

TMP – Hutton Street Closure for Traction Substation Wall Panels

Line-wide Works Contract Sydney Metro City & Southwest

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Document Approval

Rev.	Date	Prepared by	Reviewed by	Recommended by	Remarks
А	30 May 2022	Mong Sim	Mong Sim	Scott Brown	For Information
Signature:		16	16	Scott Brou	m

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this document is reviewed and approved. The Project Traffic Manager is responsible for updating this document 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
А	Detailing of the Hutton St closure during the wall panels lift

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1. Summary of planned Hutton Street closure for the installation of Canterbury traction substation prefabricated façade panels

1.1. Canterbury Traction Substation – façade panel installation plan

This document provides a brief summary of the traffic management requirement for the traction substation façade panels installation.



Figure 1 – Locality plan of the Canterbury traction substation located at Hutton Street



Figure 2. Close up view of the Canterbury traction substation façade panels at Hutton St, Hurlstone Park



Figure 3. 3D scan of the overhead wires and site constrains



Figure 4. Cross section of Hutton St showing site constrains (looking towards west from Melford Road) with the crane position at Hutton Street.

The installation of the traction substation prefabricated facade panels should take approximatley 5 working days total. A window of 1 month is proposed between 15 July 2022 and 15 August 2022 for allocating of the work. Each working day is between 0800 hour till 1600 hour requiring Hutton Street to be closed for general traffic.

The closure is necessary due to the site constrain of the 33kV overhead power lines adjacent to the site. Unless there is a deenergising of the 33kV power lines availability, the work could then be completed with a lesser sized crane which has a lesser footprint occupying the lane.

Turning path assessments have been completed for information to the site.

A sample of façade panels installed at Artarmon substation is shown below for visual information. Campsie traction substation façade panels may vary.



Figure 5. Sample view of completed façade panels at Artarmon substation.

2. Traffic and Transport Management

2.1 Traffic Impact

Various work methodologies were assessed for the work.

Options	Pro	Cons	Conclusion
Option A – temporary closure of Hutton St. No through traffic during working hours (pedestrian traffic not impacted)	Safest option as lift is within a safe distance from live cables and general motorised traffic.	Temporary inconvenience to local traffic as crane is blocking the through lane.	This is the option with the most impact on the local community. Under 50 households will be unable to access their properties between 8am- 4pm by vehicle. Alternatives such as different parking arrangements and clear communication arrangements with residents would need to occur. Special arrangements may also need to be considered for residents requiring vehicle access but having limited mobility.
Option B – Using of a smaller crane with a smaller footprint by not blocking whole of Hutton St.	Possbility of maintaining through traffic lane on Hutton Street with the smaller crane	To be clear of the power lines, the crane needs to be as far as possible thus a smaller crane is not dimensionally possible without power isolation on the live wires. Crane with fly jib attachment is is generally larger provide the counter balance the jib attachment	Not possible to have a smaller crane to complete the work. Possibility of the power outage is extremely low for work in that proposed time frame.
Option C – smaller crane within the site boundary.	Hutton St is not impacted.	There will be a middle section of the wall that will not be reachable with the smaller crane.	Only 60% -70% of the wall could be lifted with the smaller crane within the site boundary. If both ends of panels are installed with a smaller crane from the inside, it will become near impossible to drop the remaining middle sections as a higher reach is then required to get above the installed panels to slide between the remaning gaps not achievable from the smaller

Option A is the committed option.

Residents will be informed at least 2 weeks prior to works commencing to allow the team enough time to imperent alternative parking and vehicle arrangements as required. There will be additional follow up one week before. Option A has also considered the following logistical items prior to implementation.

Common logistics	Fact	Handling and Solution
Garbage collection run	Garbage collection is every Thursday for Hutton Street, Hurlstone Park	Garbage collection is generally completed by 8am. No major impact. If possible, avoid
		Thursday work.
Postal delivery	Postal delivery is commonly via moped (or similar narrow sized vehicle). Postal deliveries could still use the footpath which is not impacted	Speak to local post office for the work so postal workers are aware of the changes traffic conditions
Food delivery	Urgent temperature sensitive goods (seafood, cooked uncooked food, bio-medical items etc) that to be delivered within a climate controlled mode of transportation / packaging	From the weekly coodination with the residents, possibly to schedule delivery after 4pm. If urgent, allow acceptance by SC representatives for taking the delivery or be on top of the Hutton St to accept delivery. Details to be coordinated once consultation begins. [specfic answers not available the time of this TMP preparation which is 8 weeks away from the actual work. Further details will be available closer to the execution of the work].
School run	Potential school run	Plan road closure before school run
Carer and medical visitation (if any)	Some community members may required special care / visit	After consultation with the community, plan the work for any of these visits
Sewage pump room	Pump room is not commonly require daily	Maintenance crew to reschedule or use
Utility and/or building	Common maintenance / inspection for assets	Coordinate with utility companies / strata management for any scheduled visits.
Other unscheduled / unknown visits	Necessary access for any valid urgent reasons, including emergency vehicle access.	Gate keeper on Hutton St to coordinate for special access. Access is available just need to reach remainder of the journey by walking for 150m long.

