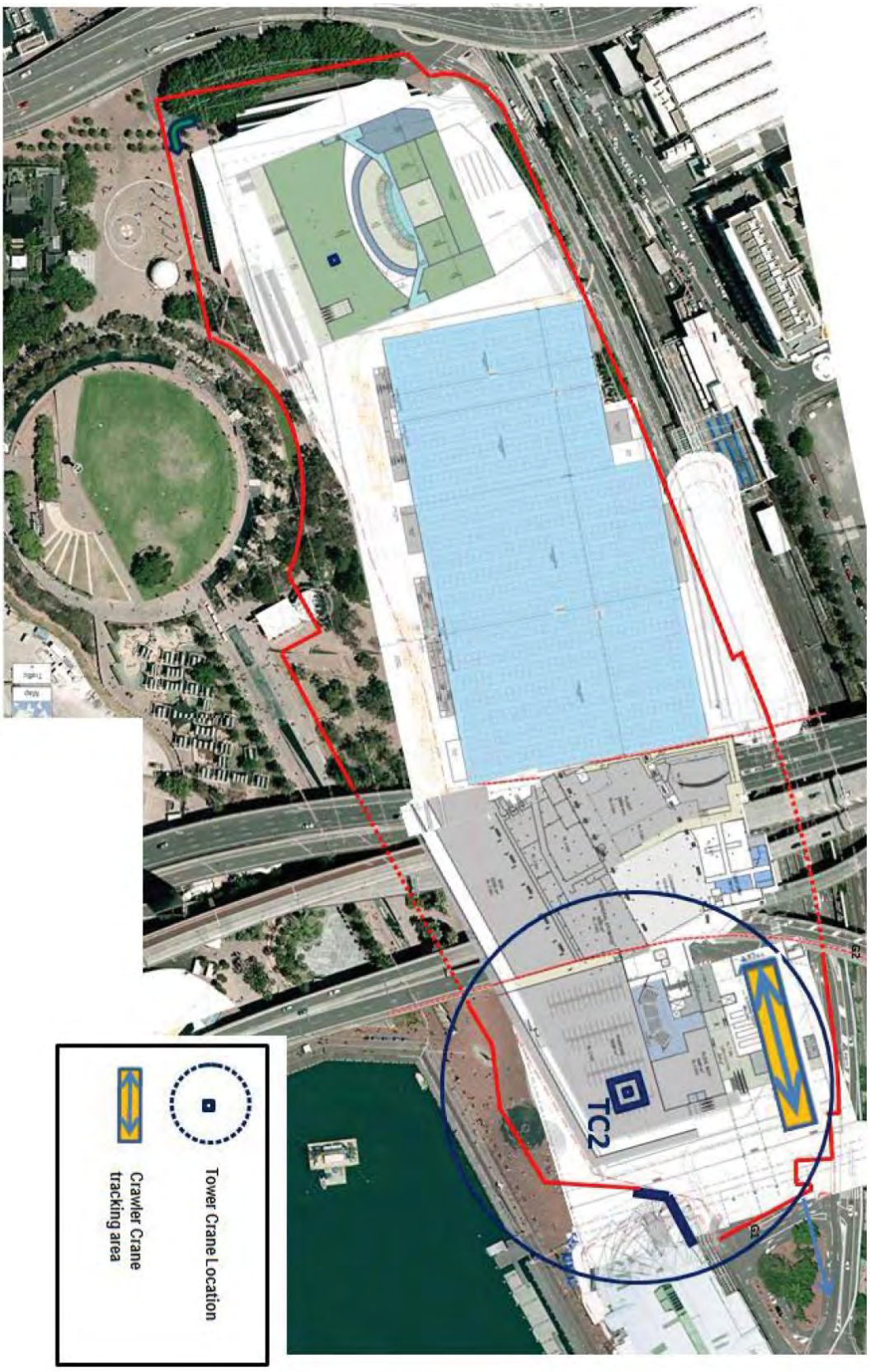
APPENDIX – H – SITE ACCESS

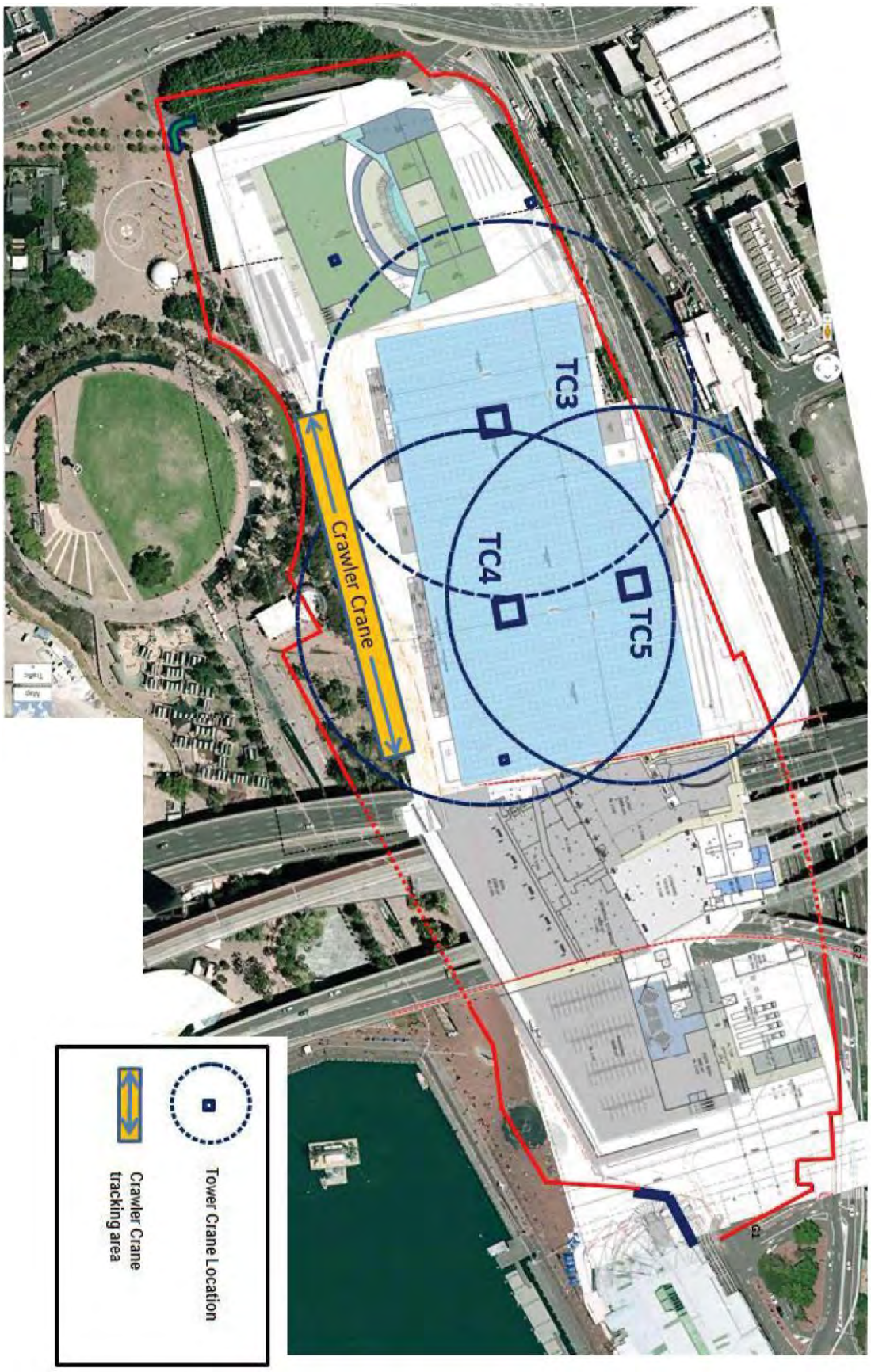


