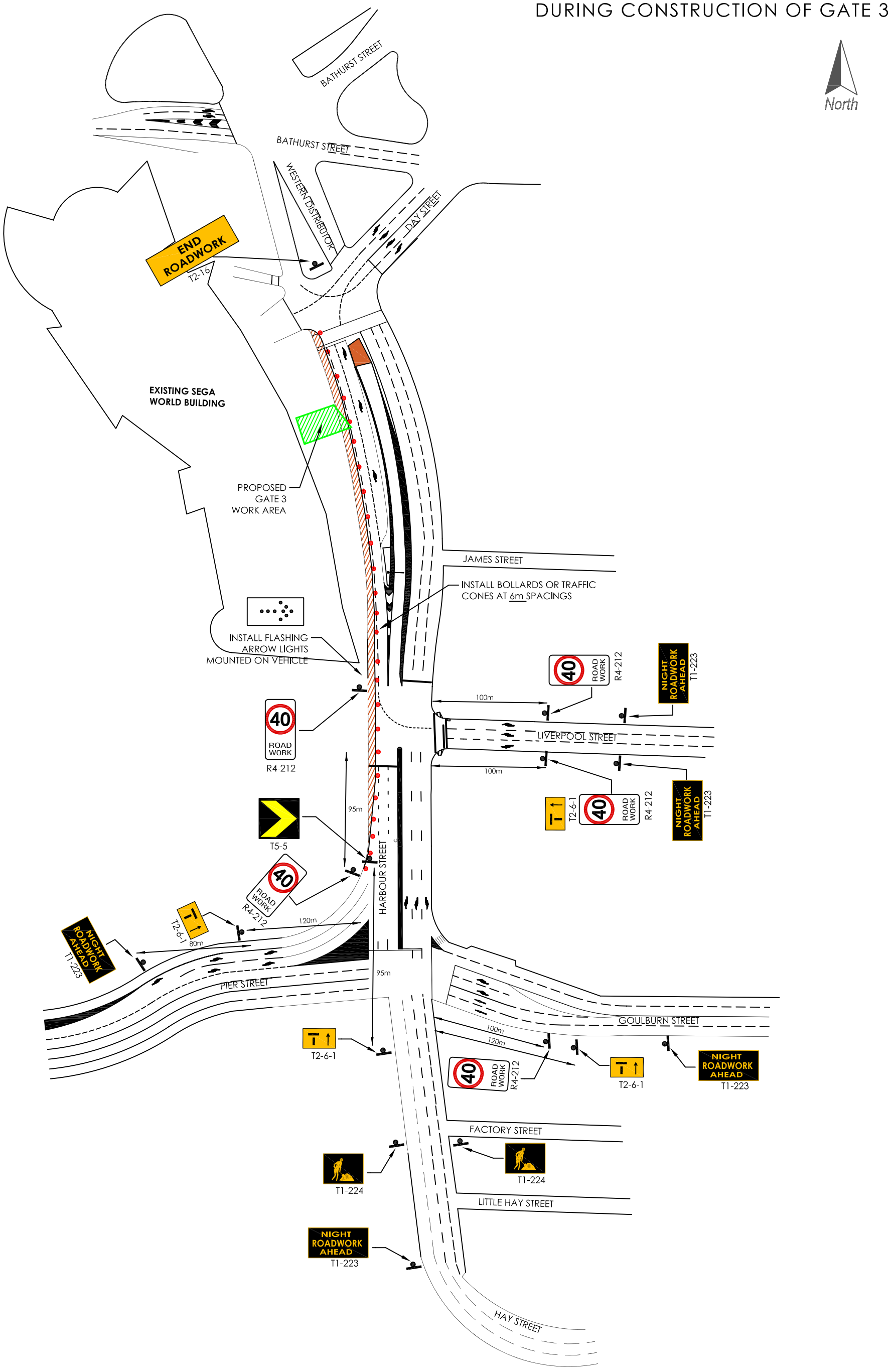
DARLING WALK

TRAFFIC CONTROL PLAN FOR CLOSURE OF KERBSIDE LANE IN HARBOUR STREET DURING CONSTRUCTION OF GATE 3



Scale: N.T.S.

MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

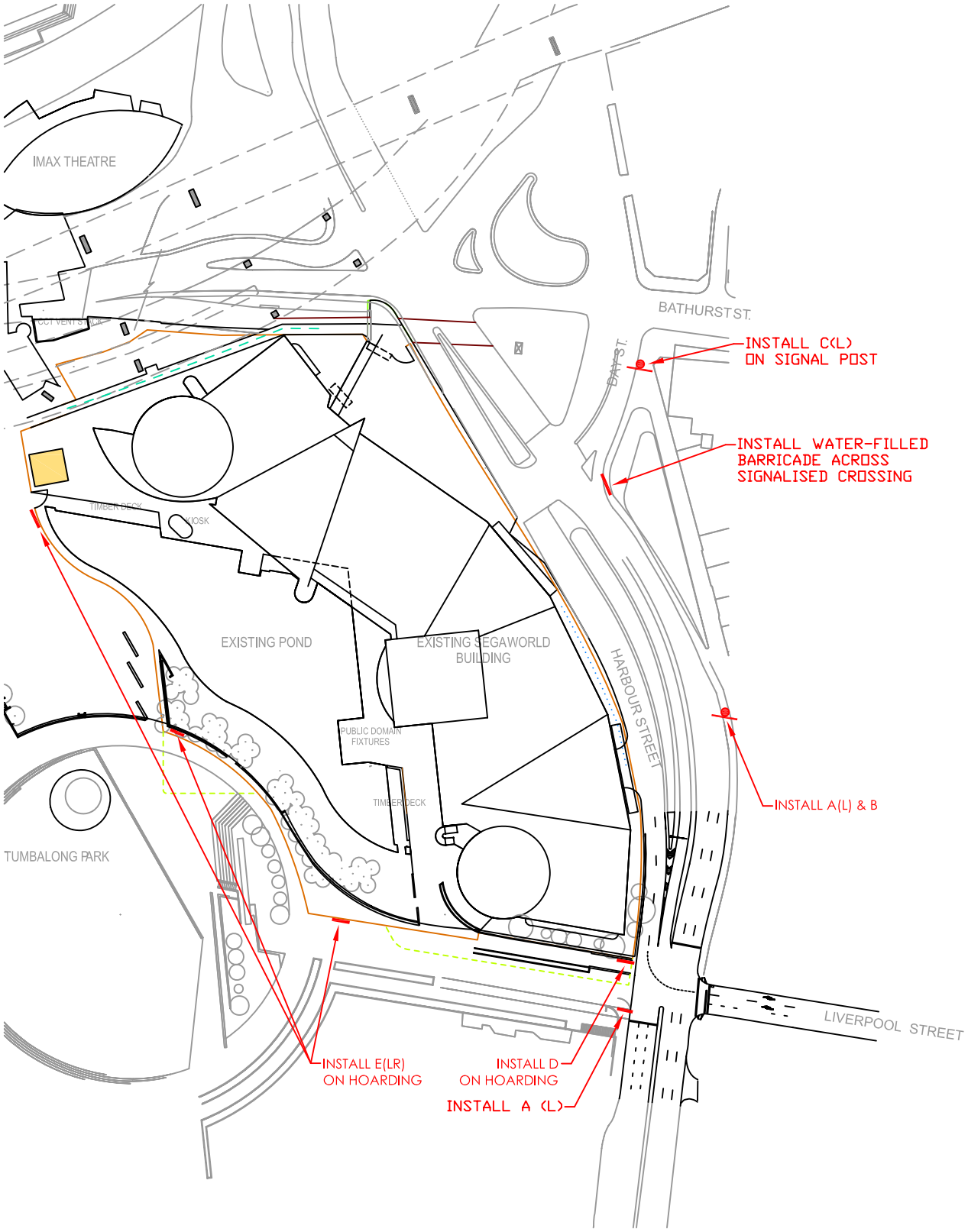
Filename: 073372da31_GATE-3_TMP

Figure 3

Date: 04.April.2008

DARLING WALK

PEDESTRIAN WAY - FINDING SIGNAGE PLAN



Scale: N.T.S.

MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

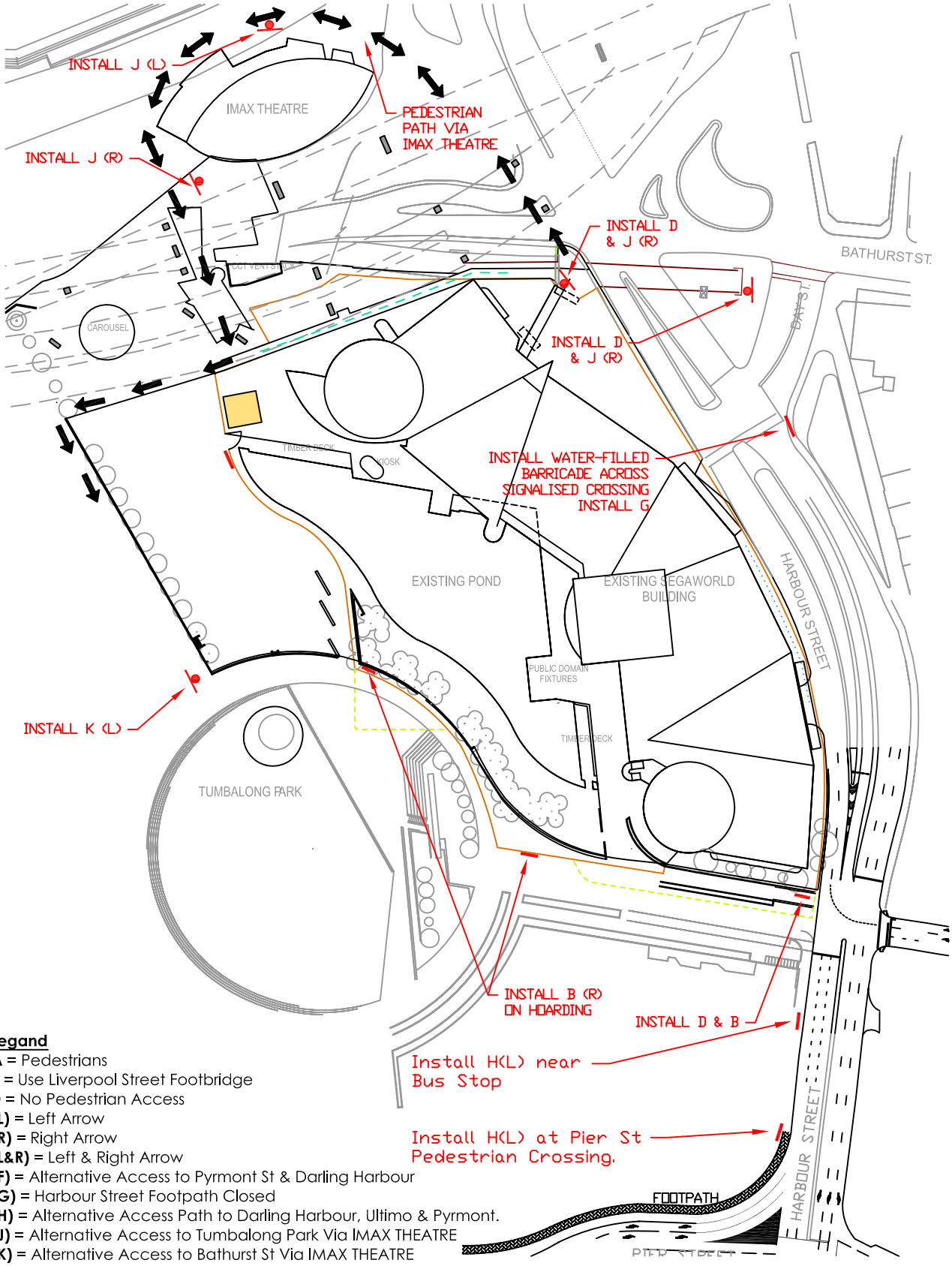
Figure 4

Date: 04.April.2008

Filename: 073372da33 Pedestrian Way finding Signage Plan

PEDESTRIAN WAY-FINDING SIGNAGE PLAN DURING PUBLIC DOMAIN WORKS

DARLING WALK



Legand

A = Pedestrians
B = Use Liverpool Street Footbridge
D = No Pedestrian Access
(L) = Left Arrow
(R) = Right Arrow
(L&R) = Left & Right Arrow
(F) = Alternative Access to Pyrmont St & Darling Harbour
(G) = Harbour Street Footpath Closed
(H) = Alternative Access Path to Darling Harbour, Ultimo & Pyrmont.
(J) = Alternative Access to Tumbalong Park Via IMAX THEATRE
(K) = Alternative Access to Bathurst St Via IMAX THEATRE

Scale: N.T.S.

Halcrow MWT

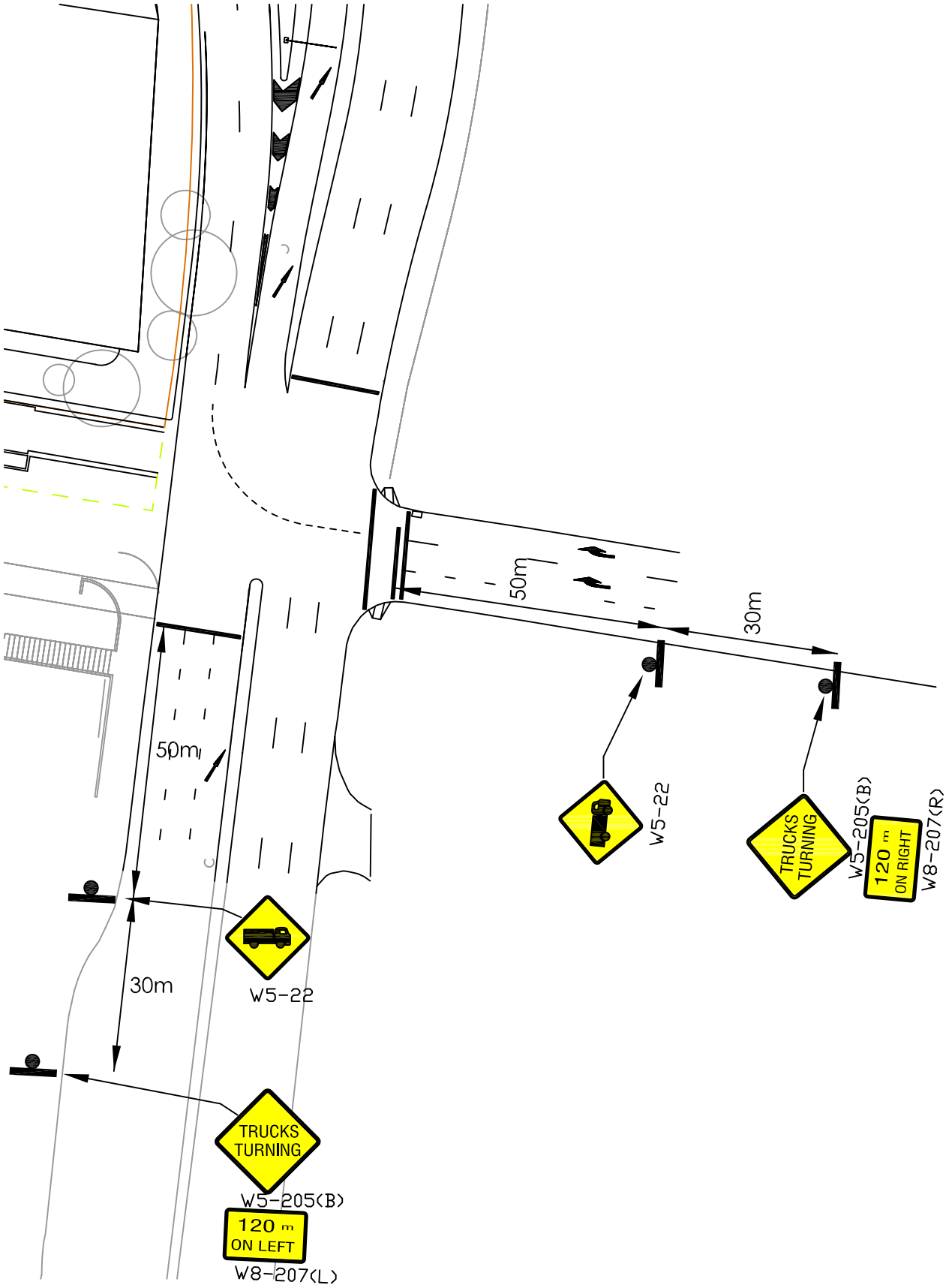
Figure 4b

Date: 15.June.2009

Filename: CTLCTU009da68__Pedestrians Way Finding Signage Plan

DARLING WALK

TRUCK WARNING SIGNAGE PLAN



Scale: N.T.S.

MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

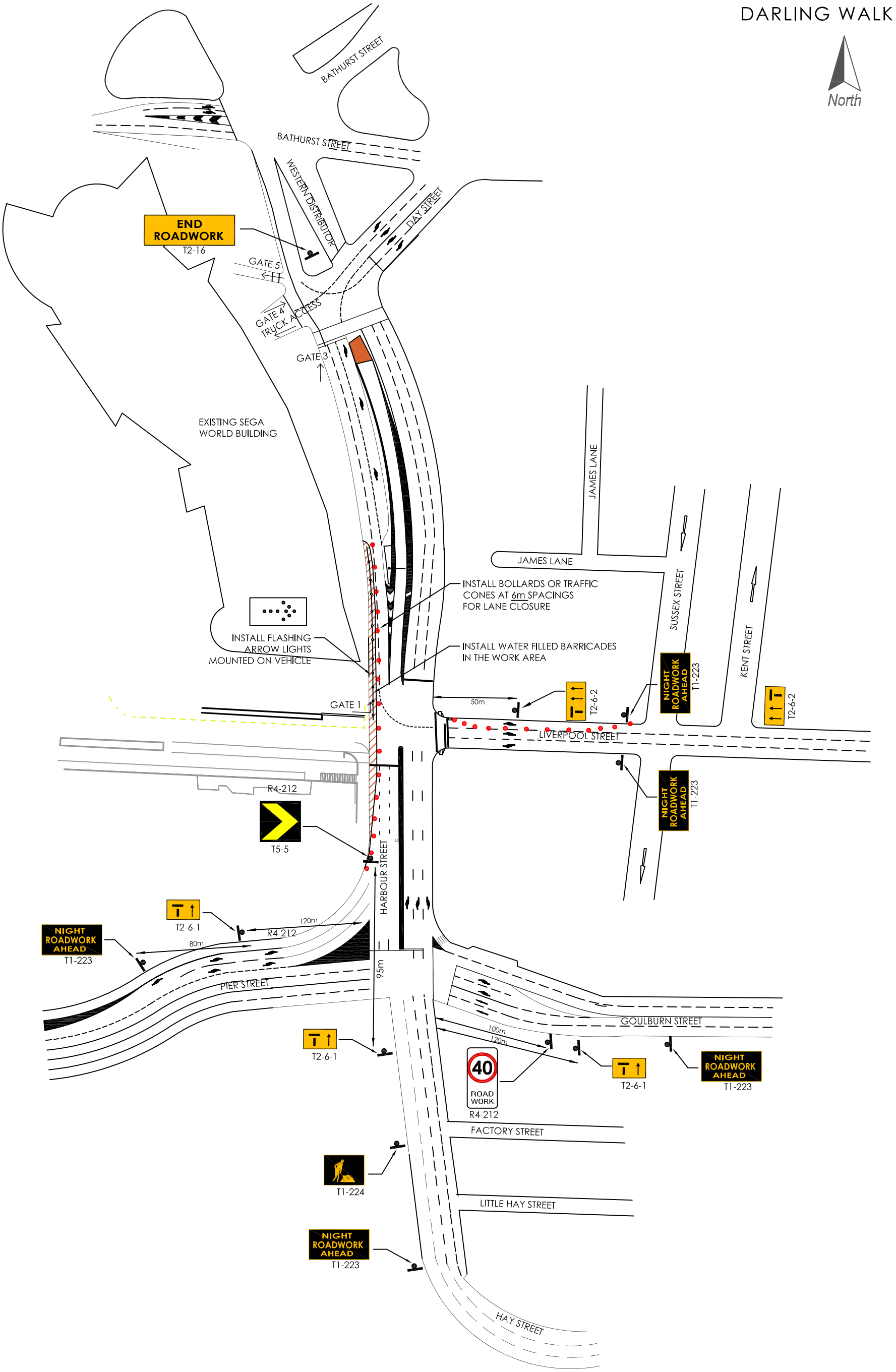
Figure 5

Date: 04.April.2008

Filename: 073372da32 Truck Warning Signage

TRAFFIC CONTROL PLAN FOR CLOSURE OF KERBSIDE LANE IN HARBOUR STREET DURING PUBLIC DOMAIN WORKS

DARLING WALK



Scale: N.T.S.

Halcrow MWT

Figure 6

Filename: CTLCTU009da69 Public Domain

Date: 15 June 2009

Appendix A Main Works Establishment Plans

IMAX THEATRE

WAY OVER HEAD SHOWN
IED

FREEWAY OVER HEAD SHOWN
DASHED

CONTINUOUS ACCESS TO CCT
KIOSK TO BE PROVIDED

TUNNEL ENTRY RAMP

CCT VENT STACK

SITE ACCOMMODATION

CAROUSEL

CCT KIOSK

PED. ACCESS TO PYRMONT/ DARLING
HARBOUR & ULTIMO MAINTAINED

EXISTING GASSING STATION TO BE PROTECTED
CONTINUOUS ACCESS TO BE PROVIDED

BATHURST STREET

DAY STREET

SECURITY CABIN

CBD ACCESS MAINTAINED

ACCESS TO EXISTING CCT
VENT STACK TO BE PROVIDED
FOR MAINTANANCE.

SITE OFFICE

CRANE

R 75,000

CONSTRUCTION
WORKERS GATE

GATE 5 TRUCK
ENTRY ONLY

GATE 4
TRUCK ACCESS

SEDIMENT BASIN

PROPOSED GROUND FLOOR
FOOTPRINT

CLASS 'A' HOARDING TO
FOLLOW EXISTING KERB

STAGE 1

TUNNEL ENTRY RAMP

HARBOUR STREET

CRANE

R 65,000

GATE 2
TRUCK
ENTRY ONLY

FUTURE ACCOMMODATION/
SUB CONTRACTOR OFFICES

JAME

TUMBALONG PARK

ACCESS GATES

GATE 1

LIVERPOOL ST

DARLING HARBOUR, ULTIMO &
PYRMONT PEDESTRIAN ACCESS
MAINTAINED

LEGEND

- EXISTING STRUCTURE COLUMNS TO BE RETAINED
- SITE SHEDS
- CLASS 'A' HOARDING STAGE 1
- 3M HIGH SCREEN ON FOOTBRIDGE COMPLETE WITH HANDRAIL
- PROPOSED BASEMENT FOOTPRINT ENCLOSED BY CHAIN WIRE FENCE
- LOADING ZONE/ MATERIAL HANDLING
- MAN & MATERIAL HOIST

NOTES

IN-GROUND SERVICES AND SERVICES PITS WILL BE PROTECTED DURING WORKS.
PEDESTRIAN MANAGEMENT PLAN TO BE PREPARED & ACCESS ISSUES TO BE ADDRESSED.
LIGHTS ADJACENT TO PUBLICALLY ACCESSED WALKWAYS TO BE RETAINED

0 10 20 50 m

DARLING WALK

MAIN WORKS-ESTABLISHMENT PLAN 1:1000 @ A3 17/04/2008 DC 002

PROJECT DOCUMENTATION

fjmt francis-jones morehen thorp
Bovis Lend Lease
Lend Lease Development

IMAX THEATRE

EWAY OVER HEAD SHOWN
HED

FREEWAY OVER HEAD SHOWN
DASHED

CONTINUOUS ACCESS TO CCT
KIOSK TO BE PROVIDED

TUNNEL ENTRY RAMP

CCT VENT STACK

BATHURST STREET

SITE
ACCOMMODATION

CAROUSEL

CCT KIOSK

PED. ACCESS TO PYRMONT/ DARLING
HARBOUR & ULTIMO MAINTAINED

EXISTING GASSING STATION TO BE PROTECTED
CONTINUOUS ACCESS TO BE PROVIDED

DAYS STREET

SECURITY CABIN

CBD ACCESS MAINTAINED

ACCESS TO EXISTING CCT
VENT STACK TO BE PROVIDED
FOR MAINTANANCE.

SITE OFFICE

CONSTRUCTION
WORKERS GATE

RAMP UP

GATE 5 TRUCK
ENTRY ONLY

GATE 4
TRUCK ACCESS

SHAKER GRID

SEDIMENT BASIN

CLASS 'A' HOARDING TO
FOLLOW EXISTING KERB

HARBOUR STREET

TUNNEL ENTRY RAMP

GATE 2
RELOCATED
TRUCK
ENTRY ONLY

FUTURE ACCOMMODATION/
SUB CONTRACTOR OFFICES

TUMBALONG PARK

GATE 1
FUTURE
ACCESS

ACCESS GATES

LIVERPOOL S

DARLING HARBOUR, ULTIMO &
PYRMONT PEDESTRIAN ACCESS
MAINTAINED

LEGEND

- EXISTING STRUCTURE COLUMNS TO BE RETAINED
- SITE SHEDS
- CLASS 'A' HOARDING STAGE 1
- 3M HIGH PLYWOOD SCREEN ON FOOTBRIDGE COMPLETE WITH HANDRAIL
- PROPOSED BASEMENT FOOTPRINT ENCLOSED BY JERSEY KERB WITH FENCE PANEL OVER
- MATERIAL HANDLING/ TEMPORARY ROADS
- EXCAVATION RAMP

NOTES

IN-GROUND SERVICES AND SERVICES PITS WILL BE PROTECTED DURING WORKS.
PEDESTRIAN MANAGEMENT PLAN TO BE PREPARED & ACCESS ISSUES TO BE ADDRESSED.
LIGHTS ADJACENT TO PUBLICALLY ACCESSED WALKWAYS TO BE RETAINED