2.2 Resident Access

Resident access by vehcile will not be possible after the work area is setup. A thorough community engagement will be made prior to the upcoming work. All logistical arrangement and community engagement plan will be considered for the outcome. Refer to separate community engagement strategy for specifics

2.3 Bus Operations

There are no bus stops along this road.

2.4 Emergency Services

All emergencies applicable department were consulted of the proposed road closure. All have provided their comment and no objection of the work and given their understanding of the necessity of the work factoring the probability of an emergency event in that particular location against all other possibilities and realities are considered. Site inpection was completed by NSW Fire Department on January 2022 to locate and identify all hydrant points on Hutton Street and Sugar House Road.

Risk matrix for such event is extremely low.

Copies of the correspondence are available upon request and previous forwarded to Canterbury Bankstown Council representative for sighting/evidence.

2.5 Pedestrians

Pedestrian could still be using the footpath. No impact. Traffic controls will be on the area to assist.

2.6 Parking

Kerb side parking would not be available within the crane working radius.

2.7 Community Engagement

Summary of community notfication and engagement are as shown below for this work.

- We are required to notify the community at a minimum 5 business days before work commences, ideally 10 business days before work commences, subject to Sydney Metro approvals. For this work to close the road, we would notify 10 business days or two weeks before the work commences with an additional reminder.
- We are required to notify the community within a 200m radius of the site impacted of work outside of standard construction hours and 100m radius of the site impacted during construction hours. This includes local road routes where oversized vehicles travel and temporary parking take out is required
- Notifications are distributed via letterbox drops, usually using a third party distributor
- Where the impact would be immediate, in this case closing the road outside of residential properties, these residences will be doorknocked and engaged with before and/or after the notification is sent. This would likely occur three weeks before the work commences.
- In the event respite is required, determined by noise monitoring, we will send out respite letters to affected properties / residences
- Given the location of the site, it's not possible to ask someone else to provide alternative parking arrangements for residents except for street parking that will not be impacted by closed roads.

PART C – Appendices

Appendix A. TCPs, turning paths



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TITLE	NAME	
DRAWN	M.SIM	2
DRG CHECK	M.SIM	1
DESIGN		[
DESIGN CHECK		Γ
TRAFFIC MNGR		Γ
		Γ
		-





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CLIENT	SYSTEMS CONNECT		
PROJECT	CANTERBURY		
LOCATION	HUTTON ST HURLSTONE, NSW		
DRAWING TITLE	CRANE LOCATION PLAN		
LIFTED PIECE DESCRIPTION	SUBSTATIONS		
DRAWN BY	N	B	
DRAWING NUMBER	NB21-437 -01	REV.	Α
CHECKED BY	MICK MELROSE		
SCALE	1:300 @ A3		
DATE	19.07.2021		

LIFT ANALYSIS

21	CRANE		
	Make / Model / Serial No.:	GROVE GMK7450	
I	Type (Slew, Artic, Crawler):	SLEW	
)	Boom Length (m) & Sequence:	49.8 (44+ 88+ 88+ 88+)	
Se al	Attachments (Guy, Fly & etc.):	-	
10	Counterweight (t):	100	
	Outrigger/Track/Artic. Config.:	8.76m (L) x 8.9m (W)	
-	HOOKS		
5	Hook Capacity (t):	100	
R	Parts of Line:	4	
11	Line Pull (t)	12.6	
-	Combined Hook & Line Pull (t):	50.4	
T	Hook Description:	3-SHEAVE	
-	% of Hook Utilization:	86.44	
1	LOAD		
10	Mass of Piece to be Lifted (t):	39.5	
	Mass of Main Hook (t):	1.3	
2	Mass of Aux. Hook (t):	-	
-	Hoist Rope (Main & Aux.) (t):	0.3	
10	Rigging / Extras (t):	2.465	
-	Fly / Rooster (t):	-	
1	Net Load (t):	43.57	
ĝ	Load Factor:	-	
	Gross Load (t):	43.57	
	Crane Capacity (t):	52	
R	Chart Radius (m):	20.5	
d	% of Crane SWL:	83.78	
	Max. / Min. Radius (m):	20.5 / 8.0	
e	SITE CONDITIONS		
-	Max. Outrigger/Track Load (t):	111.3	
Ч	Pad/Track/Timber Area (m²)	3.50 X 2.30 = 8.05	
	Applied Pressure (kPA):	135.6	
	Allowable Pressure (kPA):	TBC by Client	
	Max. Wind Speed (m/s):	10.0	

Appendix B. TCP – Community notice (to be attached once final version is approved)