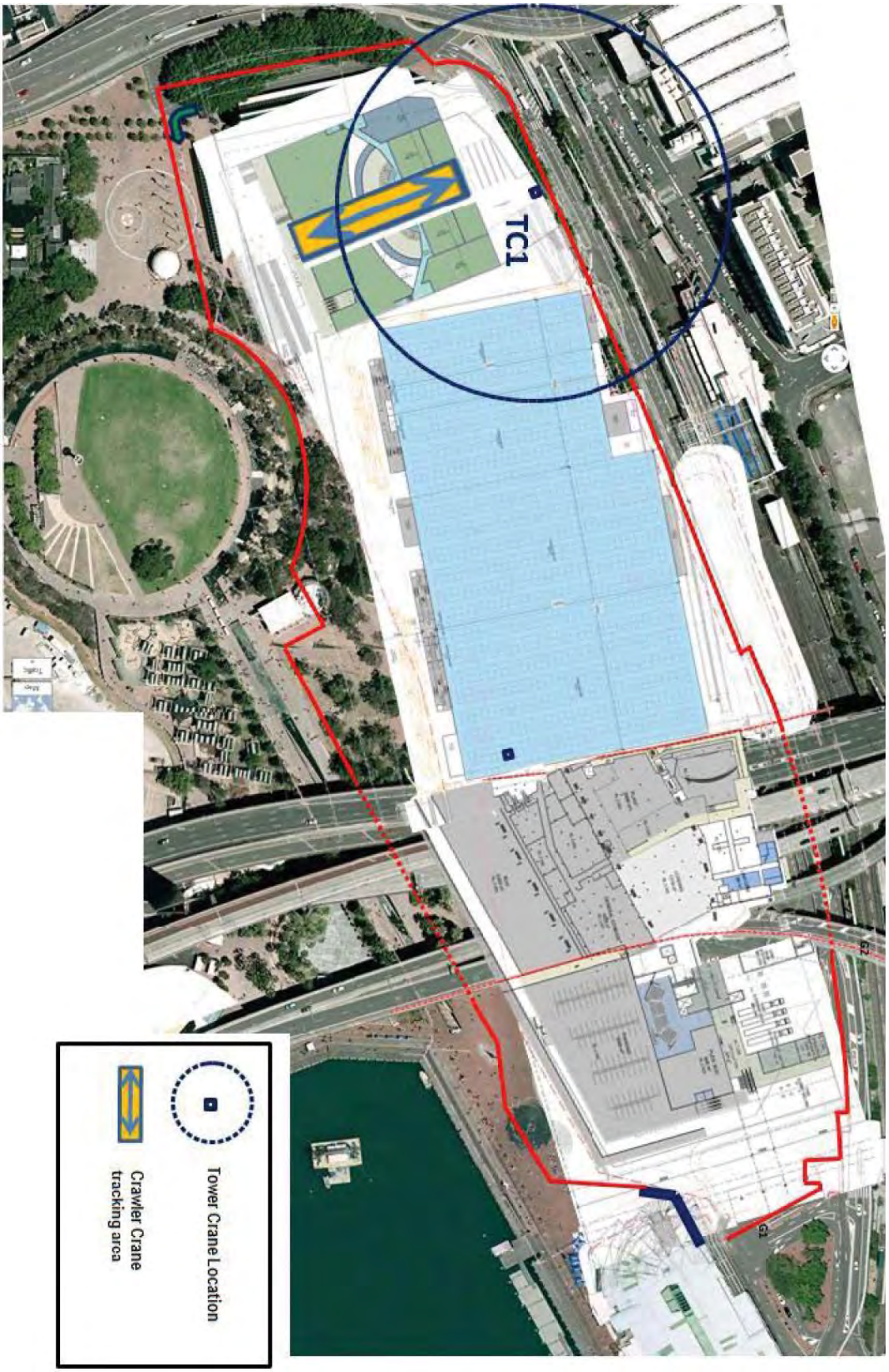
APPENDIX – I – TRAFFIC MANAGEMENT



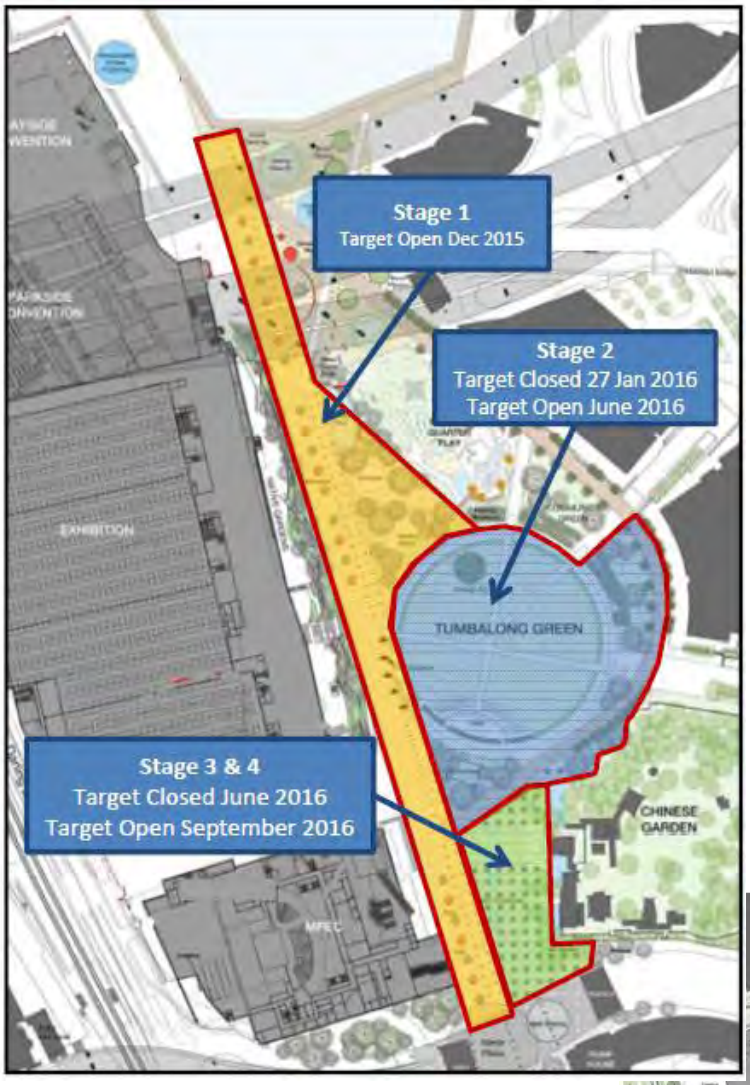
