



SYDNEY METRO CITY & SOUTH WEST
 CONSTRUCTION TRAFFIC MANAGEMENT PLAN
 VICTORIA CROSS SOUTHERN (VC2) SITE
 MAY 2017



DEVELOPMENT	VERIFICATION	VALIDATION
Name: S Lewis	Name: E Nuberg	Name: B Shum
Signature : RMS Card # 0022818927 Exp 12/06/18	Signature : 	Signature : 

Document Approval

REV	DATE	DESCRIPTION	PREPARED	REVIEWED	APPROVED
A	8 Feb 2017	Draft for Review	S. Lewis		
A-01	15 Feb 2017	Draft for Council review	S Lewis		
A-02	19 Feb 2017	Draft for review	S Lewis		
B-01	19 Mar 2017	Road safety auditor review	S Lewis		
C-00	27 Mar 2017	For approval	S Lewis	S Young	B Shum
C-01	15 May 2017	For approval	S Lewis	S Young	B Shum

Glossary

REQUIREMENT	REFERENCE
CTMF	Construction Traffic Management Framework
CTMP	Construction Traffic Management Plan
DA	Development Application
NSC	North Sydney Council
RMS	Roads and Maritime Service
ROL	Road Occupancy License
SCO	Sydney Coordination Office
TCP	Traffic Control Plan
TfNSW	Transport for New South Wales

Contents

1.	Introduction	6
1.1.	Project Overview	6
1.2.	Purpose of this Plan	6
2.	Locality and existing conditions	7
2.1.1.	Miller Street	7
2.1.2.	Berry Street	8
2.1.3.	Denison Street	8
2.1.	Preliminary Works	8
2.1.1.	Works and Operations	8
2.2.	Site operations	8
2.2.1.	Works Required	9
2.2.2.	Operating Conditions	9
2.2.3.	Impact on Traffic Flows	10
2.2.4.	Impact on Public Transport	10
2.2.5.	Impact on Pedestrians and Cyclists	10
2.2.6.	Impacts on commercial and residential access	10
2.2.7.	Staff parking and transportation to site	10
2.2.8.	Cumulative impacts	10
2.2.9.	Special Events	10
2.2.10.	Traffic Control Plan (TCP) / Road Occupancy License (ROL) Identified Works	10
2.2.11.	North Sydney Council required approvals	11
3.	Fleet Management	11
3.1.	Logistics Routes	11
3.2.	Permits/ Over Dimensional Vehicles	12
3.3.	Environmental Considerations	12
3.4.	Drivers and Operators	12
4.	Other Considerations	12
4.1.	Road Safety Audits	12
4.2.	Police and Emergency Services	13
4.3.	Communications and the community	13
4.3.1.	Travelling public	13
	Stakeholders consulted	13
4.4.	Inspections and monitoring	14
4.5.	Environmental Maintenance	14

4.6. On Site Contacts 14

4.7. References..... 14

Appendix 1 Parking restrictions..... 15

Appendix 2 Proposed site operations including hoarding arrangements 16

Appendix 3 Traffic control plans and implementation..... 17

Appendix 4 Haulage routes 18

Appendix 5 Road safety audit..... 19

Appendix 6 Review comments 20

1. Introduction

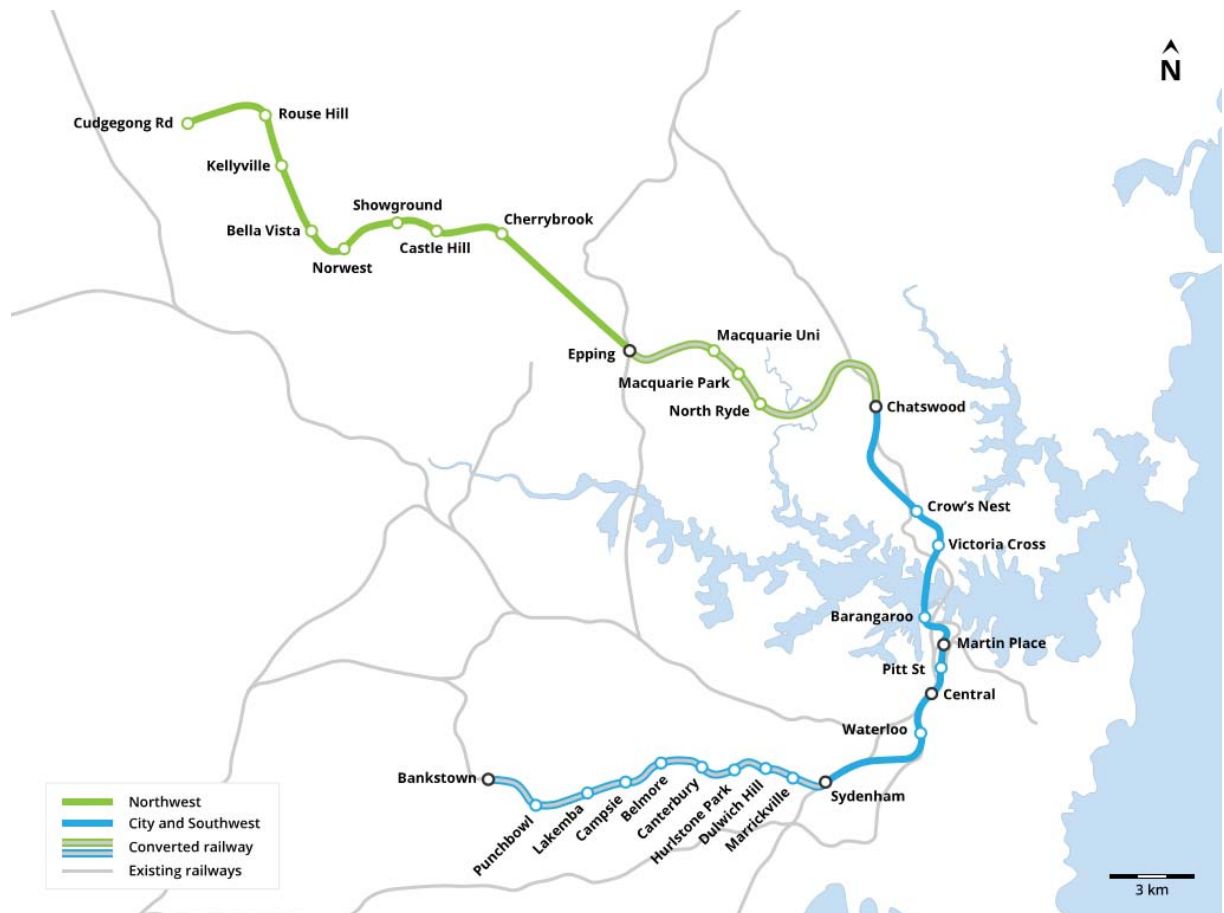
1.1. Project Overview

The Sydney Metro is Australia's biggest public transport project. The metro project currently consists of:

- Stage one is the Sydney Metro Northwest, formerly the North West Rail Link, connecting the north western suburbs of Sydney, through to Chatswood.
- Stage two is the City & South West project linking Chatswood through to Sydenham.
- Stage three includes the upgrade of the existing rail line between Sydenham and Bankstown.

Figure 1 shows the proposed Sydney Metro project and stages.

FIGURE 1 SYDNEY METRO PROJECT



1.2. Purpose of this Plan

The purpose of this *Construction Traffic Management Plan (CTMP)*: VICTORIA CROSS SOUTH (VC2-STATION EXCACATION) SITE is to detail the site operations for the demolition phase of the Sydney Metro City & South West project. This plan will set out the traffic management initiative that will be deployed to minimise disruption to , and ensure the safety of the wide range of stakeholders potentially affected by the works,

including but not limited to: motorists, pedestrians; cyclists; public transport users, local residents and property owners; business owners; and workers/staff engaged on the Project.

2. Locality and existing conditions

The Victoria Cross South (Station Excavation) site is bounded by Miller Street to the west, Berry Street to the north, Denison Street to the east and 105 Miller Street to the south. The site is shown in Figure 2 below in red. The existing parking restrictions at the site are detailed below and are also included in Appendix 1.

FIGURE 2 VICTORIA CROSS SOUTHERN (VC2) SITE



2.1.1. Miller Street

Miller Street is classified as a regional road. Regional roads typically fall under Council care with control of the road exercised between Council and RMS, with RMS agreement required for changes. It commences at Blue Street in North Sydney and ceases at Cammeray. The speed limit on Miller Street is 40km/hr due to high pedestrian activity in this area.

A bus stop exists to the south of the site, in the indented bay. The bus stop services the following routes 168, 173, 183, 184, 185, 187, 201, 209, 227, 228, 229, 230, 252, 254, 286, 287, 291, E50, L78, L85 and L87.

½ P metered parking exists across the frontage of the site. A taxi zone is located north of the metered parking areas.

AM Clearway (6-10AM) exists on the southbound carriageway with a PM clearway in operation on the northbound carriageway (3-7PM).

The existing footpaths are 4.1m (measured from the western most side of the existing garden beds to the face of kerb) with approximately 1.0m of this allocated to street furniture including light posts, parking meters etc.

From the property boundary (assumed where the marble footway ends) to the face of kerb is 9.3m. The footpaths narrow towards the Pacific Highway immediately south of the site. There is a marked on road cycling facility.

2.1.2. Berry Street

Berry Street is classified as a State road and is under the control of RMS. Berry Street commences west of the Pacific Highway and ceases at Arthur Street. The speed limit on Berry Street is 40km/hr due to the high pedestrian activity.

Metered loading zones are in operation during 0600-1000 Monday to Friday, with metered parking outside of these hours. The existing parking is contained within indented parking bays.

The footpath has an effective width of 2.2m (property boundary to face of kerb is 3.7m with 1.5m allocated to street furniture including seating). There are no cycling facilities on this section of the Berry Street.

2.1.3. Denison Street

Denison Street is a local road which connects Mount Street to Berry Street. Denison Street is one way southbound between Spring Street and Mount Street, and one way northbound between Spring Street and Berry Street. The street is signposted as a shared zone at its southern end, there is currently no signposting identifying the end of the shared zone, however through discussions with North Sydney Council, the shared zone ends at the intersection with Berry Street. A speed limit of 10 km/hr is in place. There is a pedestrian crossing immediately to the north of Spring Street and a raised threshold outside of the entry of 1 Denison Street and Tower Square. North of this raised threshold the pavement is asphalt, whereas south is a brick paved surface.

On the western side of Denison Street, at the Tower Square development, motorbike parking exists with No Stopping restrictions across the various business driveways, with some 2P metered parking spaces available. On the eastern side, 2P metered parking is in place from south of the pedestrian threshold through to Berry Street with No Stopping restrictions in place across the apartment's driveway.

The existing footpath width varies along the length of Denison Street. At the location where the raised threshold is located, the footpath is 1.9m. At the northern end of Denison Street the footpath widens to 3.4m. There are no known cycling facilities at this location.

2.1. Preliminary Works

Timing: From 20th March 2017 to Site Operations Commencement

2.1.1. Works and Operations

Prior to the commencement of demolition works within the site, Delta Group will need to disconnect/ isolate existing utilities and undertake HAZMAT identification and removal. Fencing installation will occur where required. These works will be undertaken within the site using existing driveways. Only light vehicles will be required for these works.

2.2. Site operations

Duration: 10 months

Timing: April 2017 to January 2018

2.2.1. Works Required

Prior to the commencement of demolition works within the site, Delta Group will need to alter/ remove landscaped garden bed on Miller Street to construct a driveway to allow site entry/ egress. Works will also be required to relocate the existing parking meter. These works will be done outside of high pedestrian activity times. A driveway application will be provided prior to final approval of the CTMP.

Classes A and B hoarding will be installed on site – refer to Appendix 2 for details on the proposed hoarding arrangements.

Demolition of the existing buildings within the site, will occur during normal construction hours of 0700-1800 Monday to Friday and 0800-1300 on Saturday. The Denison Street pedestrian bridge, is currently included within the scope of works for Delta Group. However, those works will be subject to a separate Permit and Road Occupancy License application to both North Sydney Council and Transport Management Centre.

A tower crane will be required post the initial demolition phase. A separate application to North Sydney Council and the Transport Management Centre for the installation of the crane where it will interfere with traffic will be made once the details have been finalised.