0 10 20 50 m

DARLING WALK

BULK EXCAVATION PHASE PLAN 1:1000 @ A3 17/04/2008 DC 003

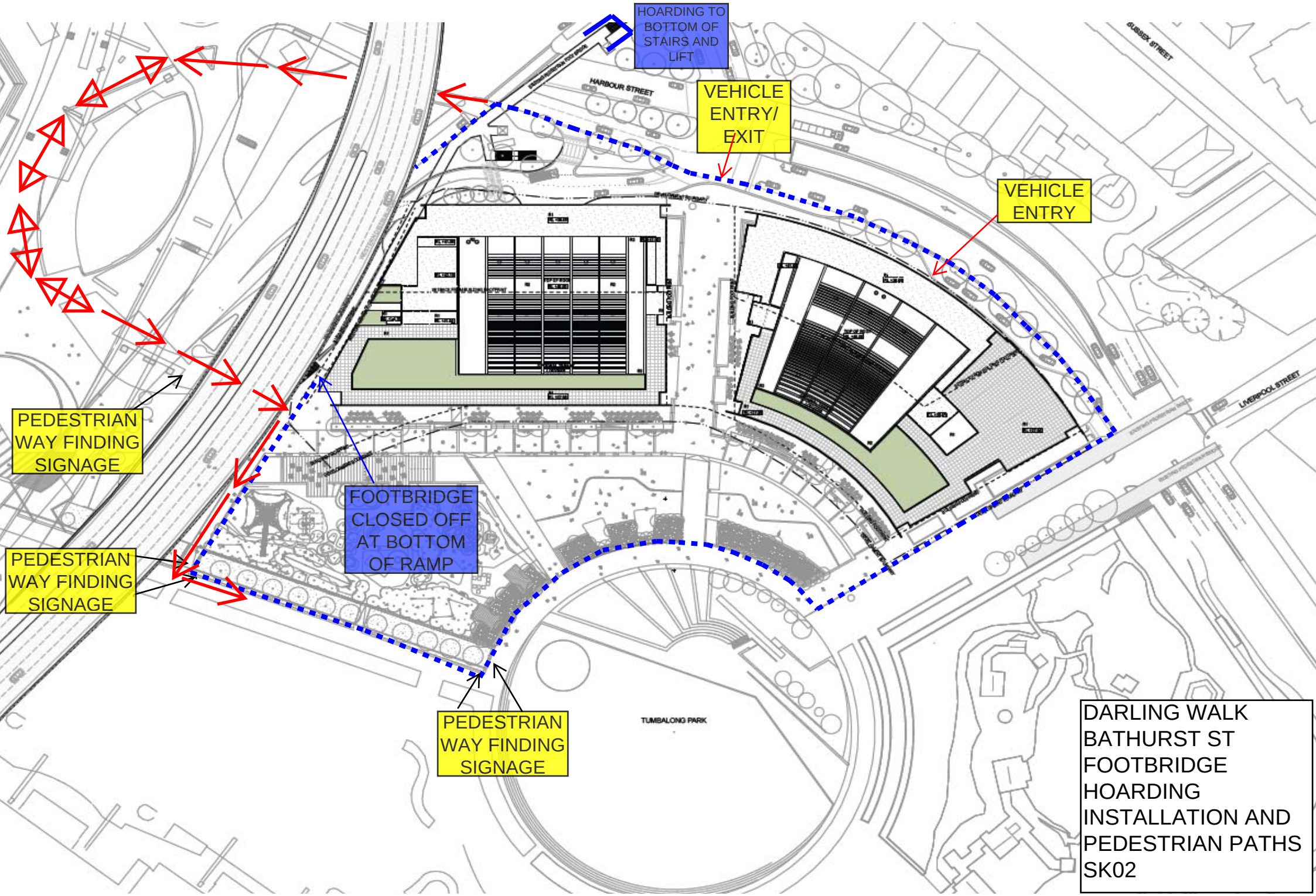
PROJECT DOCUMENTATION

fjmt francis-jones morehen thorp

Bovis Lend Lease

Lend Lease Development

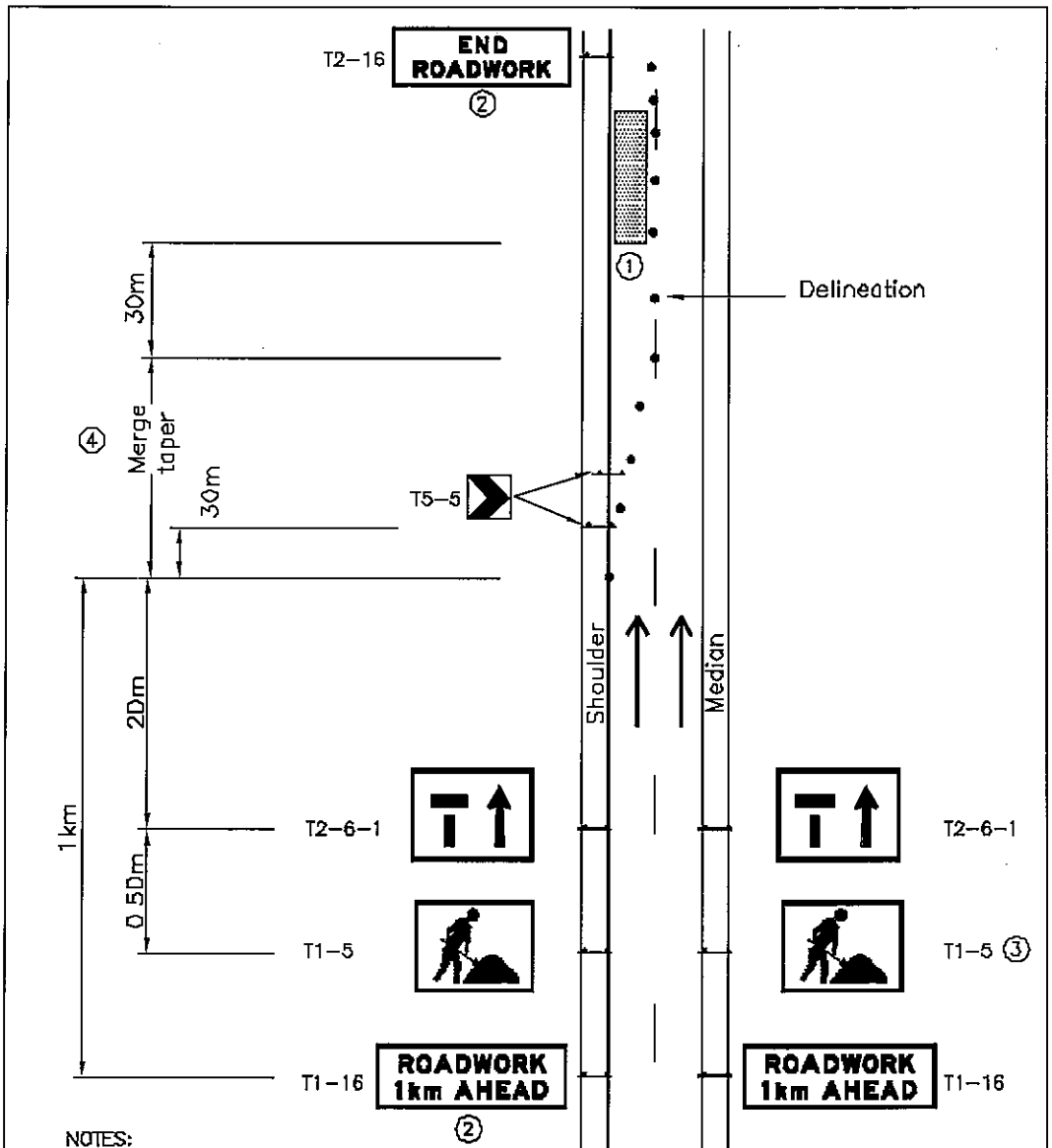
PUBLIC DOMAIN (BATHURST ST FOOTBRDIDGE- HOARDING INSTALLATION AND PEDESTRIAN PATHS



DARLING WALK
BATHURST ST
FOOTBRIDGE
HOARDING
INSTALLATION AND
PEDESTRIAN PATHS
SK02

Appendix B Standard TCPs and Symbols

a



NOTES:

① No personnel movement into right–hand lane.

② Signs T1–16 and T2–16 are optional where ADT is less than 10,000 vehicles per day.

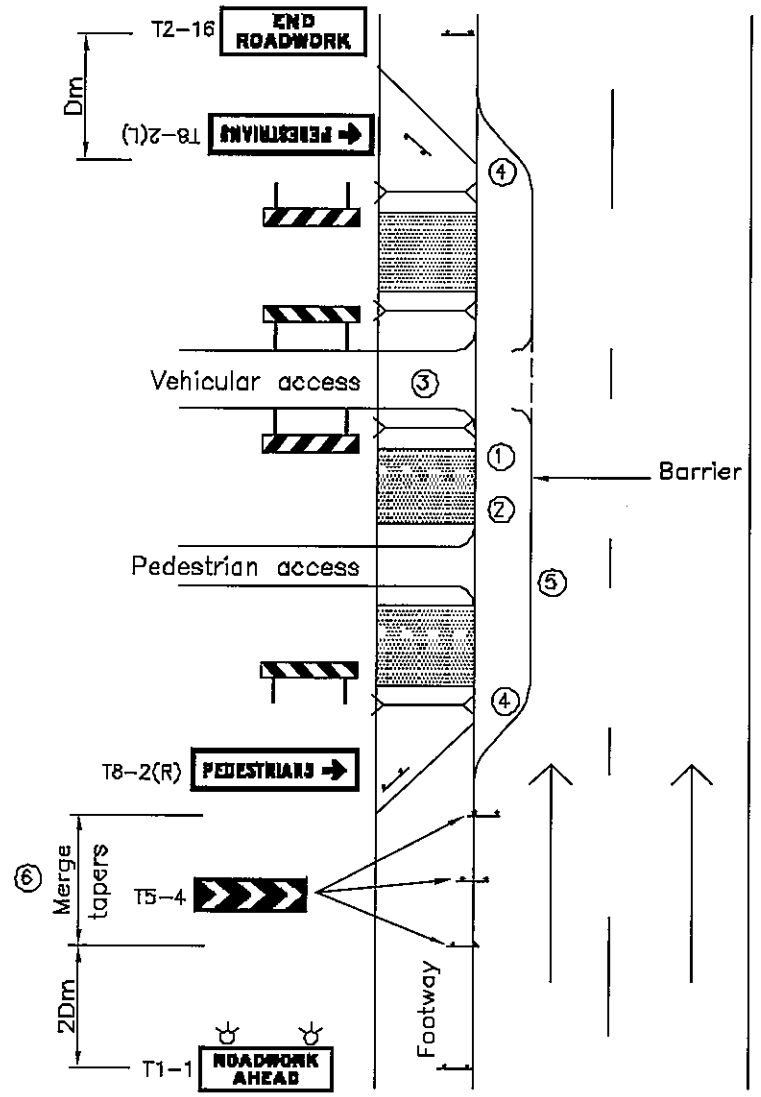
③ T1–16, T1–5 and T2–6–1 signs may be duplicated in accordance with Section 3.2.4, *Duplication of Signs*.

