



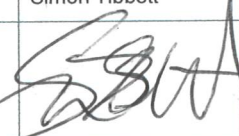

Construction Traffic Management Plan

Crows Nest Station Site Operations (Line-Wide Scope)

Line-wide Works Contract Sydney Metro City & Southwest

Project number:	C600
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Revision:	03

Document Approval

Rev.	Date	Prepared by	Reviewed by	Recommended by	Approved by	Remarks
A	28 May 2020	Mong Sim	Jason Bitmanis	Simon Tibbett	Scott Hunter	Initial submittal.
B	26 June 2020	Mong Sim	Jason Bitmanis	Simon Tibbett	Scott Hunter	Rev A comments.
C	10 July 2020	Mong Sim	Jason Bitmanis	Simon Tibbett	Scott Hunter	Rev B comments.
D	17 July 2020	Mong Sim	Jason Bitmanis	Simon Tibbett	Scott Hunter	Excluded Section 3.3.
0	27 July 2020	Mong Sim	Jason Bitmanis	Simon Tibbett	Scott Hunter	Approval.
1	9 Oct 2020	Mong Sim	Jason Bitmanis	Simon Tibbett	Scott Hunter	Additioan of Section of Section 3.3 for Hume St closure. Update of Section 2.2 and appendices.
2	23 Oct 2020	Mong Sim	Jason Bitmanis	Simon Tibbett	Scott Hunter	Detour and TCP refinement during Hume St closure.
3	23 Aug 2021	Mong Sim	Brian Donohoe	Simon Tibbett	Scott Hunter	Appendix H added.
Signature:						

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this plan is reviewed and approved. The Project Traffic Manager is responsible for updating this plan to reflect changes to legal and other requirements.

Amendments

Any revisions or amendments must be approved by the Project Director and/or client before being distributed/implemented.

Revision Details

Revision	Details
A	Issued to for stakeholder review.
B	Addressing Rev A comments in general. Main change in Rev B was footpath at Hume Street between Pacific Highway and Clarke St is open during Hume St closure. Section 3.3.1 is rephased to reflect these changes. Update to Section 3.3.3. One page detour map added to Appendix D. Update of TCPs to reflect signage positioning.
C	Minor comments. Trucks volume revision. Description work on Pacific Highway in Dec/Jan added on 3.3. Detour options added.
D	Removed the middle shed scope and App. D (Hume St cloure TCPs) from the CTMP. Middle shed removal will be addressed as an addendum in the next revision as more information comes available. Section 3.1.3 regarding bus operations is revised with the addition of a tabled summary.
0	TfNSW approval on 27 July.
1	Section 2.2 updated for the inclusion of daytime Pacific Highway SB Lane 1 closure on as required basis. Additional night time lane closure at Pacific Highway SB Lane 1 and 2 closure during the removal of site office. Section 3.3 added for the inclusion of Hume Street closure. Appendix F added for the TCS design details.
2	Hume St closure TCP updated without aerial. After hour TCP removed for simplicity as the detour plan has the same details.
3	Appendix H added. TCP added in Appendix H to allow a line pump truck to position itself on the Crows Nest Site B (by others) logistic footpath. The TCP is a modification of TCP # SC TCP 1000 in Appendix B without Pacific Highway northbound lane setup. The traffic setup is once for the arrival of the linepump and once for the departure of the line pump approx. 4 weeks later.

Table of Contents

1. PART A – Management Systems, Compliance and CTMP Overview	4
1.1. Structure of this Plan	4
1.2. Management and Planning Strategy	4
1.3. Compliance 4	
1.4. Relevant Legislation	5
1.5. LW Project Overview and Scope.....	5
2. PART B – Implementation	7
2.1. Crows Nest Station Site Operations (Line-Wide Scope)	7
3. Traffic and Transport Management	9
3.1. Part 1 – Rail section deliveries	9
3.1.1 Pedestrians/Cyclists	11
3.1.2 Business / Resident Access	11
3.1.3 Bus Operations11	
3.1.4 Emergency Services	12
3.2. Part 2 – Clarke Lane Closure (between Oxley Street and Hume Lane)	12
Clarke Lane	12
3.2.1 Pedestrians 14	
3.2.2 Business / Resident Access	14
3.2.3 Bus Operations14	
3.2.4 Emergency Services	14
3.3. Part 3 – Hume Street Closure	14
3.3.1 Pedestrians 15	
3.3.2 Business / Resident Access	15
3.3.3 Bus Operations15	
3.3.4 Emergency Services	15
4. Systems Connect and Stakeholder Key Contacts.....	16
5. Communications and Community Strategy	16
6. Working Hours.....	17
7. Manage Emergencies.....	17
PART C – Appendices.....	19
Appendix A. Current Site Conditions	19
Appendix B. TCP – Rail section Delivery	20
Appendix C. TCP – Clarke Lane Closure	21
Appendix D. TCP – Hume Street Closure	22
Appendix E. Compliance Matrix	23
Appendix F. Copy of correspondence (attach as required)	24
Appendix G. TCS details, additional TCPs	25
Appendix H. Line Pump TCP	26

1. PART A – Management Systems, Compliance and CTMP Overview

1.1. Structure of this Plan

This Construction Traffic Management Plan (CTMP) describes Systems Connect traffic management planning and compliance during the construction stage for the Sydney Metro City & Southwest.

Part A: Overview	This section clearly defines: <ul style="list-style-type: none">• Project Overview, Objectives, Management and Compliance• Overall project summary and overview
Part B: Implementation	This section outlines in detail the key aspects for Traffic Management on the Project including: <ul style="list-style-type: none">• Implementation Details• Traffic Impact Assessment• Transport Management• Communications
Part C: Appendices	This section provides the following Appendices: <ul style="list-style-type: none">• TCPs• Compliance matrix• Copy of correspondence

This Construction and Traffic Management Plan (CTMP) forms part of the Systems Connect Integrated Management Systems.

1.2. Management and Planning Strategy

This CTMP dictates the overall traffic management plan including resources, processes and procedures during construction of Sydney Metro Chatswood to Bankstown works.

This Plan aims to address the following objectives:

- Local road staging and traffic management plan
- Obtaining relevant approvals, whether from Local Council, Transport NSW (Sydney Roads), Sydney Coordination Office (SCO), Sydney Metro
- Specific community / stakeholder consultation process and community relations strategies for managing changed traffic conditions
- Potential road network impacts and the mitigation and management of them
- Auditing, inspections and monitoring the road network
- Fulfill the requirements of Principal's G10 Specification – Traffic and Transport Management
- Meet the contractual requirements
- Management of incidents
- Provide and facilitate a mechanism for the monitoring, ongoing regular review and updating of this CTMP.

1.3. Compliance

The CTMP is in compliance and is consistent with the following framework and applicable conditions. They are:

- Planning Approval Sydney Metro City and Southwest
- Critical State Significant Infrastructure (CSSI 7400 and 8256) and the CSSIs' associated Revised Environment Mitigation Measure
- Sydney Metro City and Southwest Construction Environment Management Framework
- Sydney Metro City and Southwest Construction Traffic Management Framework
- Sydney Metro's Crows Nest Station CTMP

1.4. Relevant Legislation

The key legislation relevant to traffic management includes:

- Environmental Planning and Assessment Act (EPA) 1979 Act
- The Roads Act 1993.
- Heavy Vehicle National Law 2014
- Work Health and Safety (WHS) Act 2011
- Principal's General Specification G10 – Traffic and Transport Management
- Traffic Control at Worksites Manual
- Relevant Australian Standards (AS) and Austroads Guidelines

1.5. LW Project Overview and Scope

Line-wide Works (LW) is delivered by Systems Connect, a CPB Contractors and UGL Engineering Joint Venture. Systems Connect is delivering LW in four distinct portions as follows, and as described in detail in Section 1.3.

- Portion 1 – SMTF (Tallawong) expansion works
- Portion 2 – SMTF South (Marrickville) stabling yard
- Portion 3 - Chatswood to Sydenham works
- Portion 4 – Sydenham to Bankstown works

The Sydney Metro City & Southwest (SMCSW) project will extend the current Sydney Metro Northwest which stops at Chatswood, to the CBD and to Bankstown.

The SMCSW project is being delivered through a series of contracts for the tunnels, stations, line-wide infrastructure and systems.

Line-Wide Works to be constructed by Systems Connect include:

- Tunnel works between Chatswood and Sydenham, comprising:
 - Tunnel track slab and rails;
 - High voltage reticulation, traction power and power control systems;
 - Earthing and bonding, electrolysis control and lightening protection measures;
 - Tunnel ventilation system;
 - Tunnel mechanical and electrical services;
- Northern Dive track slab and rails;
- Northern Dive Service Building works – Chatswood;
- Artarmon Substation Service Building works;
- Southern Dive Service Building works - Sydenham;
- Station civil works between Chatswood and Sydenham;
- Extension of the existing Sydney Metro Trains Facility – Tallawong;
- Construction of a new Sydney Metro Trains Facility (South) – Sydenham;
- Northern Connection works, tying the new Metro lines into the T1 North Shore Line – Chatswood.

LW is a key component of the SMCSW project, with works taking place over the full length of the project as shown in Figure 1 between Chatswood and Bankstown.

SMCSWLWC-SYC-SCN-TF-PLN-003978

2. PART B – Implementation

2.1. Crows Nest Station Site Operations (Line-Wide Scope)

The Crows Nest station site is enclosed between the Pacific Highway southbound – Hume Street– Clarke Lane– Oxley Street as shown on Figure 2.



Figure 2 – Locality map of Crows Nest Station.

The Crows Nest station site was assessed as one of the logistics point for Line-Wide tunnel fittings chain of work. The Crows Nest site activities are listed below but not limited to:

- rail sections temporary storage location
- rail sections welding temporary workshop
- logistics delivery point for tunnel fitting materials, equipment and components

During tunnel fitout, the site will operate as a logistics and tunnel access point. Typical delivery includes rail, concrete, precast elements; and mechanical & electrical tunnel components.

This CTMP is for Line-Wide scope of work only. At a later stage, Line-Wide traffic management is to adhere to the Principal Contactor's for the Crows Nest traffic management plan.

Access into the work site is via the existing acoustic shed (see Figure 3) off Pacific Highway southbound at the Hume Street intersection. Pacific Highway southbound kerbside lane is a transit way from Monday to Friday from 6am to 10am. Pacific Highway northbound kerbside lane is a transit way from Monday to Friday from 3pm to 7pm.



Figure 3 – View of the entry to the main shed looking from Pacific Highway



Figure 4 – View of the back of the main shed looking from Clarke Lane

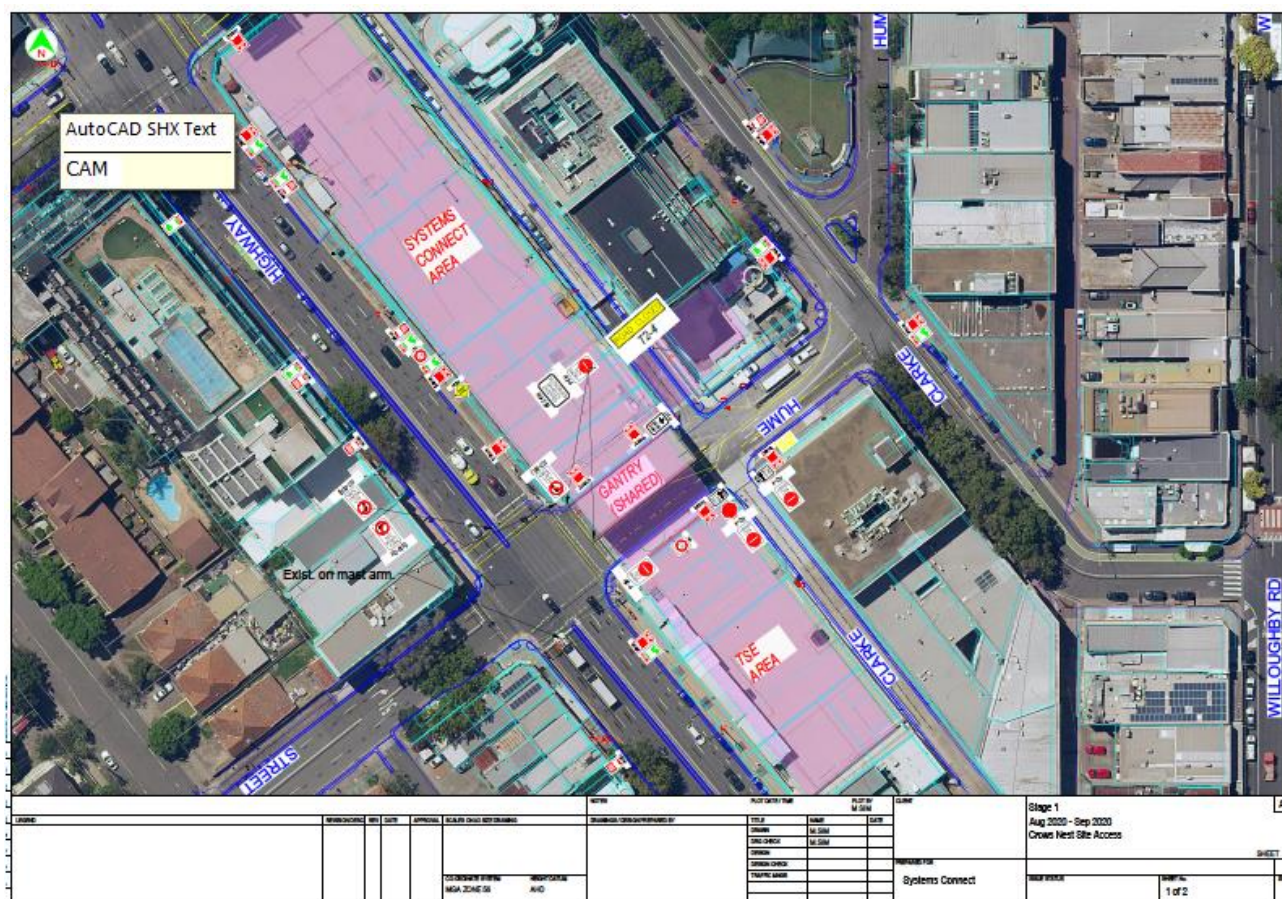


Figure 5 – Existing conditions at Crows Nest station vicinity (refer to Appendix A for details)

Below are the time line program for Line-Wide requiring various traffic management plan.

Date*	Traffic Management Type	Description	CTMP Section
August 2020 – October 2020	4 way stop at the intersection of Pacific Highway and Hume Street at night	20m long rail sections via extended 25m long semi trailers. 3-4 deliveries per week. Need up to 13 weeks to complete delivery	3.1
October 2020 – November 2021	Part 1. Road closure at Clarke Lane between Hume St and Hume Lane.	Existing lower shed removal (3 weeks)	3.2
November 2020 – December 2020	Part 2. Road closure at Clarke Lane between Oxley Street and Hume Lane	Existing upper shed removal (3 weeks)	3.2
December 2020- January 2021	Part 3. Road closure at Hume Street between Pacific Highway and Clarke Street. (This section will be addressed on the next revision of the CTMP).	Existing middle acoustic shed removal (3 weeks) (This section will be addressed on the next revision of the CTMP).	(on next CTMP revision)

*Date subject to change or move slightly.

3. Traffic and Transport Management

3.1. Part 1 – Rail section deliveries

Steel rail sections delivered to the Crows Nest tunnel site are coming from Newcastle NSW. The steel rails will then be welded on site and later transported in 100m long welded sections into the tunnel for track laying. These steel rail sections are coming in a 20m long section each are transported onto extendible trailers (25m long truck). These trucks will need additional turning radius and traffic control to enter the existing construction site

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Page 10 of 26

All directions of Pacific Highway and Hume Street will need to be momentarily stopped whilst these trucks make the turn into the shed. It is noted there is no right turn at the intersection for both directions. Frequency of the rail section delivery is 3-4 trucks per night over 3 nights per week over for the duration of 13 weeks. A total of 156 trucks will be needed for the steel rail delivery.