2.2.2. Operating Conditions

The main access/ egress is proposed on Miller Street via a newly constructed driveway, refer to Figure 3 and Appendix 2 for details. The driveway and removal of landscaping beds will be constructed at night and/ or weekends subject to approval.. There is minimal impact on existing traffic arrangements for this site as the vehicle numbers are relatively low, with approximately 140 trucks per month, averaging 5 trucks per day. There will be minimal truck numbers during the peak periods (AM and PM).

FIGURE 3 WORKS TO FACILITATE SITE ACCESS/ EGRESS



2.2.2.1. Scaffolding and hoarding placement

Scaffolding will generally be within the site at the project boundary, however, Class B hoarding will be installed around the frontages of Miller Street, Berry Street and Denison Street. A typical scaffolding arrangement is included within Appendix 2. The hoarding will have lighting to provide a safe walkway for pedestrians and will have available a minimum of 2.5m clearance as a pedestrian thoroughfare, on both Miller and Berry Streets. Hoarding on Denison Street will remove the existing western footpath.

2.2.3. Impact on Traffic Flows

The operation of the site will have minimal impact on existing traffic conditions as the traffic generation is typically low and vehicles will be restricted to left in/ left out. Post the arrival of machinery on site, traffic generation at this site will typically be in the order of 140 trucks per month, with an average of 5 trucks per day. There will be minimal truck numbers during the peak periods (AM and PM).

2.2.4. Impact on Public Transport

There is no impact on public transport as the existing bus stop on Miller Street is to the south of the site.

2.2.5. Impact on Pedestrians and Cyclists

The existing footpath will be narrowed at the site frontage on Miller Street as the hoarding will be installed on the property boundary. This footpath narrowing will leave approximately 9m in footpath width. During truck access and egress two RMS accredited traffic controllers will be on site to manage truck and pedestrian traffic.

The on-road bicycle facilities on Miller Street will be retained. The local bicycle user group will be informed of the changes to Miller Street.

2.2.6. Impacts on commercial and residential access

There is no impact on existing commercial properties as all properties on site will be vacant prior to the commencement of works. Denison Street properties access – both commercial and residential, will be retained, however, short term temporary closure of Denison Street will be required for bridge demolition.

2.2.7. Staff parking and transportation to site

During the demolition works, it is anticipated that there will be 10-12 personnel on site. There will be no car parking spaces on site as there are ample off street parking facilities available. The workforce for the actual demolition will be encouraged to arrive by site using public transport, with most likely to use the North Sydney Interchange, a 6 minute walk (400m) from site.

2.2.8. Cumulative impacts

North Sydney Council have advised that 1 Denison Street development has an approved DA, which is currently before Council as an amendment. There are works occurring:

- to the north of the site on Miller Street, north of Berry Street – demolition;
- to the south of the site on Mount Street at Walker Street – demolition;
- opposite the site on Miller Street – building

2.2.9. Special Events

In reviewing North Sydney Council's website for special events near the site, there are no special events listed, which would be impacted by the works.

2.2.10. Traffic Control Plan (TCP) / Road Occupancy License (ROL) Identified Works

Works that have been identified as requiring a Traffic Control Plan are detailed below. Appendix 3 provides details on expected durations, timing for implementation, the works being undertaken and the expected traffic impacts.

1. Construction of driveway on Miller Street and landscaping removal works – slow lane closure on Miller Street
2. Installation of hoarding and pedestrian management

3. Pedestrian management during access/ egress
4. Berry Street stop/ slow
5. Installation of tower crane

2.2.11. North Sydney Council required approvals

Works that have been identified as requiring Council approval include:

1. Vehicular crossing on Miller Street
2. Hoarding and scaffolding installation
3. Permit to stand plant/ crane
4. Relocation of parking meter –Parking Meter Manager 9936 8100 (2 weeks notice)
5. Changes to the existing parking restrictions on Miller Street
6. Oversize and over mass permits

3. Fleet Management

Trucks to be used on the project will be compliant with NSW legislation and standards including the Heavy Vehicle National Legislation. A combination of truck types will be used during the demolition works. These trucks may be Truck and Dogs, bin trucks and 5t tippers. Table 1 provides an estimation of materials to be removed over the life of the works, whilst Table 2 provides a comparison of the EIS and DELTA traffic movements at the site.

TABLE 1 MATERIAL (TONNES) ESTIMATE FOR VICTORIA CROSS (VC2) SITE

BRICK	CONCRETE	STEEL	DEMOLITION WASTE
2000	24,570	850	1370

TABLE 2: AVERAGE VEHICLE MOVEMENTS PER HOUR

TIME	EIS LIGHT VEHICLES	DELTA LIGHT VEHICLES	EIS HEAVY VEHICLES	DELTA HEAVY VEHICLES
0700-1000	2-10	2	6	5
1000-1200	10	1	12	4
1200-1400	10	1	12	3
1400-1600	10	1	8	3
1600-1800	2	1	6	1
1800-0700	0-9	0		0

3.1. Logistics Routes

Generally, the haulage routes will be via arterial roads/ freeway or Tollway. Where possible the routes have taken into account the requirements of the Environmental Impact Statement (EIS). It is noted that the EIS for this site access shows access via Miller Street with egress onto Denison Street, however North Sydney Council has requested the use of Miller Street for egress as well, due to the shared zone arrangement currently in place on Denison Street and the fact that 1 Denison Street development has been provided with approval and will need to use Denison St to access site. Where the routes differ from that in the EIS, the routes chosen are based on the availability of the arterial road system and are detailed in this CTMP.

Material will be removed from site using a combination of vehicles from 5t tippers through to truck and dogs and taken to authorised disposal sites around Sydney. Refer to Appendix 4 for details on the proposed routes.

3.2. Permits/ Over Dimensional Vehicles

Permit issue for vehicles greater than 4.5 tonnes is through the National Heavy Vehicle Regulator (NHVR). This applies to particular special purpose vehicles (SPV) such as mobile cranes and other oversize/over mass vehicles (OSOM). At present, RMS is currently undertaking this permit issue.

For over dimensional vehicles, generally vehicles that are greater than 25m length or 3.5m width require a pilot(s). Extremely long or wide vehicles will require an escort (fee payable). Permits will be applied for by the transport operator to RMS and North Sydney Council. These deliveries will occur at night.

3.3. Environmental Considerations

All vehicles used on the Project will comply with national and state regulations for exhaust emissions and noise and:

- Switch off their engines when idle, particularly in residential areas
- Avoid the use of their engine brakes in residential areas at night
- Have their load covered prior to leaving site to reduce dust
- Be fitted with broadband reverse beepers.

Refer to our Construction Environmental Management Plan (CEMP) for further details

3.4. Drivers and Operators

Operator selection will be based on safety performance criteria. Operators and drivers will be required to have general construction industry induction cards and will be required to attend ongoing general project and site specific inductions.

All operators will be comprehensively trained with regard to community expectations and impacts from haulage operations. The induction will have a particular focus on operator behaviour. Operator competency and standards of behaviour will be continually assessed and discipline procedures will be put in place to maintain compliance.

Queuing of trucks in local streets around the demolition sites will not occur as there will be sufficient designated area within site for trucks to wait. It is noted that there are minimal truck movements required during the demolition phase. Trucks will be provided post the site start times.

The primary access point into the site will be via the a newly constructed driveway on Miller Street.

4. Other Considerations

4.1. Road Safety Audits

Road safety audits will be undertaken during the development of the CTMP.

4.2. Police and Emergency Services

The Police and relevant Emergency Services will be informed in a timely manner of relevant activities proposed within this CTMP. The initial communication to these stakeholders will be via the Traffic and Transport Liaison Group (TTLG). Regular updates will be provided to emergency services, including changes to road network configurations, changes to road conditions and worksite access locations, through emails and face to face discussions.

4.3. Communications and the community

TfNSW will be responsible for the dissemination of information to the community including affected residents, relevant Councils, businesses and the public. Refer to Sydney Metro Community Consultation Strategy – Early Works.

Any enquiries, complaints and/ or compliments should be directed to the TfNSW’s Sydney Metro Project Information line - **1800 171 386** or via mail to: sydneymetro@transport.nsw.gov.au or Sydney Metro City & Southwest, PO Box K659, Haymarket, NSW 1240 or [Sydney Metro City & Southwest Website](#).

4.3.1. Travelling public

Public transport interruptions will be communicated via on site signage. The motoring public will be forewarned of any changes, including road closures, road changes and lane closures well in advance using appropriate signage, including variable message signs (VMS).

Stakeholders consulted

TABLE 3 identifies the stakeholders consulted during the development of this CTMP:

TABLE 3 STAKEHOLDER CONSULTATION

STAKEHOLDER	DATE	CONSULTATION	MAIN CONTACT PEOPLE
North Sydney Council	1 st Feb 2017	Meeting	Michaela Kemp
North Sydney Council	16 th Feb 2017	Meeting	Michaela Kemp
North Sydney Council	30 th Mar 2017	Issue of CTMP	Michaela Kemp
North Sydney Council	10 th March 2017	Reissue of CTMP	Michaela Kemp
Sydney Coordination Office	10 th March 2017	Issue of CTMP	Giovanny Ramirez
TCG	21 st Feb 2017- 11 th April 2017	All members	SCO/ TfNSW/ WC/ RMS
All parties	27 March 2017	Reissue of CTMP	All contacts as per above
North Sydney Council	Various in April	Meetings	Michaela Kemp
North Sydney Council	3 May 2017	Reissue of revised drawings	Michaela Kemp
All parties	9 May 2017	Reissue of revised drawing	All contacts as per above
All parties	15 May 2017	Reissue of CTMP	All contacts as per above

4.4. Inspections and monitoring

The site will be monitored by the site supervisor. Any changes as noted in this CTMP, to signs/ lines that impact on the public will be monitored daily during site operating hours.

Traffic control used for pedestrian management, lane closures etc will need to provide records of the traffic control implemented. Any changes required to the traffic control set up will be authorised by a RMS "Prepare a Work Zone Traffic Management Plan" or equivalent.

4.5. Environmental Maintenance

All works associated with the temporary traffic arrangements proposed within this plan will conform to the Construction EMP.

4.6. On Site Contacts

TABLE 4 ON SITE CONTACTS

NAME	POSITION	CONTACT #
Ben Shum	Project Director	0423 796 946
Steve Young	Project Manager	0400 158 128
James Vari	Site Supervisor	0411 092 785
Kevan Zulu	Safety Manager	0411 092 898
Matthew Stephenson	Environment and Sustainability Manager	0418 284 226

4.7. References

The following documents were used in the development of this CTMP:

- Construction Traffic Management Framework – TfNSW, v.4.4 provided by TfNSW 4th March 2017
- Principal's General Specification G10 Traffic and Transport Management, v2.0
- Roads and Maritime Service Traffic Control at Worksites Manual v 4.0
- Relevant AustRoads Guides and RMS Supplements
- Sydney Metro Principal Contractor Health and Safety Standard

Appendix 1 Parking restrictions

DRAWING NUMBER	DESCRIPTION
DD-SYDM-DWG-0002-01	Existing parking restrictions
DD-SYDM-DWG-0002-02	Proposed parking restrictions



- GENERAL NOTES**
1. TRAFFIC MANAGEMENT PLAN SHOULD BE READ IN CONJUNCTION WITH AUSTRALIAN STANDARDS 1742.3 ROADS ACT 1993 AND NSW RTA TRAFFIC CONTROL AT WORK SITE MANUAL.
 2. ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TGS MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT.
 3. THE SITE MUST COMPLY WITH THE TRAFFIC CONTROL AT WORK SITES MANUAL V4 2010 EDITION AN A.S. 1742.3
 4. SIGNS TO BE POSITIONED IN ACCORDANCE WITH THE TCAMS MANUAL V4 2010, TABLE 5.1 SECTION 3.2.8
 5. BOLLARDS OR TRAFFIC CONES ARE TO BE INSTALLED IN ACCORDANCE WITH THE TCAMS MANUAL V4 2010, TABLE 5.1
 6. TAPER LENGTHS ARE TO BE IN ACCORDANCE WITH THE TCAMS MANUAL 2010, TABLE 5.2
 7. DIMENSION 'D' IS DETERMINED IN ACCORDANCE WITH THE TCAMS MANUAL 2010, SECTION 2.11
 8. REGULATORY SPEED / ROADWORK SIGNS TO BE REPEATED EVERY 300M UNLESS NOTED OTHERWISE.