APPENDIX – J – MATERIALSHANDLING



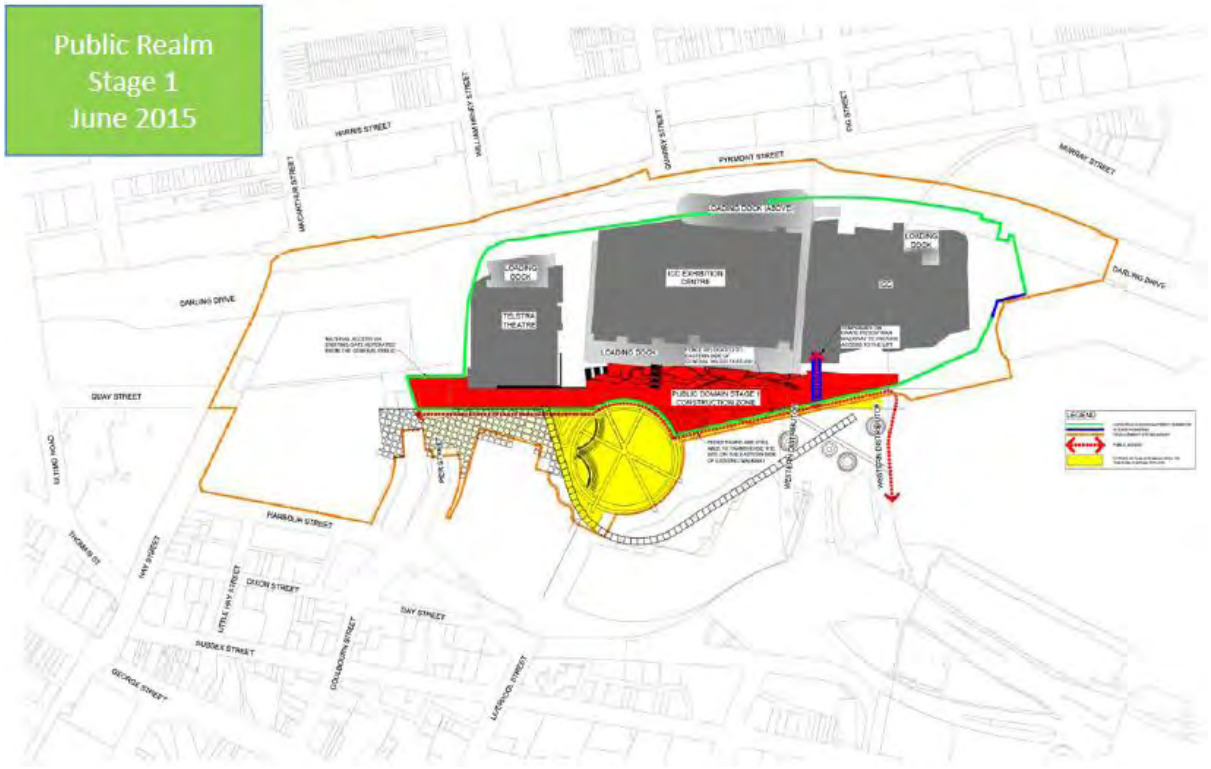

TC3
TC4
TC5
Crawler Crane
Tower Crane Location
Crawler Crane tracking area