Delivery trucks will be staggered at least 1 hour apart to prevent the likelihood of queuing approaching the site. A delivery of only accepting 3- 4 trucks per night to control these trucks do not cause queuing within the closed lanes.

Trucks approaching the site will radio-in traffic controllers that are on standby along the area. Traffic controllers will allow truck to enter to the closed sections. Traffic controller will then stop all directions of traffic when it is safe to do so. Traffic controllers will let the truck to pull out from the closed off section and continue the turn into the site shed.

TCPs with turning radius checks (entering and exiting trucks) are attached on Appendix B for reference.

Truck route are via M1 – Pacific Highway exit – M1 - Alfred Street north exit - Pacific Highway – Crows Nest.

3.1.1 Pedestrians/Cyclists

Pedestrians if present along footpath at Pacific Highway southbound side at the Hume Street intersection will be temporarily stopped by traffic controllers on standby on the footpath during the truck turning movement for very short period. Pedestrians will be allowed to continue once the truck has safely entered the site shed.

3.1.2 Business / Resident Access

There are no impacted business or residents access during the work.

3.1.3 Bus Operations

Bus stops along Pacific Highway at Crows Nest have the following bus routes – route 143, 144, 252, 254, 257, 265, 286, 287, 290, 291 and 320. Lane closure at Pacific Highway is after 22:00. Bus routes that still operates after 22:00 are route 144, 252, 254, 290 and 291. Buses are still able to reach the designated bus stops as gap will be provided within the lane closure setup.

OUTBOUND ROUTE #	Mon-Fri Last Service (at Crows Nest)	Sat Last Service	Sun Last Service (at Crows Nest)	INBOUND ROUTE #	Mon- Fri Last Service(at Crows Nest)	Sat Last Service (at Crows Nest)	Sun Last Service (at Crows Nest)
143	19:02	No service	No service	143	18:30	No service	No service
144	00:48	00:51	00:49	144	00:07	00:44	00:43
252	23:36	00:03	22:16	252	00:19	00:42	23:57
254	23:47	23:47	22:47	254	23:12	23:20	22:08
257	19:37	18:56	19:04	257	18:43	18:04	18:03
265	19:15	18:20	No service	265	18:06	18:30	No service
286	08:39	No service	No service	286	18:45	No service	No service
287	18:25	No service	No service	287	08:49	No service	No service
290	02:20 (Fri only) 23:23 Mo – Th.	02:28	23:42	290	03:03 (Fri only).00:05 Mo-Th.	03:34	00:19
291	23:11	23:11	22:15	291	22:41	22:38	21:38
320	20:57	20:14	20:12	320	20:22	19:33	19:38

3.1.4 Emergency Services

Emergency services are not impacted from the works as there are no road closures in place during the work. At all times, emergency vehicles are still able to go past the work area. Traffic control will prioritise emergency vehicles as the 4 way stop is in operation.

3.2. Part 2 – Clarke Lane Closure (between Oxley Street and Hume Lane)

From November 2020, the existing lower and upper shed between Oxley Street and Hume Lane needs to be removed prior to the commencement of the station's building work. To facilitate the removal of the shed, a road closure is required for the demolition (removal) work.

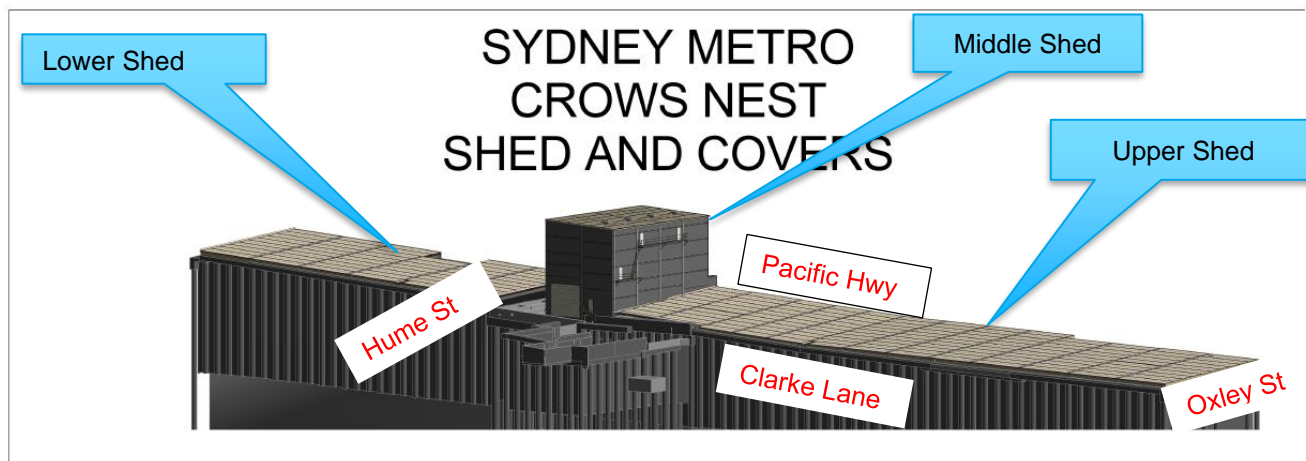


Figure 8 – Existing site shed isometric 3D view (image taken from TSE temporary design).

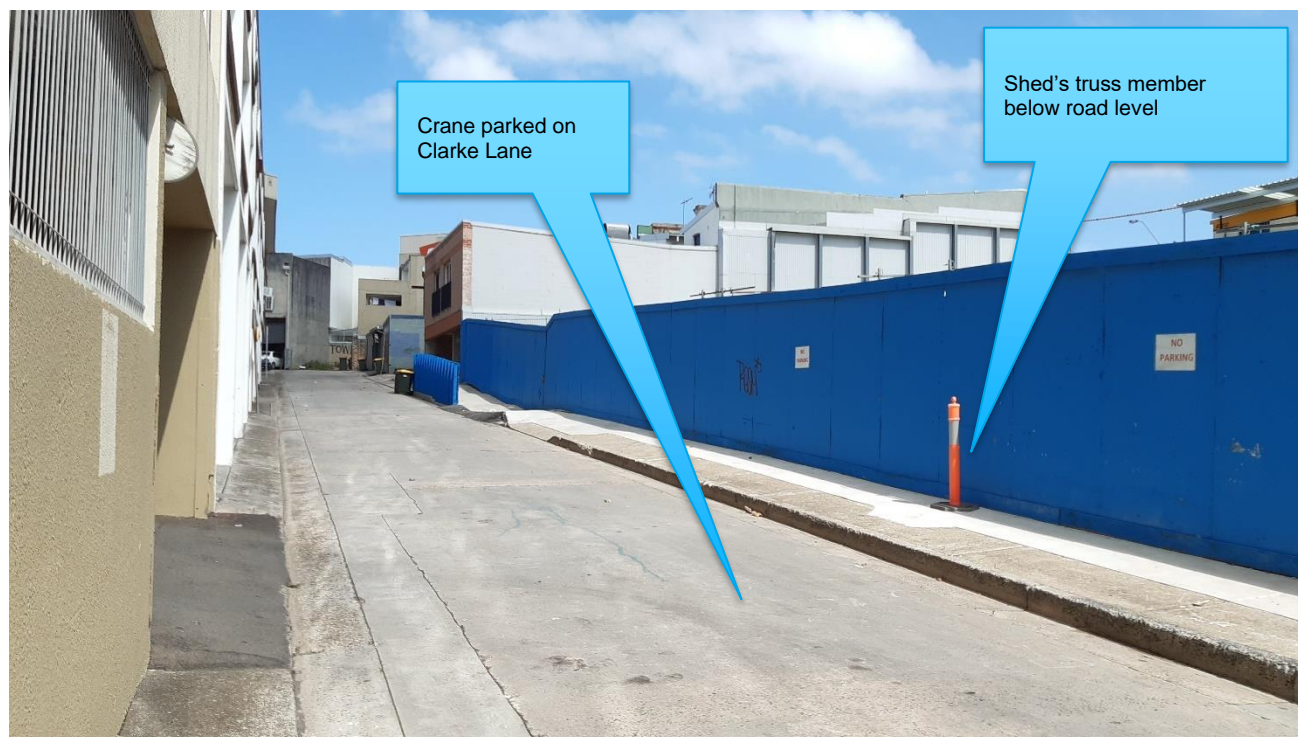


Figure 9 – Clarke Lane between Hume Street and Hume Lane looking south

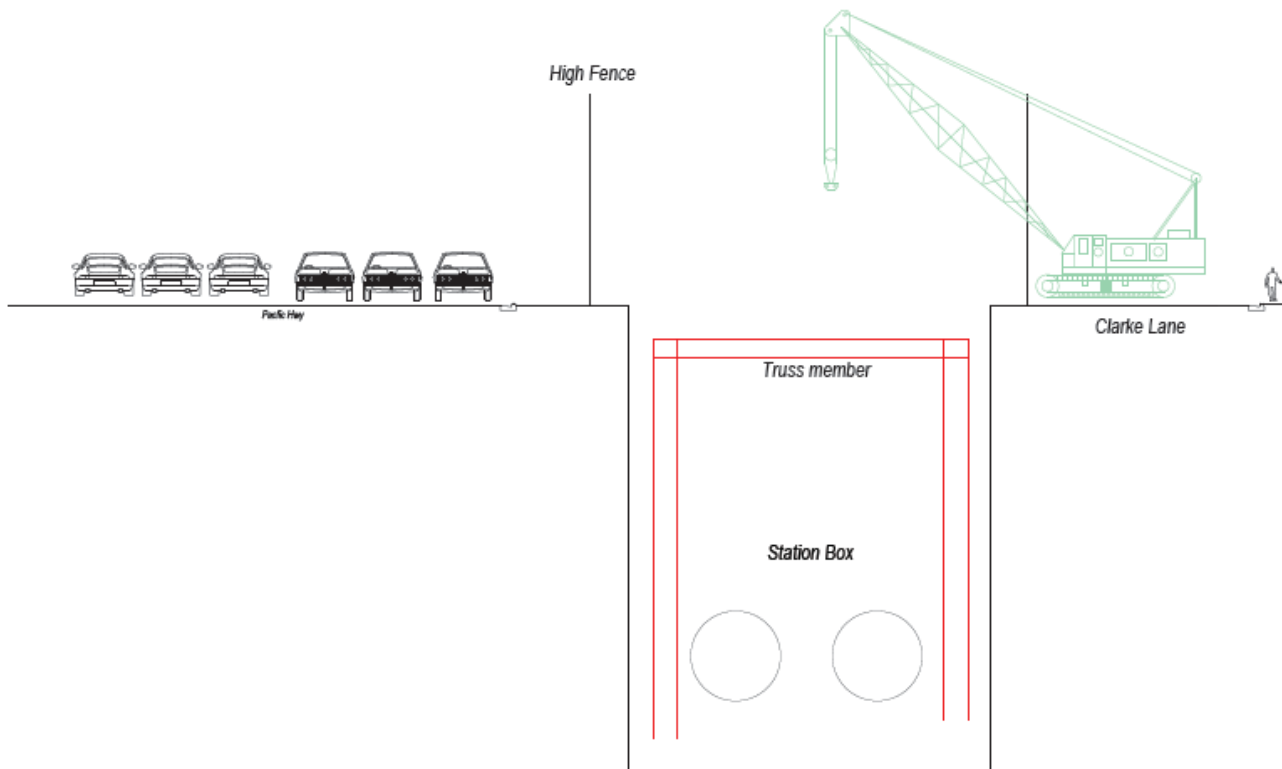


Figure 10 – Typical cross section (N.T.S) of Clarke Lane in relation to the temporary shed requiring removal (looking north)

The work area along Clarke Lane will be split into 2 areas – between Hume Lane and Hume Street; and Hume Street and Oxley Street.

Temporary traffic control is required during the demolition work. During the lower shed removal, Clarke Lane will be managed as a 2 way traffic as the exit will be blocked. Traffic controllers will be available to assist all traffic entering and existing Clarke Lane. Additional traffic controllers will be available at the Hume Street and Clarke Street intersection to manage exiting trucks and pedestrians. Refer to the Appendix C for TCPs.



Figure 11 – Clarke Lane between Hume Street and Oxley Street looking south

Similarly for the upper shed removal, Clarke Lane between Oxley Street and Hume Street will be closed to general traffic including pedestrian.

During the lower and upper shed demolition, the existing temporary site offices that were installed within the site boundary parallel to Pacific Highway requires Pacific Highway southbound Lane 1 and 2 between Oxley Street and Hume Street to be closed during the removal process (TCP for the removal of the site office will be presented as soon as lifting details are finalised).

3.2.1 Pedestrians

During the work, pedestrians are managed accordingly depending on the crane operations. There will be times pedestrian has to be detoured away from the work area if pedestrians will be exposed to the crane operating radius and positioning along Clarke Lane. When possible, a pedestrian detour will be minimised. Traffic controller will be available to assist during the work at all times. Pedestrian volume at Clarke Lane is not expected to be heavy.

3.2.2 Business / Resident Access

Business access via Clarke Lane will be advised of the work ahead of time. A detailed arrangement with businesses are on going. Systems Connect communication team is working towards finalising the details. Minor parking rearrangement and/or agreement will be made.

3.2.3 Bus Operations

Clarke Lane is not within a bus route.

3.2.4 Emergency Services

Emergency services will be notified of the work and will be advised to preplan their response route in the event of an emergency. Clarke Lane is not a commonly used through road for emergency response. In the event of emergency within Clarke Lane addresses, then all work will be stopped and make path clear for emergency access.

3.3. Part 3 – Hume Street Closure

Hume Street will be temporarily closed during the removal of the middle shed for approximately 3 weeks. The closure is necessary to facilitate a large sized crane setup at Hume Street with reachability to the highest point of the shed. Due to the large crane size, it is not possible to demobilise the crane at end of each shift to reopen Hume Street to general traffic. During the removal of the shed panel facing Pacific Highway, southbound Lane 1 need to be closed to provide a buffer zone during the shed removal after the end of T3 times from 10am to 3pm. A plan to have the lane closure in the month of December 2020/January 2021 which historically has a lesser traffic volume could enable an earlier lane closure starting from 7am (depending on actual progress on site). The crane work will be only during the day. During working hours, Clarke Lane between Hume Street and Hume Lane will be also be closed due to the operating radius of the crane and trucks movements. Clarke Lane will be managed as a 2 way traffic similar to the lower shed removal work. Clarke Lane will be remain on traffic control after working hours. Possibility to reopen Clarke Lane after working hours is dependent on the work area clearance, crane positioning and other risks factor. Hume Street will remained closed from the Clarke Street end. A temporary detour will also be in place for traffic to enter the Hume Street on western side of Pacific Highway. Refer to Appendix D for TCPs.

During this work, the existing traffic signals will need to be temporary modified to suit the operating conditions. Lanterns facing the Hume Street westbound will need to be temporary bagged with additional pedestrians phase on the work site to be disabled (refer to attached approved TCS on Appendix F). The traffic signals will be reinstated after the completion of the middle shed removal.