④ The length of merge tapers is to be determined from *Traffic Control at Work Sites*, Table 5.2, *Recommended taper lengths*.

SHORT TERM WORK (UP TO ONE DAY)
2 LANE / DIVIDED

T000092

TCP 92



NOTE:

(1) Prohibit vehicles stopping along the length of narrowed carriageway.

(2) Provide a minimum clear width of 1.2m (desirable 2.0m) for pedestrian traffic and a minimum traffic lane width of 3.0m (desirable 3.5m).

(3) Arrange vehicular access across the work area using portable barriers or plastic mesh fencing.

(4) Provide a full width temporary ramp for prams and an all-weather surface on all pedestrian areas.

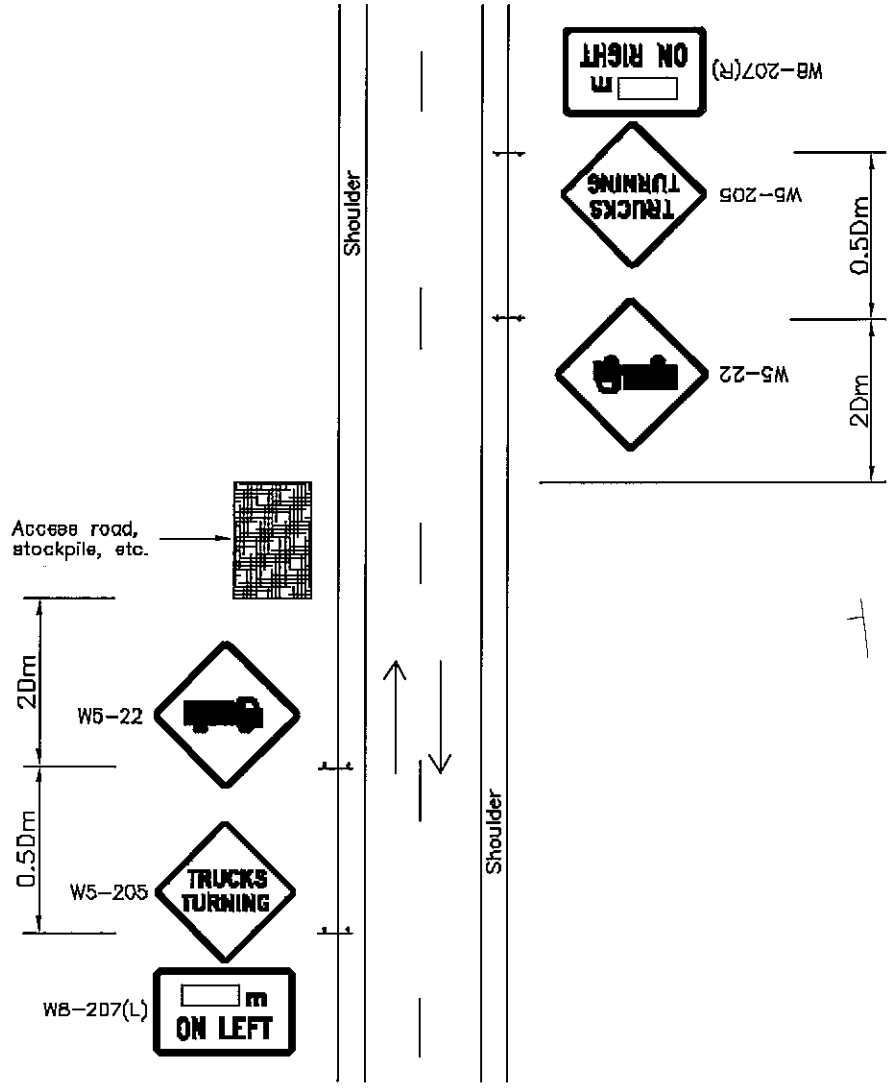
(5) Ensure that the requirements of *Traffic Control at Work Sites*, Section 3.6, *Safe clearances between workers and through traffic*, are met for pedestrians.

(6) The length of merge tapers is to be determined from *Traffic Control at Work Sites*, Table 5.2, *Recommended taper lengths.*

LONG TERM WORK
ALL ROADS
WORK OCCUPY THE FULL WIDTH OF A FOOTWAY

T000109

TCP 109



NOTE:

(1) For use where roadside is generally undeveloped, ADT is more than 1,500 vehicles per day, sight distance is restricted and there are more than 20 truck movements per shift.

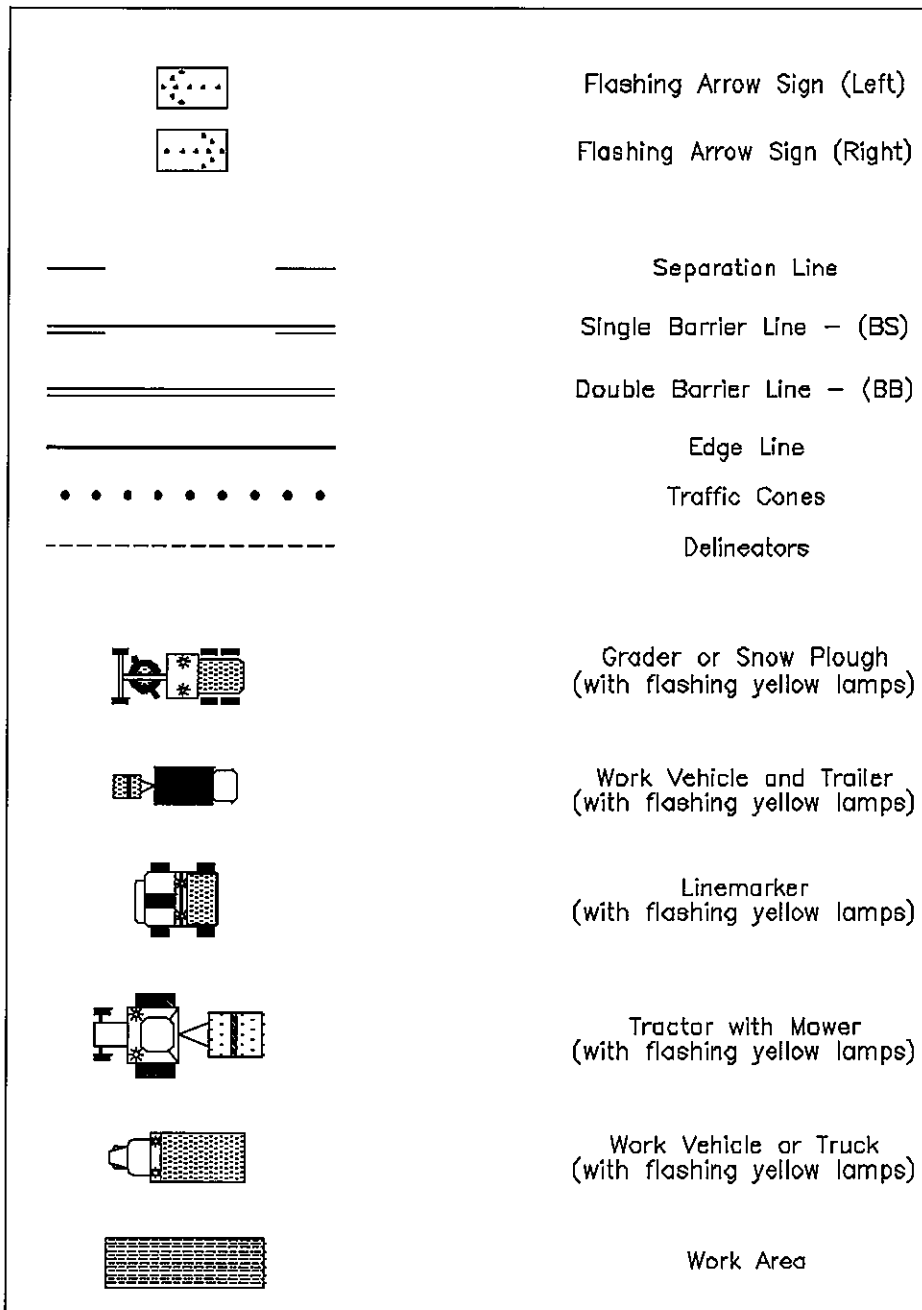
(2) See *Traffic Control at Work Sites*, Section 7, *Providing for works traffic*.

(3) See *Traffic Engineering Manual*, Section 19, *Miscellaneous devices*.

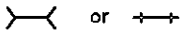
ACCESS TO DEPOT, STOCKPILE, QUARRY, GRAVEL PIT ETC.
ALL ROADS

T000195

TCP 195


Flashing Arrow Sign (Left)
Flashing Arrow Sign (Right)
Separation Line
Single Barrier Line – (BS)
Double Barrier Line – (BB)
Edge Line
Traffic Cones
Delineators
Grader or Snow Plough
(with flashing yellow lamps)
Work Vehicle and Trailer
(with flashing yellow lamps)
Linemarker
(with flashing yellow lamps)
Tractor with Mower
(with flashing yellow lamps)
Work Vehicle or Truck
(with flashing yellow lamps)
Work Area
LIST OF STANDARD SYMBOLS
SHEET 1 OF 3
T000358

T000358

	Antiglare screen
	Barrier Board Position
	Barrier Board
	Daytime Strobe
	Flashing Yellow Lamps (for sign mounting)
	Rotating Flashing Yellow Lamps (for vehicle mounting)
	Traffic Controller
	Reflector Carrier & Spotter
	Sign – single sided
	Sign – double sided
	Traffic Signal Position
	Traffic Signal Display
	Pedestrian Containment Fencing

LIST OF STANDARD SYMBOLS
SHEET 2 OF 3

T000359

T000359

Appendix C General Notes on Traffic Control Plans

These requirements apply when workers are working within the road reserve.