REV	BY	DATE	DESCRIPTION	APPROVED
1	LS	08/06/2017	AMENDED CROSSOVER LOCATION	SL
2	LS	21/02/2017	REVISED FOR APPROVAL	SL
3	LS	19/03/2017	UPDATED AS PER SL COMMENTS	SL
4	LS	19/03/2017	FINAL DRAFT	SL

DRAWN BY: LS
 DRW CHECK: SL
 APPROVED: SL
 IN REVIEW: N/A

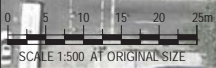
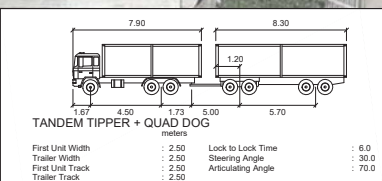
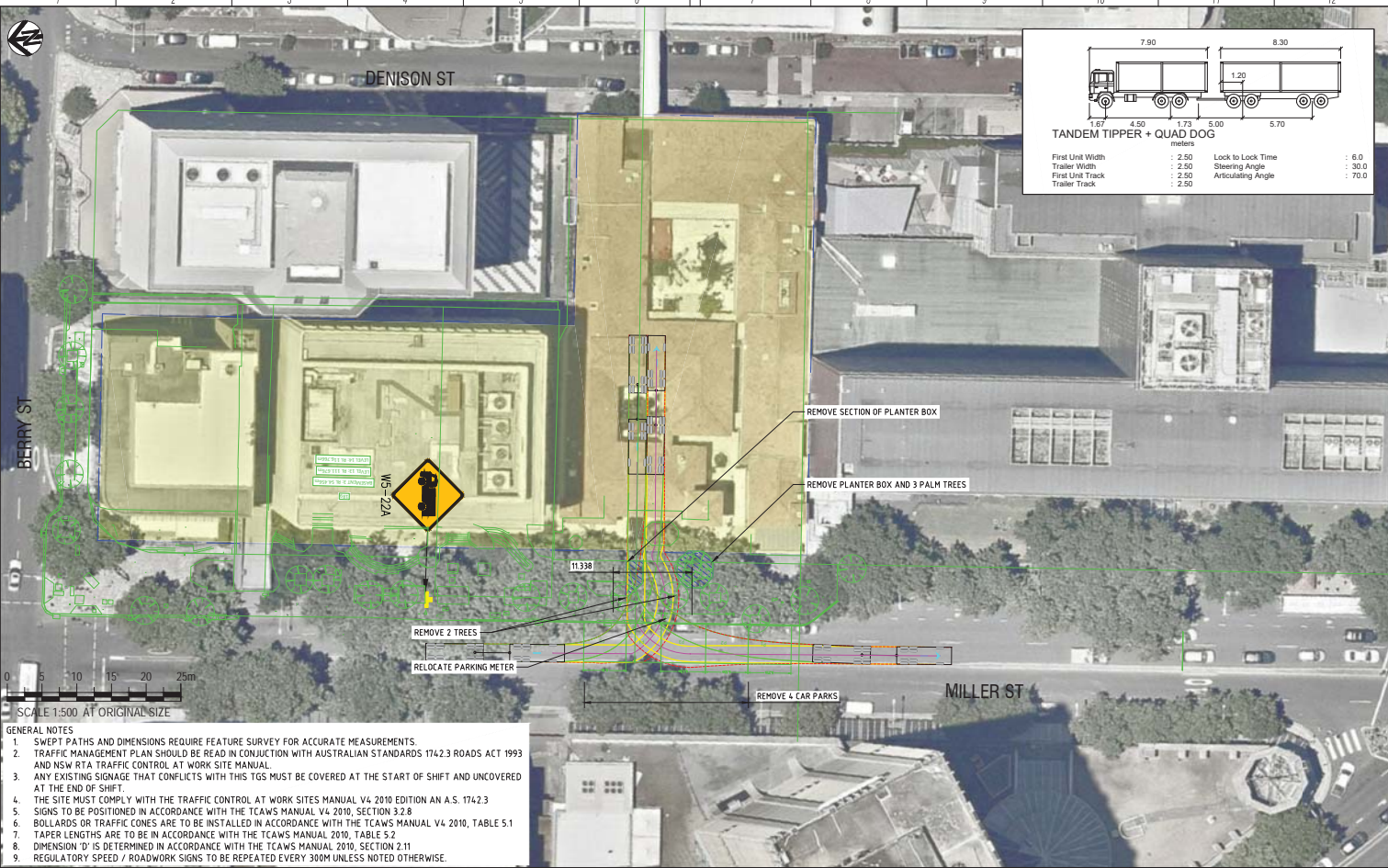


SYDNEY METRO
 DELTA GROUP AUSTRALIA WIDE
 PROPOSED PARKING RESTRICTIONS
 MILLER ST - VICTORIA CROSS SOUTH

DRAWING No: DD-SYDM-DWG-0002-02
 SHEET 1 OF 1
 REVISION D-00

Appendix 2 Proposed site operations including hoarding arrangements

DRAWING NUMBER	DESCRIPTION
DD-SYDM-DWG-0002-03	Miller Street proposed access/ egress arrangements
DD-SYDM-DWG-0002-04	Site Establishment layout including hoarding arrangements
DD-SYDM-TYP-0000-03	Typical Hoarding arrangement over footpath – CROSS SECTION
DD-SYDM-TYP-0000-04	Typical Hoarding arrangement over footpath – ELEVATION



- GENERAL NOTES**
1. SWEEP PATHS AND DIMENSIONS REQUIRE FEATURE SURVEY FOR ACCURATE MEASUREMENTS.
 2. TRAFFIC MANAGEMENT PLAN SHOULD BE READ IN CONJUNCTION WITH AUSTRALIAN STANDARDS 1742.3 ROADS ACT 1993 AND NSW RTA TRAFFIC CONTROL AT WORK SITE MANUAL.
 3. ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TGS MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT.
 4. THE SITE MUST COMPLY WITH THE TRAFFIC CONTROL AT WORK SITES MANUAL V4 2010 EDITION AN S. 1742.3
 5. SIGNS TO BE POSITIONED IN ACCORDANCE WITH THE TCAMS MANUAL V4 2010, SECTION 3.2.8
 6. BOLLARDS OR TRAFFIC CONES ARE TO BE INSTALLED IN ACCORDANCE WITH THE TCAMS MANUAL V4 2010, TABLE 5.1
 7. TAPER LENGTHS ARE TO BE IN ACCORDANCE WITH THE TCAMS MANUAL 2010, TABLE 5.2
 8. DIMENSION 'D' IS DETERMINED IN ACCORDANCE WITH THE TCAMS MANUAL 2010, SECTION 2.11
 9. REGULATORY SPEED / ROADWORK SIGNS TO BE REPEATED EVERY 300M UNLESS NOTED OTHERWISE.

REV	BY	DATE	DESCRIPTION	APPROVAL
1	SS	18/05/2017	ISSUED FOR PERMIT	SL
2	SS	21/05/2017	UPDATED AS PER RISA COMMENTS	SL
3	SS	19/05/2017	ISSUED FOR PERMIT	SL
4	SS	19/05/2017	ISSUED FOR PERMIT	SL

DRAWN BY: SS
 DRW CHECK: SL
 APPROVED: SL
 IND REVIEW: N/A



SYDNEY METRO
 DELTA GROUP AUSTRALIA WIDE
 PROPOSED SITE ACCESS/EGRESS
 MILLER ST - VICTORIA CROSS SOUTH

DRAWING No:	DD-SYDM-DWG-0002-03
SHEET	1 OF 1
REVISION	D-00

A-class hoarding at site boundary after demolition of structures adjoining

2 x runs of B-class Hoarding in front of 181 Miller Street.
One located adjoining kerb.
One located between tree line and site boundary

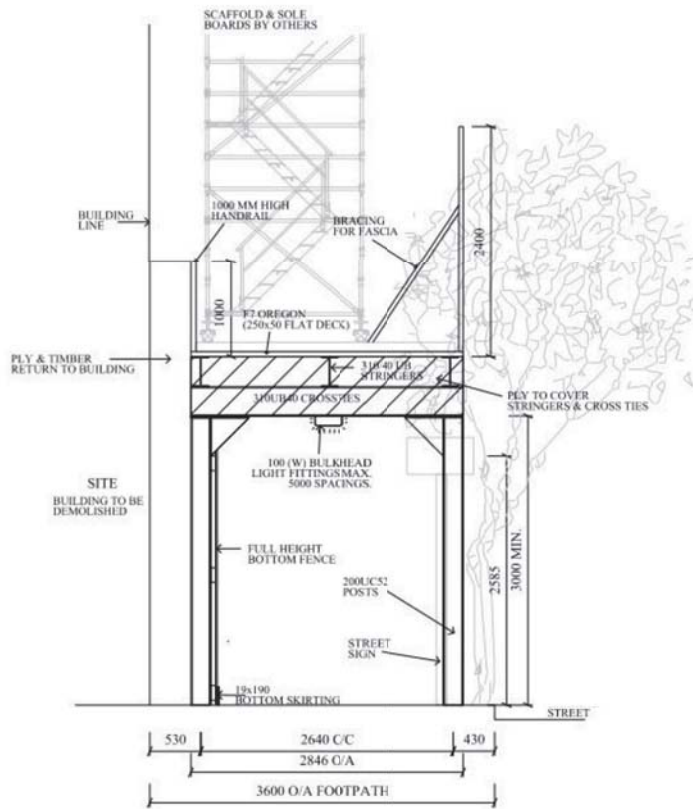
Council area occupied by Delta during high level structural demolition stages of 189 Miller Street

Victoria Cross Hoarding Plans
Notes;
155 Miller Street.
Miller Street face- Aclass hoarding.
Dennison St- B-class with scaffold over.
181 Miller Street.
 2 x runs of B-class hoarding installed split by existing tree line.
 Minor landscape works to increase pedestrian access.
187 Miller Street.
 B-class hoarding with scaffold over.
189 Mill Street.
Miller Street face- Bclass hoarding adjoining kerb.
Berry Street face- Bclass hoarding with scaffold over.
Area marked red on Berry/Miller corner- closed off to public during demolition stage only (high level demolition.)
General Note:
 - B-class hoarding will include timber face on 'inside leg'.
 - At completion of site demolition works, all B-class hoarding to be replaced with A-class hoarding at site boundary.



B-class with scaffold over along Berry Street

B-class with scaffold over along Berry Street



SECTIONAL VIEW THROUGH B-CLASS HOARDING OVER FOOTPATH

(DEMOLITION EXTENT, STREET FEATURES, TRUCK BAYS, STRUCTURAL SIZE AND CONNECTIONS ARE INDICATIVE ONLY)