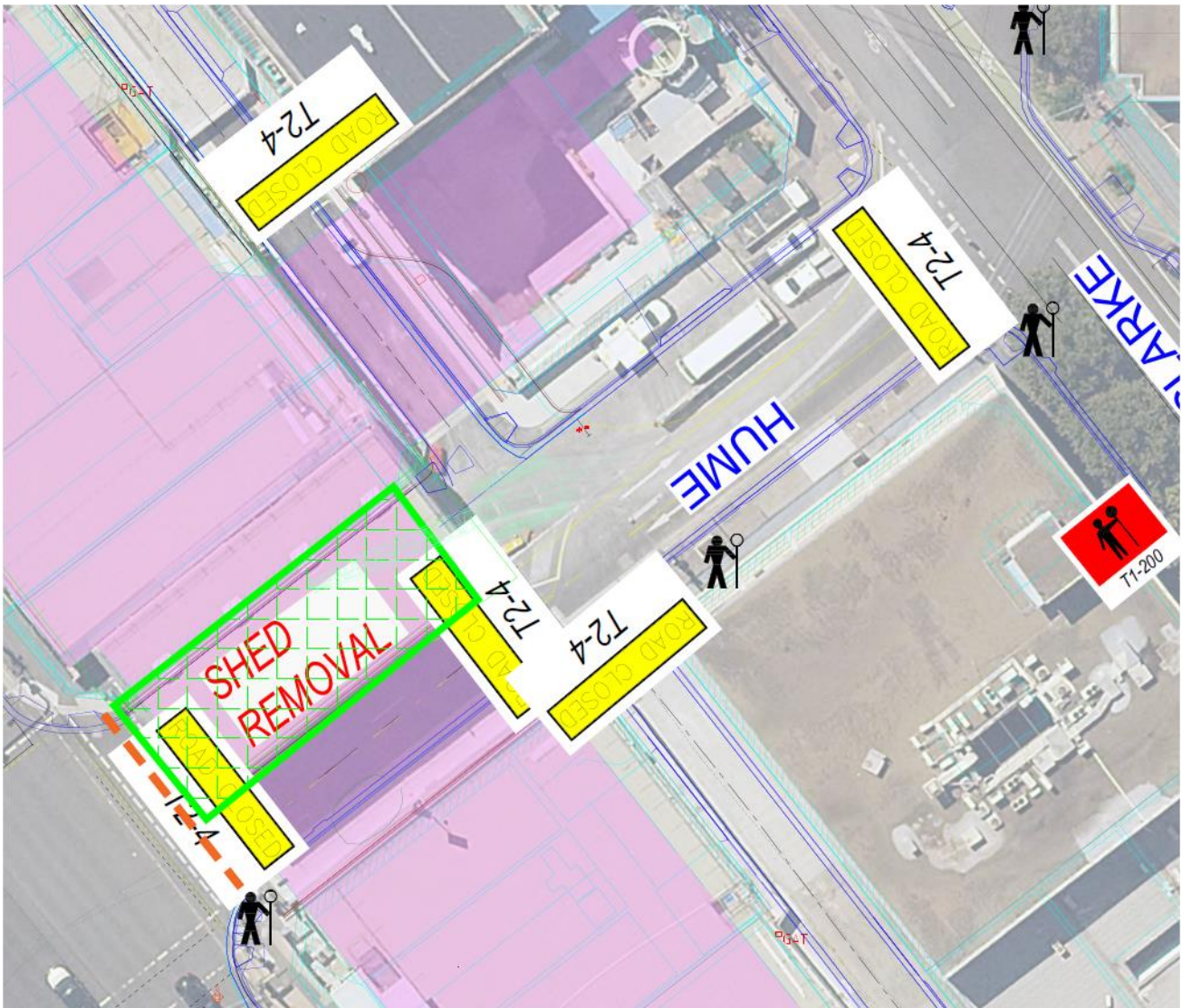


Figure 12. Hume Street temporary closure.

3.3.1 Pedestrians

During the Hume Street 3 week closure, pedestrian footpath remains open. Intermittently, pedestrians at Hume Street footpath between Pacific Highway and Clarke Lane may need to be placed on a holding pattern just as the crane is making the lifting movement. Similarly, pedestrian along the footpath on Pacific Highway southbound may need to be placed on holding pattern by traffic controller as the crane lift is in motion.

3.3.2 Business / Resident Access

There are no residents or businesses on the closed section on Hume Street. Local access for residents/businesses at Clarke Lane between Oxley Street and Hume Street are still not impacted.

3.3.3 Bus Operations

Bus route 265 is currently bypassing Hume Street during construction stage.

3.3.4 Emergency Services

Emergency services will be notified of the Hume Street closure before the work.

4. Systems Connect and Stakeholder Key Contacts

Systems Connect and key stakeholders contacts below for the overall integration of the CTMP.

Name	Role	Contact Details
Carl Mella	Transport NSW (Sydney Roads) – Integration Leader	02 8843 3027
Jake Coles	Sydney Coordination Office - Operations Manager – CBD	0466 454 819
Stephen Brown	Sydney Coordination Office - Precinct Project Manager	0457 809 028
Phil Brogan / Ken Hind	Sydney Metro – Traffic Advisor	1800 171 386
Michaela Kemp	North Sydney Council – Traffic & Transport Team Leader	02 9936 8100
Matt Billings	Systems Connect – Environment Manager	0428 781 599
Simon Tibbett	Systems Connect – Project Manager	0457 761 648
Craig Godwin	Systems Connect – Safety Manager	0458 498 107
Svetlana Paunovic	Systems Connect – Community Manager	0438 540 245
Scott Francis	Systems Connect – Superintendent	0429 901 489
Mong Sim	Systems Connect – Traffic Engineer	0448 378 883

5. Communications and Community Strategy

Systems Connect will meet the reasonable needs and desires of the community for information on any changed traffic conditions, cyclist and pedestrian impacts and property access arrangement. Systems Connect will ensure that the public and other key stakeholders are informed of planned traffic arrangements, including any activities which may result in delays.

Communications, consultation and the dissemination of information associated with traffic and access will be undertaken as outlined in this section.

The aim of consultation and broad communication on traffic and access matters is to:

- Facilitate community feedback regarding traffic issues
- Recommend alternative and appropriate travel patterns during periods of change
- Manage traffic impacts to protect affected residential and business amenity
- Provide timely, accurate and comprehensive traffic information using all available media to inform road users and the community of the project's traffic impact mitigation measures.

Ongoing consultation with stakeholders will ensure that effective traffic management measures are developed and implemented to minimise disruption and inconvenience.

Systems Connect will coordinate engagement with Sydney Metro and the members of the TTLG to enable the local community and other stakeholders to receive timely and accurate information associated traffic and transport issues.

Tool	Purpose	Frequency
Traffic alert emails	Email alerts to Sydney Roads , Transport Management Centre, Council, transport operators and emergency services to advise of major traffic changes including road or lane closures and detours, incidents or undue congestion	5 business days prior to changes if applicable As soon as practicable following incidents or undue congestion
Advertisements	To inform of significant traffic changes, detours and traffic disruptions as required to comply with approvals; in local newspapers, radio and/or project website	5 business days prior to changes

Tool	Purpose	Frequency
Letterbox notifications	Notification letters to inform local residents and businesses potentially affected by planned traffic changes	5 business days prior to changes
Community emails	To inform and update the community of project progress, milestones, activities planned for the following month, current and upcoming traffic changes	As required
Community information line	Access to the project team during construction hour with message service after hours via an 1 800 171 386	As required
TfNSW Sydney Metro website	Systems Connect will provide information in electronic format suitable to be uploaded onto the TfNSW Sydney Metro website, including copies of advertisements, traffic alerts, notification letters and other public material related to the works	As required
Systems Connect website	Information about site construction activities will be placed on the Systems Connect website including information about traffic changes, and executive summaries of publicly available reports relating to the project activities.	As required

The table above provides a guide to inform the community of changes to road and traffic conditions. It also provides a summary of the purpose and frequency of each method of communication.

Systems Connect will notify residents/businesses within the 200m radius from the site. Notification includes combination of letter drop, email and door knock where required. Community engagement is established throughout the work duration. Notification to begin 1 week before construction date.

6. Working Hours

The standard working hours 7am – 6pm on weekdays and 8am – 1pm on Saturdays. Some activities will need to be undertaken outside of these hours. Refer to out of hour application for additional details as required.

Construction Activity	Construction Hours / Comments
Standard construction hours	Monday to Friday: 7am – 6pm Saturdays: 8am to 1pm (where applicable) Sundays & Public Holidays: No work during standard hours

7. Manage Emergencies

Systems Connect acknowledge the inevitable nature of emergencies and their potentially significant social, economic and environmental consequences. Accordingly, we are aware that the NSW Government has enacted the State Emergency & Rescue Management Act 1989 to support emergency management activities.

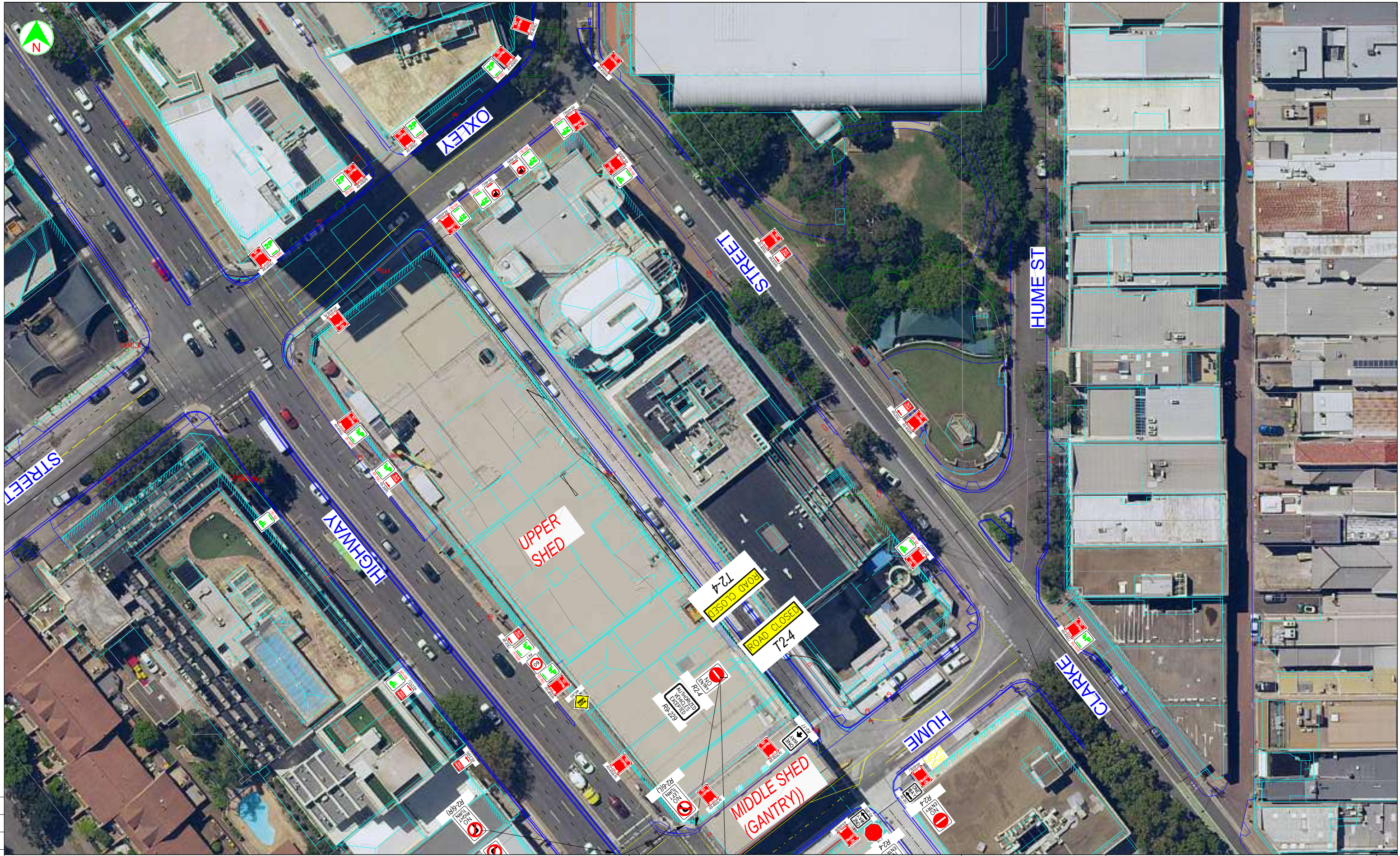
In NSW, the agencies primarily responsible for controlling hazards/emergencies are:


Unplanned Incident Agency Responsibility	
Law Enforcement / Emergencies	NSW Police
Fire	Fire and Rescue NSW / NSW Rural Fire Service
Hazardous Materials	Fire and Rescue NSW / NSW Rural Fire Service
Flood, storm or any natural disaster	NSW State Emergency Service