Standard RTA TCP

- Those requirements shown in the standard RTA TCP's should be referred to by the personnel on site, including signs, advance warning lengths, taper lengths, etc.
- The minimum RTA certification for personnel on site involved in the supervision or installation of temporary construction traffic arrangements should include RTA's "Introduction to Traffic Control at Road works" and "Traffic control Using a Stop / Slow Bat".

Work Clearances

- The RTA Guidelines require a clearance of 1.2m and over between the edge of the work area and the nearest edge of a lane carrying traffic when there is no intervening physical barrier. In addition, to the clearance the following is required as a minimum:
    - A Workers symbolic (T1-5) sign in advance of the work area.
    - Delineation of the edge of the traffic lane with cones, bollards or similar means.

Signs

- T1-5 (digger symbol) must only be used when personnel are on the road and should be covered at other times. This symbolic sign is required at all road works sites.
- Sign size A is considered appropriate on local roads.
- All signs must be kept a minimum of 1m from the travel path.

Nightworks

- Flashing arrow signs are essential at night for lane closures.
- Signs for nightworks should replace standard signs used during daylight
- The work area is to be fully lit by floodlighting

Cones and bollards used to delineate edge of traffic lane shall have retro-reflective band of Class 1 material.

Excavations

- Excavations shallower than 0.5 metres and within 3.0 metres of the travel path or edge line shall be defined by plastic mesh fencing, barrier boards (perpendicular to the traffic flow), cones, bollards or similar delineation while the adjacent lane is not under traffic control.
- Should the above requirement not be fulfilled, then RTA TCP 108 may be used in lieu of RTA TCP 109.

Delineation

- Barrier boards shall be located at right angle to the travel path or otherwise 4m from the travel path. Cones (at a spacing of 4m) are considered appropriate for day time use however may only be used when personnel are in attendance.
- All work areas should be separated from traffic and pedestrians by a minimum of mesh fencing. When used mesh fencing must be located 1.2m from the travelled path.

Disclaimer

Masson Wilson Twiney Pty Limited and its employees and officers accept no liability for any loss or damage arising as a result of any reliance placed on the information provided. Such liability is hereby explicitly excluded.

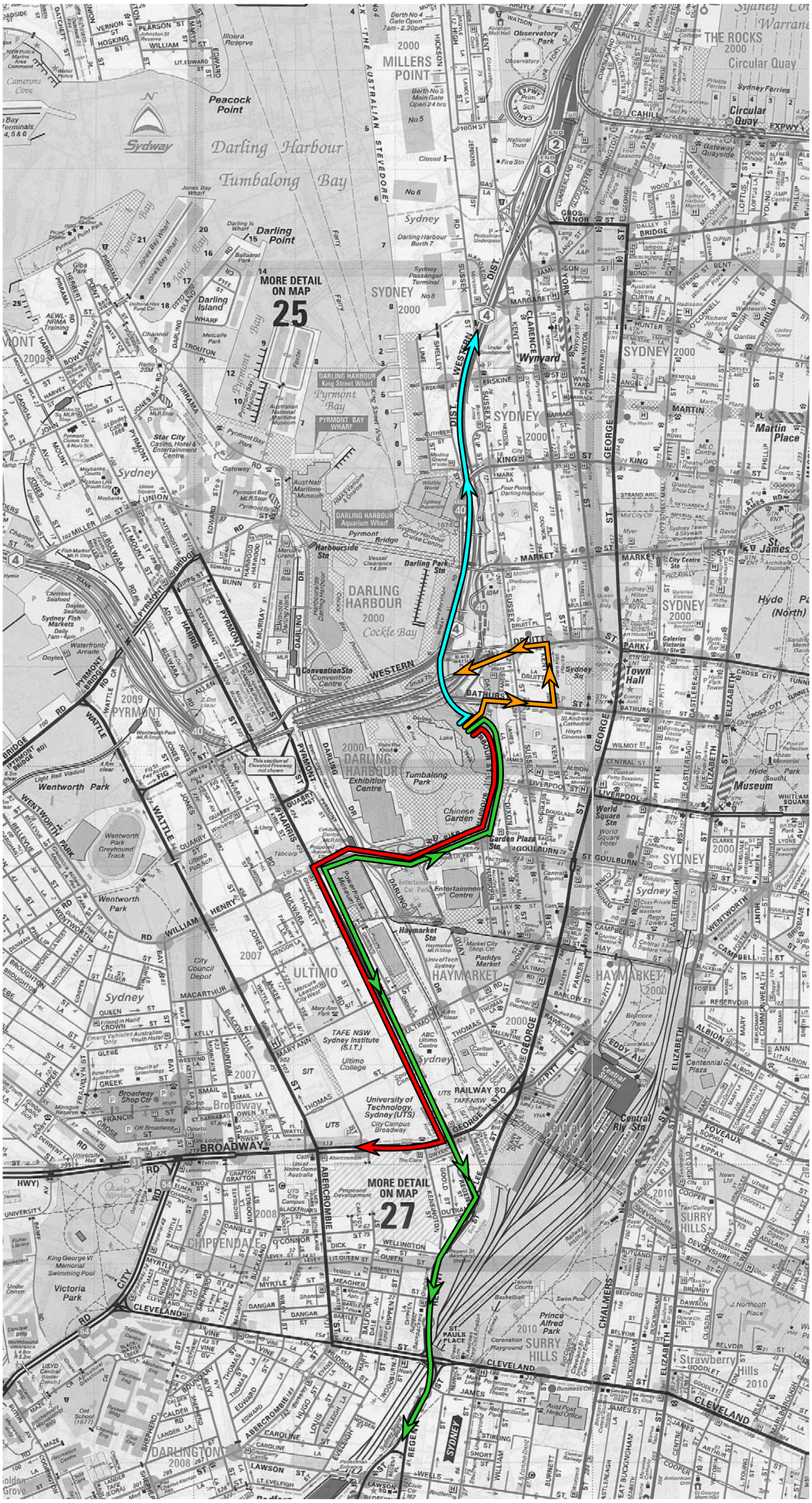
This information is general in nature. Detailed information on appropriate training and documentation of work site operations are found in the RTA Traffic Control at Work Sites 2006, Australian Standard Documents and associated Work Site Manuals. Traffic Control at work sites must be undertaken with specific reference to Work cover Requirements and the Companies own Occupational Health and Safety Manuals.

Appendix D Routes of Construction Trucks

REVISED TRUCK ROUTES DURING BULK EXCAVATION

DARLING WALK PROJECT

North



Key

- To North via Harbour Bridge (cyan)
- To West via Pier St, Harris St and Broadway (red)
- To South via Pier St, Harris St and Regent St (green)
- West via Day St, Bathurst St, Kent St, Druitt St and Western Distributor (orange)

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TRAFFIC AND TRANSPORT CONSULTANTS

Appendix D

Filename: 073372di05.ai

Date: 20/10/ 2008

Appendix E Traffic Planning Certificate

Design Audit Traffic Plans

RTA

Certificate No. **2243002144**

Kamoru ADETUNMBI

Expiry Date: 29/12/2009

Signature

This is not proof of identity

Appendix F Stormwater Diversion Works TMP

Stormwater Diversion Works TMP

Introduction

Traffic and pedestrian management plans for demolition of the Sega World Building and for main construction of the new development were prepared by Masson Wilson Twiney on behalf of Bovis Lend Lease Pty Ltd.

As part of the construction of the new building it is necessary to carry out the diversion of a stormwater culvert that presently crosses the site onto a route around the site and then join an upstream section of the existing culvert.

This report forms a component of the Development Application for the proposed stormwater diversion works from the public domain on the western side of the Sega World Building, in the access way between the two Liverpool Street footbridges and to the western footpath of Harbour Street.

1.1 Description of the Works

The stormwater diversion works involve diversion of the existing stormwater pipe that runs from the pond in the public domain area on the western side of Sega World, then under the Sega World Building, to the western footpath of Harbour Street. In order to construct the basement carpark, it will be necessary to remove the section of the pipe under the Sega World building and divert this pipe around the site. The new culverts will be laid in trenches with depths varying from 2.7m to 4.7m. There will also be miscellaneous delivery and pick-up of excavators, shoring and rollers or compacting equipment.

The works will involve:

- Excavation of trenches and loading of around 3,000m^3 of spoil into approximately 300 trucks for disposal in landfill
- Casting of concrete culvert bases in-situ – around 30 truckloads of concrete will be required
- Installation of pre-cast crowns – around 25 truck deliveries will be required
- Filling of trenches with selected backfill or pavement material – around 60 truck deliveries will be required.