TC1
Tower Crane Location
Crawler Crane tracking area

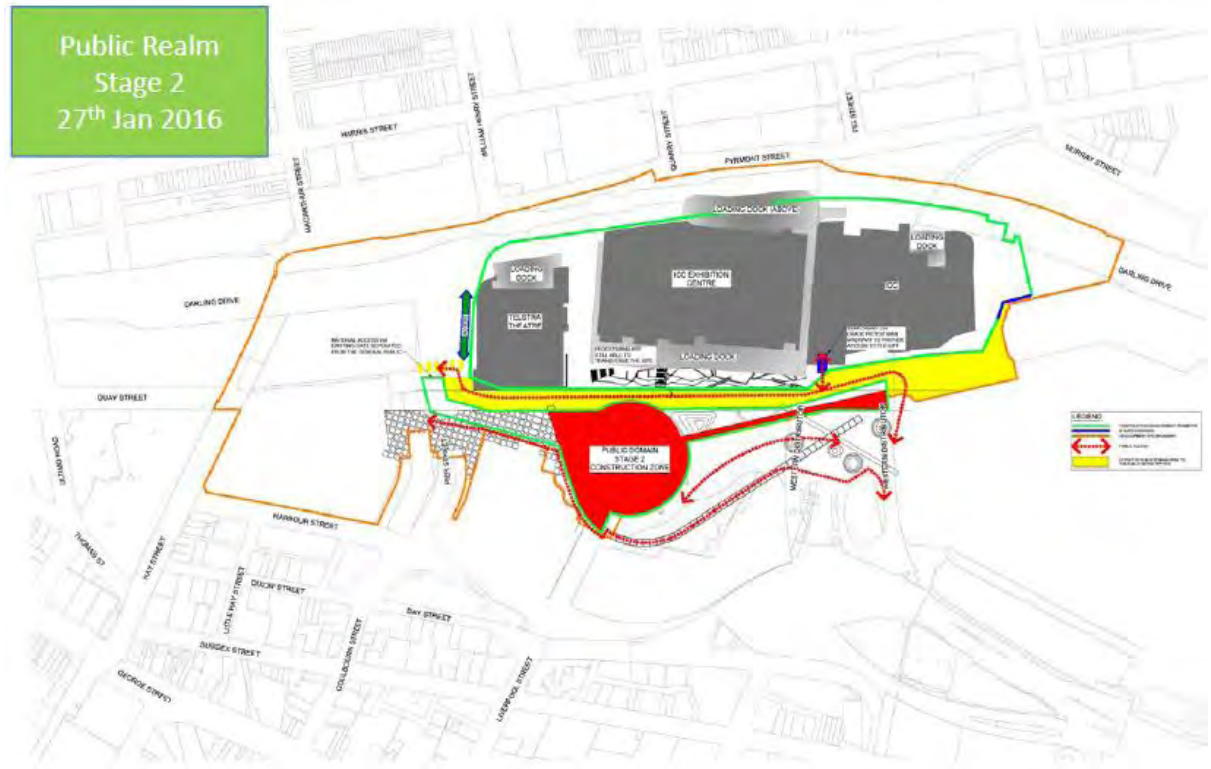