PART C – Appendices

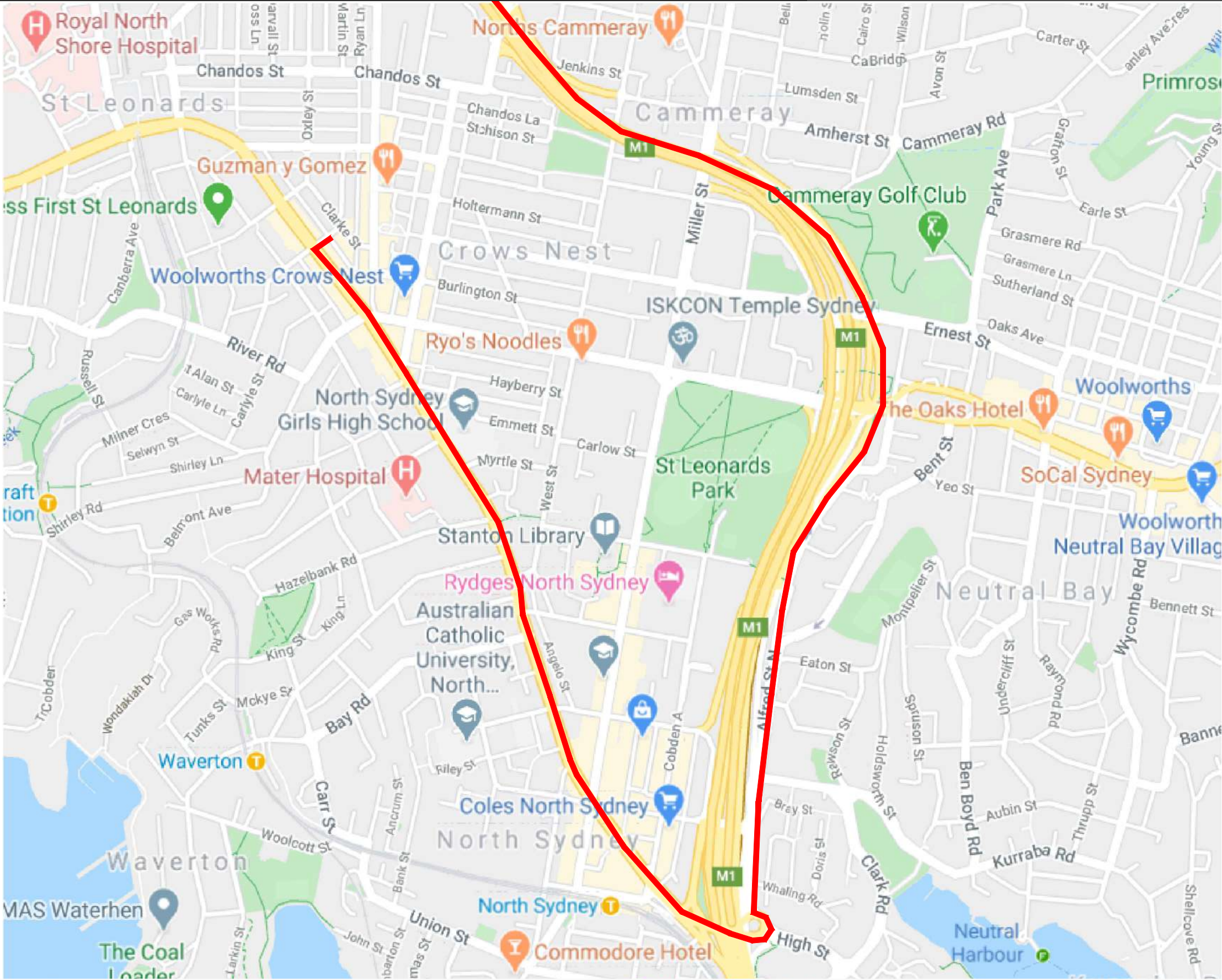
Appendix A. Current Site Conditions

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							NOTES	PLOT DATE / TIME		PLOT BY M SIM		CLIENT	A3 Crows Nest Site Access (Existing conditions) SHEET								
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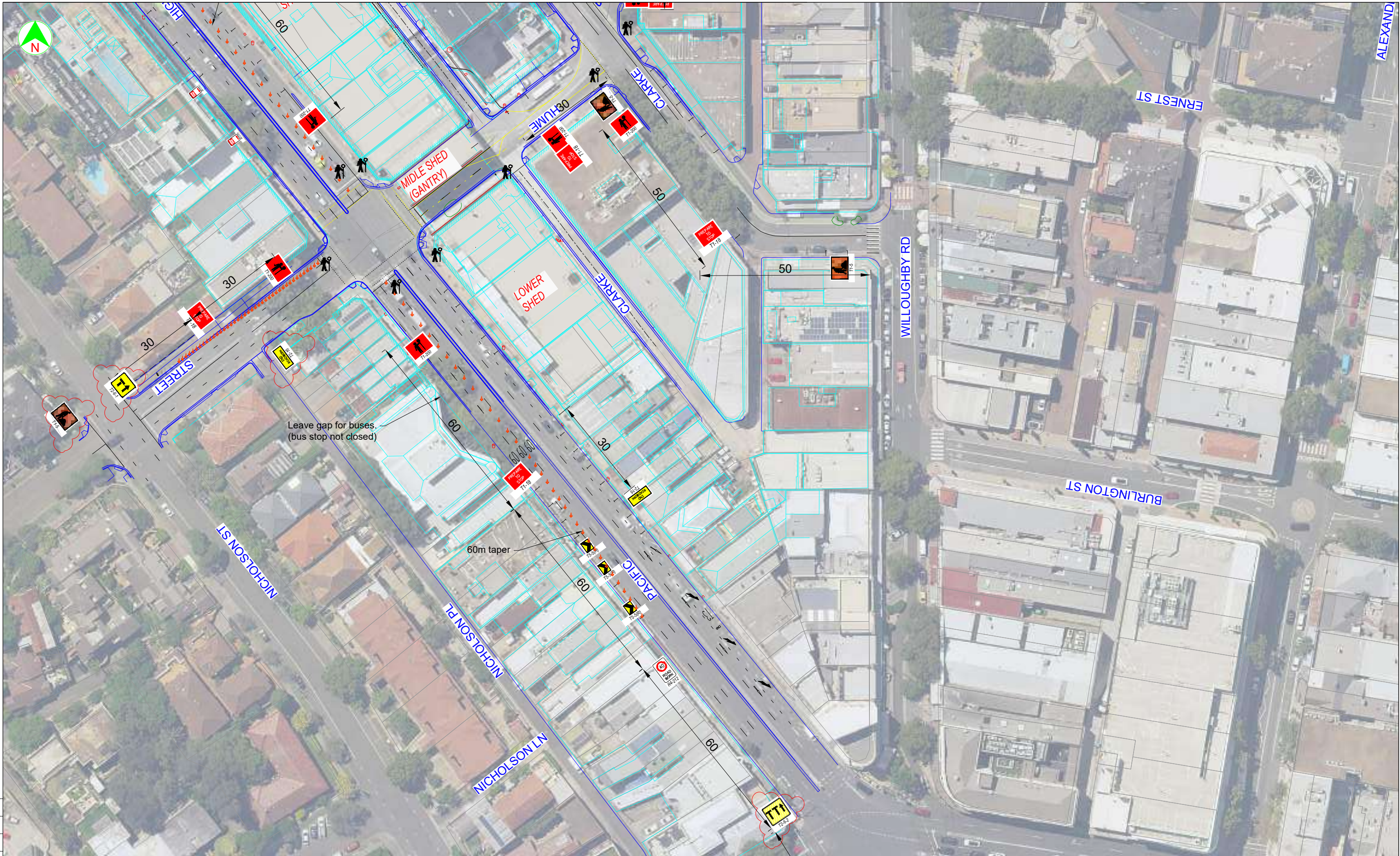
Appendix B. TCP – Rail section Delivery



Route 1 (M1 SthB - Alfred St N exit - Pacific Highway - Crows Nest

							NOTES	PLOT DATE / TIME			PLOT BY M SIM		CLIENT	Delivery Route from Newcastle to Crows Nest			A3					
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						CO-ORDINATE SYSTEM		HEIGHT DATUM														
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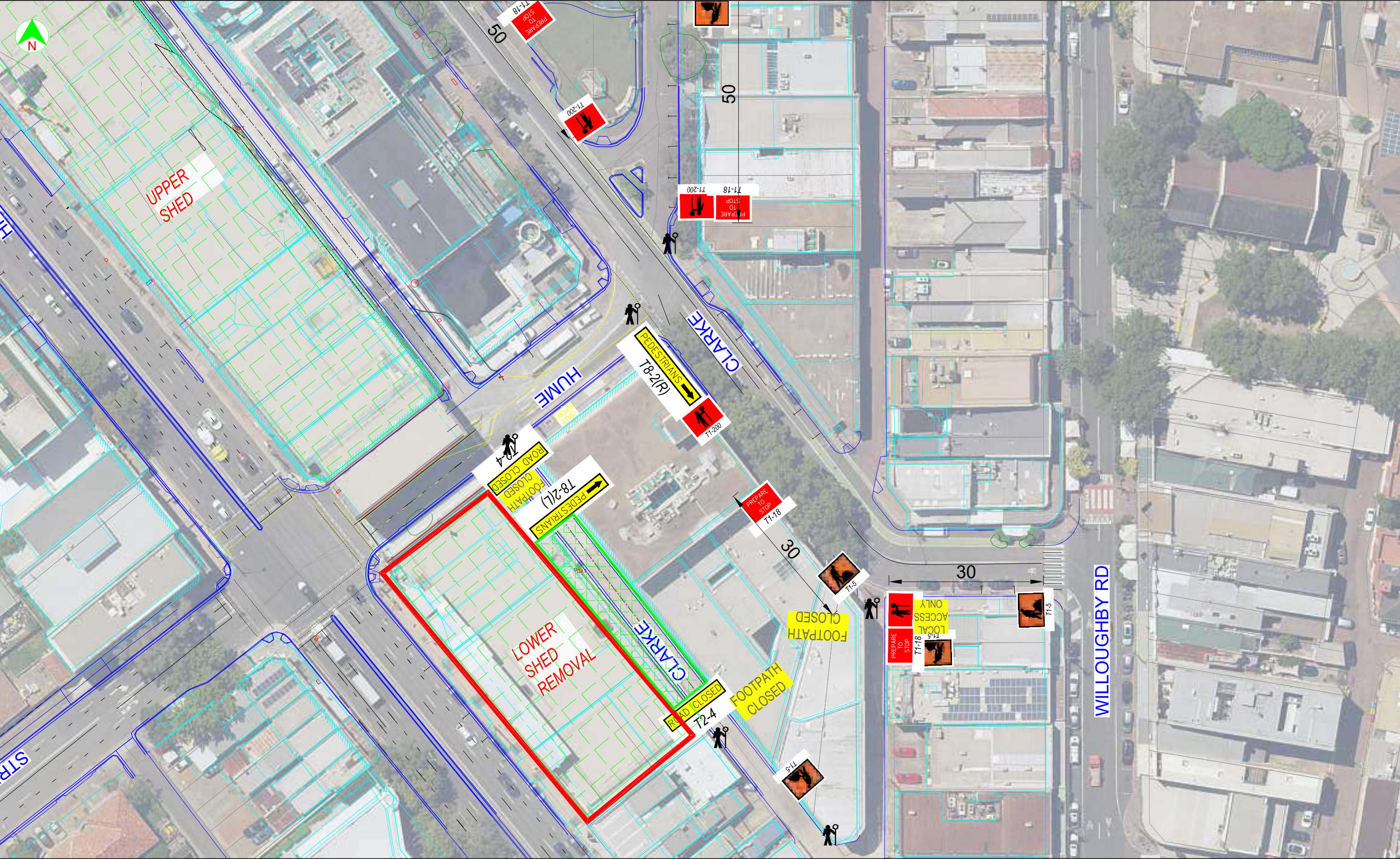


			NOTES		PLOT DATE / TIME		PLOT BY M SIM		CLIENT		From Sep 2020		A3	
LEGEND			SCALES ON A3 SIZE DRAWING		DRAWINGS / DESIGN PREPARED BY		TITLE				NAME		DATE	
<div><div></div>Work area</div> <div><div></div>Traf. cones</div> <div><div></div>Traf. contoller</div>		<div>Rev cloud</div>	<div>SCALE 1:100</div> <div><div>1012</div><div>AT A3</div></div>		Mong Sim PWZ # 0052317834		DRAWN		M.SIM		25/6/20			
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				MGA ZONE 56		AHD						Systems Connect		
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												ISSUE		
												1		

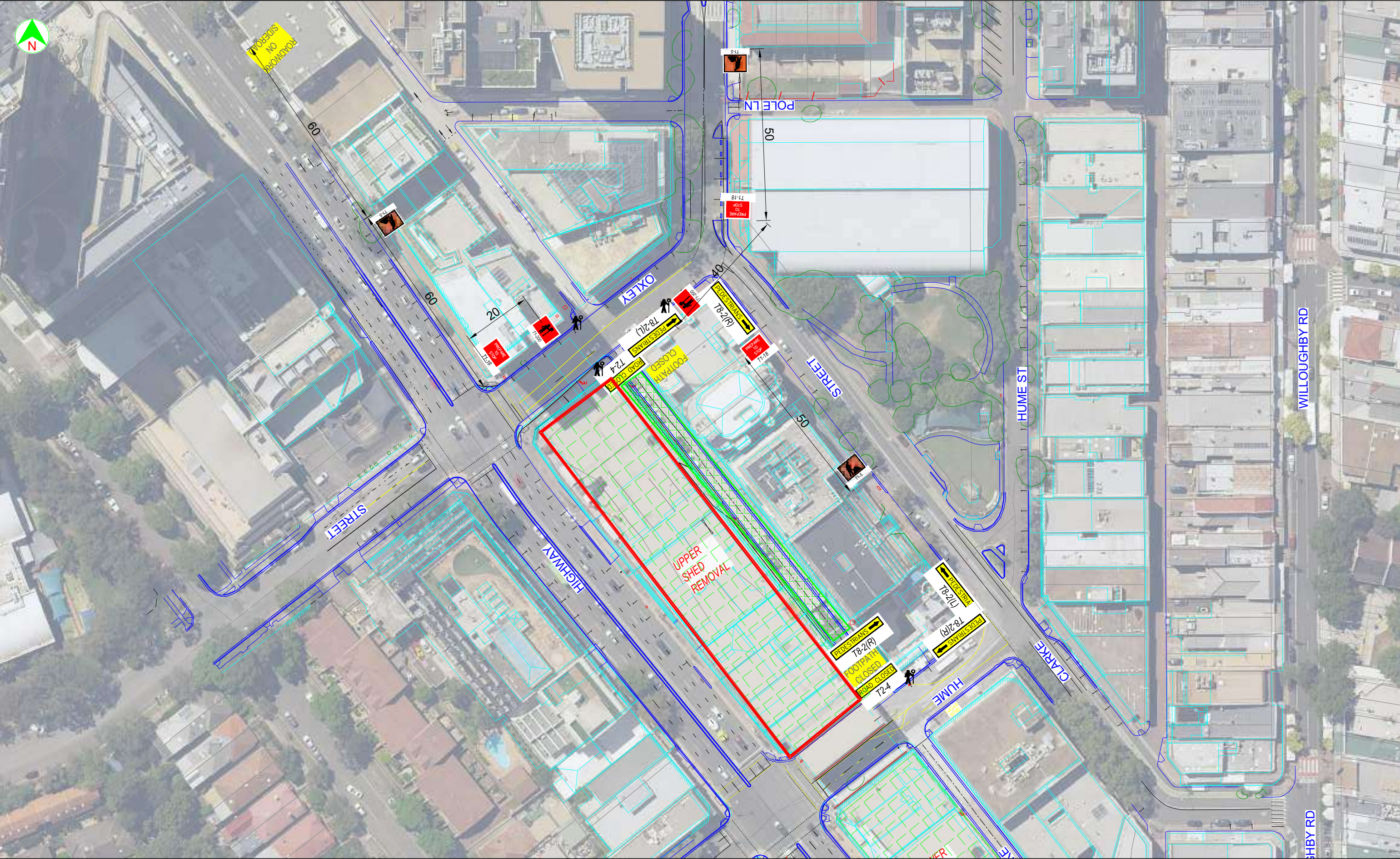


LEGEND			NOTES		PLOT DATE / TIME		PLOT BY		CLIENT		From Sep 2020		A3
							M SIM						
			DRAWINGS / DESIGN PREPARED BY		TITLE		NAME		DATE				
					DRAWN		M.SIM		25/6/20				
					DRG CHECK		M.SIM		25/6/20				
					DESIGN								
					DESIGN CHECK								
					TRAFFIC MNGR								

Appendix C. TCP – Clarke Lane Closure




LEGEND					NOTES		PLOT DATE / TIME		PLOT BY		CLIENT		Oct - Nov 2020		A3	
REVISION DESC. REV DATE APPROVAL					DRAWINGS / DESIGN PREPARED BY		TITLE		NAME		DATE		Lower Shed Removal - Clarke Lane Closure (btw. Hume St and Hume Ln)		SHEET	
SCALE 1500					Mong Sim PWZ # 0052317834		DRAWN		M.SIM		27/5/20		SC TCP CN 1100		ISSUE	
CO-ORDINATE SYSTEM MGA ZONE 56					HEIGHT DATUM AHD		DRG CHECK		M.SIM		27/5/20		ISSUE STATUS		SHEET No. 1 of 1	
Traffic controller							DESIGN						Systems Connect			
							DESIGN CHECK									
							TRAFFIC MNGR									