DRAWN BY:	LS
DRW CHECK:	SS
APPROVED:	SL
IND REVIEW:	N/A



SYDNEY METRO

DELTA GROUP AUSTRALIA WIDE
TYPICAL DRAWING
CLASS B HOARDING SECTION

DRAWING No: DD-SYDM-TYP-0000-03

SHEET 1 OF 1

REVISION A-00

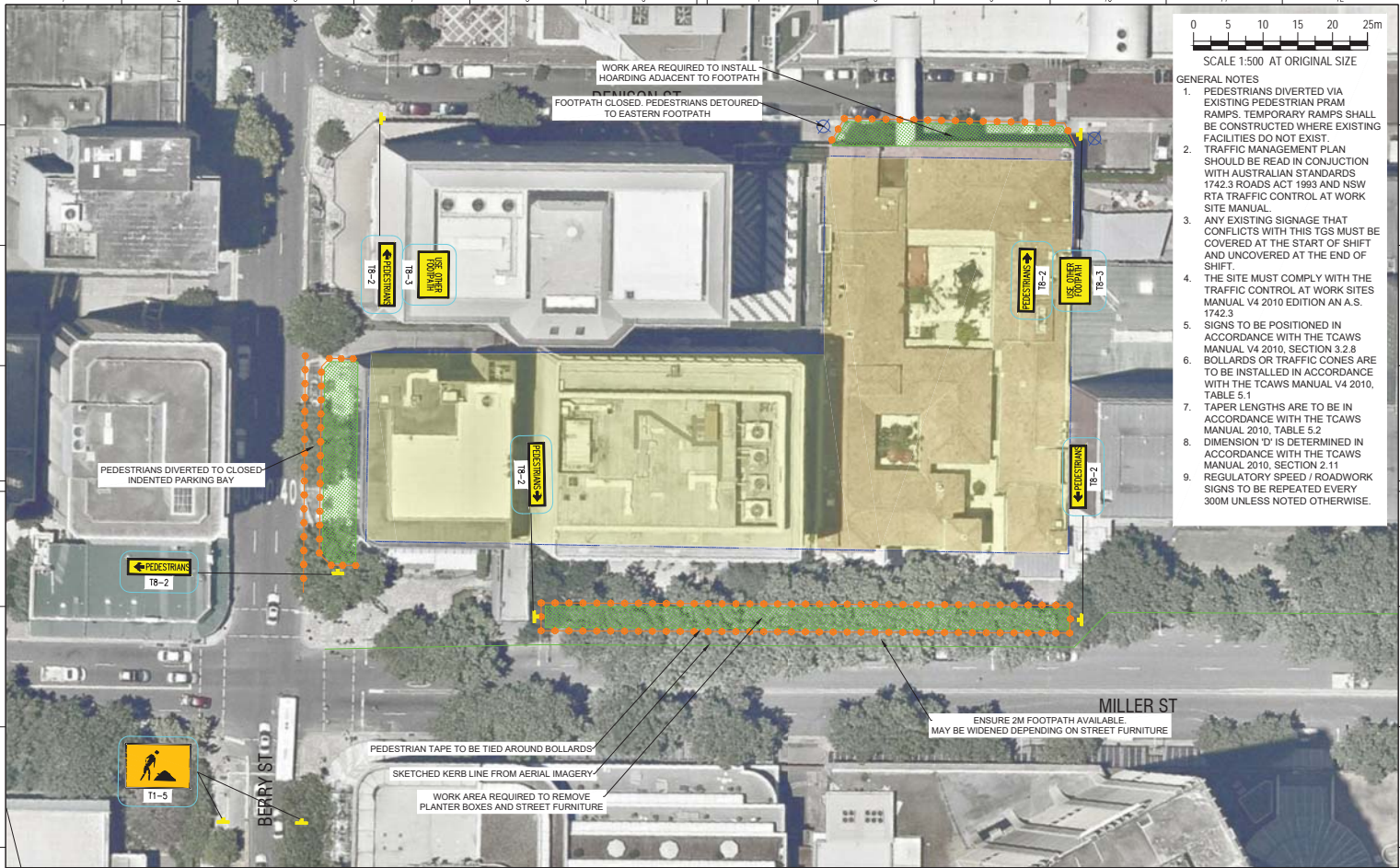
1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----



DD-SYDM-TMP-0002

Appendix 3 Traffic control plans and implementation

TCP #	LOCATION	FROM	TO	TIMING	TRAFFIC CONTROL	WORKS	IMPACTS
DD-SYDM-DWG-0002-05	Miller St	North of Berry St	South of site	Nights	Kerbside lane closure	<ul style="list-style-type: none"> • Driveway construction • Awning removal • Scaffold/ hoarding installation • Plant delivery/ removal 	Minimal impacts to traffic as taken outside of peak periods No impact to parking as this area is No Parking/ No Stopping
DD-SYDM-DWG-0002-06	Various	Various	Various	Non peak times	Pedestrian management	Hoarding installation	Minimal impacts to pedestrians as taken outside of peak periods
DD-SYDM-TYP-0000-02	Miller St	At site	NA	All	Pedestrian management	Typical pedestrian management at site	Management of pedestrians throughout truck access/ egress times



0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

- GENERAL NOTES**
1. PEDESTRIANS DIVERTED VIA EXISTING PEDESTRIAN RAMPS. TEMPORARY RAMPS SHALL BE CONSTRUCTED WHERE EXISTING FACILITIES DO NOT EXIST.
 2. TRAFFIC MANAGEMENT PLAN SHOULD BE READ IN CONJUNCTION WITH AUSTRALIAN STANDARDS 1742.3 ROADS ACT 1993 AND NSW RTA TRAFFIC CONTROL AT WORK SITE MANUAL.
 3. ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TGS MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT.
 4. THE SITE MUST COMPLY WITH THE TRAFFIC CONTROL AT WORK SITES MANUAL V4 2010 EDITION AN A.S. 1742.3
 5. SIGNS TO BE POSITIONED IN ACCORDANCE WITH THE TCAWS MANUAL V4 2010, SECTION 3.2.8
 6. BOLLARDS OR TRAFFIC CONES ARE TO BE INSTALLED IN ACCORDANCE WITH THE TCAWS MANUAL V4 2010, TABLE 5.1
 7. TAPER LENGTHS ARE TO BE IN ACCORDANCE WITH THE TCAWS MANUAL 2010, TABLE 5.2
 8. DIMENSION 'D' IS DETERMINED IN ACCORDANCE WITH THE TCAWS MANUAL 2010, SECTION 2.11
 9. REGULATORY SPEED / ROADWORK SIGNS TO BE REPEATED EVERY 300M UNLESS NOTED OTHERWISE.

REV	BY	DATE	DESCRIPTION	APPROVED
1	LS	21/03/2017	INITIAL DRAFT	SL
2	LS	19/03/2017	AMENDED AS PER RGA COMMENTS	SL
3	LS	21/03/2017	AMENDED AS PER RGA COMMENTS	SL

DRAWN BY: LS
 DRW CHECK: SS
 APPROVED: SL
 IND REVIEW: N/A

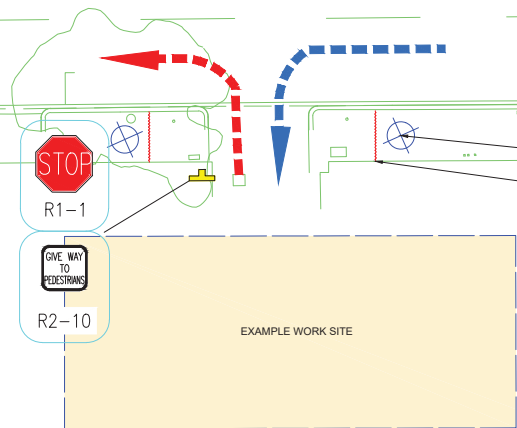


SYDNEY METRO
 DELTA GROUP AUSTRALIA WIDE
 PEDESTRIAN MANAGEMENT
 MILLER ST - VICTORIA CROSS SOUTH

DRAWING No:	DD-SYDM-DWG-0002-06
SHEET	1 OF 1
REVISION	C-00

GENERAL NOTES

- THIS TCP HAS BEEN PREPARED IN ACCORDANCE WITH THE TCAWS MANUAL 2010
- ALL SIGNAGE MUST BE PLACED TO NOT RESTRICT PEDESTRAIN PATH IN ACCORDANCE WITH THE TCAWS MANUAL V4 2010, SECTION 3.2.8
- THE CONTRACTOR SHALL ENSURE ALL ROL AND SZA REQUIREMENTS ARE SATISFIED DURING IMPLEMENTATION OF THIS TCP.
- ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TCP MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT.
- THE SITE MUST COMPLY WITH THE TRAFFIC CONTROL AT WORK SITES MANUAL V4 2010 EDITION AN A.S. 1742.3
- PEDESTRIANS WILL ONLY BE HELD FOR SHORT PERIODS WHILST THE TRUCKS ENTER/EXIT THE SITE AND WILL NOT BE UNDULY HELD BY TRAFFIC CONTROLLERS OUTSIDE OF IMMEDIATE VEHICLE MOVEMENTS



REV	BY	DATE	DESCRIPTION	APPROVED
1	LS	19/03/2017	ISSUED FOR COMMENTS	SL
2	LS	19/03/2017	ISSUED FOR COMMENTS	SL
3	LS	19/03/2017	ISSUED FOR COMMENTS	SL

DRAWN BY:	LS
DRW CHECK:	SS
APPROVED:	SL
IND REVIEW:	N/A

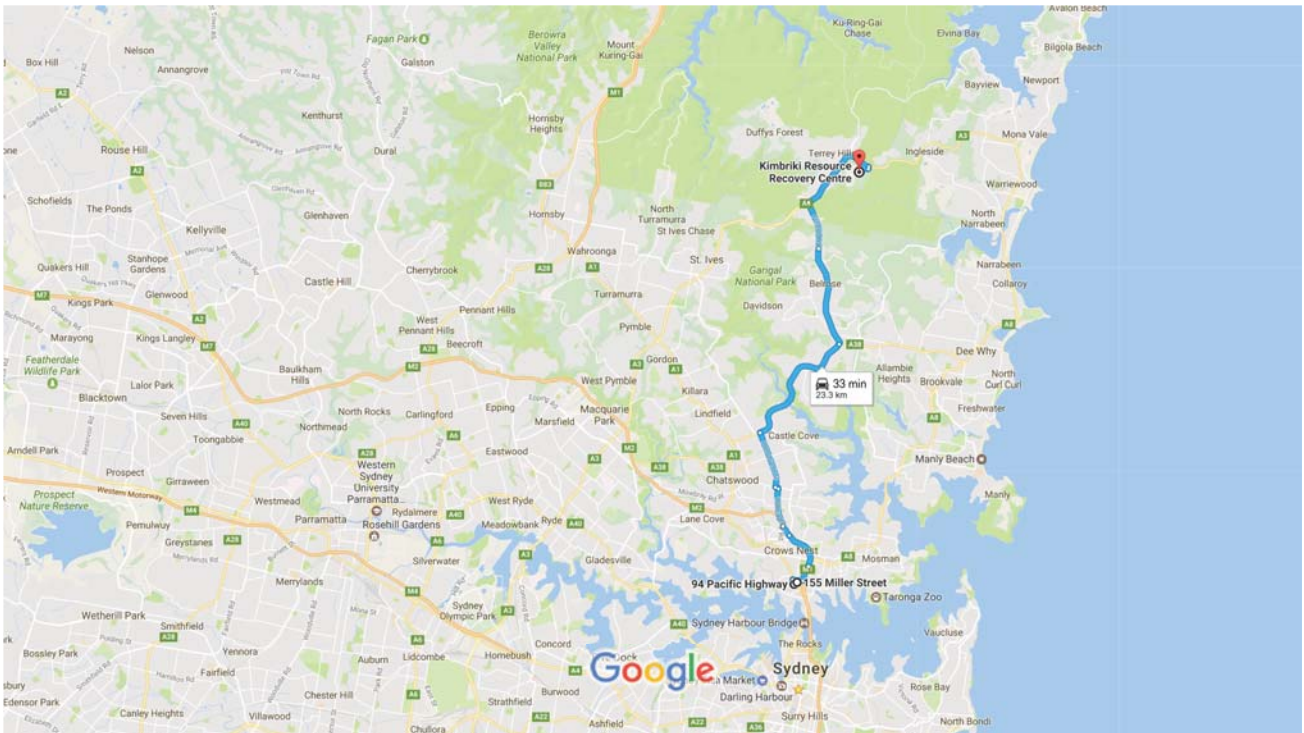


SYDNEY METRO
 DELTA GROUP AUSTRALIA WIDE
 TYPICAL PEDESTRIAN MANAGEMENT
 SHORT TERM STOP ON FOOTPATH

DRAWING No:	DD-SYDM-TYP-0000-02
SHEET	1 OF 1
REVISION	B-00

Appendix 4 Haulage routes

DRAWING NUMBER	DESCRIPTION
DD-SYDM-DWG-0002-07	Logistics route – Victoria Cross to Terrey Hills
DD-SYDM-DWG-0002-08	Logistics route – Terrey Hills to Victoria Cross
DD-SYDM-DWG-0002-09	Logistics route – Victoria Cross to Eastern Creek
DD-SYDM-DWG-0002-10	Logistics route – Eastern Creek to Victoria Cross



Map data ©2017 Google 2 km

155 Miller St

North Sydney NSW 2060

- ↑ 1. Head south on Miller St towards Pacific Hwy
- ↘ 2. Sharp right onto Pacific Hwy 120 m
- ↑ 3. Head north-west on Pacific Hwy towards William St 30 min (22.5 km)
- ↘ 4. Turn right onto Berry St 200 m
- ↙ 5. Use the left 2 lanes to turn left to merge onto M1 towards Chatswood/Epping/Newcastle 400 m
- ↙ 6. Keep left to stay on M1 650 m
- ↘ 7. Take the Willoughby Rd exit towards Roseville 1.7 km
- ↘ 8. Keep right to continue towards Willoughby Rd 450 m
- ↘ 9. Use any lane to turn right onto Willoughby Rd 37 m
- ↙ 10. Use the left 2 lanes to turn left onto Mowbray Rd 1.6 km