- Mobile crane – approximately 20 visits to lift in pre-cast crown units.
- Miscellaneous trucks (excavators/shoring/plant/sundry materials) – 30 trucks

1.2 Vehicle Types

Construction vehicles likely to be generated by the proposed construction activities include:

- articulated vehicles for delivery of machinery,
- heavy and medium rigid trucks for construction or excavation material delivery or removals,
- concrete pumps, and
- contractor vehicles and delivery vans

In general, all construction vehicles will park on-site while carrying out loading and unloading. The exception to this will be for work on Harbour Street. There will be no parking of staff cars in the site. Some staff will come by public transport as the site is located within walking distance of major public transport facilities, including train stations, monorail stations and STA bus stops. The workers who require parking for their cars will be able to park in the public pay parking stations available in the vicinity of the site.

1.3 Construction Vehicle Access Routes

Access routes for construction vehicles would depend on the location of works, and these are described as follows:

- Works in the Darling Harbour Public Domain Area and in the area between footbridges:
  - Construction/deliver trucks will either enter site directly from Liverpool Street or turn left from Harbour Street.
  - Exiting trucks will turn left into Harbour Street and either travel north via the Harbour Bridge or turn right into Day Street depending on the destination.
- Works within the Construction Site:
  - Construction/delivery trucks will enter the site from Harbour Street
  - Exiting trucks will turn left into Harbour Street, right into Harbour Street or into Day Street depending on the destination.

1.4 Construction Traffic Volumes

The number of trucks visiting the site during the 18 weeks of stormwater diversion works is estimated to be as follows:

• Spoil from excavation	300 trucks
• In-site concrete bases	30 trucks
• Precast crowns	25 trucks
• Backfill or road base	100 trucks
• Cranes	20 trucks
• Miscellaneous	30 trucks
• Total	505 trucks

This is equivalent to an average of around six trucks per day, and a maximum of ten trucks per day.

It is noted that the works will be carried out simultaneously with the demolition of the Sega World Building during which 30 trucks per day will visit the site. In combination, the demolition and stormwater works will generate a total of about 40 trucks per day.

2. Traffic Impacts of the Works

2.1 Impact of Construction Traffic

Harbour Street currently carries around 1,200 vehicles per hour in each direction during the morning and evening peak hours. These include some vehicles travelling to the Sega World complex which would cease when construction works commence. Compared with the background traffic on Harbour Street, the combined volume of demolition and stormwater diversion traffic would be minimal.

Accordingly, the estimated maximum truck generation of 40 trucks per day (demolition and stormwater works) would have minimal impact on traffic operation in Harbour Street.

2.2 Pedestrian Access

Pedestrian access along the western footpath of Harbour Street will be closed during the construction works as described in the MWT Main Traffic Report.l

Western Side:

Pedestrians walk in the public domain area between the Sega World building and the pond and also between the pond and Tumbalong Park. Although hoardings will be installed along the western frontage of the site, access will be maintained for pedestrians on the eastern side of Tumbalong Park and along the eastern side of the children's playground.

Northern Side

Pedestrians walk from Bathurst Street across the footbridge into the Sega World building and along the western side of the building. This pedestrian footbridge will remain open to pedestrians during the works. However access to Sega World from the footbridge will be closed by A Class Hoarding.

Southern Side

Pedestrians walk from Liverpool Street across the Liverpool Street footbridges to the public domain area west of the site. Access for pedestrians will continue to be available via the Liverpool Street footbridges.

Pedestrians also walk along the footpath in Harbour Street and enter Tumbalong Park via the at-grade pedestrian access between the two footbridges in Liverpool Street. The stairs from the Harbour Street footpath up to the southern Liverpool Street footbridge will remain open for these pedestrians. Pedestrians with walking difficulties who may not be able to use these stairs will be directed to use the at-grade access to the Chinese Gardens via the northern footpath of Pier Street, around 100m to the south. Advisory signs will be placed at the corner of Pier Street and Harbour Street and also south of Liverpool Street.

3. Assessment of Traffic Management Plan

An assessment of the traffic impacts of the stormwater diversion works has been undertaken in accordance with the RTA Guidelines for preparing a traffic management plan. The required assessment of the Traffic Management Plan is provided below.

A. Description or Detailed Plan of the Proposed Measures

The stormwater diversion works generally include the following:

- Excavation of trenches and loading of around 3,000m^3 of spoil into approximately 300 trucks for disposal in landfill
- Casting of concrete culvert bases in-situ – around 30 truckloads of concrete will be required
- Installation of pre-cast crowns – around 25 truck deliveries will be required
- Filling of trenches with selected backfill or pavement material – around 100 truck deliveries will be required.
- Cranes – 20 trucks
- Miscellaneous deliveries – 30 trucks

The Class-A Hoardings installed for demolition of the site will necessitate closure of footpath. Some aspects of the work will also require closure of the at-grade pedestrian access into Tumbalong Park from the western footpath of Harbour Street.

Standard RTA Traffic Control Plans (as required) are recommended in accordance with AS1742.3 and RTA Guidelines. The traffic control plans will be implemented to inform the public and minimise impact of the works.

B. Identification and Assessment of Impact of Proposed Measures

During the stormwater works, the number of construction trucks expected to visit the site will be a maximum of 10 trucks per day. The impact of the construction trucks on the operation of the signalised intersections of Harbour Street with Liverpool Street and Day Street will be minimal as the existing traffic visiting the Sega World Building will be eliminated on commencement of demolition.

Implementation of standard RTA Traffic Control Plans will ensure that adequate warnings and guidance are available to other road users, thus minimising the impact.

On Harbour Street, it is proposed to close the footpath on the western side for the duration of the works. Pedestrians will use the footpath on

the eastern side of Harbour Street to access the footbridges at the northern and southern boundaries of the site. The at-grade pedestrian access from Harbour Street to Tumbalong Park will also be closed to pedestrians when work is carried out between the two Liverpool Street footbridges. Alternative at-grade access to Tumbalong Park is available via the footpath in Pier Street, about 100m south of the closed access.

The signalised pedestrian crossing across Harbour Street at its intersection with Day Street will also be closed. Alternative pedestrian crossing facilities exist at the intersection of Harbour Street and Bathurst Street and also at the Liverpool Street and Bathurst Street footbridges. A pedestrian way-finding signage plan will be implemented to assist pedestrians, especially visitors, in locating alternative pedestrian facilities. Therefore the impact on pedestrians will be low.

The impact of the proposed lane closures on the operation of the intersection of Liverpool Street and Harbour Street has been assessed. When two northbound lanes will be closed, the impact was found to be low if night working hours are limited to 9:00pm to 7:00am. When only one northbound lane is closed, the traffic operation at 8:00pm is acceptable and longer working hours from 8:00pm to 7:00am are proposed.

C. Measures to Ameliorate the Impact of Reassigned Traffic

As part of the demolition traffic management plan, warning signage will be installed in Liverpool Street and Harbour Street on the approaches to the site to warn other drivers to anticipate trucks turning in and out of the site.

It is proposed to carry out the works affecting northbound traffic in Harbour Street at night when traffic volumes are lower, to reduce impact of lane closures on traffic conditions in Harbour Street. The hours of work will be limited to between 9:00pm and 7:00am when two northbound lanes are closed, and between 8:00pm and 7:00am when only one northbound lane is closed. Advance warning signs will be installed in Harbour Street on the approaches from Liverpool Street and Bathurst Street to inform drivers of closed lanes.

A pedestrian way-finding signage plan, shown in **Figure 3,** will be implemented to assist pedestrians to locate alternative pedestrian facilities in and across Harbour Street.

D. Assessment of Public Transport Services Affected

There will be no re-direction of public transport traffic during the project.

E. Details of Provision for Emergency Vehicles, Heavy Vehicles, Cyclists & Pedestrians

No change to access for emergency vehicles is proposed. Heavy vehicles will continue to have access into Harbour Street, including during lane closures at night.

There is no designated cycle route in Harbour Street. Cyclists will therefore not be affected by the proposed works.

A pedestrian way-finding signage plan will be implemented to direct pedestrians to alternative pedestrian crossing facilities, including signalised crossings and footbridges at Bathurst Street and Liverpool Street.

F. Assessment of Effect on Existing and Future Developments with Transport Implications in the Vicinity of Proposed Measures

The proposed measures will be temporary and the effect on any existing development will be negligible. Future developments will not be affected by the works.

G. Assessment of Effect of Proposed Measures on Traffic Movements in Adjoining Council Areas

The works will have no effect on adjoining Council areas.

H. Public Consultation Process

Public consultation will be in accordance with the conditions of consent. RTA and SHFA will be consulted on the use of Hickson Road for marshalling of trucks. In addition, SHFA will be consulted regarding the installation of hoardings on the western side of the site.