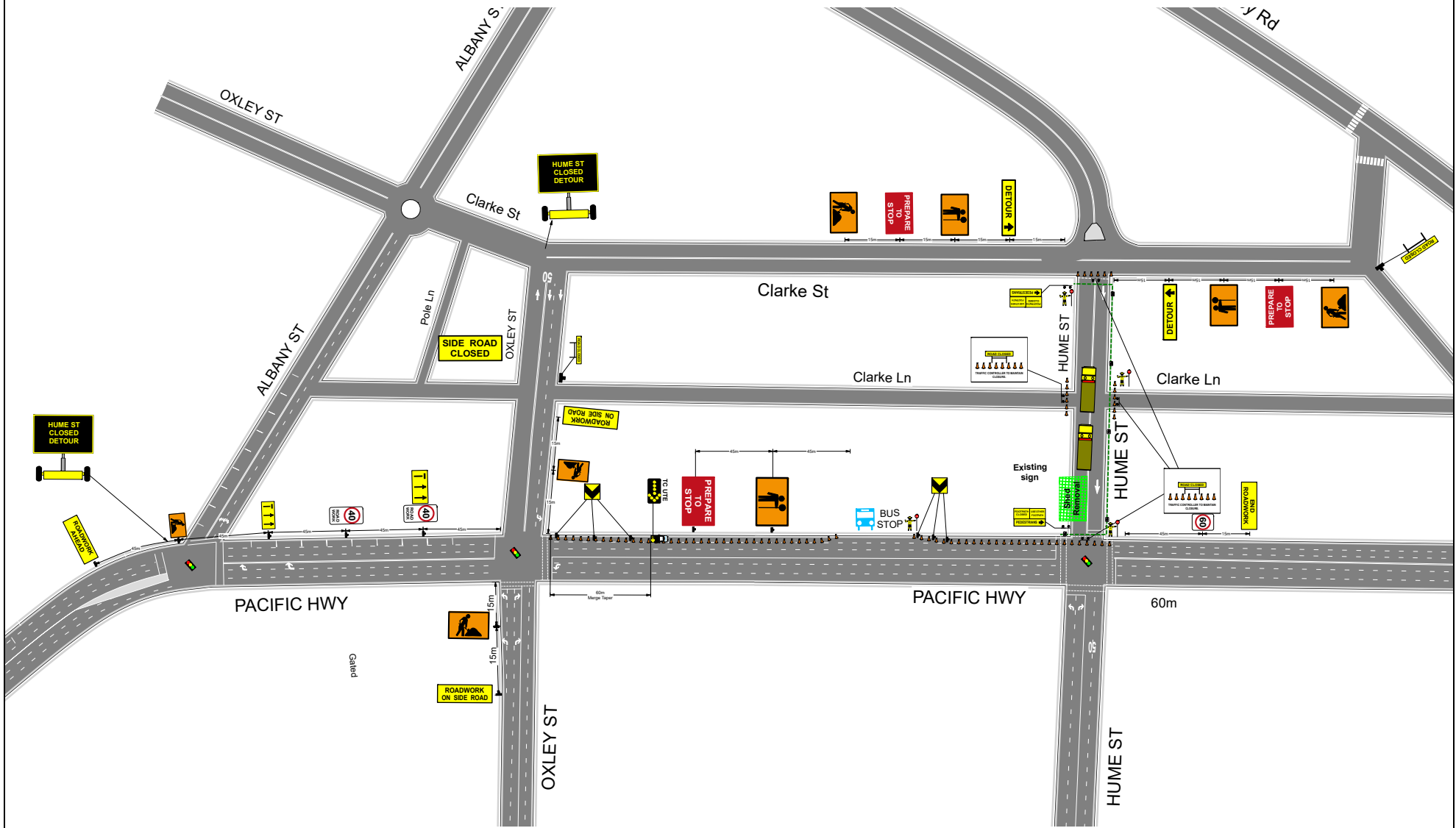


										NOTES	PLOT DATE / TIME			PLOT BY M SIM		CLIENT		Oct - Nov 2020			A3					
LEGEND					REVISION DESC.		REV	DATE	APPROVAL	SCALES ON A3 SIZE DRAWING					DRAWINGS / DESIGN PREPARED BY							TITLE	NAME	DATE		
<div><div></div></div> <div>Work area</div> <div><div></div></div> <div>Traffic controller</div>										<div>SCALE 1:100</div> <div><div>1</div><div>0</div><div>1</div><div>2</div></div> <div>AT A3</div>					Mong Sim PWZ # 0052317834							DRAWN	M.SIM	27/5/20		
																						DRG CHECK	M.SIM	27/5/20		
															DESIGN											
															DESIGN CHECK											
															TRAFFIC MNGR											

Appendix D. TCP – Hume Street Closure



			NOTES	PLOT DATE / TIME		PLOT BY M SIM	CLIENT		From Dec 2020 Middle Shed Removal - Hume St Closure - Detour Plan			A3
LEGEND		SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE						
Notes: 1. Detour plan for traffic entering Hume Street west side of Pacific Highway	 Detour route			DRAWN	M.SIM	27/5/20	PREPARED FOR		SHEET			
				DRG CHECK	M.SIM	27/5/20						
				DESIGN								
				DESIGN CHECK								
		TRAFFIC MNGR				Systems Connect		ISSUE STATUS		SHEET No. 1 of 1	ISSUE 1	



CLIENT: Sydney Metro City & Southwest Line-wide Works

THIS (TGS) SHALL BE READ IN CONJUNCTION WITH IT HAS BEEN DEVELOPED TO ALLOW THE CLIENT TO CONDUCT WORKS AT THE LISTED LOCATION AND TO DISPLAY A COMMITMENT TO TRAFFIC AND PEDESTRIAN MANAGEMENT, REPORTING, AND REVIEWING. AN ON SITE RISK ASSESSMENT SHALL BE CONDUCTED PRIOR TO ERECTING ANY TRAFFIC CONTROL DEVICES.



NOTES 01

NOT TO SCALE

LOCATION:
SUBURB:
1ST CROSS ST:
2ND CROSS ST:
MAP REFERENCE:

Hume St
St Leonard's
Pacific Hwy
Clarke St
-33.824939, 151.199406

TERM:
ROAD TYPE:
POSTED SPEED:
OPERATION:
TRAVELLED PATH:

Short Term
One Lane
50km/h
Road Closure
Detour

Shed Removal

Evolution Traffic Management
51 Heathcote Road, Moorebank
New South Wales, 2170
Ph: 1300 880 481.
RMS REGISTRATION CATAGORY G



APPROVED BY TM DESIGNER:
THAYS SAMPAIO
0352115517 PWZTMF-PSCND0303
EVOLUTION JOB NUMBER:

440394083

EVO	REFERENCE ID: 221198	REV# 00	PAGE: 3 of 3
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Appendix E. Compliance Matrix

Cros Nest Site Operations.			
CoE	Description	Comments	Compliance
E75	The CSSI must be designed, constructed and operated with the objective of integrating with existing and proposed road and related transport networks and minimising adverse changes to the safety, efficiency and, accessibility of the networks, and facilitate an improved level of service in relation to permanent and operational changes. Detailed design and assessment of related traffic, parking, pedestrian and cycle accessibility impacts and changes shall be undertaken:	SC work at Crows Nest is into an existing established construction site. CSSI development is finalised. E75 is referring to design development stage in essence and ensuring during construction stage all elements (traffic, safety etc) are in order.	Y
E75(a)	in consultation with, and to the reasonable requirements of the Traffic and Transport Liaison Group(s) established under Condition E77; in consideration of existing and future demand, connectivity (in relation to permanent changes), performance and safety requirements;	Refer to E81. Also referring to design stage. The work site does not involve any changes to existing road conditions.	Y
E75(b)	to minimise and manage local area traffic impacts;	The site is an established site.	Y
E75(c)	to ensure access is maintained to property and infrastructure; and	Traffic control provided to assist movement and residents informed.	Y
E75(d)	to meet relevant design, engineering and safety guidelines, including Austroads, Australian Standards, and RMS (RTA) requirements.	CTMP development is in reference to these documents. E75(e) serves as a reminder to ensure latest requirements and standards are considered in the CTMP development.	Y
E75(e)	Copies of civil, structural and traffic signal design plans shall be submitted to the Relevant Road Authority for consultation before the commencement of the relevant works.	No new TCS. Refer to E75 comment.	Y
E76	Permanent road works, including vehicular access, signalised intersection works, and works relating to pedestrians, cyclists, and public transport users must be subject to safety audits demonstrating consistency with relevant design, engineering and safety standards and guidelines. Safety audits must be prepared in consultation with the Traffic and Transport Liaison Group before the completion and use of the subject infrastructure and must be made available to the Secretary upon request.	E76 refers to permanent work. Ausroads' Guide to Road Safety Part 6: Road Safety Audit has published "...Great effort has been taken by road authorities to provide adequate safety by the development of worksite safety manuals and roadworks code of practice. It may be considered that these practices provide sufficient safety without the need for audits of temporary traffic arrangement." RSA on a temporary traffic management may not be providing any beneficial value. The site operations does not change from its current operations.	Y
E79	The Proponent must consult with the Relevant Road Authority regarding the use of any weight restricted road by heavy vehicles.	(noted).	Y
E80	The Proponent must minimise truck movements during peak periods within commercial centres. Peak periods are 7am to 10am and 4pm to 7pm Monday to Friday.	Steel rail section delivery trucks scheduled for night run.	Y
E81	The Proponent must prepare and implement a Construction Traffic Management Framework (CTMF). The CTMF must be prepared in consultation with TTLG(s) and submitted to the Secretary for approval no later than one (1) month before the commencement of construction (or within any other timeframe agreed with the Secretary). The CTMF will set out the approach to managing issues across the CSSI and include but not be limited to:	Refer to E82.	Y
E81(a)	construction site access, including the efficient and safe egress and ingress of vehicles, consistent relevant Austroads, Australian Standards and RMS requirements;	(site access was evaluated per site requirements with reference to relevant guidelines)	Y
E81(b)	the erection and maintenance of hoardings, scaffolds and associated structures on roads;	(not applicable for this site)	n/a
E81(c)	short and long term lane and road closures including those associated with plant, crane and other operations between the road reservation and construction site;	Work plan presented on 27 May 2020.	Y
E81(d)	cumulative construction vehicle management from surrounding developments;	TSE is demobilised at Crows Nest and construction traffic will not overlap.	Y
E81(e)	bus stop and associated facilities relocation and service rerouting;	Bus stop not relocated. Bus stop is still accessible during work.	Y
E81(f)	short and long term works zones on roads adjacent to the construction site;	No work zone is required. Work is short term.	Y
E81(g)	mail zone and associated facilities relocation;	(no mail zone within site)	Y
E81(h)	short and long term works within the road reservation;	(no work on road reserve)	Y
E81(i)	regulatory, advisory and other signage changes and modifications;	(no changes to existing signage)	Y
E81(j)	parking management, including on and off street and remote parking and access;	Access will be managed during work.	Y
E81(k)	heavy vehicle management, the restriction (unless otherwise approved) of heavy vehicles to certain routes and the minimisation of heavy vehicle traffic in peak traffic periods;	Delivery trucks are scheduled for night run.	Y
E81(l)	special event management;	(no known events along this section)	n/a
E81(m)	the retention and reinstatement of emergency and property access;	Access are managed during work.	Y
E81(n)	the retention of user and passenger safety, including pedestrians, cyclists, public transport users, including at stops and related facilities;	(no modification to any of these)	Y
E81(o)	incident response planning around construction worksites; and	Refer to Section 1.2 and 7 in the CTMP.	Y
E81(p)	monitoring of transport and access related impacts attributable to the CSSI.	Refer to Section 1.2	Y
E82	Construction Traffic Management Plans (CTMPs), consistent with the CEMF and CTMF required in Condition E81, must be prepared for each construction site in consultation with the TTLG(s), and submitted to the RMS for approval following Sydney Coordination Office endorsement before construction commences at the relevant construction site. A copy of any Construction Traffic Management Plans approved by the RMS must be submitted to the Secretary for information.	CTMP presented on 27 May 2020.	Y
E83	Where construction results in a worsening of the matters identified in Condition E81(a)-(o), the Proponent must review the measures identified in the CTMPs in consultation with the TTLG(s), as relevant. Any changes to the CTMPs must be submitted to the RMS for approval following Sydney Coordination Office endorsement and implemented.	This item was identified on Section 1.2. CTMP review and update as required.	Y
E85	Heavy vehicle haulage must not use local roads unless no feasible alternatives are available.	No local road are used in general.	Y
E86	During construction, measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses. Such arrangements must be outlined in the Business Management Plan required in Condition E64 and implemented as required. Adequate signage and directions to businesses must be provided before, and for the duration of, any disruption.	Traffic management plan is available.	Y
E88	Details of haulage routes and heavy vehicle sizes to transport material to and from any construction site must be specified in the Construction Traffic Management Plan(s) and be approved by the RMS following endorsement by Sydney Coordination Office and consultation with the TTLG(s).	Routes is related to the TTLG. 25m long vehicles coming from the M1 to Pacific Highway NB.	Y
E89	The Proponent must implement traffic and transport management measures with the aid of a truck marshalling and logistics facility located within close proximity to the Sydney and North Sydney CBDs. The facility must be operational in advance of tunnel spoil generation. Details of the facility must be documented in the Ancillary Facilities Management Plan required by Condition A36.	Not applicable.	n/a
E90	A Road Dilapidation Report must be prepared for local roads proposed to be used by heavy vehicles for the purposes of the CSSI before the commencement of use by such vehicles. Copies of the Road Dilapidation Report must be provided to the Relevant Council within three (3) weeks of completing the surveys and no later than one (1) month before the use of local roads by heavy vehicles.	Noted.	Y
E91	If damage to roads occurs as a result of construction of CSSI, the Proponent must either (at the landowner's discretion):	E91 is predecessor to E90.	Y
E91(a)	compensate the landowner for the damage so caused. The amount of compensation may be agreed with the landowner; or	(applicable only if road is damaged from the work)	Y
E91(b)	rectify the damage so as to restore the road to at least the condition it was before construction commenced as identified in the Road Dilapidation Report(s).	(applicable only if road is damaged from the work)	Y
T1	Ongoing consultation would be carried out with (as relevant to the location) the CBD Coordination Office, Roads and Maritime Services, Sydney Trains, NSW Trains, the Port Authority of NSW, Barangaroo Delivery Authority, local councils, emergency services and bus operators in order to minimise traffic and transport impacts during construction.	Open communications are established.	Y
T2	Road Safety Audits would be carried out at each construction site. Audits would address vehicular access and egress, and pedestrian, cyclist and public transport safety.	Refer to E76.	Y
T3	Directional signage and line marking would be used to direct and guide drivers and pedestrians past construction sites and on the surrounding network. This would be supplemented by Variable Message Signs to advise drivers of potential delays, traffic diversions, speed restrictions, or alternate routes.	Not applicable as no lane realignment.	Y
T4	In the event of a traffic related incident, co-ordination would be carried out with the CBD Coordination Office and / or the Transport Management Centre's Operations Manager.	Reporting only.	Y
T5	The community would be notified in advance of proposed road and pedestrian network changes through media channels and other appropriate forms of community liaison.	Noted. On going.	Y
T6	Vehicle access to and from construction sites would be managed to ensure pedestrian, cyclist and motorist safety. Depending on the location, this may require manual supervision, physical barriers, temporary traffic signals and modifications to existing signals or, on occasions, police presence.	During work, traffic management will be in place.	Y
T8	Access to existing properties and buildings would be maintained in consultation with property owners.	Consultation strategy to begin at the right time.	Y
T9	All trucks would enter and exit construction sites in a forward gear, where feasible and reasonable.	All enter in one direction.	Y
T11	For special events that require specific traffic measures, those measures would be developed in consultation the CBD Coordination Office (for relevant locations), Roads and Maritime Services, Barangaroo Delivery Authority (for relevant locations) and the organisers of the event.	No special event on this location.	n/a
T12	Construction sites would be managed to minimise construction staff parking on surrounding streets. The following measures would be implemented: • Encouraging staff to use public or active transport • Encouraging ride sharing • Provision of alternative parking locations and shuttle bus transfers where feasible and reasonable. Transport for NSW would work with local councils to minimise adverse impacts of construction on parking and other kerbside use in local streets, such as loading zones, bus zones, taxi zones and coach zones.	Limited parking available on site. Parking is all a 2P in Crows Nest. No foreseen parking issues.	Y
T13	Construction site traffic would be managed to minimise movements in the AM and PM peak periods.	Not applicable as work is planned for night for construction traffic.	n/a
T14	Construction site traffic immediately around construction sites would be managed to minimise movements through school zones during pick up and drop off times.	Not applicable.	n/a
T19	Where existing parking is removed to facilitate construction activities, alternative parking facilities would be provided where feasible and reasonable.	Not applicable.	n/a
T21	The potential combined impact of trucks from multiple construction sites would be further considered during the development of Construction Traffic Management Plans.	Not applicable.	n/a
T22	Where existing footpath routes used by pedestrians and / or cyclists are affected by construction, a condition survey would be carried out to confirm they are suitable for use (eg suitably paved and lit), with any necessary modifications to be carried out in consultation with the relevant local council.	Not applicable.	n/a