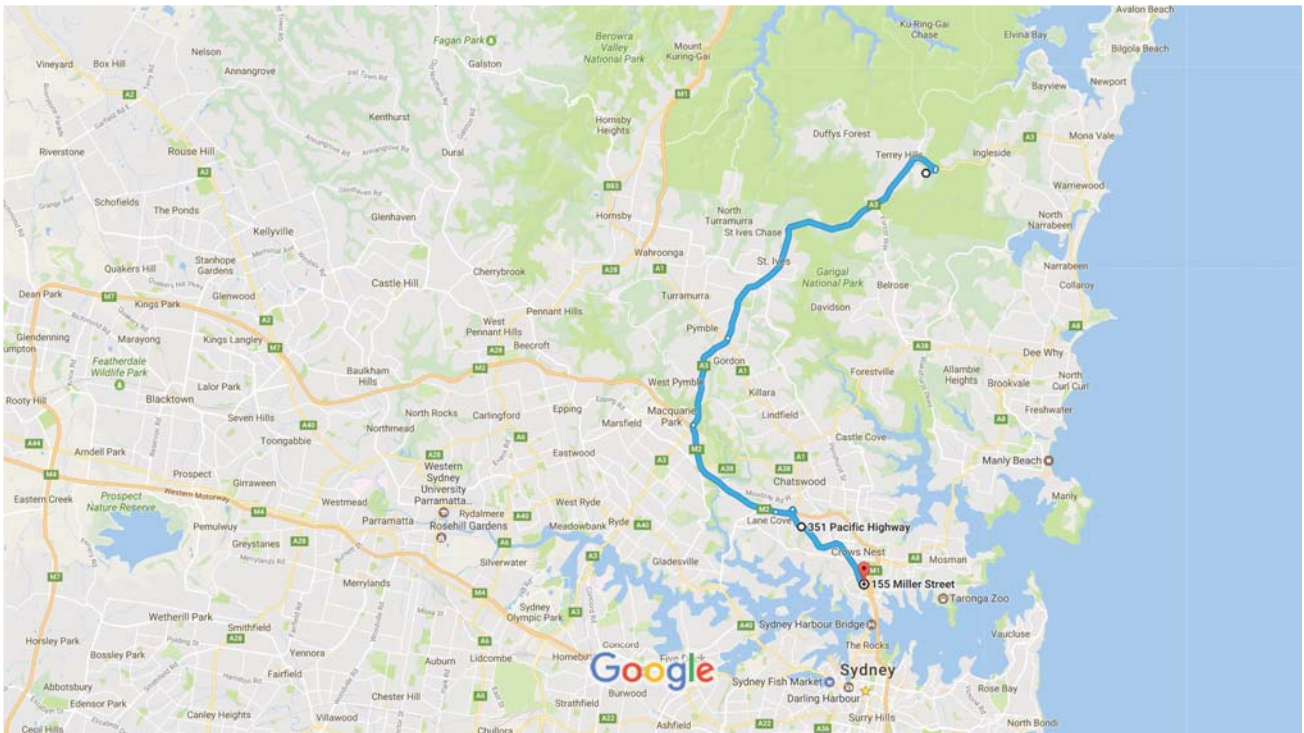
- 11. Use the right 2 lanes to turn right onto Penshurst St 140 m
- 12. Turn right onto Boundary St/A38 2.3 km
[Continue to follow A38](#)
- ↶ 13. Use the left 2 lanes to turn left onto Forest Way 5.6 km
- ↑ 14. Continue straight to stay on Forest Way 4.1 km
- 15. Use any lane to turn right onto Mona Vale Rd/A3 1.9 km
- 16. Turn right onto Kimbriki Rd 3.5 km
- ↗ 17. Slight right 1 min (550 m)
- ↶ 18. Turn left 82 m

32 min (23.0 km)

Kimbriki Resource Recovery Centre

Kimbriki Road, Off Mona Vale Road, Terrey Hills NSW 2084

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



Map data ©2017 Google 2 km

Kimbriki Resource Recovery Centre

Kimbriki Road, Off Mona Vale Road, Terrey Hills NSW 2084

Continue to Mona Vale Rd/A3

- ↑ 1. Head north 1 min (550 m)
- ↻ 2. Turn right towards Kimbriki Rd 30 m
- ↶ 3. Slight left onto Kimbriki Rd 400 m
- ↶ 3. Slight left onto Kimbriki Rd 82 m

Follow A3 and M2 to Pacific Hwy in Artarmon. Take the Pacific Hwy exit from M2

- ↶ 4. Turn left onto Mona Vale Rd/A3 23 min (23.1 km)
- ↻ 5. Keep right to continue on Ryde Rd/A3 12.8 km
- i Continue to follow A3 4.1 km
- ⬆ 6. Use the left lane to merge onto M2 via the slip road to Sydney 5.3 km
- ⚠ Toll road

- 7. Take the Pacific Hwy exit
⚠ Toll road
900 m

- 8. Use any lane to turn left onto Pacific Hwy
ℹ Destination will be on the left
2 min (950 m)

- 9. Head east on Pacific Hwy towards Dickson Ave
3.7 km

- 10. Use the middle lane to turn left onto Berry St
140 m

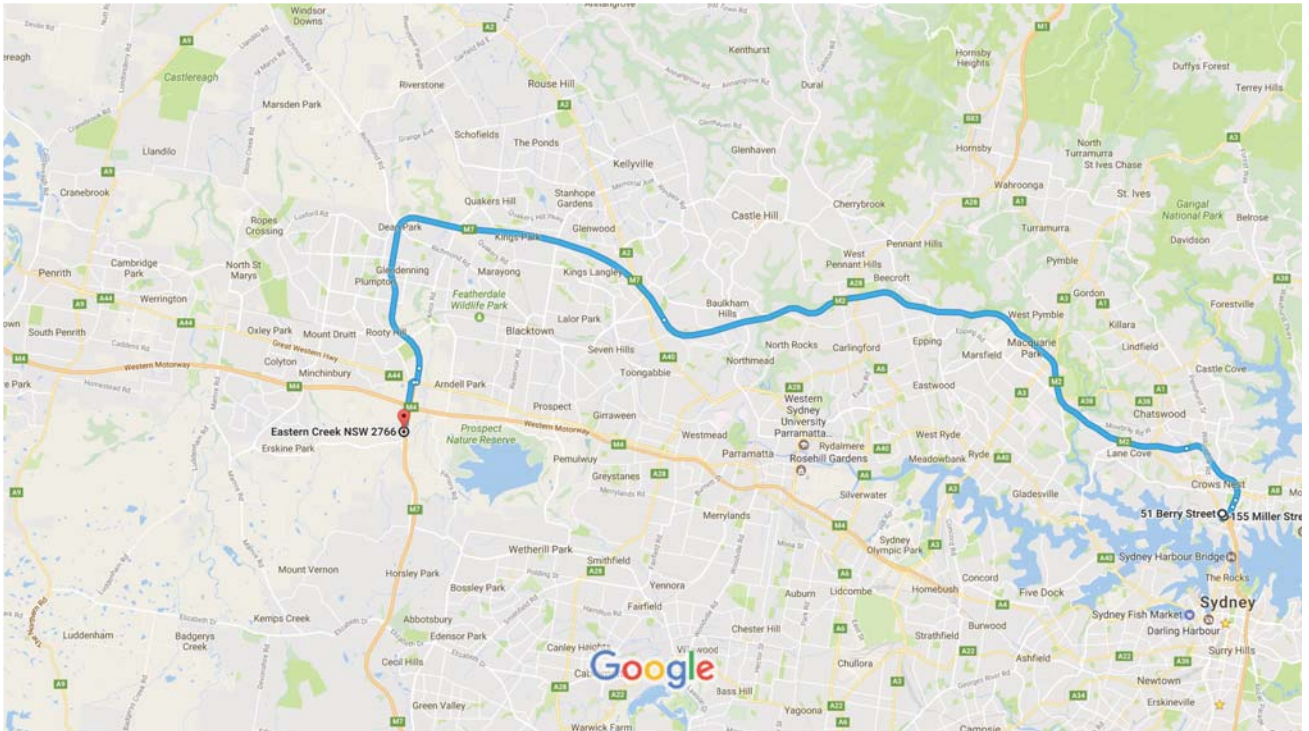
- 11. Turn right onto Miller St
ℹ Destination will be on the left
94 m

8 min (3.9 km)

155 Miller St

North Sydney NSW 2060

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



Map data ©2017 Google 2 km

155 Miller St

North Sydney NSW 2060

- ↑ 1. Head south on Miller St towards Pacific Hwy

120 m
- ↘ 2. Sharp right onto Pacific Hwy

290 m
- ↗ 3. Turn right onto Berry St
- ↑ 4. Head east on Berry St towards Miller St
2 min (650 m)
- ↙ 5. Use the left 2 lanes to turn left to merge onto M1 towards Chatswood/Epping/Newcastle 350 m

Follow M2 and M7 to Great Western Hwy/A44 in Bungaribee. Take the Gt Western Hwy/A44 exit from M7


32 min (47.0 km)

 6. Merge onto M1

290 m

 7. Keep left to stay on M1

3.4 km

 8. Keep right to continue on M2

 Toll road

24.5 km

 9. Continue onto M7

 Toll road

18.3 km

 10. Take the Gt Western Hwy/A44 exit towards Eastern Creek/St Marys

 Toll road

550 m

Drive to Wallgrove Rd in Eastern Creek

4 min (2.2 km)

 11. Use the 2nd from the left lane to turn right onto Great Western Hwy/A44

150 m

 12. Turn left onto Wallgrove Rd

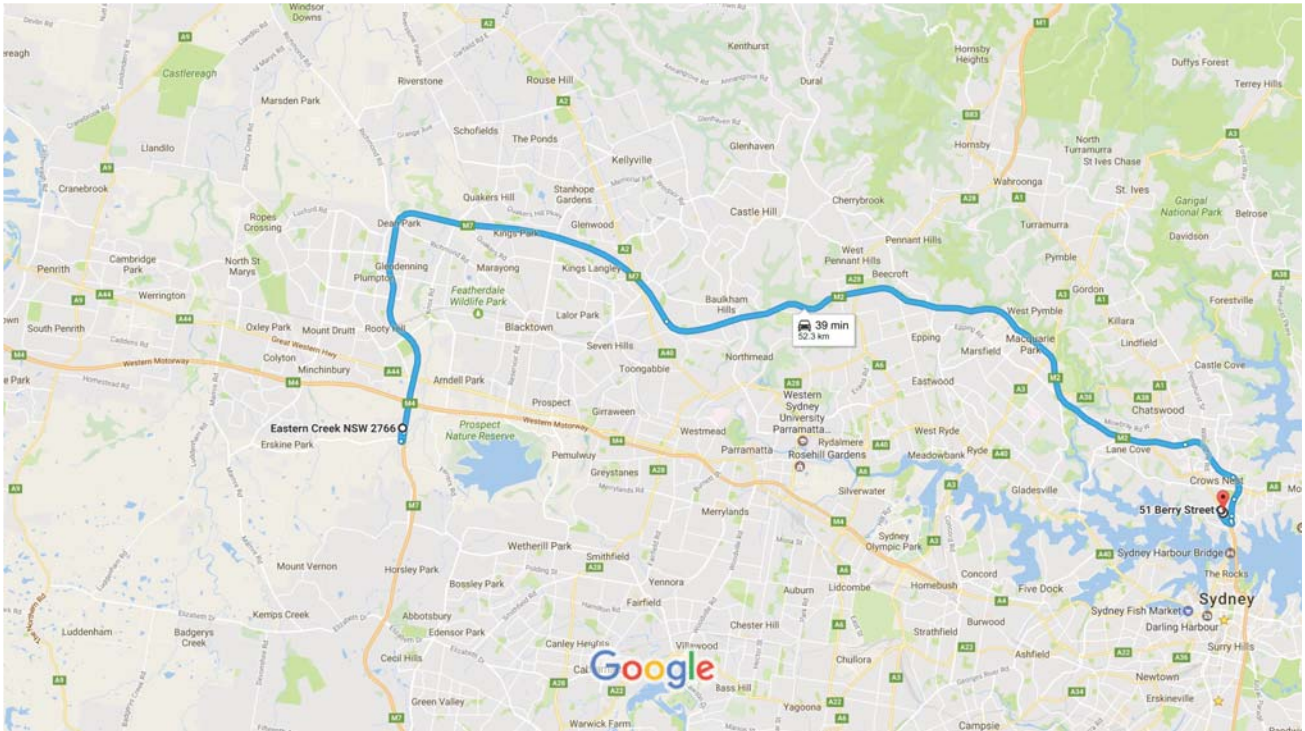
2.1 km

38 min (49.9 km)