APPENDIX – K – PUBLIC REALM STAGING



K. Public Realm Stage 1

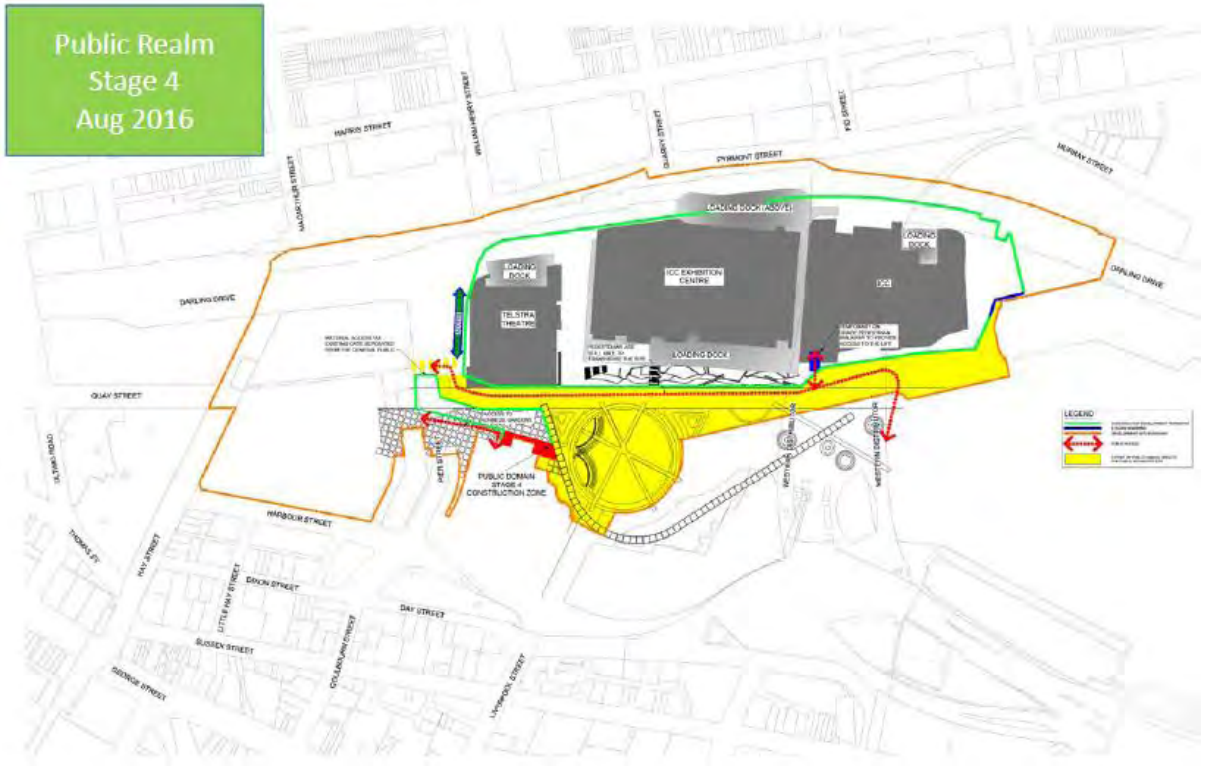


K. Public Realm Stage 2



K. Public Realm Stage 3

K. Public Realm Stage 4



APPENDIX – L – OVERALL STORMWATER/EROSION PLAN

Refer to Hyder Civil Drawings