Appendix F. Copy of correspondence (attach as required)

LWC General Correspondence

Reference No: SMCSWLWC-RMS-LWC-GEN-000032
Project Title: Sydney Metro City & Southwest - LWC, TSOM
Contract No: LWC - Line Wide Contracts
Sub Contract: -
Orig Ref No:
DLM:

Date:	27 July 2020, 04:53 PM	Response required by:
From:	Quac Minh LA (Roads and Maritime Services (part of TfNSW division))	
To:	Susan Dai (Systems Connect)	
Cc:	Chris Berg (Sydney Metro) ; Ken Hind (Sydney Metro) ; JOSE ARGUETADOMINGUEZ (Sydney Metro) ; Phil Brogan (Sydney Metro) ; Garry Hitchcox (Sydney Metro) ; Nathan Hoffmeister (Sydney Metro) ; Deepak Shahani (Sydney Metro) ; Errol Pather (Sydney Metro) ; Jake Coles (Sydney Coordination Office) ; Carl Mella (Roads and Maritime Services (part of TfNSW division)) ; David Tawadros (Roads and Maritime Services (part of TfNSW division)) ; Hugh Chapman (Sydney Metro) ; Ali Faniad (Sydney Metro) ; Oscar Wang (Sydney Metro) ; Michaela Kemp (North Sydney Council) ; Hayden Wright (Sydney Metro) ; Transmittal SM OpenAccess (Sydney Metro) ; Mathew Billings (Systems Connect) ; Mark Marriott (Sydney Metro) ; Jill Downing (Systems Connect) ; Kirimaru Friscan (Systems Connect) ; LWC Systems Connect Transfer (Systems Connect) ; Paul Ryan (Systems Connect) ; Helena Orel (Systems Connect) ; Mathew Johnston (Systems Connect) ; Mong Sim (Systems Connect) ; John Grant (Systems Connect)	
Subject:	Construction Traffic Management Plan - Crows Nest Station Site Operation - TfNSW (former RMS) approval	

Susan

In reference to your transmittal SMCSWLWC-SYC-TX-003066 dated 20/07/2020.

In accordance with Schedule C1 Appendix A.9 Section 2.1 (c) and 2.2 (c) of the Principal's General Specifications G10 – Traffic and Transport Management and Minister's Condition of Approval E82 for the Sydney Metro City & South West, Transport for NSW – Greater Sydney – Planning and Programs, and the Sydney Coordination Office approve the Sydney Metro City & South West Traffic Management Plan – Line Wide Works – Crows Nest Site Operations (SMCSWLWC-SYC-SCN-TF-PLN-003978.D.RVW.D.01) for the Sydney Metro City & South East project subject to the following requirements:

- right turn from Pacific Highway northbound into Hume Street is only permitted for rail deliveries by exemption at night, under full traffic control with appropriate Road Occupancy License (ROL);
- approval of road closure to be obtained through the local traffic committee, as deemed necessary by Council;
- obtaining Road Occupancy Licenses (RoLs) from the Transport Management Centre as required;
- complying with construction vehicle routes as approved by SCO/TfNSW and shown in Appendix B of the CTMP;
- addressing any safety issues identified within the Road Safety Audit review for this CTMP, in advance of any works commencing;
- addressing any issues raised by Council, STA, Taxi Council, residents/businesses or Emergency Services in the CTMP approval process;

- addressing the requirements arising as an outcome of the Local Traffic Committee meeting;
- promptly addressing any SCO and/or TMC and/or TfNSW issue that eventuates during the works

regards,
Minh

Design Series:

Discipline:

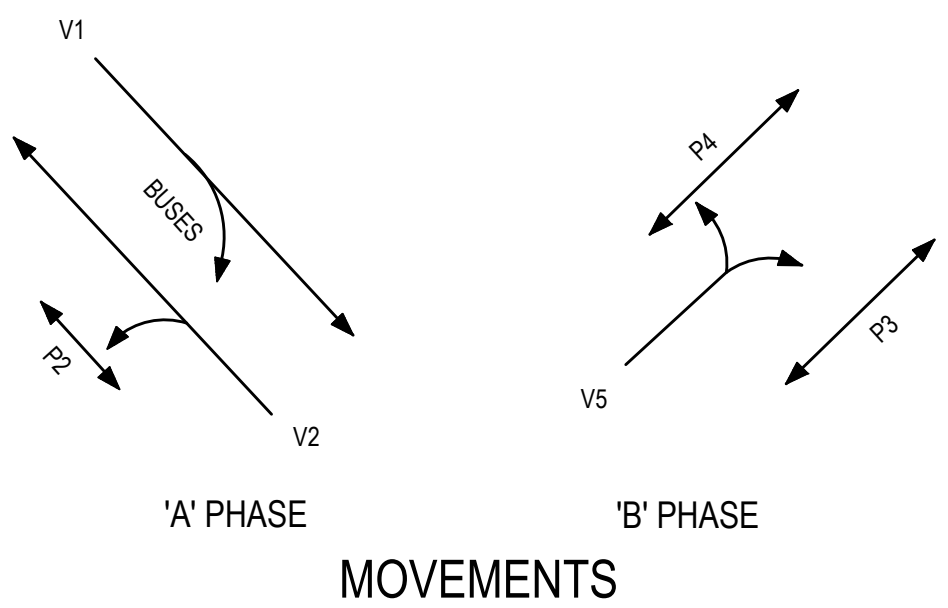
Design Lots:

Location:

Appendix G. TCS details, additional TCPs

DRAWN BY CADD
DO NOT AMEND MANUALLY

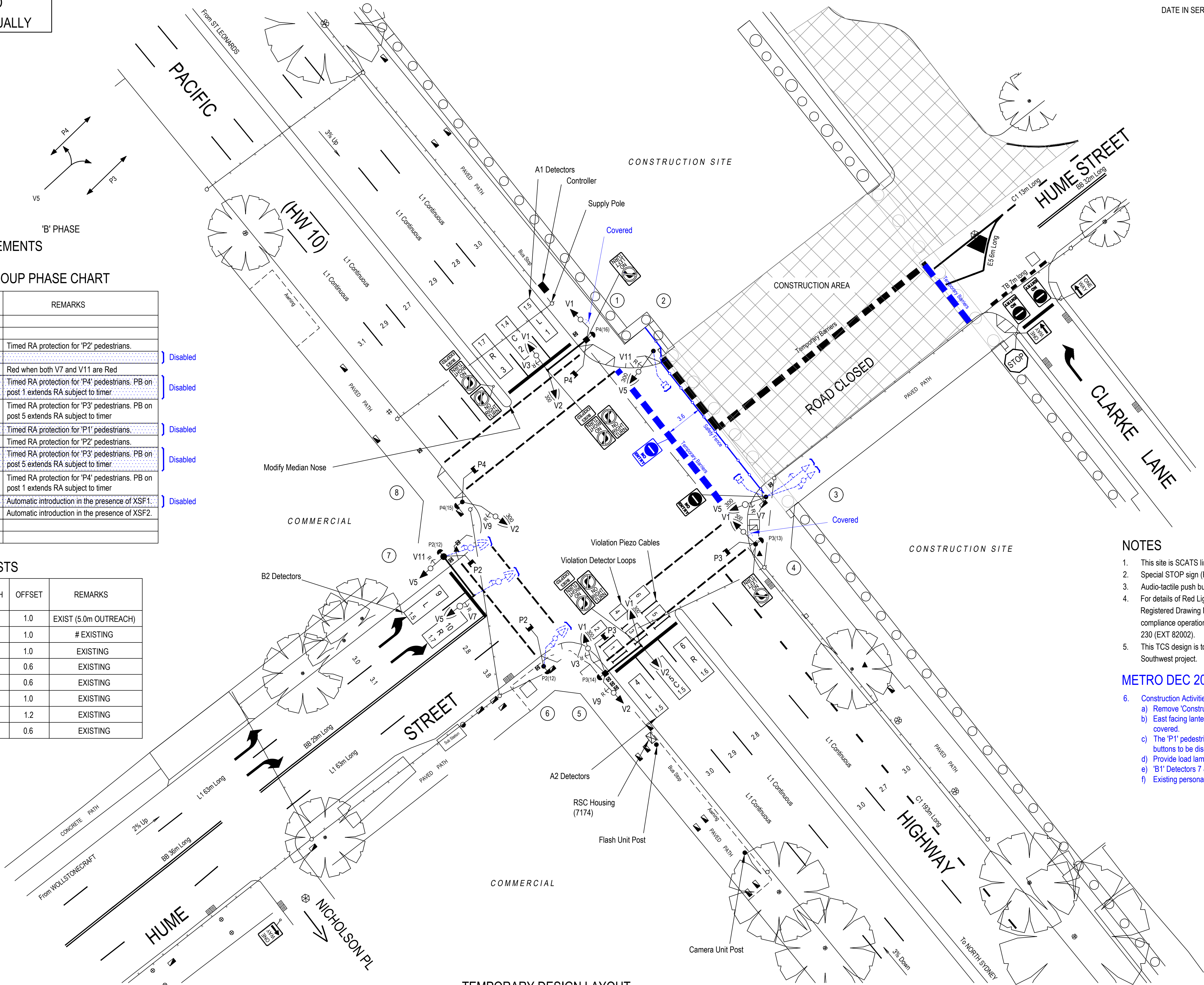
DATE IN SERVICE : 25/06/73



SIGNAL GROUP PHASE CHART				
SIGNAL GROUP	PHASE GRN	TABLE	TYPE	REMARKS
V1	X		1	
V2	X		1	
V3			29	Timed RA protection for 'P2' pedestrians.
V4		X	1	
V5		C	-	Red when both V7 and V11 are Red
V6			83	Timed RA protection for 'P4' pedestrians. PB on post 1 extends RA subject to timer
V7			83	Timed RA protection for 'P3' pedestrians. PB on post 5 extends RA subject to timer
V8			30	Timed RA protection for 'P1' pedestrians.
V9			30	Timed RA protection for 'P2' pedestrians.
V10			44	Timed RA protection for 'P3' pedestrians. PB on post 5 extends RA subject to timer
V11			44	Timed RA protection for 'P4' pedestrians. PB on post 1 extends RA subject to timer
P1	X		1	Automatic introduction in the presence of XSF1.
P2	X		1	Automatic introduction in the presence of XSF2.
P3		X	1	
P4		X	1	

POSTS				
POSTS	TYPE	LENGTH	OFFSET	REMARKS
1	9	-	1.0	EXIST (5.0m OUTREACH)
2	2	4.1	1.0	# EXISTING
3	2	4.1	1.0	EXISTING
4	2	4.1	0.6	EXISTING
5	3	-	0.6	EXISTING
6	2	3.2	1.0	EXISTING
7	5L	-	1.2	EXISTING
8	2	4.1	0.6	EXISTING

200mm OFFSET PLATE



NOTES

- This site is SCATS linked.
- Special STOP sign (R1-4) is placed on post 7.
- Audio-tactile push buttons are provided on posts 1, 4, 5, 6, 7 & 8.
- For details of Red Light Speed Camera facilities and violation detectors refer to Registered Drawing No.114608-7174. Consultation required with the RMS compliance operations branch before any alterations on site. Contact 1300 782 230 (EXT 82002).
- This TCS design is to facilitate the construction of Sydney Metro City & Southwest project.

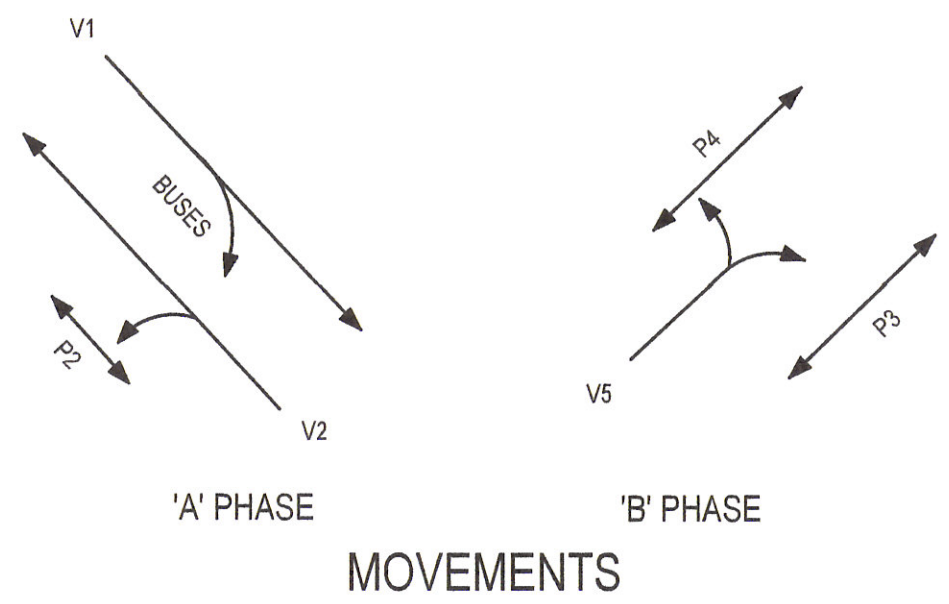
METRO DEC 2020 CONSTRUCTION

- Construction Activities -
 - Remove 'Construction Vehicles' Exempted' signs from posts 1 & 4.
 - East facing lanterns in Hume Street (V4, V6, V8 & V10) on posts 3, 6 & 7 to be covered.
 - The 'P1' pedestrian lanterns on posts 2 & 3 to be covered. Respective push buttons to be disconnected and disabled.
 - Provide load lamp for 'V4' signal group in controller.
 - 'B1' Detectors 7 & 8 to be switched off and disabled
 - Existing personality to be used.