Eastern Creek

New South Wales 2766

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



Map data ©2017 Google 2 km

Eastern Creek

New South Wales 2766

Get on M7

- 2 min (1.0 km)
- ↑ 1. Head south on Wallgrove Rd

- 550 m
- ↗ 2. Turn left to merge onto M7 towards Blacktown/NewCastle
- ⚠ Toll road

- 450 m

Follow M7 and M2 to Alfred St N. Take the exit for Nth Sydney/City E from M1

- 33 min (49.9 km)
- ↗ 3. Merge onto M7
- ⚠ Toll road

- 21.4 km
- ↑ 4. Continue onto M2
- ⚠ Toll road

- 24.2 km
- ↑ 5. Continue onto M1

- 2.6 km

- 6. Use the left 3 lanes to take the Nth Sydney/City E exit towards Cahill Expy
⚠️ Partial toll road
1.0 km
- 7. Keep left, follow signs for Alfred St/N Sydney/Neutral Bay and merge onto Alfred St N
700 m

Take Pacific Hwy to Berry St

- 8. Merge onto Alfred St N
4 min (1.3 km)
180 m
- 9. Keep left to stay on Alfred St N
92 m
- 10. Use any lane to turn slightly left onto High St/Pacific Hwy
📘 Continue to follow Pacific Hwy
900 m
- 11. Turn right onto Berry St
📘 Destination will be on the left
110 m

- 12. Head east on Berry St towards Miller St
39 m
- 13. Turn right at the 1st cross street onto Miller St
📘 Destination will be on the left
94 m

33 s (130 m)

155 Miller St

North Sydney NSW 2060

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Appendix 5 Road safety audit



22 YEARS OF
EXCELLENCE

Road Safety Audit Report



Location: **Miller St, Berry St & Denison St, Sydney**

Project: **Sydney Metro City & South West
Victoria Cross Southern Site**

Stage: **Desktop Traffic Management Audit**

Clients: **Sue Lewis / Delta Group**

Report Issue Date: 20/03/2017



Road Safety Audits

8/79 Manningham Rd
Bulleen, Victoria 3105
ABN 86 216 469 930
www.rsaudits.com.au

Contact

Raj Muthusamy
(03) 9852 4700
raj@rsaudits.com.au

FORENSIC
PRACTICAL
INDEPENDENT

Road Safety Audit Report

Miller St, Berry St & Denison St, Sydney
Sue Lewis / Delta Group

RSA Reference: RSA-05472



Google Maps

Document Record

Issue	Delivered	Senior Auditors	Primary Contact	Notes
A	20/03/2017	Raj Muthusamy Peter Harris	Raj Muthusamy	Nil



Road Safety Audits
rsaudits.com.au
© Road Safety Audits Pty Ltd 2016

The information contained in this document is confidential and intended solely for the client for the purpose for which it has been prepared. Use of or copying this document in whole or part without the written permission of Road Safety Audits P/L constitutes an infringement of copyright. The intellectual property contained in this document remains the property of Road Safety Audits P/L.



CONTENTS

Introduction	4
Road safety audit: overview	4
Road safety audit team.....	4
Documentation provided for audit	4
Scope of Audit.....	5
Scope: General.....	5
Audit Findings and Recommendations.....	6
Concluding Statement.....	8
Responding to the Road Safety Audit	9
References.....	9

INTRODUCTION

This is a desktop traffic management plan road safety audit of the proposed Victoria Cross Southern Site traffic staging (Stage 2) as part of the Sydney Metro City & South West Project.

This audit was undertaken by Road Safety Audits P/L, commissioned by Sue Lewis / Delta Group. The audit was carried out in accordance with "Austroads Guide to Road Safety, Part 6: Road Safety Audit 2009" guidelines, AS1742.3 2009 Manual of Uniform Traffic Control Devices Part 3" and NSW Traffic Control at Work Sites V. 4.0 (June 2010)

ROAD SAFETY AUDIT: OVERVIEW

A road safety audit is an independent examination of a design or condition to evaluate potential safety issues for all road user types. It is typically done by a team of suitably qualified people and often provides suggestions for consideration by the designer / client / project team.

A road safety audit is fundamentally a subjective qualitative process highly influenced by the experience and views of the individual team members. RSA P/L's quality assurance process utilises customised checklists designed for niche areas in traffic engineering/road design (e.g. channelized intersections, signalised intersections, safety barriers), in conjunction with a four-layer audit process: 1. on-site evaluation; 2. media and data capture and review; 3. specialist auditor input; and 4. secondary blinded reviews.

The purpose of a road safety audit is to raise potential safety issues, not to check compliance with guidelines and standards. However, at times this is done if the guideline or standard has a strong basis in safety and is highly relevant to the context of the issue being examined.

Generally, a road safety audit only raises issues and does not compile a list of 'project elements considered' where there is no actual safety issue being raised. However, at times RSA P/L will provide a section 'key issues considered for the project where no issues were raised' near the end of the issues table. Where provided this is intended to give the reader a level of comfort that particular aspects were considered.

ROAD SAFETY AUDIT TEAM

The road safety audit was carried out by Raj Muthusamy and Peter Harris. Raj Muthusamy and Peter Harris carry out road safety audits full-time in various states of Australia and have extensive experience in all stages of road safety audits leading or participating in several hundred audits and risk assessments every year. Both auditors have Level 3 Road Safety Auditor accreditation in NSW.

DOCUMENTATION PROVIDED FOR AUDIT

The following drawings were provided:

- o Delta Group Construction Traffic Management Plan – Victoria Cross Southern (VC2) Site report dated March 2017 (DD-SYDM-TMP-0002) which included the drawings numbers listed below.
 - o TYP-0000-02 Rev B-00, 03 & 04 both Rev A-00
 - o DD-SYDM-DWG-0002-01, 05 & 06 all Rev A-00, 02 to 04 all Rev B-00.

SCOPE OF AUDIT

SCOPE: GENERAL

Senior auditors at RSA P/L typically apply a high experience base and attempt to focus on 'big-picture' safety issues. These are issues that fundamentally affect road safety based on road user behaviour and expectations, not merely checking compliance to road design guidelines. "A Road Safety Audit is not a check of compliance to standards. Rather than checking for compliance, a road safety audit is checking fitness for purpose: will the road or treatment work safely for its expected road users?" (AGRS RSA 2009)

The scope is generally limited to the safety effects of the proposed traffic management measures and does not look beyond the limits of works to try to improve substandard conditions outside of the general scope of the works.

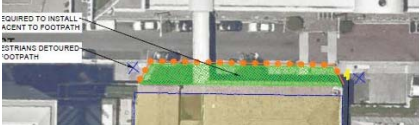
The scope of this assessment is to undertake a road safety audit on the proposed traffic management plan to facilitate demolition activity at the subject site.



AUDIT FINDINGS AND RECOMMENDATIONS

Point No.	Issue	Suggestion	Sue Lewis/Delta Group Response	
			(A)Accept / (R)Reject	Comment / Status
Road Safety Audit Findings				
The audit did not identify any significant road safety concerns with the proposed traffic management plan.				
1.	Southbound traffic on the kerbside lane of Miller Street approaching Berry Street is advised via the lane status sign and the legal R2-9 sign that they can only turn left. The proposed IFAS sign immediately south of the intersection with the arrow to the right conveys a message that merging within the intersection is permitted.	It is suggested that the IFAS sign be omitted and the closed lane be delineated via static chevron sign.	Accept	Drawing amended
2.	Trucks will be entering and exiting the site off Miller Street. There is no advance signage indicating the truck exiting and entering activity.	Include symbolic truck warning signs on approach to the demolition activity vehicle entry/exit point on Miller Street (for southbound traffic only).	Accept	Drawing amended
3.	Noted that pedestrians are being diverted towards the kerb whilst the work area occupies part of the footpath along the western side of Miller Street.	Confirm that there will be adequate width along the narrowed pedestrian space to cater for current usage levels, including disabled users.	Accept	There will be adequate width during the works – as there is currently 9m approximately between the work site and front of kerb
4.	It is noted that pedestrians are being diverted onto the existing indented parking area on the southern side of the eastern leg of Berry Street. It is not obvious if ramping will be provided to facilitate pedestrian and wheel chair movements across the indented parking and back onto the footpath.	Ensure that temporary kerb ramps are included where pedestrians have to traverse from the footpath to road level and back onto the footpath.	Accept	Drawing amended



Point No.	Issue	Suggestion	Sue Lewis/Delta Group Response	
			(A)Accept / (R)Reject	Comment / Status
5.	Following on from point 4, the deviated pedestrian path onto the indented parking brings pedestrians closer to traffic and exposes pedestrians to eastbound traffic on Berry Street.	Given the low operating speeds along Berry Street, the proposal to delineate and separate the pedestrian path is considered to be tolerable. However, this can be an on-going maintenance issue when bollards get moved or knocked over by pedestrians. It would be preferable if water filled barrier was installed instead of the bollards.	Reject	The works will only occur at night and TC will be in place to pick up any bollards that may get knocked over
6.	<p>Pedestrians are being directed to cross to the eastern side of Denison Street due to the footpath closure on the western side. It is expected that pedestrians will not cross to the other side, instead choosing to walk on the road adjacent to the closed footpath.</p> 	It is understood that Denison currently operates as a shared zone and has a 10km/h speed limit. Given this condition, it is considered to be acceptable to have pedestrians on the road alongside the closed section of footpath.	Accept	No change to drawing/ CTMP

CONCLUDING STATEMENT

The audit has attempted to balance the safety needs of all road users within the site/design constraints. As per Austroads guidelines, the suggestions provided have attempted to be realistic/feasible and commensurate with the actual risk posed. Although it attempts to raise all potential safety risks, this is generally not practicable due to a limited knowledge of the site and the design. Agreement to the issues and/or suggestions does not necessarily eliminate risk.

A road safety audit is fundamentally a subjective qualitative process highly influenced by the experience and views of the individual team members. It is expected that the project team has competence to incorporate any audit findings into the broader design-risk decision process and to ask the audit team further questions where necessary.

Raj Muthusamy



20/03/2017

Senior Road Safety Auditor
CPEng, RPEQ, NER, BE (Civil)

Peter Harris



20/03/2017

Senior Road Safety Auditor
CPEng, RPEQ, NER, BE (Civil), BB (Bus. Admin)

RESPONDING TO THE ROAD SAFETY AUDIT

Although the client receiving the report does not have to agree to the audit findings/suggestions, the issues and associated risks should be carefully considered. A written response should be made to all of the audit findings raised, then signed off by the responsible person from the project team.

RSA P/L does not change the audit findings or sign off on the project's responses. However, if a finalisation meeting has not been commissioned by the client, the client is **encouraged to provide the responses to RSA P/L to check that each audit point has been fully understood.** Also, the responses can be used by RSA P/L for their knowledge and possible use on future audits for this project.

REFERENCES

Relevant guidelines, standards, laws, and policy documents

Road Safety Audit

- Austroads Guide to Road Safety – Road Safety Audit – 2009
- AS1742.3 2009 Manual of Uniform Traffic Control Devices Part 3"
- NSW Traffic Control at Work Sites V. 4.0 (June 2010)



Road Safety Audits

An aerial photograph of a complex highway interchange with multiple lanes, overpasses, and ramps. The image is partially obscured by the text overlay.