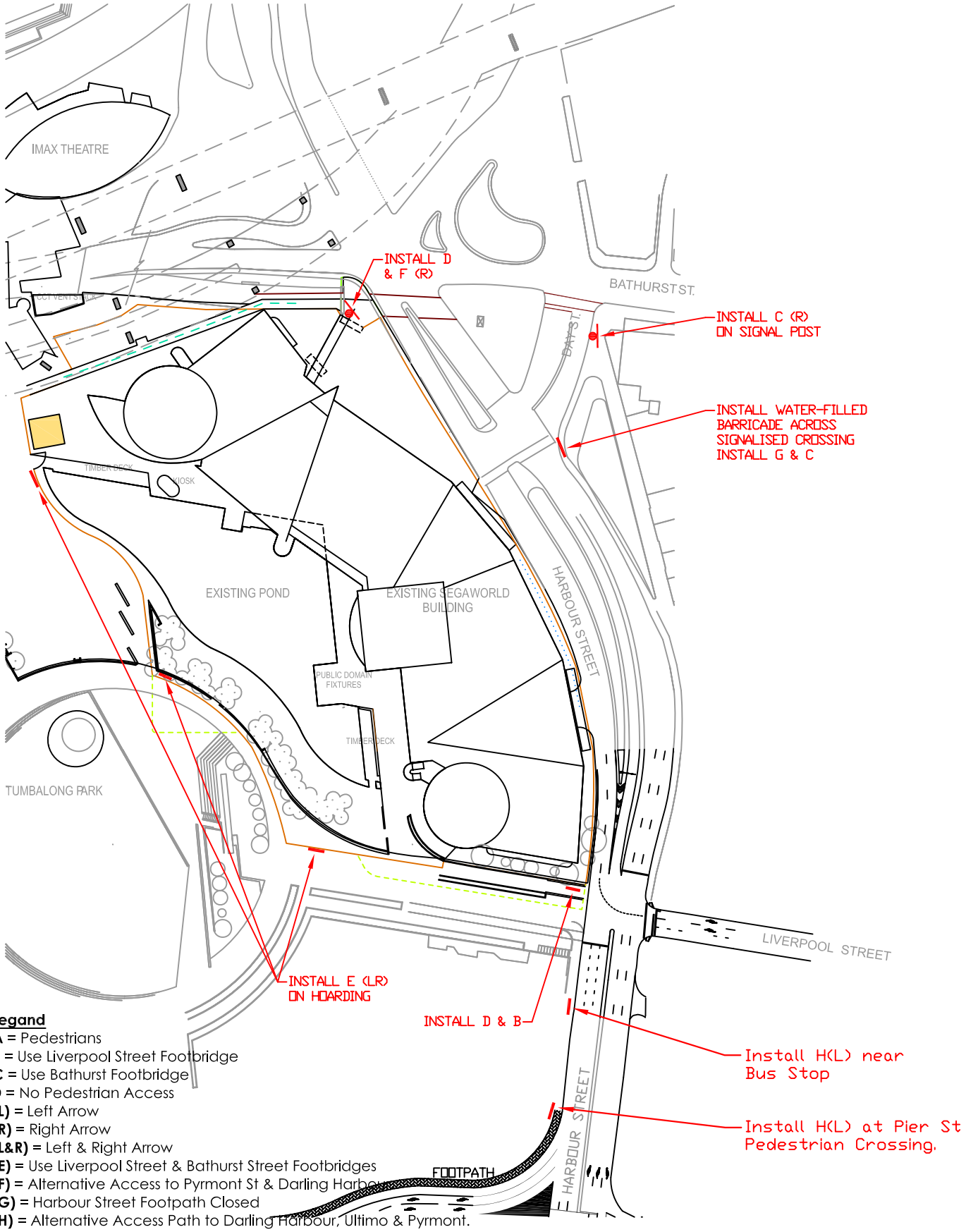
Bovis Lend Lease will consult with NSW Police Service regarding alternative parking arrangement at James Street during the Item 4 works, as the area is currently used for parking of staff cars.

The name and telephone number of the Construction Manager are as follows:

Name: Richard Eaton
Contact (Mobile No): 0408 252 679

PEDESTRIAN WAY-FINDING SIGNAGE PLAN

DARLING WALK



Legand

A = Pedestrians
B = Use Liverpool Street Footbridge
C = Use Bathurst Footbridge
D = No Pedestrian Access
(L) = Left Arrow
(R) = Right Arrow
(L&R) = Left & Right Arrow
(E) = Use Liverpool Street & Bathurst Street Footbridges
(F) = Alternative Access to Pyrmont St & Darling Harbour
(G) = Harbour Street Footpath Closed
(H) = Alternative Access Path to Darling Harbour, Ultimo & Pyrmont.

Scale: N.T.S.

MASSON | WILSON | TWINEY
TRAFFIC AND TRANSPORT CONSULTANTS

Figure 1F

Date: 17.April.2008

Filename: 073372da49 Appendix F-Stormwater Diversion Works Summary

Appendix G TMP for Darling Drive Truck Marshalling Area

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Mr Phil Kiehne
Bovis Lend Lease
Darling Walk
1-25 Harbour Street
DARLING HARBOUR NSW 2000

Dear Phil

Re: Darling Walk – Proposed Change to Truck Marshalling Area

As requested, we have reviewed the traffic implications of the proposed relocation of the truck marshalling area from Hickson Road to Darling Drive, Darling Harbour. The result of our review is as follows:

1.0 Background Situation

Traffic and pedestrian management plans for the demolition of the Sega World Building and for the main construction of the proposed Darling Walk development were prepared by Masson Wilson Twiney on behalf of Bovis Lend Lease Pty Ltd.

In the approved traffic management plans it was proposed that the marshalling area for trucks be in Hickson Road, subject to consultation with the Roads and Traffic Authority (RTA) and Sydney Harbour Foreshore Authority (SHFA). However, due to recent developments in Hickson Road and the current use of Hickson Road by other developments, the remaining truck waiting area in Hickson Road has become inadequate for the bulk excavation works for the Darling Walk project.

It is proposed to instead use the coach parking areas on the eastern side of Darling Walk as a truck marshalling area in the early morning between 6:00am and 8:00am. The trucks will be called from the area onto the Darling Walk site by the traffic controller via 2-way radio. Once the first cycle of trucks had been called and loaded, trucks arrivals would generally be spread out sufficiently for subsequent load cycles such that trucks would be able to travel straight to site without the need for marshalling elsewhere first.

A traffic controller would be stationed at each of the coach parking areas to provide guidance to the buses.

2.0 The Darling Drive Coach Parking Areas

The two coach parking areas are located on the eastern side of Darling Drive. These areas are shown in Attachment A.

The first coach parking area is located outside the Entertainment Centre carpark and is reserved for small buses shorter than 7.0m. This is linemarked for buses to park at 30^0 to the kerb. The area is around 60m long and around 7.7m wide.

The second coach parking area is located outside the University of Technology Building and is reserved for longer buses (buses longer than 7m). The area is around 110m long and 10.5m wide. The parking bays are also linemarked as 30^0 angle parking.

Trucks will only use the coach parking area for small buses when the coach parking area for large buses is full. This will be coordinated by the two traffic controllers via 2-way radio.

3.0 Routes of Trucks to and From Darling Drive

The type of trucks that would use the coach parking area for marshalling are medium rigid trucks (8.8m long) and truck and trailer combination (17m long). These trucks will queue in the proposed marshalling area from 6:00am and wait until excavation starts at 7:00am.

The routes of trucks to and from Darling Drive are as follows:

Entry Routes to Marshalling Area

- From South – Via various routes, then Wyndham Street, Cleveland Street, Abercrombie Street, Wattle Street, Bridge Street and Darling Drive
- From North – via Harbour Bridge, Western Distributor, Harbour Street, Pier Street and Darling Drive
- From West – via Anzac Bridge, Pyrmont Road and Darling Drive
- From East – via Cleveland Street, Abercrombie Street, Wattle Street, Bridge Street, Pier Street and Darling Drive

Exit Route from Marshalling Area to Site

- **Route 1**: - Darling Drive, right onto Ultimo Road, right onto Harris Street, right onto William Henry Street, Pier Street, left into Harbour Street and left into site.
- **Alternative Route (Route 2)**: - Darling Drive, right into Ultimo Road, left into Harris Street, left into George Street, left into Goulburn Street, right into Harbour Street, and left into site.

The proposed entry and exit routes are shown in Figures 1 and 2.

4.0 Layouts of the Proposed Trucks Marshalling Area

The layouts of the proposed trucks marshalling area are shown in figures 3, 4 and 5.

- Figure 3 indicates that the coach parking area for large buses have capacity for 10 truck and trailers in two rows.
- Figure 4 indicates the trucks on either row could exit successfully from the coach parking area onto Darling Drive with other trucks occupying the second row.
- Figure 5 indicates that the coach parking area for small buses would have capacity for 3 trucks and trailers combination and that these can enter and exit the coach parking area successfully.

5.0 Impacts of the proposed use of Darling Drive as Trucks Marshalling Area

It is proposed to use the coach parking areas in Darling Drive for marshalling of trucks during the early morning hours (6:00am - 8:00am). Trucks will start arriving in Darling Drive between 6:00am and 7:00am. Once the first cycle of trucks had been filled, they would be spread out such that they could travel directly to the site.

Darling Drive is already used by large buses and the impact of the use of Darling Drive by construction trucks would have little impact.

The use of coach parking area for marshalling of trucks during the early morning hours would have little impact on coaches as tourist coaches generally arrive after 8:00am.

A recent traffic survey (February 2009) in Darling Drive indicates that the maximum hourly traffic volume in Darling Drive south of Pier Street is 310. This is a low volume for a road of the standard of Darling Drive. The construction traffic management plan for the Darling Walk Main Works estimated that around 10 and 12 trucks per hour would visit the site during the bulk excavation and structural works respectively. The estimated maximum truck generation of 10-12 trucks per hour would have minimal impact on traffic operation in Darling Drive.

Because traffic volume on Darling Drive are low, the use of this road by trucks would have minimal impact on pedestrians, cyclists, emergency vehicles and other heavy vehicles.

6.0 Conclusions

Overall, it is considered that the impact of the proposed use of the coach parking areas will be low and acceptable.

I trust this advice assists you in resolving the issues and request that you call Mr Kamoru Adetunmbi of this office if you have any queries.

Yours sincerely,

Bruce Masson
Director Transport Planning