TEMPORARY DESIGN LAYOUT

A ORIGINAL ISSUE XMAS 2020 closure of Hume Street East Metro 01/09/2020	PUBLIC UTILITY LEGEND HYDRANT STOP VALVE GAS VALVE SEWER MANHOLE COMMS PIT ELECT LIGHT POLE POWER POLE STAY POLE TELEPHONE BOX COMMS PILLAR	REFERENCE PLANS SYMBOLS/ABRVS STD POSN CMPT INSTL STOP DET VEH GROUP OP DET LOGIC OP PED MVT OP SURVEYOR : Transport DATE : 2017	U.B.D. Ref. Map 215 07 I.S.G. E: 318 335 CO-ORDS N: 1 255 670 DESIGNED : R BATES CHECKED : J BATES SITE CHECKED J BATES RECOMMENDED	DESIGN APPROVAL APPROVED NAME: [Signature] POSITION: MANAGER DATE: 01/09/20	RMS RECOMMENDATION ROAD DESIGN ENGINEERING NAME: [Signature] POSITION: [Signature] DATE: [Signature]	RMS ACCEPTANCE ACCEPTED NAME: [Signature] POSITION: [Signature] DATE: [Signature]	ROADS AND MARITIME SERVICES NORTH SYDNEY COUNCIL AREA TRAFFIC SIGNALS AT PACIFIC (HW 10) HIGHWAY AND HUME STREET CROWS NEST	EXISTING <input type="checkbox"/> PROPOSED <input checked="" type="checkbox"/>
				CADD FILE: VV0766_TDL-1A_DES.dgn	SCALE 5 0 (1:200) 5 10	ISSUE A		
				FILE SF2014/009817	SUPERSEDES SHEET/ISSUE 16/D	REG No. DS2014/001158	TCS No. 0766	SHEET TDL-1
				DESIGN LAYOUT				

TCS 0766

 DRAWN BY CADD
DO NOT AMEND MANUALLY


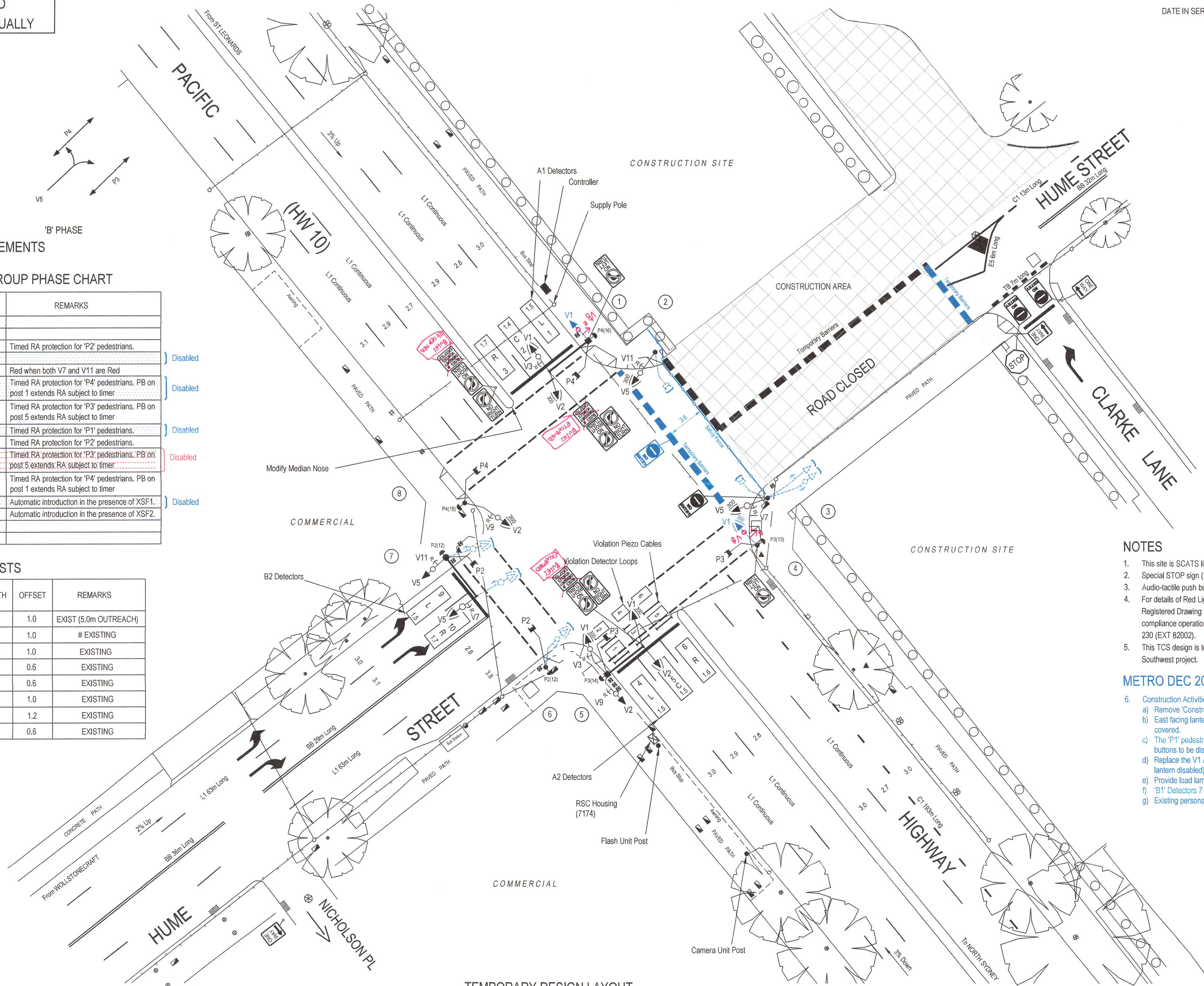
SIGNAL GROUP PHASE CHART

SIGNAL GROUP	PHASE GRN	TABLE TYPE	REMARKS
V1	X	1	
V2	X	1	
V3		29	Timed RA protection for 'P2' pedestrians.
V4		X	1
V5		C	-
V6		83	Timed RA protection for 'P4' pedestrians. PB on post 1 extends RA subject to timer
V7		83	Timed RA protection for 'P3' pedestrians. PB on post 5 extends RA subject to timer
V8		30	Timed RA protection for 'P1' pedestrians.
V9		30	Timed RA protection for 'P2' pedestrians.
V10		44	Timed RA protection for 'P3' pedestrians. PB on post 5 extends RA subject to timer
V11		44	Timed RA protection for 'P4' pedestrians. PB on post 1 extends RA subject to timer
P1	X	1	Automatic introduction in the presence of XSF1.
P2	X	1	Automatic introduction in the presence of XSF2.
P3		X	1
P4		X	1

POSTS

POSTS	TYPE	LENGTH	OFFSET	REMARKS
1	9	-	1.0	EXIST (5.0m OUTREACH)
2	2	4.1	1.0	# EXISTING
3	2	4.1	1.0	EXISTING
4	2	4.1	0.6	EXISTING
5	3	-	0.6	EXISTING
6	2	3.2	1.0	EXISTING
7	5L	-	1.2	EXISTING
8	2	4.1	0.6	EXISTING

200mm OFFSET PLATE



TEMPORARY DESIGN LAYOUT

NOTES

- This site is SCATS linked.
- Special STOP sign (R1-4) is placed on post 7.
- Audio-tactile push buttons are provided on posts 1, 4, 5, 6, 7 & 8.
- For details of Red Light Speed Camera facilities and violation detectors refer to Registered Drawing No.114608-7174. Consultation required with the RMS compliance operations branch before any alterations on site. Contact 1300 782 230 (EXT 82002).
- This TCS design is to facilitate the construction of Sydney Metro City & Southwest project.

METRO DEC 2020 CONSTRUCTION

- Remove 'Construction Vehicles' Excepted' signs from posts 1 & 4.
- East facing lanterns in Hume Street (V4, V6 & V8) on posts 3, 6 & 7 to be covered.
- The 'P1' pedestrian lanterns on posts 2 & 3 to be covered. Respective push buttons to be disconnected and disabled.
- Replace the V1 N8 4 aspect lanterns on posts 1 & 4 with 3 aspect lanterns (V8 lantern disabled)
- Provide load lamp for 'V4' signal group in controller.
- 'B1' Detectors 7 & 8 to be switched off and disabled
- Existing personality to be used.

A ORIGINAL ISSUE XMAS 2020 closure of Hume Street East Metro 01/09/2020 Recommended subject to change in red. 09/09/2020	PUBLIC UTILITY LEGEND HYDRANT STOP VALVE GAS VALVE SEWER MANHOLE COMMS PIT ELECT LIGHT POLE POWER POLE STAY POLE TELEPHONE BOX COMMS PILLAR	REFERENCE PLANS SYMBOLS/ABRVS STD POSN CMPY INSTL STOP DET VEH GROUP OP DET LOGIC OP PED MVT OP TS-TN-019 TS-TN-020 TS-TN-021	U.B.D. Ref. Map 215 Q7 I.S.G. E 318 335 CO-ORDS N 1 255 670 DESIGNED: R BATES CHECKED: J BATES SITE CHECKED: J BATES RECOMMENDED: J BATES SURVEYOR: Transport DATE: 2017	DESIGN APPROVAL APPROVED NAME: [Signature] POSITION: MANAGER DATE: 01/09/20 DESIGN PREPARED BY: B-Line Drafting	RMS RECOMMENDATION ROAD DESIGN ENGINEERING NAME: [Signature] POSITION: [Signature] DATE: 24.9.20 NETWORK OPERATIONS NAME: [Signature] POSITION: [Signature] DATE: 01/09/2020	RMS ACCEPTANCE ACCEPTED NAME: peter carruthers POSITION: [Signature] DATE: 24.9.20 SECTION:	ROADS AND MARITIME SERVICES NORTH SYDNEY COUNCIL AREA TRAFFIC SIGNALS AT PACIFIC (HW 10) HIGHWAY AND HUME STREET CROWS NEST	EXISTING <input type="checkbox"/> PROPOSED <input checked="" type="checkbox"/> CADD FILE: VV0766_TDL-1A_DES.dgn SCALE: 5 0 (1:200) 5 10 FILE: SF2014/009817 SUPERSEDES SHEET/ISSUE: 16/D REG No. DS2014/001158 TCS No. 0766 SHEET TDL-1
	Revision 6 - July 2017							
	© COPYRIGHT ROADS AND MARITIME SERVICES							
	DESIGN LAYOUT							

Sim, Mong

From: Carl Mella <Carl.MELLA@transport.nsw.gov.au>
Sent: Thursday, 24 September 2020 11:12 AM
To: Dai, Susan
Cc: Quac minh La; Sim, Mong
Subject: RE: SMCSW3LWC - TCS0766 - Traffic Signals Plan at Pacific HWY and Hume Street
Attachments: TCS0766 - Pacific Hwy at Hume St, Crows Nest - approved.pdf

CAUTION: This email originated from outside of the Organisation.

Susan,

In response to the TeamBinder transmittal below (SMCSWLWC-SYC-TX-003491), see the attached TCS plan for Pacific Hwy at Hume St, Crows Nest, approved with changes.

I am sending this via email in this instance, as I am unable to attach a file in the TeamBinder general correspondence.

Please arrange to have the TCS plan updated in accordance with the marked-up changes in the attached approved plan.

Regards,

Carl Mella
Sydney Metro Integration Leader
Greater Sydney
Transport for NSW

T 02 8843 3027 M 0429 505 970
Level 44, 680 George Street, Sydney NSW 2000

From: Susan Dai [mailto:system@teambinder.com] **On Behalf Of** Susan Dai
Sent: Tuesday, 1 September 2020 2:16 PM
To: Carl Mella <Carl.MELLA@transport.nsw.gov.au>
Subject: SMCSW3LWC - TCS0766 - Traffic Signals Plan at Pacific HWY and Hume Street



Document Transmittal

Transmittal No:	SMCSWLWC-SYC-TX-003491
Contract No:	LWC - Line Wide Contracts
Sub Contract:	-
Date:	01 September 2020, 02:14 PM

Issued	Name
By	Susan Dai (Systems Connect)

Issued	Name
To	Quac Minh LA (Roads and Maritime Services (part of TfNSW division)) ; Carl Mella (Roads and Maritime Services (part of TfNSW division)) ; David Tawadros (Roads and Maritime Services (part of TfNSW division))
Cc	Hayden Wright (Sydney Metro) ; Transmittal SM OpenAccess (Sydney Metro) ; Mathew Billings (Systems Connect) ; Susan Dai (Systems Connect) ; Mark Marriott (Sydney Metro) ; Jill Downing (Systems Connect) ; Kirimaru Friscan (Systems Connect) ; LWC Systems Connect Transfer (Systems Connect) ; Paul Ryan (Systems Connect) ; Helena Orel (Systems Connect) ; Mathew Johnston (Systems Connect) ; Mong Sim (Systems Connect) ; John Grant (Systems Connect)

Reason for Issue	For Information
Subject	TCS0766 - Traffic Signals Plan at Pacific HWY and Hume Street
<p>Good afternoon,</p> <p>In reference to RMS-LWC-GEN-000035 dated 7 Aug 2020.</p> <p>Please find the attached: TCS0766 - Traffic Signals Plan at Pacific HWY and Hume Street - updated sent on behalf of Mong Sim for approval.</p> <p>-----</p> <p><i>Minh / Carl,</i></p> <p><i>Please see attached updated Crows Nest TCS plan to reflect TfNSW comments and approval for the upcoming Hume Street closure.</i></p> <p><i>An updated CTMP to include Hume St will be resubmitted in due course”.</i></p> <p><i>Regards,</i> <i>Mong Sim</i></p> <p>-----</p> <p>Kind Regards,</p> <p>Susan Dai Document Controller - Systems Connect Sydney Metro City & Southwest Line-wide Works Level 3 116 Miller Street, North Sydney, NSW 2060,</p> <p>Email : Susan.Dai@sclww.com.au</p>	

[Click here to download all Transmittal files.](#)

Item	Document No	Title	Rev	Sts	Type	Design Lots	Alt Doc No
1	SMCSWLWC-SYC-SCN-TF-PLN-005059	TCS0766 - Traffic Signals Plan at Pacific HWY and Hume Street	A.01	INF	PLN		DS2014/001158

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TeamBinder Transmittal Reference: {6C9284D3-AEB1-43CB-A320-8D3DDCD840E7}

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LWC General Correspondence

Reference No: SMCSWLWC-RMS-LWC-GEN-000035
Project Title: Sydney Metro City & Southwest - LWC, TSOM
Contract No: LWC - Line Wide Contracts
Sub Contract: -
Orig Ref No:
DLM:

Date:	07 August 2020, 02:40 PM	Response required by:
From:	Quac Minh LA (Roads and Maritime Services (part of TfNSW division))	
To:	Susan Dai (Systems Connect)	
Cc:	Chris Berg (Sydney Metro) ; Ken Hind (Sydney Metro) ; JOSE ARGUETADOMINGUEZ (Sydney Metro) ; Phil Brogan (Sydney Metro) ; Nathan Hoffmeister (Sydney Metro) ; Deepak Shahani (Sydney Metro) ; Errol Pather (Sydney Metro) ; Jake Coles (Sydney Coordination Office) ; Carl Mella (Roads and Maritime Services (part of TfNSW division)) ; David Tawadros (Roads and Maritime Services (part of TfNSW division)) ; Hugh Chapman (Sydney Metro) ; Ali Faniad (Sydney Metro) ; Oscar Wang (Sydney Metro) ; Hayden Wright (Sydney Metro) ; Transmittal SM OpenAccess (Sydney Metro) ; Mathew Billings (Systems Connect) ; Mark Marriott (Sydney Metro) ; Jill Downing (Systems Connect) ; Kirimaru Friscan (Systems Connect) ; LWC Systems Connect Transfer (Systems Connect) ; Paul Ryan (Systems Connect) ; Helena Orel (Systems Connect) ; Mathew Johnston (Systems Connect) ; Mong Sim (Systems Connect) ; John Grant (Systems Connect) ; Prath Nanthakumaran (Sydney Metro)	
Subject:	Demonstrative Investigation for maintaining the TCS at Hume Street during the shed removal - Crows Nest - TfNSW (former RMS) comments	

Susan,

In reference to your transmittal SMCSWLWC-SYC-TX-003179 dated 30/07/20.

TfNSW (former RMS) makes the following comments below:

Network Operations will require an updated TCS plan for the site over this duration, for legal purposes, showing the layout for the proposed staging.

If barriers are to be placed in front of detectors blocking off 'all potentials triggering of the detector loop during work' then signage such as the sign-plates under the 'No Left Turn' signs displaying 'Construction Vehicles Excepted' on posts 1 and 4 are to be covered/removed.

Network Operations is assuming that Hume Street (eastern approach) will be blocked off with appropriate barriers placed across that approach, adjacent to the easternmost transverse pedestrian pavement marking, which will also provide a visual barrier for motorists potentially wishing to turn left into Hume Street.