**Practical
Thorough
Prompt**

Appendix 6 Review comments

CTMP Review Comments Sheet

Project Title	Sydney Metro City & south west – Demolition Contract		
CTMP Title:All	Document Number:	DD SYDM CTMP	A-
Reviewer: Alan McNamara TfNSW	Responder:	Sue Lewis	
Date:27 February 2017	Date:	27 February 2017	

Item	Section/ Page	Comments	Response	Status
1	P6 1 st Paragraph	The correct document name is Construction Traffic Management Framework (CTMF).	Document amended	Closed
2	S2.1.2	Mowbray Road – while it is a Regional Road, they generally fall under Councils care and control	This comment relates to the Chatswood Dive Site but is also applicable to all CTMP for the project. After our discussions with North Sydney Council on regional roads it was noted that although the road comes under the care of council, the control is exercised only with RMS consent to proposals – document amended	Closed
3	S2.1.4	Bryson Street – for consistency, even though no speed limit is posted the default speed limit would apply	This comment relates to the Chatswood Dive Site but is also applicable to all CTMP for the project. Document amended where required	Closed
6	S2.2.2.1	Scaffolding and Hoarding branding should be covered to be in line with Sydney Metro requirements.	This comment relates to the Chatswood Dive Site but is also applicable to all CTMP for the project. Scaffolding and hoarding layout shown to ensure that appropriate path widths and sight lines are maintained. The branding	Closed

Item	Section/ Page	Comments	Response	Status
			is a discussion between the relevant Council and TfNSW – no change to document	
7	S3.1	"Where possible' is fairly ambiguous. Any departure from the EIS should be clear.	This comment relates to the Chatswood Dive Site but is also applicable to all CTMP for the project. Document amended	Closed
8	S3.4	Queuing of trucks will be avoided how? Is there a staging area set aside prior to 7am? If this can be detailed or shown on plan	This comment relates to the Chatswood Dive Site but is also applicable to all CTMP for the project. No – there is 1 truck which will arrive post opening of the site	Closed
9	General	A section on traffic controllers, when/how/what they will be implemented for and what standards/procedures will they follow.	This comment relates to the Chatswood Dive Site but is also applicable to all CTMP for the project. This is covered under the Construction Traffic Management Framework and is not repeated here as this CTMP is in accordance with the CTMF	Closed
10	General	Section on Approvals and how they will be achieved also how changes will be managed. Coordination with stakeholder etc (TCG, TTLG etc)	This comment relates to the Chatswood Dive Site but is also applicable to all CTMP for the project. This is covered under the Construction Traffic Management Framework and is not repeated here as this CTMP is in accordance with the CTMF	Closed

CTMP Review Comments Sheet

Project Title	Sydney Metro City & south west – Demolition Contract
----------------------	---

CTMP Title: Victoria Cross South Site

Document Number:

DD SYDM CTMP 0002 Chatswood A-

Reviewer: Alan McNamara TfNSW

Responder: Sue Lewis

Date: 7 March 2017

Date: 7 March 2017

Item	Section/ Page	Comments	Response
1	No Reference provided	Check spelling of Denison	Document amended
2	No Reference provided	Can we make clear whether the northern end of Denison Street is a Shared Zone?	Council have clarified and report amended
3	No Reference provided	Are hoarding plans in appendix 2 up to date? Do they match what was communicated at TCG on 28 Feb 2017	Yes
4	Section 2.2.2	Amend section to reflect that Berry Street no longer proposed as point of access	This was included in the version B document sent Monday 6 March – refer to Section 2.2.2
5	Section 2.2.2.1	Check accuracy of contents	This was the revised scaffolding layout
6	Section 2.2.7	Clarify in this section process for which ROL will be secured is, through TMC in all cases or council for road opening permits	This process would be more suitable to be documented in the Construction Traffic Management Framework

Item	Section/ Page	Comments	Response
7	No Reference provided	Routing/ access – can we make clear that the proposal left in/ left out access via Miller Street differs from the EIS and why that it is acceptable	Document to be amended
8	No Reference provided	Need to talk about special events and how these will be planned for/ responded to	This was included in the version B document sent Monday 6 March – refer to Section 2.2.9
9	No reference provided	Link this CTMP back to the CTM Framework document	Section 1.2 already contains this link and is common to all documents. For clarity, this has now been relocated to Section 12
10	No reference provided	Acknowledge Principals general specification G10 Traffic and Transport Management	Section 1.2 already contains this link and is common to all documents. For clarity, this has now been relocated to Section 12
11	No reference provided	Need to provide details of staff and HV movements	This is already included within Section 2.27. New table included in Section 3
12	No reference provided	Vulnerable road users needs to be addressed	Refer to Section 2.2.5
13	No reference provided	If no changes are required to traffic signals please acknowledge	Discussed with SCO – CTMP should capture works to be done only
14	No reference provided	Acknowledge all documents summarised in G10: a) RMS Traffic Control at Worksites Manual b) Relevant Australian Standards	Refer to Section 12

Item	Section/ Page	Comments	Response
		<ul style="list-style-type: none"> c) RMS Supplements to Austroads and Australian Standards d) Sydney Metro Principal Contractor Health and Safety Standard 	
15	No reference provided	Acknowledge peak period haulage minimisation as per SSI Condition E80 – 7-10AM and 4-7PM	Refer to Sections 2.2 and 2.3
16		Include ref to queuing of trucks on roads external to the work site will not be permitted	Refer to Section 3.4
17	Section 2.1.1	Parking impacts section needs to respond to SSI Condition E86 and how we satisfy it	It is noted under the allocation of conditions provided by TfNSW that E64 (the Business Management Strategy) is not allocated to the Contractor. Therefore, the requirement of E86 is not relevant to this CTMP
18	No Reference provided	Needs review comments table	Document amended
19	Section 1.2	Top of page correct document name is Construction Traffic Management Framework (CTMF)	This is already done in the B version sent 6 th March 2017
20	Section 2 and figure 2	The Victoria Cross north site is not shown in red in the figure	This CTMP is purely based on the Victoria Cross South Site as per the CTMP title
21	2.1`.1	Paragraph 1 – include “in this section of the road” after 40km/hr	Document amended
22	2.1.1	Paragraph 3 – include Taxi Zone to the parking restrictions across the frontage of the site	Document amended

Item	Section/ Page	Comments	Response
23	2.1.2	Footpath width of 2m is that correct?	
24	2.2.2	Operating conditions and Figure 3 – the figure shows the need to relocate the parking meter, however, there is no discussion on if it is to be relocated, removed or retained	Document amended
25	2.2.2	Operating conditions paragraph 2 – will need more detail and potential restrictions for Berry Street access. RMS is unlikely to approve reversing into the site during network peak periods	This is already done in the B version sent 6 th March 2017
26	3.2	Councils generally issue permits for local/ regional roads such as Miller St – this should be confirmed	Refer to section 2.2.11
27	4.3	Public transport interruptions should also be directly discussed with bus operators and Council prior to them occurring	Agree but we are not interrupting bus operations at this location
28	Appendix 2	The hoarding plan indicates the class B hoarding occupying the parking bay. Is the class B hoarding to be erected over the parking bay in Berry Street	The hoarding plan provided is indicative only. The typical cross section provided in the appendix shows the hoarding location in relation to the footpath. The parking bay will not be affected
29	Appendix 3 TCP	Southbound slow lane closure – the kerb lane north of Berry Street could still provide for the left turn into Berry Street? is it possible to start the lane closure after the intersection	Drawing amended

CTMP Review Comments Sheet

Project Title	Sydney Metro City & south west – Demolition Contract
CTMP Title: Victoria Cross South Site	Document Number: DD SYDM CTMP 0002 B 00
Reviewer: North Sydney Council	Responder: Sue Lewis
Date: 15 March 2017	Date: 15 March 2017

Item	Section/ Page	Comments	Response
1	2.2.1 & Appendix 2	The applicant must contact Council's Parking Meter Manager on 9936 8100 a minimum of two weeks prior to construction of the temporary driveway to arrange relocation of the parking meter infrastructure in Miller Street	Noted and document amended
2	2.2.1	A street opening permit shall be submitted for the pre-commencement works involving the removal of the marble garend beds in front of the site	Noted and document amended
3	2.2.2	Approval must be obtained from Council for all temporary construction vehicular crossings. Application form is available on Council's website at https://www.northsydney.nsw.gov.au/Building_Development/Building_DA_Forms/General_Forms#9	Noted and document amended
4	2.2.2	Truck movements during peak pedestrian periods shall be minimised as far as possible. Peak periods are between 8am-9.30am; 12pm-1pm; 3pm-5.30pm	Noted and document amended
5	2.2.2 & Appendix 2	Miller Street driveway is shown as 18 metres wide. This is considered excessive and creates a greater conflict zone for pedestrians and heavy vehicles as well as impacting on parking. The turning paths are shown on DD-SYDM-DWG-0002-03. The egress path could be shifted further north which will reduce the required width of the driveway and minimise the area of conflict	Driveway has been reduced to 10m

Item	Section/ Page	Comments	Response
6	2.2.5 & Appendix 2	The hoarding plan DD-SYD-DWG-0002-04 shows the B-Class hoarding extending out to the kerb line. This will affect all of Council's footpath which will make pedestrian access difficult and is considered excessive. Council also has a distribution box located within the proposed hoarding. Delta met with Council's Development Landscape Officer in February 2017 and it was indicated that the hoardings would be placed in line with the property boundaries. The hoarding in front of the jeweller building would be moved in-line with the other property lines once that building is demolished. This does not appear to be reflected in the Draft CTMP.	TfNSW and Delta have identified these areas as the main pedestrian thoroughfares that need protection.
7	2.2.5 & Appendix 2	Approval must be obtained from Council for all temporary construction hoardings. Application form is available on Council's website at https://www.northsydney.nsw.gov.au/Building_Development/Building_DA_Forms/Construction_Forms#4	Noted and document amended
8	2.2.6 & 2.2.10	Demolition of the footbridge will require a Stand Plant/Road Closure Permit. The application is downloadable from Council's website at https://www.northsydney.nsw.gov.au/Building_Development/Building_DA_Forms/Construction_Forms	Noted and document amended
9	2.2.10	All trucks must enter and leave the site under the direct supervision of two RMS accredited traffic controllers, one to direct heavy vehicle movement in and out of the site and one to ensure no pedestrian enters the path of a heavy vehicle	Agreed and document amended
10	General – Street trees	The CTMP does not indicate any impacts on existing street trees. We request details of any street trees that may be affected to be forwarded as soon as possible for consultation with Council's Tree Management Officer (Phone 9936 8100).	Document amended – 2 street tree will require removal. one of the street trees was discussed at the 2 nd meeting with Council, TfNSW, RMS on the 17 February 2017
11	Conditions of approval	9. Accesses to adjoining properties are to be maintained at all times.	Suggest amendment: Unless agreed otherwise with the affected party and/ or Council

Item	Section/ Page	Comments	Response
12	Conditions of approval	11. At no time shall Miller Street, Denison Street, Berry Street or any other road or Council property be blocked by any vehicle or works associated with the construction of the proposed development. Through traffic on Miller Street, Denison Street, Berry Street and any other road is to be maintained at all times.	Suggest amendment: Unless agreed otherwise with RMS/ SCO and Council

CTMP Review Comments Sheet

Project Title	Sydney Metro City & south west – Demolition Contract
----------------------	---

CTMP Title: Victoria Cross South Site

Document Number:

DD SYDM CTMP 0002 B 00

Reviewer: Peta Smith

Responder: Sue Lewis

Date: 15 March 2017

Date: 15 March 2017

Item	Section/ Page	Comments	Response
1	2.2.5	Doesn't discuss any impacts to pedestrians on Berry Street. Is DD-SYDM-DWG-0002-06 a short term TCP?	Yes TCP 06 is short term – there will be minimal to no impacts to Berry Street pedestrian traffic.
2	DWG 0002-05	For what work types/ times is the proposal for a Miller Street lane closure planned	Refer to Appendix 3
3	DWG 0002-06	It is unclear when this TMP will be implemented. For individual shifts or weeks whilst the hoarding is installed? Appropriate pram ramps should be provided on either approach to enable pedestrians to access the indented parking bay on Berry Street It is unclear the intention of the flashing arrow sign on Berry Street. Is this to deter motorists from utilising this lane on Berry Street. If this is a longer term closure, has consideration been given to a more appropriate safety barrier for pedestrians than bollard as there is no kerb?	Refer to Appendix 3 – these are short term closures to allow awning removal/ installation of scaffolding and hoarding The flashing arrow unit was to highlight the closure – it is not a long term closure.
4	TYP- 0000-02	Consideration should be given to utilisation of pedestrian barriers during truck egress as well as entrance	Drawing amended
5		The hoarding and scaffold plans reference photos that aren't provided in the TMP	Drawing amended

6	The haulage route from Kimbriki tip back to the site utilises local roads within North Sydney Council area rather than the state road network	Drawing amended
---	---	-----------------