A detailed plan is also required, that shows the placement of safety barriers on the eastern leg of Hume Street.

These should be reflected in the TCS plan and any TCPs.

Furthermore, signal groups such as the V8 left turn red arrows on posts 1 and 4 are required to be switched off, removing any confusion to the left turn into Hume Street being possible, during this stage.
The P1 pedestrian lanterns and push buttons on posts 2 and 3 are required to be covered and/or disconnected.

Essentially, due to these proposed changes to the traffic signal arrangement/s, Network Operations will require an updated TCS plan showing those modifications during this stage, for consideration.

Further, a TCP is required which shows detour routes for motorists who wish to access Pacific Highway via the eastern leg of Hume Street. Signage which communicates that there is no access to Pacific Highway from Hume Street would be required at strategic points around the affected area to provide advance warning for motorists regarding the changed traffic conditions.
It is expected that this would be included as part of the CTMP addendum to cover the middle shed removal.

regards,
Minh

	Design Series:	
Discipline:	Design Lots:	Location:

Traffic control procedure to position a line pump truck into the logistic footpath at Crows Nest Station (by others) Site B

1.1. Introduction

A truck mounted line pump needs to be positioned on the Crows Nest Station site B logistic footpath to pump concrete for the tracks between Crows Nest and Victoria cross. A series of purposely built pipe are installed on the station site vertically down into the tunnel level. A second pump sitting on the entry of the tunnel will then repump the concrete further into the tunnel towards Victoria Cross.



Figure 1. Typical setup of concrete delivery lines in the tunnel

In order to allow the line pump truck to get into position at the logistic lane, traffic on Pacific Highway southbound and Hume Street traffic needs to be temporarily stopped to allow the line pump truck to make a 3 point turn on Pacific Highway before it could be parked with the hopper on the south side.

Traffic control is required once for the arrival of the pump at 3am on Thu 26 Aug 2021 and once for the departure of the pump approximately 4 weeks later at 11pm.

The pump does not impact the Pacific Highway when in position. Pedestrian are not impacted as there is an existing undercover footpath adjacent to the logistic lane Site B (see attached sketch)

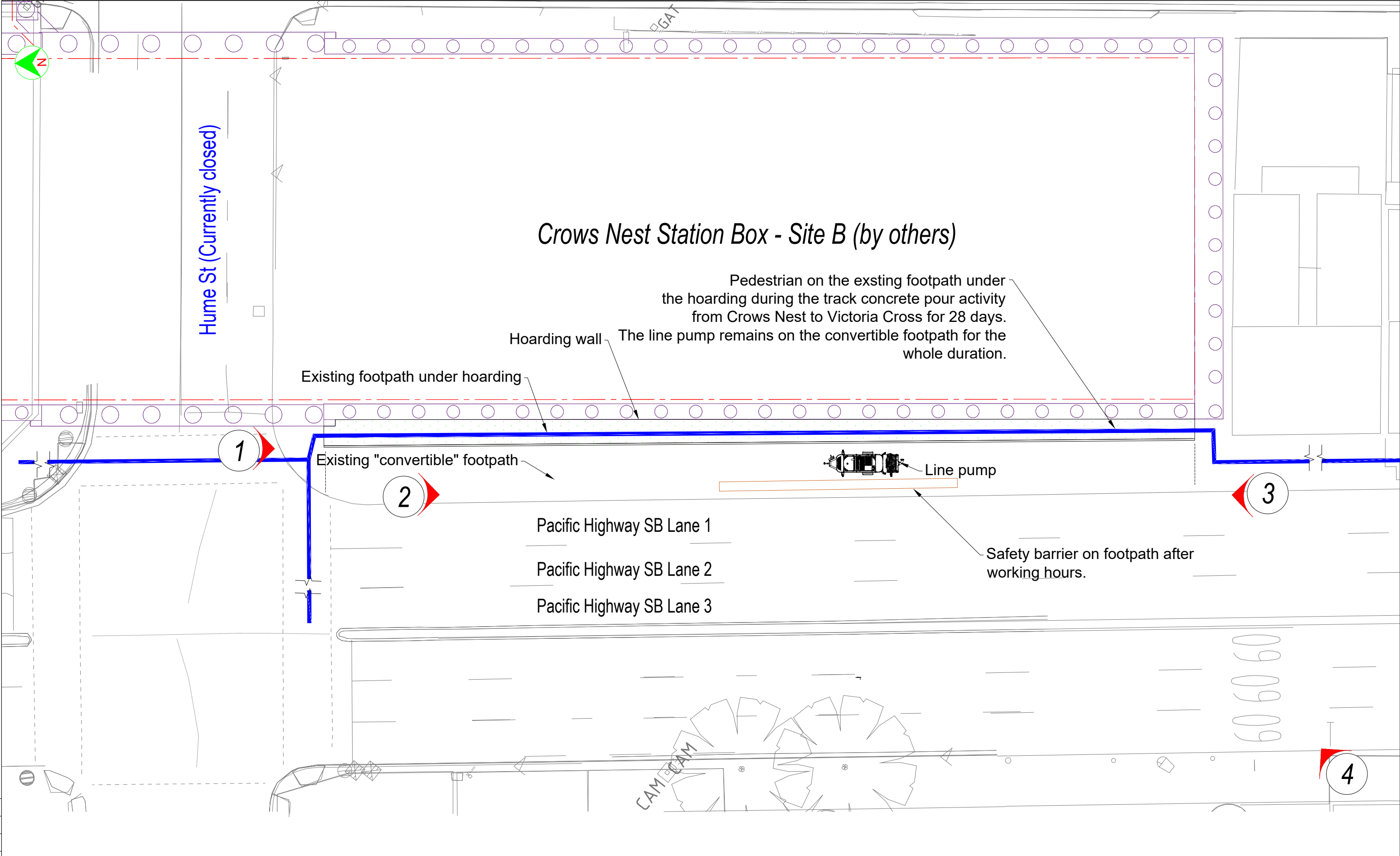


Figure 2. Undercover footpath available when the logistic footpath is closed.

1.2. Traffic Management

Pacific Highway southbound Lane 1 and 2 needs to be merged into one lane onto Lane 3 in order for traffic to be stopped for creating a safe area for the line pump truck to make the turn.

Hume Street traffic would also need to be stopped. Refer to the attached TCP and turning path analysis for further details.



LEGEND			NOTES		PLOT DATE / TIME		PLOT BY		CLIENT		A3
<div><div></div> Pedestrian path</div>			DRAWINGS / DESIGN PREPARED BY		TITLE	NAME	DATE	PREPARED FOR		Pedestrian plan during the track concrete pour from Crows Nest to Victoria Cross	
					DRAWN	M.SIM	19/8/21				
					DRG CHECK	M.SIM	19/8/21				
					DESIGN						
					DESIGN CHECK						
					TRAFFIC MNGR			Systems Connect			
			CO-ORDINATE SYSTEM MGA ZONE 56		HEIGHT DATUM AHD						
									ISSUE STATUS		
									SHEET No.		
									1 of 2		
											0



VIEW 1



VIEW 2



VIEW 3



VIEW 4

LEGEND			NOTES		PLOT DATE / TIME		PLOT BY		CLIENT		A3
<div><div></div> Pedestrian path</div>			DRAWINGS / DESIGN PREPARED BY		TITLE	NAME	DATE	PREPARED FOR		Pedestrian plan during the track concrete pour from Crows Nest to Victoria Cross	
					DRAWN	M.SIM	19/8/21				
					DRG CHECK	M.SIM	19/8/21				
					DESIGN						
					DESIGN CHECK						
			CO-ORDINATE SYSTEM		TRAFFIC MNGR			Systems Connect		SHEET	
			MGA ZONE 56							ISSUE STATUS	
			HEIGHT DATUM							SHEET No.	
			AHD							2 of 2	
										ISSUE	
										0	



LEGEND		NOTES		PLOT DATE / TIME		PLOT BY		CLIENT		A3	
<div><div></div>Work area</div> <div><div></div>Traf. cones</div> <div><div></div>Traf. controller</div>		DRAWINGS / DESIGN PREPARED BY		TITLE		NAME		DATE		Pacific Highway Lane 1 Logistic lane Operation sign TCP	
		Mong Sim. PWZTMP Card # 0052317834		DRAWN		M.SIM		20/8/21		SHEET	
				DRG CHECK		M.SIM		20/8/21		SC TCP CN 1300	
				DESIGN						ISSUE STATUS	
				DESIGN CHECK						SHEET No.	
				TRAFFIC MNGR						1 of 3	
										ISSUE	
										1	



LEGEND		NOTES		PLOT DATE / TIME		PLOT BY		CLIENT		A3	
<div><div></div>Work area</div> <div><div></div>Traf. cones</div> <div><div></div>Traf. controller</div>		DRAWINGS / DESIGN PREPARED BY		TITLE		NAME		DATE		Pacific Highway Lane 1 Logistic lane Operation TCP	
		Mong Sim. PWZTMP Card # 0052317834		DRAWN		M.SIM		20/8/21		SHEET	
		<div>SCALE 1:100</div> <div>1 0 1 2</div> <div>AT A3</div>		DRG CHECK		M.SIM		20/8/21		SC TCP CN 1200	
		CO-ORDINATE SYSTEM MGA ZONE 56		DESIGN						ISSUE STATUS	
		HEIGHT DATUM AHD		DESIGN CHECK						SHEET No.	
				TRAFFIC MNGR						2 of 3	
								Systems Connect		ISSUE	
										1	

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
150mm ON A3 SIZE ORIGINAL



LEGEND		NOTES		PLOT DATE / TIME		PLOT BY		CLIENT		A3	
<div><div></div>Work area</div> <div><div></div>Traf. cones</div> <div><div></div>Traf. controller</div>		DRAWINGS / DESIGN PREPARED BY		TITLE		NAME		DATE		Pacific Highway Lane 1 Logistic lane Operation TCP	
		Mong Sim. PWZTMP Card # 0052317834		DRAWN		M.SIM		20/8/21		SHEET	
				DRG CHECK		M.SIM		20/8/21		SC TCP CN 1200	
				DESIGN						ISSUE STATUS	
				DESIGN CHECK						SHEET No.	
				TRAFFIC MNGR						3 of 3	
										ISSUE	
										1	



			NOTES	PLOT DATE / TIME		PLOT BY M SIM	CLIENT	Line Pump turning path checks		A3
LEGEND		SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE				
Steps for the turning manoeuvre for the line pump truck. When all traffic control are set up per the TCP. These are the procedures: 1. Line pump truck to appear from Nicholson St. Time the right turn into Pacific Highway when the lights are on red at Pacific Highway and traffic control to stop Pacific Highway Lane 3. 2. Line pump truck to make a hard left from Lane 3 Pacific Highway into the logistic footpath. Once line pump truck is on the logistic lane on the opposite side, release traffic.		CO-ORDINATE SYSTEM MGA ZONE 56	HEIGHT DATUM AHD	DRAWN	M.SIM	19/8/21				
				DRG CHECK	M.SIM	19/8/21				
				DESIGN						
				DESIGN CHECK						
				TRAFFIC MNGR			PREPARED FOR			
							Systems Connect	ISSUE STATUS	SHEET No.	ISSUE
									1 of 1	0



		NOTES		PLOT DATE / TIME		PLOT BY M SIM		CLIENT		Pacific Highway Lane 1 Logistic lane Operation sign TCP		A3	
LEGEND		SCALES ON A3 SIZE DRAWING		DRAWINGS / DESIGN PREPARED BY		TITLE		NAME		DATE			
<div><div></div>Work area</div> <div><div></div>Traf. cones</div> <div><div></div>Traf. contoller</div>		<div>SCALE 1:100</div> <div><div>100m</div><div>0</div><div>100m</div><div>200m</div><div>AT A3</div></div>		Mong Sim. PWZTMP Card # 0052317834		DRAWN		M.SIM		20/8/21			
						DRG CHECK		M.SIM		20/8/21			
						DESIGN							
						DESIGN CHECK						PREPARED FOR	
						TRAFFIC MNGR						Systems Connect	



LEGEND		NOTES		PLOT DATE / TIME		PLOT BY		CLIENT		A3	
Work area		DRAWINGS / DESIGN PREPARED BY		TITLE		NAME		DATE		Pacific Highway Lane 1 Logistic lane Operation sign TCP	
Traf. cones		Mong Sim.		DRAWN		M.SIM		20/8/21		SHEET	
Traf. controller		PWZTMP Card # 0052317834		DRG CHECK		M.SIM		20/8/21		SC TCP CN 1300	
				DESIGN						ISSUE STATUS	
				DESIGN CHECK						SHEET No.	
				TRAFFIC MNGR						2 of 3	
										ISSUE	
										1	

Sim, Mong

From: Michaela Kemp <Michaela.Kemp@northsydney.nsw.gov.au>
Sent: Thursday, 19 August 2021 2:01 PM
To: Sim, Mong
Cc: Ash.Jarvis2@transport.nsw.gov.au; Mohamed Tita; Donohoe, Brian; Tibbett, Simon; Prath Nanthakumaran; Gavin McConnell
Subject: RE: line pump at logistic footpath
Attachments: IMG_2887.JPG

CAUTION: This email originated from outside of the Organisation.

Dear Mong,

I have no objections to that given that pedestrian access will be maintained under the site hoarding. Please ensure the pedestrian signage is updated to inform pedestrians of the changed access arrangements during this period (attached photo was taken 18 June 2021).

Regards,

Michaela Kemp

Manager Traffic & Transport Operations

P +61 2 9936 8243 M +61 478 333 910

E Michaela.Kemp@northsydney.nsw.gov.au



www.northsydney.nsw.gov.au



From: Sim, Mong <Mong.Sim@sclww.com.au>
Sent: Thursday, 19 August 2021 11:56 AM
To: Michaela Kemp <Michaela.Kemp@northsydney.nsw.gov.au>
Cc: Ash.Jarvis2@transport.nsw.gov.au; Mohamed Tita <Mohamed.TITA@transport.nsw.gov.au>; Donohoe, Brian <Brian.Donohoe@sclww.com.au>; Tibbett, Simon <Simon.Tibbett@sclww.com.au>; Prath Nanthakumaran <Prath.Nanthakumaran@transport.nsw.gov.au>
Subject: line pump at logistic footpath

CAUTION : Do not click links or open attachments unless you recognise the sender and know the content is safe.
Hi Michaela,

Track concrete pour between Crows Nest and Victoria cross is scheduled to be poured as early as next week.

Delivery and transferring of the concrete is from the surface level at the logistic footpath off Pacific Highway and pumped down in the tunnel below via a series of purposely built transfer pipes with a second pump below.

The track pour requires approximately 28 shifts from 7am to 10pm during the stay at home order (or 10am to 10pm at other times).

We propose to leave the line pump on the logistic footpath area after end each shift to minimise the need to close Pacific Highway and Hume Street each time the line pump enters and leaves the site. The line pump needs to travel on the opposite direction on Pacific Highway (the hopper is at the back of the vehicle) to be positioned on the logistic footpath. It is very unlikely TfNSW will allow a 7am lane closure at Pacific Highway for the manoeuvre.

Pedestrian would need to use the undercover footpath as the line pump will be parked on the logistic footpath. Given the current stay at home order, there is a lesser pedestrian presence.

The track pour is critical to the project before the Crows Nest station box is later closed or have limited access in the next construction stage.

Please see attached pedestrian plan during the work and site photos of the area.
Please let us know should you need to discuss this maybe tomorrow afternoon.

Regards

Mong Sim

Project Engineer - Systems Connect
Sydney Metro City & Southwest Line-wide Works



Levels 1 116 Miller Street, North Sydney, NSW 2060, Australia
T M 0448 378 883
E Mong.Sim@sclww.com.au

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