COMMENTS REGISTER

Report Name:	Construction Traffic Management Plan Victoria Cross Southerm (VC2) Site		
Author:	Sydney Metro Chatswood to Sydenham		
Version:	Revision B-01		
Date Received :	15/03/17		
Section	Issue	Stakeholder Comment	DELTA Response
General	Pedestrian safety	As per the EIS It is the preference of the Coordination Office that vehicles leave the site via Denison Street due to the number of pedestrians that use the Miller Street footpath. However, due to the low number of vehicles exiting the site during the demolition phase and as North Sydney Council preference at this stage is for a Miller Street entry and exit the Coordination Office has no objection to a Miller St exit provided the company implements a safe system for when trucks are coming in/out of the site.	Noted
2.1.1	Pedestrian width	Whilst the effective pedestrian width at some locations along Miller Street may be 2m, there is plenty of footpath to cater for the high pedestrian demand when approaching the Berry St/Miller St intersection. If only 2m of footpath were provided this may result in safety and traffic efficiency issues at the intersection. There is need to provide enough footpath for the pedestrian demand at this location.	Document amended with correct footpath widths
2.2	Operating conditions	Provide diagram showing any kerbside changes associated with the driveway installation and operation.	This was included in Appendix 1 DD-SYDM-DWG-0002-02
2.2	Operating conditions	As the proposal outlined in the TMP deviates from the determined EIS a consistency report will need to be produced covering this change before this CTMP will be approved. Approval from the Co-ordination Office to make the change from the EIS to the proposed is for demolition works only.	Noted
2.2.3	Impact on traffic flows	Delivery of machinery that cannot be undertaken via the driveway should be conducted over night or on weekends to ensure no impact to the traffic and transport network.	Document amended
2.2.5	Impact on pedestrians and cyclists	Although the cyclist facilities on Miller St are not impacted cycling groups should be contacted and informed on changes.	Document amended

2.2.10	TCP and ROL identified works	<p>A number of these activities may require additional approval from council.</p> <p>The second item refers to oversized / over dimensional vehicles. Please advise what this is for, is the intention to have an over mass or oversize vehicle into the site ? If this is the case there is need to include in the body of the TMP.</p> <p>Has the plan and timing for the installation of the tower crane been confirmed ? Any closures may need approval from North Sydney Council traffic committee, as well as an ROL</p>	Document amended. We are still in discussions with the crane operators.
4.1	Road safety audits	There is need to include road safety audits in draft TMPs, please include. This may result in further comments being submitted.	Noted – to be submitted with CTMP for Marrickville and Waterloo and other CTMP that may need to be developed for the works
4.2	Emergency Services	Please include in this section how the company intends to advise the emergency services of their activities.	Document amended
4.4	External Events	<p>How is this section different to 2.2.9 ?</p> <p>The company is to facilitate special events. TMC would not issue ROLs that may impact on during special events.</p>	Section removed
4.7	On Site contacts	This section is currently blank. There is need to have 24 hour contacts should an emergency arise.	Document amended
Appendix 3	TCPs	<p>The company will require TCPs when applying for ROLs.</p> <p>Proposed DD-SYDM-DWG-0002-05 will severely impact the intersection's performance as southbound approaching Berry St turning left will do so from lane 2. This traffic will be stopped by pedestrians and hence will stop the through traffic. Consider making the kerbside lane a left turn only on approach instead. There is need to provide enough room for right turners from Berry St into Miller St as well.</p>	Noted – drawing amended
Appendix 5	Road Safety Audit	Please provide road safety audits in draft TMP submissions. Once provided this may generate further comments.	Noted – to be submitted with CTMP for Marrickville and Waterloo and other CTMP that may need to be developed for the works

CTMP Review Comments Sheet

Project Title	Sydney Metro City & south west – Demolition Contract
----------------------	---

CTMP Title: Victoria Cross South Site

Document Number:

DD SYDM CTMP 0002 B 00

Reviewer: North Sydney Council

Responder: Sue Lewis

Date: 3 April 2017

Date: 4 April 2017

Item	Section/ Page	Comments	Response
1	2.2.1 & Appendix 2	The applicant must contact Council's Parking Meter Manager on 9936 8100 a minimum of two weeks prior to construction of the temporary driveway to arrange relocation of the parking meter infrastructure in Miller Street Council's response to amendment was "Conditional"	Document amended to include 2-week timeline and Contact details
	2.2.2	Truck movements during peak pedestrian periods shall be minimised as far as possible. Peak periods are between 8AM-9.30AM, 12PM-1PM, 3PM-5.30PM. Conditional agreement – refer also to condition E80 of CSSI (E80: The proponent must minimise truck movements during peak periods within commercial centres. Peak period are 7am-10am and 4pm to 7pm Monday to Friday)	It is noted that Condition E80 is not allocated to the Contractor by TfNSW. Table 2 of the CTMP compares EIS forecasted vehicle movements to DELTA forecasted movements with a significant decrease in vehicle numbers proposed by DELTA
5	2.2.2 & Appendix 2	Partially. Driveway reduced to 10m wide. Location of driveway should be positioned to minimise impacts on parking bays ie in place of 2 full parking bays instead of 3 overall (1 full and 2 partial)	Driveway sited to allow retention of existing street light. Parking bays to be removed for site access arrangements is a total of #4. Trees to be removed include 2 street tree and palms in planter box.
6	2.2.5 & Appendix 2	Hoarding still too far out. Appendix 2 shows B-class hoarding along kerb line. Hoarding should be placed at building line. Why is a B Class hoarding	Delta and TfNSW believe that areas that act as main public thoroughfares should be protected with 10kPa

Item	Section/ Page	Comments	Response
		necessary on Miller Street and Berry Street? Why does the hoarding occupy so much more of the Council footpath compared to other construction sites.	overhead protection. These are areas adjoining kerbs. Location of B-Class hoarding will be as per Council and industry standards (ie: 600mm from the face of kerb
7	2.2.5 & Appendix 2	Approval must be obtained from Council for all temporary construction hoardings. Application form is available on Council's website at https://www.northsydney.nsw.gov.au/Building_Development/Building_DA_Forms/Construction_Forms#4 Council response to the original response to comment is Yes and Conditional	It is unclear what the conditional agreement is based on. We have discussed the hoarding arrangement with Council and will submit a Hoarding application for Council approval.
8	2.2.6 & 2.2.10	Demolition of the footbridge will require a Stand Plant/Road Closure Permit. The application is downloadable from Council's website at https://www.northsydney.nsw.gov.au/Building_Development/Building_DA_Forms/Construction_Forms Council response to the original response to comment is Yes and Conditional	The Conditional agreement is not spelt out and therefore DELTA are unable to comment on this
9	2.2.10	Reference error in section	Document amended
10	General – Street trees	The CTMP does not indicate any impacts on existing street trees. We request details of any street trees that may be affected to be forwarded as soon as possible for consultation with Council's Tree Management Officer (Phone 9936 8100).	Drawing amended. 2 street trees and 3 palms in the existing planter box will be removed
New Comments			
1	Appendix 2 DWG-0002-02	Plan shows Work Zone signs across driveway. These should be No Stopping signs. locations and layout of signposting to be determined by Council. Also refer to comments above re: driveway location (Section 2.2.2)	Work Zone signage has now been removed.
2	Conditions of Approval	Conditions of approval updated: "unless agreed otherwise with the affected party and Council"	Noted

Item	Section/ Page	Comments	Response
3	Conditions of Approval	Agreed. Conditions of approval updated	Noted

From: McNamara, Alan
To: [Alan McNamara](mailto:Alan.McNamara)
Subject: FW: CTMP for Victoria Cross South
Date: Thursday, 1 June 2017 5:09:46 PM

From: RAMIREZ Giovanni [<mailto:Giovanny.RAMIREZ@tmc.transport.nsw.gov.au>]
Sent: Thursday, 1 June 2017 3:41 PM
To: Ben Shum; Sue; O'Leary, Peter
Cc: SMITH Peta A; ISSA Steven C
Subject: CTMP for Victoria Cross South

Ben / Sue / Peter

In accordance with clause 2.3 (c) of the General Conditions, Schedule E3-Project Planning Approval and Conditions & the SMR E – Sydney Metro City and Southwest Demolition Contract the Roads and Maritime Service of NSW and the Sydney Coordination Office approve the Sydney Metro City & South West Construction Traffic Management Plan Victoria Cross Southern (VC2) Site May 2017 Rev C-01 for demolition and related removal works for the Victoria Cross Site subject to the following requirements:

- Shall apply and obtain approval from the Transport Management Centre for Road Occupancy Licences (ROs) for any required lane closures and/or speed limit reductions;
 - Undertake lane closures and reduced speed limits only as per approved ROs/SZAs issued by the TMC;
 - North Sydney Council Metro Victoria Cross Site conditions of approval are met;
 - The Construction Traffic Management Plan being updated as required prior to construction commencing to ensure consistency with the final Construction Traffic Management Framework when it is approved
-
- Promptly addressing any CBD Taskforce and/or TMC and/or RMS issue that eventuates during the works

Regards

Giovanny Ramirez
Principal Manager Taskforce Operations
CBD Transport Taskforce | Sydney Coordination Office
Transport for NSW
T 02 8396 1460 M 0403 098 060
www.transport.nsw.gov.au

Transport for NSW

CBD Transport Taskforce
25 Garden St | Bio Medical Bldg | Eveleigh 2015

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit <http://www.symanteccloud.com>

This email is intended only for the addressee and may contain confidential information. If you receive this email in error please delete it and any attachments and notify the sender immediately by reply email. Transport for NSW takes all care to ensure that attachments are free from viruses or other defects. Transport for NSW assume no liability for any loss, damage or other consequences which may arise from opening or using an attachment.

 Consider the environment. Please don't print this e-mail unless really necessary.

This email (including any attachments) may contain confidential and/or legally privileged information and is intended only to be read or used by the addressee(s). If you have received this email in error, please notify the sender by return email, delete this email and destroy any copy. Any use, distribution, disclosure or copying of this email by a person who is not the intended recipient is not authorised.

Views expressed in this email are those of the individual sender, and are not necessarily the views of Transport for NSW, Department of Transport or any other NSW government agency. Transport for NSW and the Department of Transport assume no liability for any loss, damage or other consequence which may arise from opening or using an email or attachment.
Please visit us at <http://www.transport.nsw.gov.au> or <http://www.transportnsw.info>

Mr Stuart Hodgson
Principal Manager,
Program Sustainability Environment & Planning
Sydney Metro
Transport for NSW
PO Box 588
NORTH RYDE BC NSW 1670

17 June 2017

Ref: CTMP-Victoria Cross

Dear Stuart

RE: Endorsement of Construction Traffic Management Plan – Victoria Cross Southern (VC2) Site, Sydney Metro City & Southwest

Thank you for providing the following documents for Environmental Representative (ER) review and endorsement as required by the Condition of Approval E82 of the Sydney Metro City & Southwest project (SSI – 15_7400 January 9 2017).

- Construction Traffic Management Plan – Victoria Cross Southern (VC2) Site, (Revision C-01 dated 15 May 2017).
- Email dated 1 June 2017 stating *“In accordance with clause 2.3 (c) of the General Conditions, Schedule E3-Project Planning Approval and Conditions & the SMR E – Sydney Metro City and Southwest Demolition Contract the Roads and Maritime Service of NSW and the Sydney Coordination Office approve the Sydney Metro City & South West Construction Traffic Management Plan Victoria Cross Southern (VC2) Site May 2017 Rev C-01 for demolition and related removal works for the Victoria Cross Site”*

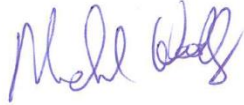
It is noted that the Roads and Maritime Service of NSW and the Sydney Coordination Office approval above is conditional on the following:

- Shall apply and obtain approval from the Transport Management Centre for Road Occupancy Licences (ROLs) for any required lane closures and/or speed limit reductions;
- Undertake lane closures and reduced speed limits only as per approve ROLs/SZAs issued by the TMC;
- North Sydney Council Metro Victoria Cross Site conditions of approval are met;
- The Construction Traffic Management Plan being updated as required prior to construction commencing to ensure consistency with the final Construction Traffic Management Framework when it is approved
- Promptly addressing any CBD Taskforce and/or TMC and/or RMS issue that eventuates during the works

As an approved ER for the Sydney Metro City & Southwest project, I have reviewed the above documents. The review did not comprise a technical review, as the ERs are not traffic experts. It is noted the document has had consultation as described in Table 3 and includes review comments and responses.

It is considered that the plan is generally consistent with Condition E82 and the Sydney Metro Construction Traffic Management Framework (CTMF) as referenced in Condition E81 of the Project Approval (subject to the above conditions being complied with).

Yours sincerely



Michael Woolley
Environmental Representative – Sydney Metro – City and South West